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GROWTH AND FIANANCING OF HIGHER EDUCATION SECTOR IN INDIA

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ABSTRACT

Higher education, especially of the professional and technical variety, has certainly become important because such an education process is associated with high level earnings, rising economic returns and increasing stock of human capital in the developing countries also (Quin and Smyth, 2007). Further, the higher education also plays a significant role in creating new inventions and innovations in the country's development process. Main aim of the study is to examine the growth and pattern of higher sector education in India and to explore the main sources of finance and extent of cost recovery mechanism adopted by technical education institutions in India.

1. Introduction

Higher education sector, especially of technical and professional variety, has become a critical factor in India's knowledge economy. Global competitiveness, 'make-in-India' campaign and quality employment are largely dependent upon the availability of skilled and technically qualified workforce of the country. Therefore, the higher technical education that produces a highly skilled, technically trained and competent manpower has gained importance in India. A country without developing her human resources cannot attain an optimum and self-sustenance path of economic development especially in the long run. It is also true that highly developed countries, who focused on the human capital formation in the past, have achieved high growth rates both in the national income and per capital income (Ghuman, Singh and Brar, 2009). In the post-reforms era, structure of Indian economy has been transformed from an agriculturally dominated economy to a manufacturing and services-oriented economy. Already, many indicators of such transformation such as declining share of agriculture, rising share of manufacturing and services in India's national product are mostly visible. Further, on the economic front, emerging tertiarization of Indian economy and 'make-in-India' campaign have generated an unprecedented demand for skilled workforce relevant to the future requirements of industrial and service sectors. These forces have compelled all Indian states to promote higher technical education in their respective domain.

2. Growth of Higher Education

Since 1947, India had made tremendous planned efforts to promote higher education sector in the country and created a large pool of universities/colleges and other infrastructural facilities across all the states. As a result of these efforts, total number of universities increased from 27 in 1950-51 to 621 in 2010-11.

Table 1: Growth of Recognised Higher Educational Institutions in India, 1950-51 to 2010-11

Year	Universities*	General Education Colleges		Professional Education Colleges		Total Colleges	Enrolment (in Lakh)
		Number	%	Number	%		
1950-51	27	370	64.01	208	35.99	578	3.96
1955-56	31	466	68.13	218	31.87	684	7.23
1960-61	45	967	53.16	852	46.84	1819	9.62
1965-66	64	1536	66.61	770	33.39	2306	14.04
1970-71	82	2285	69.73	992	30.27	3277	33.12
1975-76	101	3667	52.82	3276	47.18	6943	44.39
1980-81	110	3421	49.13	3542	50.87	6963	48.57
1985-86	126	4067	72.63	1533	27.38	5600	36.05
1990-91	184	4862	84.59	886	15.41	5748	49.25
1991-92	196	5058	84.19	950	15.81	6008	52.66
1992-93	207	5334	84.36	989	15.64	6323	55.35
1993-94	213	5639	83.37	1125	16.63	6764	58.17
1994-95	219	6089	83.19	1230	16.81	7319	61.14
1995-96	226	6569	82.91	1354	17.09	7923	65.74
1996-97	228	6759	79.25	1770	20.75	8529	68.43
1997-98	229	7199	77.63	2075	22.37	9274	72.60
1998-99	237	7494	78.01	2113	21.99	9607	77.06
1999-00	244	7782	78.56	2124	21.44	9906	80.51
2000-01	254	7929	78.10	2223	21.90	10152	86.26
2001-02	272	8737	78.39	2409	21.61	11146	95.42
2002-03	304	9166	77.84	2610	22.16	11776	107.17
2003-04	304	9427	77.41	2751	22.59	12178	112.01
2004-05	343	10377	76.43	3201	23.57	13578	130.32
2005-06	350	11698	68.88	5284	31.12	16982	143.24
2006-07	371	11458	57.82	8357	42.18	19815	152.88
2007-08	406	13381	57.93	9718	42.07	23099	172.11
2008-09	440	15852	56.85	12030	43.15	27882	185.00
2009-10	534	15823	55.98	12443	44.02	28266	266.51
2010-11	621	17424	52.84	15550	47.16	32974	274.99

Note: *It includes all Central, State, Private, Deemed Universities and Institutes of National Importance.
Source: GOI, 2012.

