

Gender Segregation by Disciplines in Higher Education in India

Indal Kumar*

Abstract

Equity in higher education depends not only on accessibility of different identities- minorities, women, economically or socially backward communities or physically challenged persons to higher education, but also on which disciplines these groups get access. The issues of such segregation (enrolment by discipline) in higher education enrolment is less dealt in research as compared to enrolment in aggregate. Taking the case of gender, women are more concentrated in medicine, arts and humanities than science & technology across the world. Researchers often explain through 'Care-technical divide' or socialization theory and human capital theory. This article looks at horizontal perspective of gender equity in higher education by discipline in India and validates the existence of such segregation through National Sample Survey (2014) data. The analysis concludes that women are equally participating in arts and dominating in education and medicine but still lagging in rest of the subjects, drastically in engineering in India. Even in arts and education, such segregation is varying across states, region, religion and social groups. The result of multinomial logit regression also infers that even after controlling for other factors, females are more likely to take arts than science or commerce.

Key words- equity in higher education, gender segregation, care-technical divide, socialization theory, human capital theory.

*Faculty of Commerce, Sarala Birla University, Ranchi, Jharkhand.

*Corresponding author: Indal Kumar, Faculty of commerce, Sarala Birla University, Ranchi, E -mail: indal.kumar@sbu.ac.in

Introduction

One of fundamental goal of higher education is to bring about gender equity which in turn, would ensure 'gender justice' in social life. When women get access to higher education, they get enrolled in such subjects that either promotes the culture of the society, like, arts and humanities or those market-oriented subjects in which women are specially required to serve the society -medicine and education. It may be due to their own preferences due to differential socialization as explained by socialization theory¹(Jenkins,2008). Further, 'human capital theory' (Baker, 1985) asserts that women's education choices are influenced by their expectations to coordinate jobs with family obligations. This happened worldwide but in different era; hence subjects like arts & humanities, education and medicine considered as feministic subjects while physics, engineering and other technical or professional courses are assumed to be masculinist subjects. In the context of Indian society which is based mostly on patriarchal system, the proportion of women in higher education in 1951 was 10.9% at aggregate level but varied among subjects²-arts (16%), medicine (16.3%), education (32.4%) while less than 1% in engineering and commerce. Among 10.9 % of women in higher education, 68% were enrolled in arts. In 2002-3 women participation in higher went up to 40.1% but their disproportionate enrollment across subjects remained almost similar. Thus, it has been observed that gender disparity in higher education has been shown convergence in overall enrollment and but dispersal across the disciplines over time. Most literature dealing with such segregation based on evidences from macro level data which had little elaboration of gender disparity across states, religion, region(rural-urban) & social groups and so they have inadequately dealt the gender disparity in changing scenario over time.

Objectives

The broad objectives of the article are to analyze the gender segregation in higher education by disciplines in various dimensions-namely; states, social groups, region and religions and to find out the how far this segregation varies across these dimensions. In India, education is a subject of concurrent list but heavily depends the state government policies and expenditure on education.

¹ Socialization theory focuses on factors believed to influence both boys and girls' preferences and argued that individuals are socialized into their gender roles.

² Figure are based on UGC annual report quoted in Channa, K. (2007). Globalization, higher education and gender: Changing subject choices of Indian women students. *Economic and Political Weekly*, 42(7), 590-598.

So, states also play key role in determining the supply of the volume of higher education and their types. Similarly, degree of gender stereotyping varies among social groups, regions and religions.

Literature Review

In India, after independence, national education indicators suggest that gender disparity has narrowed down. However, female participation kept decreasing in higher stages of education (Ahmad, 1979). In term of rural-urban, gender disparity in educational transition increases in rural area but remains persistent in urban area for aged 18+ but for younger generation (aged cohort 18-22); this disparity remains persistent in rural area while declines in urban area (Hussain & Sarkar, 2011). For higher education specifically, proportion of women in overall higher education was 10.9 per cent in 1950-1, that rose to 40.04 per cent in 2002-03. But in terms of disciplines, the issue of masculinity is persistent (Channa,2000) though little narrowed (Channa,2007) analogous to the situation in eight European countries(Barone,2011). Rising female participation due to massive but skewed systematic expansion of higher education across region and states has resulted in skewed enrolment in various discipline across gender and across states within same gender (Sahini &Sankar 2012). Major reasons for such skewedness is government emphasis on providing merely access to higher education, not of differential programs in different subjects (Majrekhar,2003) and also social control of girls from demand side(Channa,2001). The gendered higher education is often linked to predominant differentiated nature of work participation in literature worldwide. For example-probability of male to leave the academia for professional jobs is greater than female after doctorate degree in Sweden (Silander et al,2013). Similarly, probability Indian women labour force participation increase with labour market flexibility and expected wage (Das et al,2014). These are some reliable reasons that leads to differential subject choice of male and females in higher education.

