

GOVT. COLLEGE JULANA (JIND)

(Affiliated to C.R.S.University, Jind)

Address: Karsola Road, Julana-126101Ph. 01683275800

Website: gcjulana.ac.in

Email id: gcjulana2009@gmail.com





GOVT. COLLEGE JULANA (JIND)

(Affiliated to C.R.S.University, Jind)

Address: Karsola Road, Julana-126101

Ph. 01683275800

Website: gcjulana.ac.in

Email id:

gcjulana2009@gmail.com

Certificate

Response: 3.3.2

It is certified that information about number of books and chapters in edited volume/ books published preceding year wise during the last five years is attached herewith.

It is further submitted that information is compiled to best of knowledge as provided by the teacher concerned.

Year	2017-18	2018-19	2019-20	2020-21	2021-2022
Number	0	1	0	1	0

Principal
Gout. College, Julana

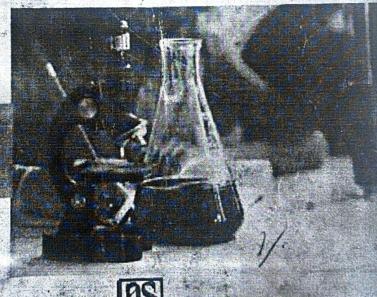
2nd Edition 2018



Dr. POONAM Dr. D.S. LATHER

PRACTICAL CHEMISTRY

Vol. III





A.S. PRAKASHAN, MEERUT

A Sister Concern of Pragati Prakashan, Meerut

PRACTICAL CHEMISTRY

For B. Sc. III Year (V and VI Semester) Students of M.D.U./K.U./C.D.L.U.

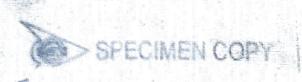
Vol. III

Dr. POONAM

Assistant Professor Department of Chemistry Govt. College JULLANA (HARYANA)

D. S. LATHER

Head, Department of Chemistry Govt. College JIND (HARYANA)





A. S. PRAKASHAN

D-106, Saket, Meerut 250 001, U.P.

A Sister Concern of Pragati Prakashan, Meerut

NBSI 736EP

Contents

Section	n ·	-	A
(Inorganic	Ch	ie	mistry)

1.	Introduction	3-4
2.	Qualitative Analysis	5-14
3.	Analysis of Acid Radicals	15-25
4.	interference among Acid Radicals	26-31
5.	Wet Test for Basic Radicals	32-51
6.	Semi-micro Analysis	52-58
	Section-B	
	(Physical Chemistry)	
7.	Conductometry /	61-83
8.	Potentiometric Titrations	84-91
9.	Molecular Weight by Rast Method	92-95
10.	Standardisation of an Acid Using pH-Metter	96-100
	Section-C	
	(Organic Chemistry)	
11.	Steam Distillation	103-106
12.	Column Chromatography	107-111
13_	Thin Layer Chromatography	112-121
14.	Synthesis of Some Organic Compounds	122-127
4/	(i) o-Chloxobenzoic acid 122	
/	(ii) p-Bxomaniline 123	
	(iii) m-Nitroaniline 124	
	(iv) s-Benzyl-isothiuronium Chloride 126	
	THE PARTY OF THE P	

gbir > fram Owborner.

USEFUL BOOKS

for B.Sc.-III Year

CHEMISTRY

- Inorganic Chemistry–III
- Organic Chemistry-III
- Physical Chemistry–III
- Practical Chemistry III

PHYSICS

- Computer Programming and Thermodynamic
- Statistical Mechanics
- . Wave and Optics-I
- Wave and Optics-II

MATHEMATICS

- Advanced Calculus
- Partial Differential Equations
- Statics
- Sequences and Series
- Special Function and Integral Transforms
- Programming in 'C' and Numerical Methods

BOTANY

- Biology and Diversity of Seed Plants–I
- Biology and Diversity of Seed Plants–II
- Plant Anatomy–II
- Plant Embryology

© Publisher—Practical Chemistry-III

A.S. PRAKASHAN

Educational Publishers

D-106, Saket, Meerut

Phone: 0121-6544643, 6544642

Our Books also available at

PRAGATI PRAKASHAN

Educational Publishers

240, W. K. Road, Meerut-250 001 SMS/Ph.: (0121) 6544642, 6451644 Tele/Fax: (0121) 2640642, 2643636

www.pragatiprakashan.in

e-mail: pragatiprakashan@gmail.com

First Edition 2016 Edition 2018

ISBN: 978-93-86706-14-0

gni

12

sel

che

ता

970

ex

S

Pr

2

Price : ₹ 100/-

Published by : A S. Prakashan, D-106, Saket, Meerut-250001, Laser Typesetting: Pragati Laser Type Setters Pvt. (Ltd.), Meerut (Phone: 0121–2661657) and Printed at Arihant Electric Press, Meerut.

