

Gender and Higher Education in India

Abstract

Education is the mirror of the society and base of economic, social and cultural development of a country. It has emerged as the most important driving force for the progress and development of a nation. In India education has been accorded much importance since independence as it has been perceived that educational development is necessary to ensure economic and over all development of the country. In order to develop human resources in a better way it is important that education is imparted to all sections of population in the country so that all people can have opportunity of participating in education, irrespective of one's caste, class, sex, religion or region. However despite these provisions, it has been noticed that the spread of education is not uniform and there are disparities of all kinds in this field. There is tremendous progress in expending educational system, the number of schools, teachers, enrolment have all increased many folds during this period of planned development. Yet unfortunately, this expansion has not been uniform and some areas lag behind from the others in terms of even basic facilities of education. In this paper an attempt has been made to analyse status of higher education in India as well as gender and higher education.

Keywords: Disparities, GPI, GER, Higher Education, Enrolment

Introduction

A sound higher education sector plays an important role in economic growth and development of a nation. Higher education, in terms of its relevance and importance, enjoys a significant position in the education system as it equips people with appropriate knowledge and skills to be gainfully employed. India has one of the largest systems of higher education in the world offering facility of education and training in almost all aspects of human creativity and intellectual endeavour. The education of women in India plays a significant role in improving living standards in the country. A higher women literacy rate improves the quality of life both at home and outside home, by encouraging and promoting education of children, especially female children, and in reducing the infant mortality rate. As an independent group, women constitute 48% of the total population of India. They not only constitute valuable human resource of the country but their development in the socio-economic arena also sets pace for sustainable growth of the economy (HRD, 2013). The higher education system in India is complex. The regulators associated with governance are overlapping and entangled across various ministries and regulatory bodies. The increase in the enrolment figures is consistent with the expansion of Higher Education Institutions (HEI's) over the years. The number of higher educational institutions (HEIs) has increased from about 30 universities and 695 colleges in 1950-51 to about 700 universities (as of 2012-13) and 35,000 colleges (as of 2011-12) as per UGC report¹. With an annual enrolment of above 25 million (including enrolment under Open and Distance Learning system), India is today ranked as the third largest higher education system in the world after US and China (Rajan, 2014). There has been a phenomenal growth in enrolment of women students in higher education in the country. The share of girls enrolment which was less than 10% of the total enrolment on the eve of independence, has been increased to 41.50% in the beginning of the academic year 2010-11 (HRD, 2013-14).

Review of Literature

Higher education typically comprises under-graduate, post graduate degrees and pre-doctoral and doctoral programs. According to the National policy on Education, higher education provides people with an opportunity to reflect on the critical social, economic, cultural, moral and spiritual issues facing humanity. It contributes to national development through dissemination of specialized knowledge and skills. It is therefore a crucial factor for survival. Being at the apex of the educational pyramid, it

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has also a key role in producing teachers for the education system (Pujar, 2014).

Objectives of the Study

The study will focus on following main objectives:

1. To examine the higher education system in India
2. To analyse gender inequality in higher education in India

Methodology

The paper is based on secondary data. Various sources of secondary information that have been used for the same include the reports and documents of Ministry of Human Resource and development, regulatory bodies like the University Grants Commission (UGC), All India Council for Technical Education (AICTE), National Sample Survey Organisation (NSSO), Economic Survey of India and Five Year plan documents etc.

Higher Education in India

It is the education, which is the right weapon to cut the social slavery and it is the education which will enlighten the down trodden masses to come up and gain social status, economic betterment and political freedom. Education is a prerequisite for the development of the society. The importance of education in the human resource development has been recognised by all sections of the society and in all types of economies. As essential feature of human

resource development is to have equity in terms of accessibility to the facilities of education irrespective of gender, caste, region, etc. In fact, equity in education is not purely an educational issue as it cuts across the entire social and political fabric of a nation. The growth in educational facilities has not been sufficient to reduce the disparity in male female literacy. It is often argued that, despite planned and concentrated efforts, both gender and region disparities in literacy have a remarkable temporal stability. However these disparities should be seen as part of wider regional imbalances that existed as a result of Indian socio-culture and historical past.