Similarly, the total number of recognized colleges rose from 578 in 1950-51 to 32,974 in 2010-11. Further, the proportion of professional and technical colleges, which was 35.99 per cent in 1950-51, rose to 46.84 per cent in 1960-61, but decreased to 30.27 per cent in 1970-71, and to 15.41 per cent in 1990-91. After that, the proportion of professional and technical colleges began to increase; showing an importance of trend and greater demand for the professional and technical courses in the country. Consequently, the proportion of professional and technical colleges increased consistently from 21.90 per cent in 2000-01 to 47.16 per cent in 2010-11. Moreover, total number of students enrolled in all these universities and colleges of India rose consistently from a meagre strength of 3.96 lakh students in 1950-51 to 274.99 lakh in 2010-11.

3. Growth in Enrolment of Students in Higher Education in India

Further, India's higher education sector in the initial decades was overwhelmingly dominated by boys in terms of their number and share in the total enrollment (Table 3.2). For instance, in 1950-51, the proportion of boy students was 88.66 per cent compared to the proportion of girl students (11.34 per cent).

Table 2: Growth of Students' Enrolment in Higher Education in India, 1950-51 to 2010-11

Year	Boys		Girls		Total Enrollment	% SC/ST Students
	Number	%	Number	%		
1950-51	351222	88.66	44916	11.34	396138	Not available
1955-56	630313	87.19	92647	12.81	722960	
1960-61	795014	82.62	167242	17.38	962256	
1965-66	1159000	82.55	245000	17.45	1404000	
1970-71	2587967	78.15	723770	21.85	3311737	
1975-76	3392729	76.42	1046571	23.58	4439300	
1980-81	3561620	73.32	1295763	26.68	4857383	
1985-86	2537545	70.39	1067484	29.61	3605029	
1990-91	3368610	68.40	1556258	31.60	4924868	10.77
1995-96	4210398	64.05	2363607	35.95	6574005	11.64
2000-01	5443829	63.11	3182503	36.89	8626332	13.55
2001-02	5795417	60.74	3746409	39.26	9541826	14.83
2002-03	6681558	62.35	4035000	37.65	10716558	14.85
2003-04	7044205	62.89	4156379	37.11	11200584	15.17
2004-05	8191957	62.86	4840229	37.14	13032186	15.25
2005-06	8831748	61.66	5491818	38.34	14323566	15.36
2006-07	9408097	61.66	5849796	38.34	15257893	16.38
2007-08	10573890	61.44	6637326	38.56	17211216	19.17
2008-09	11227810	60.69	7272515	39.31	18500325	16.76
2009-10	15521000	58.24	11130000	41.76	26651000	13.13
2010-11	15466000	56.24	12033000	43.76	27499000	15.27

Source: GOI, 2012.

Further, the proportion of boy students consistently declined from 87.19 per cent in 1960-61 to 78.15 per cent in 1970-71, 68.40 per cent in 1990-91, and 56.24 per cent in 2010-11. On the other hand, the proportion of girl students increased from 17.38 per cent in 1960-61 to 21.85 per cent in 1970-71, 31.60 per cent in 1990-91 and 43.76 per cent in 2010-11. Moreover, the proportion of SC/ST students in total enrollment of higher education was just 15.36 in 2005-06, rose to 19.17 per cent in 2007-08 and declined to 15.27 per cent in 2010-11. It means that rising proportion of girl students in India as a whole is definitely an encouraging trend. Similarly, rising proportion of SC/ST students in total enrollment is also a welcome step. It indicated that an access to the higher education has been increased over the time period across the marginal sections of society in India; although the decreasing proportion of SC/ST students in 2010-11 (15.27 per cent) over the year 2007-08 (19.17 per cent) is a cause of concern for the policy makers.

It is interesting to note that the ownership pattern of higher education colleges/institutes has been changed from the public ownership in the 1990s to the private ownership thereafter. An assessment of the data

on ownership of universities and colleges imparting higher education and students enrolled in them revealed (Table 2) that in 2005-06, there were 268 universities (76.57 per cent) which were owned by the public sector (centre or state governments), just 10 universities (2.86 per cent) were in the private aided category and 72 universities (20.57 per cent) fell in the private unaided category. And, in 2005-06, out of 16,982 recognized colleges, 4225 colleges (24.88 per cent) were owned by the public sector, 5750 colleges (33.86 per cent) fell in the private aided category and 7007 colleges (41.26 per cent) in the private unaided category. And, in 2010-11, out of 621 universities, 441 universities (71.01 per cent) were owned by the public sector (centre or state governments), and 180 universities (29.99 per cent) fell in the private aided/unaided category. Further, during the same year, out of 32974 recognized colleges, 5757 colleges (17.46 per cent) owned by the public sector, 6136 colleges (18.61 per cent) in the private aided category and 21081 colleges (63.93 per cent) in the private unaided category.

