

Education Levels among Small Holders in Punjab

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Abstract

This study, in a comparative framework, provides the educational levels among the small holders for the state of Punjab. It is based on primary data collected from 240 small holders, 101 marginal farmers and 139 small farmers, through stratified random sampling, from all six agro-climatic zones of Punjab viz. Foot Hill Zone, Central Zone, Northern Malwa, Eastern Malwa, Southern Malwa and Western Malwa. The study provides education levels separately for males, females and persons for seven census specified stages of education: illiterate, primary, middle, matriculation, senior secondary, graduation, post-graduation and others. The analysis shows noticeable variations in educational attainments across agro-climate zones with Foot Hill Zone at top and Southern Malwa at the lowest. Educational levels varied among sexes, between small and marginal farmers and in general remained at lower level among small holders. The study argued for strengthening of human capital base of the farming community for realization of higher stage of social and economic transformation of rural economy of the state.

Keywords: Agriculture, marginal farmers, small farmers, small holders, education

JEL Classification: O13, H75, P46, I24

Introduction

The state of Punjab, by all perceivable parameters, encompasses at present one of the most developed and transformed agriculture sector in the country. The early phase boost to the income of farm households which roughly lasted till 1990s gradually slowed down, and thereby, in its wake resulted into rural and agrarian distress. The capacity of state agriculture, as it exists today, to provide decent standard of living to farm families in the emergent techno-market-institutional complex stand exhausted to a noticeable extent. The situation continues to be more precarious for small and marginal farmers (henceforth small holders) numbering about 3.62 lakh whose proportionate share in overall operational holdings of the state (10.93 lakh) was reported to be 33.11 per cent during 2015-16 (ESO, 2019). Small holders' continued over-dependence on agriculture, which is losing viability, has been coming up as a matter of growing concern. In a typical Punjab village, it was reported that salary income just accounted

for 13.77 per cent and 4.62 per cent of overall income respectively of marginal and small farmers during 2013-14 (Kaur and Bhango, 2016). It has also been reported that a significant proportion of those (about 25 %) who left agriculture has joined the ranks of wage-laborers (Singh and Bhogal, 2014).

This raises the fundamental issue of after all why the majority of small holders, endowed with sufficient experience of capital intensive and mechanized agriculture, of a state with comparatively much better agricultural and rural infrastructure, have been crowding in and around those occupations and works which lie at lower level of occupational hierarchy. Livelihood transformation experience point towards the strong role of human capital in occupational and upward social mobility. Research demonstrates that education plays an important role in choice of occupations and pursuing of lucrative earning and livelihood strategies. It is also held that those households with lower educational levels may be hindered from adopting better livelihoods (Tran et al, 2020). Further, education plays crucial

role in determination of farm households' labour allocation decisions. It is held that inadequate levels of education and vocational training represent the most important supply side constraints for an efficient allocation of labour by farm households. Low levels of education are found to be significantly constrained in entering the non-farm economy. Imparting of more quantitative and entrepreneurial skills is necessary to generate transferable skills for entry in other forms of employment (Tocco, 2013). Against such backdrop, it becomes absolutely necessary to examine in detail the educational base of small holders of the state in a comprehensive manner in order to generate actionable information about education levels of small and marginal farmers.

Data Sources and Methodology

The basic purpose of study is to examine in detail the educational status of the small holders for the state of Punjab. For this purpose, the study made use of both secondary and primary data. The representative sample for the state has been worked out by using the literacy data provided by the decadal census reports right up to the level of villages. The sampling process in overall involves five stage stratified random sampling. First stage consists of division of the state into six standardized Agro-Climatic Zones, viz. Foot Hill Zone, Central Zone, Northern Malwa, Eastern Malwa, Southern Malwa and West Malwa (Shergill, 2010). In the second stage, twelve districts in total were chosen by selecting two districts from each zone by following the criterion of the highest and lowest literacy rates. In third stage, from each districts two Tehsils (24 in total) with the highest and the lowest literacy rates were selected. In overall, 48 villages were selected by choosing two villages per tehsil on the basis of the highest and the lowest literacy (Table 1). The total number of small holders chosen was 240, of which 101 marginal farmers and 139 small farmers, by selecting five small and marginal farmers per village on the basis of operational holdings. A sampling frame of small holders had been prepared in order to select the required number of respondent farmer households randomly. The respective number of small and marginal farmers per village had been decided by keeping in view the proportion of such farmers at the level of state/district. In case of same literacy rate of two or more villages, the village with large population size had been preferred. In the selection of villages, other factors such as distance

of village from urban area, location in terms of roads, link road or otherwise, occupational structure of village, etc., was kept in view. The information given in Table 1 provides the ultimate break up of sampling plan for the state for various zones, districts, tehsils and sampled villages.