State wise literacy rate is shown in table 1 and table reveals that there is an increase in literacy rate from 2001-2011. Rise in literacy rate is higher in males as compared to females

(fig 1). The southern states rank first in literacy rate followed by western, north-east, northern and eastern states. Kerala among the southern states and Mizoram among the north-east states has got the maximum literacy rate i.e. 93.91 and 91.58 respectively. Goa among western zone, H.P. among northern and West Bengal from eastern zone has the maximum literacy rate. Rajasthan, Andhra Pradesh, Arunachal Pradesh, U.P., J&K, Orissa, Chattisgarh and Bihar are states having literacy rate less than average literacy rate.

Table 1 State wise Literacy Rate in India (percentage)

Zones	States	2001			2011		
		Male	Female	Persons	Male	Female	Persons
Eastern	Bihar	59.68	33.12	47.00	73.39	53.33	63.82
	Chhattisgarh	77.38	51.85	64.66	81.45	60.59	71.04
	Jharkhand	67.30	38.87	53.56	82.85	56.21	67.63
	Odisha	75.35	50.51	63.08	82.40	64.36	73.45
Northen	West Bengal	77.02	59.61	68.64	82.67	71.16	77.09
	Haryana	78.49	55.73	67.91	85.38	66.77	76.64
	Himachal Pradesh	85.35	67.42	76.48	90.83	76.60	83.78
	Jammu & Kashmir	66.60	43.00	55.52	78.26	58.01	68.74
	Punjab	75.23	63.36	69.65	81.48	71.34	76.68
	Uttar Pradesh	68.82	42.22	56.27	79.24	59.26	69.72
North-East	Uttaranchal	83.28	59.63	71.62	88.33	70.70	79.63
	Arunachal Pradesh	63.83	43.53	54.34	73.69	59.57	66.95
	Assam	71.28	54.61	63.25	78.81	67.27	73.18
	Manipur	79.54	60.10	69.93	86.49	73.17	79.85
	Meghalaya	65.43	59.61	62.56	77.17	73.78	75.48
	Mizoram	90.72	86.75	88.80	93.72	89.40	91.58
	Nagaland	71.16	61.46	66.59	83.29	76.69	80.11
	Tripura	81.02	64.91	73.19	92.18	83.15	87.75
Southern	Sikkim	76.04	60.40	68.81	87.29	76.43	82.20
	Andhra Pradesh	70.32	50.43	60.47	75.56	59.74	67.66
	Karnataka	76.10	50.43	66.64	82.85	68.13	75.60
	Kerala	94.24	87.72	90.86	96.02	91.98	93.91
Western	Tamil Nadu	82.42	64.43	73.45	86.81	73.86	80.33
	Goa	88.42	75.37	82.01	92.81	81.84	87.40
	Gujarat	79.66	57.80	69.14	87.23	70.73	79.31
	Madhya Pradesh	76.06	50.29	63.74	80.53	60.02	70.63
	Maharashtra	85.97	67.03	76.88	89.82	75.48	82.91
	Rajasthan	75.70	43.85	60.41	80.51	52.66	67.06
	India	75.26	53.67	64.83	82.14	65.46	74.04