However, the data on number of students' enrollment by ownership/management of higher education institutions showed many interesting trends (Table 2). It showed that, in 2005-06, 37.52 lakh students (26.19 per cent) were enrolled in the public funded universities and colleges, 35.10 lakh students (24.50 per cent) studied in the private aided universities and colleges and 70.62 lakh students (49.30 per cent) in the purely private funded universities and colleges. Similarly, in 2010-11, 89.63 lakh students (32.59 per cent) were enrolled in the public funded universities and colleges, 185.36 lakh students (67.41 per cent) studied in the private aided and non-aided universities and colleges.

Table 3: Number of Higher Education Institutions and Student Enrollment in India by Type of Ownership, 2001-02 to 2010-11

Type of Ownership	2001-02		2005-06		2010-11		Number of Student Enrolled (in Lakh)		
	Number of		Number of		Number of				
	Universities	Colleges	Universities	Colleges	Universities	Colleges	2001-02	2005-06	2010-11
Government	241	3897	268	4225	441	5757	34.43	37.52	89.63
%	88.60	34.96	76.57	24.88	71.01	17.46	36.08	26.19	32.59
Private Aided	10	4382	10	5750	180	6136	31.34	35.10	185.36
%	3.68	39.31	2.86	33.86		18.61	32.84	24.50	
Private Unaided	21	2867	72	7007		21081	29.65	70.62	
%	7.72	25.72	20.57	41.26	28.99	63.93	31.07	49.30	67.41
Total	272	11146	350	16982	621	32974	95.42	143.24	274.99
%	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Further, an analysis of the data on growing number of students by field of study during the Eleventh Five Year Plan (2007-12) also supported these conclusions. The analysis clearly (Table 3.5) showed: First, 54.86 lakh students (39.6 per cent) were enrolled in the Arts subjects in 2006-07. This number however increased to 65.78 lakh students in 2011-12, but the proportion of Arts students declined to 32.2 per cent and compound growth rate of Arts students was just 3.7 per cent per year. Second, in the Science stream, 25.43 lakh

students were enrolled in 2006-07 and their number increased to 30.57 lakh in 2011-12. In relative terms, the proportion of Science stream students decline from 18.4 per cent in 2006-07 to 14 per cent in 2011-12. Third, 22.87 lakh and 34.34 lakh students were enrolled in the Commerce and Management streams in 2006-07 and 2011-12 respectively. But, their percentage share decreased from 16.5 per cent to 15.8 per cent during the same period. Fourth, in the field of Education, 6.21 lakh students (4.5 per cent) were enrolled in 2006-07 and 13 lakh students (6.0 per cent) in 2011-12. Fifth, in the Engineering stream, number of students enrolled increased from 18.06 lakh in 2006 -07 to 54.68 lakh in 2011-12. In relative terms, the proportion of engineering student increased from 13.0 per cent in 2006-07 to 25.0 per cent in 2011-12. A similar trend had been found in the field of Medicine, Nursing and Pharmacy courses, where the number of students increased from 5.98 lakh (4.32 per cent) in 2006-07 to 12.02 lakh (5.5 per cent) in 2011-12.

Sixth, in the field of Agriculture and Veterinary Sciences, the total enrollment of students rose from 0.93 lakh in 2006-07 to 1.21 lakh in 2011-12. But the proportion of such students marginally decreased from 0.7 per cent in 2006-07 to 0.6 per cent in 2011-12. Seventh, in the field of Law, 3.0 lakh students (2.2 per cent) were enrolled in 2006-07 and their number rose to 3.48 lakh (1.6 per cent) in 2011-12. Eighth, in terms of compound growth rate, the maximum growth rate (24.8 per cent) was found in the field of Engineering, followed by Others (19.1 per cent), Education (15.9 per cent), and Medicine, Nursing & Pharmacy (15.0 per cent). Ninth, the minimum growth rate was found in the field of Law (3.0 per cent), followed by the Arts stream (3.7 per cent), the Science steam (3.8 per cent) and Agriculture and Veterinary Science stream (5.4 per cent).

