PROFESSIONAL EDUCATION IN PUNJAB: EXCLUSION OF RURAL STUDENTS

A

PROJECT REPORT

SUBMITTED TO

PUNJABI UNIVERSITY, PATIALA

RANJIT SINGH GHUMAN

SUKHWINDER SINGH

JASWINDER SINGH BRAR

DEPARTMENT OF ECONOMICS
&
CENTRE FOR RESEARCH IN ECONOMIC CHANGE

PUNJABI UNIVERSITY, PATIALA

NOVEMBER, 2008

PREFACE

Punjab economy continues to be a rural oriented economy. About two-thirds of state's total population (66.05 per cent) and 70 per cent of the work force live in rural areas as per Population Census of 2001. About two-fifth of state income originates in the agriculture and allied activities. However, education base of the rural people is very weak and fragile. The literacy rate in rural areas is also very low (65 per cent) compared to urban literacy rate (79 per cent). Although the agricultural led growth has improved the living conditions of rural people, yet a big socio-economic gap exists with regard to the availability of public services, infrastructural facilities, and employment opportunities between the rural and urban people. For instance, people living in cities/towns have access to better schools and colleges, better teachers and without any vacant post, better transport and communication means, better income earning opportunities, etc.

Contrary to it, villagers as such are either deprived of better facilities or have to be contended with less efficient ones. They have become disillusioned, especially with their wards' educational facilities and attainments. Their children have lagged behind both in terms of vertical and horizontal mobility of occupations than that of their urban counterparts. As such, they are unable to compete with the urbanites on the basis of merit. In Punjab or elsewhere, the admission process to professional courses is entirely based on the rank secured in the state/national level tests. In these tests, in fact, there is no level playing field for rural students in the determination of merit/rank, when their school foundation and counseling were much weaker than their urban counterparts.

On the other side, the political leadership, civil bureaucracy, affluent people and even the academia of the state have increasingly become inimical and insincere towards them. Even the judiciary is promoting the hollow slogan of meritocracy. The rural education in government schools in the state has been totally collapsed. Private schools recognized or unrecognized) are mushrooming in rural areas day-in and day-out. And, these schools are

working and charging very high fee without any regulatory authority. The government schools in the rural areas are largely meant for the students belonging to SCs, BCs and other weaker sections of society. As such, the rural people without education ladder have lagged behind in every walk of life. Naturally, it is expected that the number and proportion of rural students in higher professional education are not only low but also on the decline over the period of time.

Punjab has become a classic case of societal transformation based on the market forces. And, the market forces have emerged as the principal instrument not only in the commodity producing sectors, but also in the entire services sector including in the 'public good' nature of services, particularly in the education and health. These two sectors are basically responsible for the development of human resources in the state. This process has deprived an overwhelming majority of vulnerable sections of rural society from getting the benefits of public services and put restrictions on improving their quality of life.

Further, mainstream economists attached great significance to the higher professional education in creating new knowledge and skills of the workforce, and preparing them for premium employment avenues. The higher professional education, in fact, has become sine qua non for the generation, absorption, preservation, application and dissemination of knowledge. Truly, the professionally qualified people of the country, even of a poor country, could be able to promote, assert and protect their state's/nation's interest in the fast emerging knowledge societies at the national/global level. The real wealth of a nation lies in its people. And, the purpose of development is to create an enabling environment for people to enjoy long, healthy and creative lives (UNDP, 1990). This simple but powerful truth is too often forgotten in the pursuit of material and financial wealth. This is truer in the case of Punjab state.

Our earlier study, 'Rural Students in Universities of Punjab' has provided much needed empirical base about the low proportion of rural students in the four universities of Punjab state (Ghuman, Singh and Brar, 2006). In the ensuing heated debate, many cabinet ministers, bureaucrats

and policy makers were apologetic to the findings and suggested the Punjabi University authorities to undertake an exclusive but similar study of other universities of the state providing professional degree courses. In a true spirit of favouring ruralites, the then Vice Chancellor, S. Swarn Singh Boparai, Kirti Chakra had granted a research project to the study team. Actually, in the absence of the authentic database, comprehensive study and socio-economic background of rural students, the state authorities were unable to formulate concrete and meaningful public policy interventions. These facts tempted us to undertake this study. Thus, the rationale and significance of the proposed study is self-evident.

In fact, the earlier report has greatly influenced the public policy regime in the state. For instance, the Punjab Agricultural University, Ludhiana has started a six-year integrated degree course, after the matriculation, exclusively for the rural students from academic session 2008-09. Further, the Punjab government with the approval of AICTE has got a sanction of 10 per cent additional seats for poor and meritorious students in the unaided technical institutions in the state. As per the policy, these students will not be charged any tuition fee. Very recently, as per the press news, the Chief Minister of Punjab has asked all the universities in the state to create 10 per cent additional seats for rural students.

The main purpose of present study is to provide authenticity to the general observation that a widespread ‘exclusion growth’ process has been witnessed in the state, where the rural people in general and rural students in particular are deprived of from the benefits of higher professional education, whatever may be the reasons. Collapse of rural government school education, high fees in private schools (beyond the reach of majority of ruralites), gap in rural-urban amenities and awareness, lack of guidance and coaching facilities, admission through the entrance tests, etc. may be some of the reasons. One of the serious implications of all these is that rural students are unable to compete with their unban counterparts and, hence, incapable to enter the higher professional education sector through the present modes of entrance test examinations.

During the recent years, particularly since the 1990s, the state has allowed the entry of private entrepreneurs to establish the colleges/institutes in higher professional education sector. And, the private entrepreneurs have entered this sector in a big way. On the one hand, the access to higher professional education in the state has increased and on the other, de-facto commercialization of professional education has been started substantially. Full-cost recovery from the students has become new mantra of privately funded institutions. Even, the public funded institutions, when confronted with severe resource crunch, started responding to market signals like (i) starting of self-financing courses, (ii) charging more fees and funds for existing courses, (iii) increasing NRI/Industry sponsored seats, (iv) provisioning of management quota seats, (v) keeping the posts vacant even the incumbents retire, and (v) in-formalization of workforce (contract/adhoc/guest faculty, etc.).

In Punjab, opening of new professional courses have become a most lucrative business activity having quick and high profits with a little risk and uncertainty. Selling/buying of certain choicest professional courses or institutions at the highest possible price, and at discounted price where seats remain vacant has emerged a thing of normal happening in Punjab. Moreover, these institutes have been imposing high and multiple user charges in one form or another under countless pretexts and varieties. With imposition of unreasonably high fee and funds, getting professional education of high quality has become costly and, moreover, out of the reach of majority of the population living in rural areas. Further, deterioration as well as collapse of school education in rural government schools has added more worries to the rural people. All these forces are responsible for the exclusion of rural students, who are otherwise meritorious and hard working, from the higher professional courses. It has been often said, by the government, policy makers and academia, that the proportion of rural students in the professional courses is very low. But there was no authentic data about this. In the absence of data, it was all talking in the air.

The present study has made a serious attempt to estimate the number and proportion of rural students in the professional education sector of Punjab. It has also made a comprehensive and objective assessment of some peculiar issues related to rural students such as their school background; academic achievements; motivators' role; parents' education, occupation and their current income levels; fees and funds paid by them; etc. This report is the product of a team effort. The team members developed the overall theme, methodology and gave a unified treatment to the main contents of the work. The core members collected and processed the primary data themselves; exchanged their notes/contributions in varying degrees; revised/reformulated them and reorganized the contents, wherever necessary, to make the report a cohesive document without any ambiguity. The study team, indeed, is wholly responsible for the contents, views and quality of the report.

In preparation of report, the study team has taken the cooperation and help of a large number of institutions and individuals. We gratefully acknowledge our indebtedness to all these institutions and individuals. At the forefront of all, is the former Vice Chancellor of Punjabi University, Patiala, S. Swarn Singh Boparai, Kirti Chakra whose concern for ruralites has already won him international recognition. In fact, he was the moving spirit behind this study. He wanted to have much needed empirical and logistic support to highlight and tackle the various problems of rural education at the highest policy levels in Punjab. Equally important is the help and support of the present Vice Chancellor of Punjabi University, Patiala, Dr. Jaspal Singh. He very generously extended all possible help ranging from the granting liberal finances, timely extensions and administrative assistance in the completion the study. We are deeply beholden to him.

The team is highly thankful to the Punjabi University authorities, particularly the former Dean Academic Affairs, Professor Sucha Singh Gill, (Now, the Dean Research); the present Dean Academic Affairs, Professor M.S. Saini; the Registrar, Dr. S.S. Khaira and the Finance Officer, S. Mohinder Singh. Among the Faculty Members of Economics Department of Punjabi

University, we are highly indebted to Professor Inderjeet Singh, Professor Lakhwinder Singh and Dr. Parmod Kumar for their valuable comments and assistance in crystallizing the thought process and improving the quality of final report.

The study is essentially based on the primary data. In the collection of primary data, the Offices of the Vice Chancellors, the Deans Academic Affairs, the Registrars of all universities of Punjab under the preview of study has helped us in many ways. Owing to the space constraint, it is literally not feasible to reproduce the names of all of them here. Nevertheless, we would like to mention a few names here: Dr. Ravinder Singh, Vice Chancellor of the BFUHS; Dr S. K. Salwan, the former Vice Chancellor of the PTU; Professor Abhijit Mukherjee, Director of the TU; Dr. Gurjit Singh and Dr. G.I.S. Sandhu, Vice Chancellor and Registrar respectively of the RGNUL and Dean Academics of the SLIET. We thank all of them wholeheartedly.

Further, the Directors/Principals/Heads, faculty members and non-teaching staff of the different Colleges/Institutes/Departments extended their wholehearted cooperation and provided us the ground level help in identifying the rural students and in filling up of the questionnaire. It is very difficult to reproduce the name of all of them here. We are thankful to all of them for extending immense cooperation in collection of primary data and certain useful suggestions. Our thanks are also due to all those rural students who extended cooperation to fill up the questionnaire. For cross checking, a large proportion of sampled rural students have even responded to our queries on the telephones/mobiles. The discussions of project team members with the faculty members and student leaders in the sampled universities of Punjab were also of immense help. Further, the help rendered by Statistical Officers of all the universities is duly acknowledged.

The library staff of the following institutions deserves our special thanks: Bhai Kahn Singh Nabha Library and Department of Economics Library, at Punjabi University, Patiala; A.C. Joshi Library, Panjab University, Chandigarh;

Rajiv Gandhi National University of Law Library, Patiala; Jawaharlal Nehru University Library, National University of Educational Planning and Administration Library, Association of Indian Universities' Library, University Grants Commission Library, all located at New Delhi; and State Planning Board Library, and Economic and Statistical Organization Library, both at Chandigarh.

Last but not the least, Mr. Surinder Kumar Singla, Research Fellow in the project, has helped us a lot in the collection, classification and tabulation of data and in finalizing the report, and Mr. Baltej Singh Bhathal, Computer Operator for error free typing of the report. The study team duly appreciates and acknowledges their help.

Ranjit Singh Ghuman Sukhwinder Singh Jaswinder Singh Brar

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List of Abbreviation

AE	Automobile Engineering
AICTE	All India Council for Technical Education
B. Pharmacy	Bachelor of Pharmacy
B. Architecture	Bachelor of Architecture
BALLB	Bachelor of Arts & Bachelor of Law
BAMS	Bachelor of Ayurvedic Medicine & Surgery
BBA	Bachelor of Business Administration
BC	Backward Classes
BCA	Bachelor of Computer Applications
BDS	Bachelor of Dental Surgery
BE	Bachelor of Engineering
BFUHS	Baba Farid University for Health Sciences
BHMS	Bachelor of Homeopathic Medicine & Surgery
BPT	Bachelor of Physiotherapy
CE	Civil Engineering
CHE	Chemical Engineering
CSE	Computer Science & Engineering
ECE	Electronic and Communication Engineering
EE	Electrical Engineering
EEE	Electronics & Electrical Engineering
EIE	Electronics & Instrument Engineering
FT	Food Technology
GOI	Government of India
GOP	Government of Punjab
ICE	Information & Communication Engineering
IE	Instrumentation Engineering
IT	Information Technology
M. Pharmacy	Master of Pharmacy
MBA	Master of Business Administration
MBBS	Bachelor of Medicine & Surgery
MCA	Master of Computer Applications
ME	Mechanical Engineering
MPT	Master of Physiotherapy
MSE	Master of Engineering
OBC	Other Backward Classes
PE	Production Engineering
PTU	Punjab Technical University
RGNUL	Rajiv Gandhi National University of Law
SC	Scheduled Castes
SLIET	Sant Longowal Institute of Engineering & Technology
ST	Scheduled Tribes
TE	Textile Engineering
TU	Thapar University

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Chapter 1

Introduction

Modern growth economists attach great importance to the human resources of a country. They state that, without developing human resources of a country, economic growth can not attain an optimum and self-sustenance path, particularly in the long run (Lucas, 1993; Benhabib and Spiegel, 1994; Barro and Sala-i-Martin, 1995; Barro, 2001; Krueger and Lindahl, 2001). The development of human resources, in fact, contributes to the self-sustained economic growth and more productive employment in the country (GOI, 2008). This has brought the role of higher education and training at the zenith. Actually, higher education enhances skills and capacities of the people and brings them to the centre stage of economic development of a country (Agarwal, 2006). And, all those countries, who had focused on human capital formation in the past, have achieved high growth trajectory in their national income and per capita income (OECD/UNESCO, 2002). And, higher education, especially of professional type, is certainly associated with high economic returns and rising stock of human capital (Quin and Smyth, 2007).

Realizing the economic benefits of higher professional education, people began to invest in their own education as well as in their wards' education and training. Earlier, T. W. Schultz and Gerry Becker have also recognized the role of human capital in achieving high economic growth in a country. Their researches have revolutionized not only the main contours of development economics but also led to resurgence of economics of education as the most important discipline of research in the knowledge economy (Schultz, 1961; Becker, 1964). A long time ago, the famous Cambridge Economist, Alfred Marshall also stated that, although the nature's production system is subject to decreasing returns, yet the men's skills and knowledge have the capacity to produce increasing returns (Marshall, 1920).

All these facts highlight the critical role played by the human resources of a country in attaining and maintaining high economic growth and development. And, developing the human resources of a country means

raising the productive capacity, working skills and knowledge base of human beings as well as of the whole society. Higher professional education trains the men and women to take up different socio-economic roles in the economy/society and it spurs the technological innovations that promote the economic development. It is helpful in inculcating human values to build democratic civil societies. It also includes the process of people's participation in political process and helps them to lead fuller and richer lives. Actually, the industrial revolution in Europe of the late 17th century and early 18th century brought many new inventions and innovations that had transformed their economies, especially when many epoch-making innovations were successfully applied to different production processes of the economy and brought significant changes in the occupational structure of the workforce. And, to promote the new inventions and innovations, higher professional education has acquired the central stage by transferring of high level skills/knowledge from one generation to another generation. Thus, all those countries who promoted the higher professional education have gained an envious position with respect to better social, economic and equitable conditions of life for all their citizens.

In India, during the past one and half decades, many new institutions providing professional education such as the medical/technological universities, institutes/colleges, and polytechnics have come into existence. There were just 886 professional colleges (15.42 per cent of total colleges) recognized by the UGC in 1990-91. Their number increased to 2223 colleges (21.90 per cent of total colleges) in 2000-01 and to 5179 colleges (28.88 per cent of total colleges) in 2005-06 (UGC, 2007). An overwhelming proportion of these new colleges were in private sector (Agarwal, 2006). And, the number of universities has also increased from 184 universities in 1990-91, to 276 universities in 2000-01, and to 350 universities in 2004-05. Also, number of students enrolled in these universities and all types of colleges increased from 49.25 lakh in 1990-91, to 84.00 lakh in 2000-01, and to 104.81 lakh in 2005-06 (UGC, 2007).

The rising number of professional colleges and students' enrollment are basically to fulfill the surging demand of industrial and service sectors for the professionally and technically qualified trained manpower in India and abroad. Comparatively, many students began to prefer professional courses because of high probability of getting better income and employment opportunities than that of the general education courses. In order to get seats in higher professional education courses or institutions or both, they compete with each other through the mechanism of entrance tests. In nutshell, only intelligent, sincere and hard working students are able to get admission in such professional courses. Their scores are better in the qualifying examinations or entrance tests compared to those who opted for the general courses. While getting formal training in professional courses, they learn skills, become more articulated and able to get better income generating employment. Further, with the sharpening of these qualities, they would become better human resources. All these indicate that the professionals/specialists of the particular field/s are product of the higher professional education sector of the economy.

1.1 Professional Education: Some Considerations

In a rapidly changing economy/society, it is difficult to evolve a precise definition of the words `profession' and 'professional', what to speak of 'professional education'. For a long period in the West, there were three recognized learned professions, namely, medicine, technology and law. These professions had a prestige which was highly prized and zealously guarded. Later on, the architecture and engineering courses came to be accepted as the skilled professions. With the recognition that there are numerous courses which demand a disciplined and scholarly training, the designation of 'professional' has come to be claimed by more occupations. Dentistry, journalism, teaching, forestry and nursing are some other courses to which the status of profession is generally conceded in the mature societies and the list is by no means complete. It means that the words 'profession' and 'professionals' will cease to be associated with specific callings. Instead of this, any man or woman who has prepared for exacting service by thorough

and disciplined scholarships and training and who lives and works in the spirit of professional standard may be recognized as a member of profession or called a ‘professional’. Therefore, the professional education is the process by which men and women prepare for an exacting, disciplined, scholarly training and responsible service in the professional spirit. The term may be restricted to preparation for fields requiring well informed and disciplined insight and skill of a high order. Less exacting preparation may be designated as vocational and technical education.

By definition, the professional education is an important part of formal higher education system that prepares the novices for highly skilled occupations such as medicine, engineering, pharmacy, law, etc. A person getting higher professional education becomes a trained professional or specialist by acquiring theoretical knowledge and practical skills of a particular course in a specified time period. And, after the successful completion of that course, the concerned university/board may award a degree, certification, license, or any other formal credential to the concerned person. Thus, a professionally qualified person has the expertise to undertake the job/work that needs high level of educational input, skills and training like the doctors/engineers/lawyers/teachers or any other professionals.

Indeed, the professional education qualifies the recipients for a particular profession. And, it refers to that type of higher professional education that imparts a special training or a particular type of skills/knowledge (marketable expertise), which involves a high level of expertise, rigorous training, better employability and higher earnings. Due to these qualities, a person who acquires professional education is highly respected in the society. For example, the jobs of doctors, engineers, managers, lawyers, and teachers are highly respected and are considered to be good occupations. And, due to the wider acceptability of higher professional education, a large number of students preferred to get admission in these courses because it imparts specialized training, better skills, and deeper learnings. Higher professional education, therefore, is used to mean those education processes which train the recipients with qualities of

organizational ability, effectiveness, and seriousness of the matter/problem. In fact, it integrates the knowledge, skills and career proficiencies with academic contents; and prepares the recipients for workplace, further education, training, and family and community roles.

Many research studies conducted by the different social scientists have shown that a country would remain underdeveloped so long as her people are deprived of higher professional education (The World Bank, 2002; Tilak, 2004a, b). Planning Commission of India, while formulating the Approach Paper of 11th Five Year Plan (2007-2012), emphasized on the role of higher professional education in achieving better socio-economic development and emancipation of the individuals as well as the society. Even, India's National Knowledge Commission (NKC) re-emphasizes its commitment to promote higher professional education in India (GOI, 2007). Earlier also, the Report of Education Commission (1964-66) popularly known as the Kothari Commission, indeed, displays the key role of higher education including the professional education in economic and social development of India (GOI, 1968). Moreover, the economic outcomes of professional higher education have been estimated to be substantial.

Further, the professionals/specialists contribute to the society in a variety of ways. They design the buildings and bridges that will serve their clients' purposes; they produce innovative and good quality engineering products; they prescribe drugs and perform surgeries designed to rectify their patients' physical ailments or to make them more comfortable; defends their clients' views and their constitutional as well as human rights; decides what contents of syllabus should be taught to the students and how to teach them; and helps to create civil society and good governance for better life. All they, however, share in common are the basic competencies to find solutions to the vexed problem/s. And, they are supposed to possess special expertise that enables them to do this. Professional education has, therefore, been given very much importance in the educational pyramid of a country. Every country, whether developed or underdeveloped, gives major thrust to the professional higher education to fulfill the demands of society for trained manpower.

Truly, the higher professional education produces highly skilled, better trained and knowledgeable workforce. That is the main reason that higher professional education has been treated as the most important productive investment in human capital. In fact, it is observed that the highly developed countries found to have a high proportion of people getting higher professional education. These developed countries have significant proportion of labour force with high degree of technical skills and training compared to less developed countries. This has become the starting point of contribution of professional education to the economic growth of a country (Sheehan, 1973). And, the higher professional educational level of workforce influences economic growth by changing the quality of the labour-factor in which it is embodied. To the mainstream economists, educated human beings are conceptualized and treated as the human capital or 'embodied savings' that can yield a return in terms of increased future earnings. Many research studies show that the remarkable economic success of East Asian Countries has been the result not only of abundance of natural resources but also of their highly developed human resources (Tilak, 2001). The significant roles of higher professional education to develop the personality, inculcate the rationality and quality of the individual to fulfill certain political and cultural functions are well documented in the form of externalities (Tilak, 2002; Powar, 2002).

1.2 Access and Affordability Question

Access and affordability of higher education, including professional education, is a complex and vexed problem in India. Answers to these require deeper analysis because the access and affordability depend upon a plethora of socio-economic and cultural realities of communities and politico-administrative set-up of the country. And, access and affordability of higher education has attracted the attention of policy makers, planners and political leaders in India. Under the planned development of India, they stressed on the provision of state funds to promote higher professional education under different five year plans. It is believed that provisioning of state institutions and funds will increase access and affordability of higher education to the

general masses. These steps have certainly increased the access and affordability of higher education in the country; however, the weaker sections of the society have lagged behind (Agarwal, 2006).

In fact, disparities in gross enrollment ratio (GER) in higher education across the area, gender and social category in India have provided testimonial proof of emerging ground realities (Table 1.1). The data reveal that the GER in higher education is very low: (i) in rural areas (6.70 per cent) compared to urban areas (19.90 per cent); (ii) among females (9.10 per cent) compared to males (12.40 per cent); and (iii) among the SC/ST (6.54 per cent) and OBC (8.77 per cent) compared to general category students (17.22 per cent). The disparity index points out high variations between urban and rural areas (13.20 percentage points), between general category and SC/ST category (10.68 percentage points), between general category and OBC category (8.45 percentage points) and between males and females (3.30 percentage points). It means the access to and affordability of higher education is highly biased against marginalized sections of society.

Table 1.1: Gross Enrolment Ratio and Disparity Index in Higher Education in India, 2004-05

(Figures in percentages)

Area	**Urban**	**Rural**	**Disparity (U-R)**
	19.90	6.70	13.20
Gender	**Male**	**Female**	**Disparity (M-F)**
	12.40	9.10	3.30
Social Category	**General**	**SC/ST**	**OBC**
	17.22	6.54	8.77
Disparity (General - SC/ST)		**Disparity (General - OBC)**	
10.68		8.45	

Source: Planning Commission (2008), ***Eleventh Five Year Plan 2007-2012, Vol. II***, Chapter Social Sector

Actually, in coming years, if corrective measures are not taken, the emerging situation could be more serious for the students of rural areas as well as of weaker sections of society due to the changed policy regimes. On the one hand, these changes allow presence of private service providers (including foreign players), levy high user charges and less supply of public funds have constrained the public funded institutions to grow and perform. On the other hand, due to the rising income inequalities, depressed rural

incomes, absence of safety nets and loose regulatory mechanism on the part of state, the access and affordability of higher education to general masses has certainly decreased. Even, in advanced countries, the market driven reforms in their education sectors has been feared to adversely affect the participation of low income people in higher education (Pennell, 2005).

It is important to note that the physical provisioning alone does not determine the access to any service. It must be matched with adequate purchasing power on the part of the service-demanders. So, the access to education at affordable fees determines the level of equity of any system from the angle of large scale participation. If such aspects are not taken care off, it resulted into the exclusion of non-affording sections of populace through the mechanism of pricing out in the education market. In case of higher professional education, the prevalence of such phenomenon lead to the exclusion of meritorious but non-affording students, and thereby, the country remained bereft from realizing the benefits of vast pool of such talent. The education based inequalities, in fact, perpetuate and sharpen all other types of inequalities among the individuals, households, genders, population groups, regions, and ultimately among the countries.

The existing educational inequality between the educated and the illiterate persons as groups led to producing the sea of other social, political and cultural inequalities (Brar, 1999). It is to be understood that the latest form of societal stratification has been emerging from the very nature and functioning of inherently an in-egalitarian education system operating in the state. The inequalities being emanated from the education have also been described as second or third generation inequalities. The solution to such inequalities in true means lies in massification of quality higher education and not simply in so called paper enrollments or various informal education programmes and campaigns.

The growth and expansion of education in the state as well as in the country is highly iniquitous in terms of regions, districts, locations, genders, population groups, classes and castes. Further, Punjab's relatively higher per capita income level is not commensurate with its relatively moderate level of

education and health standards (Brar, 2002; Planning Commission, 2003). The number of students declined sharply with the rising level of education and age. For example, during 2005, the typical distribution of students in the state was as follows: elementary education (72.71 per cent); secondary education (21.41 per cent); ITIs and Polytechnics (0.47 per cent); graduate level courses (4.80 per cent); post-graduate courses (0.59 per cent); research related programmes (0.01 per cent) [GOP, 2008]. There has been a monumental gap in the literacy levels in the state. For instance, the rural scheduled castes females of Mukatsar district were found to be the least literate group having the literacy rate of 29.78 per cent compared to rural scheduled castes females of Hoshiarpur district (69.62 per cent) as per Population Census of 2001. Similarly, literacy rate among the rural females of Mansa district is the least literate group with literacy rate of 40.20 per cent compared to urban females of Hoshiarpur district (81.81 per cent) in the state as per Population Census of 2001 (GOP, 2008).

In Punjab, the educational outcomes turned out to be highly disturbing when viewed in terms of dropout rates, pass percentages, age-specific enrollments and learning achievements. For example, the percentage of successfully pass out students during matriculation examination was just 65.98 per cent in 1998, which further declined to 49.18 per cent in 2002-03 in case of regularly appeared students. The dropout rate from first to tenth standard was to the extent of 48.10 per cent in 2002-03. And, for upper primary level, the percentage share of overage children was 18.19 per cent in 2004-05 (Gill, Singh and Brar, 2005). Moreover, the educational attainment of poor households fell across all the grades from first to nine during 1992-93 and 1998-99. For example, as many as 75 per cent of children from the top quintile households completed the 9^{th} grade in 1998-99, but only 9 per cent from the bottom two quintile households reached the same level (The World Bank, 2004).

The under-performance of education sector has crippled the education base of the workforce in the state. For example, during 1999-2000, the education level of the workforce in Punjab was as follows: illiterate (33.50 per

cent); primary (22.10 per cent); middle (13 per cent); secondary and above (31.50 per cent) [Chadha, 2004]. The most disturbing case is of the primary sector, where 48.3 per cent of workforce (farmers and agricultural labour) was illiterate, 20.8 per cent studied up to the primary and 11.2 per cent had middle level of education (Ibid., 2004). Further, another study based on census inquiry of 36 villages of Punjab found that about 69 per cent of rural households and 90 per cent of rural labour households do not have even a single member with matriculation level of education (Ghuman, Singh and Gill, 2007). Thus, the base of effective education in the state has remained highly skewed and, thereby, it reflects the long drawn neglect of this sector by the successive regimes. It is significant to note that the share of education, sports and culture in the state budget declined from 22 per cent in 1967-68 to 12 per cent in 2007-08 (GOP, 2008).

Some studies, about the primary education scenario in the rural Punjab, have highlighted that the government primary schools have been largely catering to the needs of SC, BC and other weaker section students. Due to a near collapse of primary education in government schools in Punjab, there has been a mushrooming growth of the so called private public schools (more like shops rather than the schools). The affluent and aware parents have started sending their wards to such schools in search of quality education. As such a very high proportion (ranging from 60 to 80 per cent) of students in rural government primary schools in Punjab have been coming from SC, BC and weaker sections of rural society (Joshi, 2003; Kaur, 2004; and Rani, 2007). Such a scenario has further perpetuated the collapse of primary education in rural Punjab especially in government primary schools.

The fact of the matter is that the government primary schools are no body's baby. It is known fact that more than 22,000 positions of teachers are vacant in the Punjab and most of them are in rural schools. At the top of it, the incidence of absenteeism is nearly 25 per cent. A recent report (The Tribune, July 18, 2008) has highlighted that in the Tarn Taran district of Punjab, 40 primary and middle schools have been closed for want of teachers. It further revealed that 51 of the 52 government senior secondary

schools were without Principals and 74 of the 83 government secondary schools were without headmasters. In this district alone 772 positions of teachers and 251 positions of lecturers were lying vacant. Another recent report (Pratham, 2007), has revealed that 5 per cent children in the villages of Punjab were out of schools (never enrolled included). About 60 per cent of the 4th standard and 36.5 per cent of 5th standard students could not read a second standard textbook in Punjabi. The 58 per cent of the 5th standard students were not able to solve a simple sum, or division by 8, and 63.3 per cent could not subtract a two-digit figure from some higher figure. Such a scenario explains the very high drop-out rate in the middle and secondary classes.

1.3 Relevance of Present Study

Higher education sector in Punjab, consisting of universities and affiliated colleges/institutes, has grown with the liberal state funding during the decades of 1970s and 1980s. All the universities and a large majority of colleges/institutes established during this period were of the government or of the private aided category. A very few colleges were opened under the category of private unaided colleges till the end of 1980s. The private aided colleges were largely financed through the statutory provisions of grants-in-aid policy (up to 95 per cent of recurring cost) of state government. During the recent years, particularly since the 1990s, the higher education delivery system in the state has changed dramatically with the entry of the private entrepreneurs under the garb of family trusts/societies whose main motive is not do social service, especially in the fields of professional and technical education.

Consequently, many self-financing courses have been started not only by the private entrepreneurs but also by many state universities and colleges affiliated to them. And, full-cost recovery has become an overriding dictum in these courses. Obviously, these courses are offered in the subjects having greater demand in the market like engineering, medicine, pharmacy, nursing at the undergraduate level; computer science and management at postgraduate level. The entry of for-profit private sector in these courses means de-facto

commercialization of education in such courses. On the other side, the public funded institutions in the state, when confronted with severe resource crunch to expand, too started responding to the market signals like (i) starting of self-financing courses, (ii) charging more fees and funds for the existing courses, (iii) increasing NRI/Industry sponsored seats, (iv) keeping posts vacant even after the incumbents retire, and (v) in-formalization of workforce (contract/adhoc/guest faculty).

In fact, the non-existing/non-responsive regulatory mechanism on the part of state has paved the way for over commercialization of higher education sector of Punjab. This sector has become a most lucrative business activity having quick and high profits with a little risk and uncertainty. Selling/buying of academic courses at the highest possible price in the case of most sought after courses and at discounted price in the courses where seats remain vacant has emerged as a normal practice in Punjab's higher education sector. Moreover, these institutes have been imposing multiple user charges in the form of a variety of fee and funds under countless pretexts (Ghuman, Singh and Brar, 2006). Consequently, there is abnormal increase in fee and funds being charged from the students.

Moreover, the lobby of private sector institutions in medicine, engineering and management courses in Punjab began to dictate their terms in the fixation of course fee, increasing management quota seats, and manipulating the counseling procedures which favour them. On the other hand, deterioration and collapse of school education system in rural government schools has added more worries to policy makers as well as the private sector institutions because very less number of rural students has passed the science streams – an essential qualification to enroll students in any medical, engineering and pharmacy courses. Further, admission in these courses has been based on the state/national level entrance tests where rural students lagged behind. All these forces started the 'exclusion process' of rural students who are otherwise meritorious and hard working. Indeed, the proportion of rural students who studied from rurally located schools in the

universities of Punjab has been just around 4 per cent compared to their 66 per cent share in total population (Ghuman, Singh and Brar, 2006).

Since the new economic dispensation started in the early 1990s, the whole gamut of perceiving, planning and delivering professional education in Punjab has changed cataclysmically. The higher professional education in the state has become more market oriented albeit a market directed and driven economy. And, the professional education sector in the state has grown too much. In 2006-07, there were 9 universities (including Deemed Universities) and 524 colleges/institutes that provide general and professional education in Punjab. Among 524 colleges/institutes in Punjab, 232 were Arts, Science and Home Science colleges; 124 Teachers' Training (B.Ed./M.Ed.) colleges; 66 Engineering, Technology and Architectural colleges/institutes; 55 Medical, Dental, Physiotherapy, Nursing colleges/institutes; and 47 MBA/MCA/Law colleges/institutes.

Further, a little less than two-fifths of these colleges/institutes are located in rural areas of Punjab and the rest in the towns and cities of Punjab. With establishment of these colleges/institutes, access to higher education has certainly increased in the state. Consequently, gross enrollment ratio (GER) in higher education in Punjab has risen from 8.53 per cent in 2002-03 to 10.24 per cent in 2004-05. However, the GER in Punjab is not much higher compared to all India average of GER 8.97 per cent in 2002-03 and 9.97 per cent in 2004-05 (NIEPA, 2005). The data on the ownership of these colleges/institutes suggest that in Punjab, 78 colleges (14.89 per cent) in 2006-07 were government owned, which were financed mainly from the state revenue sources. Another 143 colleges (27.29 per cent) were government-aided private colleges mostly providing the general education. These colleges are managed by the private bodies with the grants-in-aid (earlier up to 95 per cent of recurring cost deficit) from the state exchequer. Another 303 colleges (57.82 per cent) were owned and financed directly by the private sector entirely from the promoters' own and/or borrowed funds and run mainly on the basis of fees and funds generated from the students. And, the private sector’s

role in financing professional education in Punjab has been found much higher compared to the general education (Ghuman, Singh and Brar, 2005).

Since the professional higher education produces high quality human resources, naturally, such educational institutions require huge amount of resources. Running of these institutions requires extremely a measured and cost effective management response during all stages of input utilizations. Actually, public grants/subsidies, wholly or partly, lower the costs of higher education in many countries, including market-based economies. The fundamental ways of financing higher professional education have been the use of public funds in the form of grants/subsidies. These grants/subsidies could both be in implicit forms (concessions in land prices or tax exemptions) and explicit forms (scholarships, fee concessions, recurring/non-recurring grants, etc.). These grants/subsidies aim at reducing the price of higher professional education so that it can be affordable to larger sections of society.

Earlier, there were periodic upward revisions, although limited, of number of aided colleges/teaching posts in them for government grants-in-aid. Recently, self-financing unaided institutions are being established in the state in a big way. Such institutions have not only resorted to fully finance their costs (both recurring and capital costs) from fees and funds, but also made it a lucrative business. A large numbers of private individuals, (Industrialists, businessmen, NRIs, etc.) under the garb of societies/trusts are entering into the education business day-in and day-out with profit motives. They charge hefty tuition fee and funds, paid an extremely low salary to a majority of teaching and supporting staff, working without any norm to ensure quality, and no social obligations towards the poor students (Ghuman, Singh and Brar, 2005).

Existence of such high cost and multiple delivery mechanism in the state's professional higher education has generated a debate and also drawn a considerable research attention among policy makers. These issues call for a thorough probe into professional education to develop basic insights into its actual cost, financing pattern and performance. Research evidence on

costs/financing of professional education in Punjab is very scarce, and escalation in costs of professional education has important implications on the recipients (both actual and potential) of professional education. The present study makes an attempt in this direction.

1.4 Main Objectives

Though the main objective was to examine the number and proportion of rural students in the higher professional education in Punjab, yet the study has examined rural students' related issues in a wider perspective. An attempt has also been made to examine the social, educational and economic background and other realities faced by the rural students. The specific objectives of the study were:

1. to work out the proportion of rural students in the professional education in Punjab;
2. to study the previous educational background of the rural students admitted in the professional education in Punjab;
3. to explore the educational background and occupation status of the siblings (brothers/sisters) of rural students;
4. to study the socio-economic status and educational background of the parents of rural students; and,
5. to suggest the public policy changes to enhance the participation of rural students in professional education.

1.5 Data Sources, Sampling Methodology and Time Period

The study is primarily based on the primary data. It was decided to do the census survey of all the departments/colleges/institutes of five universities of Punjab exclusively providing professional education in the state. These universities were the Punjab Technical University (PTU), Jalandhar (Affiliating University); Baba Farid University of Health Sciences (BFUHS), Faridkot (Affiliating University); Thapar University (TU), Patiala (Non-affiliating University); Sant Longowal Institute of Engineering and Technology (SLIET), Longowal (Deemed to be University); and Rajiv Gandhi National University of Law (RGNUL), Patiala (Non-affiliating University). **It is significant to note the Lovely Professional University (LPU), at Phagwara (the only purely**

private university in Punjab) did not cooperate in providing the information in spite of the best efforts of the study team.

Two universities, namely, the PTU and the BFUHS, have a large number of colleges/institutes affiliated to them. For instance, at the time of survey, 110 colleges/institutes were affiliated to the PTU, Jalandhar. They were providing the degree programmes of different streams – Engineering, Management, Computer Science, Architecture, Pharmacy, etc. And, 71 colleges/institutes were under the jurisdiction of BFUHS, Faridkot. These were affiliated for the MBBS, BDS, BAMS, BHMS, Nursing and BPT/MLT degree courses. The course-wise number of colleges/institutes of PTU consisted of: Engineering stream (43), Management (38), Pharmacy (23), and Architecture (6). In the case of BFUHS, the course-wise distribution of affiliated colleges/institutes was as follows: MBBS (7), Dental (11), BAMS (11), BHMS (4), Nursing (25) and BPT/MLT (13). Of all these colleges/institutes, a few colleges/institutes, which were established in the last one/two years, did not have students in all parts (full term) of course/s. These colleges/institutes were excluded from the census inquiry (Table 1.2).

Further, the study team has decided to approach the rest of the colleges/institutes of these two universities for census survey. In this way, the study team selected 101 colleges/institutes (91.82 per cent) of the PTU for census survey. And, out of 101colleges/institutes of the PTU selected for census inquiry, 70 colleges/institutes responded (69.31 per cent) favorably and participated in the survey to identify rural students enrolled in them (Appendix A). On the other side, 31 colleges/institutes of PTU did not cooperate with the study team and did not respond despite repeated requests. These 31 colleges/institutes were, therefore, left out of the census inquiry.