The standard definition of classification of farmers has been used for the purpose of analysis. The various size classes of farmers have been analyzed by using the concept of operational holdings. Noticeably, the term 'small holders' in the study has a specific meaning as it refer collectively to both the marginal and small farmers meaning thereby to that size class of holders which has operational holding equal to or less than two standard hectares. The term 'marginal farmers' is used to that size class of farmers whose operational holding was equal to or less than one standard hectare. Similarly, the term 'small farmers' is used for those whose operational holding lies between one and two standard hectares. The term literacy as defined and used during census operations has been used here. It is calculated by dividing total number of literates in that village to total population (except 0-6 years) and multiply it by 100.

Results and Discussion

Small Holders' Education Levels

The data given in Table 2 provides the details of education levels attained by small holders of the state. In case of persons (males and females; both) out of 1590 persons (i.e. excluding 0-6 years age population from total population), the number of literates was equivalent to 969 which results into literacy rate equivalent to 60.95 per cent. The number of illiterate persons was 621 (39.05%). Zone-wise, the Foot Hill Zone comprises the highest literacy rate (63.63%), followed by Northern Malwa Zone (63.28%), Central Zone (62.35%), Western Malwa (60.93%), Eastern Malwa (59.17%) and Southern Malwa (54.80%) the lowest. Further, 43.24 per cent of all small holders attained formal educational qualifications of matriculates and above. And, the proportion of graduates and post graduates was respectively 9.11 per cent and 3.71 per cent.

According to sex-wise break up (Table 3), among males, the Central Zone has highest level of literacy (69.50%), followed by Foot Hill Zone (68.05%), Northern Malwa (66.14%), Eastern Malwa (65.21%), Western Malwa (62.14%) and Southern Malwa (56.48%).

Table1. Agro-Climatic Zone Specific Selection of Sampling Units by Using Literacy Rate, Punjab

Zone and (districts in each zone)	Districts from zones	Tehsils from selected districts	Selected villages for survey
I.(Foot Hills) Gurdaspur, Hoshiarpur, Nawan Shahar, Roop Nagar, S.A.S Nagar	Hoshiarpur (84.6) H	Mukerian (85.5) H	Singowal (93.56) H Ittian (69.31) L
		Garhshankar (81.6) L	Alawalpur (90.50) H Nurpur (59.10) L
	Nawan Shahar (79.8)L	Nawan Shahar (80.02) H	Balon (89.50) H Jalwaha (42.10) L
		Balachaur (76.84) L	Majari (86.51) H Mangupur (64.11) L
II. (Central Zone) Amritsar, Tarn Taran, Kapurthala, Jalandhar	Jalandhar (82.15)H	Jalandhar-I (82.38) H	Rehmanpur (89.39) H Hamiri Khera (69.08) L
		Shahkot (73.26) L	Akalpur (84.10) H Rame (55.74) L
	Tarn Taran, (67.8) L	Khadoor Sahib (70.89) H	Chak Kare Khan (80.46) H Uppal (58.72) L
		Patti (64.50) L	Amirke (77.71) H Sito Mah Jhungian (43.75) L
III.(Northern Malwa) Ludhiana, Moga, Fatehgarh Sahib	Ludhiana, (82.12)H	Ludhiana West (80.51) H	Manakwal (88.64) H Chark (54.58) L
		Jagraon (75.5) L	Sangatpura (87.17) H Baghian (53.30) L
	Moga, (70.17) L	Moga (68.96) H	Puranewala (80.97) H Kot Mohamad Khan (47.93) L
		Bagha Purana (66.52) L	Demru Khurd (75.67) H Phulewal (55.75) L
IV.(Eastern Malwa) Patiala, Sangrur, Barnala	Patiala, (75.3)H	Rajpura (74.18) H	Gurditpura (85.04) H Jansua (50.11) L
		Patran (60.92) L	Gurditpur (84.81) H Khanewal (41.66) L
	Barnala (67.8) L	Barnala (66.21) H	Manal (78.43) H Pandher (52.56) L
		Tapa (62.57) L	Chhniwal Khurd (75.78) H Draka (54.68) L
V.(Southern Malwa) Bathinda, Mansa, Faridkot	Faridkot (69.6)H	Jaitu (64.79) H	Burj Jawahar Singh Wala (71.51)H Ramiana (58.41) L
		Faridkot (64.53) L	Phide Kalan (74.76) H Chanian (40.86) L
	Mansa (61.8) L	Sardulgarh (58.86) H	Phus Mandi (71.91) H Jherianwala (50.28) L
		Bhudhlada (57.32) L	Udit Saidewala (68.90) H Barah (47.92) L
VI.(Western Malwa) Ferozpur, Mukatsar	Ferozpur (68.9) H	Jalalabad (65.72) H	Chak Mahantawala (86.20) H Khurang (50.85) L
		Zira (64.80) L	Bhagoke (77.81) H Laluwala (43.25) L
	Mukatsar (65.8) L	Gidderbaha (62.05)	Seikh (70.82) H Theri (49.07) L
		Mukatsar (61.38) L	Akalgarh (73.290) H Chak Mahanta Wala (45.77) L
Total	12	24	48

Source: For Agro-Climatic Zones, Shergill (2010); for districts Literacy Rate, GOI (2011).