Table 4: Growth of Students' Enrollment by Broad Field of Study during the Eleventh Five Year Plan (2007-12)

Faculty/Stream	2006-07		2011-12		CGR (%)
	No. of Students (in lakh)	%age Share	No. of Students (in lakh)	%age Share	
Arts	54.86	39.6	65.78	30.2	3.7
Science	25.43	18.4	30.57	14.0	3.8
Commerce and Management	22.87	16.5	34.34	15.8	8.5
Education	6.21	4.5	13.00	6.0	15.9
Engineering	18.06	13.0	54.68	25.0	24.8
Medicine, Nursing and Pharmacy	5.98	4.3	12.02	5.5	15.0
Agriculture and Veterinary Science	0.93	0.7	1.21	0.6	5.4
Law	3.00	2.2	3.48	1.6	3.0
Others	1.16	0.8	2.78	1.3	19.1
Total	**138.5**	**100**	**217.86**	**100**	**9.5**

Source: GOI, 2012.

Further, in terms of students' enrollment, India's higher education has become the third largest education system of the world (after the China and the USA) in 2005-06. But, in terms of total number of institutions (17,232 institutions; 350 universities and 16,982 colleges), it has become world's largest higher education system (Agarwal, 2006). In fact, India's 17,232 institutions imparting higher education were four times more than that of the number of institutions both in the USA and entire European countries (Agarwal, 2006). But, an access to higher education in India is still very low, although India is boasting of largest number

of scientists and technical manpower in the world. An equitable access to quality higher education is an essential prerequisite for realizing the constitutional mandate enshrined in the 'equality of opportunity' as well as achieving the goal of inclusive development in India. Although many of these imbalances occur at the school level due to low enrollments and high dropout rates across the deprived, underprivileged and marginalized sections of society. Thus, only a limited number of such students entered the higher education portal. For instance, gross enrollment ratio (GER) in India's higher education was just 5 per cent of eligible age-group (18-23 years) by the end of 1980s (Agarwal, 2006) and it rose to 17.9 per cent in 2011-12 (GOI, 2013).

Even, the GER varies widely across the Indian states. The highest GER was found in the Himachal Pradesh (14.10 per cent), closely followed by the Maharashtra (13.24 per cent), Uttrakhand (12.97 per cent), Karnataka (11.58 per cent), Andhra Pradesh (11.52 per cent) and Tamil Nadu (11.46 per cent). On the other hand, the Bihar (6.02 per cent), Rajasthan (6.04 per cent) and Assam (6.94 per cent) have the least GER (GOI, 2008). Compared to these figures, the developed countries like Canada, such as USA, Australia and Finland had a much higher enrollment ratio, ranging from 70 per cent to 90 per cent (World Bank, 2002). Thus, India is far away from the mass oriented status of higher education, what to speak of acquiring universal status of higher education.

Further, the GER in India's higher education system across the eligible age group (18-23 years) was not only low, but also showed wide disparities during 2004-05 (Table 3.6). For instance, the GER was much low (i) in the rural areas (6.70 per cent) compared to the urban areas (19.90 per cent); (ii) the GER was low amongst the females (9.10 per cent) compared to the males (12.40 per cent); and (iii) the GER was also found to be low amongst the SCs/STs (6.54 per cent) and OBCs (8.77 per cent) compared to the general category students (17.22 per cent).

Table 5:Gross Enrollment Ratio (%) and Disparity Index in Higher Education in India, 2004-05

Features		GER **(%)**	**Disparity Index**
Area	Urban	19.90	**(Urban - Rural)**
	Rural	6.70	13.20
Gender	Male	12.40	**(Male - Female)**
	Female	9.10	3.30
Social Category	General	17.22	**(General - SC/ST)**
	SC/ST	6.54	10.68
	OBC	8.77	**(General - OBC)** 8.45

Source: GOI, 2008.