Education and Caste in India

The Dalit Question

Edited by Ghanshyam Shah, Kanak Kanti Bagchi and Vishwanatha Kalaiah



Contents

	List of figures	vii
	List of tables	viii
	Contributors	xiii
	Preface and acknowledgement	XV
	Abbreviations	xvii
		Avn
	1 Introduction: education and the Scheduled Castes GHANSHYAM SHAH	1 1
	STATE OF THE STATE	
	2 Education among Scheduled Castes in India: a review of literature	
	BHARAT CHANDRA ROUT	23
3	Aspirations and achievements of Scheduled Caste	
	students in Kerala	41
	S. IRUDAYA RAJAN AND S. SUNITHA	71
4	Land ownership and the levels of educational attainment	
	in Haryana	(3
	K.V. CHAMAR S.K. CHAMAR AND N.K. CHAMAR	63
PA	ART I	
H	igh schools	7-
		77
5	Access, discrimination and educational attainments	
	of Scheduled Caste children in Karnataka	79
	VISHWANATHA KALAIAH	/ 7

Chapter 4

Land ownership and the levels of educational attainment in Haryana

K.V. Chamar, S.K. Chamar and N.K. Chamar

Introduction

Education is an ever-increasing demand in modern Indian society. It helps people in their everyday activities and prepares them for better employment opportunities in life. There is a common belief that education is an effective instrument to effect changes in people's attitudes and aspirations. With such assumptions, the Indian Constitution and successive Indian governments since Independence have invested in strengthening educational programmes and their accessibility to the people belonging to the deprived and backward sections of the Indian society, namely Scheduled Castes (SCs), Scheduled Tribes (STs), Other Backward Castes (OBCs) and minorities.

However, like all castes, the deprived castes are heterogeneous in their economic condition and the process of their social mobility (Ahmad, 1999). Access to education also is also different within and among the social communities. In a study of the village Sirsa Kheri in the Jind district of Haryana, Chamar and Chamar (2015) analysed the caste-wise levels of educational attainment and observed uneven attainment of education among social groups. They found that among the SCs, only the Chamar caste in Haryana has taken a lead in terms of educational attainment due to their occupational mobility. In another study, Chamar and Rekha (2015) analysed the clan-wise levels of educational attainment of the Chura caste in the village Badli of the Jhajjar district of Haryana. The study shows that in this particular caste, male literacy stood at 74% while female literacy was 65%, with an overall literacy rate of 70%. The largest number of the educated (one who has taken formal education) persons among this caste, forming nearly 44%, had an educational attainment up to 'middle' level only. Furthermore, it was observed that no Chura female had received education beyond graduation. This also indicates gender differentials in educational attainment within social groups. Taking a cue from this, the present chapter seeks to examine the state-level scenario of education among SCs as well as OBCs and general category, that is non-SC/OBCs. In particular, we try to examine: who has greater access to education among SCs, OBCs and non-SCs?

What are the intra-SC differences in educational attainment? What, if any, is the relationship between educational attainment and economic condition? We argue that attainment of education is related to ownership of land and occupational mobility.

Haryana is one of the most prosperous states of India. It is a landlocked state located in northwestern India. According to the 2011 Census, it covers an area of about 44,212 sq. KM. There are 19 districts, 67 tahsils, 114 community development blocks (CD), 106 towns and 6955 (6764 inhabited and 191 uninhabited) villages. The total population of the state is 253.51 lakhs. The total SC population in the study area is 51.13 lakh persons (20.17%). The literacy rate of SCs was 66.85% in 2011. Jat, Brahman, Jat Sikh, Punjabi, Ahir, Gujjar and Kamboj are dominant castes among non-SCs, while among the SCs Chamar, Balmiki and Dhanak are numerically dominant castes.

The study, as a part of the All India Project (Appendix I), is based on data pertaining to 1575 households from 45 villages/towns in five districts (Ambala, Panipat, Rewari, Rohtak and Sirsa) with a total population of 7852 persons comprising 4121 males (52%) and 3731(48%) females. The non-SC sample comprises 24 social groups including Muslims. The major caste Hindus include Jat, Brahmin, Jat Sikh and Baiya of upper castes and Ahir, Gujjar, Kumar and Nai. The SC sample included 14 castes. Of them, Chamar, Balmiki, Dhanak, Bazigar, Odh, Majhabi Sikh and Meghwal are numerically large. The break-up of sample HHs by caste is given in Table 4.1.