Table 1.2: Number of College/Institutes Affiliated to Punjab Technical University and Baba Farid University of Health Sciences, September 2007

Universities & Courses	Total Number of Colleges /Institutes	Number of Colleges/Institutes:		
		Selected for Census Survey	Participated in Census Survey	Not Participated in Census Survey
Punjab Technical University				
Engineering	43 (100.00)	40 (93.02)	28 (70.00)	12 (30.00)
Management	38 (100.00)	38 (100.00)	25 (65.79)	13 (34.21)
Architecture	6 (100.00)	6 (100.00)	5 (83.33)	1 (16.67)
Pharmacy	23 (100.00)	17 (73.91)	12 (70.59)	5 (29.41)
Sub-Total	**110** (100.00)	**101** (91.82)	**70** (69.31)	**31** (30.69)
Baba Farid University of Health Sciences				
MBBS	7 100.00)	6 (85.71)	6 (100.00)	0 (0.00)
BDS	11 (100.00)	10 (90.91)	8 (80.00)	2 (20.00)
Nursing	25 (100.00)	13 (52.00)	11 (84.62)	2 (15.38)
BAMS	11 (100.00)	11 (100.00)	9 (81.82)	2 (18.18)
BHMS	4 (100.00)	4 (100.00)	2 (50.00)	2 (50.00)
BPT/MLT	13 (100.00)	8 (61.54)	7 (87.50)	1 (12.50)
Sub-Total	**71** (100.00)	**52** (73.24)	**43** (82.69)	**9** (17.31)
Grand Total	**181** (100.00)	**153** (84.53)	**113** (73.86)	**40** (26.14)

Figures in parentheses are the percentages.
Note: HM & CT, B.Sc. MLT (Pharmacy), B.Sc. (Med.), Post Basic B.Sc. (N) are not included.
Source: Offices the Registrars of PTU and BFUHS, 2007-08

In the case of BFUHS, out of 71 affiliated colleges/institutes during 2007-08, 52 colleges/institutes (73.24 per cent) were selected to undertake the census survey. And, 43 colleges/institutes (82.69 per cent) of BFUHS agreed to undertake the task of identification of rural students enrolled in them (Appendix B) and only 09 colleges/institutes of the BFUHS, who did not cooperate with the study team, were left out for the census inquiry. The courses-wise consolidated distribution of colleges/institutes, their total numbers, selected for the census survey and sampled colleges/institutes are reproduced in Table 1.2. Thus, an overwhelming majority of colleges/institutes

affiliated to the PTU and BFUHS gave information of rural students enrolled in the sampled colleges/institutes.

On the other hand, all the departments/courses of the TU, SLIET and RGNUL were included in the universe of study, i.e. for the purpose of census inquiry. Ultimately, the study team is able to achieve grand success by adopting the census method to identify the rural students enrolled in (i) all the departments of TU, SLIET and RGNUL imparting graduate and postgraduate degree courses; and (ii) an overwhelming majority of colleges/institutes affiliated to the PTU and the BFUHS. And, through the census inquiry of all these selected departments, colleges, and institutes of these universities, **2085 students were identified as the rural students (1053 boys; 50.50 per cent and 1032 girls; 49.50 per cent)**. All these rural students were approached through a well structured and specific questionnaire (Appendix C) to obtain all relevant information as per the requirements of the study. The data pertaining to the total enrolment, class-wise and course-wise, have been obtained from the offices or statistical wings of the respective colleges or universities. The survey and results of study pertain to the academic year 2007-08. The survey has been carried out during the period of September 2007 to April 2008.

Besides, the primary data, the study used the secondary data gathered from published (annually or periodically publications) and unpublished sources. Major published sources of data were: Statistical Abstract of Punjab, Economic Survey of Punjab, Social Statistics of Punjab, Education Department of Punjab, Census Reports, Analysis of Budgeted Expenditure on Education in India, and various research studies. Some secondary data, in unpublished form, had been collected from the office files of the Economic Advisor, the Director Public Instructions (Colleges), Department of Technical Education, Department of Medical Education and the State Planning Board, Government of Punjab located at Chandigarh.

1.6 Definition of Rural Students

It is generally believed that rural school education in Punjab state has deteriorated to a nadir. Rural students, with poor academic standards on one hand and competitive entrance tests' based admission on the other, are unable to enter the higher professional education and associated high income jobs. In this era of knowledge economy, they can not achieve vertical mobility in their careers. Even, the material and social capital of their parents are very weak. It is, therefore, interesting to examine the entry of students who studied in rurally located schools in the state. All these specific issues have attached paramount importance to adopt a concrete and workable definition of the rural students.

In this study, rural students have been defined as per the Punjab Government's notification and policy that is given below:

All those students are considered to be rural students who have passed their matriculation or senior secondary (Plus Two) or both examinations from rurally located schools in Punjab. These rural schools do not fall in the area of a Municipal Corporation/Municipal Committee/ Nagar Council//Notified Area Committee. Further, the student should have studied in rurally located school for at least five years prior to his/her matriculation or senior secondary (Plus Two) *(*Handbook of Information 2007-08, Punjabi University, Patiala, p. 76).

Further, admission to the professional courses available in Punjab is based on the state/national level entrance tests (PMT, CET, MET, PAM-CAT, CET-LAW, etc.). In all these courses, 85 per cent seats of total intake capacity are reserved for the Punjab resident students and 15 per cent seats are earmarked for the students of 'other states' on all-India basis. It means that, in 15 per cent quota of 'other states', rural students of other states on merit may take admission in the professional courses run by the colleges/institutes affiliated to different universities of Punjab. In the case of such students, it is difficult to identify five years' study condition in the rural schools. In the light of these observations, the definition of rural students has been slightly liberalized and modified as under:

All those students, who have passed their matriculation or senior secondary (Plus Two) or both examinations from rurally located schools anywhere in India, are considered to be the rural students. And, these rural schools do not fall in the area of any of the Municipal Corporation/Municipal Committee/Nagar Council//Notified Area Committee/Cantonment Area.

It is to be noted that the central thrust of the study is to assess the number and proportion of rural students enrolled in the professional education provided by the departments/colleges/institutes of universities of the state. With this kind of definition of rural students in operation, the number and proportion of rural students is little bit over estimated. Further, the rural students' present places of residence/stay during the present study period do not matter much so far as the identification of the rural students is concerned. During the current study period, the rural students admitted in these colleges/departments of universities, may be residing either in the villages or in the hostel or in any urban location. However, what matters the most for identification of rural students is the rural location of school from where a student passed out either the matriculation or plus two examination or the both.

1.7 Chapter Scheme:

The study has been organized into six chapters. Chapter I, besides discussing the methodological framework, deals with two components: (a) significance of professional education, and (b) access, equity and affordability. Chapter II examines the growth of higher education sector in Punjab with particular reference to the professional education. Chapter III provides the number and proportion of rural students in the professional education courses of the state; university-wise, course-wise and year-wise,. And, certain important social, educational and family details of the rural students and their households are analyzed in Chapter IV. Chapter V presents the economic profile of rural students and their parents in comprehensive manner. It also discussed the financing aspects of professional education from the side of rural students. The summery of main conclusions and public policy prescriptions are put forth in the last chapter i.e. Chapter VI.

Chapter II

Higher Education in Punjab: Emerging Growth Scenario

Higher education in general and professional education in particular is a critical factor for achieving India's aspirations to emerge as a major player in the global knowledge economy. In fact, global competitiveness of Indian industrial sector and its employment generation potentials are clearly dependent on availability of required skills and trained workforce. As reported earlier, professional education trains the recipients to take up different socio-economic roles in society and spurs technological innovations that drive the economy to high economic growth trajectory (Benhabib and Spiegal, 1994). Moreover, higher professional education is very helpful in achieving an individual's aspirations like getting better income jobs, high living standards, intellectual stimulations, vertical mobility, social esteem and the other ingredients of international competitiveness (The World Bank, 2003). To reap the benefits of global economy in one's favor, it is quite natural to suggest that a large proportion of a country/region's population must have higher level professional and technical education (The World Bank, 2000). And, people must be ready to acquire this type of education and new knowledge.

This chapter dwells upon the various aspects of higher education sector in the state of Punjab. The chapter is divided into three sections. Section I deals with the growth of higher education in terms of growing institutional arrangements and students enrolled in the universities and colleges/institutes affiliated to them. Section II unravels the growth and structure of professional education by focusing upon courses, trades, college locations and students' enrollments. It also highlights the unregulated dynamics and rising importance of private sector's presence in professional education in Punjab state. And, the accessibility question pertaining to higher professional education in the state of Punjab has been examined in Section III.

I

2.1 Higher Education Sector

The higher education in Punjab, formal or non-formal, has a very long historical past with a strong colonial legacy. Its expansion was very limited and elite oriented. Its accessibility and affordability to the general masses was highly marred on the one hand by the supply constraints (very few institutions in urban locations) and on the other by the poor socio-economic conditions of people (Kaur, 1992). Moreover, the British Rule had vested interests in its expansion as well as accessibility. After India's independence in 1947, Indian State, recognizing the fundamental role of higher education, has made planned efforts to reform and develop the higher education sector in India. At the state level, the state of Punjab, especially after the Reorganization of Punjab in 1966, has made many conscientious and planned efforts to develop and expand higher educational facilities in public sector to create a pool of highly skilled manpower in anticipation of rising demands of trained workforce in Punjab state and other Indian States.

Under the different five years plans, the Union as well as State governments have allocated more public funds to open the new higher education institutions in the state. All these state efforts have increased the number of colleges/institutes providing higher education in the state. Students' enrollment in state's higher education institutes has also increased at a higher speed (Ghuman, Singh and Brar, 2006). The structure of higher education developed in the Punjab state, in fact, has followed the national pattern of imparting higher education generally in the general (Arts, Science, Commerce and Home Science), professional and technical subjects through the universities and their affiliated colleges (Mittar, Singh and Brar, 2002).

The recent reforms initiated in India have brought out an unprecedented demand for skilled workforce relevant to needs of industrial and business sectors. This has generated a considerable pressure on the government to adopt right kind of 'policy initiatives' to promote higher professional education. It means that state must reforms the higher education sector to make it 'demand driven' to meet the emerging needs of the economy

and to keep its highly skilled and qualified people within the country (Kaul, 2006). This requires quality up-gradation of all higher professional education institutions, not just a few well developed IITs and IIMs. Punjab is no more exception from current level of thinking going at the national level because the state government did not have enough state finances to invest in world class professional education institutions. On the other side, rising aspirations of higher and middle income groups have raised the demands for professional education, usually associated with the price and better employment opportunities. They afford to pay higher tuition fee and other charges and this process has made the non-subsidized higher education as viable enterprise. Faced with such a situation, the state has been left with no alternative but to allow the entry of private players, firstly in the school education and now in the higher professional education in the state. And, many significant structural changes have been witnessed in Punjab's higher education system.

2.1.1. Number of Universities in Punjab

At the time of Reorganization of Punjab (1966), there were only three universities and 84 affiliated colleges. In 1970-71, the number of universities increased to four. All four universities together had 161 affiliated colleges, of which about 32 per cent were located in rural areas. And, they together imparted the higher education including professional education of different streams to the students of whole state (GOP, 1978).

Now, there are eleven universities (including Two Deemed Universities) in 2008 and 524 recognized colleges/institutes affiliated to these universities. They together are providing much-diversified higher education in the state. A new university, namely, Guru Granth Sahib University has been established in the state by the SGPC in September, 2008. Three important state universities, namely, Panjab University, Chandigarh (1948); Punjabi University, Patiala (1962); and Guru Nanak Dev University, Amritsar (1969) are providing education and training to students in the general as well as professional higher education. The range, diversity and content of the courses/subjects offered by these universities are equivalent and of the same pattern as anywhere in India. Moreover, to cater the emerging needs of the

economy, these universities have also opened many professional and technical courses at their own campuses and regional centers during the last decade of 1990s (Ghuman, Singh and Brar, 2005). Another important university, i.e. Punjab Agricultural University, Ludhiana (1962) has earned a distinction for its contribution in the field of agricultural and allied sciences related to higher education, research and extension services (research lab-to-field application) that has promoted the agricultural economy of the state and transformed India from a food-deficient to a food self-sufficient country.

Punjab Technical University, Jalandhar (1997) and Baba Farid University of Health Sciences, Faridkot (1998), which were established exclusively for developing technical education and medical sciences, respectively, are the affiliating and examining bodies only. Both these universities did not have their on-campus teaching and research departments. Thapar Institute of Engineering and Technology, Patiala (earlier an engineering college) has acquired the status of a Deemed University during the year 2000. Now, it is full-fledged university managed by the famous Thapar Group of Industries. Two new universities – Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana in 2006 (carving out by taking over the Department of Veterinary and Animal Science of Punjab Agricultural University, Ludhiana) and Rajiv Gandhi National University of Law, Patiala in 2006 – are still at the stage of infancy. Another self-financing private university - Lovely Professional University at Jalandhar – has been established with effect from 2006-07 academic sessions. Further, Sant Longowal Institute of Engineering and Technology (SLIET), Longowal has acquired the status of Deemed to be University in 2007.

All these seven universities fall under the category of professional education and highlight the emerging significance of such education in the state. These universities provide mostly graduate/postgraduate level higher professional education and research as per the requirements of the state, national and international economies. Moreover, all these universities in Punjab are established and governed by the statutory acts passed by state/union governments from time to time. Almost all of them are functioning

as the autonomous bodies. However, the state universities are highly dependent upon the state finances for their yearly budgetary provisions and most of them, now, are facing severe resource crunch due to the progressive cuts in allocation of state funds since the 1990s. It is significant to mention that the share of education, sports and culture in the state's budget dwindled to just 12.29 per cent in 2004-05 from 22.17 per cent in 1970-71 and 17.12 per cent in 1980-81 (Ghuman, 2008).

2.1.2. Number of Colleges/Institutes

At present, almost all types of universities and affiliated colleges exist in Punjab. In the past, university campus based departments generally provided postgraduate level higher education and research, and the affiliated colleges mostly covered the undergraduate component of higher education. Some universities have opened their own Regional Centers or Neighborhood Campuses to impart professional and general education at the doorsteps of students living in far away places and educationally backward areas. Punjabi University has done a unique experiment by starting a Six-Year Integrated Engineering Degree (after 10^{th} class), exclusively for the poorest of poor rural students at its Yadvindra College of Engineering (YCoE) at Damdama Sahib, District Bathinda. The University does not charge any tuition fee from the poor rural students enrolled in the YCoE. Rather the sponsorship, in the form of scholarships, has been mobilized from the individual philanthropists and organizations in India and abroad. At the school and the college level education, some individuals, trusts and organizations have also made certain efforts to make provision of good education in the rural sector at an affordable price. Unfortunately their number is very negligible.

Further, many universities have also started self-financing undergraduate and postgraduate courses in emerging disciplines of professional and other employable courses. These courses being in greater demand attracted the students who could pay high tuition fee and other charges. More colleges/institutes came into existence and introduced postgraduate level of education, particularly of professional variety. Earlier,

the students enrolled in the different departments of universities and affiliated colleges/institutes were mainly enrolled themselves in the arts, science, commerce and home science streams. Only few students were able to get admission in the professional and technical streams of engineering, medicine, business administration, computer science, veterinary science, agriculture, law, nursing, etc., mainly due to the supply constraints (due to less number of available seats). Besides, many teachers' training institutes (E.T.T. institutes for the elementary school teachers and B.Ed. colleges for the high/senior secondary school teachers) have come up in the state in order to prepare teachers for the elementary and secondary schools. Actually, all these different types of educational institutions existing at various levels highlight the diversity in the availability of courses/subjects of higher education in the state. And, for analysis purposes, these affiliated colleges/institutes are broadly divided into two categories: (a) general education colleges and (b) professional education colleges.

(a) Loosing Dominance of General Education Colleges

In education philosophy, general education includes all those education processes, which train the recipients with general qualities of reasoning, abilities, skills, family, and community roles. General education in this study includes the liberal form of education in the subjects of arts, humanities, basic sciences, home science and commerce, etc. Many research studies reveal that the state government has allocated more funds to higher education during the 1970s and mid-1980s (Gill, Singh and Brar, 2005) and the budgetary expenditure on the general education in the state was at the top (Ghuman, Singh and Brar, 2005).

As is evident from Table 2.1, there were 162 colleges (58 rurally located colleges; 35.20 per cent) in Punjab in 1981. Their number rose to 171 (63 rurally located colleges; 36.42 per cent) in 1991, which has further gone to 232 (71 rurally located colleges; 30.60 per cent) during 2006-07. It means large number of the colleges in the state was established during 1991-2006. And, large majority of them came up in the urban Punjab. The number of teachers' training colleges did not register any increase during 1981 and

1991. Only three such colleges were rurally located between 1981 and 1991. However, during the liberalized period of 1991-2006, 106 new teachers' training colleges were added and 68 colleges (54.84 per cent) were located in rural areas. Indeed, these teachers' training colleges rose in a big way due to liberalized policy of the state as well as central governments to open new colleges to fulfill the growing demands of teachers in the future. However, their number seem to have reached the zenith as majority of them are unable to get the required number of qualified students through the State Level Entrance Test-2008 for the academic session 2008-09.

Table 2.1: Number of Recognized Colleges/Institutes in Punjab by Types and Location (Selected Years)

Type of College	1981		1991		2006-07	
	Total	Rural	Total	Rural	Total	Rural
Arts, Science, Commerce & Home Science	162 (86.17)	58 [35.20]	171 (84.65)	63 [36.42]	232 (44.28)	71 [30.60]
Teachers' Training (B. Ed./ M.Ed.)	18 (9.57)	3 [16.67]	18 (8.91)	3 [16.67]	124 (23.66)	68 [54.84]
Engineering, Architecture & Pharmacy	3 (1.60)	1 [33.33]	4 (1.98)	1 [25.00]	66 (12.60)	28 [42.42]
Medical, Dental, Ayurvedic, Homeopathy, Nursing, etc.	5* (2.66)	-	9 (4.46)	-	55 (10.50)	17 [30.91]
Management/Computer Science/ Law	-	-	-	-	47 (8.97)	20 [42.55]
Total	**188 (100)**	**62 [32.46]**	**202 (100)**	**67 [32.68]**	**524 (100)**	**204 [38.93]**

Note: * Allopathic medical colleges only.
Figures in parentheses (...) are percentages and in index brackets [...] are rural proportions
Sources:
1. **Statistical Abstract of Punjab**, Economic and Statistical Organization, Chandigarh, various issues.
2. **Economic Survey**, Punjab, Economic and Statistical Organization, Chandigarh, various issues.
3. **Social and Educational Statistics of Punjab**, Economic and Statistical Organization, Chandigarh, various issues.

(b) Growing Professional Education Colleges/Institutes

At present, professional education, that qualifies the recipients for a specific profession, has become the most important part of higher education in the state. It imparts specific skills/knowledge (marketable expertise), or specialized training/learning process for which he/she is valued because it

involves a high level of expertise, better employability and earnings opportunities. Within professional education, the important streams emerging are engineering, medical, business administration, computer science, pharmacy, physiotherapy, law, bio-technology, etc. Actually, the recent advances in these branches of knowledge along with the application of network transmission of information/knowledge at an astonishing speed have created more opportunities at the doorsteps of those who have the higher skills and knowledge or who have the capacity to learn and add something new to already possessed qualities (The World Bank, 2000). These qualities of the labour force have the capacity to transform and increase the human capital base of the economy. Therefore, growing importance of professional education in the state seems to be logical and rational. However, it is different matter that it is being provided by the profit oriented private sector at very high charges.

The data in Table 2.1 show that a significant growth in the number of engineering and medical colleges has occurred recently in Punjab. The term engineering colleges here mentioned include the colleges imparting courses of architecture and pharmacy streams also. There were just three ‘engineering colleges’ in the state upto 1981. Strangely, only one ‘engineering college’ was added in the Punjab state between 1981 and 1991. After 1991, many ‘engineering colleges’ were established and their number increased to 66 colleges in 2006-07. Moreover, 28 ‘engineering colleges’ (42.42 per cent) were rurally located during 2006-07.

In the case of medical sciences (Medical, Dental, Ayurvedic, Homeopathy, Nursing, etc.), a similar trend has been observed. For instance, up to 1981, there were only five allopathic medical colleges in the state. But, the number of all the medical education institutions has just gone to nine during 1991. However, during the period of 1991-2006, number of colleges imparting medical sciences’ education has increased to 55. And, all these medical science colleges include the medical (allopathic), dental, ayurvedic, homeopathic, nursing, etc. Out of these, 17 colleges (30.91 per cent) were located in rural areas.

The professional education in the subjects of business management, computer science, and law has also gained much importance. Earlier, only the on-campus departments of the universities were found to be providing professional education in the subjects of business management, computer science, and law and that too on a very limited scale. In fact, till 1998, no affiliated college in Punjab state had provided such higher professional courses. During 2006-07, there were 47 colleges/institutes that impart higher professional education in these fields. And, more than two-fifths (42.55 per cent) of such colleges/institutes were rurally located (Table 2.1).

It means that, in principle, the state has taken a rational policy decision by encouraging the establishment of colleges/institutes to impart professional and engineering education in Punjab. Actually, demand for such courses in the state was very much higher than that of the availability of seats in the state. Consequently, a large number of students had to move to other states willingly or unwillingly to get education and training, particularly in the engineering and medical courses by spending huge amounts as the capitation fee alone. No doubt, the opening up of new colleges/institutes and availability seats in these streams have increased the overall accessibility to higher professional education.

II

2.2 Prominence of Private Initiative

The private sector has entered into the higher education particularly in the professional education sector of the state under the new policy dispensation. The state government's inability and lack of will to spare large amount of public funds has created space for the private entrepreneurs. The state run medical colleges – at Patiala, Amritsar and Faridkot – are facing de-recognition threat by the Medical Council of India because of shortage of faculty and insufficient infrastructure. This is the height of apathetic attitude of the state government towards higher professional education. The alleged shortage of funds with the state government has also developed because of its low-key attitude towards resource mobilization. In fact, the unwritten agenda of successive governments in Punjab have been to first wreck and

defame the public institutions and then to create a rationale for the entry of for-profit private institutions in higher education, in which the leadership and bureaucracy has high personal stake.

An ownership status of colleges/institutes indicates that the private sector's initiative in establishing professional education colleges has gained much significance. At present, on the basis of ownership and financing patterns, there are three types of colleges in the state, i.e. (i) government owned, (ii) privately owned but aided by the government and (iii) privately owned but unaided colleges. The government colleges are owned and managed by the state government. The private aided colleges come under the grants-in-aid policy of the state government. The state government provides grants-in-aid to finance the larger part of their recurring expenditure. The state government was supposed to provide grants to the extent of 95 per cent of the salary and wage bill. But, during the last few years the proportionate share has come down because of freezing and cutting of the grants under the various pretexts. On the other hand, private non-aided colleges are those colleges for which state government issued 'No Objection Certificate' and the concerned university issued the affiliation (Temporarily or permanently as the case may be) after a due process of inspection/s. Non-aided colleges do not get any financial aid from the state government. Thus, the actual field of higher education in the state provides the space to all types of players form pure public variety, pure private variety and also on partnership basis between the public and private.

The systematic withdrawal from the education delivery system by successive government in Punjab has not only led to the collapse of well-run public institutions, but also prepared a fertile ground for the entry of for-profit private services providers. The service sector in Punjab, particularly the education and health, has been facing a continuous neglect in terms of the budgetary allocation of resources and governance. For instance, the share of education (including sports and culture) in the state's budget on revenue account declined from 22.17 per cent in 1970-71 to 17.12 per cent in 1980-81 and to 13.55 per cent in 1991-92. It rose to 15.87 per cent in 2000-01, but

further declined to 12.15 per cent in 2006-07. On the other side, the share of health services in the state budget shrinks from 7.14 per cent in 1970-71 to 3.58 per cent in 2006-07. The expenditure on education as a proportion of the state income (Net State Domestic Product) increased from 2.18 per cent in 1970-71 to 3.08 per cent in 1980-81, declined to 2.80 per cent in 1991-92, increased to 3.16 per cent in 2000-01, but again declined to 2.45 per cent in 2006-07 (Government of Punjab State Budgets, various years).

It shows that state's callous attitude towards the social sectors, which are vital for future economic growth and equal income distribution. Sometimes, one may have to think that perhaps the undeclared agenda of the state is to create rationale for the private service providers by wrecking the public institutions in the state. The state funded rural schools have become serious victim of such policy. They suffered from a serious deterioration both in terms of physical infrastructure and number of teachers. Nearly, 22 thousand teachers' positions have been lying vacant in the state run schools since long and most of the vacant positions are in rural schools. Consequently, the dropout rate in rural schools has been quite high, ranging between 45 to 50 percent, during the last about three decades.

2.2.1 Ownership-cum-Management

It is interesting to examine the growth of privately managed and government owned colleges separately. Table 2.2 gives this information for two selected years, namely 1998-99 and 2006-07. The data show that the majority of general education colleges are privately managed. During 1998-99, 76.70 per cent of all the general education colleges were under the private managements. During 2006-07, this proportion rose marginally to 77.59 per cent. Out of the total general education colleges, 53.88 per cent were aided and 23.71 per cent non-aided during 2006-07. Only 22.41 per cent of general education colleges were in government sector during 2006-07. Similarly, an overwhelming majority of teachers' training colleges (96.77 per cent) were managed by the private sector. Just 3.23 per cent of teachers training colleges were in government sector during 2006-07.

Interestingly, in the case of professional education in the fields of engineering, medical science, management, computer Science and law, it is the privately owned unaided colleges, which dominate the scene since the 1990s. The proportion of government owned colleges and private aided colleges among these colleges was very small. The share of the government colleges in various areas of the professional education was as follows: engineering, architecture, and pharmacy (9.09 per cent); medical, dental, ayurvedic, homeopathy, nursing, etc. (18.18 per cent); Management, Computer Science and Law (12.76 per cent). This has raised many important public policy implications for future growth and regulatory framework of

Table 2.2: Distribution of Recognized Colleges in Punjab by Type of College and Management

Type of College	1998-99			2006-07			
	Type of Management			Type of Management			
	Govt.	Private Aided & Non-Aided	Total	Govt.	Private		Total
					Aided	Non-Aided	
Arts, Science, Commerce & Home Science	48 (23.30)	158 (76.70)	206 (100)	52 (22.41)	125 (53.88)	55 (23.71)	232 (100)
Teachers' Training (B. Ed./M . Ed.)	3 (15.00)	17 (85.00)	20 (100)	4 (3.23)	15 (12.10)	105 (84.67)	124 (100)
Engineering, Architecture & Pharmacy	4 (22.22)	14 (77.78)	18 (100)	6 (9.09)	2 (3.03)	58 (87.88)	66 (100)
Medical, Dental, Ayurvedic, Homeopathy, Nursing, etc.	6 (22.22)	21 (77.78)	27 (100)	10 (18.18)	-	45 (81.82)	55 (100)
Management/Computer Science/ Law	N.A.	N.A.	N.A.	6 (12.76)	1 (2.13)	40 (85.11)	46 (100)
Total	**61 (22.51)**	**210 (77.49)**	**271 (100)**	**78 (14.89)**	**143 (27.29)**	**303 (57.82)**	**524 (100)**

Source: 1. *Office of Director Public Instructions (Colleges)*, Punjab, Chandigarh.
2. *Prospectus-com-Counseling Brochure*; State Level Entrance Tests Conducting by Different Universities of Punjab, 2007

professional education in the state. The higher professional education facilities are overwhelmingly in the hands of for-profit private sector. The responsibilities of the state government and that of the universities of the state, therefore, increases manifold to monitor and regulate the quality of higher professional education and fees and funds being charged by these private unaided service providers. Recently, Punjab Technical University,

Jalandhar has fined many engineering colleges for not adhering to admission norms laid by the university. These institutes were found to admit students in excess capacity than that of their sanctioned intake of students.

Unique Example

One unique case in rural Punjab is of worth mentioning. It is of Baba Aya Singh Riarki College for Girls, Tugalwala (District Gurdaspur). This college is an extension of an affiliated school. It is located in one of the interior villages of Gurdaspur District on the bank of distributory of Upper Bari canal. It has beautiful surroundings developed by an individual led community effort. In fact, it serves higher education needs of rural girls who otherwise may not afford to attend the college/s located at far away urban areas. Though not affiliated to any university, this college is a unique one and is popularly known as 'Shantiniketan of Punjab'. Its uniqueness lies, inter alia, in three areas, namely, (i) reasonably better quality liberal education at affordable price; (ii) teaching by the senior class students to junior classes; and (iii) managing hostel and cooking/catering therein by the hostellers themselves.

During 2008-09 academic session, there were nearly 600 girls in the college-wing of the institution, although there were more than three thousands students from the Nursery to Plus Two level classes. The institution charged Rs. 800 per student per annum as the admission and other charges. And, Rs. 5500/- only were charged from the hostellers for the whole year, which included both the hostel and mess charges. **This, perhaps, is the lowest priced institution in the entire state of Punjab and deserves our appreciation**.

Source: Study Team's Visit

Further, the high growth of general education in the state of Punjab did not seem to be rationally linked to the manpower requirements of the state economy or not tailored according to the rising demands for new vocations at the level of national and world economy (Mittar, Singh and Brar, 2002). These initiatives are largely based on the uncoordinated plans of private trusts/societies/agencies whose motivations may not always be the spread of education. It can be seen that the general educators in Arts and Social Sciences subjects formed the major share of the total students getting higher education in the state. On the other side, the state efforts in promoting higher professional education in the state are negligible. Indeed, the major contribution of the state government to higher professional education in the reorganized Punjab came in 1969 when a multi-faculty Guru Nanak Dev University was established at Amritsar. The latest initiatives are in the form of establishment of the Punjab Technical University in 1997 at Jalandhar; Baba Farid University of Medical Sciences in 1998 at Faridkot; Guru Angad Dev

Veterinary and Animal Science University in 2006 at Ludhiana; and Rajiv Gandhi National University of Law in 2006 at Patiala in recent years. All these steps, if organized and regulated properly, are likely to spread the professional education in the state.

2.2.2 Growing Enrollment of Students

Naturally, it is expected that with the increase in number of colleges/institutes and available seats in them, the accessibility to higher education, at least theoretically, has increased in the Punjab state. Punjab has enjoyed an envious position in terms of the highest per capita income for many years among the major Indian States. Its people are expected to prefer to send their wards for higher education. As a result, the number of students enrolled in the higher education has increased many times. The analysis of data on student enrollments (Table 2.3) reveals two vital tendencies; (a) the loosing dominance of general education, and (b) the inevitable structural changes that had favoured the professional education in the state. It is observed that an overwhelming majority of total enrolled students in the higher education had received the general education. Their proportion was 92.90 per cent during 1991-92. But, it declined in the subsequent period and reached to 81.31 per cent during 2006-07. And, the proportion of girls within the general education has increased from 39.60 per cent in 1981-82 to 50.22 per cent in 1991-92. During 2006-07, this proportion was expected to rise further. This indicates that the number of girls in the general higher education has increased at the fast rate than that of boys. The enrollment of students in teachers' training colleges has grown in a highly regulated way in all these years. However, the share of B. Ed. educators went down from 2.61 per cent in 1981-82, to 1.91 per cent in 1991-92, and rose to 2.32 per cent in 2006-07. And, the girls out-numbered the boys among the trained teachers of school education right from the beginning (1981-82) to the end (2006-07).

Table 2.3: Number of Students Enrolled in Higher Education Colleges/Institutes in Punjab by Gender and Type of College

Type of College		1981-82	1991-92	2006-07
Arts, Science,	**B**	74,403 [60.40]	81,778 [49.78]	n.a

Commerce & Home Science	**G**	48,778 [39.60]	82,497 [50.22]	n.a
	T	123,181 [100.00] (92.03)	164,275 [100.00] (92.90)	217,086 (81.31)
Teachers' Training (B. Ed. / M.Ed.)	**B**	1,191 [34.10]	921 [27.27]	n.a.
	G	2,302 [65.90]	2,456 [72.73]	n.a.
	T	3,493 [100.00] (2.61)	3,377 [100.00] (1.91)	6,206 (2.32)
Engineering, Architecture & Pharmacy	**T**	1,869 (1.40)	2,737 (1.55)	30,415 (11.39)
Medical, Dental, Ayurvedic, Homeopathy, Nursing, etc.	**T**	3,148 (2.35)	4,380 (2.48)	11,715 (4.39)
Veterinary and Agriculture	**T**	2,159* (1.61)	2,044** (1.16)	1,549 (0.58)
Total	**T**	**133,850 (100.00)**	**176,813 (100.00)**	**266,971 (100.00)**

Note: B= Boys, G= Girls, T= Total. *For 1982-83, **For 1990-91, n.a. = not available.
Figures in parentheses are percentage shares
Source: As Reported in Table 2.1.

In the case of professional education, students' enrollment in engineering and medical courses has been showing a moderate rise between 1981-82 and 1991-92, but during 1991-92 to 2006-07 period, the students' enrollments has increased at the faster rate. That process has brought out the significant structural changes in favor of professional higher education in the state. For example, the number of students enrolled in engineering colleges has increased from 1869 (1.40 per cent) in 1981-82, to 2737 (1.55 per cent) in 1991-92 and to 30415 (11.39 per cent) in 2006-07. During the period of 1991-92 to 2006-07, students enrolled in the engineering colleges grew at an astonishing rate on per annum basis. Similarly, student enrollment in medical colleges had also showed a rising trend. For instance, in 1981-82, 3148 students (2.39 per cent) were enrolled in medical sciences' colleges in Punjab. But the number increased to 4380 students (2.51 per cent) in 1991-92 and to 11715 students (4.39 per cent) in 2006-07. The students enrolled in veterinary and agricultural courses did not show any favor by the Punjabi youth, as the number of students opting these courses had decreased both

absolutely and relatively. One of the important reasons for this was non-expansion of intake capacity in this stream.

Since the bulk of the students are enrolled in the general education in Punjab, it is interesting to probe which course/s is/are preferred by the Punjabi students. Table 2.4 points out that around 90 per cent of students were studying at the graduation level and a little less than 10 per cent were at the post-graduation level of higher education in the state. Further, more than 70 per cent of students for graduation, and between 6.15 per cent and 7.04 per cent of students for post-graduation enrolled themselves in the area of Arts and Social Sciences subjects during the period of 1981-82 to 2005-06. During the same period, more than one-tenth of students were studying the science courses and a little less than one-tenth were studying the commerce courses at the graduation level. On the other hand, at the postgraduate level, a very tiny proportion of general educators were studying science (varying between 0.78 per cent and 2.41 per cent) and commerce (between 0.03 per cent and 0.75 per cent) subjects. Similarly, the students enrolled for M.Phil. / Ph.D. never reached one per cent during the time period of 1981-82 to 2005-06. It means that Punjabi students, in all classes, generally prefer Arts and Social Sciences courses. Indeed, the proportion of science students at graduate level decreased from 13.20 per cent in 1981-82, to 11.19 per cent in 1991-92, and to 11.09 per cent in 2005-06. Also, there was a corresponding increase in the share of commerce students at graduate level.

Table 2.4: Percentage Distribution of Students Enrolled in General Education in Punjab by Sex and Type of Course, 1981-82 to 2005-06

Source: *Statistical Abstract of Punjab*, ESO, Chandigarh (various issues).

Course	1981-82			1991-92			2005-06		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1. Graduate	**93.16**	**89.97**	**91.85**	**92.46**	**90.64**	**91.50**	**93.62**	**86.33**	**89.52**
B.A. /B.A. (Hons.)	67.16	79.30	72.16	65.18	74.80	70.24	72.25	66.85	69.21
B.Sc. /B.Sc. (Hons.)	15.63	9.74	13.20	12.69	9.84	11.19	9.59	12.26	11.09
B.Com./B.Com. (Hons.)	10.37	0.93	6.48	14.60	5.99	10.07	11.79	7.22	9.22
2. Postgraduate	**6.45**	**9.50**	**7.71**	**6.71**	**8.41**	**7.61**	**6.12**	**13.38**	**10.20**
M.A.	5.73	8.57	6.90	5.33	6.88	6.15	4.29	9.18	7.04
M. Sc.	0.68	0.92	0.78	1.23	1.40	1.32	1.48	3.14	2.41
M. Com.	0.04	0.01	0.03	0.15	0.13	0.14	0.35	1.06	0.75
3. Ph.D./M.Phil.	**0.39**	**0.53**	**0.45**	**0.83**	**0.95**	**0.89**	**0.26**	**0.29**	**0.28**
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Now, the question arises whether these courses are highly popular among the students or there are other reasons behind this phenomenon. The answer to this question is not difficult. Actually, the excessive-popularity of Arts and Social Sciences courses in the state could either be explained by the greater demand from the side of people for these courses or due to the greater availability of seats of these courses in the colleges of Punjab. But, the high proportion of Arts and Social Sciences' graduates or postgraduates among the educated unemployed job seekers in Punjab nullify the possibility of greater demand for these courses in the market. The availability factor, thus, emerges as the more tenable explanation (Mittar, Singh and Brar, 2002). So, the increase in number of students enrolled in these colleges indicates that most of the students would like to go in for higher education of whatever kind available to them. Thus, the structure of education measured in terms of proportion of general education colleges and students enrolled in them has become highly biased in favor of general education that needs to be corrected. The recent emphasis of Punjab government to promote professional education in the state seems to be based on the rational expectations of people.

III

2.3 Accessibility Assessment

In the past, the Indian society was highly hierarchical, stratified and deficit in vertical mobility. On the basis of socio-economic conditions, particularly on the basis of caste structure, occupational divisions were so large and rigid that people often have antagonistic class tendencies. For example, basic differences between the rich and the poor, the large farmers and the small/marginal farmers, the educated and the uneducated, and the scheduled castes/tribes and the non-scheduled castes/tribes' populations were very large. After gaining Independence in 1947, India followed the path of planned development of the economy. And, for achieving cohesive, equitable and productive society in the future, it is argued that many special programs/schemes should be initiated to promote education among the scheduled castes/tribes and other disadvantaged groups of people. The successive Central governments have pursued many policy programs which include (i) increasing the number of institutions of higher learning in inaccessible areas; (ii) provisioning of liberal scholarships, free-ships, stipends and loans for study purposes; and (iii) allowing the adoption of positive discrimination (Reservation of seats) in educational institutions. Now, policy makers have emphasized on promoting higher education including professional education among the SC/STs and other disadvantaged groups (BCs and OBCs) to achieve all inclusive growth in the economy (GOI, 2008).

In Punjab, state government has followed these policy programs in letter and spirit. In fact, the growing number of colleges/institutes widely dispersed all over the state and increased enrollment of students in them indicated that the access to higher education has been increased in the state. Since about one-third of the colleges/institutes located in rural areas of Punjab, it is, therefore, expected that the rural learners' accessibility to the higher education (near the residence) has also increased. Theoretically, expansion of higher education related institutional paraphernalia is the necessary condition, not the sufficient condition, for increasing access to higher education; but in reality, the accessibility question is largely a function of demographic, economic and socio-cultural dynamics (macro environment) operating in the society (Ghuman, Singh and Brar, 2006).

On the other side of facts, opening of new institutions of higher learning largely under the market friendly policies of neo-liberal paradigm adopted since the 1991 has diminished very seriously the right to access to the higher education in the state. In fact, accessibility question in the study has been examined both at the macro and the micro levels. At the macro level, it takes into account the proportion of scheduled castes students who have enrolled themselves in the colleges/institutes of higher education including professional education in the whole state. And, at the micro level, accessibility question has been studied by taking into account the share of rural students admitted in the departments and regional centers of four universities of Punjab during the academic session of 2005-06.

