

# How Inclusive Is Higher Education in India?

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## Abstract

In the broad context of inclusive growth policies in India, an examination of the growth and inequalities in the country's higher education is attempted in this article with the help of rich data available from the National Sample Survey (NSS) in several rounds between 1983 and 2009–10. The article is primarily concerned with inequalities in higher education by gender, by social groups—caste and religion, by region—rural and urban and by economic groups of population classified by monthly per capita household expenditure. Considering two important indicators on higher education, namely, gross enrolment ratio and higher education attainment—percentage of adult population having completed higher education, the article examines whether inequalities in higher education have increased or declined overtime. It also throws light on the groups that have improved most over the years in their higher education status and on the decline or increase of inequalities between groups.

## Keywords

Inequality, caste, religion, household expenditure, gross enrolment ratio, net enrolment ratio, transition rate, National Sample Survey

Inclusive growth is the modern day's *mantra* of development. Inclusive growth is defined as a concept that advances equitable opportunities to every section of the society. The concept is becoming increasingly important against a background of widening inequalities in the society which are associated with globalisation and related economic reform policies. For a long time, the term 'equity' has been popular in policy discourses; 'Growth with distribution', 'growth with equity', 'growth with human face', 'integrating growth with development' and 'pro-poor growth' have been some of the important and popular slogans in development

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policy discourses. Now, these terms are being replaced by 'inclusive growth'. Inclusive growth might mean either progression in our thinking and approach (we already achieved equity and we may have to go beyond), as Abhijit Sen (2010) felt, or retrogression as equity and other terms described above are viewed as representing much larger strategies of development and as concepts more desirable than inclusiveness, which could be narrowly interpreted as ensuring representation of every group of population, but not necessarily equal or equitable representation. However, it is widely and generally felt that inclusive growth might mean all of these and much more. The Commission on Growth and Development (2008) defines inclusiveness as a concept that encompasses equity, equality of opportunity, and protection of the people mainly the weaker sections in market and employment transitions; it is an essential ingredient of any successful growth strategy. It is a growth strategy 'with emphasis not only on the distribution of economic gains but also on the security, vulnerability, empowerment, and sense of full participation that people may enjoy in social life' (World Bank, 2006).

Inclusive growth refers to both the pace and the pattern/distribution of growth, which are considered interlinked and, therefore, need to be addressed together. The inclusive growth approach takes a longer-term perspective and is supposed to be inherently sustainable. This is distinct from the mechanism of income distribution schemes which can, in the short run, reduce the inequalities between the poorest and the richest, but the reduction in inequalities might not be sustainable over a long period (Lanchovichina and Lundstrom, 2009). It is a growth process which yields broad-based benefits and ensures equality of opportunity for all (Planning Commission, 2007). It is regarded as 'the only sure means for correcting the deeply ingrained regional imbalances, inequities and for consolidating economic gains' (World Bank, 2006).

Inclusive growth policies are expected to aim at the creation of a 'society for all'. They are viewed as affirmative policies that aim at empowering the marginalised people and the involuntarily excluded, by ensuring equal access to markets, services and economic, political and social spaces to all. In short, make all effective partners in the processes of socioeconomic and political development. Accordingly, inclusive growth is meant to focus on the poor, the marginalised, the disadvantaged strata of the society and those living in backward regions. It is concerned with overall equity, not excluding any section of the society. A major part of any strategy for increasing the 'inclusivity' part of 'inclusive growth' must be to improve the capabilities of persons of all vulnerable and weaker sections of the society (Basu, 2001). This involves increasing their endowment of assets, including human capital endowments.

In the famous *Theory of Justice*, Rawls (1971, p. 47) proposed two principles of justice: the first principle implies 'fair equality of opportunity' meaning equal claim by all to basic rights and liberties, and the second principle ('difference' principle) means that 'greatest benefit to the least-advantaged members of society'. On similar, but not exact lines, Lanchovichina and Lundstrom (2009) argue that inclusive growth should be defined and measured in two ways: first, in line with the absolute definition of pro-poor growth, it is to be defined as growth

for all—all sections including the poor and the excluded and marginalised groups benefit. Second, it needs to be defined in relative terms: while all sections of the society benefit, the rate of growth in levels of living of the poor would be expected to be higher than the non-poor. So according to the later part of the definition, *relative* growth has to be measured. If the relative definition is not considered, inclusive growth might mean growth or even growth for all with static or even increasing inequalities.

The approach of the Government of India in favour of inclusive growth has been clearly articulated in the Eleventh Five-Year Plan (2007–12) and later in the Twelfth Five-year Plan (2012–17). Given that caste, religion, gender, region and poverty have been the main bases for exclusion in India, it is intended that these groups form the main focus of attention while formulating policies and plans for inclusive growth.

The contribution of education to development is widely recognised. Direct and indirect benefits education produces to individuals and externalities are indeed large in quantum (see McMahon, 1999). Abundant literature is available that highlights the contribution of education to economic growth, poverty reduction and reduction in inequalities (e.g. Psacharopoulos and Woodhall, 1985; Tilak, 1994). To break the cyclical chain of inequalities—where inequalities in education contribute to inequalities in labour market information, which lead to inequalities in employment, which further cause inequalities in earnings that result in sociopolitical inequalities, which in turn cause inequalities in participation in education—education is considered as a very effective strategy. In fact, education is found to be a more sustainable and more effective measure than other measures to reduce inequalities in society (Carnoy, 1993). It is more so in democratic societies like India where other approaches may not be practicable. Given all this, the role of education in inclusive growth, and also the relationship between education and inclusive growth need no emphasis. After all, education is a constituent of inclusive growth; as an instrument, it contributes to inclusive growth and its development is also influenced by inclusive growth. As the World Bank (2006) notes, ‘inclusive growth process is intricately linked with attempts to improve markedly the quality of basic services such as education (healthcare, power and water supply) for every one across the country’.

Inclusive growth process and its outcomes get seriously influenced by the level and kind of education development. Inclusive growth requires inclusive education. It is rightly noted that ‘the inclusive nature of the growth itself will be conditioned by the progress that is made in the areas of education’ (Ministry of Finance, 2007: 16). It is also recognised that ‘a strategy of inclusiveness and broad based participation in the development process calls for *new emphasis on education, health and other basic facilities*’ (Planning Commission, 2007; emphasis added).

For education to promote inclusive growth, it has to be necessarily inclusive. A system of education characterised by exclusiveness or by a high degree of inequalities cannot contribute to inclusive growth. It has to be qualitatively good and widely accessible to all sections of the society in an equitable way. Inequality in education or unequal access to education is costly as it results in loss in individual welfare and loss in social welfare as well (Birdsall and Sabot,

1996). Unequal education reproduces social inequality (Velaskar, 1990). As Salmi and Bassett (2014: 363) observed, 'given the extensive social and private benefits that result from tertiary education, inclusive access and success are essential for achieving social justice and ensuring the realisation of the full potential of all young people'. Even from a narrow perspective of the education sector, inequalities mean loss to the education sector, in terms of lack of or low 'diversity' (UNESCO, 2009).

This article examines how inclusive is education in India? Acknowledging that inequalities in primary and secondary education will produce unequal participation in higher education and hence they need to be studied together, the article nevertheless proposes to focus on higher education, as higher education is regarded as an engine for equitable economic and social progress, and inequalities in higher education are also reflective of cumulative inequalities in school education.

Higher education in India expanded at a very fast rate during the last quarter century or so. Does the rapid expansion automatically lead to reduction in inequalities in education? While some strongly argue that the benefits of expansion have percolated to the lower strata of the society, some (e.g., Deshpande, 2006) view that higher education is inherently an exclusive field and hence its elitism is an integral aspect of its nature; and that modes of exclusion are built into its fundamental structure as a matter of principle. Hence, it cannot be expected that growth in higher education will necessarily percolate to the downtrodden strata of the society. Some (Raftery and Hout, 1993) even argue that the principle of 'maximally maintained inequality' would hold according to which educational inequality remains unchanged until enrolment ratio at a given level reaches the saturation point, estimated at around 95 per cent. Many also feel that inequalities would be higher at lower levels of education, and they become less at higher levels of education, as only the more able would survive up to higher level of education. However, one might note higher degree of inequalities in higher education as the costs of participation in higher education are much higher than costs of school education.

How inclusive is higher education in India? The National Sample Surveys (NSS) provide some rich empirical data that help in unravelling some of these dimensions of growth and inequalities in higher education in India. Based on an analysis of data of several rounds of the NSS over the period 1983 to 2009–10 [38th (1983), 43rd (1987–88), 50th (1993–94), 55th (1999–2000), 61st (2004–05), 64th (2007–08), 66th (2009–10) rounds; and also the special rounds devoted to education, namely, 42nd, 52nd and 64th rounds], supplemented by official statistics of the Ministry of Human Resource Development (MHRD) and University Grants Commission (UGC) and other studies that analysed these data and even provided estimates, growth and inequalities in higher education are examined here. For the period 1983–84 to 2004–05, the estimates on different indicators used in this article are drawn from Azam and Blom (2009),<sup>1</sup> Dubey (2008), Raju (2008), Sinha and Srivastava (2008) and Srivastava and Sinha (2008).<sup>2</sup> Gross enrolment ratios, transition rates and higher education attainments are drawn from Azam and Blom (2009); estimates on eligible enrolment ratios and net enrolment

ratios are drawn from Raju (2008); other estimates for 2005–05 and for earlier years are drawn from other sources mentioned above. Comparable estimates are made by the present author for 2007–08 and 2009–10 using NSS data of the concerned rounds.<sup>3</sup>

Looking at the two dimensions of inclusive growth that are described above—the absolute and relative—the article examines the evidence on a few select indicators of higher education development, and tries to answer the question, ‘How inclusive is higher education in India?’ Inequalities in education are examined by several characteristics, such as gender, caste, religion, economic conditions and between several regions. Inequalities in education are often examined by social groups—by caste (scheduled caste (SC), scheduled tribes (ST), other backward castes (OBCs) and non-scheduled/non-backward castes) and by religion (Hindus, Muslims, Christians and others) and by gender—between women and men. These dimensions are widely considered as important inequalities that need to be addressed and accordingly receive serious attention of the policy makers. Other equally, if not more, important dimensions of inequalities refer to interstate inequalities and inequalities between rural and urban population, and inequalities by economic groups—between the rich and the poor. These categories are not mutually exclusive; the principal dimensions of inequalities often overlap; they even mutually reinforce each other. For example, SC population may be predominantly economically poor; the relatively economically poor may be living in rural areas; ST population may be predominantly living in rural areas; gender categorisation cuts across all other categories; and so on. Further, SCs may be generally worse off; but in some states they may be much better off than non-scheduled population. As Shariff and Sharma (2003) have shown, a dalit or Muslim in south India, though from the most disadvantaged among communities, would have better access to higher education than even upper caste Hindus in many other regions. It is widely recognised that economic and social factors such as class, gender or race, that contribute to inequalities, do not function in isolation but are inter-linked; and the ‘mutual reinforcement of inequalities’ (Drèze and Sen, 2013, p. 214) get further strengthened with addition of every new dimension of inequality, which of course is uneven across the whole country, the degree of reinforcement being higher in northern regions than in other parts of India. Hence in order to understand one form of inequality, other forms of inequalities involved should also be simultaneously taken into consideration. The manner in which one source of inequality functioned had a direct or indirect bearing on how the other sources fashioned inequality (Sen, 2008). Acknowledging all this, the article examines the extent of inequalities in education between different broad social, gender, regional and economic groups of population and finds out which groups improved/worsened in terms of inequalities.<sup>4</sup>

Equity in higher education does not only mean providing entry for the disadvantaged sections into higher education institutions; it is also about their continuation in higher education and successful completion of higher education. Equity in labour market outcomes—employment and earnings—is yet another important issue.<sup>5</sup> Ignoring these labour market dimensions, growth and inequalities in higher education are examined here considering two important indicators—gross

enrolment ratios and higher education attainments. Available estimates for a few years drawn from others' studies on net enrolment ratios, eligible enrolment ratios and transition rates are also referred to in this context.