Land ownership and education

The majority of the population (65%) in Haryana lives in rural areas, which is a predominantly agrarian economy. In rural areas, land is the basic source of production. Besides income, ownership of land bestows social status in the community. Rawal (2008) found that in the year 2003-04, more than 40% of HHs in rural India did not own land and that the distribution of the ownership of land holdings in India was extremely unequal. In our survey

Table 4.1 Haryana: Sample Households

Social Groups	Rural	Urban	Total
Scheduled Castes	975 (87%)		10101
Non-Scheduled Castes	. ,	150 (13%)	1125 (100%)
Total	390 (87%)	60 (13%)	450 (100%)
Source: ICSSR: ESCAC, 2012–14	1365 (87%)	210 (13%)	1575 (100%)

sample, 72% of general category households, 43% of other backward castes HHs and less than 3% of Scheduled Castes HHs own land. In other words, there is maximum landlessness among SC HHs.

In the general category, most Jats (94%) own land. Land ownership among other communities is as follows: Rajputs 83%, Jat Sikhs 63% and Brahmans 60%. Among the Jats, 6% are landless, while 43% own more than 5 acres of land. In fact, 12% of their HHs own more than 15 acres of land. Among Rajputs, 17% are landless and almost the same proportion own between 5 and 7 acres of land. About 40% of HHs are landless among Brahmans, while onefifth own more than 5 acres of land. In fact, 12% own 10 acres or more land.

Among the OBCs, 90% Ahirs, 87% Gujjars, 75% Rai Sikh, 73% Kamboj and 40% Kashyap own land. Further, 10% of Ahir HHs are landless and more than one-third of them own 5 acres or more land. Among Gujjars, 12% are landless and 12% have 5 acres or more land. Among the SCs, Meghwals with 22% land ownership are better placed than Ods with 13%, Khatiks with 11%, Chamars with 3% and Mazhabi Sikhs with 2%. All other SCs such as Balmiki, Dhank and Bazigar are landless. About 4% of Meghwal HHs own 5 acres or more land. Among Chamars, 97% are landless and less than 2% own around 2 acres of land.

Further, there is a remarkable difference in the size of land ownership among various social groups. Among the general population, one-fifth (22%) of HHs own between 2.1 and 5 acres of land, while 13.08% own more than 10 acres of land. In the case of 42.61% of OBC HHs, 14.20%of HHs have a very small size of land, that is less than 1 acre, and 6.82%own more than 10 acres of land. Among the 3% of SC land owners, only 0.82% have land ranging from 0.6 to 0.9 acres, 0.72% have 1 to 2 acres of land, 0.62% HHs have land between 2.1 and 5 acres and only 0.20% of HHs own land ranging between 5.1 and 10 acres. All rich farmers with land ownership of more than 20 acres are non-OBCs/SCs.

About 29% of the state population lives in urban areas. A tiny section of the urban population is engaged in agriculture; most of the urban population is engaged in the non-farm sector. Even in rural areas, non-farm employment has expanded in the last 5 decades. In our sample, 9% of SCs as against 21% non-SCs heads of the HHs reported self-employment/business as their main occupation. On the other hand, white-collar employment in government or the private sector has been mentioned as the main occupation by 9% of SCs and 14% of non-SCs. We focus on land ownership as an indicator of economic status.

Education

The total literacy rate of our sample is recorded as 79%. The higher eracy rate (85.82%) is observed among OBCs, which is almost it as that of the general category (85.65%) but higher compare

Table 4.2 Haryana: Levels of Educational Attainment among Social Groups (%) Secondary Sr. Sec Under Grad BEd P.G. Total% N Primary Upper Grad. Social Primary Groups 100 997 21 26 23 19 General 100 Population 720 18 25 27 26 0 100 **OBCs** 47 9 21 36 Others (Muslim) 100 1764 19 25 25 Non-SC 100 4048 14 21 30 31 SC 100 5812 16 22 29 28 Haryana

Source: ICSSR: ESCAC2012-14 (Haryana)

which have 77% literates. The sex ratio in the sample is 905. The highest sex ratio (917) is recorded among SCs followed by OBCs and the general category.

It was noted that 5812 persons (79%) from our sample are educated. Table 4.2 provides caste-wise level of educational attainment among social groups. Since 70% of our sample constitutes of SCs, their education reflects on the overall aggregate picture of the population under the study. Overall in the sample, 1632 persons (28%) have attained education up to primary level and 1673 persons (29%) up to upper primary. More than 60% of SCs as against 42% of the general and 53% of OBCs have education up to upper primary level. Likewise, on the whole, 1303 persons (22%) obtained education up to secondary and 924 persons (16%) up to senior secondary level. Up to secondary-level education, the gap between general and SCs is 5% with 26% among the former and 21% among the latter. Less than 1% have studied in Teachers' Training College, Π and polytechnic. At the aggregate level, a total of 183 persons (3%) have obtained education up to graduation level or in other professional courses like BTech. Thirty persons (0.5%) have studied up to BEd. Another 51 persons (0.9%) have obtained education up to postgraduate level including MPhil and PhD. The gap widens between SC and general in higher education, graduation and above. More than 10% of the general population and merely 3% of the SC and 4% of OBCs fall in this category.