2.3.1 Access to Higher and Professional Education

It is true that the Indian society is highly hierarchical, stratified and deficit in vertical mobility. The socio-economic differentials between the various socio-economic classes, particularly between the rich and the poor, the large farmers and the small/marginal farmers, the educated and the uneducated, and the scheduled castes/tribes and the non-scheduled castes/tribes' populations are very large (GOI, 1968), and may likely be widen in the coming years due to non-initiation of pro-poor programs on the bigger scale (Hirway, 2006). It is not surprising that class inequalities in accessing higher education, measured on the basis of GER, have been persisted in India (Planning Commission, 2008) or elsewhere also (Reay, 2007; Welch, Helme and Lamb, 2007). In UK also, despite a plethora of schemes to widen access and participation to higher education, still fewer working-class students going to the university in 2006 than fifteen years ago (Reay, 2007). And, between 2004 and 2005, the university entrants from unskilled working-class background students in UK fell from 4.68 per cent to 4.59 per cent of total entrants (Tysome, 2006, quoted in Reay, 2007). In fact, this had happened when the universities in UK made good efforts to broaden their intake (Reay, 2007).

A similar situation is prevalent in the Punjab state, where the people living in the rural areas, belonging to the SCs and BCs/OBCs do not have equal access to educational opportunities compared to the other better-off

sections of society. In Punjab, the SC population constitutes about 29 per cent of total population in 2001, but their proportion in students' enrollment at higher education level is significantly low (Mittar, Singh and Brar, 2002). And, due to collapse of monitoring mechanism and government apathy towards education sector in the last two decades, school education in rural Punjab has reached at the nadir. Education conscious parents and better-off sections of society from rural areas has withdrawn their wards from the government rural schools and preferred to admit them in private unaided schools to get quality education. Government schools have become the schools of have-nots (Joshi, 2003; Kaur, 2004 and Rani, 2007). High proportion of students belonging to SC/ST and BCs in the government school is indicative of emerging ground reality of deteriorated school education in the state. Another indicator of bad-to-worst situation of education sector of Punjab is the low proportion of rural students (4.07 per cent) in the universities of Punjab (Ghuman, Singh and Brar, 2006).

At the macro level, the proportion of SC students out of the total students enrolled in the various courses of higher education is not high in the Punjab state (Table 2.5). The data reveal that, on the whole, the proportionate share of students belonged to the SCs has been low (11.25 per cent in 1991-92, 10.23 per cent in 2000-01 and 10.45 per cent in 2005-06) compared to their proportion in the total population (28.95 per cent as per Population Census of 2001). Although the share of SC students has risen from 11.25 per cent in 1991-92, but declined to 10.23 per cent in 2000-01 and rose marginally to 10.45 per cent in 2005-06. Gender-wise, the girl students belonging to SC have increased their share from 7.20 per cent of total girl students in 1991-92, to 9.03 per cent in 2000-01 and to 9.64 per cent in 2005-06. It unravels that, despite having 25 per cent reservation of seats in the education institutions (schools, colleges and universities), the proportionate share of SC students in higher education sector is very low in the state. Low share of students from SC families indicates a widening gap with regard to the socio-economic conditions, restricting their upward mobility and forcing them to work for low income activities (Reay, 2007)). The non-affordability factor,

due to high fee and funds, inter alia, has been the most important reasons for the low enrollment of the socially and economically backward students, particularly from rural areas, in the professional higher education courses. The reasonably high proportion of SC students in the Punjabi University's Yadvindra College of Engineering amply proves the above hypotheses(Bhatti, 2005).

Table 2.5: Percentage Share of Scheduled Castes Students in Total Students' Enrollment in Punjab by Type of Course and Sex

Name of Course	1991-92			2000-01			2005-06		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1. Graduate	**15.08**	**7.12**	**10.93**	**11.16**	**8.92**	**9.97**	**11.90**	**9.93**	**10.83**
B.A./B.A. (Hons.)	18.85	8.01	12.78	12.89	10.16	11.40	13.25	11.11	12.09
B.Sc./B.Sc. (Hons.)	8.10	3.50	5.97	6.90	4.62	5.67	9.68	6.18	7.50
B.Com./B.Com. (Hons.)	4.30	1.95	3.56	5.41	4.27	4.88	5.42	5.37	5.40
2. Postgraduate	**17.68**	**6.40**	**11.12**	**16.76**	**7.57**	**10.21**	**11.61**	**7.06**	**8.25**
M.A.	20.50	7.48	12.83	18.34	8.40	11.25	13.28	8.12	9.50
M. Sc.	5.40	1.73	3.35	8.28	3.85	5.18	7.95	5.02	5.81
M. Com.	18.03	0.00	9.17	18.30	4.99	8.42	6.48	3.87	4.40
3. B. ED.	20.85	8.34	11.94	25.21	17.34	19.66	20.53	15.12	16.27
4. Professional	**20.28**	**12.44**	**18.22**	**11.29**	**9.92**	**10.98**	**8.77**	**8.53**	**8.71**
B.E./B. Tech./B. Arch.	15.85	3.57	14.87	10.29	6.26	9.55	8.05	5.69	7.52
M.B.B.S. Only	26.83	13.94	21.29	19.44	17.45	18.50	18.38	18.87	18.63
5. Ph. D./M. Phil.	**3.26**	**1.86**	**2.48**	**0.00**	**0.00**	**0.00**	**2.26**	**0.95**	**1.49**
Total	**15.65**	**7.20**	**11.25**	**11.55**	**9.03**	**10.23**	**11.38**	**9.64**	**10.45**

Source: Culled from the data given in the **Statistical Abstract of Punjab**, (Various Issues), Economic Advisor to Government of Punjab.

The proportion of SC students who opted for science and commerce courses has been very low compared to the share of Scheduled Castes students opting for arts and social science courses both at the graduate and postgraduate levels. The proportion of Scheduled Castes students who enrolled in the B.Ed. course has increased from 11.94 per cent in 1991-92 to 19.66 per cent in 2000-01. But, their share declined to 16.27 per cent in 2005-06. Moreover, the share of Scheduled Castes students in engineering streams had decreased from 14.87 per cent (1991-92), to 9.55 per cent (2000-01) and 7.52 per cent (2005-06). In the MBBS course, the share of SC students receiving training in medical colleges of the state has decreased from 21.29

per cent in 1991-92 to 18.50 per cent in 2000-01 and marginally improved to 18.63 per cent in 2005-06. Moreover, the share of SC girls has been picking upward trend in almost all of the courses over the time period, yet their shares have remained consistently lower compared to the share of SC boys. These facts indicate that the human capital formation among the SC, BC and OBC students of the state has been very slow and demands corrective measures.

2.3.2 Access to University Education: A Case of Punjabi University

Micro aspect of access to professional education is an important parameter to judge the efficiency of higher education institutions. It measures the preference of students to a particular institution. It is well known fact that a better institution attracts the meritorious and talented students in large numbers. In India or elsewhere, the universities are considered to be the highest seats of learning and research (Kothari Commission, 1968; UGC Pay Chadha Committee Report, 2008). And, any student who is able to get admission in the campus department or regional centre of the university are supposed to be intelligent, hardworking and sincere in studies (Ghuman, Singh and Brar, 2006). In all courses/subjects, particularly among the professional courses, the admission is either through the competitive entrance tests or through competitive merit of the qualifying examination/s or both. Among almost all the university departments, the number of applicants is very large compared to the available seats in each course.

Truly, the very high scoring students are admitted in the university teaching departments. The students place the regional centers at the second order of preference (after the Main Campus Departments). Further, the university students are expected to perform well in their academic lives and, later on, become the achievers in the various socio-economic fields of their choice. It is interesting to examine the proportion of weaker sections of society in the university level higher education. For this purpose, Punjabi University, Patiala has been chosen as the case study. The analysis has been carried out across the broader subjects/courses taught in the university departments and its regional centers. These subjects/courses are clubbed together and have been divided into five categories: (i) Professional Courses; (ii) Arts,

Languages, and Social Sciences; (iii) Life Sciences; (iv) Physical Sciences; and (v) Education-cum-Information Sciences.

The comparative analysis of data (Table 2.6, Table 2.7 and Table 2.8) reveals that, on the whole, 5281 students (50.45 per cent boys and 49.55 per cent girls) were admitted in the different departments at the campus and regional centers of Punjabi University, during the academic session of 2005-06. Out of them, 4251 students (48.62 per cent boys and 51.38 per cent girls) were studying at the main campus and 1030 students (57.96 per cent boys and 42.04 per cent girls) were getting higher education in the regional centers. Thus, the university departments attracted more than four-fifths of students (80.50 per cent; 4251 students) and the regional centers of university about one-fifth of students (19.50 per cent; 1030 students).

To judge the access to university level higher education among the different sections of society, the Scheduled Castes/Scheduled Tribes students, backward classes students, physically handicapped (all weaker sections of society) & sports persons on one hand, and the Industry/NRI sponsored students (supposed to be resource rich students) as well as general category students on the other hand were taken separately. The data point out that an overwhelming proportion of students (in the range of 70-90 per cent) across various courses/subjects got admission under the general category students. On the whole, more than 80 per cent (78.49 per cent for boys and 85.48 per cent for girls) fall in the general category students. Among the university departments, general category students held a lower proportion of 79.96 per cent (75.23 per cent for boys and 84.25 per cent for girls) compared to 90.58 per cent (89.78 per cent for boys and 91.69 per cent for girls) of the general category students of regional centers. Further, a little more than 5 per cent students (5.33 per cent for boys and 4.93 per cent for girls) admitted under the Industry/NRI sponsored quota seats. Moreover, as expected, the Industry/NRI sponsored students held higher proportion among the Professional Courses, Physical Sciences, Life Sciences and Education & Information Sciences. No Industry/NRI sponsored student preferred to get

enrolled in the Arts, Languages and Social Sciences courses during the academic session of 2005-06.

Table 2.6: Distribution of Total Students Enrolled in Punjabi University, Patiala by Type of Course and Social Category, 2005-06

Faculty/Course	Social Category of Student					
	General Category	Scheduled Castes/Tribes	Backward Classes	PH, Sports, etc.	NRI/Industry Sponsored	Total
University Campus						
Professional Courses	1095	197	34	22	141	1489
	(73.54)	(13.23)	(2.28)	(1.48)	(9.47)	(100)
Arts, Languages and Social Sciences	1313	97	38	8	0	1456
	(90.18)	(6.66)	(2.61)	(0.55)	(0.00)	(100)
Life Sciences	421	61	14	8	48	552
	(76.27)	(11.05)	(2.54)	(1.45)	(8.70)	(100)
Physical Sciences	400	53	13	6	46	518
	(77.22)	(10.23)	(2.51)	(1.16)	(8.88)	(100)
Education & Information Science	166	32	11	2	25	236
	(70.34)	(13.56)	(4.66)	(0.85)	(10.60)	(100)
Sub total	3395	440	110	46	260	4251
	(79.86)	(10.35)	(2.59)	(1.08)	(6.12)	(100)
Regional Centres						
Professional	759	36	17	3	11	826
	(91.89)	(4.36)	(2.06)	(0.36)	(1.33)	(100)
Arts and Social Sciences	174	9	10	1	0	204
	(85.29)	(4.41)	(4.90)	(0.49)	(0.00)	(100)
Sub total	933	45	27	4	11	1030
	(90.58)	(4.37)	(2.62)	(0.39)	(1.07)	(100)
Grand Total	4328	485	137	50	271	5281
	(81.95)	(9.18)	(2.59)	(0.95)	(5.13)	(100)

Note: Figures in parentheses are percentages.
Source: *Office of Statistical Officer*, Punjabi University, Patiala.

The SC/ST category students in Punjab have statutory provision of 25 per cent reservation of seats in education institutions. The SC/ST students who got admission as the reserve category constituted a little less than one-tenth of total students (9.18 per cent in total; 11.30 per cent for boys and 7.03 per cent for girls). The Scheduled Castes/Scheduled Tribes' students held the highest proportion in the case of the Education & Information Sciences (13.56 per cent; 17.82 per cent for boys and 10.37 per cent for girls), followed by the

Professional Courses (13.23 per cent; 14.76 per cent for boys and 9.87 per cent for girls), Physical Sciences (10.23 per cent; 18.06 per cent for boys and 7.23 per cent for girls), Life Sciences (11.05 per cent; 12.31 per cent for boys and 10.36 per cent for girls), and Arts, Languages and Social Sciences (6.66 per cent; 9.11 per cent for boys and 4.93 per cent for girls).

Table 2.7: Distribution of Male Students Enrolled in Punjabi University, Patiala by Type of Course and Social Category, 2005-06

Faculty/Course	Social Category of Student					
	General Category	Scheduled Castes/Tribes	Backward Classes	PH, Sports, etc.	NRI/Industry Sponsored	Total
University Campus						
Professional Courses	741	151	26	18	87	1023
	(72.43)	(14.76)	(2.54)	(1.76)	(8.50)	(100
Arts, Languages and Social Sciences	521	55	23	5	0	604
	(86.26)	(9.11)	(3.81)	(0.83)	(0.00)	(100)
Life Sciences	140	24	9	5	17	195
	(71.79)	(12.310	(4.62)	(2.56)	(8.72)	(100
Physical Sciences	91	26	4	5	18	144
	(63.19)	(18.060	(2.780	(3.47)	(12.50)	(100)
Education & Information Science	62	18	8	1	12	101
	(61.38)	(17.82)	(7.91)	(0.99)	(11.88)	(100
Sub total	1555	274	70	34	134	2067
	(75.23)	(13.26)	(3.39)	(1.65)	(6.48)	(100)
Regional Centres						
Professional	492	22	13	2	8	537
	(91.62)	(4.10)	(2.42)	(0.37)	(1.490	(100
Arts and Social sciences	44	5	4	0	0	60
	(73.33)	(8.33)	(6.67)	(0.00)	(0.00)	(100)
Sub total	536	27	17	2	8	597
	(89.78)	(4.52)	(2.85)	(0.33)	(1.34)	(100
Grand Total	2091	301	87	36	142	2664
	(78.49)	(11.3)	(3.26)	(1.35)	(5.33)	(100)

Note: Figures in parentheses are percentages.
Source: *Office of Statistical Officer*, Punjabi University, Patiala.

On the other side, having five per cent reservation of seats, the students belonging to Backward Classes (BC) in Punjab constituted a very little share (2.59 per cent; 3.26 per cent for boys and 1.91 per cent for girls). In the case of the Education & Information Sciences, the BC students held the highest proportion (4.66 per cent; 7.91 per cent for boys and 2.22 per cent for girls), followed by the Arts, Languages and Social Sciences (2.61 per cent; 3.81 per cent for boys and 1.76 per cent for girls), the Life Sciences (2.54 per

Table 2.8: Distribution of Female Students Enrolled in Punjabi University, Patiala by Type of Course and Social Category, 2005-06

Faculty/Course	Social Category of Student					
	General Category	Scheduled Castes/Tribes	Backward Classes	PH, Sports, etc.	NRI/Industry Sponsored	Total
University Campus						
Professional Courses	354	46	8	4	54	466
	(75.97)	(9.87)	(1.72)	(0.86)	(11.59)	(100
Arts, Languages and Social Sciences	792	42	15	3	0	852
	(92.96)	(4.93)	(1.76)	(0.35)	(0.00)	(100)
Life Sciences	281	37	5	3	31	357
	(78.71)	(10.36)	(1.40)	(0.84)	(8.68)	(100
Physical Sciences	309	27	9	1	28	374
	(82.62)	(7.22)	(2.41)	(0.27)	(7.49)	(100)
Education & Information Science	104	14	3	1	13	135
	(77.04)	(10.37)	(2.22)	(0.74)	(9.63)	(100
Sub total	1840	166	40	12	126	2184
	(84.25)	(7.60)	(1.83)	(0.55)	(5.77)	(100)
Regional Centres						
Professional	267	14	4	1	3	289
	(92.39)	(4.84)	(1.38)	(0.35)	(1.04)	(100
Arts and Social sciences	130	4	6	1	0	144
	(90.28)	(2.78)	(4.17)	(0.69)	(0.00)	(100)
Sub total	397	18	10	2	3	433
	(91.69)	(4.16)	(2.30)	(0.46)	(0.69)	(100
Grand Total	2237	184	50	14	129	2617
	(85.48)	(7.03)	(1.91)	(0.54)	(4.93)	(100)

Note: Figures in parentheses are percentages.
Source: *Office of Statistical Officer*, Punjabi University, Patiala.

cent; 4.62 per cent for boys and 1.40 per cent for girls), Physical Sciences (2.51 per cent; 2.78 per cent for boys and 2.41 per cent for girls), and the Professional Courses (2.28 per cent; 2.54 per cent for boys and 1.72 per cent for girls). Moreover, to provide social justice to other marginal sections of society, state government has well-defined reservation of seats in educational institutions. For instance, the handicapped students and sports persons have reservation of seats in the education institutions operative in Punjab (3 per cent for the physical handicapped persons and 2 per cent for the sports persons). Students belonged to backward areas and border areas have also four per cent (2 per cent, each) reservation of seats. On actualization basis, however, these reserve categories together had a very little proportion of seats filled from them. For instance, the combined share of physically

handicapped persons and sports persons is less than one per cent of the total admitted students against these category seats, i.e. 1.08 per cent at the university campus.

Punjabi University in the Role of Ambedkar

Punjabi University, Patiala did a unique and pioneer experiment by establishing Yadwindra College of Engineering (YCoE) at Talwandi Sabo, District Bathinda (Punjab) during the academic session 2004-05. The college runs four courses, i.e. MCA, M. Tech, B. Tech. (4 years) and B. Tech. (6 years). The B. Tech. (6 years) course in three branches of engineering - ECE, CSE and ME (60 seats each) - is exclusively meant for the rural poor but meritorious students. Keeping in view the non-affordability of expenses for engineering degree by the rural poor students, the university decided to mobilize funds through charity from the individuals and organizations, within and outside in the country.

Per student recurring cost for six years' course, estimated by the university, came out be Rs. 2.04 lakh. Thus, the total cost for 1080 students would be Rs 12.85 crores. The underlying assumption is that every pass-out student would start financing at least one new entrant. The University has been able to raise the sufficient number of scholarships for admitted rural students up to the 2008-09 session.

The eligibility criteria for admission are: (i) the student must have passed the 10^{th} class examination from rural school with at least eight years' study in the rural school\s; (ii) the annual fee and funds of such a school must not exceed Rs.500/-; and (iii) the parents of students must be residing in rural areas.

The unique of YCoE, inter alia, lies in that (i) it is an effort to provide quality engineering education to the poorest of poor, but meritorious, rural students; (ii) the recurring cost (fee and funds) of rural students' education is financed out of the scholarships raised through charity/philanthropic efforts; and (iii) these students, after getting the job, are expected to payback the scholarship amount either in instalments or sponsor another student's study.

The college is in the fifth year of existence (2008-09 academic session). The students of first batch, admitted during 2004-05, have now entered the 5^{th} semester of B. Tech course. The demographic profile (gender, caste, religion, etc.) of admitted students truly represents the broad structure of rural Punjabi society. It is significant to note that the reservation policy of Union\State governments is being observed in the college.

2.3.3 Exclusion of Rural Students in Traditional Universities

It is important to report here that the exclusion of rural students has been taken place in the four traditional universities (Punjabi University, Patiala; GNDU, Amritsar; Panjab University Chandigarh; and PAU, Ludhiana) of Punjab. The estimates are available in the study (Ghuman, Singh and Brar, 2006) sponsored, financed, and published by Punjabi University Patiala. The study, based on census enquiry of each and every department and their regional centers of these universities of Punjab, identified the rural students and examined their socio-economic features like their school background, academic achievements, parents' education, occupation

and current income levels, etc. The study found that during the academic session 2005-06, as many as 22360 students were enrolled in all the four universities of state and their regional centers. Out of these, the number of boys was 11941(53.40 per cent) and that of girls it was10419 (46.60 per cent). Further, out of the total students, the proportion of various universities was as follow: Punjabi University (23.62 per cent); GNDU (31.05 per cent); Panjab University (36.93 per cent); and PAU (8.40 per cent). Out of total students, 11029 were admitted in the general education and 11331 were in the professional education (Table 2.9).

Table 2.9: University- Wise Number of Total Enrollment in Universities of Punjab*, 2005-06

Name of University	**Total Enrollment**		
	Boys	**Girls**	**Overall**
Punjabi University, Patiala	2664	2617	5281 (23.62)
Guru Nanak Dev University, Amritsar	3842	3100	6942 (31.05)
Panjab University, Chandigarh	4333	3924	8257 (36.93)
Punjab Agricultural University, Ludhiana	1102	778	1880 (8.40)
Grand Total	**11941 (53.40)**	**10419 (46.60)**	**22360 (100.00)**
Type of Course/s			
General Education	4228	6801	11029 (49.32)
Professional Education	7713	3618	11331 (50.68)
Grand Total	**11941 (53.40)**	**10419 (46.60)**	**22360 (100.00)**

Note: *Universities of Punjab here means four universities.
Source: *Ghuman, Singh and Brar,* 2006.

Regarding the total number of rural students enrolled in the campus departments and regional centers of universities, their number was just 911 students. They constituted ungenerously 4.07 per cent of the total students. The share of rural boys and rural girls was 4.96 per cent and 3.06 per cent in the overall respective strength of boys and girls, respectively (Table 2.10). University-wise the proportion of the rural students was as follows: Punjabi University (8.16 per cent); GNDU (3.01per cent); Panjab University (2.20 per cent); and PAU (4.73 per cent). In fact, the share of rural students in these universities of Punjab is far below than that of the proportion of rural

population (66.05 per cent, Census 2001) in the state (Ghuman, Singh and Brar, 2006).

Table 2.10: University- Wise Number of Rural Students in Universities of Punjab*, 2005-06

Name of University	Rural Students					
	Number			Percentage		
	Boys	Girls	Overall	Boys	Girls	Overall
Punjabi University, Patiala	279	152	431	10.47	5.81	8.16
Guru Nanak Dev University, Amritsar	130	79	209	3.38	2.55	3.01
Panjab University, Chandigarh	128	54	182	2.95	1.38	2.20
Punjab Agricultural University, Ludhiana	55	34	89	4.99	4.37	4.73
Grand Total	**592 (64.98)**	**319 (35.02)**	**911 (100.00)**	**4.96**	**3.06**	**4.07**
Type of Course/s						
General Education	354	245	599	8.37	3.60	5.43
Professional Education	238	74	312	3.09	2.04	2.75
Grand Total	**592 (64.98)**	**319 (35.02)**	**911 (100.00)**	**4.96**	**3.06**	**4.07**

Note: * Universities of Punjab here means four universities.
Source: Ghuman, Singh and Brar, 2006.

Interestingly, the study, being a pioneer work, found that there has been wide spread exclusion of rural students in the state from the university based higher education of both types – general education courses (Arts, science, commerce, etc.) and professional courses (Engineering, technology, management, pharmacy, law, etc.). In the general education courses, the proportion of rural students was 5.43 per cent (8.37 per cent for boys and 3.60 per cent for girls) compared to the proportion of rural students (2.75 per cent) in the professional education courses (3.09 per cent for boys and 2.04 per cent for girls) (Table 2.10).

To sum up, it is evident that the higher education sector of the state has witnessed many significant trends. **One**, up to the 1980s, major emphasis was on the spread of general education by establishing such colleges in the state and number of students enrolled in the general education colleges rose not by design, but largely due to the faulty planning for these courses. **Two**, in the decade of 1990s and onwards, the new colleges/institutes imparting professional and technical education have gained an upper hand, mainly due to the initiative of private sector. **Three**, numerically, students enrolled in higher education sector of the state (about 90 per cent) still preferred to the

general education courses during 1981-82 to 2005-06. And, an overwhelming majority of them prefers the arts & social sciences courses compared to the science & commerce streams. **Fourth**, female students have now out-numbered the male students among all courses except in the engineering and technical courses - a welcome sign for the women empowerment in the state. **Fifth**, the low share of students of marginalized sections of society, especially of the SCSTs (nearly 10 per cent) and Backward Classes (2.60 per cent) in university based higher education is a cause of concern. Further, the share of scheduled castes/tribes girls is abysmally low even in the higher general education. **Sixth**, the most important trend is the starting of marketable courses, which are high in demand, by the for-profit institutions. These institutions began to charge high fee and funds from students or their parents who are unable to pay with their current income levels. In the absence of adequate state support in the form of scholarships fee concessions, loan facilities, etc., the poor and meritorious students belonged to the weaker sections of society are deprived of from the benefits of higher professional education.

In nutshell, the motion of ‘educational exclusion’ has been accelerated in the state where benefits of higher professional education will not be available to the students belonging to weaker sections of society. It has been the result of numerous cumulative trends and processes such as collapse of rural school education, high fee and funds of education in private schools and colleges (beyond the reach of majority of ruralites), gap in rural-urban amenities and low awareness, lack of guidance and coaching facilities and admission through the state level entrance tests. One of the serious implications of this is that the students of marginalized sections of rural society are unable to enter the higher professional education as well as associated, assured and high income job opportunities. This situation demands major public policy interventions on the part of state to increase the enrollments of weaker sections of society in the higher professional education sector.

Chapter III

Rural Students in Professional Education: Their Number and Proportion

This chapter provides the main findings of the primary survey in a condensed format. It presents the number of rural students across the various universities, courses and for the different years of the courses. Further, for each course, the results have been presented separately for boys and girls. The chapter is divided into three parts. Part I presents the overall enrollment and numerical strength of the rural students in surveyed universities and the departments/colleges/institutes. Part II provides the university-wise number and proportion of rural students in various courses and at different stages of the courses. Part III provides the details pertaining to proportionate share of boys and girls in the total enrollment and within the rural students.

I

3.1 Overall and University-Wise Rural Students

During the academic session 2007-08, the total number of students in the five surveyed universities of the state [Punjab Technical University (PTU), Baba Farid University of Health Sciences (BFUHS), Thapar University (TU), Sant Longowal Institute of Engineering and Technology (SLIET), and Rajiv Gandhi National University of Law (RGNUL)] was 56,240 students. Out of these, the highest proportion of students (76.17 per cent) was in the PTU. The share of the rest of the universities was as follows: the BFUHS (15.58 per cent); the TU (5.91 per cent); the SLIET (2.06 per cent); the RGNUL (0.28 per cent). Among the total students, the proportionate share of boys was 65.16 per cent and that of girls was 34.84 per cent. The proportionate share of boys among total students enrolled in the respective university was in the following order: the PTU (70.20 per cent); the BFUHS (32.22 per cent); the TU (81.11 per cent); the SLIET (82.38 per cent); the RGNUL (65.00 per cent) (Table 3.1). It means that the boys constituted majority share in the courses run by the PTU, TU, SLIET, and RGNUL. And, girls formed an overwhelming majority in B.Sc. (Nursing) and a majority in other medical courses.

Table 3.1: Total Enrollment of Students in Professional Education in Selected Universities of Punjab by Gender (2007-08)

Universities	Total Enrollment		
	Persons	**Male**	**Female**
PTU	42837 [76.17] (100.00)	30070 (70.20)	12767 (29.80)
BFUHS	8761 [15.58] (100.00)	2823 (32.22)	5938 (67.78)
(a) B. Sc. Nursing	2201 [3.91] (100.00)	51 (2.32)	2150 (97.68)
(b) Medical Courses	6560 [11.66] (100.00)	2772 (42.26)	3788 (57.74)
TU	3324 [5.91] (100.00)	2696 (81.11)	628 (18.89)
SLIET	1158 [2.06] (100.00)	954 (82.38)	204 (17.62)
RGNUL	160 [0.28] (100.00)	104 (65.00)	56 (35.00)
Overall	**56240 (100.00)** (100.00)	**36647 (65.16)**	**19593 (34.84)**

Note: 1. Figures in parentheses are percentages.
2. Figures in square brackets [..] show the column-wise percentage share.
Source: Primary Survey.

The total number of rural students in surveyed universities was found to be 2085. It constituted 3.71 per cent of total enrolled students in all surveyed universities. The proportion of rural students was the highest in the BFUHS (8.88 per cent) and the lowest in the TU (0.30 per cent). The proportion of rural students in the rest of the universities was as follows: the PTU (2.97 per cent); the SLIET (1.81 per cent); the RGNUL (1.88 per cent). It is to be noted that the overall proportion of rural students in the BFUHS was higher because of very high proportion of rural students in the B.Sc. Nursing (22.63 per cent).The share of rural students in other medical courses was 4.27 per cent. The sex-wise break up shows that the proportion of rural girl students (5.27 per cent) was more than that of rural boys (2.87 per cent). The university-cum-sex wise break up of rural students showed that the proportion of girls was the highest in the BFUHS (11.10 per cent) and no rural female student was enrolled in any course of the TU and the RGNUL. The proportion of rural male students was the highest in the BFUHS (4.22 per cent) and the lowest in the TU (0.37 per cent). Within total rural students (2085 students),

the proportion of girls was 49.49 per cent and that of boys 50.50 per cent. **University-wise, the proportion of rural girls was in the following manner: PTU (28.75 per cent); BFUHS (84.70 per cent); SLIET (33.33 per cent) (Table 3.2).**

Table 3.2: Gender-wise Number and Proportion of Rural Students in Professional Education in Selected Universities of Punjab (2007-08)

Universities	Rural Students					
	Number			Percentage Share		
	Persons	Male	Female	Persons	Male	Female
PTU	1273 (61.06)	907 (86.13)	366 (35.47)	**2.97**	**3.02**	**2.87**
BFUHS	778 (37.31)	119 (11.30)	659 (63.86)	**8.88**	**4.22**	**11.10**
(a) B. Sc. Nursing	498 (23.88)	5 (0.47)	493 (47.77)	**22.63**	**9.80**	**22.93**
(b) Medical Courses	280 (13.43)	114 (10.83)	166 (16.09)	**4.27**	**4.11**	**4.38**
TU	10 (0.48)	10 (0.95)	0 (0.00)	**0.30**	**0.37**	**0.00**
SLIET	21 (1.01)	14 (1.33)	7 (0.68)	**1.81**	**1.47**	**3.43**
RGNUL	3 (0.14)	3 (0.28)	0 (0.00)	**1.88**	**2.88**	**0.00**
Overall	**2085** (100.00)	**1053** (100.00)	**1032** (100.00)	**3.71**	**2.87**	**5.27**

Figures in parentheses indicate share in respective university.
Source: Primary Survey.

The presence of the rural students in the professional education of Punjab has also been depicted through the distribution of the students according to the various years (stages) of the courses. The distribution of students, according to the various years, gives the broader picture of their presence at any given academic session. The overwhelming majority of courses are of four years duration. The distribution of rural students has, therefore, been given according to the four years' framework and separately for the internship. The data in Table 3.3 reveal that the majority of the students were in the 1st year of the course, i.e. 37.17 per cent. Interestingly, their proportion declined consistently at every higher year of the course as follows: 2nd year (33.72 per cent); 3rd year (20.10 per cent); 4th year (8.78 per cent) and internship (0.24 per cent). The same pattern prevails both for the boys and girls (Table 3.3).

Table 3.3: Distribution of Rural Students in Professional Education in Punjab by Part/Year of Course (2007-08)

Part/Year	Number of Rural Students			Percentage Share		
	Persons	**Boys**	**Girls**	**Persons**	**Boys**	**Girls**
1	774	404	370	37.17	38.37	35.95
2	703	387	316	33.72	36.75	30.62
3	419	204	215	20.10	19.37	20.83
4	184	56	128	8.78	5.32	12.31
Internship	5	2	3	0.24	0.19	0.29
Total	**2085**	**1053**	**1032**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

Actually, the higher number of rural students at the first year of the course as against the higher stages of the courses is not a true indicator of their better proportion over the period because the intake capacity in the professional education institutions over the period has increased considerably. The intake capacity has increased through the opening up of new institutions and adding of new seats to existing institutions in a large variety of courses. Therefore, the small number of students identified and reported at the terminal year of the courses is largely due to the result of less overall intake during that year/s. The data in Table 3.4 point out clearly that the proportion of rural students in the first year of all courses taken together was 4.27 per cent. In the second year of the courses, it was 4.17 per cent, followed by the 3.54 per cent in the third year of study, 1.99 per cent in the fourth year of study and 3.57 per cent in the internship courses. The proportion of rural female students was much higher compared to the rural male students across the four years' courses (Table 3.4).

Table 3.4: Distribution of Total Students and Rural Students in Professional Education in Punjab by Part/Year of Course (2007-08)

Part/Year	Number of Rural Students			Percentage Share		
	Persons	Boys	Girls	Persons	Boys	Girls
1st	18138 (100.00)	11703 (64.52)	6435 (35.48)	774 (4.27)	404 (3.45)	370 (5.75)
2nd	16873 (100.00)	10998 (65.18)	5875 (34.82)	703 (4.17)	387 (3.52)	316 (5.38)
3rd	11821 (100.00)	7744 (65.51)	4077 (34.49)	419 (3.54)	204 (2.63)	215 (5.27)
4th	9268 (100.00)	6156 (66.42)	3112 (33.58)	184 (1.99)	56 (0.91)	128 (4.11)
Internship	140 (100.00)	46 (32.86)	94 (67.14)	5 (3.57)	2 (4.35)	3 (3.19)
Total	56240 (100.00)	36647 (65.16)	19593 (34.84)	2085 (3.71)	1053 (2.87)	1032 (5.27)

Source: Primary Survey.

Another factor which deserves attention of policy makers is the admission of rural students belonging to other states in the professional education of Punjab. These rural students of other states were able to enroll themselves in these courses because 15 per cent seats of these courses are reserved for the candidates who belonged to other states. Out of the total rural students (2085 students) as many as 500 students (23.98 per cent) belong to the rural areas of the other states, as is evident from Table 3.5. Out of 500 rural students of other states, 405 students (81.00 per cent) were from the neighboring states which consist of Haryana, Himachal Pradesh, Jammu & Kashmir and Rajasthan. Further, 95 students (19.00 per cent) were from the other states which includes Bihar, Kerala, Manipur, Orissa, Tripura, UP, Delhi and West Bengal. Interestingly, 105 girls from the rural areas of the other states also got admission in the professional education in the state (Table 3.4). **Excluding the rural students of other states, the proportion of rural students of Punjab certainly diminished to 2.84 per cent (1.82 per cent for boys and 4.76 for girls), respectively**.

Table 3.5: Distribution of Rural Students in Professional Education in Punjab by Native State (2007-08)

State	Number			Percentage Share		
	Persons	Boys	Girls	Persons	Boys	Girls
Punjab	1585	658	927	76.02	62.49	89.83
Neighbouring States	405	310	95	19.42	29.44	9.21
Other States	95	85	10	4.56	8.07	0.97
Total	**2085**	**1053**	**1032**	**100.00**	**100.00**	**100.00**

Note: (i) Neighbouring States include Haryana, Himachal Pradesh, Jammu & Kashmir and Rajasthan.
(ii) Other States include UP, West Bengal, Bihar, Orissa, Jharkhand, Kerala, Delhi, Manipur, and Tripura.
Source: Primary Survey.

II

3.2 Course-cum-Year Wise Rural Students

Each surveyed university has been running different types of specialized courses of many varieties. The entire scenario related to intake of rural students becomes clearer by examining their strength in the various courses and at various stages of each course of every university that had been surveyed by the study team. It is very interesting to examine the share of rural

students in each course of professional education provided by the concerned university.

Table 3.6: Distribution of Overall Students and Rural Students in Engineering and Non-Engineering Courses of PTU by Part/Year (2007-08)

Part/ Year	Total Students			Rural Students		
	Persons	Boys	Girls	Persons	Boys	Girls
(a) Engineering Courses						
1st	9272	6934	2338	167 [1.80] (100.00)	132 [1.90] (79.04)	35 [1.50] (20.96)
2nd	8711	6595	2116	244 [2.80] (100.00)	188 [2.85] (77.05)	56 [2.65] (22.95)
3rd	6708	5039	1669	177 [2.64] (100.00)	135 [2.70] (76.27)	42 I2.52] (23.73)
4th	5877	4437	1440	34 [0.58] (100.00)	29 [0.65] (85.29)	5 [0.35] (14.71)
Overall	30568	23005	7563	622 [2.03] (100.00)	484 [2.70] (77.81)	138 [1.82] (22.19)
(b) Non-Engineering Courses						
1st	5063	2832	2231	352 [6.95] (100.00)	214 [7.56] (60.80)	138 [6.18] (39.20)
2nd	4397	2475	1922	216 [4.91] (100.00)	148 [5.98] (68.52)	68 [3.54] (31.48)
3rd	2161	1323	838	57 [2.64] (100.00)	42 [3.17] (73.68)	15 [1.79] (26.32)
4th	648	435	213	26 [4.01] (100.00)	19 [4.37] (73.08)	7 [3.29] (26.92)
Overall	12269	7065	5204	651 [5.31] (100.00)	423 [5.99] (64.98)	228 [4.38] (35.02)
(c) All Courses						
1st	14335	9766	4569	519 [3.62] (100.00)	346 [3.54] (66.67)	173 [3.79] (33.33)
2nd	13108	9070	4038	460 [3.51] (100.00)	336 [3.70] (73.04)	124 [3.07] (26.96)
3rd	8869	6362	2507	234 [2.64] (100.00)	177 [2.78] (75.64)	57 [2.27] (24.36)
4th	6525	4872	1653	60 [0.92] (100.00)	48 [0.99] (80.00)	12 [0.73] (20.00)
Overall	42837	30070	12767	1273 [2.97] (100.00)	907 [3.02] (71.25)	366 [2.87] (28.75)

Note: 1. Figures in square brackets […] show the percentage share of rural students.
2. Figures in parentheses are the percentages.
Source: Primary Survey.

In the case of PTU, the detailed information has been provided for all the 21 courses/trades being executed by the affiliated colleges/institutes under its jurisdiction. These courses/trades have been divided into two broad disciplines, i.e. engineering and non-engineering disciplines. The break-up of rural students in the case of the PTU reveals that as many as 622 students (48.86 per cent) were in the engineering stream and the rest 651 (51.14 per cent) in the non-engineering stream. In the engineering stream, the proportion of the rural students (2.80 per cent) in the overall students was higher in the 2nd year of the course. In the non-engineering stream, the proportion of the rural students (6.95 per cent) was higher in the 1st year of the stream. The

proportion of the rural female students was 28.51 per cent in the engineering stream and 35.02 per cent in the non-engineering stream. Further, the proportion of rural students in the engineering discipline was 2.03 per cent (2.70 per cent for boys and 1.82 per cent for girls). And, in non-engineering courses, the proportion of rural students was 5.31 per cent (5.99 per cent for boys and 4.38 per cent for girls). Interestingly, the proportion of rural male students was higher than that of the female students across all the years of courses and both in the engineering and the non-engineering streams. Moreover, the proportion of rural students in engineering stream is low compared to non-engineering streams in the PTU (Table 3.6).

On the other side, the proportion of rural students across the 21 courses/trades, in the descending order, was as follows: B. Pharmacy (7.35 per cent); BCA (6.83 per cent); MCA (6.02 per cent); ICE (4.12 per cent); MBA (3.81 per cent); B. Architecture (3.66 per cent); Chemical Engineering (2.86 per cent); EE (2.55 per cent); ME (2.44 per cent); IT (2.30 per cent); Civil Engineering (2.04 per cent); ECE (2.04 per cent); BBA (2.03 per cent); Bio-Technology (1.65 per cent); CSE (1.63 per cent); AE (0.99 per cent); EIE (0.93 per cent); and EEE (0.65 per cent). In four courses, namely, B. Sc. (Bio Tech), Textile Engineering, Production Engineering, and M. Pharmacy, no rural student was able to get admission. The percentage share of rural students according to the various courses was as follows: 1st Year (3.62 per cent); 2nd Year (3.51 per cent); 3rd Year (2.64 per cent); and 4th Year (0.92 per cent) [Table 3.7].