Data source and Methodology

The analysis in this paper is based on NSSO 71st round data, namely “Social Consumption: Education (2014)” which provides detail information on education of those sampled individuals who are aged between 5 to 29 years and currently attending educational institutions. Using this data, in line with theme of the paper, Gender disparity index (No. of male/No. of female) in higher education has been obtained to find the horizontal gender disparity in states of India. Further, the proportion of male and females’ enrolment are calculated for ‘graduate & above

level' courses in the streams of arts, commerce, science, medicine, engineering, management, education, chartered accountancy (CA) & allied, information technology (IT) and Others across social groups, region and religion at India level. Then, gender gap has been obtained by subtracting proportion of female (in percentage) from the that of male category. Finally, the multinomial logit model has been used to access the role of gender, after isolating the impact of other causal factors determining subject choice of a student in higher education. This has been done only for the general subjects- Arts, Science and Commerce.

Gender Disparity in Higher Education by Disciplines

In this section, the gender segregation in higher education across discipline in India has been deconstructed over states, region(rural-urban) and religions to have detail view of variation of the segregation over these dimensions.

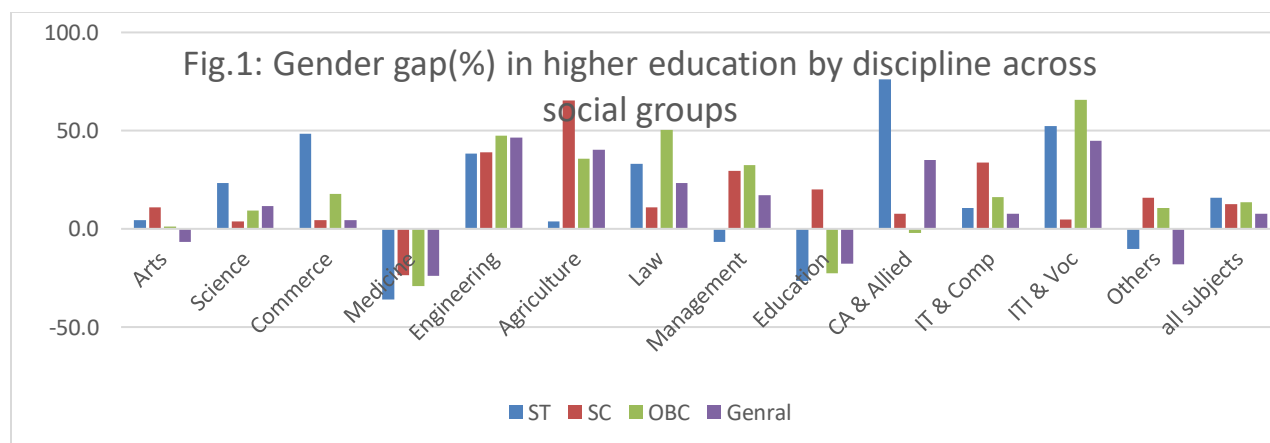
(I)State-wise gender disparity in selected disciplines