Inequalities in enrolment ratios refer to inequalities in access to higher education. Gross enrolment ratios—students enrolled in higher education as a percentage of population of the age group 18–23—may also capture, to some extent, accumulated inequalities, particularly inequalities at school level. These and net enrolment ratios reflect levels of representation of population in higher education. 'Transition rates' refer to the entrants in higher education, as a proportion of senior/upper secondary school graduates. Finally, 'eligible enrolment ratios' refer to students enrolled in higher education as a percentage of high school graduates (people who are eligible for entry into higher education). As the base for computation of such a ratio is those students who have already crossed barriers to entry into senior secondary school education,<sup>6</sup> inequalities in eligible enrolment ratio reflect the actual barriers to entry into higher education, faced by those who have crossed hurdles at earlier stages of education.

The other indicator considered is 'higher education attainment', which is measured as a percentage of adult population who completed higher education over the years. While the enrolment ratios are flow variables, 'higher education attainment'—percentage of population who completed higher education over the years—is a stock variable, reflecting the accumulated progress or the lack of it. Estimates could be made for different age groups among the adult population—25–34 (youth population), 15–64 (working adults) and 15+ (adults) for certain years. Improvements in this take generally more time than improvements in flow variables like enrolments and enrolment ratios. For the same reason, inequalities in higher education attainment do not narrow as fast as those in enrolments.

Simple measures of inequality are estimated to examine the trends in inequality. The coefficient of inequality is measured here simply as a ratio of the status of the concerned group in relation to the most privileged group. For example, the coefficient of inequality (*C*) in gross enrolment ratio (*GER*) is defined as

$$GER_m/GER_i$$

where *m* is the most privileged group and *i* is the relevant group. *m* and *i* refer to men and women respectively in case of gender inequalities.

In case of inequalities by economic groups, the coefficient is defined as

$$C_{q1} = GER_{q5}/GER_{q1}$$

$$C_{q2} = GER_{q5}/GER_{q2}$$

where *qi* refers to the quintile groups.

Inequalities by caste and religion are also estimated in the same way. In case of regional inequalities between rural and urban regions, the Sopher's (1974) index of regional disparity<sup>7</sup> is estimated.

The estimates presented here are constrained by the nature and quality of data available, and methodologies and definitions adopted by other scholars when their estimates are used. All rounds of NSS are not strictly comparable: some are based on large samples, and some on thin samples; some are special surveys on education and some on employment–unemployment and other aspects, which adopted different definitions and methods of estimation. Hence, caution is suggested in making strict comparisons over time.

## Growth in Higher Education in India

The growth in higher education during the post-independence period has been remarkable, in terms of number of universities, colleges, students and teachers. Compared to 20 universities at the time of independence, at present, there are more than 700 universities, including institutions deemed to be universities and university level institutions. The number of colleges has increased from less than 500 to more than 37,000 during the same period, and the enrolments have increased to nearly 21 million from less than 200,000 in 1947–48. Presently, there are nearly one million teachers in higher education. The gross enrolment ratio in higher education stands at 21.1 per cent in 2012–13 compared to 1.5 per cent in 1960–61 (Table 1).

With the phenomenal growth, higher education system in India emerged as the second largest system in the world after China, producing the second or the third largest stock of scientific and technical manpower. The spectacular growth has also helped the nation in achieving self-reliance in manpower needs and even to ‘export’ manpower to the advanced countries. The number of graduates produced in the system is so large that the emigration of graduates to other countries is no more regarded as brain drain and as a problem. The massive expansion of higher education has also helped in democratising higher education system to some extent, which was highly elitist and restricted to the high-income groups

**Table 1.** Growth of Higher Education in India

	Universities	Colleges	Teachers (‘000s)	Enrolment (million)	Gross Enrolment Ratio (%)
1950–51	28	578	24	0.17	1.5
1960–61	45	1819	62	0.56	4.2
1970–71	93	3277	190	1.96	4.7
1980–81	123	4577	244	2.75	5.9
1990–91	184	6627	271	4.4	8.1
2000–01	254	10152	395	8.94	15.0
2010–11	559	32964			
2011–12	700*	35539	933.7	21.7	21.1*

**Source:** *Selected Educational Statistics* (Ministry of Human Resource Development, Government of India, New Delhi, various years); *Annual Report(s)* (University Grants Commission, New Delhi, various years); and *Twelfth Five-Year Plan* (New Delhi: Planning Commission 2013).

**Note:** \*Refers to 2012–13.

at the time of independence. Today, about 40 per cent of the students in higher education are women, and about one-third are from weaker socio-economic strata of the society. The growth in higher education also made a significant contribution to socio-economic and political development of the nation. Its contribution in strengthening democracy and ensuring political stability is also significant.

However, the growth in higher education has not been problem-free, nor is it even. Certain aspects of the growth are quite marked. But for the first two decades of development planning in India, the growth rates in higher education have been modest until the beginning of the last decade of the last century. The rate of growth in enrolments was nearly doubled between 1990–91 and 2000–11. In fact, much of the growth has taken place between 1995–96 and 2010–11. The sudden rise in demand for higher education caused setting up of new colleges and universities. The rates of growth in a number of colleges and universities have doubled in the present decade compared to the previous decade. Most of the new institutions that came up during the past two decades have been in the private sector, which itself has an effect on equitable access to higher education. The growth in the enrolments experienced in the earlier decade could not be sustained in the present decade. Growth in teachers has never kept pace with the growth in enrolments, resulting in a steady increase in pupil–teacher ratios in higher education, which has its own effect on the instructional process and the overall quality of higher education. Further, except for the decade of 1960–61 to 1970–71, the growth in teachers has been below the rate of growth of number of colleges and universities. Similarly, except for the two recent decades, growth in number of higher education institutions—universities and colleges—has been below the growth in enrolments also, reducing the overall accessibility of higher education. However, during the present decade, a large number of colleges and universities were set up, and the rate of growth far exceeded the rate of growth in enrolments and teachers. But that the number of teachers has not proportionately increased suggests that average number of teachers per university/college has declined. Growth in public expenditure has also not kept with pace with growth in student numbers or with the growth in the number of higher education institutions, resulting in sparse distribution of financial and physical resources.

Further, the growth has been uneven across different social and economic groups of population, between rural and urban regions and between several states. Though some progress has been made, inequalities in higher education are persistently high.

According to the gross enrolment ratios estimated, based on NSS reports, compared to the 10 per cent of the 18–23 age group attending higher education in 1983–84, 23.1 per cent attended in 2009–10: in about 26 years, the ratio increased by three times. In contrast, net enrolment ratio increases at a slower pace; it increased very modestly from 8 per cent in 1999–2000 to 10.2 per cent by 2004–05 by about 2 points in 5 years (Table 2).

The eligible enrolment ratio is a better ratio than gross or net enrolment ratio, as it refers to the students enrolled in higher education as a percentage of those who have successfully graduated from schools. On an average, according to available estimates, 53 per cent of the high school graduates were found to

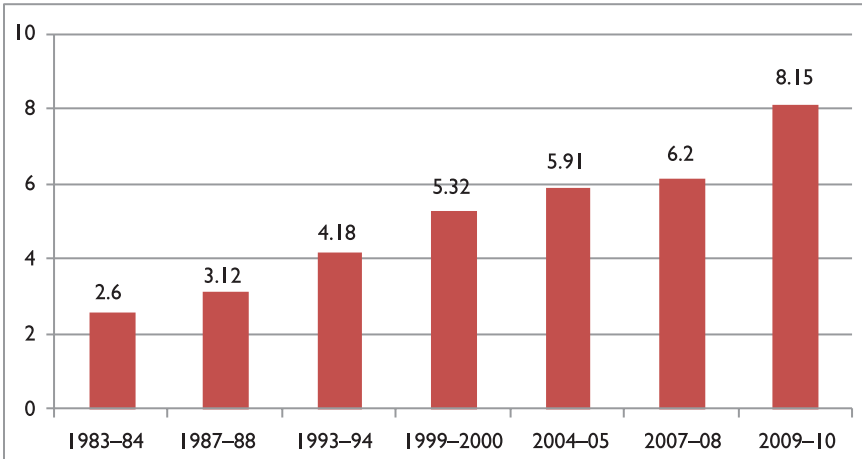


**Table 2.** Growth in the Progress of Higher Education in India: All Population

<i>Gross Enrolment Ratio</i>	
1983–84	7.67
1987–88	8.57
1993–94	8.85
1999–2000	10.08
2004–05	12.59
2009–10	23.05
<i>Net Enrolment Ratio</i>	
1999–2000	8.60
2004–05	10.18
<i>Eligible Enrolment Ratio</i>	
2004–05	52.6
2009–10	92.5
<i>Transition Ratio</i>	
2009–10	19.4

be entering higher education institutions in 2004–05. The remaining half might have opted out for different reasons, for example, to go to labour market for work, chose not to go for higher education (like women getting married), might not have been really eligible for higher education having graduated with very poor (just minimum pass) scores, found higher education costly, or there were other supply constraints. In general, one can state that, as only half the school graduates go for higher education, there is much scope to improve the eligible enrolment ratio.