Table 3.7: Distribution of Overall Students and Rural Students in PTU by Course and Part/Year (2007-08)

Year	Overall Students			Rural Students		
	Persons	**Boys**	**Girls**	**Persons**	**Boys**	**Girls**
(a) Electronic and Communication Engineering (ECE)						
1st	2479	1947	532	58 (2.34)	48 (2.47)	10 (1.88)
2nd	2399	1902	497	59 (2.46)	46 (2.42)	13 (2.62)
3rd	1928	1521	407	52 (2.70)	35 (2.30)	17 (4.18)
4th	1831	1382	449	7 (0.38)	6 (0.43)	1 (0.22)
Overall	**8637**	**6752**	**1885**	**176 (2.04)**	**135 (2.00)**	**41 (2.18)**
(b) Electrical Engineering (EE)						
1st	529	380	149	3 (0.57)	3 (0.79)	0 (0.00)
2nd	538	395	143	32 (5.95)	25 (6.33)	7 (4.90)

3rd	456	337	119	10 (2.19)	10 (2.97)	0 (0.00)
4th	402	313	89	4 (1.00)	4 (1.28)	0 (0.00)
Overall	**1925**	**1425**	**500**	**49 (2.55)**	**42 (2.95)**	**7 (1.40)**
(c) Computer Science & Engineering (CSE)						
1st	2679	1532	1147	42 (1.57)	23 (1.50)	19 (1.66)
2nd	2502	1419	1083	64 (2.56)	40 (2.82)	24 (2.22)
3rd	1812	1009	803	26 (1.43)	12 (1.19)	14 (1.74)
4th	1511	855	656	7 (0.46)	6 (0.70)	1 (0.15)
Overall	**8504**	**4815**	**3689**	**139 (1.63)**	**81 (1.68)**	**58 (1.57)**
(d) Information Technology (IT)						
1st	955	551	404	11 (1.15)	6 (1.09)	5 (1.24)
2nd	799	488	311	28 (3.50)	17 (3.48)	11 (3.54)
3rd	664	375	289	21 (3.16)	10 (2.67)	11 (3.81)
4th	455	262	193	6 (1.32)	3 (1.15)	3 (1.55)
Overall	**2873**	**1676**	**1197**	**66 (2.30)**	**36 (2.15)**	**30 (2.51)**

(e) Bio-Technology						
1st	63	41	22	1 (1.59)	1 (2.44)	0 (0.00)
2nd	44	24	20	1 (2.27)	1 (4.17)	0 (0.00)
3rd	27	16	11	0 (0.00)	0 (0.00)	0 (0.00)
4th	32	15	17	0 (0.00)	0 (0.00)	0 (0.00)
Overall	**166**	**96**	**70**	**2 (1.20)**	**2 (2.08)**	**0 (0.00)**
(f) Mechanical Engineering (ME)						
1st	1984	1967	17	46 (2.32)	46 (2.34)	0 (0.00)
2nd	1885	1882	3	47 (2.49)	47 (2.50)	0 (0.00)
3rd	1411	1408	3	58 (4.11)	58 (4.12)	0 (0.00)
4th	1311	1309	2	10 (0.76)	10 (0.76)	0 (0.00)
Overall	**6591**	**6566**	**25**	**161 (2.44)**	**161 (2.45)**	**0 (0.00)**
(g) Electronics & Electrical Engineering (EEE)						
1st	176	146	30	0 (0.00)	0 (0.00)	0 (0.00)
2nd	124	102	22	2 (1.61)	2 (1.96)	0 (0.00)
3rd	81	70	11	1 (1.23)	1 (1.43)	0 (0.00)
4th	78	69	9	0 (0.00)	0 (0.00)	0 (0.00)
Overall	**459**	**387**	**72**	**3 (0.65)**	**3 (0.78)**	**0 (0.00)**
(h) Civil Engineering (CE)						
1st	240	230	10	3 (1.25)	3 (1.30)	0 (0.00)
2nd	239	227	12	7 (2.93)	7 (3.08)	0 (0.00)
3rd	195	185	10	7 (3.59)	7 (3.78)	0 (0.00)
4th	161	150	11	0 (0.00)	0 (0.00)	0 (0.00)
Overall	**835**	**792**	**43**	**17 (2.04)**	**17 (2.15)**	**0 (0.00)**
(i) Information & Communication Engineering (ICE)						
1st	30	17	13	3 (10.00)	2 (11.76)	1 (7.69)
2nd	28	14	14	0 (0.00)	0 (0.00)	0 (0.00)
3rd	22	13	9	1 (4.55)	1 (7.69)	0 (0.00)
4th	17	11	6	0 (0.00)	0 (0.00)	0 (0.00)
Overall	**97**	**55**	**42**	**4 (4.12)**	**3 (5.45)**	**1 (2.38)**
(j) Automobile Engineering (AE)						
1st	29	29	0	0 (0.00)	0 (0.00)	0 (0.00)
2nd	42	42	0	1 (2.38)	1 (2.38)	0 (0.00)

3rd	30	30	0	0 (0.00)	0 (0.00)	0 (0.00)
4th	0	0	0	0 (0.00)	0 (0.00)	0 (0.00)
Overall	**101**	**101**	**0**	**1 (0.99)**	**1 (0.99)**	**0 (0.00)**
(k) Textile Engineering (TE)						
1st	29	22	7	0 (0.00)	0 (0.00)	0 (0.00)
2nd	26	20	6	0 (0.00)	0 (0.00)	0 (0.00)
3rd	18	11	7	0 (0.00)	0 (0.00)	0 (0.00)
4th	14	12	2	0 (0.00)	0 (0.00)	0 (0.00)
Overall	**87**	**65**	**22**	**0 (0.00)**	**0 (0.00)**	**0 (0.00)**
(l) Production Engineering (PE)						
1st	0	0	0	0 (0.00)	0 (0.00)	0 (0.00)
2nd	0	0	0	0 (0.00)	0 (0.00)	0 (0.00)
3rd	2	2	0	0 (0.00)	0 (0.00)	0 (0.00)
4th	5	5	0	0 (0.00)	0 (0.00)	0 (0.00)
Overall	**7**	**7**	**0**	**0 (0.00)**	**0 (0.00)**	**0 (0.00)**

(m) Chemical Engineering (CHE)						
1st	19	12	7	0 (0.00)	0 (0.00)	0 (0.00)
2nd	21	16	5	1 (4.76)	0 (0.00)	1 (20.00)
3rd	15	15	0	1 (6.67)	1 (6.67)	0 (0.00)
4th	15	9	6	0 (0.00)	0 (0.00)	0 (0.00)
Overall	**70**	**52**	**18**	**2 (2.86)**	**1 (1.92)**	**1 (5.56)**
(n) Electronics & Instrument Engineering (EIE)						
1st	60	60	0	0 (0.00)	0 (0.00)	0 (0.00)
2nd	64	64	0	2 (3.13)	2 (3.13)	0 (0.00)
3rd	47	47	0	0 (0.00)	0 (0.00)	0 (0.00)
4th	45	45	0	0 (0.00)	0 (0.00)	0 (0.00)
Overall	**216**	**216**	**0**	**2 (0.93)**	**2 (0.93)**	**0 (0.00**
(o) Bachelor of Business Administration (BBA)						
1st	611	373	238	23 (3.76)	19 (5.09)	4 (1.68)
2nd	486	298	188	4 (0.82)	4 (1.34)	0 (0.00)
3rd	383	236	147	3 (0.78)	2 (0.85)	1 (0.68)
Overall	**1480**	**907**	**573**	**30 (2.03)**	**25 (2.76)**	**5 (0.87)**
(q) Master of Business Administration (MBA)						
1st	1756	904	852	59 (3.36)	43 (4.76)	16 (1.88)
2nd	1476	791	685	64 (4.34)	52 (6.57)	12 (1.75)
Overall	**3232**	**1695**	**1537**	**123 (3.81)**	**95 (5.60)**	**28 (1.82)**
(q) Bachelor of Computer Applications (BCA)						
1st	1225	739	486	124 (10.12)	83 (11.23)	41 (8.44)
2nd	1055	615	440	61 (5.78)	35 (5.69)	26 (5.91)
3rd	708	419	289	19 (2.68)	12 (2.86)	7 (2.42)
Overall	**2988**	**1773**	**1215**	**204 (6.83)**	**130 (7.33)**	**74 (6.09)**
(r) Master of Computer Applications (MCA)						
1st	664	354	310	59 (8.89)	28 (7.91)	31 (10.00)
2nd	585	282	303	34 (5.81)	23 (8.16)	11 (3.63)
3rd	347	195	152	3 (0.86)	3 (1.54)	0 (0.00)
Overall	**1596**	**831**	**765**	**96 (6.02)**	**54 (6.50)**	**42 (5.49)**
(s) Bachelor of Pharmacy (B. Pharmacy)						
1st	645	359	286	78 (12.09)	35 (9.75)	43 (15.03)

2nd	644	395	249	49 (7.61)	31 (7.85)	18 (7.23)
3rd	617	409	208	29 (4.70)	24 (5.87)	5 (2.40)
4th	555	375	180	25 (4.50)	18 (4.80)	7 (3.89)
Overall	**2461**	**1538**	**923**	**181 (7.35)**	**108 (7.02)**	**73 (7.91)**
(t) Master of Pharmacy (M. Pharmacy)						
1st	29	19	10	0 (0.00)	0 (0.00)	0 (0.00)
2nd	19	10	9	0 (0.00)	0 (0.00)	0 (0.00)
Overall	**48**	**29**	**19**	**0 (0.00)**	**0 (0.00)**	**0 (0.00)**
(u) Bachelor of Architecture (B. Architecture)						
1st	133	84	49	9 (6.77)	6 (7.14)	3 (6.12)
2nd	132	84	48	4 (3.03)	3 (3.57)	1 (2.08)
3rd	106	64	42	3 (2.83)	1 (1.56)	2 (4.76)
4th	93	60	33	1 (1.08)	1 (1.67)	0 (0.00)
Overall	**464**	**292**	**172**	**17 (3.66)**	**11 (3.77)**	**6 (3.49)**
All PTU Courses						
1st	**14335**	**9766**	**4569**	**519 (3.62)**	**346 (3.54)**	**173 (3.79)**
2nd	**13108**	**9070**	**4038**	**460 (3.51)**	**336 (3.70)**	**124 (3.07)**
3rd	**8869**	**6362**	**2507**	**234 (2.64)**	**177 (2.78)**	**57 (2.27)**
4th	**6525**	**4872**	**1653**	**60 (0.92)**	**48 (0.99)**	**12 (0.73)**
Overall	**42837**	**30070**	**12767**	**1273 (2.97)**	**907 (3.02)**	**366 (2.87)**

Note: Of 21 courses listed in the Table, two courses (MBA and M. Pharmacy) are of two years duration, three courses (BBA, BCA and MCA) are of three years duration and remaining, i.e. 16 courses are of four years duration. Therefore, year-wise number of students has been worked according to four year pattern.

Source: Primary Survey.

After the PTU, another important university of Punjab, where large numbers of students are enrolled, is in the field of the medical sciences. All these colleges/institutes are affiliated to the BFUHS, Faridkot. Many prestigious courses related to medicine like the MBBS, BDS, BAMS, DHMS, BPT/MPT and B.SC. (Nursing) are under its jurisdiction. Interestingly, the proportion of rural students was the highest (22.63 per cent; 9.80 per cent for boys and 22.93 per cent for girls) in the case of B.SC. (Nursing), followed by the BHMS (8.98 per cent; 9.91 per cent for boys and 8.21 per cent for girls); BPT/MPT (8.26 per cent; 6.82 per cent for boys and 8.96 per cent for girls); BAMS (6.11 per cent; 5.00 per cent for boys and 6.90 per cent for girls); MBBS (3.39 per cent; 3.60 per cent for boys and 3.17 per cent for girls); BDS (2.14 per cent; 2.52 per cent for boys and 1.93 per cent for girls). Further, their share in the internship courses was 3.57 per cent; 4.35 per cent for boys and 3.19 per cent for girls. By and large, not much variation in proportionate shares prevails between boys and girls across the various courses except the B.Sc. Nursing and BPT/MPT courses. In the case of B.Sc. Nursing, the

proportion of rural female students was as high as 22.93 per cent and that of male students was 9.80 per cent (Table 3.8).

The case of Thapar University, Patiala is much classic as far as the exclusion of rural students from the higher professional education in the state is concerned. Earlier, it was the one of the prestigious engineering colleges of India. It has acquired the status of Deemed University in 2002 and later on became full-fledged university in 2006. It is managed by the famous Thapar Group of Industries. Admission in the engineering courses run by this university is based on the AIEEE rank. 50 per cent seats are reserved for candidates of Punjab state and another 50 per cent are offered to the

Table 3.8: Distribution of Overall Students and Rural Students in BFUHS by Course and Part/Year (2007-08)

Year	Overall Students			Rural Students					
	Persons	Boys	Girls	Person		Boys		Girls	
	(a) MBBS								
1st	556	294	262	20	(3.60)	9	(3.06)	11	(4.20)
2nd	590	289	301	22	(3.73)	16	(5.54)	6	(1.99)
3rd	518	258	260	25	(4.83)	13	(5.04)	12	(4.62)
4th	519	270	249	7	(1.35)	2	(0.74)	5	(2.01)
Overall	**2183**	**1111**	**1072**	**74**	**(3.39)**	**40**	**(3.60)**	**34**	**(3.17)**
	(b) BDS								
1st	485	159	326	21	(4.33)	8	(5.03)	13	(3.99)
2nd	469	182	287	5	(1.07)	3	(1.65)	2	(0.70)
3rd	498	175	323	9	(1.81)	4	(2.29)	5	(1.55)
4th	461	163	298	4	(0.87)	1	(0.61)	3	(1.01)
Internship	99	35	64	4	(4.04)	2	(5.71)	2	(3.13)
Overall	**2012**	**714**	**1298**	**43**	**(2.14)**	**18**	**(2.52)**	**25**	**(1.93)**
	(c) B.Sc. Nursing								
1st	598	22	576	111	(18.56)	0	(0.00)	111	(19.27)
2nd	583	15	568	158	(27.10)	3	(20.00)	155	(27.29)
3rd	546	6	540	128	(23.44)	2	(33.33)	126	(23.33)
4th	474	8	466	101	(21.31)	0	(0.00)	101	(21.67)
Overall	**2201**	**51**	**2150**	**498**	**(22.63)**	**5**	**(9.80)**	**493**	**(22.93)**
	(d) BHMS								
1st	89	48	41	10	(11.24)	6	(12.50)	4	(9.76)
2nd	71	35	36	10	(14.08)	5	(14.29)	5	(13.89)
3rd	45	14	31	2	(4.44)	0	(0.00)	2	(6.45)
4th	40	14	26	0	(0.00)	0	(0.00)	0	(0.00)
Overall	**245**	**111**	**134**	**22**	**(8.98)**	**11**	**(9.91)**	**11**	**(8.21)**
	(e) BAMS								
1st	414	161	253	77	(18.60)	26	(16.15)	51	(20.16)
2nd	416	164	252	9	(2.16)	1	(0.61)	8	(3.17)
3rd	392	170	222	9	(2.30)	4	(2.35)	5	(2.25)
4th	365	165	200	2	(0.55)	2	(1.21)	0	(0.00)
Overall	**1587**	**660**	**927**	**97**	**(6.11)**	**33**	**(5.00)**	**64**	**(6.90)**

	(f) BPT/MPT							
1st	130	46	84	6	(4.62)	1	(2.17)	5 (5.95)
2nd	134	42	92	19	(14.18)	8	(19.05)	11 (11.96)
3rd	103	40	63	9	(8.74)	1	(2.50)	8 (12.70)
4th	125	37	88	9	(7.20)	2	(5.41)	7 (7.95)
Internship	41	11	30	1	(2.44)	0	(0.00)	1 (3.33)
Overall	**533**	**176**	**357**	**44**	**(8.26)**	**12**	**(6.82)**	**32 (8.96)**
	(g) All Courses							
1st	**2272**	**730**	**1542**	**245**	**(10.78)**	**50**	**(6.85)**	**195 (12.65)**
2nd	**2263**	**727**	**1536**	**223**	**(9.85)**	**36**	**(4.95)**	**187 (12.17)**
3rd	**2102**	**663**	**1439**	**182**	**(8.66)**	**24**	**(3.62)**	**158 (10.98)**
4th	**1984**	**657**	**1327**	**123**	**(6.20)**	**7**	**(1.07)**	**116 (8.74)**
Internship	**140**	**46**	**94**	**5**	**(3.57)**	**2**	**(4.35)**	**3 (3.19)**
Overall	**8761**	**2823**	**5938**	**778**	**(8.88)**	**119**	**(4.22)**	**659 (11.10)**

Note: For some courses, internship was included as another year of study..
Source: Primary Survey.

candidates of other states on the basis of merit of AIEEE rank. Further, fee and funds to be charged from the students are unprecedentedly high compared to other engineering colleges/institutes in the state. Admission in the MBA and MCA courses in this university is based on the rank in All-India Level Entrance Test conducted by the Thapar University. Naturally, only a few meritorious rural students are able to get admission in the different courses offered by this university. Viewing very less number of students in this university, the courses offered by this university were divided into four streams; (i) Bachelor of Engineering (BE); (ii) Master of Engineering (MSE); (iii) MBA; and (iv) MCA. And, out of four courses/streams, the rural students were reported to be in two courses, i.e. BE (0.13 per cent) and ME (1.53 per cent). In the other two courses, namely MBA and MCA, no rural student was found to be admitted. Moreover, there was no female student from rural area in all of the four courses. The data on yearly distribution of students show that the proportion of rural students was the highest (0.52 per cent) in second year of the courses and nil in the terminal year of the course (Table 3.9).

Table 3.9: Distribution of Overall Students and Rural Students in TU by Course and Part/Year (2007-08)

Year	Overall Students			Rural Students		
	Persons	Boys	Girls	Person	Boys	Girls
	(a) Bachelor of Engineering (BE)					
1st	690	586	104	0 (0.00)	0 (0.00)	0 (0.00)
2nd	731	637	94	1 (0.14)	1 (0.16)	0 (0.00)
3rd	490	428	62	2 (0.41)	2 (0.47)	0 (0.00)
4th	471	398	73	0 (0.00)	0 (0.00)	0 (0.00)
Overall	**2382**	**2049**	**333**	**3 (0.13)**	**3 (0.15)**	**0 (0.00)**
	(b) Master of Engineering (MSE)					
1st	250	187	63	2 (0.80)	2 (1.07)	0 (0.00)

2nd	207	149	58	5 (2.42)	5 (3.36)	0 (0.00)
Overall	**457**	**336**	**121**	**7 (1.53)**	**7 (2.08)**	**0 (0.00)**
	(c) Master of Computer Applications (MCA)					
1st	68	25	43	0 (0.00)	0 (0.00)	0 (0.00)
2nd	58	32	26	0 (0.00)	0 (0.00)	0 (0.00)
3rd	58	41	17	0 (0.00)	0 (0.00)	0 (0.00)
Overall	**184**	**98**	**86**	**0 (0.00)**	**0 (0.00)**	**0 (0.00)**
	(d) Master of Business Administration (MBA)					
1st	153	111	42	0 (0.00)	0 (0.00)	0 (0.00)
2nd	148	102	46	0 (0.00)	0 (0.00)	0 (0.00)
Overall	**301**	**213**	**88**	**0 (0.00)**	**0 (0.00)**	**0 (0.00)**
	(e) All Courses					
1st	**1161**	**909**	**252**	**2 (0.17)**	**2 (0.22)**	**0 (0.00)**
2nd	**1144**	**920**	**224**	**6 (0.52)**	**6 (0.65)**	**0 (0.00)**
3rd	**548**	**469**	**79**	**2 (0.36)**	**2 (0.43)**	**0 (0.00)**
4th	**471**	**398**	**73**	**0 (0.00)**	**0 (0.00)**	**0 (0.00)**
Overall	**3324**	**2696**	**628**	**10 (0.30)**	**10 (0.37)**	**0 (0.00)**

Source: Primary Survey.

The case of SLIET is more surprising. The SLIET was founded by the Ministry of Human Resources Development (HRD), Government of India during the late 1980s in the Sangrur district of Punjab. The basic aim of this centrally funded institution was to empower the rural youth for new avenues of employment by giving training in the form of Certificate courses, Diploma courses, etc. Later on, many degree programmes in engineering streams were started and the SLIET has acquired the status of Deemed to be University in 2007. Very surprisingly, this institution has pushed out the rural students because the admission process in the degree courses is based on State/National Level Entrance Tests. In these State/National Level Entrance Tests, rural students have lagged behind. The data highlight that, in the case of four courses namely Chemical Engineering, Food Technology, IT and ME, there was no student from the rural areas. In the rest of the courses, the proportion of rural students in the descending order was as follows: Instrumentation Engineering (6.16 per cent); ECE (5.19 per cent) and CSE (1.53 per cent). Further, within these three courses, there was no rural boy in the CSE, no rural girl in Instrumentation Engineering, and only in the course of ECE both the rural boys and girls have some presence. Course-wise, the proportion of rural students was the highest in the second year (3.96 per cent) followed by first year (2.76 per cent) ,fourth year (0.35 per cent) and third year (0.33 per cent) (Table 3.10).

Table 3.10: Distribution of Overall Students and Rural Students in SLIET by Course and Part/Year (2007-08)

Year	Overall Students			Rural Students		
	Persons	Boys	Girls	Person	Boys	Girls
	(a) Chemical Engineering (CHE)					
1st	44	44	0	0 (0.00)	0 (0.00)	0 (0.00)
2nd	42	42	0	0 (0.00)	0 (0.00)	0 (0.00)
3rd	44	44	0	0 (0.00)	0 (0.00)	0 (0.00)
4th	45	42	3	0 (0.00)	0 (0.00)	0 (0.00)
Overall	**175**	**172**	**3**	**0 (0.00)**	**0 (0.00)**	**0 (0.00)**
	(b) Computer Science & Engineering (CSE)					
1st	66	51	15	0 (0.00)	0 (0.00)	0 (0.00)
2nd	66	52	14	4 (6.06)	0 (0.00)	4 (28.57)
3rd	65	52	13	0 (0.00)	0 (0.00)	0 (0.00)
4th	64	48	16	0 (0.00)	0 (0.00)	0 (0.00)
Overall	**261**	**203**	**58**	**4 (1.53)**	**0 (0.00)**	**4 (6.90)**
	(c) Electronics & Communication Engineering (ECE)					
1st	38	27	11	5 (13.16)	3 (11.11)	2 (18.18)
2nd	39	34	5	3 (7.69)	2 (5.88)	1 (20.00)
3rd	40	31	9	0 (0.00)	0 (0.00)	0 (0.00)
4th	37	29	8	0 (0.00)	0 (0.00)	0 (0.00)
Overall	**154**	**121**	**33**	**8 (5.19)**	**5 (4.13)**	**3 (9.09)**
	(d) Food Technology (FT)					
1st	30	21	9	0 (0.00)	0 (0.00)	0 (0.00)
2nd	30	22	8	0 (0.00)	0 (0.00)	0 (0.00)
3rd	39	28	11	0 (0.00)	0 (0.00)	0 (0.00)
4th	35	22	13	0 (0.00)	0 (0.00)	0 (0.00)
Overall	**134**	**93**	**41**	**0 (0.00)**	**0 (0.00)**	**0 (0.00)**
	(e) Information Technology (IT)					
1st	30	21	9	0 (0.00)	0 (0.00)	0 (0.00)
2nd	27	21	6	0 (0.00)	0 (0.00)	0 (0.00)
3rd	30	19	11	0 (0.00)	0 (0.00)	0 (0.00)
4th	28	20	8	0 (0.00)	0 (0.00)	0 (0.00)
Overall	**115**	**81**	**34**	**0 (0.00)**	**0 (0.00)**	**0 (0.00)**
	(f) Instrumentation Engineering (IE)					
1st	38	33	5	3 (7.89)	3 (9.09)	0 (0.00)
2nd	32	23	9	4 (12.50)	4 (17.39)	0 (0.00)
3rd	40	32	8	1 (2.50)	1 (3.13)	0 (0.00)
4th	36	25	11	1 (2.78)	1 (4.00)	0 (0.00)
Overall	**146**	**113**	**33**	**9 (6.16)**	**9 (7.96)**	**0 (0.00)**
	(g) Mechanical Engineering (ME)					
1st	44	43	1	0 (0.00)	0 (0.00)	0 (0.00)
2nd	42	41	1	0 (0.00)	0 (0.00)	0 (0.00)
3rd	44	44	0	0 (0.00)	0 (0.00)	0 (0.00)
4th	43	43	0	0 (0.00)	0 (0.00)	0 (0.00)
Overall	**173**	**171**	**2**	**0 (0.00)**	**0 (0.00)**	**0 (0.00)**
	(h) All Courses					
1st	**290**	**240**	**50**	**8 (2.76)**	**6 (2.50)**	**2 (4.00)**
2nd	**278**	**235**	**43**	**11 (3.96)**	**6 (2.55)**	**5 (11.63)**
3rd	**302**	**250**	**52**	**1 (0.33)**	**1 (0.40)**	**0 (0.00)**
4th	**288**	**229**	**59**	**1 (0.35)**	**1 (0.44)**	**0 (0.00)**
Overall	**1158**	**954**	**204**	**21 (1.81)**	**14 (1.47)**	**7 (3.43)**

Note: All the courses listed here are of four years duration under this university.

Source: Primary Survey.

With regard to the RGNUL, the admission process is based on All-India Level Common Entrance Test for law courses and the admission is opened to all candidates on all-India basis with no reservation for the candidates of Punjab residence. Again, rural students lagged behind in the admission of law courses run by the university. At the time of survey, only one course was in progress, i.e. BA LLB (Five Year Integrated Course).The overall share of rural students was 1.88 per cent and that of boys, it was 2.88 per cent. Further, the university is a recently established one and the students of the just second batch of the said course were admitted. In the first year of the course, there was no student from the rural area. Amazingly, in both of the years of the course there was no girl from the rural area (Table 3.11).

Table 3.11: Distribution of Overall Students and Rural Students in RGNUL by Course and Part/Year (2007-08)

Year	Overall Students			Rural Students					
	Persons	Boys	Girls	Person		Boys		Girls	
	(a) BALLB (Five Year Integrated Law Course)								
1st	80	58	22	0	(0.00)	0	(0.00)	0	(0.00)
2nd	80	46	34	3	(3.75)	3	(6.52)	0	(0.00)
Overall	**160**	**104**	**56**	**3**	**(1.88)**	**3**	**(2.88)**	0	(0.00)

Note: Since the university is established recently, therefore, only two classes were in progress at the time of survey.
Source: Primary Survey.

III

3.3 Course-cum-Gender Wise Break-up of Rural Students

In order to generate human capital on a wider scale, gender balancing is very important aspect. Both of the sexes must get an equal access and opportunity in the admission into the various educational programs and courses. Actually, a people centric education system can play crucial role in the generation of a healthy society. The strength of the public policy on education lies in the removal of all institutional barriers which adversely effect the students' educational decisions and academic performances. The students' educational decisions depend upon large variety of factors which ranges from purely economic to complex interplay of the non-economic ones. However, all these got it reflected in the proportionate strength of the boys

and girls in the various courses. Therefore, the relative proportion of boys and girls in the overall enrollment and that within the rural students has been given in the case of the various surveyed universities and for each course.

For the courses run by the PTU, in overall enrollment, the proportion of boys was more than that of girls in each and every course. There was no girl student in case of two courses, i.e. EIE and Production Engineering. Interestingly, the proportion of girls was just 0.38 per cent in the case of ME and 5.15 per cent in Civil Engineering. In case of seven other courses, namely, CSE, IT, Bio-Technology, ICE, BCA, MBA and MCA, the proportion of girls ranges between 40 per cent and 48 per cent. In the case of four courses, namely, Architecture, BBA, B. Pharmacy and M. Pharmacy, the proportion of girls ranges between 31 per cent and 39 per cent. The proportion of girls ranges between 15 per cent and 26 per cent in the ECE, EE, EEE, Chemical Engineering and Textile Engineering.

On the other side, within the rural students, there was no girl student in nine courses, namely, ME, EEE, Civil Engineering, AE, Bio-Technology, EIE, Textile Engineering, Production Engineering, and M. Pharmacy. In the Chemical Engineering, the proportion of rural boys and rural girls was exactly equal. The proportion of girls ranges between 40 per cent and 45 per cent in the CSE, IT, MCA, and B. Pharmacy. In Architecture and BCA, the proportion of girls ranges between 35 per cent and 36 per cent. In two courses namely EE and BBA, the proportion of girls ranges between 14 per cent and 23 per cent. In comparative terms, the rural girls were not only less represented in the overall number of students, but they were also proportionately less represented within the rural category than the overall representation of the girls in the general enrollment (Table 3.12). It is, however, interesting that there is no significant difference in the proportion of female students, both in the overall enrolment and in the rural students. This implies equal discrimination against the female students in the overall as well as rural area.

In the case of BFUHS, the proportion of girls was 67.78 per cent in the overall enrollment. In the B.Sc. Nursing, their proportion was around 98 per cent. Their proportion in the rest of the courses was as follows: MBBS (49.11

per cent); BDS (64.51 per cent); BAMS (58.41 per cent); BHMS (54.69 per cent); BPT/MPT (66.98 per cent). Among the rural students, the proportion of girls was 45.45 per cent in total rural students. Their proportion in the rest of the courses was as follows: MBBS (45.95 per cent); BDS (45.45 per cent); BAMS (65.98 per cent); BHMS (50.00 per cent); BPT/MPT (72.73 per cent); B.Sc. Nursing (99.00 per cent). In comparative terms, the rural girls were found to be better represented within the category of the rural students (Table 3.13).

Table 3.12: Gender-Wise Percentage Share of Total Students and Rural Students in PTU by Course (2007-08)

Courses	Total Enrollment			Rural Students		
	Persons	Boys	Girls	Persons	Boys	Girls
CSE	100.00	56.62	43.38	100.00	58.27	41.73
IT	100.00	58.34	41.66	100.00	54.55	45.45
ECE	100.00	78.18	21.82	100.00	76.70	23.30
EE	100.00	74.03	25.97	100.00	85.71	14.29
ME	100.00	99.62	0.38	100.00	100.00	0.00
EEE	100.00	84.31	15.69	100.00	100.00	0.00
CE	100.00	94.85	5.15	100.00	100.00	0.00
AE	100.00	100.00	0.00	100.00	100.00	0.00
Bio-Technology	100.00	53.83	42.17	100.00	100.00	0.00
ICE	100.00	56.70	43.30	100.00	75.00	25.00
EIE	100.00	100.00	0.00	100.00	100.00	0.00
CHE	100.00	74.29	25.71	100.00	50.00	50.00
TE	100.00	74.71	25.29	0.00	0.00	0.00
PE	100.00	100.00	0.00	0.00	0.00	0.00
B. Architecture	100.00	62.93	37.07	100.00	64.71	35.29
BBA	100.00	61.28	38.72	100.00	83.33	16.67
BCA	100.00	59.34	40.66	100.00	63.73	36.27
MBA	100.00	52.44	47.56	100.00	77.24	22.76
MCA	100.00	52.07	47.93	100.00	56.25	43.75
B. Pharmacy	100.00	62.49	37.51	100.00	59.67	40.33
M. Pharmacy	100.00	60.42	39.58	0.00	0.00	0.00
Total	**100.00**	**70.20**	**29.80**	**100.00**	**71.25**	**28.75**

Source: Primary Survey.

Table 3.13: Gender-Wise Percentage Share of Total Students and Rural Students in BFUHS by Course (2007-08)

Courses	Total Enrollment			Rural Students		
	Persons	Boys	Girls	Persons	Boys	Girls
MBBS	100.00	50.89	49.11	100.00	54.05	45.95
BDS	100.00	35.49	64.51	100.00	54.55	45.45
BAMS	100.00	41.59	58.41	100.00	34.02	65.98
BHMS	100.00	45.31	54.69	100.00	50.00	50.00
B.Sc. Nursing	100.00	2.32	97.68	100.00	1.00	99.00
BPT/MPT	100.00	33.02	66.98	100.00	27.27	72.73
Total	**100.00**	**32.22**	**67.78**	**100.00**	**54.55**	**45.45**

Source: Primary Survey.

Moreover, in the case of Thapar University, the proportion of girls was just 18.89 per cent in the overall enrollment scenario and 81.11 per cent were the boys. The girls' proportion in the various courses was as follows: BE (13.98 per cent); ME (26.48 per cent); MCA (46.74 per cent); MBA (29.24 per cent). Astonishingly, no rural girl was found to be reported in all of the four courses that were under going at the time of survey (Table 3.14).

Table 3.14: Gender-Wise Percentage Share of Total Students and Rural Students in TU by Course (2007-08)

Courses	Total Enrollment			Rural Students		
	Persons	Boys	Girls	Persons	Boys	Girls
BE	100.00	86.02	13.98	100.00	100.00	0.00
MSE	100.00	73.52	26.48	100.00	100.00	0.00
MCA	100.00	53.26	46.74	0.00	0.00	0.00
MBA	100.00	70.76	29.24	0.00	0.00	0.00
Total	**100.00**	**81.11**	**18.89**	**100.00**	**100.00**	**0.00**

Source: Primary Survey.

In the case of SLIET, in the overall enrollment of students, the proportion of girls was 17.62 per cent. Their proportion in the various courses was as follows: Chemical Engineering (1.71 per cent); CSE (22.22 per cent); ECE (21.43 per cent); ME (1.16 per cent); IT (29.57 per cent); IE (22.60 per cent); Food Technology (30.60 per cent). Within rural students, the proportion of girls was nil in five courses, namely, Chemical Engineering, ME, IT, IE, and Food Technology. The girls' proportion in the rest of the courses was as follows: CSE (100.00 per cent) and ECE (37.50 per cent). The rural girls were found to be essentially less represented even in their category as against their representation in the overall enrollment (Table 3.15).

Table 3.15: Gender-Wise Percentage Share of Total Students and Rural Students in SLIET by Course (2007-08)

Courses	Total Enrollment			Rural Students		
	Persons	Boys	Girls	Persons	Boys	Girls
CHE	100.00	98.29	1.71	0.00	0.00	0.00
CSE	100.00	77.78	22.22	100.00	0.00	100.00
ECE	100.00	78.57	21.43	100.00	62.50	37.50
ME	100.00	98.84	1.16	0.00	0.00	0.00
IT	100.00	70.43	29.57	0.00	0.00	0.00
IE	100.00	77.40	22.60	100.00	100.00	0.00
FT	100.00	69.40	30.60	0.00	0.00	0.00
Total	**100.00**	**82.38**	**17.62**	**100.00**	**66.67**	**33.33**

Source: Primary Survey.

In the case of RGNUL, the proportion of girls was 35 per cent in overall enrollment. And, within the rural students, there was no girl student found to be enrolled in the law course. In comparative terms, there was huge gap in the proportionate share of girls in the overall enrollment and that of the rural girls. The rural girls could not make their presence in the law institution (Table 3.16).

Table 3.16: Gender-Wise Percentage Share of Total Students and Rural Students in RGNUL by Course (2007-08)

Courses	Total Enrollment			Rural Students		
	Persons	Boys	Girls	Persons	Boys	Girls
BALLB	100.00	65.00	35.00	100.00	100.00	0.00
Total	**100.00**	**65.00**	**35.00**	**100.00**	**100.00**	**0.00**

Source: Primary Survey.

In the end, it can be safely concluded that the proportionate share of rural students in the higher professional education courses in Punjab is highly disappointing one. More so, it is a pointer to the deteriorating quality of education in rural schools and, by proxy measure, may be an indicator of deteriorating economic position of the ruralites in agriculturally progressive state. Theories of structural change state that, over the time period, the agriculture sector will relatively become a reduced activity. And, there is need to shift surplus agricultural labour to more remunerative occupations in the secondary and tertiary sectors of economy. Here lies the importance of higher education in general and professional education in particular to enhance the skill and expertise of rural students; otherwise they will be tapped in low level employment opportunities. So, it is an utmost importance to enhance their number and proportion in higher professional education in the state.

Indeed, to enhance their presence felt in the professional courses, the state must follow a pragmatic strategy interwoven with the short term and long term measures. In the short run, there is a need to create additional seats for ruralites, or even reserve a substantial number of existing seats for the rural students. Other options like earmarking of merit scholarships, fee concessions, education loans to poor but meritorious rural students must be

enhanced. And, in the long run, efforts must be made to create a level playing field for the rural students. For this, improving the quality of school education in government rural schools is the best strategy. Again, this requires a strong will of the state authorities, more so on sustainable basis. Besides, there is an immediate need to establish a Rural Education Commission with a specific focus on rural education and enhancing the enrollment of rural students in higher professional education. In fact, Punjabi University's experiments of establishing an Engineering College (Yadvindra College of Engineering at Talwandi Sabo) where 100 per cent seats are reserved for rural students and opening up of Neighborhood Campuses are worth emulating. In fact, these efforts are recognized at the national level.

Chapter IV

Social, Educational and Family Profile of Rural Students

The utilization of educational services by the various households depends to a considerable extent upon their relative settings in an overall socio-economic and politico-administrative set-up. The physical provisioning of educational services alone on their own can't ensure their effective utilization. The interventions by the civil society and the state apparatus become very important in enhancing the educational intensity of any population group. These interventions could yield decisive outcomes when they are based upon rich and credible inputs. These considerations require the collection of information about the various socio-economic and educational parameters related to the rural students. For this purpose, a well structured and pre-tested questionnaire was used (Appendix-C). All the identified rural students were motivated to fill-in the questionnaire. This chapter is based on the information and data provided by the rural students themselves. The information on relevant social, familial and education oriented variables have been classified and clubbed into various parts so as to present a comprehensive picture of the real situation.

An attempt has been made in this chapter to present all the relevant information about rural students. The chapter is divided into five sections. Section I provides the social profile in terms of age, gender, caste and religion of the rural students. Section II deals with the various aspects related to location of their villages and hostel status. Section III gives information related to the admission and examination scores of rural students. In Section IV, various aspects of school background of rural students has been discussed. And, Section V analyzes the education level of rural students' families, and about the study loss (Year/s) and additional degree/s, if they have.

I

4.1 Social Profile of Rural Students

Social profile of rural students is an important factor to examine educational preferences of rural people. In fact, educational attainments are

largely dependent upon social factors like age, gender, religious beliefs and social category. These facts are important to understand the preferences of rural people w.r.t. school selection, type of education, etc. It is, therefore, interesting to examine social setting of rural students.

4.1.1 Age-cum-Sex

The sex and age specific distribution of the rural students studying in the different universities of state exhibits some interesting features. The age profile shows that an overwhelming proportion of rural students are from the eligible age group (18-23 years). Further, the highest proportion of the rural students (47.77 per cent) was in the age group ranging between 19 and 20 years. The proportion of rural students in the other age groups, in descending order of importance, was as follows: between 21 and 22 years (23.07 per cent); between 17 and 18 years (21.77 per cent); between 22 and 23 years (6.33 per cent); and 24 years and above (1.06 per cent). The higher proportion of girls (75.71 per cent) was found to be in the younger age group, i.e. between 17 years and 20 years, than that of boys (64.48 per cent). Comparatively speaking, girls entered in the professional education a bit earlier age than that of boys (Table 4.1). The high proportion of girls at the lower age groups compared to the boys corroborated this fact.