There is geographical variation supply of volume and type of higher education, discrimination against girls that can be seen in intrahousehold allocation of resources to girls and child sex ratio etc. It means degree of socialization by inculcating them about their family duties and social norms etc. varies in different region of India and so does in their choice in educational attainment. Gender disparity Index (see table 1 in appendix) shows state-wise picture of subjects of masculinity and feministic. At National level, medicine (0.6) is most feministic subject while engineering (2.7) is most masculinist subject. In arts, proportion of female and male are equal while in other feministic subjects like-education (0.8) and medicine (0.6) female are dominating. The share of women in arts is more or less evenly distribute across states except Haryana, Himachal Pradesh and some north east states where still male are dominating but opposite scenario can be seen in Kerala (0.4), Tamil Nadu (0.4) and Telangana (0.2). In case of pure science, greater dominance of male can be seen in northern and north-eastern states where the supply of technical/professional courses is low and per capita income of these states are also low. It means, in case of, lack of supply; male prefer to opt science if not the technical or professional courses. Similar pattern can be seen in case of commerce except some richer states of Himachal Pradesh, Goa and Puducherry. In medicine, female by far, outnumber male with three exceptional states- Jammu & Kashmir, Uttarakhand and Orissa while in engineering male dominates with no exception. The management and information Technology (IT) courses which can be considered as benchmark for indication of gender discrimination because both are

relatively latest profession courses has male dominance. Male in these sectors are leading at aggregate level in higher education. Share of women in Education across states includes two extreme cases- on the one hand, states where it is highly feministic-Himachal Pradesh, Punjab, Manipur, Assam, Gujrat, Telangana; on the other hand, states where it is highly masculinist-Jharkhand, Chhattisgarh, Uttarakhand, Orissa, Madhya Pradesh and West Bengal. Hence, it can be concluded that at aggregate level medicine, education and arts are feministic subjects at India level but not in all states.

(II) Gender disparity in higher education by discipline across social groups

The degree of discrimination against girls not only varies across geography of India but also among the caste and religion of the same region. To access the disparity, gender gap in each discipline has been obtained by subtracting proportion of male enrolment from that of female. Hereby, positive gender disparity shows that males are dominant and vice-versa. The direction and magnitude of gender disparity varies among social groups by subjects. In arts male share in enrolment is higher by 4.4, 11.1, and 1.2 percentage points for ST, SC and OBC respectively while in General class, female share is greater by 6.7 percentage points (Fig.1).



Source: author's calculation from reference table A1 (see appendices).

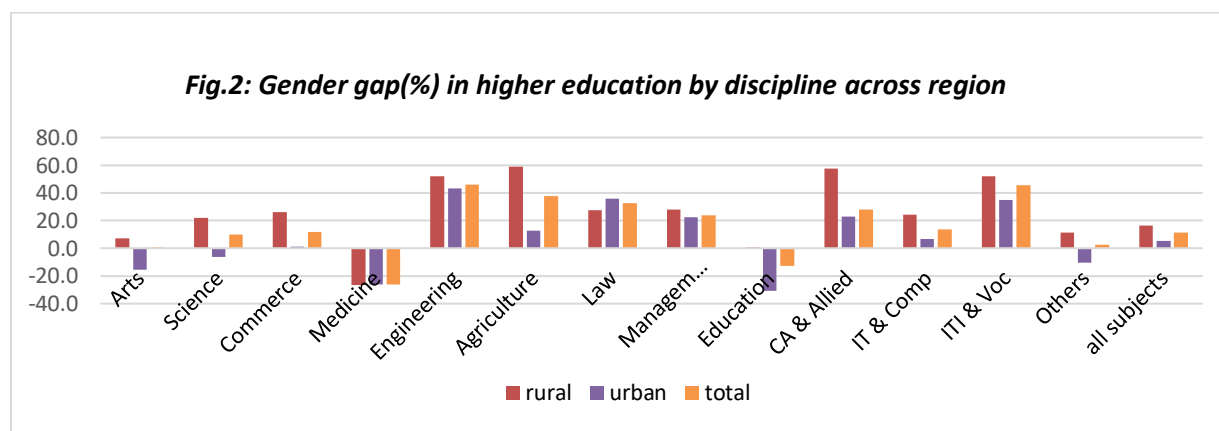
Note: Gender gap depicted in figure 1 to figure 3 has been obtained by subtracting proportion of female (in percentage) from the that of male category

In case of science and commerce, male has higher participation in all social groups and further, ST and SC are most and least discriminatory social groups. In Medicine which has been assumed to be a feministic subject, females dominate in all social groups; increase ranging between 23.4 percent to 36 percent. Surprisingly, in Education, men dominate in SCs while in management and CA & allied courses female dominate in STs and OBCs categories. Law and agricultural have smaller share in higher education but are masculinist subjects. Male dominance in

agriculture is highest among SCs and in Law, it is among OBC categories.