Estimates on a slightly different indicator, transition rates are also worth examining. Generally, transition rates are defined as enrolments in the first year of higher education as a proportion of enrolments in the final year of school level education. Constrained by unavailability of required data, Azam and Blom (2009) have redefined transition rate as total population in the age group 18–23 who either attend or have completed higher education as a proportion of population in the age group 18–23 who have completed higher secondary education. This is, thus, not confined to fresh entrants in higher education in the numerator or to just who were in the final grade of secondary education in the last year in the denominator; it includes a small part of the stock of school/higher education graduates. The transition rate thus defined is estimated to be fairly high, higher than eligible enrolment ratio. This ratio was 67.4 per cent in 1993–94, which increased to 71 per cent by 2004–05, after a marginal decline to 65.2 per cent in 1999–2000. These rates suggest that a high proportion like 70 per cent of the high school graduates take admission in higher education institutions. This is seemingly very high. A more accurate estimate is made here based on enrolment of age 18 enrolled in first grade of higher education as a proportion of total population in the age group of 18–23 who have completed higher secondary education. This is better than the way Azam and Blom (2009) have measured, but this is also not perfect (see Tilak and Biswal, 2013). But given the constraints on data,



**Figure 1.** Growth in Higher Education Attainment among Adults (15–64) (%)

this can be treated as more reliable. Unless otherwise mentioned, the thus estimated transition rates are analysed here; but they refer to 2009–10. We refer to the estimates of Azam and Blom also as no other estimates are available for earlier periods. For the total population, this ratio is found to be very small: 19.4 per cent in 2009–10.<sup>8</sup>

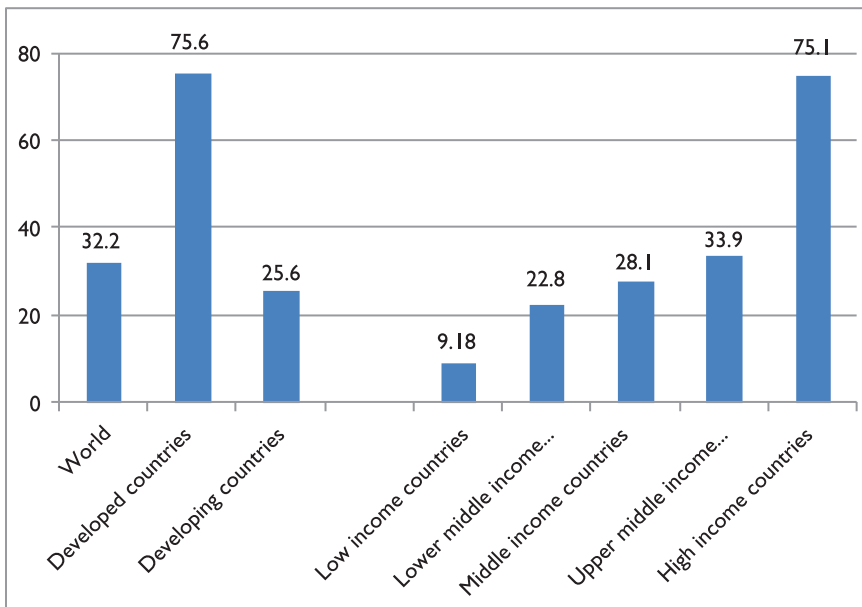
Progress in enrolments finally gets reflected in the stock of higher educated people in the country. This is considered as the most reliable indicator to describe the status of higher education in any society. Hardly 8 per cent of the population of the age group 15–64 in the country in 2009–10 was found to be educated at higher level. The corresponding ratio was 2.6 per cent in 1983 (Figure 1).

All these numbers indicate improvement over the years, but small improvements.

### *Is the Growth in Higher Education Adequate?*

Despite huge numbers and their growth, the system of higher education is believed to be highly inadequate, as some ratios described above already clearly suggest.

Not only with respect to the stock of educated population, evidence on the flow variable also shows that the higher education system is highly inadequate. The gross enrolment ratio in higher education is around 20 per cent according to estimates of the Government of India, MHRD. Alternative estimates based on NSS data also more or less correspond to these and Census-based estimates, if we ignore differences by one or two points.<sup>9</sup> The enrolment ratio in higher education in many other countries is much higher: it is above 75 per cent in developed/high-income countries; the average for the developing countries is 24 per cent and the world average is 31 per cent in 2011 (UIS, 2014). It can be noted that in no developed country the enrolment ratio is below 40 per cent. Based on the examination of the international evidence, it can be observed that an enrolment



**Figure 2.** Gross Enrolment Ratio in Higher Education in World Regions 2012

**Source:** UIS (2014).

ratio like 40 per cent forms a threshold level for a country to cross the stage of the ‘developing countries’ and a ratio of above 40 per cent consistently might be an essential condition for sustainable high rates of growth and even to become and more importantly to remain as a developed country.

With a three-time increase between 1983 and 2009–10, the percentage of adults (15+) who had higher education stands at 8.2 per cent (Figure 2). This is also found to be highly inadequate for a fast developing country that aims at becoming a knowledge economy. In the United States, 42 per cent of all 25–64-year-olds had tertiary education in 2010. The corresponding rates in other advanced countries are: 54 per cent in Russian Federation, 51 per cent in Canada, 46 per cent in Israel and 45 per cent in Japan, the Organisation for Economic Co-operation and Development (OCED) average being 31 per cent (OECD, 2012: 36).

An equally, if not more, important problem of higher education in India refers to the quality of education. It is widely held that though there are a few pockets of excellence, many institutions of higher education in India are indeed substandard in their quality, producing unemployable graduates. The fact that no Indian higher education institution figures among the top 200 in global rankings of universities is also widely noted (Tilak, 2014). The need to improve the quality of infrastructure and teachers in higher education, and thereby, the quality of the graduates is obvious.

While the above figures refer to all groups of population on average, there are wide differences between several groups; certain groups of population fare much worse than others.

On the whole, the quantity and quality of the system of higher education in India reflected in huge numbers are highly inadequate for rapid economic growth, to face global challenges, to reap gains from policies of globalisation and international competition, for reducing inequalities—regional, social and economic—for sustainable high levels of human development and for building an equitable system of higher education that ensures opportunities for all and helps in the creation of a knowledge society.

## **Persistence of Inequalities in Access to Higher Education**

Probably the most important problem faced by the higher education system in India is the persistence of inequalities in access to higher education. Inequalities in access to higher education result in socio-economic inequalities in the society which, in turn, accentuate inequalities in education. In fact, it is a cyclic chain of inequalities: inequalities in access to higher education result in inequities in access to labour market information, which result in inequalities in employment and participation in labour market, resulting in inequalities in earnings contributing in turn to socio-economic and political inequalities. The socio-economic and political inequalities again are translated into the education sector, resulting in inequalities in education. Inequalities in access to education reflect loss in individual as well as social welfare. That economic returns to investment in education of the weaker sections are estimated to be higher than returns to their counterparts (Tilak, 1987), implies that inequalities in education would cause huge losses in national output; and that inclusive strategies that contribute to equity should be viewed favourably not only from the point of view of social justice but also even in terms of economic well-being, as the total equity gains might surpass the losses in efficiency, if any (Patnaik, 2012).

## ***Gender Inequalities in Higher Education***

One of the most important dimensions of inequality is between men and women. Women are generally found to be lagging behind men in every sector including higher education in India as in many countries, though reverse trends could be observed of late in a good number of countries.

During the post-independence period, there is a significant improvement in women's participation in higher education. Women constitute 43 per cent of the total enrolments in higher education in 2011–12, while there were only 14 women per 100 men in higher education in 1950–51, according to the available UGC statistics (UGC, 2013). Thus, compared to the earlier decades, this marks a significant improvement. While this 43 per cent is an all-India average across all disciplines of study, there are wide variations between different states and also across disciplines. Women students constitute 11 per cent in engineering/technology, 4 per cent in medicine and less than 5 per cent in education. Nevertheless, the overall level of participation of women in higher education has improved remarkably and the current overall level is quite impressive. Further, research

studies (for example, Basant and Sen 2012) have also shown that ‘after controlling for other factors, the chances of women participating in higher education are higher than that of men’ meaning the generally observed inequalities by gender in higher education need to be interpreted with caution.

The gross enrolment ratio among men increased from 10.9 per cent in 1983–84 to 27 per cent in 2009–10—it increased by 2.5 times in about two decades and a half. In contrast, only 19 per cent of the women in the relevant age group were enrolled in higher education in 2009–10. But what is strikingly clear is: there has been a rapid progress in the enrolment ratio among women compared to men. The gross enrolment ratio for women increased by more than four times. As a result, gender inequalities in gross enrolment ratio have come down very significantly during this period. A simple coefficient of inequality (ratio of male enrolment ratio over female enrolment ratio) declined from 2.4 in 1983–84 to 1.4 in 2009–10 (Table 3).

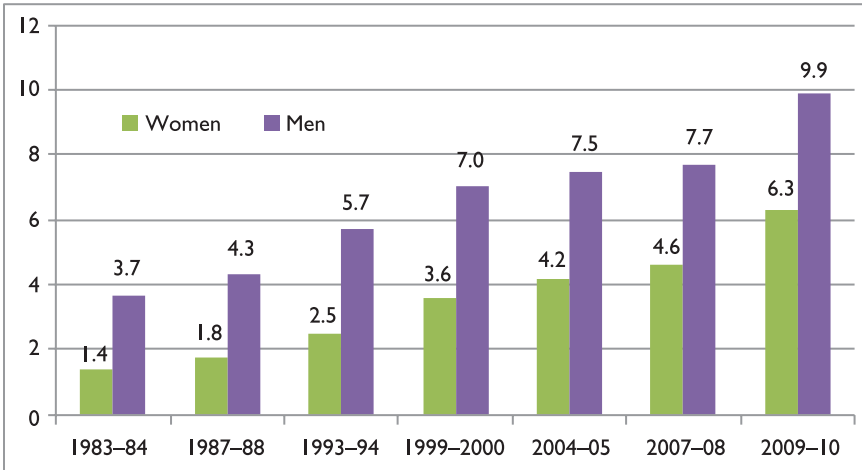
The available estimates on net enrolment ratios, however, indicate that between 1999–2000 and 2004–05, the increase in enrolment ratios is very small in case of both men and women; hardly it increased by 2 per cent points in either case, and the level of inequality remained the same. The male–female differences are much less in case of eligible enrolment ratios. While 49 per cent of eligible girls join higher education institutions, the corresponding ratio is marginally higher for men, 56 per cent, a difference of about 7 per cent points. Gender variations are the least in transition rates—the rate being 19 per cent in case of women and 20 per cent in case of men in 2009–10.

Percentage of adults (15+) with higher education reflects the cumulative growth. Absolute rates of higher education attainment have increased in case of both men and women, but there has been faster growth in case of women.

**Table 3.** Enrolment Ratio in Higher Education, by Gender

	Women	Men	Coefficient of Inequality
<i>Gross Enrolment Ratio</i>			
1983–84	4.49	10.87	2.4209
1987–88	5.37	11.82	2.2011
1993–94	5.9	11.7	1.9831
1999–2000	8.0	12.1	1.5125
2004–05	10.4	14.8	1.4231
2009–10	18.7	27.0	1.4402
<i>Net Enrolment Ratio</i>			
1999–2000	6.8	9.4	1.3807
2004–05	8.5	11.8	1.3905
<i>Eligible Enrolment Ratio</i>			
2004–05	48.6	55.6	1.1440
<i>Transition Ratio</i>			
2009–10	19.0	19.7	1.0374

**Note:** Coefficient of inequality is simply the male–female ratio.



**Figure 3.** Growth in Higher Education Attainment among Adults (15–64), by Gender

Compared to the enrolment ratios, a higher degree of inequality is reflected in the rate of higher education attainment (among the population of the age group 15–64), a stock indicator, though inequality with respect to this rate has declined over time. Among men, 3.7 per cent of adults had higher education in 1983–84; the ratio rose to 9.9 per cent by 2009–10—3.7 times increase in a period of 26 years. In contrast, the ratio of women who had higher education increased by 4.5 times during this period, reaching a level of 6.3 in 2009–10, showing a sharp decline in gender inequality over the years—the difference declined from 2.6 per cent to 1.6 per cent (Figure 3).