Note: Sampling Units were selected by following the principle of Highest and Lowest Literacy Rates; Figures in round brackets stand for literacy rate in percentage; H and L for Highest and Lowest literacy rates respectively; The Tehsil and village wise literacy rates have been calculated by author from Primary Census Abstract, GOI (2011).

Table 2. Small Holders' Zone-Wise Education Levels for Persons in Punjab

Level of Education	Foot Hill	Central	Northern Malwa	Eastern Malwa	Southern Malwa	Western Malwa	Overall
Illiterate	100 (36.36)	99 (37.64)	94 (36.71)	106 (39.70)	113 (45.20)	109 (39.06)	621 (39.05)
Primary	23 (8.36)	29 (11.02)	26 (10.15)	35 (13.10)	29 (11.60)	22 (7.88)	164 (10.31)
Middle	19 (6.90)	19 (7.22)	17 (6.64)	18 (6.74)	23 (9.20)	21 (7.52)	117 (7.35)
Matriculation	40 (14.54)	38 (14.44)	37 (14.45)	40 (14.98)	36 (14.40)	43 (15.41)	234 (14.71)
Senior Secondary	41 (14.90)	26 (9.88)	32 (12.50)	36 (13.48)	23 (9.20)	32 (11.46)	190 (11.94)
Graduation	24 (8.72)	35 (13.30)	25 (9.76)	16 (5.99)	14 (5.60)	31 (11.11)	145 (9.11)
Post Graduation	12 (4.36)	08 (3.04)	15 (5.85)	05 (1.87)	07 (2.80)	12 (4.30)	59 (3.71)
Others	16 (5.81)	09 (3.42)	10 (3.90)	11 (4.11)	05 (2.00)	09 (3.22)	60 (3.77)
Total	275 (100)	263 (100)	256 (100)	267 (100)	250 (100)	279 (100)	1590 (100)
Literacy rate	63.63	62.35	63.28	59.17	54.80	60.93	60.95

Source: Primary Survey (July-December, 2015).

Note: Figures in brackets show the percentages share; 0-6 year population has been excluded from the total population; Literacy rates: literate population/Total population (0-6 excluded)*100

Table 3. Small Holders' Zone-Wise Education Levels for Males in Punjab

Standard of Education	Foot Hill	Central	Northern Malwa	Eastern Malwa	Southern Malwa	Western Malwa	Overall
Illiterates	46 (31.94)	43 (30.49)	39 (31.70)	48 (34.78)	57 (43.51)	57 (39.58)	290 (35.32)
Primary	13 (9.02)	17 (12.05)	13 (10.56)	19 (13.76)	17 (12.97)	14 (9.72)	93 (11.32)
Middle	12 (8.33)	12 (8.51)	8 (6.50)	9 (6.52)	12 (9.16)	11 (7.63)	64 (7.79)
Matriculation	23 (15.19)	25 (17.73)	23 (18.69)	25 (18.11)	20 (15.26)	21 (14.58)	137 (16.68)
Senior Secondary	20 (13.88)	16 (11.34)	19 (15.44)	23 (16.66)	13 (9.92)	20 (13.88)	111 (13.52)
Graduation	14 (9.72)	20 (14.18)	11 (8.94)	7 (5.07)	7 (5.34)	12 (8.33)	71 (8.64)
Post Graduation	7 (4.86)	3 (2.12)	4 (3.25)	3 (2.17)	3 (2.29)	5 (3.47)	25 (3.04)
Any Other	9 (6.25)	5 (3.54)	6 (4.86)	4 (2.89)	2 (1.52)	4 (2.77)	30 (3.65)
Total	144 (100)	141 (100)	123 (100)	138 (100)	131 (100)	144 (100)	821 (100)
Literacy rate	68.05	69.50	66.14	65.21	56.48	62.14	64.67

Source: Primary Survey (July-December, 2015)

Note: Figures in brackets are percentage to total

Table 4. Small Holders' Zone-Wise Education Levels for Females in Punjab

Standard of Education	Foot Hill	Central	Northern Malwa	Eastern Malwa	Southern Malwa	Western Malwa	Overall
Illiterates	54 (41.22)	56 (45.90)	51 (38.34)	58 (44.96)	56 (47.05)	56 (41.48)	331 (43.04)
Primary	10 (7.63)	12 (9.83)	13 (9.77)	16 (12.40)	12 (10.08)	8 (5.92)	71 (9.23)
Middle	7 (5.34)	7 (5.73)	9 (6.76)	9 (6.97)	11 (9.24)	10 (7.40)	53 (6.89)
Matriculation	17 (12.97)	13 (10.65)	18 (13.53)	15 (11.62)	16 (13.44)	18 (13.33)	97 (12.61)
Senior Secondary	21 (16.63)	10 (8.19)	13 (9.77)	13 (10.07)	10 (8.40)	12 (8.88)	79 (10.27)
Graduation	10 (7.76)	15 (12.29)	14 (10.52)	9 (6.97)	7 (5.88)	19 (14.07)	74 (9.62)
Post Graduation	5 (3.81)	5 (4.09)	11 (8.27)	2 (1.55)	4 (3.36)	7 (5.18)	34 (4.42)
Any Others	7 (5.44)	4 (3.27)	4 (3.00)	7 (5.42)	3 (2.52)	5 (3.70)	30 (3.90)
Total	131 (100)	122 (100)	133 (100)	129 (100)	119 (100)	135 (100)	769 (100)
Literacy rate	58.77	54.09	61.65	55.03	52.94	58.51	56.95