(III) Gender disparity in higher education by discipline across region

Most literature have outlined larger gender disparity in rural area than urban counterpart at any level of education due to conservative mentalities of rural societies towards women education, careers and social duties. Additionally, girls lack the professional and role models in their family in rural area but daughters of professional in urban get support from parents to acquire any profession i.e. any stream of education. In urban region, women are also leading in arts, science by 15.4 and 6.2 percentage points, apart from conventional courses medicine and education in which their representations exceed by 26.2 and 30.2 percentage respectively than males. But in rural area women are leading only in medicine by same margin as of in urban area and equalizing in arts with male (fig2). On the other hand, Engineering, agriculture, Law, management, CA& allied and IT all are male dominant subjects in both urban and rural areas but less disparity in urban area except law.

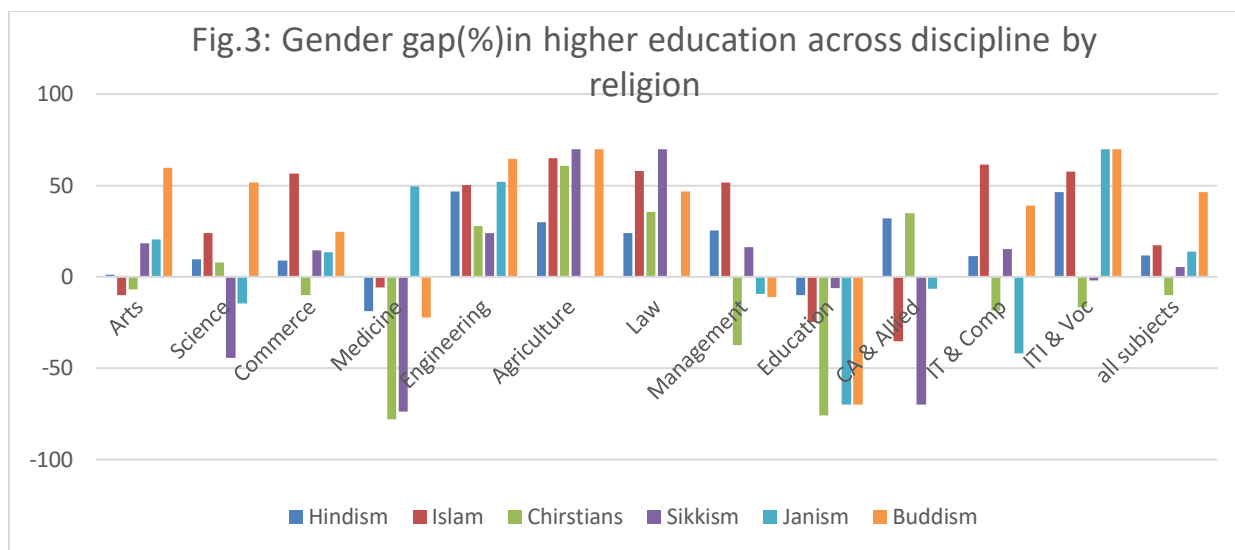


Source: Author's compilation from reference table 2 in appendices.

In aggregate level, arts shows the full parity while medicine and education witness the dominance of females; validating the concepts of gender segregation of subjects in higher education.

(IV) Gender disparity in higher education by discipline across religions

The segregation of subjects is more ambiguous among religions except the two feministic courses, namely medicine and education in which female are dominating in all religion by margin of 6% to ~70% ** in both courses. In arts, females are matching in enrolment to male in Hinduism, leading in Islam & Christianity but lagging in Sikhism and Jainism by around 20%.



Source: Author 's calculation from reference table 3

Even in case of Engineering gender gap in Hinduism, Islam & Jainism (on average 50%) is almost twice than in Sikhism & Christianity (on average 26%). Christians and Jain's women are more progressive in new professional courses-management and ITs while Sikhs women are more progressive in conventional courses-namely, science and CAs & allied.

Role of Gender in Segregation among General Subjects of Higher Education

Gender of a student is one of the most important individual characteristics that affect one's subject choice in higher education apart from other family's socio-economic characteristics and type of educational institutions. To access the impact of gender as a contributing factor, it is important to isolate the impact of other factors responsible for choice of a particular subject of higher education by a student. On the basis of available literature, the study identifies following vital explanatory factors- Per capita household monthly consumption expenditure (PMCHE), education of household's head, household expenditure on education, region of residence(rural/urban), sex, current age of student, type of educational institutions, and religion. Multinomial logit model is taken for comparative measure of probability of enrolment in various stream of general subjects- arts, commerce and Science (as categorized in in NSSO data).