Caste-wise levels of educational attainment among non-OBCs and SCs (general population)

Among the non-SC and OBCs, Rai Sikh has the largest proportion of those who have studied up to the primary level (Table 4.3). Only 6% of them are graduates. On the other hand, Rajputs have the highest proportion (12%)

Table 4.3 Caste-Wise Levels of Educational Attainment among General Population (%)

Caste	Primary	Upper Primary	Secondary	Sr. Sec	UG	Graduate	B. Ed	P.G.	Total %	N
Jat	19	21	28	21	0	7	1	1	100	405
Brahman	18	21	26	24	0	7	1	3	100	223
Punjabi	19	32	21	19	0	6	1	2	100	17
Jat Sikh	25	30	24	16	0	2	2	0	100	8
Bania	13	16	39	16	0	11	0	5	100	6
Rajput	24	18	18	15	0	12	0	12	100	3
Rai Sikh	31	19	19	25	0	6	0	0	100	10
Total	19	23	26	21	0	7	i	2	100	997

Source: ICSSR: ESCAC, 2012-14 (Haryana)

of graduates as well as postgraduates. Among the Jats 7% are graduates and 2% have studied up to BEd or postgraduation. We find similar variations among the Brahmins, Jat Sikhs and Banias.

Education among OBCs

Table 4.4 indicates educational attainment among OBCs. On the whole, educational level among them is lower than in upper castes. More than one-fourth (27%) of these castes have a primary level of education. Their proportion is high, above 45%, among Jhinwar, Jogi Nath and Darzi. These castes have only 3% graduates. The largest proportion of educated persons is recorded in Maniyar caste (50%) in 'senior secondary' level. Most of the OBCs do not have anyone in the family who has studied up to graduation level. Only a few persons, between 1% and 3%, who studied up to postgraduation are found only among Sunar, Saini, Khati and Ahir.

Education among SCs

As far as educational attainment among SCs goes, the largest proportion, more than 60%, have been schooled till primary (30%) and upper primary (31%) level only. The proportions taper beyond this level - 21% up to secondary followed by 14% up to senior secondary level. Like OBCs, 4% of them have studied beyond this - undergraduate level and above (Table 4.5). Educational attainment is uneven across the different SCs. More than 95% educated SC persons have studied up to 'senior secondary' levels. Further, it is recorded that more than 45% educated persons of Darzi, Jhinwar and Jogi Nath castes have studied up to 'primary' level, while Dhobi shared 50% in 'upper primary' followed by Gujjar and Lohar have the maximum share

Table 4.4 Levels of Educational Attainment among Other Backward Castes Population (%)

Caste	Primary	Upper	Secondary	Sr. Sec	UG	Graduate	BEd	PG	Total %	N
	=======================================	Primary					0	1	100	186
Ahir	19	19	32	22	1	6	0	0	100	49
Jhinwar	47	29	14	10	0	0	2	2	100	53
Khati	25	26	23	19	0	4		0	100	57
Nai	30	32	18	21	0	0	0			
	23	30	21	23	0	3	0	0	100	61
Kumhar		38	25	10	0	3	0	3	100	40
Saini	23		24	14	0	3	0	0	100	37
Jogi Nath		14	16	20	0	5	0	0	100	44
Kamboj	34	25		7	٥	0	0	0	100	41
Lohar	27	29	37		0	0	0	0	100	38
Gujjar	16	24	37	24	-	-	3	3	100	-
Sunar	16	19	19	27	3	11				37
Kashyap	33	29	21	17	0	0	0	0	100	24
Mali	30	40	20	10	0	0	0	0	100	20
Darzi	47	26	21	5	0	0	0	0	100	19
Dhobi	25	50	0	25	0	0	0	0	100	8
Maniyar	17	33	0	50	0	0	0	0	100	6
Total	27	26	25	18	0	3	0	1	100	720

Source: ICSSR: ESCAC, 2012-14 (Haryana)

Table 4.5 Haryana: Levels of Educational Attainment among Scheduled Castes Population (%)