Source: Primary Survey (July-December, 2015)

Note: The figures in brackets are percentages to total

Similarly, among females (Table 4), the highest level of literacy was found in Northern Malwa (61.65%) and the lowest in Southern Malwa (52.94%). Small holders' overall literacy of 60.95 per cent was considerably on lower side than the state's average rural literacy, i.e. 71.4 per cent as per census 2011. Further, the same holds true for male and female literacy also. Their literacy attainments become further wanting when compared with overall state average and more so with urban areas (GOI, 2019).

The collective reading of above mentioned tables shows some unique progression of education among small holders. The literacy among males (64.67%) was much higher than that of females (56.95%). Interestingly, more proportion among males' attained secondary and post secondary degrees than females. But relatively higher proportion of females participated into higher education than males. The proportion of females possessing graduation and post graduation degrees was higher than that of males. Further, within same agro-climate zones educational levels varied considerably between sexes with existence of no unique

pattern prevalent across all educational levels. For example, for graduation degree, more proportion of females (14.07%) of Western Malwa attained it than corresponding males (8.33%). And, the situation was found to be reverse in Foot Hill Zone as comparatively higher proportion of males (9.72%) attained it than females (7.76%). Among various zones, the Foot Hill Zone occupied the top most position on literacy scale (63.63%) and Southern Malwa (54.80%) the lowest. However, among small holders, in overall, 13.17 per cent persons completed matriculation, 12.40 per cent senior secondary and 14.16 per cent graduation and post graduation. The proportion of under matriculates, excluding illiterate persons, was to the extent of 21.22 per cent.

Small Farmers' Education Levels

Small farmers' educational attainments, as reported in Table 5, with person as unit of account, across agro-climate zones (Table 5) show some mixed set of tendencies. The overall literacy, among persons, belonging to small holders' households was 61.46

per cent; the highest in South Malwa (65.75%) and lowest in Eastern Malwa (58.97%). The proportion of persons among them with other stages of education, in descending order, was as follows: matriculate (13.17%), senior secondary (12.40%), primary (11.40%), graduate (10.18%), middle (7.3%) and post graduate (3.98%). Importantly, no single agro-climate zone has clear cut edge over other zones in any of the specified categories of education. For example, in case of matriculate level of education the highest proportion was there in Southern Malwa (16.07%) and the lowest in Eastern Malwa (11.11%). In case of senior secondary, the highest proportion was in Eastern Malwa (16.23%) and lowest in Central Zone (6.13%). There was huge gap in the proportion of graduates between Central Zone (15.95%) and Southern Malwa (5.40%). Post graduates were proportionately more in Foot Hill zone (6.25%) and lowest in Eastern Malwa (2.56%). Sex specific analysis of education (Table 6 and 7) levels shows that in overall males possessed relatively much higher level of literacy than females respectively 71.60 per cent and 59.49 per cent. Further, more proportion

of males (15.08%) was possessing matriculate degrees than females (11.16%). Males maintained their edge over females even during senior secondary level of education also. But, in subsequent stage of education, females surpassed their male counterparts parts during higher level of education. The proportion of females with graduate and post graduate degrees was higher than that of males.

The collective proportion of females for graduate and post graduate degrees was 15.48 per cent as compared to 12.71 per cent of males. The collective reading based on sex specific and agro-climate zone specific educational attainments prove helpful in the identification of educational high and low points. For example, Southern Malwa has the highest proportion of male matriculates (17.33%) whereas Central Zone has the lowest proportion of female matriculates (8.45%). Similarly, for secondary level, males' proportion was 21.21 per cent in Eastern Malwa against females' 5.63 per cent in Central Zone. In Eastern Malwa, 21.21 per cent males were graduates against 5.63 per cent females in Central Zone.