Figure 1

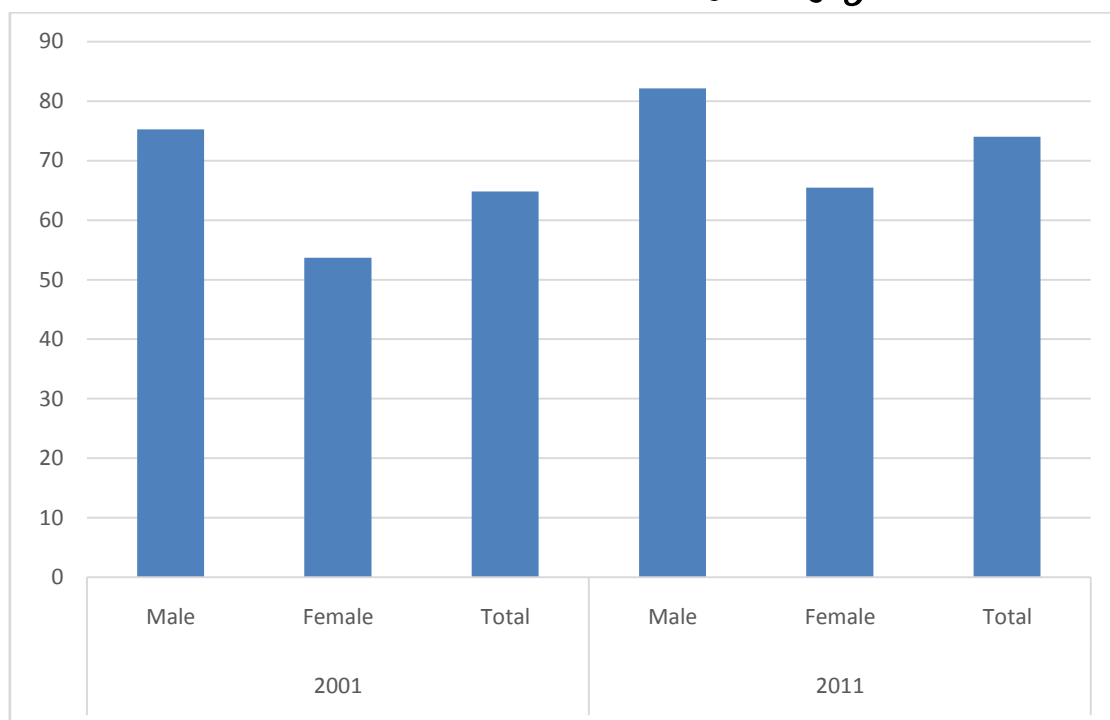


Table 2 shows the zone-wise enrolment in universities and colleges. It is clear from the table that maximum enrolment of women is in the Goa (60 percent) state of western zone followed by kerala (58.24 percent) in southern zone. Meghalaya, Himachal Pradesh and Nagaland have percentage of women more than 50 percent. The states which are

having percentage of women enrolment less than national average i.e. 43.28 are Bihar, Chattisgarh, Jharkhand, Odisha, West Bengal, U.P., Arunachal Pradesh, Andhra Pradesh, Madhya Pradesh and Rajasthan. In eastern zone, women enrolment is very poor as all the states have women enrolment in higher education less than national average.

Table 2 Zone wise Students Enrolment in Universities and Colleges in 2012-13

Zone	States	Total Enrolment	Women Enrolment	Percentage of women
Eastern	Bihar	1033946	398408	38.53
	Chhattisgarh	385939	143379	37.15
	Jharkhand	440437	177383	40.27
	Odisha	587083	240433	40.95
	West Bengal	1242786	506391	40.75
Northen	Haryana	514755	223118	43.34
	Himachal Pradesh	147646	74812	50.67
	Jammu & Kashmir	213161	102154	47.92
	Punjab	519650	257274	49.51
	Uttar Pradesh	3365847	1428778	42.45
	Uttaranchal	306221	135014	44.09
North-East	Arunachal Pradesh	20495	7599	37.08
	Assam	304471	146833	48.23
	Manipur	50589	23202	45.86
	Meghalaya	47224	25414	53.82
	Mizoram	16901	8082	47.82
	Nagaland	23611	11948	50.60
	Tripura	46224	20079	43.44
	Sikkim	12241	5008	40.91
Southern	Andhra Pradesh	2014324	801091	39.77
	Karnataka	1074652	502941	46.80
	Kerala	512445	298430	58.24
	Tamil Nadu	2038682	1002956	49.20
Western	Goa	27792	16760	60.31
	Gujarat	1126391	490478	43.54
	Madhya Pradesh	1191799	448834	37.66
	Maharashtra	2457257	1076786	43.82

Zone	States	Total Enrolment	Women Enrolment	Percentage of women
	Rajasthan	1350685	530550	39.28
	Total	21501154	9306403	43.28

Source: Ministry of Human Resource and Development, Government of India, 2013-14

The total enrolment in higher education has increased from 0.21 million in 1950-51 to about 22 million in 2011-12, while the GER has increased from 0.40 percent in 1950-51 to 19.4 percent in 2012-13. In 2015-16, with a Gross Enrolment Ratio (GER) of 24.5 percent, India is still below the world average of 27 percent, especially with that of other emerging countries such as China (26 percent) and Brazil (36percent).