The rapid improvement in women’s status in higher education and thereby a remarkable decline in gender inequality might be attributed to several factors, including specific public policy measures that aimed at promoting women’s education. Many states provide free higher education (at least up to first-degree level) and scholarships to women. There are also colleges exclusively meant for women in a majority of states; they constituted 12 per cent of all colleges in the country in 2011–12; and there are also a few universities for only women. A few states offer reservations for women in admission in higher education institutions. Special measures and special thrust on girls’ education at school level also helped in increasing the participation of women in higher education. On the whole, policy environment has been generally favourable to women’s education during the post-independence period.

### *Inequalities by Social Groups*

It is widely recognised that inequalities across social groups are multi-dimensional and difficult to capture empirically. Inequality by caste is a major phenomenon in India, and is also subject to extensive rigorous research, policy making and policy

analysis. Caste is considered as one of the most important determinants of perceived social status in India (Bros 2014), and is 'too strong to be suppressed permanently' (Deshpande, 2012). SCs and STs are traditionally regarded as the most backward sections of the Indian society. They were also subject to discrimination in social, political and economic spheres for a long time and to correct some of these historical disadvantages, reservations are provided to them in education and employment. Some more castes are recognised as 'other backward castes'. Following the Mandal Commission Report (Government of India, 1980), adopted by the Government of India, reservation policy was extended to a few 'other' backward castes. Some of the minority religious groups, like the Muslims, have been lagging far behind others in education development. The report of the Sachar Committee (Government of India, 2006) has highlighted this in the recent years. This has also become an important issue of research, and also an important policy issue (Hasan, 2012). It is often quoted that SCs constitute only 12 per cent of the total enrolments in higher education and STs 4.5 per cent (2011–12); or Muslims constitute such a small proportion. But a more meaningful analysis can be based on enrolment ratios and the rates of higher education attainment. This is attempted in the following.

### *Inequalities by Caste*

The enrolment ratios of SCs and STs have been consistently very much below those of non-scheduled population or the total population on average. But both SCs and STs have made significant advancement by increasing the enrolment ratios of the respective population groups by four to five times in about two decades and a half between 1983–84 and 2009–10. The growth was relatively faster in case of ST, though in absolute terms their enrolment ratio is less than that of the SC; and as a result, the differences between SC and ST have come down; and also the differences between the scheduled population and non-scheduled population declined. However, it must be added that: (a) the enrolment ratios among both the SC and ST are low and (b) still significant inequalities persist between scheduled and non-scheduled population groups. The enrolment ratio in 2009–10 was nearly 12 per cent among the ST and 15 per cent among the SC compared to 23 per cent for all (Table 4).

Quite interestingly, there is not much variation in the eligible enrolment ratio between several caste groups. While it ranges between 50 per cent and 54 per cent for SC, for OBCs and others (non-backward sections), the ratio is much higher, 62 per cent in case of STs. Between various caste groups the transition rate ranges between 14 per cent (for ST) and 22 per cent (SC). SCs are ahead of all others.

As the rates of higher education attainment are only a stock indicator of the progress made over the years, these also show a high degree of inequality but rapid progress at the same time. Less than 3 per cent of the STs and just 4 per cent among the SCs had completed levels of higher education in 2009–10. These figures in 2009–10 mark five times and 6.5 times increase between 1983–84 and 2009–10 (Table 5 and Figure 4).

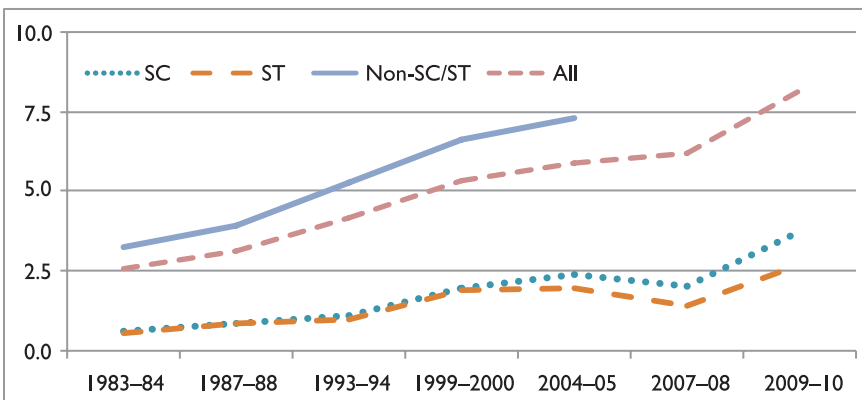
**Table 4.** Progress in Enrolment Ratios in Higher Education by Caste

	SC	ST	OBC	Non-SC/T
<i>Gross Enrolment Ratio</i>				
1983–84	3.7	2.4		9.0
1987–88	4.0	3.0		10.2
1993–94	3.8	3.4		10.6
1999–2000	5.1	6.4	7.0	11.9
2004–05	7.9	7.3	10.1	14.6
2009–10	14.8	11.8	22.1	–
<i>Eligible Enrolment Ratio</i>				
2004–05	51.2	61.5	50.1	53.9
<i>Transition Ratio</i>				
2009–10	13.88	21.6	20.17	18.54*

**Note:** \*Others.

**Table 5.** Higher Education Attainment

	1983–84	1987–88	1993–94	1999–2000	2004–05	2007–08*	2009–10
Scheduled tribes	0.55	0.86	0.98	1.91	1.94	1.4	2.8
Scheduled castes	0.60	0.85	1.11	1.97	2.38	2.0	3.9
All	2.60	3.12	4.18	5.32	5.91	6.20	8.15

**Figure 4.** Higher Education Attainment (Age Group: 15–64) by Caste

Data on OBC are not available for all the years. Available data indicate that they are generally ahead of SC and ST. For example, in 2004–05 nearly four in every 100 adults had higher education among the OBC, compared to 2 per cent



and less than 3 per cent among SC and ST, respectively. The situation was similar in 1999.

While the improvement in the status of education of SC, ST and OBC and in inequality between the scheduled population and non-scheduled population is impressive, still the absolute levels of educational status of the scheduled population are far below the status of their counterparts. As many (e.g., Weisskopf, 2004) have found, the reservation policies, financial incentives and other measures have made a significant impact on improving the rates of participation of the scheduled population in higher education, but still there is a long way to go. A few studies (e.g. Desai and Kulkarni, 2008) have also noted no improvement and even mild deterioration in college graduation rates for dalits, casting doubt on the effectiveness of these policies.

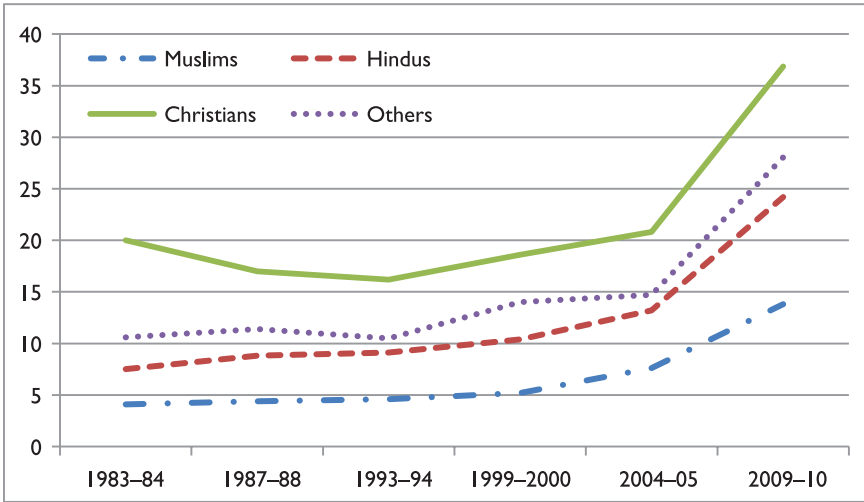
### *Inequalities between Religious Groups*

Inequalities in gross enrolment ratio between various religious groups are much higher. Estimates on gross enrolment ratio are available for Hindus, Muslims, Christians and 'others'. Enrolment ratio among Muslims was only 14 per cent in 2009–10, while it was 24.2 per cent among Hindus and 37 per cent among Christians. The enrolment ratio among 'Others' that includes Jains, Sikhs, etc., is also high—28 per cent in 2009–10. The enrolment ratio is the highest among the Christians and the least among the Muslims (Table 6). This is the same situation consistently throughout the period between 1983–84 and 2009–10. While there has been improvement in case of all the four groups between 1983–84 and 2009–10, the inter-group inequalities by religion did not decline much. In fact, the gap seemed to have widened (Figure 5).

According to the estimates by Azam and Blom (2009), one does not find much inequality between Hindus and Muslims, with the transition ratio being around 70 per cent in 2004–05. Christians are, of course, far ahead with a ratio of about 80 per cent. Among both Hindus and Muslims, out of every 100 secondary school graduates, 71 per cent go for higher education. The ratio was 80 per cent among Christians. But overall refined estimates of transition rates in 2009–10 are very low—about 20 per cent among Hindus and Christians, 16 per cent among Muslims and 11 per cent among others.

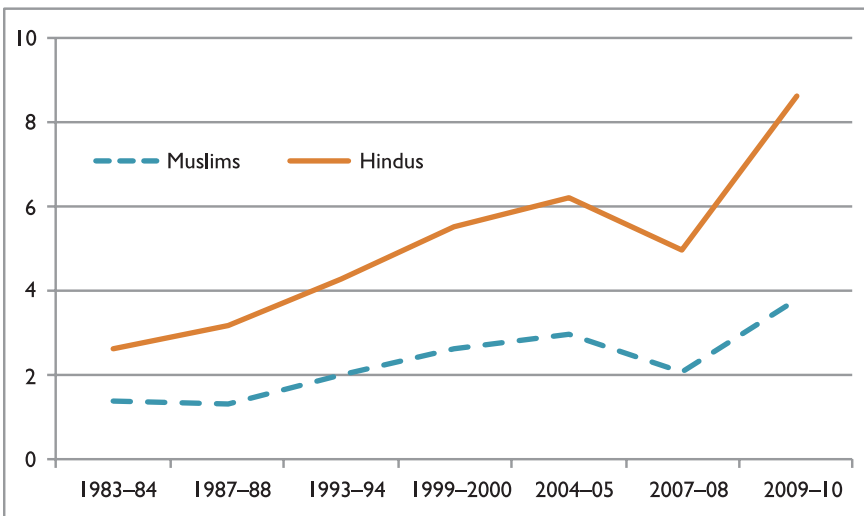
**Table 6.** Enrolment Ratio in Higher Education by Religion

	Muslims	Hindus	Christians	Others
<i>Gross Enrolment Ratio</i>				
1983–84	4.1	7.5	20.0	10.6
1987–88	4.4	8.8	17.0	11.4
1993–94	4.6	9.1	16.2	10.5
1999–2000	5.2	10.4	18.6	14.0
2004–05	7.6	13.2	20.8	14.7
2009–10	13.8	24.2	36.9	28.0
<i>Transition Ratio</i>				
2009–10	15.80	19.88	18.96	10.82



**Figure 5.** Gross Enrolment Ratio in Higher Education by Religion (%)

Despite reasonably high and comparable transition rates, because of low gross enrolment ratio, Muslims do not fare comparably with Hindus or Christians with respect to rate of higher education attainment. In 2009-10, while there were 12.5 per cent adult Christians who had higher education, the corresponding figures were 8.6 per cent among Hindus and 3.8 per cent among Muslims (Figure 6). ‘Others’ also had a high proportion of population—11 per cent with