Our descriptive results show (table B in appendices) that those who are taking science and commerce have higher per capita monthly consumption by Rs.400 and Rs.700 than those of arts. It means households with higher PHMCE prefer to commerce followed by science. We find no significant difference in mean year of schooling (~12.5) of head of households among the three disciplines. Average house-holds' expenditure on arts isRs.11560 which is RS.12260 and

Rs.7240 less than that of science and commerce respectively. The annual households' expenditure on education and course fess are often highly correlated. So, the course fee is dropped as an explanatory variable in regression. Further, the mean age of students attending arts is greater by one years than science and half a year of those of commerce. The means of categorial variables are also varied among the three subjects showing that are also affecting the choice of enrolment of a person in any discipline.

It can be seen in regression table 4 that household head education is not a contributing factor in determining factors of subjects in higher education and similarly free education except for commerce. One possible reason may be that we have not taken what kinds of education the households' head possess with same year of schooling. Among the significant factors, rise in per capita consumption capacity and higher household expenditure on education decrease the chance of enrolling in arts but increase in science.

Table4: Marginal effects of explanatory variables in multinomial logit regression

<i>Observations=6994,</i>		Arts		science		commerce	
<i>LR (chi 2) =1228</i>							
<i>Pseudo R² = 0.087</i>							
Variables		M.E.	Z value	M.E.	Z value	M.E.	Z value
<i>Female (Male@)</i>		0.10	7.8**	-0.03	-2.7**	-0.07	-6.9**
Control Variables							
<i>Household's characteristics</i>							
Per capita monthly household consumption expenditure ('000)		-0.03	-5.1**	0.00	0.8	0.02	6.5**
Household head years of schooling		0.00	-0.3	0.00	0.4	0.00	0.0
expenditure on education ('000)		-0.01	-14.6**	0.01	15.5**	0.00	8.3**
Urban (Rural@)		-0.14	-10.3	0.01	1.2	0.13	11.5**
<i>Individual characteristics</i>							
Age		0.03	9.4**	-0.02	-6.4**	-0.01	-4.9**
Married (Never married@)		0.13	4.4**	-0.10	-4.6**	-0.03	-1.2
<i>Type of educational Institutions</i>							
Private aided (Government@)		-0.12	-7.7**	0.04	2.7**	0.09	6.0**
Private unaided		-0.13	-7.6**	0.08	5.4**	0.05	3.2**

Education is free (yes@)	0.02	1.1	-0.04	-2.0*	0.02	0.9
<i>Religious factors</i>						
Muslim (Hindu@)	0.08	4.1**	-0.02	-1.2	-0.06	-4.0**
Christians	0.09	3.7**	-0.08	-4.1**	-0.02	-1.0
Sikhs	0.21	5.2**	-0.13	-5.3**	-0.08	-2.6*
Others	0.00	0.0	-0.02	-0.6	0.02	0.5

Source: Author's calculation from NSSO 71st round data. @ reference category, M. E.=Marginal effects

The residence of household is strongest household's level factors that affects such segregation of subjects. A student of urban resident is more probably to be enrolled in Commerce than arts. Older age and marriage of individuals also negates the probability to be enrolled in science. For religion, we have mixed kind of results as some coefficients are statistically insignificant *Our main concern for the regression to see the impact of gender on segregation of disciplines is highly significant and robust after controlling the other factors. A female student is 10% more likely to be enrolled in arts while 3% and 7% less likely to be enrolled in science and commerce respectively.* It seems that Commerce is more masculinist subjects than Science. One possible reason is larger impact rural female on aggregate level who prefer science to commerce in comparison to urban females.