Table explains the Gross Enrolment Ratio (GER) in higher education in India. The GER in higher education at 24.5% leaves a vast proportion of eligible population out of the system. The Indian GER is significantly less than comparable figures in other developed and emerging nations such as the USA (89), Russia (76), the United Kingdom (59), Malaysia (40) and China (24)16. While the central government has set a target of achieving a GER of 30% by 2020, it would require massive efforts in terms of strengthening and creating the infrastructure, human resources and other required inputs.

There are significant regional variations in enrolments in higher education across the country, which has been duly highlighted in RUSA. For instance, most of the southern states have a high GER, while eastern and north eastern states like Bihar, Chhattisgarh, Jharkhand, West Bengal, Assam, Nagaland and Tripura have a relatively less GER due to low institutional density. The public expenditure on higher education is also highly uneven amongst states; the states with lower capacities and poorer infrastructure may have to allocate more to catch up to the leading state and the national targets. There is clearly a need to give special focus on states with lower GER in terms of increasing the institutional reach and providing financial assistance to increase spending on higher education. GER among females is more than that of males in many states like Sikkim where it is maximum followed by Himachal Pradesh, Kerala, Punjab, Haryana and Jammu and Kashmir (Table 3).

Table 3 Gross Enrolment Ratio in Higher Education (18-23 years)

Zone	States	All Categories		
		Male	Female	Total
Eastern	Bihar	15.8	12.6	14.3
	Chhattisgarh	15.7	14.6	15.1
	Jharkhand	16.2	14.8	15.5
	Odisha	21.5	17.8	19.6
	West Bengal	19.1	16.2	17.7
Northen	Haryana	25.9	26.4	26.1
	Himachal Pradesh	29.6	35.5	32.5
	Jammu& Kashmir	23.5	26.2	24.8
	Punjab	25.8	28.5	27.0

Zone	States	All Categories		
		Male	Female	Total
	Uttar Pradesh	24.2	24.9	24.5
	Uttrakhand	33.6	32.9	33.3
North-Eastern	Arunachal Pradesh	28.8	28.5	28.7
	Assam	16.2	14.7	15.4
	Manipur	35.3	33.1	34.2
	Meghalaya	20.4	21.1	20.8
	Mizoram	25.2	23.0	24.1
	Nagaland	14.2	15.6	14.9
	Tripura	19.9	14.0	16.9
	Sikkim	36.7	38.5	37.6
Southern	Andhra Pradesh	34.7	26.9	30.8
	Karnataka	26.3	25.9	26.1
	Kerala	26.6	35.0	30.8
	Tamil Nadu	46.3	42.4	44.3
Western	Goa	25.0	30.9	27.6
	Gujarat	22.9	18.3	20.7
	Madhya Pradesh	21.1	17.9	19.6
	Maharashtra	31.9	27.6	29.9
	Rajasthan	21.8	18.5	20.2
All India		25.4	23.5	24.5

Source: All India Survey on Higher Education in India (AISHE), 2015-16

Females and Higher Education

Percentage enrolment in various programmes in higher education is shown in table 4. The table reveals that maximum enrolment has been seen in Bachelor of Arts i.e. 28.44, in case of females it is almost one third of the total enrolment. Enrolment in all the courses of Arts (B.A., M.A. and B.A. Hons) is 38.40 percent. Variations in enrolment of the courses has been seen that female enrolment is more in traditional courses like all the Arts courses then B.Sc. (12.22), B.Ed., M.Sc. (2.85) and M.Com(1.33), more than of males. Figure 2 shows that in professional courses like B. Tech, males' enrolment is more than that of females. It is 8.68 percent of males, in case of females it is just 3.78. Enrolment in B. E. again shows the same scenario that males' enrolment in this course is 7.61 and females' is 3.57 percent. In MBA, MCA, B. Sc. Hons, BBA and Law, enrolment of males is more than females. In other courses (certificate, diploma etc) enrolment of males if 19.47 percent and females' is 15.55 percent. Co-efficient of inequality is calculated, for traditional courses this co-efficient has value less than one, it is the least for B.Ed. Maximum inequality can be seen in B. Tech i.e., 2.29 followed by B.E. and law courses with coefficient of inequality 2.13 and 1.94 respectively.