Table 4.1: Distribution of Rural Students in Professional Education in Punjab by Age and Sex

Age (Completed Years)	Number of Rural Students			Percentage Share		
	Persons	Boys	Girls	Persons	Boys	Girls
17-18	454 (100.00)	201 (44.27)	253 (55.73)	21.77	19.09	24.52
19-20	996 (100.00)	478 (47.99)	518 (52.01)	47.77	45.39	50.19
21-22	481 (100.00)	255 (53.01)	226 (46.99)	23.07	24.22	21.90
23-24	132 (100.00)	100 (75.76)	32 (24.24)	6.33	9.50	3.10
24+	22 (100.00)	19 (86.36)	3 (13.64)	1.06	1.80	0.29
Total	2085 (100.00)	1053 (50.50)	1032 (49.50)	100.00	100.00	100.00

Note: Age of the students is reported in completed years, i.e. inclusive type classes have been formed.

Source: Primary Survey.

4.1.2 Religion

The religion-wise distribution of sampled rural students shows that 57.36 per cent of the rural students came from the Sikh religion, 41.06 per cent from the Hindu religion, 0.62 per cent from the Islam and 0.96 per cent from the other religions. Interestingly, in the case of rural boys, the higher proportion (56.98 per cent) was from the Hindu religion. And, in the case of rural girls, the higher proportion (74.03per cent) was from the Sikh religion. As per the Population Census of 2001, the Sikh-religion's share in rural population was 71.86 per cent, that of the Hindu-religion 25.25 per cent and the Islam 1.34 per cent. The comparison of religion-wise proportion of the rural students with their population proportions shows that relatively the rural boys belonging to Sikh religion were under represented in professional education in the state (Table 4.2).

Table 4.2: Distribution of Rural Students in Professional Education in Punjab by Religion

Religion	Number			Percentage Share		
	Persons	Boys	Girls	Persons	Boys	Girls
Sikh	1196	432	764	57.36	41.03	74.03
Hindu	856	600	256	41.06	56.98	24.81
Islam	13	10	3	0.62	0.95	0.29
Others	20	11	9	0.96	1.04	0.87
Total	**2085**	**1053**	**1032**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

4.1.3 Social Category

The distribution of rural students according to the social category shows that as high as 76.59 per cent of them belong to the General Category. The proportion of the rest of the categories was as follows: SC/ST (11.56 per cent); BC (6.38 per cent); and OBC (5.47 per cent). Across the gender, the proportion of the General Category rural girls (80.62 per cent) was higher than that of the General Category rural boys (72.65 per cent). The more proportion of rural boys from the OBC category (9.12 per cent) entered into the professional education than the girls from this category (1.74 per cent) (Table 4.3). It is significant to note that the proportion of SC rural students in professional courses out of total rural students is far less than the proportion of SC population in rural Punjab, 33.04 per cent, according to Census, 2001.

Table 4.3: Distribution of Rural Students in Professional Education in Punjab by Social Category

Category	Number			Percentage Share		
	Persons	Boys	Girls	Persons	Boys	Girls
Gen	1597	765	832	76.59	72.65	80.62
SC/ST	241	114	127	11.56	10.83	12.31
BC	133	78	55	6.38	7.41	5.33
OBC	114	96	18	5.47	9.12	1.74
Total	**2085**	**1053**	**1032**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

II

4.2 Location of Villages

Location of village and its distance from the professional education institutions is an important factor to choose a particular college and course. At least, the students living in far away places but having poor economic background could not afford the hostel expenditure. Their parents may not be interested to send them to far away located professional institutions. This is truer in the case of rural girl students. Further, villages located on main roads have better transport facilities compared to the villages located on link roads. It is, therefore, interesting to analyze the location of villages of rural students. Recently, newly established neighborhood campuses and regional centres by some universities (especially by the Punjabi University) have been able to take higher professional education to the remotest of the rural areas.

4.2.1 Location: Main vs. Link Road

Of the total rural students, 70.41 per cent came from the villages located on the link road. And, 29.59 per cent from the villages located on the main roads. By and large, such pattern prevails in the case of both boys and girls (Table 4.4).

Table 4.4: Distribution of Rural Students in Professional Education in Punjab by Location of Village

Village Location	Number			Percentage Share		
	Persons	Boys	Girls	Persons	Boys	Girls
On Main Road	617	263	354	29.59	24.98	34.30
On Link Road	1468	790	678	70.41	75.02	65.70
Total	**2085**	**1053**	**1032**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

With regard to the distance of link roads, the data reveal that the distance of the villages located on the link roads from the main roads varied from 6 km. to 40 km. Out of the link road located villages, 63.35 per cent were within the range of six kilometer from the main road, 20.64 per cent within 6-10 kilometer range, 7.15 per cent in 11-15 kilometer range, 3.75 per cent in the 16-20 kilometer range, and the rest at the distance more than 20 kilometer (Table 4.5).

The location of the villages of the rural students becomes further clear by examining the distance of their villages from the nearest towns. In overall, about one- fourth of rural students' villages (24.17 per cent) were located within the vicinity of eleven kilometers from the nearest towns. Another 61 per cent of villages of the rural students were located within the range of eleven and twenty kilometer from the nearest towns. The distance of the other villages was as follows: between 21 and 30 kilometer (8.39 per cent); between 31 and 40 kilometer (3.69 per cent); between 41 and 50 kilometer (1.25 per cent); more than 50 kilometer (1.49 per cent) (Table 4.6).

Table 4.5: Distribution of Rural Students in Professional Education in Punjab by Distance of Link Road Villages from Main Road

Distance (km)	Number			Percentage Share		
	Persons	Boys	Girls	Persons	Boys	Girls
<6	930	489	441	63.35	61.90	65.04
6-10	303	165	138	20.64	20.89	20.35
11-15	105	60	45	7.15	7.59	6.64
16-20	55	36	19	3.75	4.56	2.80
21-25	31	13	18	2.11	1.65	2.65
26-30	18	12	6	1.23	1.52	0.88
31-40	12	8	4	0.82	1.01	0.59
40+	14	7	7	0.95	0.89	1.03
Total	**1468**	**790**	**678**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

Table 4.6: Distribution of Rural Students in Professional Education in Punjab by Distance of Village to Nearest Town

Distance (km) one way	Number			Percentage Share		
	Persons	Boys	Girls	Persons	Boys	Girls
<11	504	238	266	24.17	22.60	25.78
11-20	1272	625	647	61.01	59.36	62.69
21-30	175	101	74	8.39	9.59	7.17
31-40	77	51	26	3.69	4.84	2.52
41-50	26	18	8	1.25	1.71	0.78
50+	31	20	11	1.49	1.90	1.07
Total	**2085**	**1053**	**1032**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

It is also important to know the distance between the present institutions of the rural students and their villages. The distance of present institutions of the rural students from their own villages, in the increasing order, were as follows: Less than 26 kilometer (19.90 per cent); between 26 and 50 kilometer (19.28 per cent); between 51 and 75 kilometer (11.94 per cent); between 76 and 100 kilometer (10.36 per cent); between 101 and 200 kilometer (20.34 per cent); between 201 and 300 kilometer (10.55 per cent); between 301 and 400 kilometer (2.45 per cent); between 401 and 500 kilometer (1.01 per cent); between 501 and 1000 kilometer (1.10 per cent); above 1000 kilometer (3.07 per cent) (Table 4.7).

Table 4.7: Distribution of Rural Students in Professional Education in Punjab by Distance of Their Villages to Present College

Distance (km) one way	Number			Percentage Share		
	Persons	Boys	Girls	Persons	Boys	Girls
<26	415	205	210	19.90	19.47	20.35
26-50	402	196	206	19.28	18.61	19.96
51-75	249	114	135	11.94	10.83	13.08
76-100	216	73	143	10.36	6.93	13.86
101-200	424	189	235	20.34	17.95	22.77
201-300	220	137	83	10.55	13.01	8.04
301-400	51	41	10	2.45	3.89	0.97
401-500	21	17	4	1.01	1.61	0.39
501-1000	23	22	1	1.10	2.09	0.10
1000+	64	59	5	3.07	5.60	0.48
Total	**2085**	**1053**	**1032**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

4.2.2 Hostel/Daily Commuting

Regarding the daily commuting status or the hostellers, the data show that out of total rural students, more than three-fifths of rural students (62.88 per cent were staying in the hostel, 2.73 per cent living with the relatives, and 34.39 per cent were commuting on daily basis in order to avail of the professional education. Further, an overwhelming proportion of girls (72.77 per cent) were found to be staying in the hostel as compared to the boys (53.18 per cent). Contrary to this, more rural boys preferred to become daily commuters (42.83 per cent) compared to the rural girls (25.78 per cent) who daily commute to the professional colleges (Table 4.8).

Table 4.8: Distribution of Rural Students in Professional Education in Punjab by Hostel Status

Hostel Status	Number			Percentage Share		
	Persons	Boys	Girls	Persons	Boys	Girls
Daily Commuters	717	451	266	34.39	42.83	25.78
Hostel	1311	560	751	62.88	53.18	72.77
Relatives	57	42	15	2.73	3.99	1.45
Total	**2085**	**1053**	**1032**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

Among those who commute daily, nearly 7 per cent travel between 50 kilometer and 60 kilometer, and about 6 per cent travel more than 60 kilometer and above to reach the institutions. The distances in the case of the rest were as follows: less than 11kilometer (21.76 per cent), between 11 and 20 kilometer (21.62 per cent); between 21 and 30 kilometer (17.99 per cent); between 31 and 40 kilometer (14.09 per cent); and between 41 and 50 kilometer (11.16 per cent). Substantially, higher proportion of girls (30.83 per cent) than that of boys (16.41 per cent) travelled less than eleven kilometer to reach the institutions. Further, it is to be noted that up to 30 kilometer more proportion of girls travel and beyond 30 kilometer higher proportion of the boys travel (Table 4.9).

Table 4.9: Distribution of Rural Students Commuting Daily in Professional Education in Punjab by Distance Traveled

Distance (Km.)	Number			Percentage Share		
	Persons	Boys	Girls	Persons	Boys	Girls
<11	156	74	82	21.76	16.41	30.83
11-20	155	91	64	21.62	20.18	24.06
21-30	129	75	54	17.99	16.63	20.30
31-40	101	76	25	14.09	16.85	9.40
41-50	80	59	21	11.16	13.08	7.89
51-60	52	41	11	7.25	9.09	4.14
60+	44	35	9	6.14	7.76	3.38
Total	**717**	**451**	**266**	**100.00**	**100.00**	**100.00**

Note: Distance for one way
Source: Primary Survey.

4.2.3 Transport Means

Regarding the modes of transport used by the daily commuters, the data point out that nearly 84 per cent traveled by the buses and 12.13 per cent used their own scooters/motorcycles to reach the institutions. Very negligible number of students traveled by the train (0.70 per cent) and by own

car/jeep (0.28 per cent). The proportion of girls (81.20 per cent) traveling by buses is slightly less than that of boys (85.14 per cent). On the other hand, the proportion of girls using scooter/motorcycles as the transport mode is marginally higher than that of boys. The same is true in the case of cars (Table 4.10).

Table 4.10: Distribution of Rural Students Commuting Daily in Professional Education in Punjab by Transport Means

Traveling Mode	Number			Percentage Share		
	Persons	Boys	Girls	Persons	Boys	Girls
Bus	600	384	216	83.68	85.14	81.20
Train	5	4	1	0.70	0.89	0.38
Scooter/Motor Cycle	87	54	33	12.13	11.97	12.41
Car/Jeep	2	2	0	0.28	0.44	0.00
Cycle	2	2	0	0.28	0.44	0.00
Auto-rickshaw	9	3	6	1.26	0.67	2.26
On foot	12	2	10	1.67	0.44	3.76
Total	**717**	**451**	**266**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

In fact, daily traveling involves lot of precious time of the rural students. It is argued that half an hour traveling time is not very abnormal. Even most of the urban based students have to put in this much time in traveling in order to reach the institution. The data show that about 36 per cent of rural students reached the institutions within half an hour. As many as 36.54 per cent students put in between a half hour and one hour traveling time daily. Another, 11.72 per cent students spend between 60 minutes and 90 minutes daily in traveling, and 12.83 per cent spend between one and a half hour and two hours in traveling daily. Large proportion of girls (46.62 per cent) reached the institutions within half an hour. In overall, 36.81 per cent boys and girls reach the institutions between 30 and 60 minutes (Table 4.11).

Table 4.11: Distribution of Rural Students Commuting Daily in Professional Education in Punjab by Traveling Time

Travel Time (Minutes)	Number			Percentage Share		
	Persons	Boys	Girls	Persons	Boys	Girls
<30	259	135	124	36.12	29.93	46.62
31-60	262	166	96	36.54	36.81	36.09
61-90	84	60	24	11.72	13.30	9.02
91-120	92	73	19	12.83	16.19	7.14
121-150	11	10	1	1.53	2.22	0.38
151-180	9	7	2	1.26	1.55	0.75
Total	**717**	**451**	**266**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.
Note: Time for one way

III

4.3 Admission Status of Rural Students

Though an average rural Punjabi enjoyed a better economic life, still the rural society is not homogenized in nature. It is divided on the basis of caste, creed, occupations and asset holding. It is, in fact, highly hierarchical, stratified and deficit in vertical mobility. For example, on one hand is the farming community differentiated on the basis of land holdings into the large farmers, medium farmers, and small/marginal farmers. The basic differences between the rich and the poor, the large farmers and small/marginal farmers are quite sharp. On the other side, the scheduled castes and backward classes are also divided by the caste hierarchy. To promote education and distributive social justice, some proportion of seats in educational institutions have been reserved for them. Many other pressure groups like the Defense/Para-Military Forces, Ex-Servicemen, Sportspersons, Physical Handicaps, Border/Backward Areas, Riot Affected, etc. have reservation of seats. So, it is interesting to look out how rural students got admission in professional courses.

4.3.1 Admission Category

Out of the total identified rural students, 75.49 per cent got admission in the General Category. The share of rest of the categories was as follows: Scheduled Castes/Scheduled Tribes (10.55 per cent); Backward Classes (4.94 per cent); Other Backward Classes (4.22 per cent); NRIs (1.58 per cent); Management Quota (0.91 per cent); Rural Quota (1.25 per cent); Freedom Fighter/Defense Category (0.19 per cent); Physically Handicapped (0.14 per cent); Backward Area (0.34 per cent); Border Area (0.19 per cent); Sikh Minority (0.19 per cent). By and large, such patterns prevail across the admission status of the boys and girls (Table 4.12).

Table 4.12: Distribution of Rural Students in Professional Education in Punjab by Category of Admission

Admission Category	Number			Percentage Share		
	Persons	Boys	Girls	Persons	Boys	Girls
General	1574	766	808	75.49	72.74	78.29
Schedule Castes/Schedule Tribes	220	101	119	10.55	9.59	11.53
Backward Class	103	59	44	4.94	5.60	4.26
Other Backward Class	88	72	16	4.22	6.84	1.55
Non-Resident Indian (NRI)	33	4	29	1.58	0.38	2.81
Management Quota	19	16	3	0.91	1.52	0.29
Rural Quota	26	22	4	1.25	2.09	0.39
Freedom Fighter/Defense Forces	4	1	3	0.19	0.09	0.29
Physical Handicapped	3	3	0	0.14	0.28	0.00
Backward Area	7	6	1	0.34	0.57	0.10
Border Area	4	3	1	0.19	0.28	0.10
Sikh Minority	4	0	4	0.19	0.00	0.39
Total	**2085**	**1053**	**1032**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

Indeed, the role of reference groups is very important in the decision making process of rural people. And, the social networking of economic agents strongly affects the vertical mobility in the rural life by affecting the total stock of information. The right information at the right time can save oneself from the problem of adverse selection. In the sphere of education it affects the choice of courses and institutions for study purposes. Interestingly, the role of parents was found to be very crucial in this regard. About 75 per cent of the rural students were motivated by their parents in getting admission. Another 10.65 per cent were motivated by the teachers, 5.71 per cent by the friends, 7.58 per cent by the relatives and just 1.10 per cent was found to be in the category of self motivated. Essentially, in the case of girl students, parents were the main force of motivation as 80.04 per cent girls were favoured their parents' as the motivator compared to 69.99 per cent of the rural boys (Table 4.13).

Table 4.13: Distribution of Rural Students in Professional Education in Punjab by Admission Motivator

Motivator	Number			Percentage Share		
	Persons	Boys	Girls	Persons	Boys	Girls
Parents	1563	737	826	74.96	69.99	80.04
Teachers	222	127	95	10.65	12.06	9.21
Friends	119	81	38	5.71	7.69	3.68
Relatives	158	95	63	7.58	9.02	6.10
Self	23	13	10	1.10	1.23	0.97
Total	**2085**	**1053**	**1032**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

4.3.2 Examination Score

The professional education sector demand very high quality input in order to perform in the ever changing technological and skill formation corresponding to the new requirements of the various jobs and professions. The quality of students is reflected in their examination scores. The rural students seem to have secured good marks in the various examinations. Around four-fifth of rural students (80.64 per cent) secured above 60 per cent of the marks in the secondary examination. A little more than one-sixth of rural students (17.36 per cent) secured 80 per cent and more marks in their secondary school examinations. Further, within the rural students, the girls performed much better than the boys. In case of senior secondary, around 65 per cent students got above 60 per cent marks. The proportion of girls was 78.99 per cent and that of boys 50.05 per cent. Further, a tiny proportion of rural students (3.35 per cent) secured 80 per cent and more marks in their senior secondary school examinations (Table 4.14).

Table 4.14: Percentage Distribution of Rural Students in Professional Education in Punjab by Score in Matriculation and Plus Two Examinations

Marks (%)	Matriculation			Plus Two		
	Persons	Boys	Girls	Persons	Boys	Girls
<50	4.03	6.74	1.26	3.65	6.98	0.40
50-59	15.73	24.31	6.98	31.68	42.97	20.61
60-69	33.09	37.23	28.88	42.99	35.29	50.55
70-79	29.78	23.08	36.63	18.32	12.34	24.18
80-89	16.16	7.69	24.81	3.20	2.12	4.26
>89	1.20	0.95	1.45	0.15	0.30	0.00
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

And, among those students who passed the graduation examination and got admission in post graduation degree (MBA, MCA, etc.), only 38.18 per cent of rural students got marks equivalent to the sixty per cent and above. The proportion of girls was 58.57 per cent and that of boys 28.67 per cent. In the graduation level examination, too, the girls performed relatively better than that of the boys (Table 4.15).

Table 4.15: Percentage Distribution of Rural Students in Professional Education in Punjab by Score in Graduation Examination

Marks (%)	Persons	Boys	Girls
<50	4.09	5.33	1.43
50-59	57.73	66.00	40.00
60-69	29.55	23.33	42.86
>69	8.64	5.33	15.71
Total	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

Interestingly, in term of conventional division of marks at the matriculation level, a little more than 80 per cent of the rural students secured First Division, 15.73 per cent Second Division, 4.03 per cent Third Division in their matriculation examination. As per the gender division of rural students, nearly 69 per cent of the rural male students secured First Division, 24.31 per cent Second Division, 6.74 per cent were having Third Division in the matriculation examination. Amazingly, about 92 per cent of the rural female students were having First Division in the matriculation examination (Table 4.16).

Table 4.16: Distribution of Rural Students in Professional Education in Punjab by Division in Matriculation Examination

Division	Persons	%	Boys	%	Girls	%
First	1673	80.24	726	68.95	947	91.76
Second	328	15.73	256	24.31	72	6.98
Third	84	4.03	71	6.74	13	1.26
Total	**2085**	**100.00**	**1053**	**100.00**	**1032**	**100.00**

Source: Primary Survey.

On the other hand, at the Plus Two level examinations, about 65 per cent of the rural students secured the First Division, another 31.68 per cent Second Division, and 3.65 per cent Third Division. At this level also, the proportion of the First Division holding girls (78.99 per cent) was significantly higher than that of the boys (50.05 per cent) (Table 4.17).

Table 4.17: Distribution of Rural Students in Professional Education in Punjab by Division in Plus-2 Examination

Division	Persons	%	Boys	%	Girls	%
First	1292	64.66	495	50.05	797	78.99
Second	633	31.68	425	42.97	208	20.61
Third	73	3.65	69	6.98	4	0.40
Total	**1998**	**100.00**	**989**	**100.00**	**1009**	**100.00**

Source: Primary Survey.

At the level of graduation, the proportion of the First Division holders was 38.18 per cent and that of the Second Division holders was 57.73 per cent. But, on the other side, the proportion of the girls at this level was around 59 per cent and 40 per cent, respectively (Table 4.18).

Table 4.18: Distribution of Rural Students in Professional Education in Punjab by Division in Graduation Examination

Division	Persons	%	Boys	%	Girls	%
First	84	38.18	43	28.67	41	58.57
Second	127	57.73	99	66.00	28	40.00
Third	9	4.09	8	5.33	1	1.43
Total	**220**	**100.00**	**150**	**100.00**	**70**	**100.00**

Source: Primary Survey.

The inter-comparison of Tables 4.16, 4.17, and 4.18 is necessary to examine the changes in the examination score of rural students over the various stages of the study. With the emergence of the integrated courses in the professional stream, the overwhelming number of students enters in the professional education after clearing the Plus Two level of examination. However, the small number of rural students (220) identified was having the graduation level degree before entering the professional degree course. A little more than 4 per cent (67 students out of 2085) of the total rural students entered into the degree level professional education through lateral entry mode after post-matriculate diploma in engineering stream. Therefore, the number of the rural students having the plus-two level degree was 1998.

So, it is possible to compare the performance of the rural students at the level of matriculation and plus-two examination because there is very less gap in the total number of students at these levels. Importantly, in all of the three categories, namely, persons, boys and girls, the proportion of First Division holders declined at the level of Plus Two level as compared to the matriculation level of examination. In the case of total rural students, it declined from 80.24 per cent at the matriculation level to 64.66 per cent at Plus Two level, in case boys from 68.95 per cent at the matriculation level to 50.05 per cent at Plus Two level and in the case of girls from 91.76 per cent at the matriculation level to 78.99 per cent at Plus Two level (Tables 4.16, 4.17, and 4.18).

IV

4.4 Schooling of Rural Students

Schooling of the rural students is an important factor in determining their educational attainments. It is fact that the rural school education in Punjab has collapsed due to the apathy of state government. The effluent and education conscious parents have withdrawn their wards from government schools. The government rural schools are now schools of have-nots, particularly at the primary level. The vacuum has been filled by the unrecognized and unregulated private schools. Many recognized private schools have been opened in rural areas, mainly in the periphery of urban. But, they charge high fee and funds which is beyond the reach of weaker sections of rural society. The presence of private managed schools in the countryside has made the analysis more interesting.

4.4.1 Ownership Pattern of Schools

The most interesting fact of the study is about the nature and ownership pattern of the schools attended by the rural students. It has been found that about 53 per cent of rural students passed their secondary school examination from the private schools. And, the remaining 47 per cent passed the same from the government owned schools. Moreover, about 59 per cent girls passed their matriculation from the private schools and the proportion for the boys was about 47 per cent. But, at the senior secondary level, the situation is almost different. Here, the proportion of rural students who passed their senior secondary schools from the private schools was less. The respective proportions for the private schools at senior secondary were as follows: total rural students (38.94 per cent); boys (34.28 per cent); and girls (43.51 per cent) (Table 4.19).

Table 4.19: Percentage Distribution of Rural Students in Professional Education in Punjab by Ownership Pattern of Secondary and Senior Secondary Schools

Ownership Pattern	Secondary			Senior Secondary		
	Persons	Boys	Girls	Persons	Boys	Girls
Govt./Aided	46.91	52.71	40.99	61.06	65.72	56.49
Private	53.09	47.29	59.01	38.94	34.28	43.51
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

4.4.2 Affiliation of Rural Students' Schools

The affiliation-wise distribution of the schools show that at the secondary level, 60.29 per cent of the schools attended by the rural students were affiliated with the Punjab School Education Board (PSEB), **15.06 per cent with the Central Board of School Examination (CBSE), 3.98 per cent with the Indian Council Secondary Education (ICSE).** Further, 16.74 per cent of the schools of rural students were affiliated with the boards of the neighboring states which include Haryana, Himachal Pradesh, Jammu & Kashmir, and Rajasthan. And, about 4 per cent rural students' schools were affiliated with the other state boards such as Bihar, Jharkhand, Kerala, Manipur, Orissa, Tamil Nadu, Tripura, UP, Uttrakhand and West Bengal. Further, a very high proportion of the girls (70.54 per cent) as compared to boys (50.24 per cent), attended the schools which were affiliated with the PSEB. The same patterns essentially prevail at the level of senior secondary schools (Table 4.20).

Table 4.20: Percentage Distribution of Rural Students in Professional Education in Punjab by Affiliation of Secondary and Senior Secondary Schools

Examination Board	Secondary			Senior Secondary		
	Persons	Boys	Girls	Persons	Boys	Girls
PSEB	60.29	50.24	70.54	64.61	52.68	76.31
CBSE	15.06	13.20	16.96	13.41	11.73	15.06
ICSE	3.98	3.42	4.55	0.50	0.51	0.50
Neighboring State Boards	16.74	25.83	7.46	17.32	27.30	7.53
Other State Boards	3.93	7.31	0.48	4.15	7.79	0.59
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

Note: (i) Neighboring State Boards include Haryana, Himachal Pradesh, Jammu & Kashmir and Rajasthan Boards

(ii) Other Boards include Bihar, Jharkhand, Kerala, Manipur, Orissa, Tamil Nadu, Tripura, UP, Uttrakhand and West Bengal

4.4.3 Location of Schools

More than two-fifths of rural students (41.53 per cent) studied in the secondary schools located in their own villages, about 58 per cent of the rural students attended the secondary schools situated away from their villages, but location of the schools was still rural. And, a very negligible proportion of rural students (0.86 per cent) studied in schools located outside their villages in the urban areas. In case of senior secondary schools, the location of such

schools was as follows: within village (26.08 per cent); outside the village, but still rural area (73.22 per cent); and outside the villages, but located in urban areas (0.70 per cent) (Table 4.21).

Table 4.21: Percentage Distribution of Rural Students in Professional Education in Punjab by Location of Secondary and Senior Secondary Schools

Location	Secondary	Senior Secondary
Outside Village: Rural	57.60	73.22
Within Village	41.53	26.08
Outside Village: Urban	0.86	0.70
Total	**100.00**	**100.00**

Source: Primary Survey.

The location of the school involves considerable time in traveling to reach the institution. As already stated, 41.53 per cent of the secondary schools and 26.08 per cent of the senior secondary schools, where rural students had studied, were situated within the villages. Therefore, in these cases, the distance involved in reaching the schools was considered as not worth noticeable. But, in the rest of the cases, the distance involved have a greater significance. The distances of the secondary schools located outside the villages were as follows: between 1and 10 kilometer (43.17 per cent); between 11and 20 kilometer (9.64 per cent); between 21and 30 kilometer (1.58 per cent); between 31and 40 kilometer (0.62 per cent); between 41and 50 kilometer (0.48 per cent); more than 50 kilometer (2.11 per cent). The distances of the senior secondary schools located outside the villages were as follows: between 1and 10 kilometer (40.79 per cent); between 11and 20 kilometer (17.87 per cent); between 21and 30 kilometer (5.61per cent); between 31and 40 kilometer (2.85 per cent); between 41and 50 kilometer (1.65 per cent); more than 50 kilometer (4.45 per cent) (Table 4.22).

Table 4.22: Percentage Distribution of Rural Students in Professional Education in Punjab by Distance Traveled to Reach Secondary and Senior Secondary Schools

Distance (km) One Way	Secondary	Senior Secondary
Within Village=0 km	41.53	26.08
Outside Village: Rural		
1-10	43.17	40.79
11-20	9.64	17.87
21-30	1.58	5.61
31-40	0.62	2.85
41-50	0.48	1.65
51and More	2.11	4.45
Outside Village: Urban	0.86	0.70
Total	100.00	**100.00**

Source: Primary Survey.

V

4.5 Educational Attainments of Rural Students

The professional education has been found to be preferred by students across the various study streams or disciplines because of its better employment potentials compared to general education. Moreover, the supply side of professional education has adopted much needed dynamism. And, many old/new courses have been customized keeping in view the requirements of the job market and the students' aspirations and capabilities. Gradually, the professional education sector has started giving good competition to the traditional courses by attracting the students from the traditional programs of the education. The intake capacity of various technical and professional courses has been increased, and this change has been accepted even from the students who earlier preferred humanities and arts streams also. The job oriented vocational and professional courses have acquired the top positions in the education related decisions of the students, parents and households. Such a position is quite discernible from the data related to the academic streams followed by the rural students at the level of the senior secondary stage. This section examined the study streams adopted by the rural students along with the educational background of their families.

4.5.1 Study Stream

An examination of study streams of rural students presented many interesting features. The data reveal that the academic streams followed by the rural students at the level of senior secondary stage, in the descending order of importance, were as follows: Medical (46.35 per cent); Non-Medical (35.44 per cent); Arts/Humanities (15.92 per cent); Commerce (2.20 per cent); and Vocational (0.10 per cent). There were huge differences in the streams opted by the boys and girls. The overwhelming majority of the girls (70.27per cent) passed through the Medical stream followed by the Non-Medical (18.04 per cent) and Arts/Humanities (10.80 per cent). Boys had joined the various streams. Boys' preferences for a particular stream, in the descending order, were as follows: Non-Medical (53.19 percent); Medical (21.94 per cent); Arts & Humanities (21.13 per cent); Commerce (3.64 per cent); Vocational (0.10

per cent). The academic streams followed by the rural students at the graduation stage in the descending order were as follows: Arts/Humanities (60.91per cent); Non-Medical (24.09 per cent); Medical (3.64 per cent); Commerce (11.36 per cent). Across the sexes, there was not significant difference at this stage of education (Table 4.23).

Table 4.23: Percentage Distribution of Rural Students in Professional Education in Punjab by Course/Stream during Senior Secondary and Graduation

Stream	Senior Secondary			Graduation		
	Persons	Boys	Girls	Persons	Boys	Girls
Arts/Humanities	15.92	21.13	10.80	60.91	60.67	61.43
Commerce	2.20	3.64	0.79	11.36	16.00	1.43
Non-Medical	35.44	53.19	18.04	24.09	20.67	31.43
Medical	46.35	21.94	70.27	3.64	2.67	5.71
Vocational	0.10	0.10	0.10	0.00	0.00	0.00
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

So far as the medium of examination is concerned, the share of rural students opting for English as medium of examination went up with the every successive stage of education. At secondary level, the proportion of the different languages in the medium of examination was as follows: English (45.85 per cent); Punjabi (35.30 per cent); Hindi (18.66 per cent) and others (0.19 per cent). At secondary level, the proportion of the different languages as the medium of examination was as follow: English (79.63 per cent); Punjabi (11.41 per cent); Hindi (8.86 per cent) and others (0.10 per cent). Interestingly, higher proportion of girls opted for English as the medium of examination than that of the boys in both the secondary and senior secondary levels of education (Table 4.24).

Table 4.24: Percentage Distribution of Rural Students in University of Punjab by Medium of Examination during Secondary and Senior Secondary Level

Medium of Examination	Secondary			Senior Secondary		
	Persons	Boys	Girls	Persons	Boys	Girls
English	45.85	37.61	54.26	79.63	71.28	87.81
Punjabi	35.30	31.91	38.76	11.41	13.04	9.81
Hindi	18.66	30.10	6.98	8.86	15.47	2.38
Others	0.19	0.38	0	0.10	0.20	0
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

English as the medium of examination has made its way in the professional education sector of the state. However, it is noticeable fact that the good proportion of rural students switched over their medium of examination from Punjabi and Hindi towards English during the present courses. Interestingly, the rural students had appeared in their ongoing study examinations in English. In overall, 99.33 per cent of the rural students opted for English as the medium of examination. In the case of boys, the proportion was cent per cent and in case of girls it was 98.64 per cent. Just, 1.36 per cent of the rural girls opted for Hindi as the medium of examination (Table 4.25).

Table 4.25: Distribution of Rural Students in University of Punjab by Medium of Examination at Present Study Level

Medium of Examination	Number			Percentage Share		
	Persons	Boys	Girls	Persons	Boys	Girls
English	2071	1053	1018	99.33	100.00	98.64
Hindi	14	0	14	0.67	0.00	1.36
Total	**2085**	**1053**	**1032**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

4.5.2 Education Level of Family

Education stock at the level of households play crucial role in the formation of the human capital and determination of inter-household levels of inequalities. The educationally advanced families over the period surges ahead than the others in the accumulation of material capital also. The familial advantages have been identified as the important determinant of the educational attainments of the children. The children from the educated families realize the educational externality from their parents. Therefore, it is important to record the educational level of parents and other family members of the rural students. The data collected pointed out the following pattern of the education level of the fathers of the rural students: illiterate (4.14 per cent); middle (6.48 per cent); matriculation (31.46 per cent); senior secondary (16.20 per cent); graduation (23.03 per cent); post graduation (9.82 per cent); professional (3.19 per cent); M.Phil/Ph.D. (0.45 per cent) and others (5.23 per cent).

The education level of the mothers of the rural students was as follows: illiterate (8.84 per cent); middle (17.59 per cent); matriculation (38.81 per cent); senior secondary (10.68 per cent); graduation (17.40 per cent); post graduation (4.25 per cent); professional (0.48 per cent); M.Phil/Ph.D. (0.24 per cent) and others (1.69 per cent). In overall, it is quite clear that both the parents of the rural students were well educated as the share of the graduates and above was quite significant across the both sexes also (Table 4.26).

Table 4.26: Percentage Distribution of Rural Students in Professional Education in Punjab by Educational Level of Father and Mother

Education Level	Father			Mother		
	Persons	Boys	Girls	Persons	Boys	Girls
Illiterate	4.14	4.71	3.55	8.84	11.31	6.34
Middle	6.48	7.16	5.78	17.59	20.04	15.11
Matriculation	31.46	32.65	30.22	38.81	40.94	36.65
Senior Secondary	16.20	16.96	15.42	10.68	9.30	12.09
Graduation	23.03	20.88	25.25	17.40	14.09	20.76
Post Graduation	9.82	8.92	10.75	4.25	2.97	5.56
Professional	3.19	3.53	2.84	0.48	0.58	0.39
M.Phil/Ph.D	0.45	0.69	0.20	0.24	0.10	0.39
Others	5.23	4.51	5.98	1.69	0.67	2.73
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

Education level of paternal grandparents, i.e. 'dada' and 'dadi' shows that grandfathers of 51.01 per cent of rural students were not having any formal education and the corresponding proportion of grandmothers was 77.65 per cent. The educational qualification of the rest in the case of grandfathers was as follows: middle (12.08 per cent); matriculation (16.78 per cent); senior secondary (6.71 per cent); graduation (7.38 per cent); post graduation (2.01 per cent); professional (2.01 per cent);M.Phil/Ph.D. (0.67 per cent); others (1.37 per cent). The educational qualification in the case of grandmothers was as follows: illiterate (77.65 per cent), middle (12.94 per cent); matriculation (5.88 per cent); senior secondary (0.59 per cent); graduation (1.76 per cent); professional (0.59 per cent) and others (0.59 per cent) (Table 4.27).

Table 4.27: Percentage Distribution of Rural Students in Professional Education in Punjab by Educational Level of Grandfather and Grandmother (Paternal)

Education Level	Grandfather			Grandmother		
	Persons	Boys	Girls	Persons	Boys	Girls
Illiterate	51.01	52.83	50.00	77.65	79.31	76.79
Middle	12.08	15.09	10.42	12.94	10.34	14.29
Matriculation	16.78	15.09	17.71	5.88	5.17	6.25
Senior Secondary	6.71	3.77	8.33	0.59	0.00	0.89
Graduation	7.38	7.55	7.29	1.76	3.45	0.89
Post Graduation	2.01	1.89	2.08	0.00	0.00	0.00
Professional	2.01	1.89	2.08	0.59	1.72	0.00
M.Phil/Ph.D	0.67	0.00	1.04	0.00	0.00	0.00
Others	1.34	1.89	1.04	0.59	0.00	0.89
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

The data also show that the brothers and sisters of rural students were having reasonably good level of education. The qualification of all the brothers as a single group in the descending order were as follows: senior secondary (29.12 per cent); matriculation (19.09 per cent); graduation (17.70 per cent); professional (11.36 per cent); middle (10.44per cent); post graduation (4.27 per cent); others (2.88 per cent); primary (2.60 per cent); below primary (2.48 per cent); and M.Phil/Ph.D. (0.06 per cent). And, the qualification of the sisters as a single group in the descending order were as follows: graduation (30.17 per cent); senior secondary (25.08 per cent); matriculation (14.41 per cent); professional (9.41 per cent); post graduation (10.76 per cent); middle (6.53 per cent); others (1.53 per cent); below primary (1.10 per cent); primary (0.93 per cent). In overall, the sisters as the group have been found to be more qualified than that of the brothers. For example, out of the total sisters as many as 51.95 per cent had qualification of graduation and above as compared to 36.27 per cent of that of the brothers (Table 4.28).

Table 4.28: Percentage Distribution of Rural Students in Professional Education in Punjab by Educational Level of Brother/s and Sister/s

Education Level	Brother/s			Sister/s		
	Persons	Boys	Girls	Persons	Boys	Girls
Below Primary	2.48	0.85	3.60	1.10	0.53	1.64
Primary	2.60	1.99	3.01	0.93	0.35	1.48
Middle	10.44	6.95	12.83	6.53	5.08	7.88
Matriculation	19.09	15.46	21.57	14.41	14.54	14.29
Senior Secondary	29.12	30.78	27.99	25.08	29.07	21.35
Graduation	17.70	22.27	14.58	30.17	32.92	27.59
Post Graduation	4.27	6.67	2.62	10.76	11.56	10.02
Professional	11.36	11.35	11.37	9.41	4.90	13.63
M.Phil/Ph.D	0.06	0.14	0.00	0.08	0.00	0.16
Others	2.88	3.55	2.43	1.53	1.05	1.97
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

4.5.3 Study Loss and Additional Degree

In total, 179 students reported a loss in the study by some years either of one or of two years. The proportion of those who lost one year was 95.53 per cent. And, the proportion of those who lost equivalent to two years was 4.47 per cent. Further, 117 boys and 62 girls reported the loss in study years (Table 4.29).

Table 4.29: Distribution of Rural Students Who Lost Some Study Year/s

Years Lost	Number			Percentage Share		
	Persons	Boys	Girls	Persons	Boys	Girls
1 Year	171	110	61	95.53	94.02	98.39
2 Year	8	7	1	4.47	5.98	1.61
Total	**179**	**117**	**62**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

The loss in study years occurred at the various stages of the study. Importantly, 78.21 per cent reported a loss in study year during the Plus Two stage. The loss in study years for the rest was as follows: 7.82 per cent during the Plus One stage, 5.03 per cent during 10^{th} standards, 3.91per cent during their graduation in arts.. Comparatively, a higher proportion of girls (83.87 per cent) lost a year during Plus Two stage than that of the boys (75.21 per cent). And, comparatively a higher proportion of boys (11.11 per cent) lost a year during Plus Two stage than that of the girls (1.61 per cent) (Table 4.30).