Coste	Primary	Upper Primary	Secondary	Sr. Sec	UG	Grad.	B. Ed	P.G.	Total %	N
Chamar	26	30	24	16	0	3	-		100	21/0
Balmiki	33	33	19	13	0		1	1	100	2160
Dhanak	35	28	19	14	-	1	0	0	100	862
Bazigar	37	28	21		0	ı	0	1	100	406
Majhabi	49	37	7	12	1	2	1	0	100	165
Sikh		٠,	/	7	0	0	0	0	100	100
Odh	39	29	18					-		
Meghwal	44	25		11	0	2	0	0	100	132
Khatik	36	33	8	21	0	2	0	0	100	85
Sansi	41	44	16	16	0	0	0	-		
Doom	31	31	7	7	0	0		0	100	45
Kohli	33		23	8	0	0	0	0	100	27
Ramdasia	31	27	20	20	0	-	0	8	100	13
Sikh	31	13	38	0	0	0	0	0	100	15
Bawaria	58			٠	U	19	0	0	100	16
Sapera	30	25	8	0	0					
Total		50	20	0	-	8	0	0	100	12
	30	31	21	•	0	0	0	0		
iource: ICSS	R-FSCAC	2010		14	0	2	0	ı	100	10

of educated persons in the 'secondary' level. The largest proportion of educated persons recorded in the Maniyar caste (50%) is in 'senior secondary' level, while Sunar, Saini, Khati and Ahirare were educated till 'postgraduation' level. The Bawaria has the largest share (58%) of educated persons recorded in the 'primary' level, followed by Maihabi Sikh (49%), Meghwal (44%) and Sansi (41%), while half of the educated persons of Sapera caste shared in 'upper primary'. Ramdasia Sikh has the highest share of educated persons (38%) in the 'secondary' and 'graduation' (19%) levels among the SC population. The maximum proportion of educated persons educated till 'senior secondary' level are in Meghwal (21%), followed by Kohli (20%) and Chamar (16%). On the whole, education is encouraged only for the lower levels among all the SCs except Chamar, Dhanak and Doom.

Caste by education ranking among general population, OBCs and SCs

As mentioned earlier, one of the objectives of the present study was to determine the rankings of individual castes in Harvana on the basis of distribution of educated persons at different levels. For this, a weighted aggregate of scores was worked out. The average weighted score among the general population is 296. On the basis of the aggregate weighted score, it is observed that the Rajput caste obtained the first rank in Haryana with a total weighted score of 345, followed by Banias (332) (Table 4.6). Strikingly, Brahman (308) occupied the third position followed by Jat (297) with the fourth rank. It may be noted that Jat, Brahman and Jat Sikh are the dominant castes in the study area not only numerically but also socially. Punjabi, Rai Sikh and Jat Sikh have scored below the average weighted score. The Jat Sikh occupied the lowest position in the levels of educational attainment among the general population in Haryana. Similar differences are found among OBCs (Table 4.7). Sunar and Ahir are at the top and Mali and Darzi are at the bottom in their score of education attainment. Among the SCs, Ramdasi Sikh, Doom and Chamar are at the top and Majhabi Sikh, Sansi and Bawaria are the bottom, with none of them having higher education (Table 4.8),

Differentials in the levels of educational attainment

The difference of highest and lowest percentage among SCs and non-SCs has also been observed in Haryana (Tables 4.9 and 4.10). A large positive difference (11%) among the highest percentage of educated persons at 'primary' level is recorded between Bawaria and Darzi from SCs to non-SCs followed by Ramdasia and Rajput at 'graduation' level. A major negative difference is observed between Meghwal and Maniyar (-29%) at senior say ondary level followed by Ramdasia and Bania (-19%) at secondary

Table 4.6 Haryana: Caste-Wise Levels of Educational Attainment and Weighted Score among General Population

Coste	Primary		Upper P		Education	ry n	Senior Secondar				Graduate		BEd		Postgradu	ate	Total	Rank
Brahman		17.74	21.08X2	42.16	TEECVE	7		85.92	00.00×5	00.00	07.11×6	11.16	01 23 27	09.41	01.48×8		Score	
-	101171	18.71	32.16X2	64.32	21.0572	43.15		96.88 74.84		OL.ZJ	00.7386	95,00	00,90X7	06.30	OZ LAYD	25.12	20771	***
ai ira	25.29X1 12.90X1	12.90	16.13X2	32.26	38 71 X 3	116.13	LONG	64.36	00.00×5	00,00	07.30X6	13,80	02.30X7	16.10	01.75X8 00.00X8	∞	25175	
ii Sikh	31.25X1	24.24 31.25	18.18X2	36.36	18.18X3	54.54	15.15X4	00,00	00.00×5	00.00	12.12×6	77.73	00.00X7	00.00	04.84X8	38.72	332.27	W
en. Pop.	19.26×1	19.26 2	23.47X2	46.94	26.08X3	78.21	25.00X4 20.66X4	100.0 82.64	00.00×5	00.00	06.25×6	37.50	00.00×7	00.00	00.00X8	96.96	345.43 262.50) V
rce: ICS	SR: ESCAC	2012-14	f (Haryana	1)				-2.01	00.10/\3	00,50	07.02X6	12.12	01.10X7	07,70	02.31X8	18.48	295.88	3 A

Table 4.7 Haryana: Caste-Wise Levels of Educational Attainment and Weighted Score among Other Backward Castes Population