Table 4 Percentage Enrolment in various Programmes in Higher Education 2014-15

Programme	Male	Female	Total	Co-officiants of Inequality
B.A.-Bachelor of Arts	24.60	32.96	28.44	0.75
B.Sc.-Bachelor of Science	11.44	12.22	11.80	0.94
B.Com.-Bachelor of Commerce	10.96	10.77	10.87	1.02
B.Tech.-Bachelor of Technology	8.68	3.78	6.43	2.29
B.E.-Bachelor of Engineering	7.61	3.57	5.75	2.13
M.A.-Master of Arts	3.27	5.36	4.23	0.61
B.A.(Hons)-Bachelor of Arts (Honors)	3.31	4.23	3.73	0.78
B.Ed.-Bachelor of Education	1.37	2.85	2.05	0.48
M.Sc.-Master of Science	1.33	2.15	1.70	0.62
M.B.A.- Master of Business Administration	1.89	1.28	1.61	1.48
B.C.A.-Bachelor of Computer Applications	1.53	1.25	1.40	1.22
B.Sc.(Hons)-Bachelor of Science (Honors)	1.37	1.25	1.32	1.09
B.B.A.-Bachelor of Business Administration	1.28	0.91	1.11	1.41
M.Com.-Master of Commerce	0.84	1.33	1.07	0.63
L.L.B.-Bachelor of Law or Laws	1.05	0.54	0.82	1.94
Others	19.47	15.55	17.67	1.25

Data Source: Ministry of Human Resource Development, Government of India
(website: <http://mhrd.gov.in/statist>)