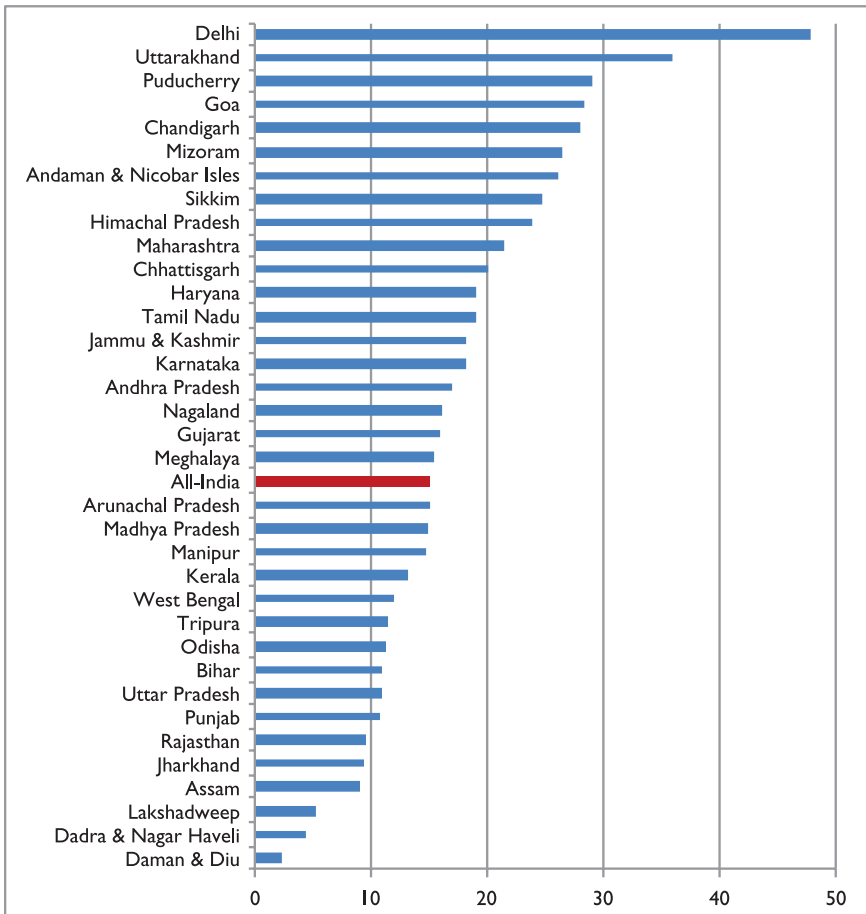


**Figure 6.** Higher Education Attainment (15-64) by Religion

higher education. Further, inequalities seem to have widened between Muslims and Christians and to a lesser extent between Muslims and Hindus.

### Rural–Urban Disparities

Now, we will discuss spatial inequalities. There are wide inequalities between different states in India in higher education in terms of number of universities and colleges, infrastructure in those institutions, student enrolment and even public expenditure. The gross enrolment ratio in higher education varies among major states between less than or around 10 per cent in Jharkhand and Chhattisgarh on the one side and above or around 40 per cent in Chandigarh and Tamil Nadu on the other side (MHRD, 2014). Moreover, the inequality between the states seems to have increased over the years, the coefficient of variation increasing from 0.13 to 0.27 between 1986–87 and 2009–10 (Figure 7).



**Figure 7.** Gross Enrolment Ratio in Higher Education 2009–10 (%)

**Source:** Ministry of Human Resource Development (2014)

**Table 7.** Higher Education Attainment (Age Group: 15–64), by Religion

	Muslims	Hindus	Christians	Others
1983–84	1.4	2.6	3.9	4.4
1987–88	1.3	3.2	5.1	4.5
1993–94	2.0	4.3	6.1	5.7
1999–2000	2.6	5.5	7.9	7.3
2004–05	3.0	6.2	7.7	8.8
2007–08	2.1	5.0	8.7	9.3
2009–10	3.8	8.6	12.5	10.7

There exist not only interstate disparities but also a high-degree inequality between rural and urban areas in each state. Based on NSS data, rural–urban disparities at all-India level are analysed here. In contrast to inequalities by gender, caste and religion, rural–urban disparities seem to be very high in the enrolment ratios. While 39 per cent of the relevant age group population in urban areas attended colleges/universities in 2009–10, it is only 16.5 per cent population who attended in rural areas. The ratio in urban areas was nearly 4.5 times higher than the ratio in rural areas in 1983. In 2009–10, this came down to 2.3 times, suggesting narrowing down of rural–urban disparities. As the Sopher’s index of regional disparity (1974) shows, the degree of inequality between rural and urban areas declined over the years, but inequality is still quite high. The decline in inequality can be noted in net enrolment ratio as well, though net enrolment ratios, by definition, are much smaller than gross enrolment ratios in both rural and urban areas. Between 1999–2000 and 2004–05, the urban–rural differences in net enrolment ratio declined from nearly four times to three times. The eligible enrolment ratio is also less in case of rural population compared to urban population. But it only differs by less than 10 per cent points: 48 per cent in case of rural population and 57 per cent in case of urban population in 2004–05 (Table 7).

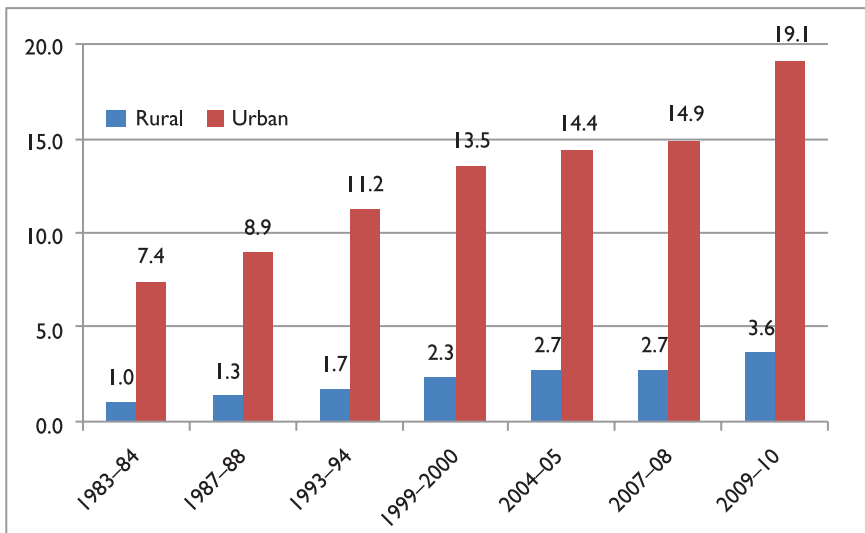
Consistently high rural–urban inequalities could also be noted in case of the rate of higher education attainment. The rate increased from 1 per cent in rural areas in 1983 to 3.6 per cent in 2009–10, while in urban areas it increased from 7.4 per cent to 19.1 per cent during the same period (Table 8). Although the rural–urban gap is getting reduced in terms of rate of increase, in terms of absolute differences it seems to be widening (Figure 8). In general, the rate of improvement is very slow; and more importantly, the absolute levels of higher education attainment are very low in rural areas (Figure 9).

### *Inequalities by Economic Classes*

Estimates of various indicators of higher education development (and other indicators) based on the NSS data are available by household expenditure quintiles/deciles. A few scholars have used alternative indicators like assets (or asset index) to consider the economic levels of the households but the monthly per capita expenditure, on which NSS provides rich data, is used extensively in

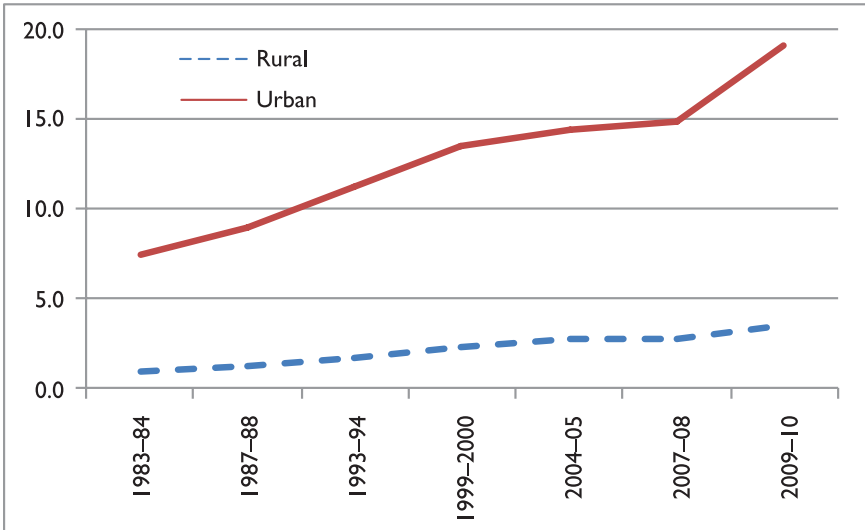
**Table 8.** Enrolment Ratio in Higher Education, by Region

	Rural	Urban	Sopher's Index of Disparity
<i>Gross Enrolment Ratio</i>			
1983–84	3.95	17.68	0.7179
1987–88	4.77	19.56	0.6971
1993–94	4.66	20.17	0.7134
1999–2000	5.38	20.44	0.6382
2004–05	7.51	23.79	0.5848
2009–10	16.52	38.48	0.4998
<i>Net Enrolment Ratio</i>			
1999–2000	4.52	17.51	0.6517
2004–05	6.24	18.86	0.5431
<i>Eligible Enrolment Ratio</i>			
2004–05	47.5	57.1	0.1676
2009–10	83.05	105	–
<i>Transition Ratio</i>			
2009–10	19.52	19.24	–0.0078



	1983–84	1987–88	1993–94	1999–2000	2004–05	2007–08	2009–10
Sopher's Index of Disparity	0.8983	0.8702	0.8629	0.8215	0.7826	0.8000	0.8009

**Figure 8.** Higher Education Attainment in Rural and Urban Regions in India (15–64)

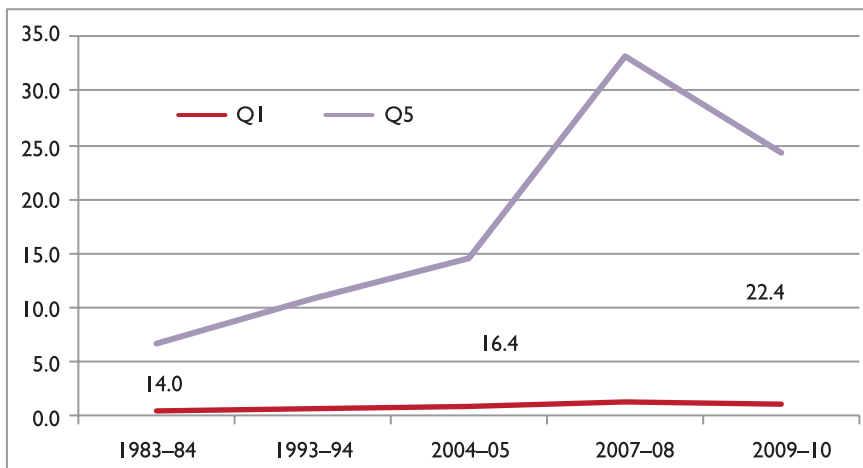


**Figure 9.** Higher Education Attainment in Rural and Urban Regions (Age Group: 15–64)

this regard. We analyse the same NSS data by quintiles, the Q1 or the bottom quintile (0–20 per cent population) being the poorest and Q5, the top quintile (80–100 per cent) referring to the richest 20 per cent of the population.