Coste	Primary		Upper Primary		Secondary Education	,	Senior Secondar		Under Graduate		ng Other Graduate		BEd		Postgrad	duate	Total	Rank
Ahir	19.35XI	19.35	19,35X2	38.70	32.26X3	96.78	21.51X4	86.04			2.0500						Score	
hinwar	46.94XI	46.94	28.57X2	57.14	14.29X3	42.87	10.20X4		00.0470	02.70	05.91%	35.46	00.00X	7 00.00	01.08X	8 08.64	287.67	11
Chab	24.53X1	24.53	26.42X2	52.84	22.64X3	67 92	18.87X4			,-,		OU.U.) (M)(M)A	$7 \sim \infty$	00000			
Vai	29.82X1	29.82	31.58X2	63.16	17.54X3	52.62												
Kumhar	22.95XI	22.95	29.51X2	59.02	213123	62.02	21.05X4											
Saini	22.50XI	22.50	37.50X2	75.00	25.00×3	75.00	22.95X4											
Jogi	45.95×1	45.95	13.51X2	27.02	24 22 72	73.00	10.00X4											
Nath							13.51X4	54.04	00,00X5	00.00	02.70X6	16.20	00.00	00.00	02.50X8	20.00	247.50	VII
Kamboj	34.09XI	34.09	25.00X2	50.00	15.91X3	47 70	20.4554	01.01				. 5.20	00.000	00.00	00.00X8	00.00	216.17	XIII
Lohar	26.83×1	26.83	29.27X2	58.54	36.5923	1/./3	20.45X4	81.80	00.00X5	00.00	04.55X6 00.00X6	27.30	00.00X7	00 co	00 001/0			
Gujjar	15.79X1	15.79	23.68X2	47.36	36.9473	107.//	07.32X4											
Sunar	16.22×1	16.22	18.92X2	37.94	10.07/3	110.52	23.68X4	94.72	00.00X5	00.00	00.00X6	00.00	00.0027	00.00	00.00X8	00.00	224.42	XI
Kashyap	33.33×1	33.33	29.17X2	50.24	20.021/2	56,76	27.03X4	108.12	02.70X5	13.50	00.00X6 10.81X6 00.00X6	64 86	03.70×3	00.00	8X00.00	00.00	268.39	/
Mali	30.00×1	30.00	40.00X2	20.37	20.83 🔾 3	62.49	16.67X4	66.68	00.00X5	00.00	00.00×6	00.00	02.70%/	18.90	02.70X8	21.60	337.80 1	
Darzi	47.37XI	47.37	26.32X2	50.00	20.00X3	M)(N)	10.00X4	40.00	00.00X5	00.00	00.00X6 00.00X6	00.00	00.000	00.00	8X00.00	00.00	220.84	CII ,
Dhobi	25.00XI	25.00	50.00X2	32.64	21.05X3	63.15	05.26X4	21.04	00.00X5	00.00	00.00X6 00.00X6	00.00	00.00X7	00.00	8X00.00	00.00	210.00	(IV
Maniyar	16.67X1	16.67	7 33 33 22	100.0	00.00X3	00.00	25.00X4	0.001	00.00X5	00.00	00.00X6 00.00X6	00.00	00.00X7	00.00	8X00.00	00.00	84.20 X	vi
OBC		24.07	33.33X2	66.66	00.00X3	00.00	50.00X4	200.0	00.00X5	00.00	00.00X6	00.00	00.00X7	00,00	8X00.00	00.00 2	25.00 X	
			25.70X2		24.58×3	73.74	18.47×4											
Source: I	ICSSR: ESC	AC 201	2-14 (Harv	(ana)					00.28X5	01,40	03.19X6	19.14	00.28X7	0196	M 49V9	05 52 20	2 85 AV	

Table 4.8 Haryana: Caste-Wise Levels of Educational Attainment and Weighted Score among Scheduled Castes Population