Figure 2

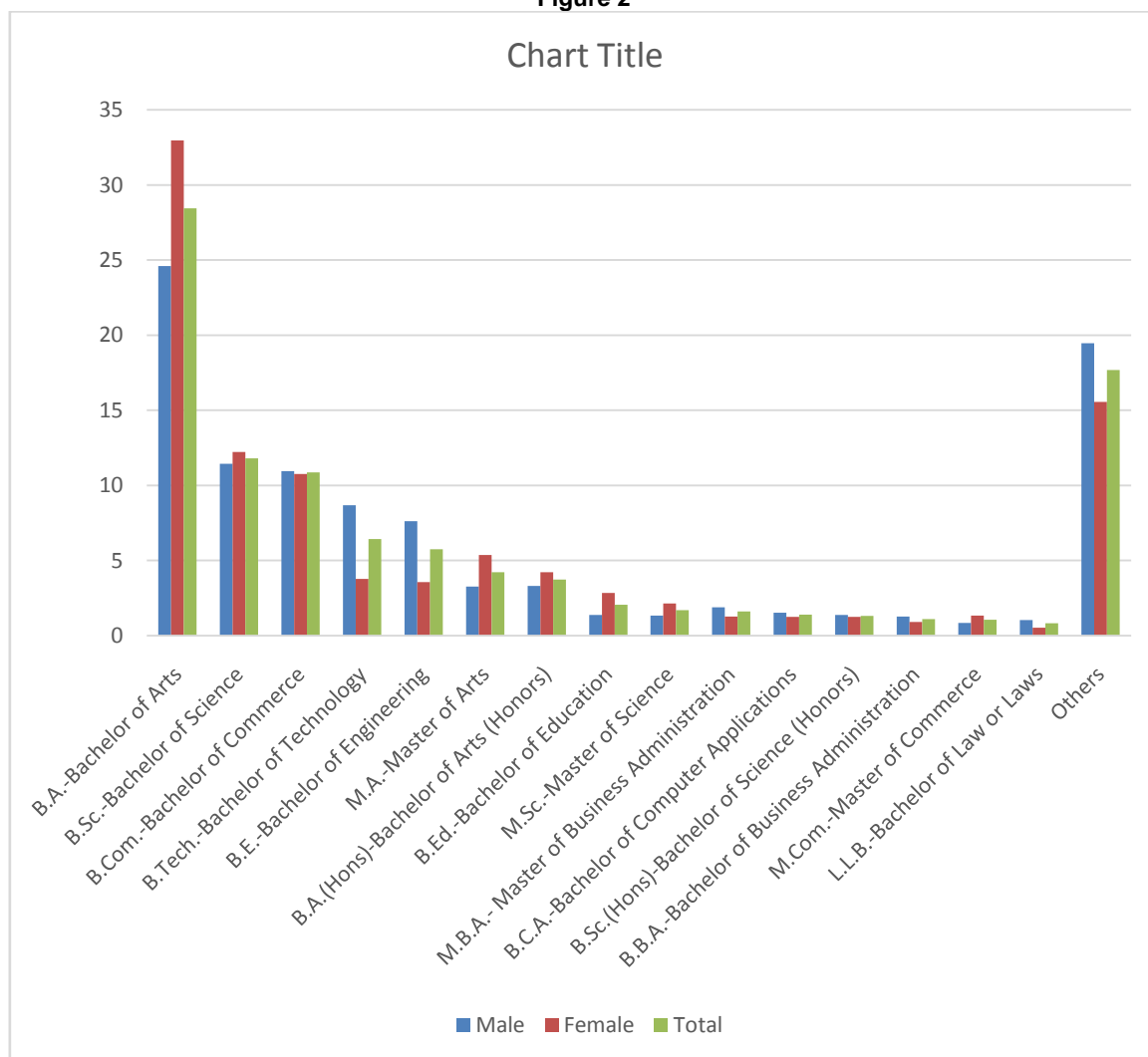


Table 5 shows the enrolment of students in academic and professional courses in 2015-16. Three types of institutions are taken i.e. Government, Government Aided and Private, to see the enrolment of students in under-graduate and post-graduate courses. First we take under-graduate course, enrolment of student in academic courses is the highest in Government institutes i.e. 9411389 followed by private and Government Aided with 5880600 and 4325950 respectively. Among professional course,

private institutes have the highest enrolment i.e. 5721298 followed by Government (1908363) and Government Aided (757819), almost three times enrolment is more in private institutes than Government institutes. In the post-graduate course, enrolment is the highest in the Government institutes followed by Government Aided and private institutes. In professional courses, enrolment is the highest in private institutes followed by Government and Government aided.

Table 5 Enrolment of Students in Academic and Professional Courses in 2015-16

Level	Management	Academic Courses			Professional Courses		
		Male	Female	Total	Male	Female	Total
Undergraduate	Government	4804109	4607280	9411389	1133482	774881	1908363
	Government- Aided	2036170	2289780	4325950	421130	336689	757819
	Private	2916609	2963991	5880600	3628496	2092802	5721298
Post- Graduate	Government	708625	964413	1673038	409274	316850	726124
	Government- Aided	153667	269403	423070	55691	72421	128112
	Private	139813	210610	350423	533839	419571	953410

Source: All India Survey of Higher education 2015-16

The gross enrolment ratio in higher education of all categories students has been shown in table 6 and figure 3. The table revealed that the gross enrolment ratio in higher education has increased since 2005. The total gross enrolment ratio was 11.6 during 2005, it increased to 12.4, 13.1, 13.7, 15.0 during 2006-07, 2007-08, 2008-09 and 2009-10 it finally reached to 24.5 in 2015-16. The gross enrolment ratio of both males and females have