The gross enrolment ratios are the lowest among the bottom (poorest) quintile and highest among the top (richest) quintile. One finds a very systematic pattern of increasing enrolment ratios by every increase in the expenditure level of the households, with no single exception. In other words, the enrolment ratio among the second quintile (from bottom) has been higher than the bottom quintile; the ratio among the third (middle) quintile is consistently higher than the ratio among the second quintile; and so on. The population belonging to the top income quintile has the highest ratio. This pattern did not change at any point of time that we studied between 1993–94 and 2009–10. At no point do we find the lines intersecting (Figure 10).

More importantly, inequalities in enrolment ratios between the poorest and the richest quintiles have increased over the years, as the enrolment ratio among the poorest quintile declined between 1993–94 and 2004–05, while the same has increased in case of all other quintiles, and at a disproportion rate in case of the richest quintile. The ratio in case of the richest group increased from 26 per cent in 1993–94 to 37 per cent by 2004–05, while the ratio for the poorest declined from a bare 2 per cent to 1.8 per cent during this period (Table 9). In 2009–10, however, the ratio for the richest quintile increased to as high as 62 per cent, which is comparable to the ratio in some advanced countries. The ratio between top quintile and bottom quintile, which can be considered as a coefficient of inequality in gross enrolment ratio has increased from 12.8 in 1993–94 to 20.4 in 2004–05 (Figure 11). However, this simple indicator of inequality in 2009–10 is somewhat close to the level of 1993–94, meaning thereby inequalities have not declined over the years. In fact, as shown above, it increased



**Figure 10.** Higher Education Attainment Among Adults (15–64) by Bottom and Top Quintile Groups (%)

**Note:** Figures refer to ratios of differences (Q5/Q1).

**Table 9.** Enrolment Ratios in Higher Education, by Household Expenditure Quintiles

	Q1	Q2	Q3	Q4	Q5
<i>Gross Enrolment Ratio</i>					
1993–94	2.03	3.03	4.83	9.21	25.93
1999–2000	1.25	3.31	4.73	10.06	30.96
2004–05	1.80	4.10	6.11	11.87	36.75
2009–10	5.22	8.05	15.64	24.92	61.71
<i>Eligible Enrolment Ratio</i>					
2004–05*	30.50	41.90	38.80	46.80	52.60
<i>Transition Ratio</i>					
2009–10	14.00	15.32	20.05	18.61	21.81

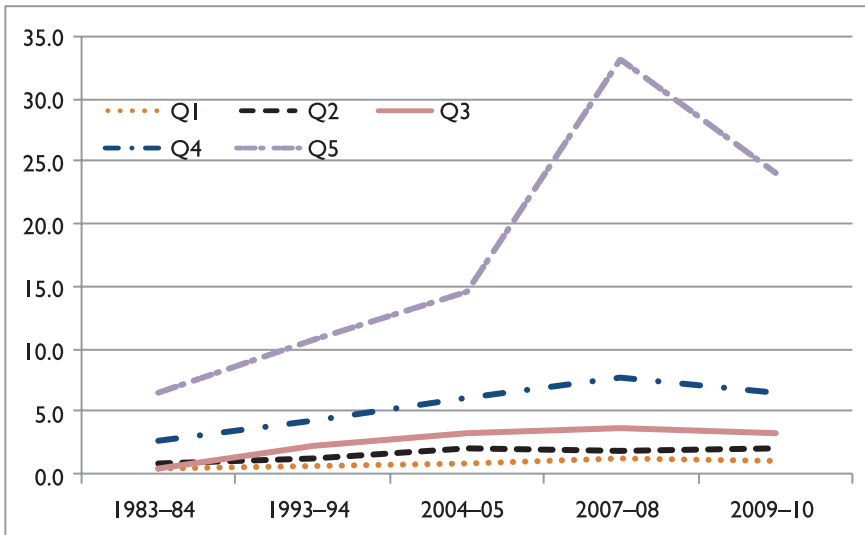
**Notes:** \*Defined by absolute levels of MPCE as follows:

Q1: < ₹359.10; Q2: ₹359.11 – 461.14; Q3: ₹461.15 – 587.34.

Q4: ₹587.35 – 8390.49; Q5: > ₹8390.49.

between some years. Gross enrolment ratio between 1999–2000 (or 1993–94) and 2004–05 and transition rates for the poorest group have fallen, while for other quintiles they have increased (except the third quintile where the rate has fallen by less than 1 per cent point).

Unlike in case of social groups—by caste, religion and gender—the differences in transition rates by expenditure quintiles are much larger. As high as 80 per cent of the richest expenditure quintile who completed secondary education go to higher education, it is only 52 per cent in case of the poorest quintile, in 2004–05, according to the estimates of Azam and Blom (2009). Further, we find a decline in transition rate among the bottom quintile from 54 per cent in 1993 to 52 per cent in 2004–05. We also find a systematic pattern of increasing



**Figure 11.** Higher Education Attainment among Adults (15-64) By Quintile Group (9%)

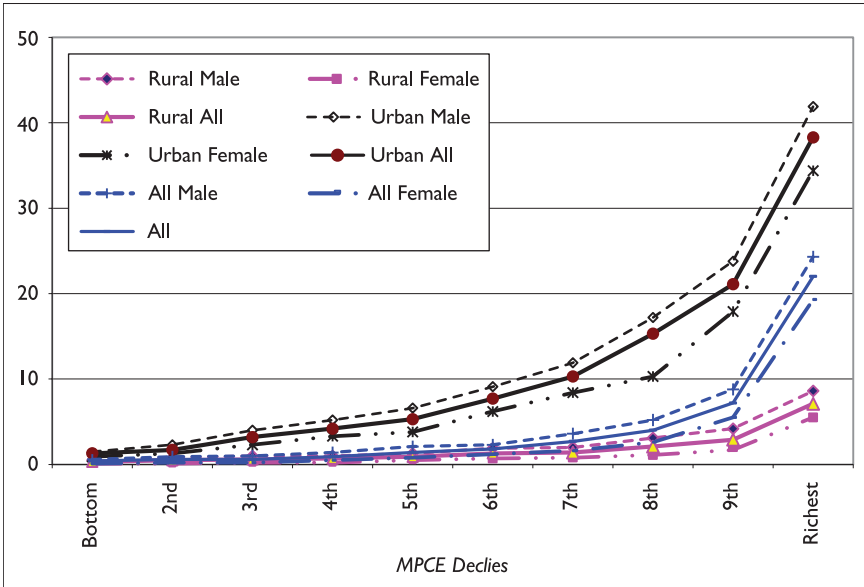
transition rates by increasing expenditure quintiles. According to the redefined rate of transition, it varied between 14 per cent among the bottom quintile and 21 per cent among the top quintile in 2009-10.

The percentage of adult population (15+) who complete higher education also increases systematically by increasing levels of expenditure quintiles (Table 10). In the bottom quintile, 11 out of every 1,000 had completed higher education in 2009-10, an increase from 4.7 per 1,000 in 1983-84. The bottom quintile or even the two bottom quintiles (bottom 40 per cent population) had made very little progress. In comparison, the progress in the richest quintile was 3.7 times during this period, from 6.6 per cent in 1983 to 24.2 per cent in 2009-10. In other words, the gap between the bottom quintile and the richest quintile further widened. In 1983, the difference between the two was of the order of 14 times, while it became 22 times by 2009-10. Similar increase in the gap could be found even when we look at the progress made by the bottom 40 per cent population and top 40 per cent.

**Table 10.** Higher Education Attainment (Age Group: 15-64) by Household Expenditure Quintiles

	Q1	Q2	Q3	Q4	Q5
1983-84	0.5	0.8	0.5	2.8	6.6
1993-94	0.6	1.2	2.4	4.3	10.7
2004-05	0.9	1.9	3.4	6.2	14.6
2007-08	1.2	1.8	3.7	7.8	33.3
2009-10	1.1	2.0	3.2	6.5	24.2



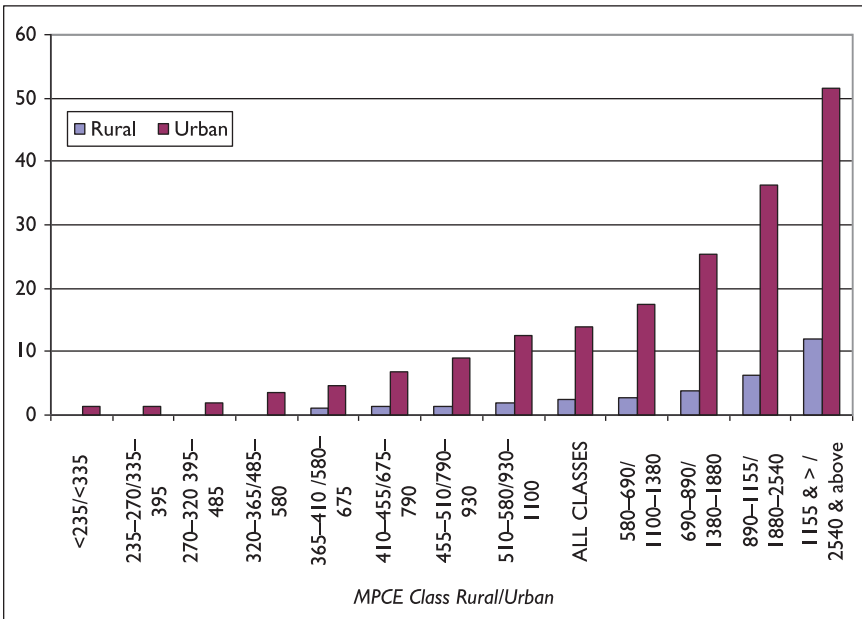


**Figure 12.** Percent of Population with Higher Education, 2007–08.

The systematic pattern of increasing rates of higher education attainment by household expenditure deciles is clearly pronounced both in rural and urban areas (Figure 12). If we further classify the same by gender and have a disaggregated look, we find very systematic pattern of increasing rates of higher education attainment by increasing levels of expenditure in every sub-category, with no single exception (Figure 13). Further, we also notice no intersection of the lines in Figure 13, showing an overall clear and persistent hierarchy in higher education attainment: urban males at every economic category being at the top, followed by urban female, rural male and rural female.

## Summary and Conclusions

Inequalities in education not only emanate from social and economic inequalities, but also contribute to further accentuation of social and economic inequalities. In the broad context of inclusive growth policies in India, with the help of valuable NSS data on several rounds between 1983 and 2009–10, an examination is attempted in this article, of the growth and inequalities in higher education in India. The NSS data are supplemented by available data from the MHRD, Government of India, UGC and estimates made by other researchers in this regard. The article is mainly concerned with inequalities in higher education by gender, by social groups—caste and religion, by region—rural and urban and by economic groups of population—population classified by monthly per capita household expenditure, each separately, though it is acknowledged that there is



**Figure 13.** Percentage of Higher Educated (Graduates and Above) Persons (15+) in Population, 2004–05

mutual reinforcement of inequalities among them, each separately, though it is acknowledged that there is mutual reinforcement of inequalities among them.