Table 5. Small Farmers' Zone-Wise Education Levels for Persons in Punjab

Standard of Education	Foot Hill	Central	Northern Malwa	Eastern Malwa	Southern Malwa	Western Malwa	Overall
Illiterate	55 (34.37)	63 (38.65)	53 (36.05)	48 (41.02)	64 (43.24)	65 (38.69)	348 (38.53)
Primary	15 (9.37)	20 (12.26)	20 (13.60)	14 (11.96)	19 (12.83)	15 (8.92)	103 (11.40)
Middle	12 (7.50)	10 (6.13)	12 (8.16)	8 (6.83)	13 (8.78)	11 (6.54)	66 (7.30)
Matriculation	19 (11.87)	20 (12.26)	18 (12.24)	13 (11.11)	22 (14.86)	27 (16.07)	119 (13.17)
Senior Secondary	24 (15.00)	10 (6.13)	20 (13.60)	19 (16.23)	16 (10.81)	23 (13.69)	112 (12.40)
Graduation	18 (11.25)	26 (15.95)	13 (8.84)	9 (7.69)	8 (5.40)	18 (10.71)	92 (10.18)
Post Graduation	10 (6.25)	7 (4.29)	5 (3.40)	3 (2.56)	4 (2.70)	7 (4.16)	36 (3.98)
Any other	7 (4.37)	7 (4.29)	6 (4.08)	3 (2.56)	2 (1.35)	2 (1.19)	27 (2.99)
Total	160 (100)	163 (100)	147 (100)	117 (100)	148 (100)	168 (100)	903 (100)
Literacy rate	65.62	61.34	63.94	58.97	65.75	61.30	61.46

Source: Primary Survey (July-December, 2015).

Note: Figures in brackets depict percentage share; 0-6 year population has been excluded from the total population

Table 6. Small Farmers' Zone-Wise Education Levels for Males in Punjab

Standard of Education	Foot Hill	Central	Northern Malwa	Eastern Malwa	Southern Malwa	Western Malwa	Overall
Illiterates	23 (28.39)	29 (32.58)	25 (35.21)	27 (40.90)	30 (40.00)	31 (37.80)	165 (35.56)
Primary	8 (9.87)	14 (15.73)	9 (12.67)	8 (12.12)	10 (13.33)	7 (8.53)	56 (12.06)
Middle	7 (8.64)	8 (8.98)	4 (5.63)	3 (4.54)	7 (9.33)	4 (4.87)	33 (7.11)
Matriculation	11 (13.58)	14 (15.73)	10 (14.08)	8 (12.12)	13 (17.33)	14 (17.07)	70 (15.08)
Senior Secondary	11 (13.58)	6 (6.74)	14 (19.71)	14 (21.21)	9 (12.00)	16 (19.51)	70 (15.08)
Graduation	11 (13.58)	13 (14.60)	5 (7.04)	3 (4.54)	5 (6.66)	7 (8.53)	44 (9.48)
Post Graduation	5 (6.17)	2 (2.24)	2 (2.80)	2 (3.03)	1 (1.33)	3 (3.65)	15 (3.23)
Any Other	5 (6.17)	3 (3.37)	2 (2.81)	1 (1.51)	0 (0.00)	0 (0.00)	11 (2.37)
Total	81 (100)	89 (100)	71 (100)	66 (100)	75 (100)	82 (100)	464 (100)
Literacy Rate	71.60	67.41	64.78	59.09	60.00	62.19	64.43

Source: Primary Survey (July-December, 2015)

Note: Figures in brackets are the percentages to total

Table 7. Small Farmers' Zone-Wise Education Levels for Females in Punjab

Standard of Education	Foot Hill	Central	Northern Malwa	Eastern Malwa	Southern Malwa	Western Malwa	Overall
Illiterate	32 (40.50)	34 (47.88)	28 (36.84)	21 (38.88)	34 (46.57)	34 (39.53)	183 (41.68)
Primary	7 (8.86)	7 (9.85)	11 (14.47)	6 (11.11)	9 (12.32)	7 (8.13)	47 (10.70)
Middle	5 (6.32)	2 (2.81)	8 (10.52)	5 (9.25)	6 (8.21)	7 (8.13)	33 (7.51)
Matriculation	8 (10.12)	6 (8.45)	8 (10.52)	5 (9.25)	9 (12.32)	13 (15.11)	49 (11.16)
Senior Secondary	13 (16.45)	4 (5.63)	6 (7.89)	5 (9.25)	7 (9.58)	7 (8.13)	42 (9.56)
Graduation	7 (8.86)	12 (16.90)	8 (10.52)	6 (11.11)	3 (4.10)	12 (13.95)	48 (10.93)
Post Graduation	4 (5.06)	3 (4.22)	5 (6.57)	1 (1.85)	3 (4.10)	4 (4.65)	20 (4.55)
Any other	3 (3.79)	3 (4.22)	2 (2.63)	5 (9.25)	2 (2.73)	2 (2.32)	17 (3.87)
Total	79 (100)	71 (100)	76 (100)	54 (100)	73 (100)	86 (100)	439 (100)
Literacy rate	59.49	52.11	63.15	61.11	53.42	60.46	58.31

Source: Primary Survey (July-December, 2015)