Table 4.30: Distribution of Rural Students Who Lost Study Year/s by Study Level

Study Level	Number			Percentage Share		
	Persons	Boys	Girls	Persons	Boys	Girls
Below 10	9	6	3	5.03	5.13	4.84
10	9	5	4	5.03	4.27	6.45
11	14	13	1	7.82	11.11	1.61
12	140	88	52	78.21	75.21	83.87
BA	7	5	2	3.91	4.27	3.23
Total	**179**	**117**	**62**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

The study loss occurred because of the varying reasons. In total, 179 persons reported study loss by one or two years. And, the highest proportion of such students (42.46 per cent) willingly dropped the study actually to prepare for the state/national level competitive entrance test examinations for admission to the professional education courses. The next important reason

was the failure and illness accounting for 35.75 per cent and 20.11 per cent cases, respectively. And, 1.68 per cent lost the study because they left the study for some time due to the reason/s beyond their control (Table 4.31).

Table 4.31: Distribution of Rural Students Who Lost Study Year/s by Reason

Study Level	Number			Percentage Share		
	Persons	Boys	Girls	Persons	Boys	Girls
Failure	64	51	13	35.75	43.59	20.97
Illness	36	23	13	20.11	19.66	20.97
Left Study	3	3	0	1.68	2.56	0.00
Willingly Dropped	76	40	36	42.46	34.19	58.06
Total	**179**	**117**	**62**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

Further, the data also reveal that 127 persons obtained some additional degrees in addition to the qualifying degree for the entry in ongoing courses. The important fact which emerges from the survey is that about 93 per cent of the students completed the diploma courses of various trades. The proportion of rest of the degrees was as follows: M.A. (2.36 per cent); B.A.C.E. (0.79 per cent); B.Ed. (2.36 per cent); I.T.I. (0.79 per cent) and PGDCA (0.79 per cent) (Table 4.32).

Table 4.32: Distribution of Rural Students with Additional Degree/s by type of Degree/Stream

Degree/Stream	Number			Percentage Share		
	Persons	Boys	Girls	Persons	Boys	Girls
MA	3	3	0	2.36	3.23	0.00
B.A.C.E	1	1	0	0.79	1.08	0.00
B.Ed	3	2	1	2.36	2.15	2.94
Diploma	118	86	32	92.91	92.47	94.12
ITI	1	1	0	0.79	1.08	0.00
PGDCA	1	0	1	0.79	0.00	2.94
Total	**127**	**93**	**34**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

To sum up, it is apparent that the rural students who entered the higher professional courses are from relatively better off sections of society. Their families are found to be better placed in rural society in terms of the educational, social and economic parameters. Majority of rural students got admission as general category students and their villages were situated on link roads where frequent transport facilities were not available. And, they willing or unwillingly preferred to stay in institutional hostels. Interestingly,

majority of them passed their matriculation examination (53 per cent) and plus two examination (62 per cent) from private schools located in rural areas. Naturally, an overwhelming proportion of rural schools reported to be opted for English medium at plus two and degree level examinations.

The educational level of families to which the rural students belonged, especially of their parents and siblings, seemed to be high, when it was compared to the educational level of rural masses. The parental motivation was almost the only source of motivation of rural students in the professional courses. It seems that a unique equilibrium has been got established in the countryside, which works in a systematic manner against the educational interests of the ruralities. Hence, only a multi pronged strategy pertaining to promote rural economy, rural education and higher professional education could mitigate the problem of educational deficits at the rural level.

Chapter V

Economic Profile of Rural Students

The professional education sector in Punjab has witnessed many fundamental changes; particularly it has been run in the business mode in the fast changing scenario. This sector has gradually acquired the character of a typical industrial set up subject to the strong economic dynamics having roots in the costs, earnings and profits. Moreover, the education sector has been moving in a free style manner in the absence of weak and almost non-existing regulatory framework of the state government without any sort of public accountability. In such a scenario, education providers, especially in the private sector, have been fully deciding the matters related to the charging of fee and funds from students in the situation of ever-rising demand for higher professional education in the state. Further, professional education sector has been seen as the arena of quick and assured high returns to the suppliers of such courses.

At present, creation and running of educational institutions imparting professional education involve huge amount of resources. The dwindling state spending on the higher education and changes in policy parameters paved the way for involvement of private players in the professional education in a big way. Now, the private sector has acquired huge market power in supplying of education services in overwhelming categories of professional education. The introduction of various new courses and increasing the intake capacity of old courses has been guided mainly by the high returns and not by any other social criterion. And, over supply of students in certain skills and/or shortage of skills in other arenas has become the norm with free for all entry and exit options.

Further, in view of the weak regulatory mechanism and in the absence of effective manpower planning in the state, professional education sector has been reflecting itself in a new avatar, both in terms of sudden and high expansion in some courses. This process has seriously disturbed the wages and salary market along with the gross underpayments to human factor of

production. And, the present situation has become more problematic in the absence of social security apparatus and quality controls. The prevalence of such scenario has serious consequences in terms of equity considerations. It is widely held that the professional education sector in the state has become elitist in terms of access and delivery of education which poses real danger of the ‘exclusion of the meritorious students’ who lack economic means to finance their educational pursuits.

In view of these considerations, this chapter has examined the information related to the economic aspects of acquiring professional education in the case of rural students. The economic aspects of acquiring professional education have been highlighted through the analysis of data/information about the occupation of households of the rural students, fees and funds paid, income and expenditures incurred, means of financing, etc. The chapter is divided into three sections. Section I deals with the occupation structure, land holdings and income of the rural students’ households. Section II analyzes the information pertaining to the fees and funds paid by the rural students and also the extent of fee concessions and scholarships availed of. And, the economic aspects related to the earnings, expenditure items and modes of financing, particularly the study loans have been presented in Section III.

I

5.1 Economic Profile

Occupational status of the household members determines, in fact, the economic and income level of the household. There are many occupations in which one or more members of the rural students, if employed, such household/s certainly have better income and educational levels. Moreover, they know the benefits of higher education and have the capacity to pay high fees and funds of private schools, colleges and institutes. They have the capacity of take better decisions regarding their wards’ education and preference for a particular course. So, the study has taken into account the occupation of family members of rural students.

5.1.1 Occupation of Parents

The data reveal that majority of the fathers of the rural students (50.65 per cent) were reported to be the servicemen and a little less than one-third (31.80 per cent) were involved in cultivation for their livelihood (Table 5.1). The share of the rest of occupations in the case of fathers in the descending order was as follows: business (12.51 per cent); ex-employee (3.54 per cent), labour (1.50 per cent). In the case of mothers of rural students, as expected, more than four-fifths of them (82.26 per cent) were the house-wives. The proportionate share of mothers engaged in other occupations was as follows: service (17.40 per cent); business (0.14 per cent); ex-employee (0.14 per cent) and labour (0.05 per cent). Thus, the employment of fathers in the service sector has been the single largest category from which rural students found access in the professional education.

Table 5.1: Percentage Distribution of Rural Students in Professional Education in Punjab by Occupation Status of Father and Mother

Occupation Status	Father			Mother		
	Persons	Boys	Girls	Persons	Boys	Girls
Service (govt. and private)	50.65	53.24	47.97	17.40	12.75	22.12
Agriculture	31.80	28.33	35.40	0.00	0.00	0.00
Business	12.51	13.33	11.66	0.14	0.00	0.29
Ex-Employee	3.54	3.24	3.85	0.14	0.10	0.19
Labour	1.50	1.86	1.12	0.05	0.10	0.00
Housewife	0.00	0.00	0.00	82.26	87.06	77.39
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

There has been a significant inter-generational occupational shift in the case of the families of rural students. For example, 75.83 per cent of the paternal grandfathers were dependent on the agriculture as their principal occupation. And, the proportionate share of grandfathers engaged in other occupations was as follows: service (4.70 per cent); business (3.36 per cent) and ex-employee (16.11 per cent). On the other side, 97.06 per cent of the paternal grandmothers fall in the category of the housewives. So, occupational shift in a significant way emerged between the grandparents and parents of the rural students. The occupational shift from the ‘agriculture’ in the case of the former towards the “service-cum-business” in the case of the

latter in rural Punjab, in fact, is the healthy sign of economic development (Table 5.2).

Table 5.2: Percentage Distribution of Rural Students in Professional Education in Punjab by Occupation Status of Grandfather and Grandmother

Occupation Status	Grandfather			Grandmother		
	Persons	Boys	Girls	Persons	Boys	Girls
Service (govt. and private)	4.70	3.77	5.21	2.35	5.17	0.89
Agriculture	75.83	79.25	73.95	0.00	0.00	0.00
Business	3.36	3.77	3.13	0.00	0.00	0.00
Ex-Employee	16.11	13.21	17.71	0.59	0.00	0.89
Housewife	0.00	0.00	0.00	97.06	94.83	98.22
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

Among the brothers and sisters of rural students, the dominant proportion of them falls in the category of students and study was their main occupation. In the case of rural students' brothers, 85.41 per cent of them were found to be students. This proportion was 93.39 per cent in the case of sisters of the rural students. It indicates that the majority of the siblings of the rural students were relatively in the younger age group. The share of agriculture, business, service and labour was 2.77 per cent, 2.65 per cent, 8.82 per cent and 0.35 per cent, respectively, for the brothers. For the sisters, the share of business, service and labour was, respectively, 0.08 per cent, 5.25 per cent, and 1.27per cent (Table 5.3).

Table 5.3: Percentage Distribution of Rural Students in Professional Education in Punjab by Occupation Status of Brother/s and Sister/s

Occupation Status	Brother			Sister		
	Persons	Boys	Girls	Persons	Boys	Girls
Agriculture	2.77	2.84	2.72	0.00	0.00	0.00
Business	2.65	3.55	2.04	0.08	0.00	0.16
Student	85.41	79.29	89.60	93.39	92.83	93.91
Labour	0.35	0.71	0.10	0.00	0.00	0.00
Service (govt and private)	8.82	13.62	5.54	5.25	4.90	5.59
Housewife	0.00	0.00	0.00	1.27	2.27	0.33
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

5.1.2 Land Holdings and Income Pattern

Land holdings and income of the households of rural students are significant factor that determine the access and affordability of costly professional education. Actually, an analysis of economic background of the

rural students pursuing the professional education in the state is very important in order to understand to which economic strata or class of the rural society, they (rural student) represent. The results are based upon the information supplied by the rural students themselves. Out of the total rural students, 1138 students (54.58 per cent) fall in the category of the land owners. And, 947 students (45.42 per cent) were in the non-land owning category. The proportion of girls in the land owning category (56.69 per cent) was slightly more than that of the boys (50.43 per cent) (Table 5.4).

Table 5.4: Distribution of Rural Students in Professional Education in Punjab by Land Owners and Non-Land Owners

Land Holding (in Acre)	Number			Percentage Share		
	Persons	Boys	Girls	Persons	Boys	Girls
Land Owners	1138	531	585	54.58	50.43	56.69
Non-Land Owners	947	522	447	45.42	49.57	43.31
Total	**2085**	**1053**	**1032**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

The distribution of land owned by the rural households' shows that around 50 per cent of the rural students' households have land between one to five acres only. The next two largest categories having 6 to10 acres and 11 to 15 acres respectively constituted around 29 per cent and 12 per cent of the rural students' households. The percentage shares of the rest of the categories were as follows: between 16 and 20 acres (4.48 per cent); between 21 and 25 acres (1.49 per cent); between 26 and 30 acres (1.41 per cent); between 36 and 40 acres (0.79 per cent); between 41 and 45 acres (0.35 per cent); between 46 and 50 acres (0.44 per cent); and above 50 acres (0.53 per cent). Similar patterns prevailed in the case of distribution of the land in the case of boys and girls. It is, thus, clear that around 79 per cent of the rural students' households in the land owning category have land size less than 10 acres. It is to be noted that as per the national level classification of the operational holdings of agriculture land, the size equivalent to 10 acres fall in the category of semi- medium size of holding and up to 2.5 acres and above, 2.5 acres and up to 5 acres, the holdings are classified as marginal

Table 5.5: Distribution of Rural Students in Professional Education in Punjab by Size of Family of Land Holdings

Land Holding (in Acre)	Number of Rural Students			Percentage Share		
	Persons	Boys	Girls	Persons	Boys	Girls
1-5	567	289	269	49.82	54.43	45.98
6-10	326	140	178	28.65	26.37	30.43
11-15	137	59	76	12.04	11.11	12.99
16-20	51	18	32	4.48	3.39	5.47
21-25	17	9	8	1.49	1.69	1.37
26-30	16	5	9	1.41	0.94	1.54
31-35	0	0	0	0.00	0.00	0.00
36-40	9	2	7	0.79	0.38	1.20
41-45	4	3	1	0.35	0.56	0.17
46-50	5	3	2	0.44	0.56	0.34
50+	6	3	3	0.53	0.56	0.51
Total	**1138**	**531**	**585**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

and small holdings, respectively. The much smaller proportion of rural students, coming from the medium and large-farm-households, may indicate two things. First, the wards of these households are not entering the professional education. Second, their wards are studying in private public schools located in towns and cities. As such they are not covered by our definition of rural students (Table 5.5).

The sources of income of households from which the rural students entered in the professional education have been divided into various categories in order to understand the income earning patterns. They have been classified on the basis of the dominance source of income. The perusal of Table 5.6 shows that in the case of 24 per cent of the rural students, agriculture land constituted the only source of income. For another 30.17 per cent of the rural students, the salary constituted the only source of income. For another 7.67 per cent of the students the business constituted the only source of income. The pension and wages as an independent income source were important in the case of 0.72 per cent and 1.20 per cent cases, respectively. Therefore, the agriculture land and salary were the two dominant sources of the income of households of the rural students (Table 5.6). Further, more than one-third of rural students' households (36.45 per cent) were having more than one source of income. This trend is more pronounced in the case of girls (41.09 per cent) compared to the boys (31.91 per cent).

Table 5.6: Distribution of Rural Students in Professional Education in Punjab by Source of Income

Source of Income	Number			Percentage Share		
	Persons	Boys	Girls	Persons	Boys	Girls
Agriculture Land Only	494	268	226	23.69	25.45	21.90
Salary Only	629	336	293	30.17	31.91	28.39
Businesses Only	160	88	72	7.67	8.36	6.98
Wages Only	25	16	9	1.20	1.52	0.87
Pension Only	15	8	7	0.72	0.76	0.68
Any Other	2	1	1	0.10	0.09	0.10
More than one Income Source	760	336	424	36.45	31.91	41.09
Total	**2085**	**1053**	**1032**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

The level of income has strong connection with the students' access to the high cost education, as is evident from Table 5.7. In the case of 25 per cent of the rural students, income level of households was less than Rs. 100,000 per annum. For another, 46.43 per cent the rural students' households had reported an annual income level between Rs. 100,001 and Rs. 200,000. For another 18.85 per cent, the annual income was in between Rs. 200,001 and Rs. 300,000. For another 5.56 per cent of the rural students' households had the annual income between Rs. 300,001 and Rs. 400,000. And only 2.35 per cent of rural students' households, the annual income was in between Rs. 400,001 and Rs. 500,000. All those rural students' households with income level more than Rs. 500,000 were 1.82 per cent only (Table 5.7).

Table 5.7: Distribution of Rural Students in Professional Education in Punjab by Their Family Income Level

Family Income (Rs.)	Number			Percentage Share		
	Persons	Boys	Girls	Persons	Boys	Girls
Up to 100,000	521	267	254	24.99	25.36	24.61
100,001-200,000	968	508	460	46.43	48.24	44.57
200,001-300,000	393	187	206	18.85	17.76	19.96
300,001-400,000	116	50	66	5.56	4.75	6.40
400,001-500,000	49	24	25	2.35	2.28	2.42
500,001 and more	38	17	21	1.82	1.61	2.03
Total	**2085**	**1053**	**1032**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

II

5.2 Payments to Institutions

Professional education is generally associated with high income job opportunities. The students or their parents, therefore, have greater demands

for these courses and are ready to pay considerable amounts of money to acquire of professional education of various types. And, the students have to make, in the absence of state support, payments on numerous activities which involve payments directly to the institution in terms of fees and funds and other supporting or associated payments which include books and stationery, living expenses, transport and communication activities. In this process, the total cost of acquiring of professional education goes up considerably.

5.2.1 Fees and Funds

The various types of expenditure flows have been worked out in a comprehensive manner and arranged in a systematic manner in order to put forward a wider spectrum of payments made by the students. The expenditure items which were found to be common for both categories of rural students - daily commuting rural students and hostel availing rural students - have been clubbed under six different headings:(a) fees and funds; (b) books, stationery, and photocopying; (c) telephone and mobile; (d) canteen; (e) clothes and garments; and (f) others. And, in the case of students living in hostels, hostel expenses have been divided into two categories, viz. (a) hostel charges and (b) mess charges. The average expenditure of rural students has been given separately for the various types of professional courses. Further, the estimates have been presented separately for the various universities.

In the case of Punjab Technical University, per student per annum mean expenditure, excluding hostel expenses, was equivalent to Rs. 63,873. The percentage share of various components in this was as follows: fees and funds (83.10 per cent); books, stationery, and photocopying (5.44 per cent); clothes and garments (5.03 per cent); telephone and mobile (3.33 per cent); canteen (1.76 per cent); and others (1.34 per cent). The absolute amount spent on these heads by the rural students, on an average, was as follows: fee and funds (Rs. 53,080); books, stationery, and photocopying (Rs. 3475); clothes and garments (Rs. 3213); telephone and mobile (Rs. 2124); canteen (Rs.1122); and others (Rs. 859).

Table 5.8: Average Expenditure of Rural Students in PTU by Course (Rs. Per annum)

Course	Fee & Funds	Books/ Stationery/ Photocopy	Telephone/ Mobile	Canteen Bill	Cloths and Garments	Others	Total
Engineering Courses	59,707 (83.78)	3832 (5.38)	2208 (3.10)	1264 (1.77)	3347 (4.70)	909 (1.28)	71,267 (100.00)
Architecture	58,541 (82.77)	3118 (4.41)	2409 (3.41)	1388 (1.96)	3769 (5.33)	1500 (2.12)	70,725 (100.00)
B. Pharmacy	59,281 (86.05)	3359 (4.88)	1758 (2.55)	961 (1.39)	2873 (4.17)	659 (0.96)	68,891 (100.00)
MBA	60,297 (85.30)	3093 (4.38)	2096 (2.96)	1107 (1.57)	3258 (4.61)	841 (1.19)	70,692 (100.00)
MCA	54,503 (82.33)	3590 (5.42)	2171 (3.28)	1220 (1.84)	3395 (5.13)	1319 (1.99)	66,198 (100.00)
BBA	26,350 (75.08)	2383 (6.79)	2792 (7.96)	670 (1.91)	2772 (7.90)	127 (0.36)	35,094 (100.00)
BCA	25,829 (73.29)	2858 (8.11)	2019 (5.73)	839 (2.38)	2966 (8.42)	730 (2.07)	35,241 (100.00)
Total	**53,080 (83.10)**	**3475 (5.44)**	**2124 (3.33)**	**1122 (1.76)**	**3213 (5.03)**	**859 (1.34)**	**63,873 (100.00)**

Source: Primary Survey

Per student expenditure was found to be the highest in the case of Engineering Courses (Rs. 71,267) and the lowest for the BBA (Rs. 35,094). Per student expenditure in case of the rest of the courses was as follows: Architecture (Rs. 70,725); B. Pharmacy (Rs. 68,891); MBA (Rs. 70,692); MCA (Rs. 66,198); BCA (Rs. 35,241). It is important to note that the fees and funds constitute the overwhelming proportion of expenditure across all the courses. Its share ranges between 86.05 per cent and 73.29 per cent (Table 5.8). The analysis highlights that out-of-pocket expenses of acquiring professional education of different varieties in Punjab is very high and the students or their parents have to pay high institutional costs in the form of fees & funds and on the purchase of books, stationery & photocopying and cloths & garments.

In the case of rural students admitted in the courses run by the colleges affiliated to the Baba Farid University of Health Sciences, Faridkot, per student average expenses of getting education was equivalent to Rs. 61,692 per annum. The share of various components in this was as follows: fees and funds (73.87 per cent); books, stationery, and photocopying (7.92 per cent); telephone and mobile (3.82 per cent); canteen (3.80 per cent);

clothes and garments (6.24 per cent); and others (4.36 per cent). Per student expenditure was found to be the highest in the case of MBBS (Rs. 87,525) and the lowest for BHMS (Rs. 55,813). Per student expenditure in case of the rest of the courses was as follow: BDS (Rs.58,816); Nursing (Rs.57,029); BAMS (Rs.71,082); and BPT (Rs.57,788). It is important to note that the fees and funds constitute the overwhelming proportion of expenditure across all the courses. Its share ranges between 77.14 per cent and 66.05 per cent (Table 5.9).

Table 5.9: Average Expenditure of Rural Students in BFUHS by Course (Rs. Per annum)

Course	Fee & Funds	Books/ Stationary/ Photocopy	Telephone/ Mobile	Canteen Bill	Cloths and Garments	Others	Total
MBBS	67,520 (77.14)	5716 (6.53)	3151 (3.60)	3594 (4.11)	3505 (4.00)	4039 (4.61)	87,525 (100.00)
BDS	41,026 (69.75)	5866 (9.97)	2598 (4.42)	2613 (4.44)	4213 (7.16)	2500 (4.25)	58,816 (100.00)
Nursing	41,927 (73.52)	4666 (8.18)	2040 (3.58)	2138 (3.75)	3767 (6.61)	2491 (4.37)	57,029 (100.00)
BHMS	36,864 (66.05)	4781 (8.57)	4094 (7.34)	2444 (4.38)	3880 (6.95)	3750 (6.72)	55,813 (100.00)
BAMS	53,871 (75.79)	4987 (7.02)	2493 (3.51)	2278 (3.20)	4293 (6.04)	3160 (4.45)	71,082 (100.00)
BPT	40,432 (69.97)	4770 (8.25)	2984 (5.16)	2666 (4.61)	4079 (7.06)	2857 (4.94)	57,788 (100.00)
Total	**45,573 (73.87)**	**4883 (7.92)**	**2356 (3.82)**	**2345 (3.80)**	**3847 (6.24)**	**2688 (4.36)**	**61,692 (100.00)**

Source: Primary Survey

It is interesting to note that the average tuition fee and other funds paid by a rural student enrolled in private colleges for the MBBS or the BDS or the B.Sc. (Nursing) degree course was much higher than that of a rural student preferred to enroll in the government college for the same degree course. For instance, an MBBS aspirant has to pay Rs. 13,471 per annum tuition fee and other charges in the government medical college compared to Rs. 113,463 per annum in private owned college. Similarly, a BDS aspirant has to spend Rs. 13,000 per annum tuition fee and other charges in the government medical college compared to Rs. 65,396 per annum in private owned college. And, in the case of B.Sc. Nursing course, a student paid Rs. 13,528 per annum tuition fee and other funds in the government owned nursing college

compared to Rs. 43,877 in the private nursing college (Table 5.10). It lends support to the conclusion that there exist wide variations in the structure of tuition fee and other funds to be charges from the rural students enrolled in public funded institution vs. private non-aided institution.

Table 5.10: Average Tuition Fee and Funds Per Annum Paid by Rural Students in BFUHS by Ownership and Course

Courses	Per Annum Average Tuition Fee and Funds Paid **(Rs.)**		
	Government Owned	Private Owned	Total
MBBS	13,471	113,463	67,520
BDS	13,000	65,396	41,026
Nursing	13,528	43,877	41,927
BHMS	**na**	36,864	36,864
BAMS	na	53,871	53,871
BPT	na	40,432	40,432
Total	**13,383**	**49,574**	**45,573**

Source: Primary Survey

In the case of courses run by the Thapar University, Patiala, per student average expenditure made by the rural students was equivalent to Rs. 93,193 per annum. The share of various components in this was as follows: fees and funds (86.46 per cent); books, stationery, and photocopying (3.08 per cent); telephone and mobile (2.38 per cent); canteen (3.64 per cent); clothes and garments (3.27 per cent); and others (1.18 per cent). Per student expenditure was found to be higher in the case of BE courses (Rs. 121,450) and the lowest for MSE courses (Rs. 81, 082) It is important to note that the fees and funds constitute the overwhelming proportion of expenditure in both of the courses. Its share ranges between 86.46 per cent and 89.83 per cent (Table 5.11).

Table 5.11: Average Expenditure of Rural Students in TU by Course (Rs. Per annum)

Course	Fee & Funds	Books/ Stationary/ Photocopy	Telephone/ Mobile	Canteen Bill	Cloths and Garments	Others	Total
BE	109,100 (89.83)	3400 (2.80)	2300 (1.89)	2750 (2.26)	3150 (2.59)	750 (0.62)	121,450 (100.00)
MSE	68,345 (84.29)	2640 (3.26)	2180 (2.69)	3667 (4.52)	3000 (3.70)	1250 (1.54)	81,082 (100.00)
Total	**80,572 (86.46)**	**2868 (3.08)**	**2216 (2.38)**	**3390 (3.64)**	**3045 (3.27)**	**1100 (1.18)**	**93,193 (100.00)**

Source: Primary Survey

On the other hand, in the case of Sant Longowal Institute of Engineering and Technology (Deemed University), Longowal (District Sangrur), per student average expenditure made by the rural students was equivalent to Rs. 47,235 per annum. The share of various components in this was as follows: fees and funds (79.90 per cent); books, stationery, and photocopying (6.87 per cent); telephone and mobile (3.33 per cent); canteen (3.62 per cent); clothes and garments (5.06 per cent); and others (1.22per cent). The absolute amount spend by the rural students, on an average, was as follows: fee & funds (Rs. 37,741); books, stationery, and photocopying (Rs. 3243); telephone and mobile (Rs. 1571); canteen (Rs.1713); clothes and garments (Rs. 2389); and others (Rs. 578). Per student expenditure was the highest in case of Instrumentation Engineering (Rs. 46,669), followed by ECE (Rs. 46,928), and the lowest in case of CSE (Rs. 45,875). Fees and funds constitute the overwhelming proportion of expenditure across all the courses. Its share ranges between 81.74 per cent and 77.09 per cent (Table 5.12).

Table 5.12: Average Expenditure of Rural Students in SLIET by Course (Rs. Per annum)

Courses	Fee & Funds	Books/ Stationary/ Photocopy	Telephone/ Mobile	Canteen Bill	Cloths and Garments	Others	Total
CSE	37,500 (81.74)	3000 (6.54)	1500 (3.27)	1525 (3.32)	1925 (4.20)	425 (0.93)	45,875 (100.00)
ECE	37,364 (77.09)	4200 (8.66)	1638 (3.38)	2300 (4.75)	2300 (4.75)	667 (1.37)	48,469 (100.00)
Instrumentation Engineering	38,184 (81.36)	2500 (5.33)	1544 (3.29)	1275 (2.72)	2675 (5.70)	750 (1.60)	46,928 (100.00)
Total	**37,741 (79.90)**	**3243 (6.87)**	**1571 (3.33)**	**1713 (2.62)**	**2389 (5.06)**	**578 (1.22)**	**47,235 (100.00)**

Source: Primary Survey

Interestingly, cost of acquiring an engineering degree in the Sant Longowal Institute of Engineering and Technology (Deemed to be University) is low compared to the engineering degrees of two other universities, namely, Punjab Technical University and Thapar University. The main reason behind this is that the Sant Longowal Institute of Engineering and Technology (SLIET) is central funded institution and fee & funds to be charged from the students have been kept low. And, the Punjab Technical University, though state funded, does not have its own teaching departments. The colleges

affiliated with this university are overwhelmingly private colleges, who charge heavy fee and funds. The Thapar University is privately financed and managed university run by the famous Thapar Group of Industry. Actually, the SLIET was opened by the central government in a little known village of Punjab (District Sangrur) to perpetuate the memory of Sant Harchand Singh Longowal, then President of SAD, who was the main architect of famous 'Rajiv-Langowal Accord – 1986'. The accord was signed to initiate the peace process, basically to solve the vexed Punjab problem. The main aim of this institution is to impart low level professional education (in the form of Diplomas and Certificate courses) to the youth of educationally backward districts of Punjab. Later on, many degree programmes have been offered and the institution has acquired the status of Deemed University very recently. However, it is interesting to note that **the SLIET has very few rural students (21 students; 1.81 per cent)** who had passed either of their matriculation (Tenth) or senior secondary (Plus Two) examinations or both from the rurally located schools anywhere in India.

In the case of Rajiv Gandhi National University of Law (RGNUL), Patiala, per student average expenditure made by the rural students was equivalent to Rs. 68,184 per annum. The share of various components in this was as follows: fees and funds (86.53 per cent); books, stationery, and photocopying (4.77 per cent); telephone and mobile (1.56 per cent); canteen (1.86 per cent); clothes and garments (4.15 per cent); and others (1.13 per cent). The absolute amount spend by the students on an average was as follows: fee & funds (Rs. 59,000); books, stationery, and photocopying (Rs. 3250); telephone and mobile (Rs. 1067); canteen (Rs. 1267); clothes and garments (Rs. 2833); and others (Rs. 767). Fees and funds constitute the overwhelming proportion of expenditure as its proportion was 86.53 per cent (Table 5.13). The RGNUL is another state funded university and has been established in 2006.

Table 5.13: Average Expenditure of Rural Students in RGNUL by Course (Rs. Per annum)

Course	Fee & Funds	Books/ Stationary/ Photocopy	Telephone/ Mobile	Canteen Bill	Cloths and Garments	Others	Total
BA LLB	59,000 (86.53)	3250 (4.77)	1067 (1.56)	1267 (1.86)	2833 (4.15)	767 (1.13)	68,184 (100.00)
Total	**59,000 (86.53)**	**3250 (4.77)**	**1067 (1.56)**	**1267 (1.86)**	**2833 (4.15)**	**767 (1.13)**	**68,184 (100.00)**

Source: Primary Survey

5.2.2 Hostel and Mess Charges

Since the professional education institutions can not be opened at the door steps of students as is the case of primary schools, therefore, students from far away places live in the institution hostels or make their own private arrangements as paying guests. Such students have to spend extra money in the form of hostel fees and mess charges. It is interesting to examine the hostel fees and mess charges paid by the rural students enrolled in the sampled institutions. In the case of colleges/institutes affiliated to the PTU, a student for availing the hostel and mess facility, on an average, has to spend Rs. 26,112 per academic session. Out of this, hostel payments were Rs. 13,148 (50.35 per cent) and mess charges Rs. 12,964 (49.65 per cent). Per student spending on hostel and mess was the highest in case of MBA (Rs. 27,400) and the lowest in B. Pharmacy (Rs. 23,685). Per student spending in the case of the rest of the courses was as follows: Engineering (Rs. 26,283); Architecture (Rs. 25,154); MCA (Rs. 27,365); BBA (Rs. 26,200); BCA (Rs. 26,031). The proportionate share of hostel charges in the total hostel and mess charges was between 55.35 per cent and 48.66 per cent across the various courses (Table 5.14).

Table 5.14: Average Expenditure on Hostel and Mess Bill of Rural Students in PTU by Course (Rs. Per annum)

Courses	Hostel	Mess Bill	Total
Engineering Courses	13,200 (50.22)	13,083 (49.78)	26,283 (100.00)
Architecture	13,923 (55.35)	11,231 (44.65)	25,154 (100.00)
B. Pharmacy	11,716 (49.47)	11,969 (50.53)	23,685 (100.00)
MBA	13,333 (48.66)	14,067 (51.34)	27,400 (100.00)
MCA	14,600 (53.35)	12,765 (46.65)	27,365 (100.00)
BBA	13,556 (51.74)	12,644 (48.26)	26,200 (100.00)
BCA	12,893 (49.53)	13,138 (50.47)	26,031 (100.00)
Total	**13,148** (50.35)	**12,964** (49.65)	26,112 (100.00)

Source: Primary Survey.

In the case of Baba Farid University of Health Sciences, a rural student for availing the hostel and mess facility, on an average, has spent Rs. 26,211. Out of this, hostel payments were Rs. 14,419 (55.01 per cent) and mess charges Rs. 11,792 (44.99 per cent). Per student spending on hostel and mess bills was the highest in the case of BDS (Rs. 31,978) and the lowest in BHMS (Rs. 21,739). Per student spending in the case of rest of the courses was as follows: MBBS (Rs. 29,971); Nursing (Rs. 24,331); BAMS (Rs. 30,814); BPT (Rs. 27,670). The proportionate share of hostel charges in the total hostel and mess charges was between 56.41 per cent and 46.71 per cent across the various courses related to medical sciences (Table 5.15).

Table 5.15: Average Expenditure on Hostel and Mess Bill of Rural Students in BFUHS by Course (Rs. Per annum)

Courses	Hostel	Mess Bill	Total
MBBS	16,525 (55.14)	13,446 (44.86)	29,971 (100.00)
BDS	16,111 (50.38)	15,867 (49.62)	31,978 (100.00)
Nursing	13,726 (56.41)	10,605 (43.59)	24,331 (100.00)
BHMS	10,154 (46.71)	11,585 (53.29)	21,739 (100.00)
BAMS	16,100 (52.25)	14,714 (47.75)	30,814 (100.00)
BPT	15,029 (54.32)	12,641 (45.68)	27,670 (100.00)
Total	**14,419** (55.01)	**11,792** (44.99)	26,211 (100.00)

Source: Primary Survey.

Further, in the case of Thapar University – privately managed university - a rural student for availing the hostel and mess facility, on an average, has to make payment of Rs. 29,759 per academic session. Out of this, hostel payments were Rs. 14,747 (49.55 per cent) and mess charges Rs. 15,012 (50.45 per cent). Per student spending on hostel and mess was higher in case of ME course (Rs. 30,084) than that of the BE course (Rs. 29,000). The proportionate share of hostel charges to total hostel and mess charges varied between 53.10 per cent and 48.09 per cent (Table 5.16).

Table 5.16: Average Expenditure on Hostel and Mess Bill of Rural Students in TU by Course (Rs. Per annum)

Courses	Hostel	Mess Bill	Total
BE	15,400 (53.10)	13,600 (46.90)	29,000 (100.00)
MSE	14,467 (48.09)	15,617 (51.91)	30,084 (100.00)
Total	**14,747** (49.55)	**15,012** (50.45)	29,759 (100.00)

Source: Primary Survey.

On the other hand, an average rural student availing of the hostel and mess facility in the case of SLIET – a central government funded Deemed to be University – has to pay Rs. 22,709 per academic session. Out of this, hostel payments were Rs. 9711 (42.76 per cent) and mess charges Rs. 12,998 (57.24 per cent). Per student spending on hostel and mess was the highest in case of Instrumentation Engineering (Rs. 25,000), followed by CSE (Rs. 22500), and the lowest in ECE (Rs.20183). The proportionate share of hostel charges in the total hostel and mess bills varied between 51.11 per cent and 40.44 per cent across the various courses (Table 5.17).

Table 5.17: Average Expenditure on Hostel and Mess Bill of Rural Students in SLIET by Course (Rs. Per annum)

Courses	Hostel	Mess Bill	Total
CSE	11,500 (51.11)	11,000 (48.89)	22,500 (100.00)
ECE	8813 (43.67)	11370 (56.33)	20,183 (100.00)
Instrumentation Engineering	10,111 (40.44)	14,889 (59.56)	25,000 (100.00)
Total	**9711** (42.76)	**12,998** (57.24)	22,709 (100.00)

Source: Primary Survey.

In the case of RGNUL, for availing the hostel facility and mess charges a student on an average has spent Rs. 27,000. Out of this, hostel payments were Rs. 12,000 (44.44 per cent) and mess charges Rs. 15,000 (55.56 per cent) (Table 5.18). From the overall comparison, it emerged that student spend the highest amount in the case of TU (Rs. 27,563) and lowest in case of SLIET (Rs. 22,709) for availing the hostel and mess facility.

Table 5.18: Average Expenditure on Hostel and Mess Bill of Rural Students in RGNUL by Course (Rs. Per annum)

Courses	Hostel	Mess Bill	Total
BALLB	12,000 (44.44)	15,000 (55.56)	27,000 (100.00)
Total	**12,000** (44.44)	15,000 (55.56)	27,000 (100.00)

Source: Primary Survey.

5.2.3 Fee Concessions and Scholarships

Fee concessions and merit scholarships are important incentives for the poor and meritorious students to carry on their study further. An analysis of data reveals that out of the total rural students (2085 students), just 72 students (3.45 per cent) availed any sort of fee concession. Out of the 72 students, the number of boys was 51(70.83 per cent) and that of girls 21(29.17per cent). Further, out of total students who availed of the fee concession, the highest proportion (95.83 per cent) belonged to the PTU. The share of rural students having fee concession facility and enrolled in the rest of universities was as follows: SLIET (2.78 per cent) and BFUHS (1.39 per cent). And, no rural student in case of the Thapar University and RGNUL got any fee concession. All rural girl students who were able to get any fee concession belonged to colleges/institutes affiliated to the PTU only (Table 5.19). It means no rural girl studying in the professional courses provided by the other universities was able to get any fee concession facility.

Table 5.19: Number of Rural Students Availing of Fee Concession by University

University	Number of Rural Students			Percentage Share		
	Persons	Boys	Girls	Persons	Boys	Girls
PTU	69	48	21	95.83	94.12	100.00
BFUHS	1	1	0	1.39	1.96	0.00
TU	0	0	0	0.00	0.00	0.00
SLIET	2	2	0	2.78	3.92	0.00
RGNUL	0	0	0	0.00	0.00	0.00
Total	**72**	**51**	**21**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

The picture of fee concession becomes very clear when one examined the other aspects of fee concessions availed of by the rural students. The fee concession was granted in various ranges. In the case of the PTU, out of 69 students who availed of any fee concession, only five students were sanctioned the full fee concession during the survey year, i.e. 2007-08. The amount of fee concession availed by the rest of the 64 students was as follows: up to Rs.10, 000 (23 students); between Rs.10000 and Rs.20, 000 (12 students); between Rs. 20,001and Rs.30, 000 (10 students); between Rs. 40,001and Rs. 50,000 (02 students); between Rs. 50,001and Rs.60, 000 (01student); and above Rs.60, 000 (01student). In the case of BFUHS, only one rural student availed the fee concession up to Rs.10, 000 only. In the case of SLIET, both of the students were found to have availed of full fee concession (Table 5.20).

Table 5.20: Distribution of Rural Students Availing of Fee Concession by University and Amount of Fee Concession

University	Full Fee Concession	Up to 10000	10001-20000	20001-30000	30001-40000	40001-50000	50001-60000	60001+	Total
PTU	5	23	12	10	15	2	1	1	69
BFUHS	0	1	0	0	0	0	0	0	1
TU	0	0	0	0	0	0	0	0	0
SLIET	2	0	0	0	0	0	0	0	2
RGNUL	0	0	0	0	0	0	0	0	0
Total	**7**	**24**	**12**	**10**	**15**	**2**	**1**	**1**	**72**

Source: Primary Survey.