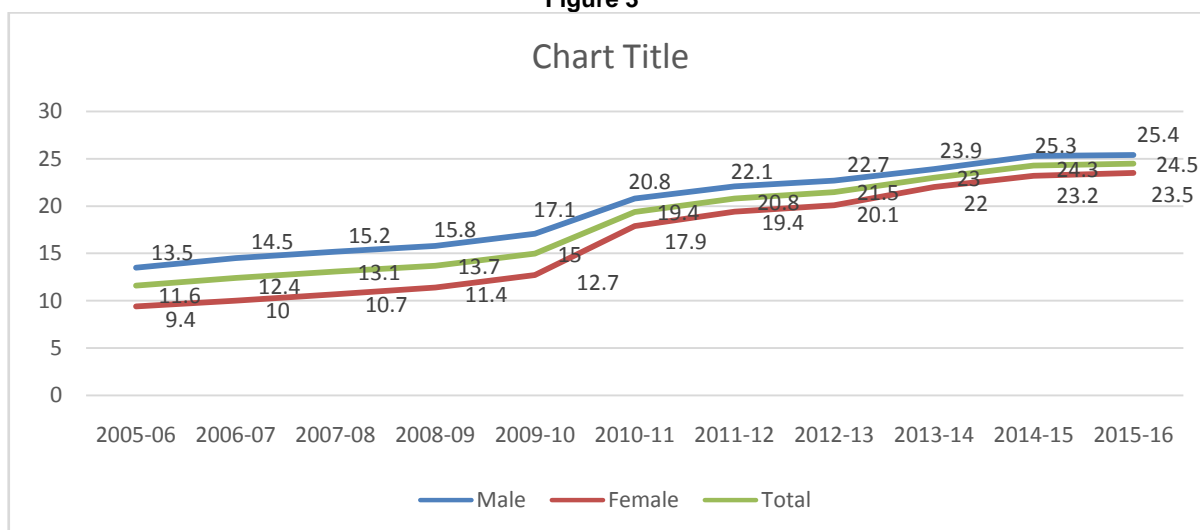
increased from 2005-06 to 2015-16. It can be seen from the table that gross enrolment ratio of females is less than males in all the years since 2005-06 to 2015-16. The gross enrolment ratio was 13.5 of males and 9.4 of females in 2005-06, and it became 25.4 of males and 23.5 of females. Major change can be seen in 2010-11 when female GER rises at 17.9 from 12.7 and in males it rises to 20.8 from 17.1 in 2009-10.

Table 6 Gross Enrolment Ratio (GER) in Higher Education (18-23) of all categories

Year	Male	Female	Total
2005-06	13.5	9.4	11.6
2006-07	14.5	10.0	12.4
2007-08	15.2	10.7	13.1
2008-09	15.8	11.4	13.7
2009-10	17.1	12.7	15.0
2010-11	20.8	17.9	19.4
2011-12	22.1	19.4	20.8
2012-13	22.7	20.1	21.5
2013-14	23.9	22.0	23.0
2014-15	25.3	23.2	24.3
2015-16	25.4	23.5	24.5

Source: Compiled from the Various Reports of All India Survey of Higher Education (AISHE).

Figure 3



Gross enrolment ratio of Scheduled Caste students has been shown in table 7. The table reveals that the gross enrolment ratio of males is continuously increasing from 2005-06 to 2015-16 except the year 2008-09. During 2005-06 the GER was 10.1 which increase to 20.8 in 2015-16. The gross enrolment ratio of females is increasing from 2005-06 to 2015-16 except the year 2008-09 when it slightly decrease from 8.6 to 8.30. It can be seen from the table that the gross enrolment ratio of females is less than from males since 2005-06 to 2015-16. On the other hand the, the total gross enrolment ratio is also increasing continuously from to 2005-06 to 2015-06 except the year 2008-09. The GER was 8.4 in 2005-06 which increase to 19.9 in 2015-16, that GER of all the students has raised to about 2.5 times, in case of males, it has increased to more than double (in 2005-06 it was 10.1 and in 2015-16 it is 20.8) and in females it has increased more than thrice from just 6.4 to 19).

Table 7 Gross Enrolment Ratio (18-23 years) of Scheduled Caste Students

Year	Male	Female	Total
2005-06	10.1	6.4	8.4
2006-07	11.5	6.9	9.4
2007-08	13.2	8.6	11.0
2008-09	12.5	8.3	10.5
2009-10	13.0	9.0	11.1
2010-11	14.6	12.3	13.5
2011-12	15.8	13.9	14.9
2012-13	16.9	15.0	16.0
2013-14	17.7	16.4	17.1
2014-15	20.0	18.2	19.1
2015-16	20.8	19.0	19.9

Source: Compiled from the various Reports of All India Survey of Higher Education, MHRD

The gross enrolment ratio of scheduled tribe students has been shown in the table 8. The table reveals that there are fluctuations in the gross enrolment ratio of male, it was 8.6 in 2005-06 which increased to 13.1 in 2008-09, it decreased to 12.4 in 2012-13 and again increased to 15.6 in 2015-16. Whereas, the gross enrolment ratio of females is continuously increasing from 2005-06 to 2015-16, it was 4.7 in 2005-06 which increased to 9.8 in 2012-13 and further increased to 14.2 in 2015-16. On the other hand the total gross enrolment ratio is increasing continuously from 2005-06 to 2015-16 except the year 2008-09 and 2011-12. The gross enrolment ratio was 6.6 in 2005-06 and become 14.2 in 2015-16. Scheduled tribes students are lagging behind if we compare them with general and Scheduled Castes students. No doubt, increase can be seen in male, female and total GER i.e., in 2005-06 male GER was 8.6 in 2015-16 it is 15.6, in case of females it was just 4.7 risen to about three folds in 2015-16. Even females are lagging behind their male counterparts, females have GER 12.9 in 2015-16 which males have attained in 2010-11.