Note: Figures in brackets are the percentages to total

Marginal Farmers' Education Levels

Out of 687 persons (Table 8), belonging to marginal farmers' households, as many as 414 were found to be literate which translates into literacy rate of 60.26 per cent. The number of illiterates was 273 (39.74%). The proportionate share of rest in overall according to education levels were as follows: primary (8.87%), middle (7.42%) matriculates (16.73%), senior secondary (11.35 per cent), graduates (7.71%) and post graduates (3.34%). Zone-wise, the highest proportion of matriculates was found in Foot Hill Zone (18.26%), of senior secondary in Central Zone (16%), of graduates in Western Malwa (11.71%) and post graduates in North Malwa (9.17%). As per comparative reading of sex specific details (Table 9 and 10), in overall, males have much higher level of literacy (64.98%) than that of females (55.16%). Further, the proportionate share of males was higher for matriculate and senior secondary level of education than those of females in their respective categories. But, here too among marginal class size of farmers, more proportion of females acquired graduate and post graduate degrees than their male counterparts. The proportion of male-

graduates was 7.56 per cent as compared to that of female-graduates, i.e. 7.87 per cent. And, 4.24 per cent females possessed post graduate degrees than 2.80 per cent of males. The sex-cum-zone specific perusal of data establishes that North Malwa comprises the highest proportion of matriculate males (25%) and females (17.54%) over all other zones. And, north Malwa further has highest proportion of post graduate males (3.84%) and females (10.52%). Similarly, Central Zone has the highest proportion of senior secondary and graduate males respectively 19.23 per cent and 13.46 per cent. However, Foot Hill zone consisted of the highest proportion of females (15.38%) with senior secondary and graduate (14.28%) degrees. Notice worthy, marginal farmers based in Eastern Malwa and Southern Malwa lagged behind other zones in educational attainments.

Education Levels of Small versus Marginal Farmers

Small and marginal farmers in broader context stand on almost same footing in terms of educational attainments when viewed on the basis of sex categories, viz. males, females and persons (Table 11). No single

Table 8. Marginal Farmers' Zone-Wise Education Levels for Persons in Punjab

Level of Education	Foot Hill	Central	Northern Malwa	Eastern Malwa	Southern Malwa	Western Malwa	Overall
Illiterate	45 (39.13)	36 (36.00)	41 (37.61)	58 (38.66)	49 (48.03)	44 (39.63)	273 (39.74)
Primary	8 (6.95)	9 (9.00)	6 (5.50)	21 (14.00)	10 (9.80)	7 (6.30)	61 (8.87)
Middle	7 (6.08)	9 (9.00)	5 (4.58)	10 (6.66)	10 (9.80)	10 (9.00)	51 (7.42)
Matriculation	21 (18.26)	18 (18.00)	19 (17.43)	27 (18.00)	14 (13.72)	16 (14.41)	115 (16.73)
Senior Secondary	17 (14.78)	16 (16.00)	12 (11.00)	17 (11.33)	7 (6.86)	9 (8.10)	78 (11.35)
Graduation	6 (5.21)	9 (9.00)	12 (11.00)	7 (4.66)	6 (5.88)	13 (11.71)	53 (7.71)
Post Graduation	2 (1.73)	1 (1.00)	10 (9.17)	2 (1.33)	3 (2.94)	5 (4.50)	23 (3.34)
Any other	9 (7.82)	2 (2.00)	4 (3.66)	8 (5.33)	3 (2.94)	7 (4.50)	33 (4.80)
Total	115 (100)	100 (100)	109 (100)	150 (100)	102 (100)	111 (100)	687 (100)
Literacy rate	60.86	64.00	62.38	61.33	51.96	60.36	60.26

Source: Primary Survey (July-December, 2015)

Note: Figures in brackets are the percentages to total

Table 9. Marginal Farmers' Zone-Wise Education Levels for Males in Punjab

Level of Education	Foot Hill	Central	Northern Malwa	Eastern Malwa	Sothorn Malwa	Western Malwa	Overall
Illiterate	23 (36.50)	14 (26.92)	14 (26.92)	21 (29.16)	27 (48.21)	26 (41.93)	125 (35.02)
Primary	5 (7.93)	3 (5.76)	4 (7.69)	11 (15.27)	7 (12.50)	7 (11.29)	37 (10.36)
Middle	5 (7.93)	4 (7.69)	4 (7.69)	6 (8.33)	5 (8.92)	7 (11.29)	31 (8.68)
Matriculation	12 (19.04)	11 (21.15)	13 (25.00)	17 (23.61)	7 (12.50)	7 (11.29)	67 (18.76)
Senior Secondary	9 (14.28)	10 (19.23)	5 (9.61)	9 (12.50)	4 (7.14)	4 (6.45)	41 (11.48)
Graduation	3 (4.76)	7 (13.46)	6 (11.53)	4 (5.55)	2 (3.57)	5 (8.06)	27 (7.56)
Post Graduation	2 (3.17)	1 (1.92)	2 (3.84)	1 (1.38)	2 (3.57)	2 (3.22)	10 (2.80)
Any other	4 (6.34)	2 (3.84)	4 (7.69)	3 (4.16)	2 (3.57)	4 (6.45)	19 (5.32)
Total	63 (100)	52 (100)	52 (100)	72 (100)	56 (100)	62 (100)	357 (100)
Literacy rate	63.49	73.07	73.07	70.83	51.78	58.06	64.98