Further, the amount of fee concession has also been presented in terms of boys and girls. The full fee concession was availed by the boys only, the number being seven in total. In the category of up to Rs.10, 000, the proportion of boys was 70.83 per cent (17 boys) and that of the girls 29.17 per cent (7 girls). In the category of fee concession between Rs.10, 000 and Rs.20, 000, the proportion of boys was 83.33 per cent (10 boys) and that of the girls 16.67 per cent (02 girls). In the category of fee concession between Rs. 20,001and Rs.30, 000, the proportion of boys was 80.00 per cent (8 boys) and that of the girls 20.00 per cent (2 girls). In the category lied between Rs. 30,001and Rs. 40,000, the proportion of boys was 46.67 per cent (7 boys) and that of the girls 53.33 per cent (8 girls). In the category of 40,001and Rs.

50,000 as the fee concession on per annum basis, only two boys were able to achieve such amount of fee concession. In the category of 50,001-Rs.60, 000 as well as category of Rs.60, 001and above, no boy student was getting any fee concession and, only one girl each was found to be got fee concession on per annum basis (Table 5.21).

Table 5.21: Distribution of Rural Students Availing of Fee Concession by Amount Fee Concession

Amount (Rs.)	Number			Percentage Share		
	Persons	Boys	Girls	Persons	Boys	Girls
Full Fee Concession	7	7	0	100.00	100.00	0.00
Up to 10000	24	17	7	100.00	70.83	29.17
10001-20000	12	10	2	100.00	83.33	16.67
20001-30000	10	8	2	100.00	80.00	20.00
30001-40000	15	7	8	100.00	46.67	53.33
40001-50000	2	2	0	100.00	100.00	0.00
50001-60000	1	0	1	100.00	0.00	100.00
60001+	1	0	1	100.00	0.00	100.00
Total	**72**	**51**	**21**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

Another important component of fee concession is the awarding of merit-cum-means scholarships to the students enrolled in professional education. In total, 51 rural students (2.45 per cent) got the scholarship of various amounts. Out of these, 28 were boys and 23 girls. The university-wise number of the rural students, who got any scholarship, was as follow: PTU (29); BFUHS (21); Thapar (01); SLIET (nil) and RGNLU (nil). Moreover, in the case of PTU, 18 rural boys and 11 rural girls got the scholarship. In the case of BFUHS, 9 rural boys and 12 rural girls got the scholarship and in the Thapar University, only one rural boy was found to be awarded scholarship (Table 5.22).

Table 5.22: Distribution of Rural Students Availing of Scholarships by University

University	Number			Percentage Share		
	Persons	Boys	Girls	Persons	Boys	Girls
PTU	29	18	11	56.86	64.29	47.83
BFUHS	21	9	12	41.18	32.14	52.17
TU	1	1	0	1.96	3.57	0.00
SLIET	0	0	0	0.00	0.00	0.00
RGNUL	0	0	0	0.00	0.00	0.00
Total	**51**	**28**	**23**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

The scholarships awarded to rural students were of various amounts. The amount-wise distribution of the scholarship in the case of all the universities was as follows: up to Rs.1000 (15 students); between Rs.2001-Rs. 4000 (12 students); between Rs.4001-Rs. 6000 (05 students); between Rs.6001-Rs. 8000 (02 students); between Rs.8000-Rs.10000 (12 students); above Rs. 10,000 (05 students). In the case of PTU, the distribution of the scholarship amount was as follows: up to Rs.1000 (10 students); between Rs.2001-Rs. 4000 (03 students); between Rs.4001-Rs. 6000 (03 students); between Rs.6001-Rs. 8000 (02 students); between Rs.8000-Rs.10000 (08 students); above Rs. 10,000 (03 students). In the case of BFUHS, the distribution of scholarship amount was as follows: up to Rs.1000 (05 students); between Rs.2001-Rs. 4000 (09 students); between Rs.4001-Rs. 6000 (01 student); between Rs.8000-Rs.10000 (04 students); above Rs. 10,000 (02 students) (Table 5.23).

Table 5.23: Distribution of Rural Students Availing of Scholarships by University and Amount of Scholarship

University	Up to 1000	2001-4000	4001-6000	6001-8000	8001-10000	10000+	Total
PTU	10	3	3	2	8	3	29
BFUHS	5	9	1	0	4	2	21
TU	0	0	1	0	0	0	1
SLIET	0	0	0	0	0	0	0
RGNUL	0	0	0	0	0	0	0
Grand Total	**15**	**12**	**5**	**2**	**12**	**5**	**51**
Per cent Share	**29.41**	**23.53**	**9.80**	**3.92**	**23.53**	**9.80**	**100.00**

Source: Primary Survey.

The distribution of scholarships according to the proportion of boys and girls shows a varied picture. The number and proportion of girls as per the various amounts of scholarships was as follows: up to Rs.1000 (4 girl students; 57.14 per cent); between Rs.1001-Rs. 2000 (5 girl students; 62.50 per cent); between Rs.2001-Rs. 3000 (4 girl students; 44.44 per cent); between Rs.3001-Rs. 4000 (3 girl students; 100.00 per cent); between Rs.4001-Rs. 5000 (1 girl student; 100.00 per cent); between Rs.5001-Rs.6000 and Rs. 6001-Rs.7000 (No student); between Rs.7001-Rs.8000 (2 girl students; 100.00 per cent); between Rs.8001-Rs.9000 (1 girl student; 50.00 per cent); between Rs.9001-Rs.10,000 (2 girl students; 20.00 per cent);

and above Rs. 10,000 (1 girl student; 20.00 per cent). On the other hand, the number and proportion of boys as per the various amounts of scholarships was as follows: up to Rs.1000 (3 boys; 42.86 per cent); between Rs.1001-Rs. 2000 (3 boys; 37.50 per cent); between Rs.2001-Rs. 3000 (5 boys; 55.56 per cent); between Rs.3001-Rs. 4000 and Rs.4001-Rs. 5000 (No boy); between Rs.5001-Rs.6000 (4 boys; 100.00 per cent); between Rs. 6001-Rs.7000 (No boy); between Rs.7001-Rs.8000 (No boy); between Rs.8001-Rs.9000 (1 boy; 50.00 per cent); between Rs.9001-Rs.10,000 (8 boys; 80.00 per cent); and above Rs. 10,000 (4 boys; 80.00 per cent) (Table 5.24).

Table 5.24: Distribution of Rural Students Availing of Scholarship by Sex and Amount of Scholarship

Amount (Rs.)	Number			Percentage Share		
	Persons	Boys	Girls	Persons	Boys	Girls
Up to 1000	7	3	4	100.00	42.86	57.14
1001-2000	8	3	5	100.00	37.50	62.50
2001-3000	9	5	4	100.00	55.56	44.44
3001-4000	3	0	3	100.00	0.00	100.00
4001-5000	1	0	1	100.00	0.00	100.00
5001-6000	4	4	0	100.00	100.00	0.00
6001-7000	0	0	0	100.00	0.00	0.00
7001-8000	2	0	2	100.00	0.00	100.00
8001-9000	2	1	1	100.00	50.00	50.00
9001-10000	10	8	2	100.00	80.00	20.00
10000+	5	4	1	100.00	80.00	20.00
Total	**51**	**28**	**23**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

III

5.3 Financing Practices

Since the higher professional education produces high quality human resources, it also involves huge amount of finances, both public and private. In Punjab, in the absence of state support, the delivery system of professional education is predominantly in the private players, where full cost recovery methods have been followed. Fees and funds charged from students or parents have become most important way of cost recovery mechanism. Moreover, the beneficiaries, as a rational consumer of the service examined the high probability of getting employment, are ready to pay high fee and funds. In almost all the professional courses, the fees and funds charged from students were found to be more than the per capita of the state (Rs. 28872

in 2005-06 at current prices). It is paramount to examine the financing practices adopted by the rural students or parents. Naturally, the question "who bears the study expenditure of the students" has assumed greater importance in the changed economic scenario. This question is the direct outcome of across the board rise in the price of educational services in the state.

5.3.1 Sources of Financing

In the absence of state finances in the form of grants, subsidies (scholarships and fee concessions), the question "who bears the study expenditure of the students" has assumed greater importance, particularly in the case of professional courses. The data show that about 90 per cent of rural students depend upon their parents for financing their study expenditure. The share of rest of sources was as follows (in order of importance): commercial banks (7.58 per cent); relatives (1.97 per cent); parents & relatives (0.58 per cent) and other family members (0.10 per cent). More importantly, the high proportion of boys (10.16 per cent) opted for the bank loans than that of the girls (4.94 per cent). Similarly, higher proportion of girls (92.73 per cent) was dependent on parents for financing their study than the boys (86.89 per cent) (Table 5.25).

Table 5.25: Distribution of Rural Students in Professional Education in Punjab by Source of Financing Study

Source of Financing Study	Number			Percentage Share		
	Persons	Boys	Girls	Persons	Boys	Girls
Parents	1872	915	957	89.78	86.89	92.73
Other Family Member	2	1	1	0.10	0.09	0.10
Relatives	41	25	16	1.97	2.37	1.55
Parents + Relatives	12	5	7	0.58	0.47	0.68
Banks	158	107	51	7.58	10.16	4.94
Total	**2085**	**1053**	**1032**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

The rural students were found to be spending in varying amounts on the traveling to the institution for getting education. All those daily commuters who went to college by walking made no expenses. In case of other students, per month traveling expenses were as follows: up to Rs. 100 (2.65 per cent); between Rs.101 and Rs. 200 (7.95 per cent); between Rs. 201 and Rs. 300 (

13.39 per cent); between Rs. 301 and Rs. 400 (9.62 per cent); between Rs. 401 and Rs. 500 (17.29 per cent); between Rs. 501 and Rs. 600 (10.46 per cent); between Rs. 601 and Rs. 700 (4.88 per cent); between Rs. 701 and Rs. 800 (4.60 per cent); between Rs. 801 and Rs. 900 (4.32 per cent); between Rs. 901 and Rs. 1000 (9.48 per cent); Rs. 1001 and above (13.67 per cent). And, it is worth noting that just about two per cent (1.95 per cent) did not incur any traveling expenses (Table 5.26).

Table 5.26: Distribution of Daily Commuting Rural Students in Professional Education in Punjab by Monthly Traveling Expenses

Monthly Traveling Expenses (Rs)	Number			Percentage Share		
	Persons	Boys	Girls	Persons	Boys	Girls
Zero (On foot)	12	2	10	1.67	0.44	3.76
Up to 100	19	15	4	2.65	3.33	1.50
101-200	57	32	25	7.95	7.10	9.40
201-300	96	53	43	13.39	11.75	16.17
301-400	69	43	26	9.62	9.53	9.77
401-500	124	70	54	17.29	15.52	20.30
501-600	75	37	38	10.46	8.20	14.29
601-700	35	19	16	4.88	4.21	6.02
701-800	33	25	8	4.60	5.54	3.01
801-900	31	24	7	4.32	5.32	2.63
901-1000	68	57	11	9.48	12.64	4.14
1001+	98	74	24	13.67	16.41	9.02
Total	**717**	**451**	**266**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

5.3.2 Study Loans

The high cost of professional education in Punjab or elsewhere is well known fact and this has led to the emergence of study loans in various forms. The students who could not afford the financing of their education from their personal and family sources resorted to borrowings from the banks and other sources. There has been a conscious effort on the part of the policy making bodies to encourage the practice of educational loans in India by institutionalizing the process of lending for the education sector. The commercial banks are at the forefront of this policy by designing the various loan packages with varying terms and conditions related to the interest rates, collateral security, repayment schedules, interest calculations and grace period. The demand for educational loans actually depends upon the nature of course in terms of employment potential and expected pay packages.

The data reveal that out of 2085 rural students, only 158 rural students (7.57 per cent) resorted to the loans for financing their study expenses. It consists of 107 boys and 51 girls. They borrowed from the two sources namely commercial banks and private sources. The share of the banks was 94.94 per cent and that of the private sources, it was only 5.06 per cent. The same pattern essentially holds true both for the boys and girls (Table 5.27).

Table 5.27: Distribution of Rural Students in Professional Education in Punjab by Source of Study Loan

Source	Number			Percentage Share		
	Persons	Boys	Girls	Persons	Boys	Girls
Bank	150	101	49	94.94	94.39	96.08
Private Loan	8	6	2	5.06	5.61	3.92
Total	**158**	**107**	**51**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

All rural students who borrowed money negotiated varying amounts of study loans. A significant proportion of those rural students who had taken study loans (39.22 per cent) borrowed less than Rs. one Lakh. Another 28.48 per cent borrowed between Rs. 100,001 and Rs. 200,000. Another 15.82 per cent borrowed between Rs. 2000,001 and Rs. 300,000. It is to be noted that some rural students had borrowed higher amounts of loans also. About two per cent among them borrowed more than Rs. 500,001 also. The loan amount of the rest of rural borrowers was as follows: between Rs. 300,001and Rs.400, 000 (9.49 per cent) and between Rs. 400,001 and Rs. 500,000 (5.06 per cent) (Table 5.28).

Table 5.28: Distribution of Rural Students in Professional Education in Punjab by Amount of Study Loan

Amount (Rs.)	Number			Percentage Share		
	Persons	Boys	Girls	Persons	Boys	Girls
Less than 100,000	62	42	20	39.24	39.25	39.22
100,001-200,000	45	33	12	28.48	30.84	23.53
200,001-300,000	25	17	8	15.82	15.89	15.69
300,001-400,000	15	9	6	9.49	8.41	11.76
400,001-500,000	8	5	3	5.06	4.67	5.88
500,001 and above	3	1	2	1.90	0.93	3.92
Total	**158**	**107**	**51**	**100.00**	**100.00**	**100.00**

Source: Primary Survey.

The sex-wise comparison of borrowing shows that relatively higher amounts were borrowed in case of rural boys than that of the rural girls.

Actually, this trend was witnessed after Rs. 3.0 lakh loan amount. For example, between Rs. 300,001 and Rs. 400,000 loan range, the proportion of the girls in their respective category was 11.76 per cent compared to the 8.41 per cent of the boys. The same pattern holds true in the next two loan ranges, i. e. between Rs. 400,001 and Rs. 500,000 and above Rs. 500,000 (Table 5.28).

To sum up, the economic profile of rural students revealed that their families were found to be economically better placed in rural society both in terms of land holdings and service oriented occupations. Majority of rural students belonged to the families where fathers' occupation was found to be the service (Government and private). And, more than one-sixth of rural students (17.40 per cent) said that their mothers were also in the service occupation along with their fathers. A majority of rural students' families owned land (54.58 per cent), but only one-fourth of them have land ownership either of 11 acres or more. Further, a tiny proportion of rural students were able to get merit scholarships (2.45 per cent) or fee concessions of very little amount (3.45 per cent).

Moreover, institutional course fees and funds paid by the rural students are very high and beyond the capacity of weaker sections of society. Those living in the hostel have to bear more expenditure in the form of hostel fee, mess and laundry charges. Interestingly, only eight per cent of rural students opted for study loans, mainly from the commercial banks and rest of the students' expenditure was financed by their parents. It seems that the high fees and funds and other sundry expenses on the one side and collapse of rural school education on the other are main drivers working behind the systematic exclusion of rural masses from the benefits of higher professional courses in the state. And, only a multi-pronged strategy and radical reforms in rural school education and higher professional education delivery system can stem this rot.

Chapter VI

Summary, Main Conclusions and Public Policy Interventions

Higher level professional education is sine qua non for the economic development of any economy. It encompasses the most productive investment in human capital. It is the process which prepares the persons for an exacting, disciplined, scholarly training and responsible service in the true professional spirit. The professional education as a term is restricted to the preparation of recipients for fields requiring well-informed and disciplined insights and skills of a higher order. The less exacting preparation is normally designated as the vocational education. Higher professional education integrates the knowledge, skills and career proficiencies with academic contents and prepares the recipients for workplace, further education, and training and family-cum-community roles. A person getting higher professional education becomes a trained professional or specialist by attaining theoretical knowledge and practical skills of a particular course in a specified duration.

Under new economic-cum-education policy dispensation, the whole gamut of perceiving, planning and delivering professional education in the country has changed cataclysmically. The higher professional education has become a market-oriented albeit a market-directed and market-driven commercial activity. In the last one and half decades, this sector witnessed huge expansion and diversification in terms of number of institutes, courses, ownership modes, management patterns, financing practices, recruitment and admission polices, etc. It has become a most lucrative business activity for gaining quick and high profits with a little risk and uncertainty. The selling and buying of study courses with higher employment potentials at the highest possible price and at the discounted price in the courses where seats remain vacant has emerged a thing of normal happening. The situation led to the imposition of multiple user charges in the form of a variety of fee and funds under countless pretexts. It resulted in the abnormal increase in fee and funds being charged from the students/parents.

In Punjab, almost all types of universities and affiliated colleges exist. At present, there are eleven universities (including the deemed ones) and 524 recognized colleges/institutes affiliated to these universities. The range, diversity and content of the courses/subjects offered by these universities are essentially equivalent and of the same pattern as anywhere else in India. The pubic funded state universities have also started self-financing courses (both undergraduate and postgraduate) in emerging disciplines of professional and technical courses. These courses being in greater demand attracted meritorious students and students who were in a position to pay high tuition fee and other charges. Numerous colleges and institutes have also introduced postgraduation level professional courses. The recent wave among the institutions of private sector to start add-on-courses is to widen the skill base of the students while pursuing other regular-courses, although in right direction, yet it leads to commercialization of professional education.

In Punjab, the number of professional education colleges/institutes increased from just 8 during 1981, to 13 during 1991, and to 168 during 2006-07. Within the professional education, the most important streams were the engineering, medical science, business administration, computer science, pharmacy, law, etc. During 2006-07, the number of engineering, architecture and pharmacy colleges reached to 66, and that of medical, dental, homeopathy, nursing, etc. to 55, and that of management, computer science and law to 47. And, the number of general education colleges has risen from 162 during 1981, to 171 during 1991, and to 232 during 2006-07. Further, between 1991 and 2006, 106 new teachers' training colleges (B.Ed.) were added to make their number to 124 colleges in 2006-07.

On the basis of ownership of professional colleges/institutes, the analysis revealed that a strong structural shift had been witnessed in Punjab's education sector that favoured the private sector. In fact, full-blown market forces have become operative and decisive in determining the fee and funds and related policy decisions. During 2006-07, In the case of general education colleges in the state, 77.59 per cent were under the control of the private managements (53.88 per cent were aided and 23.71 per cent non-aided).

And, just 22.41 per cent were government colleges. Interestingly, in the case of engineering, medical science, management, computer science and law colleges, it is the pure privately owned unaided colleges which dominate the scene. The share of the government colleges in various areas of the professional education was as follows: engineering, architecture, and pharmacy (9.09 per cent); medical, dental, ayurvedic, homeopathy, nursing, etc. (18.18 per cent); management, computer science and law (12.76 per cent). Similarly, an overwhelming majority of teachers' training colleges (96.77 per cent) were managed by the private sector during 2006-07.

With the increasing number of colleges/institutes and intake capacity, the accessibility to higher education has increased in the state. And, students' enrolled in the higher education has increased many times and revealed two vital tendencies; (a) the declining importance of general education courses, and (b) the inevitable structural shift towards professional education courses in the state. Though an overwhelming majority of total enrolled students in the higher education is still in the general education, yet their proportion declined during the last decade or so. For example, the proportion of students receiving general education was 92.90 per cent during 1991-92. It, however, declined in the subsequent periods and reached to 81.31 per cent during 2006-07. The proportion of girls within the general education rose from 39.60 per cent in 1981-82 to 50.22 per cent in 1991-92. The students' enrollment in professional education has registered substantial growth during the last decade. The number of students enrolled in engineering, architecture and pharmacy colleges has increased from 2737 (1.55 per cent) in 1991-92 to 30,415 (11.39 per cent) in 2006-07. Similarly, student enrollment in medical, dental, ayurvedic, homeopathy, nursing, etc showed a rising trend, i.e. from 4380 students (2.48 per cent) in 1991-92 to 11,715 (4.39 per cent) in 2006-07.

Within the general education ladder, around 90 per cent of the students were admitted in the graduation level courses and a little less than 10 per cent at the post-graduation level in the state. The subject-wise division shows that, within higher general education, more than 70 per cent of students at the

graduation, and another 6 or 7 per cent at the post-graduation were enrolled in the subjects of Arts and Social Sciences between 1981-82 and 2005-06. About one-tenth of students were studying the science courses, and a little less than one-tenth the commerce courses at the graduation level. At the postgraduate level, a tiny proportion of general educators were studying science (varying between 0.78 per cent and 2.41 per cent) and commerce (between 0.03 per cent and 0.75 per cent). Similarly, the number of students enrolled for M.Phil./Ph.D. never reached one per cent of all the higher general education students during the period 1981-82 to 2005-06. Intriguingly, the proportion of science students at graduate level decreased from 13.20 per cent in 1981-82, to 11.19 per cent in 1991-92, and further to 11.09 per cent in 2005-06.

The outcome of higher education sector in the state is highly iniquitous. There has been less participation of the students belonged to the SC category in the various types of higher education in Punjab. The share of SC students was 11.25 per cent in 1991-92, 10.23 per cent in 2000-01, and 10.45 per cent in 2005-06, whereas the share of SC population in the total state population was 28.95 per cent in 2001. The proportion of SC students who opted for the science and commerce courses has been very low (7.50 per cent and 5.40 per cent) compared to the share of SC students opting for arts and social science courses (12.09 per cent) at the graduate. A similar trend has been found at the postgraduate level in the state. Further, the proportion of SC students enrolled in the B.Ed. course increased from 11.94 per cent in 1991-92 to 19.66 per cent in 2000-01. But, their share declined to 16.27 per cent in 2005-06.

Also, the share of SC students in the engineering streams had decreased from 14.87 per cent (1991-92), to 9.55 per cent (2000-01) and to 7.52 per cent (2005-06). In the MBBS course, the share of SC students also decreased from 21.29 per cent in 1991-92 to 18.50 per cent in 2000-01 and marginally improved to 18.63 per cent in 2005-06. The share of SC girl students has shown an upward trend in almost all of the courses over the time period, yet their share has remained consistently lower compared to the share

of SC boys. These facts unravel two things: **one**, the proportion of SC students in higher education sector is very low, despite having 25 per cent reservation of seats in the education institutions of state, and **two**, the human capital formation which leads them towards vertical mobility is ungenerously slow.

Almost a similar situation is reflected when the participation of weaker sections of society has been examined in the university level courses. The data of Punjabi University point out that, during the academic year 2005-06, the students from SC/ST category, against 25 per cent seats reserved for them, constituted a little less than one-tenth of total students (9.18 per cent in total; 11.30 per cent for boys and 7.03 per cent for girls). The SC/ST students held the highest proportion in the case of the Education & Information Sciences (13.56 per cent; 17.82 per cent for boys and 10.37 per cent for girls), followed by the Professional Courses (13.23 per cent; 14.76 per cent for boys and 9.87 per cent for girls), Physical Sciences (10.23 per cent; 18.06 per cent for boys and 7.23 per cent for girls), Life Sciences (11.05 per cent; 12.31 per cent for boys and 10.36 per cent for girls), and Arts, Languages and Social Sciences (6.66 per cent; 9.11 per cent for boys and 4.93 per cent for girls).

On the other side, against the five per cent reservation of seats, the students belonging to Backward Classes (BC) constituted a very small proportion (2.59 per cent; 3.26 per cent for boys and 1.91 per cent for girls). In the case of Education & Information Sciences, the BC students held the highest proportion (4.66 per cent; 7.91 per cent for boys and 2.22 per cent for girls), followed by the Arts, Languages and Social Sciences (2.61 per cent; 3.81 per cent for boys and 1.76 per cent for girls), the Life Sciences (2.54 per cent; 4.62 per cent for boys and 1.40 per cent for girls), Physical Sciences (2.51 per cent; 2.78 per cent for boys and 2.41 per cent for girls), and the Professional Courses (2.28 per cent; 2.54 per cent for boys and 1.72 per cent for girls). In nutshell, the low share of students of marginalized sections of society, especially of the SC/STs and BCs in the university based higher education is a cause of concern.

The main objective of the study was to examine the number and proportion of rural students in the higher professional education in Punjab. However, it has examined the issues in a wider perspective. The study team applied the census method to gather the primary information about rural students enrolled in all the departments/colleges/institutes of five universities of Punjab. These universities were the Punjab Technical University (PTU), Jalandhar (Affiliating University); Baba Farid University of Health Sciences (BFUHS), Faridkot (Affiliating University); Thapar University (TU), Patiala (Non-affiliating University); Sant Longowal Institute of Engineering and Technology (SLIET), Longowal (Deemed to be University); and Rajiv Gandhi National University of Law (RGNUL), Patiala (Non-affiliating University).

And, **the Lovely Professional University (LPU), at Phagwara (the only purely private university in Punjab) did not cooperate in providing the information in spite of the best efforts of the study team.** Further, very few colleges/institutes affiliated to the PTU and the BFUHS did not participate in the census inquiry in identifying the rural students. Ultimately, an overwhelming majority of colleges/institutes (70 colleges/institutes; 69.31 per cent) affiliated to the PTU and the BFUHS (43 colleges/institutes; 82.66 per cent) and all the departments of TU, SLIET and RGNUL had provided the required data on rural students. **The study adopted the definition of rural students given by the Punjab government**.

During the academic session 2007-08, the total number of students in the selected departments/colleges/institutes of five universities of the state was 56,240. The highest number of total students was enrolled in the PTU (76.17 per cent), followed by the BFUHS (15.58 per cent); the TU (5.91 per cent); SLIET (2.06 per cent); RGNUL (0.28 per cent). As per gender division of total students, 65.16 per cent were boys and 34.84 per cent were girls. The proportionate share of boys in each university was in the following order: the PTU (70.20 per cent); the BFUHS (32.22 per cent); the TU (81.11 per cent); SLIET (82.38 per cent); RGNUL (65.00 per cent). It is clear that the share of female students is higher only in the courses run by the BFUHS only.

Evidently, the enrollment in higher professional education in Punjab is favourably skewed towards males.

Of all the total students (56,240), only 2085 were those students who passed their matriculation or plus two or both the examinations from rurally located schools in Punjab and in other Indian states. They constituted only 3.71 per cent of total enrolled students in all surveyed universities. The proportion of rural students was the highest in the BFUHS (8.88 per cent) and the lowest in the TU (0.30 per cent). The proportion of rural students in the PTU was 2.97 per cent, followed by the RGNUL (1.88 per cent) and the SLIET (1.81 per cent). It is to be noted that the rural students' share in the BFUHS was higher because of a very high proportion of rural students in the B.Sc. Nursing (22.63 per cent). The share of rural students in rest of the medical courses was only 4.27 per cent.

With regard to gender, the study shows that the proportion of rural female students (5.27 per cent) was more than that of rural male students (2.87 per cent) among the total female and male students, respectively. Across the universities, the proportion of girls was the highest in the BFUHS (11.10 per cent) and no rural female was enrolled in any of the course run by the TU and the RGNUL. The proportion of rural male students was the highest in the BFUHS (4.22 per cent) and the lowest in the TU (0.37 per cent). Among the total rural students (2085), boys and girls were evenly divided i.e. 50.50 per cent boys and 49.50 per cent girls. Across the universities, rural girls' share was as under: PTU (28.75 per cent); BFUHS (84.70 per cent); SLIET (33.33 per cent); TU (0.00 per cent); and RGNUL (0.00 per cent).

It is significant to note that out of total rural students in the professional education courses in Punjab state, 500 students (23.98 per cent) belonged to the rural areas of other Indian states. Out of them, 405 rural students (19.42 per cent) were from the neighboring states which consisted of Haryana, Himachal Pradesh, Jammu & Kashmir and Rajasthan. Further, 95 students (4.56 per cent) were from the other states which included Bihar, Delhi, Kerala, Manipur, Orissa, Tripura, UP, and West Bengal. Interestingly, 105 girls from

the rural areas of the other states also got admission in the professional education in the state.

In the case of Punjab Technical University (PTU), course-wise proportion of rural students, in the descending order, was as follows: B. Pharmacy (7.35 per cent); BCA (6.83 per cent); MCA (6.02 per cent); ICE (4.12 per cent); MBA (3.81 per cent); B. Architecture (3.66 per cent);Chemical Engineering (2.86 per cent);EE (2.55 per cent); ME (2.44 per cent); IT (2.30 per cent); Civil Engineering (2.04 per cent); ECE (2.04 per cent); BBA (2.03 per cent); Bio Technology (1.65 per cent); CSE (1.63 per cent); AE (0.99 per cent); EIE (0.93 per cent); EEE (0.65 per cent). And, no rural student was found In four professional courses, namely, B.Sc. (Bio Tech); Textile Engineering; Production Engineering; and M. Pharmacy. Further, within the PTU, as many as 622 rural students (48.86 per cent) were in the engineering stream and the rest 651 rural students (51.14 per cent) in the non-engineering stream.

In the case of Baba Farid University of Health Sciences (BFUHS), the course-wise proportion of rural students, in the descending order, was as follows: B.Sc Nursing (22.63 per cent), BHMS (8.98 per cent); BPT (8.26 per cent); BAMS (6.11 per cent); MBBS (3.39 per cent); BDS (2.14 per cent). Further, by and large such a pattern prevails across the various courses for boys and girls except in the B.Sc. Nursing. In B.Sc. Nursing, the proportion of rural girls was as high as 22.93 per cent and that of boys 9.80 per cent.

In the case of Thapar University (TU), out of four courses, the rural students were reported in two categories of courses, i.e. all streams of Bachelor of Engineering (0.13 per cent) and all streams of Masters of Engineering (1.53 per cent). In two other courses, namely MBA and MCA, no rural student got admission. Moreover, no rural girl was found in all of the four courses. Yearly distribution shows that the proportion of rural students was the highest (0.52 per cent) in second year of the course and nil in the terminal year of the course. It is significant to note that the admission to all the undergraduate courses in TU is based on all India level entrance test (AIEEE).

In Rajiv Gandhi National University of Law (RGNUL), only one course was in progress, i.e. BA LLB at the time of survey. The overall share of rural students was 1.88 per cent and that of boys amongst male students was 2.88 per cent and zero for girl students. Further, this university was established 2006 and the second batch of students of the BA LLB course was admitted during 2007-08. In the first year of the course, there was no student from the rural areas. Amazingly, in both years of the course, there was no girl from the rural areas.

In case of Sant Longowal Institute of Engineering and Technology (SLIET), in the four courses, namely Chemical Engineering, Food Technology, Information Technology and Mechanical Engineering, no rural student was found. In the rest of the courses, the proportion of the rural students was as follows: Instrumentation Engineering (6.16 per cent); ECE (5.19 per cent) and CSE (1.53 per cent). Further, within these three courses, there was no rural boy in the CSE, no rural girl in Instrumentation Engineering, and only in the course ECE both the rural boys and girls together have shown some presence.

Further, social, educational and family profiles of rural students were on expected lines. For example, an overwhelming proportion of rural students fell in the eligible age group of 18-23 years. The highest proportion of the rural students (47.77 per cent) was in the age group of 19-20 years, followed by the age group of 21-22 years (23.07 per cent). Only 1.06 per cent of rural students belonged to age group of 24 years and above. Moreover, 57.36 per cent of the rural students belonged to the Sikh religion, 41.06 per cent to the Hindu religion, 0.62 per cent to the Islam and 0.96 per cent to the other religions. As per the social category of rural students, 76.59 per cent of belonged to the General Category. The proportion of the rest of the categories was as follows: SC/ST (11.56 per cent); BC (6.38 per cent); and OBC (5.47 per cent).

It is interesting to note that more than two-thirds rural students (70.41 per cent) came from the villages located on the link roads. And, 29.59 per cent from the villages located on the main roads. The data reveal that the distance

of villages located on the link roads to the nearest main road varied from 6 km to 40 km. With regard to distance of villages to the nearest town, about one-fourth of rural students' villages (24.17 per cent) were located within the vicinity of 11 km distance. Another 61 per cent of villages of the rural students were located within the range of 11 km and 20 km from the nearest towns.

Out of total rural students, more than three-fifths (62.88 per cent) were staying in the hostel, 2.73 per cent were living with the relatives, and 34.39 per cent were daily commuters. Further, an overwhelming proportion of girls (72.77 per cent) were found to be staying in the hostel. Among the daily commuters, nearly 84 per cent traveled by the buses and 12.13 per cent used their own scooters/motorcycles to reach the institutions. A negligible number of students (0.70 per cent) traveled by train and by own car/jeep (0.28 per cent).

Category-wise, 75.49 per cent of rural students got admission in the General Category, 10.55 per cent as the SC/ST Category; 4.95 per cent as the BC Category, 4.22 per cent as the OBC category. Other categories in the descending order were the NRIs (1.58 per cent); Rural Quota (1.25 per cent); Management Quota (0.91 per cent); Backward Area (0.34 per cent); Border Area (0.19 per cent); Freedom Fighter/Defense Category (0.19 per cent); Sikh Minority (0.19 per cent); and Physically Handicapped (0.14 per cent). About 75 per cent of the rural students were motivated by their parents for getting admission. Another 10.65 per cent were motivated by the teachers, 5.71 per cent by the friends, 7.58 per cent by the relatives and just 1.10 per cent found to be in the self-motivation category.

With regard to their academic scores, the data revealed that around four-fifths (80.64 per cent) secured above 60 per cent marks in the secondary examination. A little more than one-sixth (17.36 per cent) secured 80 per cent and above marks. In case of senior secondary, about 65 per cent rural students got above 60 per cent marks. Interestingly, in terms of division of marks obtained, a little more than 80 per cent had secured first division, 15.73 per cent second division, 4.03 per cent were having third division in their matriculation examination. At the senior secondary level (Plus Two), about 65

per cent of the rural students secured the first division, another 31.68 per cent second division, and 3.65 per cent third division.

Majority of the rural students (53 per cent) passed their secondary school examination from the private schools located in rural areas. And, the remaining 47 per cent passed the same from the government owned schools. Interestingly, about three-fifths of rural girls (59 per cent) passed their matriculation examination from the private schools compared to 41 per cent of boys. At the secondary level, 60.29 per cent of the schools, attended by the rural students, were affiliated with the Punjab School Education Board (PSEB), 15.06 per cent with the Central Board of School Examination (CBSE), 3.98 per cent with the Indian Council for Secondary Education (ICSE). About two-fifths of rural students (41.53 per cent) studied in the secondary schools located in their own villages and nearly 58 per cent of the rural students had attended the rurally located secondary schools situated outside their own villages.

The information on past academic streams adopted at the level of senior secondary stage by the rural students is on expected lines. Majority of them were from science stream like the Medical stream (46.35 per cent) and Non-Medical stream (35.44 per cent), followed by the Arts/Humanities (15.92 per cent), Commerce (2.20 per cent) and Vocational (0.10 per cent). The share of rural students opting for English as medium of examination went up with every successive stage of education. At secondary level, the proportion of the different languages as the medium of examination was as follows: English (45.85 per cent); Punjabi (35.30 per cent); Hindi (18.66 per cent) and others (0.19 per cent). At senior secondary level, the proportion of the different languages as the medium of examination was as follows: English (79.63 per cent); Punjabi (11.41 per cent); Hindi (8.86 per cent) and others (0.10 per cent).

The education level of the fathers of the rural students was as follows: illiterate (4.14 per cent); middle (6.48 per cent); matriculation (31.46 per cent); senior secondary (16.20 per cent); graduation (23.03 per cent); post graduation (9.82 per cent); professional (3.19 per cent); M.Phil/Ph.D. (0.45

per cent) and others (5.23 per cent). The education level of the mothers of the rural students was as follows: illiterate (8.84 per cent); middle (17.59 per cent); matriculation (38.81 per cent); senior secondary (10.68 per cent); graduation (17.40 per cent); postgraduation (4.25 per cent); professional (0.48 per cent); M.Phil/Ph.D. (0.24 per cent) and others (1.69 per cent). In overall, it is quite clear that both of the parents of the rural students were well educated as the share of the graduates and above was quite significant across both the sexes also.

The brothers and sisters of rural students were having reasonably good level of education. The educational qualifications of the brother/s as a single group in the descending order were as follows: senior secondary (29.12 per cent); matriculation (19.09 per cent); graduation (17.70 per cent); professional (11.36 per cent); middle (10.44 per cent); post graduation (4.27 per cent); others (2.88 per cent); primary (2.60 per cent); below primary (2.48 per cent); and M.Phil/Ph.D. (0.06 per cent). And, the qualifications of the sister/s as a single group in the descending order were as follows: graduation (30.17 per cent); senior secondary (25.08 per cent); matriculation (14.41 per cent); professional (9.41 per cent); post graduation (10.76 per cent); middle (6.53 per cent); others (1.53 per cent); below primary (1.10 per cent); primary (0.93 per cent).

Regarding occupation of their parents, the data show that the majority of rural students' fathers (50.65 per cent) were in the service (both government and private) and a little less than one-third (31.80 per cent) were engaged in cultivation, followed by the business (12.51 per cent), ex-employee (3.54 per cent) and casual labour (1.50 per cent). In the case of their mothers, as expected, more than four-fifths of them (82.26 per cent) were the housewives. In the case of rural students' brothers, 85.41 per cent of them were found to be students. This proportion was 93.39 per cent in the case of rural students' sisters.

The date revealed that approximately 55 per cent rural students' households were land owners and the remaining was landless. Out of the land owners, around 50 per cent owned land between one to five acres only.

And, the next two largest categories having 6 to10 acres and 11 to 15 acres, respectively, constituted around 29 per cent and 12 per cent of the rural students' households. In the case of 24 per cent of the rural students, agriculture land constituted the only source of income. For another 30.17 per cent of the households, salary constituted the only source of income. For another 7.67 per cent of the households, business constituted the only source of income. The pension and wages as an independent income source were important in the case of only 0.72 per cent and 1.20 per cent cases, respectively. Thus, agriculture land and salary were the two dominant sources of the income of households of the rural students.

For 25 per cent of the rural students, income level of households was less than Rs. 100,000 per annum. Another 46.43 per cent rural students had reported an annual income level between Rs. 100,001 and Rs. 200,000. For another 18.85 per cent, the annual income was between Rs. 200,001 and Rs. 300,000. Further, in the income range of Rs. 300,001-400,000, only 5.56 per cent of the rural students' households had this income level, followed by the income range of Rs. 400,001-500,000 (2.35 per cent) and the income range of Rs. 500,001 and above (1.82 per cent).

Since the professional courses, in the absence of state support, involved huge private costs to the students or their parents, the study examined the fees and funds and other costs incurred in acquiring education. Interestingly, rural students have to pay a large amount of fees and funds to institutions compared to the state per capita income. For Instance, an average rural student enrolled in various courses of Punjab Technical University had to pay Rs. 63,873 per annum, excluding hostel and transport expenses. Per student expenditure was found to be the highest in the case of Engineering Courses (Rs. 71,267) and the lowest for the BBA (Rs. 35,094). Per student expenditure in the case of rest of the courses was as follows: B. Architecture (Rs. 70,725); B. Pharmacy (Rs. 68,891); MBA (Rs. 70,692); MCA (Rs. 66,198); BCA (Rs. 35,241).

In the case of colleges affiliated to the Baba Farid University of Health Sciences, per student average expenses of getting medical degree was Rs.

61,692 per annum. Per student annual expenditure was found to be the highest in the case of MBBS (Rs. 87, 525) and the lowest for BHMS (Rs. 55,813). Per student expenditure in case of other courses was as follows: BAMS (Rs. 71, 082); BDS (Rs. 58, 816); BPT (Rs. 57, 788); and Nursing (Rs. 57, 029).