Table 8 Gross Enrolment Ratio in Scheduled Tribe students (18 – 23 years)

Year	Male	Female	Total
2005-06	8.6	4.7	6.6
2006-07	9.5	5.5	7.5
2007-08	12.4	6.7	9.5
2008-09	11.60	6.70	9.20
2009-10	13.1	7.5	10.3
2010-11	12.9	9.5	11.2
2011-12	12.4	9.7	11.0
2012-13	12.4	9.8	11.1
2013-14	12.5	10.2	11.3
2014-15	15.2	12.3	13.7
2015-16	15.6	12.9	14.2

Source: MHRD, Department of School Education and Literacy Educational Statistics at a Glance, GOI 2016 and All India Survey of Higher Education Various Issues

Social disparities are clearly visible in the tables of GER, Scheduled tribe students have 14.2 GER in 2015-16, the Scheduled Castes students had it in 2011-12, more than this GER was attained by all categories in 2009-10. The all categories have GER (in 2010-11) about same of Scheduled castes students (in 2015-16). Disparities are there category-wise, but within each category gender disparity can be seen.

The number of females per hundred male enrolled in higher educations has been shown in table 9 The table reveals that the females enrolled in higher education has increasing continuously from 2006-07 to 2013-14. In 2005-06 the 62 females enrolled in higher education per hundred males and remain 62 in 2006-07 after that start increasing and become 85 in 2014 -15.

Table 8 Number of female per Hundred Male Enrolled in Higher Education

Year	Higher education
2005-06	62
2006-07	62
2007-08	63
2008-09	65
2009-10	67
2010-11	78
2011-12	80
2012-13	81
2013-14	85
2014-15	85
2015-16	85

Source: MHRD, Department of School Education and Literacy Educational Statistics At a Glance, GOI 2016 and All India Survey of Higher Education Various Issues

The gender parity index in higher education of all categories students has been shown in table 10. The gender parity index has 0.69 in 2005-06 and remains 0.69 in 2006-07 after that it continuously increasing till 2013-14, become 0.92 and remains constant for the year 2014-15 and 2015-16. Still parity has not been achieved.

Table 10 Gender Parity Index (GPI) in higher education of all categories students

Year	GPI
2005-06	0.69
2006-07	0.69
2007-08	0.70
2008-09	0.72
2009-10	0.74
2010-11	0.86
2011-12	0.88
2012-13	0.89
2013-14	0.92
2014-15	0.92
2015-16	0.92

Source: MHRD, Department of School Education and Literacy Educational Statistics At a Glance, GOI 2016 and All India Survey of Higher Education Various Issues

Conclusion

The purpose of education is not merely the attainment of knowledge. It should provide secure and gainful employment opportunities to people. At low levels of literacy and education, women may be engaged in work to a substantial extent but without education, they would not be able to obtain employment characterized by independent income earning opportunity, stability and job security and upward mobility. Opportunities for employment would no doubt, depend on the pace and pattern of economic growth and development, but lack of education and requisite skills may still prevent women from taking advantage of them.

Suggestions

The main task of education sector is to produce high quality human resources. In fact this is a great economic challenge as it involves providing of huge amount of resources to education sector. Since education is a vital investment of development, it is suggested that different states should be reorganized on the basis of population primarily and colleges and institutes should be established there as per there

requirement. Higher education can be increased if students are literate to secondary or graduate level so schools should be according to need and easily approachability. Number of girls' schools, girls' colleges and female teachers should increase. For removal of gender disparity, there is a need of structural changes such as removal of cultural barriers against women's access to education, employment and equal involvement in family decision making. To increase the number of girl students the need of hour is to motivate them to get enrolled in courses by governments through providing them with scholarships, more seats in courses, free books and hostel facilities.

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