We have also concentrated on two important indicators on higher education: gross enrolment ratios (net and eligible enrolment ratios, and transition rates are also referred to) and higher education attainment—percentage of adult population having completed higher education, while examining whether inequalities in higher education have increased or declined overtime. But for minor differences, evidence on all indicators yields similar conclusions and somewhat consistent patterns can be observed in terms of both growth and inequalities. The article also throws light on which groups have improved most over the years in their higher education status and inequalities between which groups have declined or increased. However, this article concentrated on formal access to higher education, and has not examined dimensions relating to substantive access, except examining transition rates, and rates of Higher Education Attainment, which capture partly some of these aspects.

From the long array of tables and graphs presented above, the following can be described as the main features and trends in growth and inequality in higher education in India.

There has been a rapid growth in higher education in India. But the experienced growth is inadequate. The overall gross enrolment ratio is around 21 per cent in 2012–13, which is much less than the world average and even the average of the developing countries. It is also less than what is needed for sustainable high economic growth, and for transforming India into a ‘knowledge

economy' and an advanced or semi-advanced society. It may also be reiterated that not just higher education, but quality higher education is important.

The eligible enrolment ratios and also the transition rates are found to be reasonably high, but there is scope for improvement in these ratios as well. The eligible enrolment ratio was about 50 per cent, while the transition rates were about 70 per cent, both in 2004–05. Transition rates that are referred here are the estimates made by Azam and Blom (2009) using a definition, which is not strictly in conformity with the standard definition used in the literature on educational planning. A more reliable estimate of transition rate seems to be only around 20 per cent. The seemingly high eligible enrolment rates, and wide differences between estimates of transition rates based on alternative definitions, may suggest the need for proper definitions and measurement of these ratios.

In terms of the stock of the higher educated people in the country—the higher education attainment rate, the absolute levels achieved are low, and the progress made over the years is also low. Overall, only 8 per cent of the adult population (age group: 15–64) had completed levels of higher education in India in 2009–10. Many advanced countries have above 40 per cent of their adult (25–64) population with higher education.

Growth in higher education does not seem to have resulted in reduction in inequalities in a significant way. Every group of population has registered modest to significant levels of progress in case of enrolment ratios and the rate of higher education attainment; but inequalities in higher education seem to be persisting—by social groups (caste and religion), by gender, by region (rural and urban) and between the rich and the poor. In case of both gross enrolment ratio and higher education attainment, the direction of the progress—increase/decrease in inequalities is similar.

Comparison of the rates of higher education attainment for the population of the age group 25–34 with that corresponding to the population of 15–64 may indicate changes over generations to some extent. Comparable estimates for 2004–05 show that out of the younger population (25–34), a higher proportion of people had higher education compared to the total active adult (15–64) population (Table 11). This is true with respect to every subgroup of the population. That younger age group has higher rates of higher education attainment than the total adult population would suggest improvement over the years for all groups of population. It is also clear that inequality between different groups tends to decline, though not very significantly.

Despite the overall rapid growth in higher education, inequalities seem to be persisting. The reasons, *inter alia*, could be that much of the growth in higher education has been in the private sector which does not concern itself with inequalities. Second, the reduction in public subsidies and high rates of cost recovery may also account for slow improvement in inequalities. Moreover, it may be observed that even when we noted improvement, it is only with respect to simple or formal access, but not substantive access, provision of which requires a variety of innovative measures that enable the weaker sections to fully and meaningfully benefit from the state policies and provisions. The article has not sufficiently dealt with this dimension.

**Table 11.** Higher Education Attainment in India, 2004–05 Comparisons of Different Age Groups

	15–64	25–34		15–64	25–34
All	5.91	8.70			
Male	7.50	11.00	Hindus	6.20	9.20
Female	4.20	6.60	Muslims	3.00	4.20
<i>Inequality (M/F)</i>	1.786	1.667	Christians	7.70	10.90
Rural	2.70	4.40	Others	8.80	12.80
Urban	14.40	20.00	<i>Inequality:</i> Hindu/Muslim	0.484	0.457
<i>Inequality (U/R)</i>	5.333	4.545	Q1	0.89	1.50
SC	2.38	3.90	Q2	1.91	3.30
ST	1.94	2.60	Q3	3.37	5.60
Non-scheduled	7.29	10.70	Q4	6.16	10.10
<i>Inequality Non-S/SC</i>	3.063	2.744	Q5	14.63	23.00
<i>Inequality: Non-S/ST</i>	3.758	4.115	<i>Inequality: Q5/Q1</i>	16.438	15.333

**Source:** Based on Azam and Blom (2009).

### Who Improved Most?

According to the relative definition of inclusive growth that we described in the first section, inclusive growth requires that not only all sections of the society improve over the years but also the rate of improvement has to be faster in case of weaker sections than their counterparts. We have noted that all sections of the society have improved their relative status with respect to both gross enrolment ratio in higher education and higher education attainment over the years.

Simple rates of growth in the gross enrolment ratio and in higher education attainment between 1983–84 and 2009–10 are estimated here (Table 12). They are simply based on the figures relating to the base and final years. They are also simple average rates of growth. The growth of any particular group of population is not smooth during the period.

First, with respect to gross enrolment ratio, women improved at a rate of growth of 12.2 per cent per annum compared to men who experienced a rate of growth of only 5.7 per cent during the same period. Among the different caste groups, OBC had experienced the highest rate of growth between 1999–2000 and 2009–10 (Table 12). Keeping the OBCs aside for a moment, one can find that SC and ST had a very impressive growth of 12–15 per cent compared to a mere 3 per cent growth among non-scheduled population. There are no significant differences in rates of growth in enrolment ratios among Muslims and Hindus. Both groups progressed at a rate of growth of about 9 per cent, Muslims experiencing marginally a higher rate of growth. Similarly, rural population has registered a very higher rate of growth compared to urban population. In a sense, these rates of growth suggest that there has been pro-poor growth, the rates of growth of marginalised sections being higher than their counterparts. The same cannot be stated about the economic groups of population. The third quintile has

**Table 12.** Who Improved Most? Simple Rate of Growth Per Year (%) (1983–84 to 2009–10)

	Gross Enrolment Ratio	Higher Education Attainment
<b>All</b>	7.71	8.21
<i>Gender</i>		
Women	12.21	13.46
Men	5.70	6.44
<i>Caste</i>		
SC	11.55	13.94
ST	15.05	14.97
OBC*	21.66	–
Non-scheduled**	2.96	4.89
<i>Religion</i>		
Muslims	9.09	6.59
Hindus	8.55	8.88
Christians	3.24	8.48
Others	6.33	5.50
<i>Regional</i>		
Rural	12.24	10.00
Urban	4.52	6.08
<i>Economic Groups (1993–94 to 2009–10)</i>		
Q1	9.82	5.16
Q2	10.35	5.77
Q3	13.99	22.34
Q4	10.67	5.24
Q5	8.62	10.30

**Notes:**\*1999–2000 to 2009–10.

\*\*1983–84 to 2004–05 for GER.

progressed faster than the other quintiles. The middle 60 per cent of the population experienced higher rates of growth than the bottom and even the richest quintile.

We find more or less a similar pattern with respect to rate of growth in higher education attainment, a stock variable. Except the economically weaker sections, and marginalised religious groups, all other weaker sections of the society, viz., women, SCs and STs and rural population had registered higher rates of growth than their respective counterparts. Among the religious groups, Hindus and Christians are much ahead of all others; and Muslims are ahead of ‘other’ religions. More notable exception is by economic groups of population. While the middle quintile had experienced the highest rates of growth in higher education attainment, the bottom quintile was the least. The top quintile enjoyed a rate of growth of above 10 per cent between 1993–94 and 2009–10 compared to about 5 per cent by the bottom quintile, showing widening of inequalities between the poorest and the richest.

Thus, based on both indicators—the gross enrolment ratio and higher education attainment—we note that the economically weaker sections have not progressed much, nor the inequality between the bottom and top quintiles reduced signi-

ificantly. Muslims are yet to catch up significantly with Christians and Hindus. The growth in higher education has been in favour of the other weaker sections, but not as much the economically weaker sections.

That in general the weaker sections experienced higher rates of growth than non-weaker sections both in case of gross enrolment ratio and in case of higher education attainment should not be taken as if convergence is taking place rapidly. The extent of inequalities is still very high, as already noted.

### *Which Group Experienced Higher Fall in Inequalities More than Others?*

Changes in inequality in higher education attainment between different groups show some interesting trends. Between different groups of population, gender inequalities have declined significantly, and the degree of gender inequalities can be interpreted as 'minimum'.

Inequalities by caste and religion also declined, though not as significantly as gender inequalities. Differences between SC/ST and non-scheduled population have declined. In fact, ST have picked up fast, and have progressed, indeed faster than other groups of population, with respect to quite a few indicators of development of higher education. In terms of transition rates in higher education and eligible enrolment ratios, ST are faring better than all other groups and all groups as a whole. On the whole, one finds, as Desai and Kulkarni (2008) also found, that the gap between 'others' or upper caste Hindus/others and dalits/adivasis diminished (Table 13).

Inequalities between different religious groups of population are marked, though they have not significantly declined over the years. In case of gross enrolment ratios, there has been a significant decline, the ratio between the Muslims and all improving from 0.34 in 1993–94 to 0.6 in 2009–10. But in terms of higher education attainment, in which case reduction in inequalities normally takes long time, inter-religious group inequalities between Muslims and others was widened. Desai and Kulkarni (2008) also found that the educational gap between Hindus and Muslims continued and sometimes expanded. On the whole, Christians are much ahead of all other religious groups and Muslims are at the far end on the other side. While Hindus are ahead of Muslims, they are behind Christians and 'others'. In terms of hierarchy by religious groups in higher education development, thus, the order is as follows: Christians first, 'others' come next, followed by Hindus and then by Muslims.

Compared to the gender and social groups, inequalities by region—rural and urban—are very high, population in rural areas falling much behind their counterparts in urban areas. Rural–urban inequalities have narrowed down only marginally over the years.

Analysis of inequalities by economic classes yields more disturbing results. Inequalities in higher education between the poor and the rich have been most significant. In fact, there is a decline in the gross enrolment ratio and also the transition rate among the poorest group of population over the years, in contrast to very significant improvement in case of other income groups. As a result, we

**Table 13.** Changes in Inequality in Higher Education Attainment (Age Group: 15–64) (Ratios Between Different Groups of Population)

	1983–84	1987–88	1993–94	1999–2000	2004–05	2007–08*	2009–10	Overall Change in Inequality#
<i>By Gender</i>								
Male/Female	2.64	2.39	2.28	1.94	1.79	1.67	1.58	+1.06
<i>By Caste</i>								
Non-scheduled/Scheduled Tribes	5.95	4.55	5.40	3.47	3.76	–	–	+2.19
Non-scheduled/Scheduled Castes	5.45	4.60	4.77	3.37	3.06	–	–	+2.39
<i>By Religion</i>								
Hindus/Muslims	1.86	2.46	2.15	2.12	2.07	2.38	2.27	–0.41
<i>By Region</i>								
Urban/Rural	7.40	6.85	6.59	5.87	5.33	5.52	5.31	+2.09
<i>By Economic group</i>								
Q5/Q1	14.00	–	16.78	–	16.44	27.75	22.00	–8.00
Q4 and 5/Q1 and 2	7.35	–	8.14	–	7.43	13.70	9.90	–2.55

**Notes:** \*Refers to 15+ age group.

# 1983–84 minus 2009–10; + means improvement in inequality; and – means increase in inequality.

find widening of inequalities between the poorest and the rich. The estimates on higher education attainment show a consistent increase in the gap between the top and the bottom quintiles.