Conclusion and Recommendations

The results of descriptive analysis clearly show the gender segregation in disciplines in higher education in India. Yet, subjects like arts, medicine and education seem to be feministic subject but pure sciences, engineering, Law, and even ITI & other similar vocational courses seem to be masculinist subjects. Furthermore, there is clear evidence of north-south divide in female enrolment in various subjects. Gender disparity in pure sciences, engineering, medicine is much less in southern region than north counterpart and so does in rural area than urban counterpart. One reason cited in literature is the *skewed supply of higher education* itself segregated across states at in India. Some literature also suggest that women find *less favorable job market environment (flexible working conditions, decency and safety at workplace)* in career based on masculinist courses. These two factors-*skewed supply of higher education across Indian states & less favorable working condition* are important policy instruments for achieving gender equity in higher education among disciplines. The regression result validates that gender is one of most significant factors contributing to segregation of subjects even after isolating the impact of other

factors. So, progressive social forces should overcome the socio-cultural barriers that prevent women from taking so called 'masculinist' subjects.

References

Ahmad, K. (1979). Equity and women's higher education. *Journal of Higher Education*, 5(1), 33-49

Becker, G. S. (1985). Human capital, effort and the sexual division of labour. *Journal of Labour Economics*, 3(1), 33-58

Barone, C. (2011). Some things never change: Gender segregation in higher education across eight nations and three decades. *Sociology of Education*, 84(2), 157-176.

Channa, K. (2000). Treading the hallows: Women in higher education in India. *Economic Political Weekly*, 35(12), 1012-102

- (2001). Hinduism and female sexuality: Social control and education of girls in India. *Sociological bulletin*, 50(1), 37-63.

- (2007). Globalization, higher education and gender: Changing subject choices of Indian women students. *Economic and Political Weekly*, 42(7), 590-598.

Das, S. et al (2015). Women workers in India: Why so few among so many, IMF working paper, WP/15/55

Jenkins, R. (2008). *Social Identity: key issues*, Routledge, 3rd edition, London and New York

Husain, Z., & Sarkar, S. (2011). Gender Disparities in Educational Trajectories in India: Do females Become More Robust at Higher Levels? *Social indicators research*, 101(1), 37-56.

Manjrekar, N. (2003). Contemporary Challenges to Women's Education: Towards an Elusive Goal? *Economic and Political Weekly*, 4577-4582.

NSSO (2014). Consumption: Education, NSS 71st round, Report No. KI (71/25.2), Jan-June 2014, Government of India. New Delhi.

Sahni, R., & Shankar, V. K. (2012). Girls' higher education in India on the road to inclusiveness: on track but heading where? *Journal of Higher Education*, 63(2), 237-256.

Sahni, R., & Kale, S. (2004). GATS and higher education: Some reflections. *Economic and Political Weekly*, 39(21), 2175-83.

Silander, C., Haake, U., & Lindberg, L. (2013). The different worlds of academia: a horizontal analysis of gender equality in Swedish higher education. *Higher Education*, 66(2), 173-188. Social