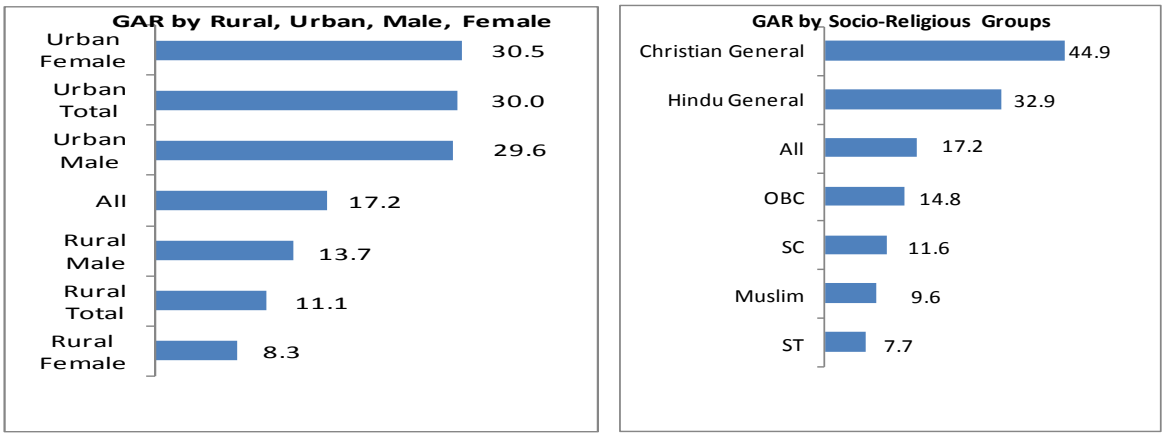
Even, the disparity index (differences between GERs) pointed out very wide variations in the GER between the students belonged to the urban and rural areas (13.20 percentage points), between the students of General and SC/ST categories (10.68 percentage points), between the students of General and OBC categories (8.45 percentage points) and between the male students and female students (3.30 percentage points).

Gross Attendance Ratio (GAR) is another measure to judge the equal access to higher education. An analysis of data on GAR for 2007–08 confirmed that an equal access to higher education in India had not been enjoyed by all disadvantaged social groups as the GAR was found to be much below the national average of 17.2 per cent. The Figure 3.1 showed that, despite a substantial overall improvement in the GAR, inter-group

inequalities in accessing higher education had changed only marginally. A comparing GER and GAR across the social groups, one can state that an access to higher education has improved for all social groups, including the disadvantaged, but their relative disparities have not reduced substantially. These inequalities are multi-dimensional: gender, caste/class, religion, location and region. These are some of the principal dimensions of these inequalities; and when more than one of these conditions exist, their impact is compounded. An unequal access to quality higher education, especially to prestigious institutions and courses that are in greater demand, continues to be reflected in the inherited social privileges.

For example, in 2007-08, the GAR in India was 30.5 per cent for urban females and, 29.6 per cent for urban males, while it was 13.7 per cent for rural males and 8.3 per cent for rural females. On the whole, the GAR in the urban areas was 30.00 per cent, whereas it was only 11.1 per cent in the rural areas. The GAR in India was 17.2 per cent for the urban and rural areas together. The analysis also revealed that the GAR for urban females (30.5 per cent) was slightly more than that of the urban males (30.00 per cent). Against it, the GAR for rural females (8.3 per cent) was less than that of the rural males (13.7 per cent). By socio-religious groups, the GAR among the Christian General was the maximum 44.9 per cent, followed by the Hindu General (32.9 per cent), OBCs (14.8 per cent), SCs (11.6 per cent), Muslims (9.6 per cent) and STs (7.7 per cent). A close perusal of this graph showed that accessibility of higher education was more in the urban areas than the rural areas. The worst form of GAR was observed in the case of rural females (8.3 per cent) and the STs (7.7 per cent).

Figure 1: Gross Attendance Ratio (GAR) in India, 2007-08



Source: GOI, 2013.

These facts make it clear that an access and affordability of higher education in India is highly skewed and questionable. It is biased against the poor and other marginalized sections of society (Ghuman, Singh and Brar, 2009). It is feared that if corrective measures are not taken, the emerging situation could be more serious for the poor students and for those who are living rural areas (Ghuman, Singh and Brar, 2006; 2009). Further, new policy reforms which allow the entry of private service providers (including foreign players), levying of high user charges and reduced state funds have constrained the growth as well as performance of public funded higher education institutions. Even, in the advanced countries, market driven reforms in their higher education

sector had adversely affected the participation of low income people in the higher education (Ponnell and West, 2005). Further, rising income inequalities, depressed rural incomes, absence of safety nets and loose state regulatory mechanism in India would certainly affect the accessibility and affordability of higher technical education to the poor and weaker sections of society, who are otherwise meritorious and hardworking.