Coste	Prima	2	I fabor	D-i	C 4-		c .				-							
~~~~	rningi	7	Upper	Primary	Seconda Educatio	*	Senior Sec.		Under Graduate		Graduate		BEd		Postgraduat		Total Sco <del>re</del>	Rank
Chama	r 25.69)	<1 25.	9 29.95×	2 59.9	0 23.75X3	71.25	15.79X4	63.16	00.37X5	01.85	02.96X6	17.76	00.96X7	04.20	00.88×8	07.04	250.85	158
Balmik					2 19.49X3													
Dhanak					6 19.46X3													
Bazigar	36.97X	36.9	7 27. <b>8</b> 8X	2 55.76	20.61X3	61.83	11.52X4	26.08	00.61X5	03.05	01.82X6	10.92	00.61X7	04.27	8×00.00	00.00	218.88	VI
M_Silkh	49.00X	49.0	37.00X	2 74.00	07.00X3	21.00	07.00X4	28.00	00.00X5	00.00	00.00X6	00.00	00.00X7	00.00	800.00	00.00	172,00	XIV
Odh	39.39X	39.39	28.79X	57.58	18.18X3	54.54	11.36X4	45.44	00.00X5	00.00	02.27X6	13.62	00.00X7	00.00	8X00.00	00.00	210.57	×
Meghwa	43.53XI	43.53	24.71X2	49,42	08.24X3	24.72	21.18X4	84.72	00.00X5	00.00	02.35X6	14.10	00.00X7	00.00	8X00.00	00.00	216.49	VIII
Khatik	35.56X1	35.56	33.33X2	66.66	15.56X3	46.68	15.56X4	62.24	00.00X5	00.00	00.00X6	00.00	00.00X7	00.00	00.00×8	00.00	211.14	IX
Sansi	40.74×1	40.74	44.44X2	88.88	07.41X3	22.23	07.41X4	29.64	00.00X5	00.00	00.00X6	00.00	00.00X7	00.00	00.00X8	00.00	181.49	) XII
Doom	30.77×1	30.77	30.777X2	61.54	23.08X3	69.24	07.69X4	30.76	00.00X5	00.00	00.00X6	00.00	00.00×7	00.00	07.69×8	61.57	253.83	3 18
Cohli	33.33X1	33.33	26.67X2	53.34	20.00X3	60.00	20.00X4	80.00	00.00X5	00.00	00.0X6	00.00	00.00X7	00.00	00.00008	00.00	226.6	7 N
Sikh	31.25X1	31.25	12_50)(2	25.00	37.50X3	1125	00.00X4	00.00	00.00X5	00.00	18.75×6	1125	00.0027	00.00	00.0000	00.00	0 281.2	5 1
awania	58.33X1	58.33	25.00)<2	50.00	08.33X3	24.99	00.00X4	00.00	00.00X5	00.00	08 33 26	49 99	00.00007	00.00	00.0000	2 00.0	0 193 3	n x
pera .	30.00XI	30.00	\$0.00X2	0.001	20.00X3	60,00	00.00X4	00.00	00.00X5	00.00	00.0086	00.00	00.00007	00.00	00.0000	3 00.0	0 190.0	n x
DTAL :	30.41X1	30.41	30.56X2	61.12	21.15X3	63.45	14.35X4	57.40	00.3285	01.60	02.2076	13.33	00.4037	00.00	00.000	2 045	6 234.9	in a

Table 4.9 Difference in Levels of Educational Attainment among Social Groups in Haryana (%)

Social Groups	Primary	Upper Primary	Secondary	Sr. Sec.	UG.	Graduate	BEd Others	PG.
General to Other Backward Castes	<b>-</b> 7.55	-4.46	4.50	8.76	-0.90	22.98	5.74	12.96
General to Scheduled Castes	-11.15	-14.18	14.79	25.24	-1.10	28.80	4.76	13.92
Other Backward Castes to Scheduled Castes	-3.60	-9.72	10.29	16.48	-0.20	5.82	-0.98	0.96

Source: ICSSR: ESCAC 2012-14 (Haryana)

Table 4.10 Differentials among Scheduled Castes and Non-Scheduled Castes in Haryana

Educational Levels	Difference Be	etween Highe	st Value	Difference Between Lowest Value			
	Scheduled Castes	Non- Scheduled Castes	Difference	Scheduled Castes	Non- Scheduled Castes	Difference	
Primary	Bawaria (58.33)	Darzi (47.37)	10.96	Chamar (25.69)	Bania (12.90)	12.79	
Upper Primary	Sapera (50.00)	Dhobi (50.00)	00.00	Ramdasia Sikh (12.50)	Joginath (13.51)	-01.01	
Secondary	Ramdasia Sikh (19.21)	Bania (38.71)	-19.50	Majhabi Sikh (07.00)	Jhinwar (14.29)	-07.29	
Senior Secondary	Meghwal (21.18)	Maniyar (50.00)	-28.82	Majhabi Sikh (07.00)	Darzi (05.26)	01.74	
Under Graduate	Bazigar (00.61)	Sunar (02.70)	-02.09	Dhanak (00.25)	Brahman (00.45)	-00.20	
Graduate	Ramdasia Sikh (18.75)	Rajput (12.12)	06.63	Balmiki (00.93)	Jat Sikh (02.30)	-01.37	
B Eq	Chamar (00.96)	Sunar (02.70)	-01.74	Balmiki (00.12)	Brahman (00.90)	-00.78	
Postgraduate	Doom (07.69)	Rajput (12.12)	-04.43	Dhanak (00.74)	Ahir (01.08)	-00.34	

Source: Compiled by Authors. ICSSR: ESCAC 2012-14 (Haryana)

A negative difference has also been found in the level of educational attainment at 'undergraduate', 'BEd' and 'postgraduate' from SCs to non-SCs. The large positive difference (13%) among lowest percentage from SCs to non-SCs is also recorded in the level of educational attainment at primary level between Chamar and Bania, and a small difference is observed between Majhabi Sikh and Darzi at senior secondary level (Tables 4.9 and 4.10). An insignificant