TableA1: Gender segregation in Higher Education in India across discipline

state	Arts	Science	Comm.	Med	Eng.	Mang.	Edu	IT	All
Jammu & Kashmir	0.8	1.2	4.6	13.2	3.4	12.1	1.3	0.3	1.2
Himachal Pradesh	1.5	0.5	2.2	0.3	5.9	0.5	0.3	0.6	1.2
Punjab	1.3	0.3	1.1	0.2	2.4	2.3	0.4	1.1	1.1
Chandigarh	0.6	0.0	1.1	0.0	6.8	2.2	0.0	14.0	1.4
Uttarakhand	1.7	2.0	2.1	3.8	4.3	1.4	6.6	2.0	1.8
Haryana	1.5	1.0	1.1	0.9	13.1	0.8	0.7	0.6	1.6
Delhi	1.2	0.8	1.3	0.2	4.2	2.0	0.0	1.3	1.3
Rajasthan	1.2	1.1	2.4	1.2	13.6	2.4	1.5	3.2	1.5
Uttar Pradesh	0.9	1.7	1.5	1.0	5.5	1.3	0.6	1.4	1.1
Bihar	1.4	2.4	2.0	1.1	6.9	0.5	0.6	13.0	1.9
Sikkim	0.5	0.0	0.3	0.5	3.5	2.0	0.0	0.4	0.7
Arunachal Pradesh	1.2	4.0	0.8	0.0	2.5	0.0	1.0	1.5	1.6
Nagaland	0.6	3.6	1.7	0.3	46.9	14.2	na	1.1	1.0
Manipur	1.8	1.4	2.4	0.3	25.3	na	0.3	2.8	1.7
Mizoram	1.5	1.2	2.2	0.4	1.8	0.0	1.1	2.0	1.4
Tripura	2.8	3.2	4.3	0.4	2.9	7.9	0.0	0.6	2.6
Meghalaya	1.1	1.0	1.2	0.3	4.2	na	na	3.5	1.1
Assam	1.1	0.8	1.5	0.8	6.7	11.5	0.1	6.6	1.1
West Bengal	0.8	1.6	2.0	0.4	3.9	3.5	2.2	2.0	1.1
Jharkhand	0.6	1.7	1.0	0.3	2.3	1.1	39.8	9.9	1.0
Orissa	1.0	1.6	1.5	7.5	2.8	2.3	3.2	1.2	1.3
Chhattisgarh	1.0	1.4	2.5	0.3	3.5	0.2	5.7	2.3	1.3
Madhaya Pradesh	1.2	1.8	1.7	0.6	2.8	5.2	2.8	1.1	1.6
Gujarat	1.2	1.7	1.2	0.9	5.2	0.8	0.3	1.3	1.3
Daman & Diu	0.0	na	2.0	0.0	na	na	0.0	na	0.7
D & N Haveli	na	na	0.8	3.1	na	na	na	na	1.4
Maharashtra	1.4	1.6	1.1	0.8	3.0	1.9	0.9	1.1	1.4
Andhara Pradesh	1.0	0.9	3.0	0.5	2.0	2.8	0.6	1.8	1.6
Karnatka	1.3	0.8	0.9	0.9	1.8	1.2	0.9	1.0	1.2
Goa	0.0	0.0	3.4	na	43.1	3.9	0.0	na	1.7
Lakshadweep	0.7	0.0	na	0.1	8.0	3.6	0.7	0.0	0.5
Kerala	0.4	0.5	0.7	0.2	1.4	0.8	0.4	0.8	0.7
Tamil Nadu	0.4	0.4	0.5	0.5	2.3	1.8	0.6	0.8	0.9
Puducherry	0.0	0.3	2.0	0.5	2.0	0.6	na	1.1	1.1
A & N Islands	0.2	0.0	0.3	0.6	13.6	0.0	na	1.7	0.3
Telegana	0.2	2.1	1.8	0.4	1.9	3.1	0.4	3.0	1.8
India	1.0	1.2	1.3	0.6	2.7	1.6	0.8	1.3	1.3

Source: Author's estimation from Social Consumption: Education, NSS 71st round, 2014

Table A2: Proportion of male & female in various disciplines of higher education by region & social groups

Social Group	Rural		Urban		R+U		ST		SC		OBC		General	
Disciplines	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Arts	53.6	46.5	42.3	57.7	50.3	49.7	52.2	47.8	55.5	44.5	50.6	49.4	46.6	53.4
Science	60.9	39.1	46.9	53.1	55	45	61.6	38.4	52	48	54.6	45.4	55.7	44.3
Commerce	63	37	50.7	49.4	55.9	44.1	74.3	25.7	52.2	47.8	58.9	41.1	52.2	47.8
Medicine	36.8	63.2	36.9	63.1	36.8	63.2	32	68	38.3	61.7	35.5	64.6	38.1	61.9
Engineering	75.9	24.1	71.6	28.4	73.1	27	69.2	30.8	69.5	30.6	73.8	26.2	73.3	26.7
Agriculture	79.6	20.4	56.3	43.7	68.8	31.2	51.9	48.1	82.7	17.3	67.9	32.1	70.2	29.8
Law	63.9	36.2	68	32	66.3	33.8	66.6	33.5	55.5	44.5	75.2	24.8	61.7	38.3
Management	64	36	61.1	38.9	61.9	38.1	46.7	53.3	64.7	35.3	66.2	33.8	58.6	41.4
Education	50	50	34.6	65.4	43.7	56.3	36.7	63.3	60	40	38.6	61.4	41.1	58.9
CA & Allied	78.7	21.3	61.4	38.6	63.9	36.1	88.1	11.9	53.9	46.1	48.9	51.1	67.6	32.4
IT & Comp	62.2	37.8	53.3	46.7	56.9	43.1	55.3	44.7	66.9	33.1	58.1	41.9	53.9	46.1
ITI & Voc.	75.9	24.1	67.4	32.6	72.8	27.2	76.2	23.8	52.4	47.6	82.8	17.2	72.4	27.6
Others	55.7	44.3	44.8	55.2	51.2	48.8	44.8	55.2	57.9	42.1	55.3	44.7	41	59
all subjects	58.2	41.8	52.6	47.4	55.7	44.3	58	42	56.3	43.8	56.8	43.2	53.8	46.2