4. Financing of Higher Education in India

India's higher education sector faced a peculiar situation, where the rising demands for the highly trained manpower have not been matched by a corresponding increase in the public resources. Even, the successive governments at the central level that stipulated in the mid-1960s to spend at least 6 per cent of the India's total GNP or at least 10 per cent of the central budget for the whole education sector, has allocated much below this normative ratio of 6.00 per cent of the GDP. An analysis of time series data (1951-52 to 2010-11) in Table 6 showed that the total government expenditure on total education sector in India was just Rs. 64.46 crores in 1951-52, which rose to 305,431.49 crores in 2010-11 (3R).

Table 6 :Total Government Expenditure on Education Sector in India, 1951-52 to 2010-11 (Rs. In Crores)

Year	GNP at Current Prices at Factor Cost	Total Expenditure on Education by Education and Other Departments	Percentage Share
1951-52	9995	64.46	0.64
1960-61	16977	239.56	1.41
1970-71	44098	892.36	2.02
1980-81	137183	3884.20	2.83
1990-91	524269	19615.85	3.74
1999-00	1842774	74816.09	4.06
2000-01	1978010	82486.48	4.17
2001-02	2155192	79865.71	3.71
2002-03	2327174	85507.33	3.67
2003-04	2605111	89079.25	3.42
2004-05	2949089	96674.10	3.28
2005-06	3364387	113228.71	3.37
2006-07	3926042	137383.99	3.50
2007-08	4561541	155797.27	3.42
2008-09	5270644	189068.84	3.59
2009-10	6070903	241256.05	3.97
2010-11 (3R)	7167053	305431.49	4.26

Source: GOI, 2014.

In relative terms, total government budgetary expenditure on the entire education sector as a proportion of GNP rose from just 0.64 per cent in 1951-52, to 4.26 in 2010-11 (3R).

In relative terms, however, the higher education sector in India has suffered severely. At present (2008-09), only 0.37 per cent of India's GNP is being spent on the higher education (Table 7), whereas many developed countries are found to be investing between 1.0 to 2.5 per cent of their respective GNP (CABE, 2005). Even, some of the developing countries in the Asia region, which are not economically better than that of India, seem to be spending more than that of India so far the higher education is concerned. Further, proportionate share of public expenditure on higher education to the total government expenditure may also tell us more clearly about the priority status that the Indian government attaches to the higher education, as the

central government has more direct control on its own expenditure than on the national income as a whole. An assessment of data in Table 3.9 revealed that, the proportionate share of higher education expenditure out of total government expenditure declined from 1.41 per cent in 1990-91 to 1.25 per cent in 1996-97; it increased to 1.54 per cent in 2000-01, declined in the later years to reach at 1.14 per cent in 2003-04 and rose to 1.22 in 2008-09, i.e. too much below the 1990-91 level.

Table 7: Government Expenditure on Higher Education: Relative Priorities, 1990-91 to 2008-09

Year	Total Govt. Expenditure on Higher Education as Percentage of		Govt. Expenditure on Technical Education as Percentage of	
	GNP (%)	TGE (%)	GNP (%)	TGE (%)
1990-91	0.44	1.41	0.15	0.51
1991-92	0.40	1.31	0.14	0.48
1992-93	0.39	1.33	0.14	0.48
1993-94	0.39	1.33	0.13	1.47
1994-95	0.37	1.29	0.13	0.47
1995-96	0.35	1.28	0.12	0.45
1996-97	0.33	1.25	0.12	0.44
1997-98	0.34	1.26	0.12	0.44
1998-99	0.37	1.32	0.13	0.47
1999-00	0.45	1.53	0.14	0.48
2000-01	0.46	1.54	0.13	0.44
2001-02	0.38	1.24	0.12	0.42
2002-03	0.38	1.26	0.11	0.39
2003-04	0.35	1.14	0.11	0.4
2004-05	0.32	1.09	0.10	0.36
2005-06	0.33	1.15	0.09	0.36
2006-07	0.32	1.13	0.09	0.38
2007-08	0.31	1.09	0.09	0.36
2008-09	0.37	1.22	0.09	0.35

Source: GOI, 2012.

Similarly, the proportionate share of public expenditure on the technical education to the GNP and in the total government expenditure has been remained very low and also declined marginally over the time period. As a proportion of GNP, it is now 0.13 per cent (2008-09), down from 0.15 per cent in 1990-91; and as a proportion of total government expenditure, it is just 0.42 per cent in 2008-09 declining from 0.51 per cent in 1990-91. In the field of technical education, the expenditure as a percentage of GNP was 0.12 per cent in 2001-02 and it gradually declined to 0.9 per cent in 2006-07. It remained stable 0.9 per cent for four years from 2005-06 to 2008-09. The percentage share of total government expenditure on the technical education was 0.51 per cent in 1990-91 and it declined to 0.35 per cent in 2008.09.