Levels of Educational Attainment Primary	Social Groups										
	General Population		Other Backward Castes		Scheduled Castes		Non-Scheduled Castes				
	19.26 X I	19.26	26.81 X I	26.81	30.41 X I	30.41	22.72 X I	22.73			
Upper Primary	23.47 X 2	46.94	25.70 X 2	51.40	30.56 X 2	61.12	24.72 X 2	49.44			
Secondary Edu.	26.08 X 3	78.24	24.58 X 3	73.74	21.15 X 3	63.45	25.34 X 3	76.02			
Senior Secondary	20.66 X 4	82.64	18.47 X 4	73.88	14.35 X 4	57. <del>4</del> 0	19.44 X 4	77.76			
Undergraduate	00.10 X 5	00.50	00.28 X 5	01.40	00.32 X 5	01.60	00.17 X 5	00.85			
Graduate	07.02 X 6	42.12	03.19 X 6	19.14	02.22 X 6	13.32	05.27 X 6	31.62			
B Ed	01.10 X 7	07.70	00.28 X 7	01.96	00.42 X 7	02.94	00.74 X 7	05.18			
Postgraduate	02.31X B	18.48	00.69 X 8	05.52	00.57 X 8	04.56	01.59 X 8	12.72			
Total Score	295.88		253.85		234.80		276.32				
Rank	First		Second		Third			-			

Source: ICSSR: ESCAC2012-14 (Haryana)

difference is found between Dhanakand Brahman at undergraduate (-0.2%), Dhanak and Ahir at postgraduate (-0.3%) and Balmiki and Brahman at BEd (-0.8%) levels from SCs to non-SCs.

Finally, it is recorded that general population has obtained first rank with total weighted score of 296, followed by OBCs (254), and SCs (235). The significant difference of total weighted score (42) has also been recorded among SCs and non-SCs in Haryana (Table 4.11).

### Conclusion

There is uneven growth of educational attainment across social groups and also among non-SCs/OBCs, OBCs and SCs. General population has obtained first rank with total weighted score of 296 due to large share of land ownershipand better economic status followed by OBCs (254), which have moderate share of land ownership, and SCs (235), which have poor economic status and very small share of land ownership. A significant difference in total weighted score of 42 has also been recorded among SCs and non-SCs in Haryana. For this chapter we have only taken land ownership to suggest economic status. But with the growth of the non-farm sector, other avenues for income generation have also emerged. Ownership of land facilitates berter education, which opens up other opportunities. SCs begin their journey for new opportunities from a disadvantaged position as only handful of them own land, and too very little. That obstructs their educational growth.

### **Acknowledgements**

The author (project director) is grateful to ICSSR, New Delhi for sponsoring the project on the 'Educational Status of Scheduled Castes in Haryana -Attainments and Challenges' as well as all team members including project assistants.

### References

Ahmad, A. (1999) Social Geography, Jaipur and Delhi, Rawat Publications. Census of India (2001) Special Tables on Scheduled Castes, Haryana, New Delhi, Government of India.

Chamar, K.V. and Chamar, S.K. (2015) 'Caste Differentials in Levels of Educational Attainment in Village Sirsa Kheri', Transactions, Journal of the Institute of Indian Geographers (IIG), Vol. 37, No. 1, pp. 27-34.

Chamar, K., and Rekha, V. (2015) 'Levels of Educational Attainment of Chura Caste in Village Badli: A Clan Wise Analysis', Journal of Social Science Research Perspective, Vol.3, No.1, June, pp. 7-14.

Rawal, V. (2008) 'Ownership Holding of Land in Rural India: Putting the Record Straight', Economic and Political Weekly, Vol. 43, No. 10, Mar. 8, pp. 43-47.



I, Dr. Sanjay Kumar, Assistant Professor of Geography, Govt. College Julana certifies that my one research paper which title "Land Ownership and Levels of Educational Attainment in Haryana" was published in book "Education and Caste in India" Routlege Taylor& Francis Group, London and New York pp.-63-75and other research paper which title "Access to Sources of Lighting among Households in Rural India" was published in journal "Punjab Geographers" Volume-16, pp.-75-94 as named of S.K. Chamar whereas Dr. Sanjay Kumar and S.K. Chamar are the name of single person.

Dr. Sanjay Kumar

Assistant Professor of Geography

Govt. College Julana