Source: Primary Survey (July-December, 2015)

Note: Figures in brackets are the percentages to total

Table 10. Marginal Farmers' Zone-Wise Education Levels for Females in Punjab

Level of Education	Foot Hill	Central	Northern Malwa	Eastern Malwa	Southern Malwa	Western Malwa	Overall
Illiterate	22 (42.30)	22 (43.13)	23 (40.35)	37 (49.33)	22 (47.82)	22 (44.89)	148 (44.84)
Primary	3 (5.76)	5 (9.80)	2 (3.50)	10 (13.33)	3 (6.52)	1 (2.04)	24 (7.27)
Middle	2 (3.84)	5 (9.80)	1 (1.75)	4 (5.33)	5 (10.86)	3 (6.12)	20 (6.06)
Matriculation	9 (17.30)	7 (13.72)	10 (17.54)	10 (13.33)	7 (15.21)	5 (10.20)	48 (14.54)
Senior Secondary	8 (15.38)	6 (11.76)	7 (12.28)	8 (10.66)	3 (6.52)	5 (10.20)	37 (11.21)
Graduation	3 (5.76)	3 (5.88)	6 (10.52)	3 (4.00)	4 (8.69)	7 (14.28)	26 (7.87)
Post Graduation	1 (1.92)	2 (3.92)	6 (10.52)	1 (1.33)	1 (2.17)	3 (6.12)	14 (4.24)
Any other	4 (7.69)	1 (1.96)	2 (3.50)	2 (2.66)	1 (2.17)	3 (6.12)	13 (3.93)
Total	52 (100)	51 (100)	57 (100)	75 (100)	46 (100)	49 (100)	330 (100)
Literacy rate	57.69	56.86	59.64	50.66	52.17	55.10	55.16

Source: Primary Survey (July-December, 2015)

Note: Figures in brackets are the percentages to total

category maintained noticeable edge across all specified educational levels. However, some mild patterns could be ascertained by digging deep into data figures. Small farmers have just little edge over marginal farmers in overall literacy rate respectively 61.46 per cent and 60.23 per cent. Among both categories of land holders, higher proportion of males was literate than females. Similarly, more proportion of males acquired secondary level of education than females in both categories. However females had edge over males so far proportion of graduates and post graduates was concerned. Relatively more persons from the category of small farmers than the marginal ones attained post metric levels of education viz. senior secondary, graduation and post graduation. The proportion of matriculates was higher among marginal farmers (16.73%) than smaller ones (13.17%).

But, on other side, educational attainments, according to agro-climate zones, between small and marginal farmers shows some noticeable tendencies (Table 12). In Southern Malwa, the literacy level of

small farmers (65.75%) was much higher than marginal farmers (51.96%). Small farmers had comparatively higher proportion of matriculates than the marginal farmers in two zones, viz. Southern Malwa and Western Malwa and considerably lower in rest. In Foot Hill Zone and Central Zone, the proportion of graduates was much higher among small farmers than marginal ones. But in Northern Malwa, contrary to general tendency, the proportion of post graduates was much higher among marginal farmers (9.17%) than small farmers (3.40%).

Conclusion and Policy Implications

The foregone analysis in a succinctly manner captured the critically required dimensions of educational attainments realized by small holders. The small holders, as a farm size class, were found to be lagging behind on educational front. Within small holders, educational progress varied considerably across agro-climate zones, sexes and education levels. Overall males attained higher level of literacy than females for all analyzed literacy units like small holders, marginal

Table 11. Sex-Wise Education Levels among Small and Marginal Farmers in Punjab

Standards of Education	Small Farmers			Marginal Farmers			Total 7= (3)+(6)
	Males (1)	Females (2)	Persons (3)	Males (4)	Females (5)	Persons (6)	
Illiterate	165 (35.56)	183 (41.68)	348 (38.53)	125 (35.01)	148 (44.84)	273 (39.73)	621 (39.05)
Primary	56 (12.06)	47 (10.70)	103 (11.40)	37 (10.36)	24 (7.27)	61 (8.87)	164 (10.31)
Middle	33 (7.11)	33 (7.51)	66 (7.30)	31 (8.68)	20 (6.06)	51 (7.42)	117 (7.35)
Matriculation	70 (15.08)	49 (11.16)	119 (13.17)	67 (18.76)	48 (14.54)	115 (16.73)	234 (14.71)
Senior Secondary	70 (15.08)	42 (9.56)	112 (12.40)	41 (11.48)	37 (11.21)	78 (11.35)	190 (11.94)
Graduation	44 (9.48)	48 (10.93)	92 (10.18)	27 (7.56)	26 (7.87)	53 (7.71)	145 (9.11)
Post Graduation	15 (3.23)	20 (4.55)	36 (3.98)	10 (2.80)	14 (4.24)	23 (3.34)	59 (3.71)
Any Others	11 (2.37)	17 (3.86)	27 (2.99)	19 (5.32)	13 (3.93)	33 (4.80)	60 (3.77)
Total	464 (100)	439 (100)	903 (100)	357 (100)	330 (100)	687 (100)	1590 (100)
Literacy rate	64.43	58.31	61.46	64.98	55.15	60.23	60.94