A true picture of public expenditure on higher education in India has been revealed by per student public expenditure which is impending indicator of quality and efficiency of higher education sector in India. Per student public expenditure on higher education in current prices increased by several times during the post-reforms period. On the average, per student public expenditure on higher education in India at current prices has shown an increase of Rs. 5830 between 1990-91 and 2008-09. Against it, per student public expenditure on higher education at constant prices (1993-94 = 100) declined by Rs. 1913 between 1990-91 and 2008-09.

Table 8: Per Student Public Expenditure on Higher Education in India (Rs)

Years	At Current Prices	At Constant Prices (Base 1993-94)	Index Number (1993-94=100)
1990-91	4694	6375	119
1991-92	4641	5539	104
1992-93	4878	5356	100
1993-94	5335	5335	100
1994-95	5766	5121	96
1995-96	5889	4843	91
1996-97	6266	4926	92
1997-98	6693	5040	94
1998-99	7938	5642	106
1999-00	10246	7051	132
2000-01	10659	6846	128
2001-02	8476	5255	98
2002-03	8267	4956	93
2003-04	8089	4599	86
2004-05	7267	3882	73
2005-06	7689	3931	74
2006-07	8219	3941	74
2007-08	8315	3809	71
2008-09	10524	4462	84

Source: GOI, 2013.

It means that per student public expenditure on higher education in real terms did not register any growth (Table 8). Instead, a very drastic decline has been observed during the early 1990s and then in later years of 2000s (2001-02 to 2008-09). For instance, at 1993-94 prices, per student public expenditure on higher education declined from Rs. 6375 in 1990-91 to Rs. 4843 in 1995-96, then rose to Rs. 7051 in 1999-2000, but again declined to Rs. 4462 in 2008-09; a decline by nearly 35 percentage points in the index number during 19 years period. Thus, an analysis of public expenditure on higher education in India makes it clear that higher education that requires huge finances is not properly financed at the national level. Further, an increasing presence of private sector in the higher education, particularly in the technical courses and the practice of recovering entire costs from the students would have many undesirable ramifications for the poor but meritorious students living in the society.

5. Main Conclusions and Public Policy Suggestions

India's higher education sector has grown tremendously over the time period. For instance, there were just 25 universities and 500 recognized colleges in 1947 in India, which altogether enrolled just 0.1 million students. Since then, India made tremendous planned efforts to promote higher education sector in the country and created much infrastructural facilities across all the states. Further, India's higher education sector in the initial three decades was overwhelmingly dominated by the boys. After that the proportion of girl students consistently increased from 26.68 per cent in 1980-81 to 43.76 per cent in 2010-11. Moreover, proportion of SC/ST students in India's higher education sector rose from 15.36 in 2005-06 to 19.17 per cent in 2007-08 and declined to 15.27 per cent in 2010-11. Further, the data showed a growing importance of private sector owned

universities/colleges as the number of private owned university/colleges and students enrolled in them rose at an exponential speed. In 2010-11, 89.63 lakh students (32.59 per cent) were enrolled in the public funded universities/colleges, 185.36 lakh students (67.41 per cent) studied in the private aided/non-aided universities/colleges. An analysis of public expenditure on higher education in India makes it clear that higher education that requires huge finances is not properly financed at the national and state levels. Further, an increasing presence of private sector in the higher education, particularly in the technical courses and the practice of recovering entire costs from the students would have many undesirable ramifications for the poor but meritorious students living in the society. Due to the levying of high fees and funds, the private engineering colleges/institutes in the higher education sector have been found to generate huge economic surpluses, i.e. the receipts were found to be much more than that of total costs of imparting such education. Keeping these facts in view, it has been suggested to establish an independent regulatory commission with statutory powers and public accountability to analyze, determine, control and monitor fees and funds to be charged from the students along with the quality component of technical education, payment of salary and service security benefits to the teaching and non-teaching staff. There is need to measure, both in the quantitative and qualitative terms, various socio-economic impacts of higher technical education, particularly its contribution in raising the macro growth rates, income generation, inclusive income distribution and human capital formation in the country.

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