Source: Author's estimation from NSS 71st round data on education

Table A3: Proportion of male & female in various disciplines of higher education by religion

Religion→	Hindu		Islam		Christian		Sikhism		Jainism		Buddhism		others	
Discipline↓	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Arts	50.7	49.4	45.1	54.9	46.6	53.4	59.2	40.8	60.3	39.7	79.9	20.2	25.4	74.7
Science	54.8	45.2	62.0	38.0	53.9	46.1	27.8	72.2	42.6	57.4	75.9	24.1	49.3	50.7
Commerce	54.4	45.6	78.2	21.8	45.0	55.0	57.3	42.7	56.7	43.3	62.4	37.6	95.7	4.3
Medicine	40.6	59.4	47.1	52.9	11.1	89.0	13.2	86.8	74.7	25.3	38.9	61.1	0.0	100
Engineering	73.3	26.7	75.2	24.9	63.9	36.1	61.9	38.1	76.0	24.0	82.4	17.6	62.5	37.5
Agriculture	65.0	35.0	82.4	17.6	80.4	19.6	100	0.0			100	0.0		na
Law	61.9	38.1	78.9	21.1	67.7	32.3	100	0.0			73.3	26.7		na
Management	62.7	37.3	75.8	24.2	31.4	68.6	58.1	42.0	45.3	54.7	44.4	55.6	0.0	100
Education	45.0	55.0	37.7	62.3	12.1	87.9	46.9	53.2	0.0	100	0.0	100		na
CA & Allied	66.0	34.1	32.3	67.7	67.4	32.6	0.0	100	46.8	53.2			76.4	23.7
IT & Comp	55.7	44.3	80.8	19.2	40.8	59.2	57.6	42.4	29.1	71.0	69.4	30.6	31.0	69.0
ITI & Voc	73.2	26.9	78.8	21.2	41.7	58.3	49.0	51.0	100.0	0.0	98.6	1.4	0.0	100
Others	51.2	48.8	58.9	41.1	22.6	77.5	60.2	39.8	0.0	100	100	0.0	51.5	48.5
all subjects	55.8	44.2	58.7	41.3	45.0	55.0	52.6	47.4	56.9	43.1	73.2	26.8	41.5	58.5

Source: Author's estimation from NSS 71st round data on education

Table B: Descriptive results of explanatory variables

Explanatory variables	Over	Mean	Std. Err.	Explanatory variables	Over	Mean	Std. Err.
PCMHCE ('000)	Arts	2.10	0.024	Marital status	Arts	1.07	0.004
	Science	2.52	0.040		Science	1.02	0.004
	commerce	2.78	0.043		commerce	1.03	0.004
household head education (years of schooling)	Arts	12.54	0.019	Age	Arts	20.63	0.040
	Science	12.43	0.026		Science	19.94	0.054
	commerce	12.43	0.027		commerce	20.04	0.052
Annual expenditure on education ('000)	Arts	11.56	0.201	Gender	Arts	1.53	0.008
	Science	23.82	0.687		Science	1.47	0.012
	commerce	18.80	0.564		commerce	1.45	0.012
Annual expenditure on course fees ('000)	Arts	5.21	0.129	Type of educational institution	Arts	1.53	0.013
	Science	12.88	0.525		Science	1.85	0.021

Source: Author's estimation from Social Consumption: Education, NSS 71st round, 2014

	commerce	9.20	0.403		commerce	1.79	0.020
Region	Arts	1.45	0.008	Free education	Arts	1.88	0.005
	Science	1.55	0.012		Science	1.90	0.007
	commerce	1.67	0.012		commerce	1.92	0.007
Social groups	Arts	4.73	0.054	Religion	Arts	1.41	0.014
	Science	4.69	0.076		Science	1.33	0.019
	commerce	5.46	0.082		commerce	1.36	0.021