To sum up, among inequalities between different groups of population, inequalities by economic levels of households are found to be higher than inequalities by other characteristics of population—gender, caste, religion and region. Moreover, inequalities by gender, caste/religion and between rural and urban are decreasing and inequalities by economic levels do not show such a decreasing trend, in fact they are getting widened between several points of time.

Among the various indicators, one finds a high degree of inequality in gross enrolment ratio. The coefficients of inequality are the highest in case of higher education attainment. Eligible enrolment ratios or the transition rates show least amount of variation between different groups of population, particularly by social groups, and by gender. OBCs are found to be ahead of SCs and STs with respect to stock variables, the higher education attainment, but not necessarily and consistently with respect to enrolment ratios, particularly the eligible enrolment ratios.

The article is concerned with the question: How inclusive has been the growth in higher education in India? While answering this question, it has been examined whether all sections of the society including specifically the weaker sections benefited from growth in higher education, and whether all sections benefited equally or unequally. Rather it has been attempted to examine whether there has been pro-poor growth—whether the rate of growth in the educational status of the weaker sections is higher than the non-weaker sections. The evidence analysed yielded answers which are clearly affirmative in case of gender groups and social groups, somewhat affirmative in case of rural–urban inequalities and are not clearly affirmative in case of inequalities between the rich and the poor, classified by household expenditure levels. Even with respect to social and spatial groups of population, inclusive growth in ‘relative’ terms has not taken place as much as absolute improvement. With respect to economic groups, absolute improvement is also very small, if not negative.

### *What Are the Implications?*

As noted earlier, the various groups that we considered for analysing growth and inequalities are not mutually exclusive. The extent of inequalities would be very sharp and clear, when sub-categories are also considered by gender, caste/religion, economic levels and regions. For example, the rate of higher education attainment varies between 2.5 per cent in rural areas and 14 per cent in urban areas in 2004–05. But the corresponding proportion is infinitesimally small—0.03 per cent among the poorest population living in rural areas, while it is 52 per cent among the richest population in urban areas. The difference would be much bigger if we consider SC or ST among the poorest quintile living in rural areas vis-à-vis the non-scheduled population of the top expenditure quintile living in urban areas. In other words, no broad category like SCs, or rural population or women, is a homogeneous category.



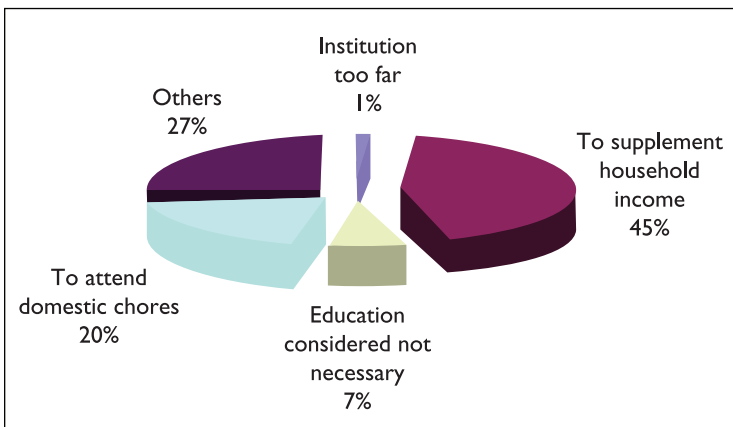
The Constitution provides for reservations for SCs/STs and OBCs in student admissions and also in recruitment of faculty in higher education institutions. These affirmative policies formulated considering the broader social situation, are an important instrument not just formal equality, but *substantive* equality and they became very controversial. Quite a few studies (for example, Basant and Sen, 2006; Sundram, 2006) have concluded that there was no need for extension of reservations to ‘other’ backward castes. Many also raised the question: Do the benefits of affirmative action, if any, percolate to the most downtrodden groups, or are they limited to the ‘creamy layers’ of the dalit and adivasi populations? The illegitimate use of the affirmative action programmes by upper-income dalit and adivasi families remains a running theme in the Indian discourse on affirmative action. Basant and Sen (2012) argue in favour of parental education as a criterion for affirmative action in place of caste and religion. Ideally, as Roemer (1998) argues, policies may aim at distribution of education that varies along with individual’s level of effort instead of family background and other characteristics for which they cannot be held responsible. Family background and other characteristics include not only social but also economic factors. Mehta and Hasan (2006) find that lower completion rates at secondary level of education and economic status are more important factors that need to be addressed in this context than providing reservations based on social identity. Some (for example, Higham and Shah, 2013) have argued that affirmative action policies in India have been conceived as a ‘contradictory resource’ — while on one hand, weaker sections benefit from these policies in securing admission in schools, they nevertheless do not address the deep-seated and historical inequalities; after all the weaker sections, even through these policies, do not necessarily get admission in high quality institutions; besides they result in a division amongst the weaker sections between those who benefit from these policies and those who do not, and remain locked in the vicious circle of exclusion. On the whole, it is widely felt that given the structural nature of caste, religion, ethnicity and class inequalities in contemporary India, the extent to which affirmative action policies can fundamentally redress highly structured patterns of inequality remains doubtful (Syed et al., 2013, p. 715). All this calls for a different approach to policies relating to targeting, focusing not only on formal access, but also to ensure substantive access. In general, it is important to see that these policies do not allow either ‘unfair inclusions’ or ‘unfair exclusions’, to use Sen’s (2000) terminology.

In public discourses, the issue of inequality is equated to the problems of women and those of SCs, STs and OBCs. Having received some serious attention of the policy makers during the post-independence period, inequalities by gender and inequalities by caste have declined somewhat significantly, and some modest to impressive progress could be noted. Recently, inequity experienced by the religious minorities particularly Muslims, has begun to receive attention. Other variants of inequality are yet to receive serious public attention. Of all, inequalities by economic groups of population have not received as much attention as they should have. As a result, inequalities between rich and the poor seem to have not declined but increased over the years. Inequalities in education between economic groups of population cut across religious, caste and gender groups,

and even regions, and hence they deserve serious attention. But space in policy discourses is taken away by caste and gender inequalities. Promotion of caste- and gender-based equality should not entail compromising and curtailing the equality of other underprivileged groups to augment access to higher education. Regional inequalities are still very large and although some attention has been paid to this issue in the past, it deserves more attention than what is paid. It is important to pay serious attention to reducing inequalities in access to higher education between different income groups of population.

Unequal family incomes translate into unequal access to higher education. A major reason for low participation of low-income groups in higher education is lack of finances to meet household costs of higher education or the need to supplement the household income by work. Literature is also abundant that shows a strong correlation between participation in higher education and students' family background that include socio-economic factors. Hence, it is necessary to address the socio-economic factors. While there are some schemes/subsidies for the socially backward sections and also for women, no such schemes are offered to rural youth, and to economically weaker sections. General public subsidies and specific, targeted subsidies are needed. Sound and well thought out measures are required to reduce the exclusive nature of higher education.

Among the reasons for students dropping out or discontinuing studies after senior secondary education, economic factors figure to be the most important ones, accounting for about two-thirds of all the factors (45 per cent was accounted by 'to supplement household income' and another 20 per cent 'to attend domestic chores'). This indicates the need to ease economic constraints of the poor households. Further, only a tiny fraction (1.2 per cent) accounts for the factor, 'institution too far' (Figure 14). If this is the case, policies of expansion of higher education, particularly setting up of a large number of colleges and universities may have to be re-examined.



**Figure 14.** Why Students Dropout/Discontinue after Senior Secondary Education 2004–2005

**Source:** National Sample Survey (2004–05).

In fact, quite interestingly, the eligible enrolment ratios—which are around 50 per cent for every social group and regional group—suggest that once the students graduate from secondary education, all have more or less equal chances of getting into higher education institutions. This also stresses the need to reduce inequalities in access to secondary education to improve participation in higher education. Large expansion of higher education—in terms of increasing enrolment ratios (it is envisaged to increase the gross enrolment ratio to the level of 30 per cent by 2030)—is not possible, unless school education, particularly secondary education is expanded and strengthened in such a way that the transition rates are further raised. It is not adequate to focus on admissions into higher education. Effective measures are needed to ensure continuation of students admitted in higher education and they complete the studies with high levels of attainment. Strong support mechanisms are to be devised for all weaker sections in this regard.

Lastly, it may be noted that goals of inclusive growth in higher education contradict with some of the strategies that are being adopted for the growth in higher education. Heavy reliance on private sector and cost recovery measures may not help in ensuring inclusive growth in higher education; they may actually work in negative direction. Sustainable inclusive growth may be possible only with strong and vibrant public higher education systems with liberal public funding.

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## Annexure

**Table A1.** Transition Rates from Secondary to Higher Education (%)

	1993–94	1999–2000	2004–05
All	67.4	65.2	71.2
Men	67.0	65.9	69.0
Women	67.4	64.7	72.7
Rural	58.7	55.6	62.6
Urban	74.2	73.4	79.8

(Table A1 continued)

(Table A1 continued)

	1993–94	1999–2000	2004–05
SC	58.5	60.2	66.3
ST	61.4	54.0	75.0
OBC		60.5	66.9
Non-scheduled	68.4	66.5	71.6
Muslims	63.9	61.3	70.7
Hindus	67.7	65.4	71.3
Christians	68.3	72.9	71.3
Others	67.4	61.2	62.5

Source: Azam and Blom (2009).

## Notes

1. This was originally published as a staff working paper of the World Bank.
2. These papers were commissioned and published by the University Grants Commission.
3. Unless otherwise mentioned, all tables and figures are based on NSS data (various rounds).
4. Without going into semantics, women, SCs, STs, 'other backward castes', rural population and bottom expenditure quintiles are referred in this paper as weaker/deprived/marginalised sections of the society.
5. See Tilak (1979) who highlights the relationship between discrimination in education, employment and earnings.
6. Some scholars (Mehta & Hasan, 2006) have used 'eligible population' and 'minimally qualified population' as the base in such a context. Since they used different groups and also measured in different ways, they are not comparable with the estimates given here.
7. If  $X_1$  and  $X_2$  represent the respective percentage of the variables of groups 1 and 2, then the Sopher's index of inequality  $D$  is written as follows:

$$D = \log(X_2/X_1) - I - \log(Q - X_1)/(Q - X_2),$$

where  $Q = 100$ .

8. The estimates of Azam and Blom for different groups of population are given in the Table A.1 in the Appendix. Temporal comparisons should not be made between these estimates and our estimates for 2009–10.
9. See Sinha and Srivastava (2008), Raju (2008) and Dubey (2008) for estimates based on alternative sources of data for 2004–05 which differ from each other quite significantly.

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