Source: Primary Survey (July- December 2015)

Note: Figures in brackets are percentages to total

Table 12. Zone-Wise Education Levels among Small and Marginal Farmers in Punjab, Persons

Education Levels	Size Class	Foot Hill	Central	Northern Malwa	Eastern Malwa	Southern Malwa	Western Malwa
Illiterate	SF	34.37	38.65	36.05	41.02	43.24	38.69
	MF	39.13	36.00	37.61	38.66	48.03	39.63
Primary	SF	9.37	12.26	13.60	11.96	12.83	8.92
	MF	6.95	9.00	5.50	14.00	9.80	6.30
Middle	SF	7.50	6.13	8.16	6.83	8.78	6.54
	MF	6.08	9.00	4.58	6.66	9.80	9.00
Matriculation	SF	11.87	12.26	12.24	11.11	14.86	16.07
	MF	18.26	18.00	17.43	18.00	13.72	14.41
Senior Secondary	SF	15.00	6.13	13.60	16.23	10.81	13.69
	MF	14.78	16.00	11.00	11.33	6.86	8.10
Graduation	SF	11.25	15.95	8.84	7.69	5.40	10.71
	MF	5.21	9.00	11.00	4.66	5.88	11.71
Post Graduation	SF	6.25	4.29	3.40	2.56	2.70	4.16
	MF	1.73	1.00	9.17	1.33	2.94	4.50
Others	SF	4.37	4.29	4.08	2.56	1.35	1.19
	MF	7.82	2.00	3.66	5.33	2.94	4.50
Literacy Rate	SF	65.62	61.34	63.94	58.97	65.75	61.30
	MF	60.86	64.00	62.38	61.33	51.96	60.36

Source: Primary Survey (July-December, 2015)

Note: SF and MF stand for Small and Marginal Farmers respectively

farmers, small farmers and agro-climate zones.

Formal educational progress followed different patterns and paths when various sub-categories of analysis across sexes and zones were compared with each other. That type of growth points and surpasses here and there makes the task of generalization difficult. Across zones, more proportion of males possessed secondary and post secondary degrees than females. But, higher proportion of females attained graduation and post graduation degrees. That holds true even separately for small farmers and marginal farmers also. On general literacy scale, both size classes' small and marginal farmers stand almost on same footing for literacy units for persons, males and females. But, educational progress between small and marginal farmers varied across agro-climatic zones.

The educational stock of small holders, as demonstrated by the study, definitely consists of noticeable gaps, lags and under achievements on multiple accounts. The intrinsic value of existing stock

of education will be somewhat further on lower side when the quality and type of education factored in. Arguably, small holders' are facing more constraints as they are dependent on a sector which is experiencing slower growth than rest of sectors, further placed in rural sector which lacks general dynamism, bereft of pulling up impact of rural non-farm sector because of its slower growth, and are placed at the end point of policy impact. As is generally established, any sort of lacunae in human capability formation, which comes only with quality education and training, acts as a limiting factor in the upward social and economic mobility. The ongoing structural weakness in educational base of small holders, as an extended economic community, has come to stay as the single largest impediment in the augmentation of their general livelihood. The smooth and secure transition to next stage of agrarian transition and livelihood diversification requires human capital intensive path of progression. Thus, the state system must identify, understand and acknowledge the shortcoming related to educational attainments of

small holders and adopt the workable strategies so as to minimize the pitfalls related staying in stagnating sector or unplanned transition or some mixture of both.

References

- GOI 2011. *Primary Census Abstract*, Data Tables, Census of India, Official Website, Government of India, New Delhi.
- GOI 2019. *Primary Census Abstract*, Data Tables, Census of India, Official Website, Government of India, New Delhi.
- Kaur M and Bhangoo K S 2016. Indebtedness, Income and Expenditure in Rural Punjab: A Study of a Village, in Satish Verma (Ed.) *Rural Indebtedness in Punjab and Other States: Problems and Way Out*. CRRID, Chandigarh, Pp. 171
- ESO 2019. *Statistical Abstract of Punjab*, Economic and Statistical Organization of Punjab, Chandigarh.
- Shergill H S 2010. *Growth of Farm Debt in Punjab 1997 to 2008*, Institute for Development and Communication, Chandigarh.
- Singh S and Bhogal S 2014. De-Peasantization in Punjab: Status of Farmers Who Left Farming. *Current Science*. **106**: 1364-68
- Tocco B, Bailey A and Davidova S 2013. *Determinants to leave agriculture and change occupational sector: Evidence from an enlarged EU* (No. 545-2016-38697).
- Tran T A, Tran T Q and Nguyen H T 2020. The role of education in the livelihood of households in the Northwest region, Vietnam. *Educational Research for Policy and Practice*. **19**: 63-88

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