In the case of courses run by the Thapar University, per student average expenditure of rural student was Rs. 93,193 per annum. Per student expenditure was found to be highest in the case of BE courses (Rs. 121, 450) and the lowest for the MSE courses (Rs. 81, 082). On the other hand, in the case of Sant Longowal Institute of Engineering and Technology (Deemed to be University), per student average expenditure made by the rural students was Rs. 47,235 per annum. Per student expenditure was the highest in case of ECE (Rs. 48, 469), followed by the IE (Rs. 46, 928), and the lowest in case of CSE (Rs. 45, 875). In the case of Rajiv Gandhi National University of Law (RGNUL), Patiala, per student average expenditure made by the rural students was equivalent to Rs. 68,184 per annum.

With regard to hostel and mess charges, no significant difference was observed across the various types of courses and colleges/institutes. In the case of colleges/institutes affiliated to the PTU, a student for availing the hostel and mess facility, on an average, has to spend Rs. 26,112 per academic session. Out of this, hostel payments were Rs. 13,148 (50.35 per cent) and mess charges Rs. 12,964 (49.65 per cent). In the case of colleges of Baba Farid University of Health Sciences, a rural student for availing the hostel and mess facility, on an average, has spent Rs. 26,211. Further, in the case of Thapar University – privately managed university - a rural student for availing the hostel and mess facility, on an average, has to make payment of Rs. 29,759 per academic session. Out of this, hostel payments were Rs. 14,747600 (49.55 per cent) and mess charges Rs. 15,012 (50.45 per cent). On the other hand, an average rural student availing of the hostel and mess facility in the case of SLIET – a central government funded Deemed to be University - has to pay Rs. 22,709 per academic session. Out of this, hostel payments were Rs. 9711 (42.76 per cent) and mess charges Rs. 12,998

(57.24 per cent). In case of RGNUL, for availing the hostel facility and mess charges a student on an average has spent Rs. 27,000. Out of this, hostel payments were Rs. 12,000 (44.44 per cent) and mess charges Rs. 15,000 (55.56 per cent).

Further, very few rural students enjoyed financial support in the form of fee concessions and scholarships of various types. The data reveal that out of the 2085 rural students, just 72 students (3.45 per cent) availed any sort of fee concession. Of them, rural boys (70.83 per cent) outnumbered the rural girls (29.17 per cent). Further, among the fee concessioners, the highest proportion (95.83 per cent) belonged to the PTU, followed by the SLIET (2.78 per cent) and the BFUHS (1.39 per cent). And, no rural student of the TU and the RGNUL got any fee concession. Very surprisingly, in the case of the PTU, out of 69 students who availed of any fee concession, only five students were sanctioned full-fee concession during the survey year, i.e. 2007-08. The amount of fee concession availed by the rest of the 64 students was as follows: up to Rs. 10,000 per annum (23 students); Rs. 10001-20,000 per annum (12 students); Rs. 20,001-30,000 per annum (10 students); Rs. 40,001-50,000 per annum (02 students); Rs. 50,001 and above per annum (02 student). In the case of BFUHS, only one rural student availed the fee concession up to Rs. 10, 000 only. In the case of SLIET, both students were found to be availing full fee concession.

Regarding scholarships, only 51 rural students (2.45 per cent) got the scholarship of any amount. Out of them, 28 were boys and 23 girls. The university-wise number of the rural students, who got any scholarship, was as follows: PTU (29); BFUHS (21); TU (01); SLIET (nil) and RGNLU (nil). Naturally, in the absence of fee concessions and scholarships, about 90 per cent of rural students were depending upon their parents for financing their study expenditure. The share of rest of sources was as follows (in order of importance): commercial banks (7.58 per cent); relatives (1.97 per cent); parents & relatives (0.58 per cent) and other family members (0.10 per cent). Only 158 rural students (7.58 per cent) resorted to the study loans for financing their study expenses. It consists of 107 boys and 51 girls. They

borrowed from the two sources namely commercial banks and private sources. The share of the banks was 94.94 per cent and that of the private sources, it was only 5.06 per cent.

Main Public Policy Interventions

The study establishes that the presence of rural students, passed-out from the typically rurally located schools, has been very low in the professional education of the state. Further, an overwhelming majority of them were from the relatively better off sections of rural society (educationally, economically and socially). Only a tiny proportion of them were from the marginalized sections of rural society, and they got admission largely because of the reservation of seats in one form or another. The collapse of rural government school education and exorbitantly high fees & funds and other sundry expenses in higher professional courses are the main drivers behind the systematic exclusion of rural masses from higher professional education in the state. The national and state level entrance tests for admission also play a significant role in inhibiting the entry of rural students in higher profession courses. And, only a multi pronged strategy and radical reforms in rural school education and higher professional education delivery system can stem this rot. The situation as a whole warrants radical changes in the public policy pertaining to the rural economy, rural education and higher professional education in the state. **The main policy interventions on the following lines are of dire and immediate necessity**:

1. The state must allocate at least six per cent of the state income to the education sector and 30 per cent of it to the higher education in a specified time and systematic manner. This requires doubling of education budget in the state. It must be achieved within a period of five years by increasing it at least twenty per cent per annum. The share of educational budget in the overall budgetary expenditure of the state must go up by certain percentages every year.
2. Out of total budget of higher education, the share of pubic universities, colleges and aided colleges be specifically raised

keeping in view the global demands and resource requirements of these sub-sectors. Rural sector institutions should get more allocation of funds, even more than the proportion of rural population to bridge the rural-urban divide. The freebies alone to the ruralities in the form of free electricity to the entire farm sector and the SC/ST population, without education, would not help them to attain vertical socio-economic mobility. What strongly needed for them are the measures to provide quality education and skill on a sustainable basis. The delivery of education through market mechanism shall further lead to the exclusion of marginalized sections. To save them from further marginalization, the state must take corrective measures through appropriate policy interventions.

3. The ongoing education system in the state has definitely been showing the strong signs of exclusion process, particularly from the quality education, and that too of the weaker sections consisting of landless labourers; marginal and small farmers; factory workers; slum dwellers, low level technicians, and low income earners in self employment activities. There is a need to mitigate the educational vulnerability of such sections by strengthening the public provisioning along with the more effective ways of motivation and involvement of the stakeholders.

4. There is a strong need to provide special incentives to students from the weaker sections of society that passed-out from the rural schools, and get admission in the universities and other prestigious institutions. The state should finance the cost of study of such students by creating a special fund, and reimburse their fees, funds and hostel charges to the concerned institutions. The state must sponsored the higher study of students getting first division from the rural government school of Punjab

5. Since all levels of education – elementary, secondary and tertiary – are organically linked with each other, there is a need to strengthen

and improve the delivery as well as quality of education at all the three levels. It is, thus, recommended that, instead of allowing a mushrooming growth of private schools (sub-standard, ill-equipped and for-profit, albeit teaching shops) without social responsibility, the existing government and private aided schools be strengthened and monitored on regular basis in the rural areas. Further, there must be a regulatory system for the private schools.

6. Education at all levels in general, and higher education in particular, deserves a public funding to a large extent due to its social benefits, public returns and externalities. As such public investment in education sector should not be treated as a wasteful expenditure. It is, rather, the most productive investment in the human resource capital. The government must not withdraw from the education sector considering it a soft-target. The history of economic development of various countries testifies that investment in human capital has played most important role in development.

7. The lame excuses like benefits of higher professional education cornered by already rich sections of society/students and the severe resource crunch faced by the state for justifying the government withdrawal from the education must be discarded. The state should resort to more resource mobilization through better tax-compliance (plug tax evasion), bringing more services under tax-net and lowering the size of black economy in the state. It has been often admitted by the successive Finance Ministers of Punjab that there is an under-mobilization of tax resources ranging between Rs. 3000 crore to 4000 crore per annum. Keeping in view the proportion of black economy (45 to 50 per cent), it is estimated that the size of black economy in the state during 2006-07 ranged between Rs. 55,529 crores and Rs. 61,697 crores per annum. The downsizing of black economy would generate enough resources to finance education and other development activities in the state. This is not

impossible, though the difficult one, if there is a political will and the political leadership, bureaucracy, the businessmen and industrialist recognize their enlightened self-interest and responsibility towards the marginalized sections of population. At the psychological level, the main source of black economy is the greed of the above mentioned class of people and they should make conscious effort to overcome their greed. To begin with, the above mentioned sections of people should develop a consensus to put some upper cap on corruption and black economy. And in the subsequent stages, there should be constant and conscious efforts to further bring down the size of black economy in the state. At the same time, the conscious members of the society should lead the people's movement for eradication of corruption in the state. That is possible only by developing zero tolerance for corruption and black money.

8. The present mechanism of recruitment, administration and control in government owned schools has almost been discredited; as such the recruitment, administration and control of these schools should be vested with some independent, autonomous, accountable and transparent authority. The present practice of freezing aided posts in the private aided colleges/schools must be stopped with immediate effect and all the posts which were freezed/abolished in the past decade because of retirement of the incumbents must be revived and filled in immediately. The level of aid to private aided college/schools must be restored to its previous level of 95 per cent from the present level of 65 per cent.

9. The state must show more administrative sensitivity to the school education sector and should not put it into unnecessary experimentation, uncoordinated policy changes and adhoc measures. The regular mode of employment of teachers - an accepted practice throughout the world - must be followed more vigorously in the state.

10. Grants and funds to the education sector be released on priority basis and in advance. The aided schools and colleges should not suffer on account of delays and squeezes in the release of grants-in-aid and other bureaucratic hindrances.

11. Out of the total education budget, some proportion of it be reserved exclusively for capital account to provide physical infrastructure in the schools, colleges and universities. At the university level, sufficient resources be provided for funding research and development activities. The universities, too, should make new innovations for mobilizing finances for research.

12. For the purpose of enhancing the participation and performance of rural students, particularly from the weaker sections of rural society, a **Rural Education Commission** be established to workout the modalities and other ways and means to ensure equity in accessibility and affordability of higher education to rural children.

13. The state and educational institutions must make efforts to strengthen the voluntary, philanthropic, diasporic and community funding in the education sector through various forms (incentives, concessions, etc.), particularly in the typically rural, backward and other disadvantageous areas and sections of the society. The state has not yet realized the full potential of these sources of funding to the education sector. The funds collected by the state under education cess, such as liquor or any other item, needs to be transferred fully to the education sector.

14. The government colleges in the state have been confronting with severe shortage of teaching staff because no recruitment has been made during the past so many years. So, there is a crying need to fill-up the vacancies immediately. The recent rationalization of faculty positions also needs to be reviewed. The state could also think of establishing a tribunal to address the disputes among the teachers and managements relating to posting, seniority,

promotions, etc., in order to avoid litigation and diversion of energy towards wrong side. A recent letter by the Advocate General Punjab about the irresponsible and apathetic behavior of the administrative secretaries towards the issues of state employees to the Chief Minister lends ample support to this policy recommendation.

15. It is imperative to enhance the enrollment in higher education from a very low level of 9-10 per cent. For this purpose, strengthening the school/college education in government sector by (i) allocating more funds; (ii) filling up all the vacant posts of teachers, head teachers, head masters and principals on regular basis; (iii) shifting no teacher/post from rural to urban centres; (iv) attracting & retaining the talented teachers through incentives; (v) punishing work-shirkers at all stages of education; and (vi) strengthening science and vocational streams.

16. The need is to fine tune, sensitize and enhance the efficiency of all the government departments dealing with the education at all levels. The universities, too, should earnestly implement the quality control mechanism mandated by the UGC and other statutory agencies in their affiliated colleges.

17. The establishment of neighbourhood campuses/regional centres in the rural areas by the universities would certainly make the higher education more cost effective and accessible to rural students. The experiments of Punjabi University, Patiala during the last couple of years are worth replicating. But here, too, government funding to some extent must be made mandatory. There is an urgent need for correction of perceptions. The education sector should not be viewed as the public vs. private only. The need is for strong inter-immersion of public and private efforts. It can take numerous permutations and combinations. The best model of the education sector is one where the public sector takes the lead and gives strong competition to private sector both in terms of quality and

cost, and thereby becomes the first priority for the users even for those who could afford private education.

18. Education of ruralites in the state is sine qua non for shifting the workforce from agriculture to non-agricultural sectors and for reaping the benefits/dividends of changing global economic scenario. As such, education sector in general and rural education in particular should not be left to the mercy and vagaries of market forces. Public funding and policy intervention along with public-private partnership (in an accountable and transparent manner) are of great necessity. Even the World Bank Reports support the public funding of education.

19. There is a need to establish a **Punjab Education Development and Regulatory Authority (PERDA)** with statutory powers to prevent excessive commercialization and profiteering in the non-aided private institutions. This statutory body should regulate the fee structure, service conditions of teachers & non-teaching staff, and profiteering in the non-aided private schools/colleges.

20. Last, but not the least, the regular sensitization of political leadership, bureaucracy, policy makers, educational administrators, teachers, students, parents and society at large about the relevance and importance of education is imperative to attain any meaningful results. All these sections must be conscious about their societal responsibility and concerns. Work culture at all levels needs to be improved and strengthened. All this would require effective transparent, responsive, accountable and sensitive governance.

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Appendix A

List of Colleges/Institutes Affiliated to Punjab Technical University, Jalandhar, 2007-08

S. No.	Name of Colleges/Institutes	Year of Establishment	Selected for Census Survey	Census Survey Done
	A. Engineering Colleges/Institutes			
1	Adesh Institute of Engineering & Technology, Sadiq Road, Faridkot.	1997	Yes	**Yes**
2	Amritsar College of Engineering & Technology, Amritsar.	2002	Yes	**Yes**
3	Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib.	1993	Yes	**Yes**
4	Baba Hira Singh Bhattal Institute of Engineering and Technology, Lehragaga (Sangrur),	2005	No	No
5	Beant College Of Engineering & Technology, Gurdaspur.	1995	Yes	No
6	Bhai Gurdas Institute of Engineering & Technology, Sangrur.	1998	Yes	**Yes**
7	Bhai Maha Singh College of Engineering, Mukatsar.	2002	Yes	**Yes**
8	Bhutta College of Engineering & Technology, V. Bhutta (Ludhiana).	2003	Yes	No
9	Baba Kuma Singh Ji Engineering College (2003),Gurusar Satlani Sahib, (District Amritsar).	2003	Yes	No
10	Chandigarh Engineering College, Landran (District SAS Nagar).	2001	Yes	**Yes**
11	Chitkara Institute of Engineering & Technology, V. Jansala, Near Rajpura (District Patiala).	2002	Yes	**Yes**
12	C.T. Institute of Engineering, Management & Technology, V. Shahpur , Near Jalandhar.	2004	Yes	No
13	Collage of Engineering and Management, Kapurthala.	2002	Yes	**Yes**
14	DAV Institute of Engineering & Technology, Jalandhar.	2001	Yes	No
15	Desh Bhagat Engineering College, V, Saunti, Mandi Gobindgarh.	2004	Yes	**Yes**
16	Doaba Institute of Engineering & Technology, V. Ghataur, Kharar, (District SAS Nagar).	2006	No	No
17	GGS College of Modern Technology, Kharar (SAS Nagar).	2002	Yes	No
18	Zail Singh College of Engineering & Technology, Dabwali Road, Bathinda.	1989	Yes	**Yes**
19	Guru Gobind Singh College of Engineering and Technology, Talwandi Sabo (District Bathinda).	2001	Yes	**Yes**
20	Guru Nanak Dev Engineering College, Gill Road, Ludhiana.	1956	Yes	No
21	Guru Teg Bahadur College of Engineering & Technology (1997), Chhapianwali, Near Malout.	1997	Yes	No
22	Institute of Engineering & Technology (1997), Bhaddal (District Rupnagar).	1997	Yes	**Yes**
23	IITT Institute of Engineering, V. Pojewal (District Hoshiarpur).	1998	Yes	No
24	Indo Global College of Engineering, V. Abhipur (District SAS Nagar).	2003	Yes	**Yes**
25	K.C. College of Engineering & Information Technology, V. Kariyam, (District Nawan Shahar).	2004	Yes	**Yes**
26	Lala Lajpat Rai Institute of Engineering & Technology, Moga.	1998	Yes	No
27	Lovely Institute of Technology and Engineering, Phagwara, (District Kapurthala).	2002	Yes	No
28	Ludhiana College of Engineering and Technology, V. Katani Kalan (Distict Ludhiana).	2002	Yes	**Yes**
29	Malout Institute of Management & Information Technology, Malout (District Muktsar).	1998	Yes	**Yes**
30	Punjab College of Engineering and Technology, Lalru Mandi (District SAS Nagar).	2002	Yes	No
31	Ramgarhia College of Engineering & Information Technology , Phagwara.	2003	Yes	No
32	Rayat Institute of Engineering & Information Technology, V. Railmajra (District Nawan Shahar)	2001	Yes	**Yes**
33	Rayat & Bahra Institute of Engineering & Bio-Technology, V. Sahauran (District SAS Nagar).	2005	No	No

34	RIMT-Institute of Engineering & Technology, Mandi Gobindgarh (District Fatehgarh Sahib).	2003	Yes	**Yes**
35	Shaheed Bhagat Singh College of Engineering & Technology, Ferozepur.	1994	Yes	**Yes**
36	Sant Baba Bhag Singh Institute of Engineering & Technology, V. Khiala Taluk (District Jalandhar).	2003	Yes	**Yes**
37	Sant Longowal Institute of Engineering and Technology, V. Longowal (District Sangrur).	1994	Yes	**Yes**
38	Shaheed Udham Singh College of Engineering and Technology, V. Tangori (District SAS Nagar)	1997	Yes	**Yes**
39	Sri Sukhmani Institute of Engineering & Technology, Dera Bassi (District SAS Nagar).	1998	Yes	**Yes**
40	Sri Sai College of Engineering & Technology, Badhani, Pathankot.	2002	Yes	**Yes**
41	Shiv Shankar Institute of Engineering & Technology, Patti (District Tarn Taran).	2004	Yes	**Yes**
42	Swami Parmanand College of Engineering & Technology, V. Jaulan Kalan (District SAS Nagar)	2004	Yes	**Yes**
43	Swami Vivekanand Institute of Engineering & Technolgy, V. Ramnagar (District Patiala).	2004	Yes	**Yes**
	B. Architecture Colleges/Institutes			
1.	College of Architecture, V. Baddal (District Rupnagar)	2004	Yes	**Yes**
2	Chitkara School of Planning & Architecture, V. Jansla, Near Rajpura (District Patiala)	2004	Yes	**Yes**
3	Giani Zail Singh College of Engineering & Technology (Architecture Wing), Bathinda.	1980	Yes	**Yes**
4	Indo Global College of Architecture, V. Abhipur (District SAS Nagar).	2003	Yes	**Yes**
5	Lovely Institute of Technology & Architecture, Phagwara (Kapurthala).	2004	Yes	No
6	RIMT- College of Architecture, Mandi Gobindgarh (Distt-Fatehgarh Sahib).	2004	Yes	**Yes**
	C. Pharmacy Colleges/Institutes			
1.	Akal College of Pharmacy and Technical Education, Mastuana (District Sangrur)	2001	Yes	**Yes**
2	Amar Shaheed Baba Ajit Singh Jhujjar Singh Memorial College, Bela, (District Rupnagar).	2000	Yes	**Yes**
3	Baba Isher Singh College of Pharmacy, V. Garga (District Moga).	2000	Yes	**Yes**
4	Chandigarh College of Pharmacy, Landran (District SAS Nagar).	2005	No	No
5	Chitkara Collge of Pharmacy, V. Jansla, Near Rajpura (District Patiala).	2005	No	No
6	CT Institute of Pharmaceutical Sciences, V. Shahpur (District Jalandhar).	2004	Yes	No
7	Doaba College of Pharmacy, V. Ghataur, (District SAS Nagar).	2006	No	No
8	G.H.G. Khalsa College of Pharmacy, Gurusar Sudhar (District Ludhiana).	2001	Yes	**Yes**
9	Global College of Pharmacy, V. Khanpur Khui (District Rupnagar))	2004	Yes	**Yes**
10	Government Polytechnic for Girls, SST Nagar, Patiala.	2001	Yes	No
11	Government Institute of Pharmacy Sciences & Engineering, Amritsar.	2001	Yes	**Yes**
12	Indo Soviet Friendship College of Pharmacy, Moga.	2000	Yes	**Yes**
13	Lovely Institute of Technology & Pharmacy, Phagwara (District Kapurthala).	2002	Yes	No
14	Pandit Jagat Ram Government Polytechnic College, Hoshiarpur.	2001	Yes	No
15	Rayat Institute of Pharmacy, V. Rail Majra (District Nawanshahar) .	2003	Yes	**Yes**
16	Rayat and Bahra Institute of Pharmacy, V. Saharuan (District SAS Nagar).	2006	No	No
17	S.D. College of Pharmacy, Barnala.	2001	Yes	**Yes**
18	Shaheed Bhagat Singh Polytechnic & Pharmacy College, Patti, (District Tarn Taran),	2001	Yes	**Yes**
19	Shivalik College of Pharmacy, Naya Nangal (District Rupnagar).	2001	Yes	**Yes**

20	Sri Sai College of Pharmacy, Badhani, Near Pathankot (District Gurdaspur).	2004	Yes	**Yes**
21	Swami Vivekanaand College of Pharmacy, V. Ramnagar (District Patiala).	2006	No	No
22	VMS College of Pharmacy, Batala (District Gurdaspur).	2004	Yes	No
23	Lala Lajpat Rai College of Pharmacy, Moga.	2006	No	No
	D. Management Colleges/Institutes			
1	Amritsar College of Engineering & Technology, Amritsar.	2002	Yes	**Yes**
2	Apeejay Institute of Management, Jalandhar.	1997	Yes	No
3	Bhai Gurdas Institute of Engineering & Technology, Sangrur.	2002	Yes	**Yes**
4	Bhai Gurdas Institute of Management & Technology, Sangrur.	1999	Yes	No
5	Bhutta College of Engineering & Technology, V. Bhutta (District Ludhiana).	2003	Yes	No
6	CT Institute of Engineering, Management & Technology, V. Shahpur (District Jalandhar).	2001	Yes	No
7	Centre for Management Training & Research, Kharar (District SAS Nagar).	1998	Yes	**Yes**
8	Chandigarh College of Engineering, Dept. of Computer Applications, Landran, (District SAS Nagar).	2002	Yes	**Yes**
9	Chitkara Institute of Engineering & Technology, V. Jansala (District Patiala).	2002	Yes	**Yes**
10	College of Management & Technology, Shanti Nagar, Patiala.	2004	Yes	**Yes**
11	C.T. Institute of Management & Information Technology, V. Maqsudan, Jalandhar.	2001	Yes	No
12	Desh Bhagat Institute of Advanced Computer Sciences, V. Saunti, Mandi Gobindgarh (District Fatahgarh Sahib).	2001	Yes	No
13	Doraha Institute of Management & Technology, Doraha (District Ludhiana).	2001	Yes	No
14	GGS College of Modern Technology, Kharar (District SAS Nagar).	2002	Yes	No
15	Gian Jyoti Institute of Management & Technology, Phase-2, SAS Nagar.	1998	Yes	**Yes**
16	GNA Institute of Management & Technology, V. Mehtan (District Kapurthala).	2006	Yes	**Yes**
17	Gujranwala Guru Nanak Institute of Management & Technology, Ghumar Mandi, Ludhiana.	1997	Yes	**Yes**
18	Guru Nanak Institute Of Management and Technology for Girls, Model town, Ludhiana.	1997	Yes	**Yes**
19	Indo-Global College of Engineering, V. Abhipur (District SAS Nagar).	2003	Yes	**Yes**
20	Khalsa Institute of Management & Technology for Women, Civil Lines, Ludhiana.	1997	Yes	**Yes**
21	Lala Lajpat Rai Institute of Engineering & Technology, Moga.	1998	Yes	No
22	Lala Lajpat Rai Memorial Institute of Management & Technology, Dhudike, Moga.	1998	Yes	**Yes**
23	Lovely Institute of Management, V. Hardaspur, Phagwara (District Kapurthala).	2001	Yes	No
24	Lovely Institute of Technology, Phagwara, (District Kapurthala).	2002	Yes	No
25	Ludhiana College of Engineering and Technology, V. Katani Kalan, (District Ludhiana).	2002	Yes	**Yes**
26	Malout Institute of Management & Information Technology, Malout (District Mukatsar).	1997	Yes	**Yes**
27	Punjab College of Technical Education, V. Baddowal, Ludhiana.	1999	Yes	**Yes**
28	Punjab Institute of Management and Technology, Mandi Gobindgarh (District Fatehgarh)	1997	Yes	**Yes**
29	Rayat & Bahra Institute of Engineering & Bio-Technology, V. Sahauran, (District SAS Nagar).	2005	Yes	**Yes**
30	Rayat Institute of Management, V. Rail Majra (District Nawanshahar).	2001	Yes	**Yes**
31	RIMT-Institute of Engineering & Technology, Mandi Gobindgarh (District Fatehgarh Sahib).	2003	Yes	**Yes**
32	RIMT-Institute of Management & Computer Technology, Mandi Gobindgarh (District Fatehgarh Sahib).	2001	Yes	No

33	SAS Institute of Information Technology & Research, SAS Nagar.	2001	Yes	**Yes**
34	Sant Baba Bhag Singh Institute of Engineering & Technology, V. Khiala Taluk, (District Jalandhar).	2003	Yes	**Yes**
35	Sri Sai College of Engineering & Technology, Badhani, Pathankot (District Gurdaspur).	2002	Yes	**Yes**
36	Sri Sai Iqbal College of Management & Technology, Badhani, Near Pathankot (District Gurdaspur).	2002	Yes	**Yes**
37	Sri Sukhmani Institute of Engineering & Technology, Dera Bassi, (District SAS Nagar).	1998	Yes	**Yes**
38	Swami Sarvanand Institute of Management & Technology, V. Talwandi , Dinanagar (District Gurdaspur).	1999	Yes	**Yes**

Appendix B

List of Colleges/Institutes Affiliated to Baba Farid University of Health Sciences, Faridkot, 2007-08

S. No.	Name of College/Institute	Year of Establishment	Selected for Census Survey	Census Survey Done
	A. Medical Colleges			
1	Guru Gobind Singh Medical College, Sadiq Road, Faridkot.	1973	Yes	**Yes**
2	Govt. Medical College, Majitha Road, Amritsar.	1943	Yes	**Yes**
3	Govt. Medical College, Sangrur Road, Patiala.	1953	Yes	**Yes**
4	Christian Medical College, Brown Road Ludhiana.	1953	Yes	**Yes**
5	Dayanand Medical College, Civil Lines, Ludhiana.	1964	Yes	**Yes**
6	Sri Guru Ram Das Institute of Medical Sciences & Research, V. Vallah, Amritsar.	1997	Yes	**Yes**
7	Adesh Institute of Medical Sciences and Research, Bathinda.	2006	No	No
	B. Dental Colleges			
1	Govt. Dental College, Amritsar.	1952	Yes	**Yes**
2	Govt. Dental College, Sangrur Road, Patiala.	1989	Yes	**Yes**
3	Dashmesh Institute of Research & Dental Sciences, Talwandi Road, Faridkot.	1992	Yes	**Yes**
4	Sri Guru Ram Das Institute of Dental Sciences & Research, G.T. Road, Amritsar.	1992	Yes	**Yes**
5	Christian Dental College, Brown Road, Ludhiana.	1992	Yes	**Yes**
6	Baba Jaswant Singh Dental College Hospital & Research Institute, Ludhiana.	1998	Yes	**Yes**
7	Guru Nanak Dev Dental College & Research Institute, Sunam (District Sangrur).	1996	Yes	No
8	Desh Bhagat Dental College & Hospital, Kotkapura Road, Muktsar.	2000	Yes	**Yes**
9	National Dental College, V. Gulabgarh, Near Dera Bassi (District Patiala).	2000	Yes	No
10	Luxmi Bai Institute of Dental Sciences & Hospital, Sirhind Road, Patiala.	2001	Yes	**Yes**
11	Genesis Institute of Dental Sciences & Research, Ferozepur-Moga Road, Ferozepur.	2005	No	No
	C. Ayurvedic Colleges			
1	Govt. Ayurvedic College, Lower Mall, Patiala.	1952	Yes	No
2	Shree Lakshmi Narayan Ayurvedic College, O/S Lohgarh Gate, Amritsar.	1972	Yes	No
3	Dayanand Ayurvedic College, G.T. Road, Jalandhar.	1996	Yes	**Yes**
4	Desh Bhagat Ayurvedic College, V. Saunti, Mandi Gobindgarh, (District Fatehgarh Sahib).	1996	Yes	**Yes**
5	Sri Satya Sai Murlidhar Ayurvedic College, G.T. Road, Moga.	1982	Yes	**Yes**
6	Mai Bhago Ayurvedic College for Women, Ferozepur Road, Mukatsar.	1995	Yes	**Yes**
7	Guru Nanak Ayurvedic College, Barkandi Road, Muktsar.	1997	Yes	**Yes**
8	Guru Nanak Ayurvedic Medical College, V. Gopalpur, Malerkotla Road, District Ludhiana.	2001	Yes	**Yes**
9	Shaheed Kartar Singh Sarabha Ayurvedic Medical College & Hospital, V. Sarabha, (District Ludhiana)	2002	Yes	**Yes**
10	Babe Ke Ayurvedic Medical College & Hospital, V. Daudhar (District Moga).	2002	Yes	**Yes**
11	Smt Urmila Devi Ayurvedic College of Medical Sciences & Hospital, V. Kharkan (District Hoshiarpur)	2002	Yes	**Yes**

	D. Homeopathy Colleges			
1	Lord Mahavira Homoeopathic Medical College, Hehnemann Road, Ludhiana.	1976	Yes	**Yes**
2	Sri Guru Nanak Dev Homoeopathic Medical College, Canal Road, *Ludhiana.*	1992	Yes	No
3	Homoeopathic Medical College, Abohar (District Ferozepur).	1975	Yes	No
4	Kalyan Homoeopathic Medical College & Hospital, Jandiala Raod, Tarn Taran.	1992	Yes	**Yes**
	E. Physiotherapy Colleges			
1	DAV Institute of Physiotherapy & Rehabilitation, G.T. Road, Jalandhar.	1992	Yes	**Yes**
2	College of Physiotherapy, Adesh Institute of Medical Sciences, Kotkapura Road, Mukatsar.	2000	Yes	**Yes**
3	All Saints Institute of Medical Sciences & Research, V. Jaspal Bangar (District Ludhiana).	2000	Yes	No
4	Saint Soldier College of Physiotherapy & Rehabilitation, V. Khambra (District Jalandhar).	2002	Yes	**Yes**
5	Smt. Urmila Devi College of Physiotherapy & Rehabilitation, V. Kharkan (District Hoshiarpur).	2004	Yes	**Yes**
6	Tara Institute of Physiotherapy, V. Chaheru (District Kapurthala) .	2004	Yes	**Yes**
7	Baba Kundan Institute of Physiotherapy & Rehabilitation, Gokal Road, Ludhiana.	2004	Yes	**Yes**
8	College of Physiotherapy, Adesh Institute of Medical Sciences, Barnala Road, Bathinda.	2006	No	No
9	College of Physiotherapy, Christian Medical College, Brown Road, Ludhiana.	2006	No	No
	F. Nursing Colleges			
1	College of Nursing, Christian Medical College, Brown Road, Ludhiana.	1973	Yes	No
2	Guru Nanak Mission College of Nursing, V. Dhahan Kaleran (District Nawanshahr)	1998	Yes	**Yes**
3	College of Nursing, Adesh Institute of Medical Sciences, Kotkapura Road, Muktsar.	1998	Yes	**Yes**
4	University College of Nursing, Faridkot.	2001	Yes	**Yes**
5	SV Memorial College of Nursing, Mata Kaulan Marg, Amritsar.	2001	Yes	No
6	Lala Lajpat Rai Institute of Nursing Education, Gulab Devi Hospital, Jalandhar.	2001	Yes	**Yes**
7	College of Nursing, Dayanand Medical College, Ludhiana.	2002	Yes	**Yes**
8	Mahatma Hans Raj DAV Institute of Nursing & Hospital, G.T. Road, Jalandhar.	2002	Yes	**Yes**
9	College of Nursing, Govt. Medical College, Majitha Road, Amritsar.	2003	Yes	**Yes**
10	College of Nursing, Govt. Rajindra Hospital, Patiala.	2003	Yes	**Yes**
11	Dr Shyam Lal Thapar College of Nursing, Moga.	2003	Yes	**Yes**
12	Silver Oaks College of Nursing, Sector-63, SAS Nagar.	2003	Yes	**Yes**
13	Shri Guru Ram Dass College of Nursing, Canal Colony Road, Hoshiarpur.	2004	Yes	**Yes**
14	Adarsh College of Nursing, V. Chount Kheri, (Distict Patiala).	2005	No	No
15	Guru Hergobind Rai College of Nursing, Raikot (District Ludhiana).	2005	No	No
16	Army College of Nursing, Military Hospital, Jalandhar Cantt.	2005	No	No
17	halsa College of Nursing, Amritsar.	2006	No	No
18	Malwa College of Nursing, Kotkapura (District Faridkot).	2006	No	No
19	Sri Sukhmani College of Nursing, Dera Bassi, (District Patiala).	2006	No	No
20	APS College of Nursing, V. Malsian (District Jalandhar).	2006	No	No
21	Bharat Institute of Nursing Training, V. Mudh (District Jalandhar).	2006	No	No
22	Sant Baba Bhag Singh Institute of Nursing, V. Khiala (District.	2006	No	No

23	Gian Sagar College of Nursing, V. Banur (District Patiala).	2006	No	No
24	Ambika College of Nursing, V. Badali (District SAS Nagar).	2006	No	No
25	Kartar Singh Sarabha College of Nursing, V. Sarabha (District Ludhiana).	2006	No	No
	G. Medical Lab & Technology Colleges			
1	College of Medical Lab Technology, Adesh Institute of Medical Sciences, Muktsar.	2002	Yes	**Yes**
2	College of Lab Technology, Guru Gobind Singh Medical College, Faridkot.	2006	No	No
3	College of Lab Technology, Government Medical College, Majitha Road, Amritsar.	2006	No	No
4	College of Lab. Technology, Government Medical College, Sangrur Road , Patiala.	2006	No	No

Appendix C

Questionnaire for Rural Students

Project: Professional Education in Punjab: Number, Proportion and Socio-Economic Background of Rural Students

Principal Investigator: Dr. Ranjit Singh Ghuman, Professor of Economics
Co-investigators: Dr. Sukhwinder Singh, Professor of Economics
Dr. Jaswinder Singh Brar, Reader in Economics

(Information provided by the Student will strictly be Confidential and Used for Public Policy Research Purposes)

(A) College/Institute: _____ University: _____
Name of Course/Trade: _____ Part: _____
Medium of Examination at Present: _____

(B) Student's Name: _____ Father's Name: _____

(C) Age of Student (Years): _____ Sex: M/F_____Caste: _____ Religion: _____
Social Category: Gen, SC, BC, OBC, Any other (specify): _____

(D) 1. Permanent Address:
Village: _____ P.O.: _____
Tehsil: _____ District: _____
State: _____ Tele (with STD Code): _____

2. Nearest City/Town (Name and Distance): _____
3. Location of Village: (a) On Main Road/Link Road (Tick): MR/LR
(b) Distance from Main Road (km): _____
4. Distance between Present institution and Your Village (km): _____
5. Whether Staying in Hostel or Daily Commute: _____
6. If Hostel, then Institutional Hostel/Private Hostel/Paying Guest/Rented House (Tick):

7. If Daily Commute, (a) Your Present Address, if it is different from mentioned at D(1) : _____
(b) Distance Traveled to Reach Institution from Present Residence (km):_____
(c) Mode of Traveling: Bus/Train/Personal Car/Scooter/Any other (specify): ___
(d) Traveling Expenses (Rs. Per Month):_____
(e) Total Time for Traveling (Hours): _____

(E) Under Which Category You Got Admission: Gen, SC, BC, Rural, NRI/Industry, Any Other, (specify): _____

(F) Who Guided/Motivated You to Join this Course?
Parents/Teachers/Relatives/Friends/Any other (specify) :

(G) Do You Avail of Any Fee Concession, if Yes, How Much (Rs. Per Month/Annum, specify):

_____

(H) Do You Get Any Scholarship, if Yes, Give Details:
Name of Scholarship _____
Amount (Rs. Per Month/Annum) _____

(I) Any Class Repeated by You (Due to Failure/Illness/ Left Study/Willingly Dropped) during Study (Please Tick Reason and Specify the Level of Education):

Primary/Middle/High/Plus Two/Graduation/Any Other: _____

(j) **Your Educational Attainments:**

Class	Year of Passing	Name of School/College	Marks obtained (%)	Division
Matriculation				
10+2(Arts/Com/Med/Non-Med/Voc/……..)				
Bachelor Degree: Part I				
Part II				
Part III				
Part IV				
Part V				
Any other (Specify)				

(K) **Information about Schooling of Student:**

		Primary	Middle	High	+2
1	Name and address of School				
1.1	Government or Private				
1.2	Situated in Your Village or Outside				
1.3	If Outside Village, then Location, Rural or Urban				
1.4	If Outside Village, then Distance from Your Home (in km)				
2	Stayed in Hostel, (Yes/No)				
3	Medium of Examination				
4	Medium of Instructions				
5	Affiliation (PSEB, CBSE, ICSE, any other, specify)				

(L) **Educational and Occupational Details of Family Members including Yourself**

Family Member	Age (in years)	Sex (M/F)	Education Level (in years)	Occupation	Give Details
1. Father					
2. Mother					
Other Family Members					
1.					
2.					
3.					
4.					
5.					
6.					
7.					

(M) Did Anyone of Your Family Member (mentioned at 'L') ever Got Benefits of Reservation for Getting Admission or Job (give details): _____

(N) 1. Does Your Family Own any Land, if Yes, How Many Acres? : _____
2. Does Your Family Own any Business/Shop/Factory Premises? (Specify):
_____

3. No. of Family Member in Service: (Govt.) _____ (Private) _____

(O) 1. Income from Agriculture: Rs.: _____
2. Income from Business/Shop/Factory: Rs. _____
3. Income from Other Sources (Pension/Interest/Rent/Remittance): Rs. ____
4. Total Income of Family from All Sources: Rs. Per Annum _____

(P) Whether Doing Any Part-/Full-Time Work to Finance Your Study: Yes/No
If Yes, How Much You Earn (Annually): Rs. _____

(Q) Who Finances Your Study Expenditure: Parents/Any Other (specify): ____

(R) Are You Availing of Study Loan: Yes/No,
If Yes, Mention Loan Amount (Total/Yearly): Rs _____
Source of Loan (specify): _____

(S) Your Expenditure on Present Course of Education: (Rs.):
1. Fee and Funds (Per Annum): _____
2. Hostel Fee and Funds (Per Annum): _____
3. Mess Bill (Per Month): _____
4. Books/Stationery/Photocopy (Per Annum): _____
5. Telephone/Mobile Bill (Per Month): _____
6. Canteen Bill (Per Month): _____
7. Cloths and Garments (Per Annum): _____
8. Others (specify): _____

Thanks