SELF-FINANCED HIGHER EDUCATION AN ECONOMIC ANALYSIS

By

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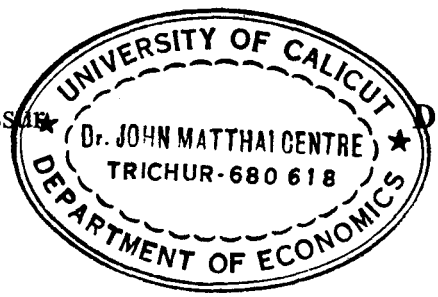
CERTIFICATE

Certified that this written account **SELF-FINANCED HIGHER EDUCATION, AN ECONOMIC ANALYSIS** by **SIVASANKARAN P.**, as the final thesis in connection with Ph.D. in Economics is a bonafide work done by the candidate under my supervision. No part of this has been submitted earlier for any other purpose.



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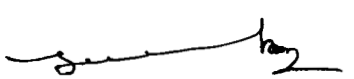
DECLARATION

I, Sivasankaran P., do hereby declare that this written account titled **SELF-FINANCED HIGHER EDUCATION, AN ECONOMIC ANALYSIS** is a bonafide record of research work done by me under the guidance of **Dr. KUTTIKRISHNAN NAMBIAR A.C.**, Professor of the Department of Economics, University of Calicut. I also declare that this has not been submitted by me fully or partially for the award of any degree, diploma, title or recognition before.



SIVASANKARAN P.

Dedicated to the Memory of
My Father
K. Prabhakara Menon

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Dr. John Mathai Centre
Aranattukara

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CHAPTER I

INTRODUCTION

Ever since the dawn of human civilization, philosophers and thinkers have emphasised the need for proper education of children as it is an important instrument, for unfolding their innate potentialities and thereby developing them suitably for their well being and all round development of their personality.

Education moulds the individual by its processes and makes him resourceful, socially and economically useful. It is said that, by nature man is animal and by culture he becomes man. Education makes a man cultured and civilized. Education is a powerful torch, that enlightens the dark abysses of ignorance in man, by its deep penetrating rays of light. According to the vedic concept "Education is one that liberates man from all bondages of life". Thus the vitality of education has been recognised for the progress of mankind in various fields of his existence.

From time to time different philosophers and thinkers have defined education in different ways, in accordance with their insight and wisdom.

According to Vivekananda "Education is the manifestation of all perfection in man".[1]

For Mahatma Gandhi "Real Education has to draw out the best from boys and girls to be educated. This can never be done by packing all assorted and unwanted information into the heads of the pupils. It becomes a dead weight crushing all originality in them and turning them into mere automato".[2]

Pramod Singh (2000) views "Education is a process that informs and transforms man and society in accordance with some preconceived values and ideals, and man, the social being, is the product of education."[3]

In his article on education published in Encyclopaedia Britannica James Mill defines "Education as a practice of imparting knowledge which acts as an instrument of happiness first to himself and next to other beings".[4]

Thus from the above definitions it emerges that education is important from a social and economic perspective.

Education and Economic Development

It is generally recognised that education has a vital role in economic development of communities and nations. Development of education benefits individuals, communities as well as the nation as a whole. At the level of the individual, education is the critical input in the capability enhancement. As shown by the studies on the rates of

return on education expenditure, the individual's life opportunities and earning profile undergo a substantial change with education.

Education is a pre-requisite for progress and development. In the order of priorities, education has been accorded a high priority as an integral part of the country's development process. Recognising the economic significance of education and the difficulties involved in the allocation of plan resources to this sector, the Planning Commission of India has observed that the system of education has a determining influence on the role of which the economic progress is achieved and the benefits which can be derived from it. Economic development naturally makes growing demands for human resources and in a democratic set up it calls for values and attitudes in the building of which the quality of education is an important element. The socialistic pattern of society assumes widespread participation of the people in all activities and constructive leadership at various level. In a period of intensive development, however, resources have to be allocated for education and the targets to be achieved are among the difficult issues which have to be faced in drawing up a plan for economic and social development. The Planning Commission amply reveals the overwhelming significance of education in the process of socio-economic development of the country.

An educated, skilled and disciplined labour force is vital for economic development of the nation as a whole. Education widens the horizon of knowledge and skill formation in the country. It, therefore, enhances the efficiency and productivity of the workforce and their capability to assimilate technical innovations, and contributes to technical progress, paving the way for desired development of human resources.

While there is widespread interest in education as a means of furthering economic development, there has been remarkable exploration into various channels through which education would promote economic development. Education may influence economic development through changing the attributes relevant to economic development or it may influence economic development in its capacity as a relevant economic input. Education may alter the attitudes to work, consumption preferences, savings propensities, innovativeness, attitude towards family size and various other social attitudes appropriate from the economic point of view. Education is also considered as a process of skill formation and in this aspect it is treated at par with the process of capital formation.

Education as an Equaliser

Education not only yields a huge set of benefits to the individuals and the society in the form of a larger set of externalities, but

it is also regarded as a great equaliser - improving income distributions and reducing poverty and inequality. It is a universally recognised fact that levels of individual earnings are well related to their educational levels of attainment. The higher educated individuals generally receive a higher amount of income or earnings than those of the less educated or illiterates because of their superior productive skill and knowledge that they have acquired through education. Thus it is plausible to visualise education as an important instrument to bring about reduction in inequalities of income. Education acts as an equaliser of income distribution as a result of promoting education among population. Higher economic status of certain groups of population is seen, partly due to a function of the degree of their participation in the utilisation of educational opportunities.

In India the differences in the educational attainments of the different income and social groups are substantial. Inspite of the various efforts made by the Government to increase the educational opportunities to the backward classes, they still continue to be educationally backward. Education, when it is distributed equally among different socio-economic groups, eliminates or atleast reduces the inequalities in the distribution of income and wealth.

Education as a catalyst of social change

No doubt, education helps for upward social mobility of individuals. Education plays such a vital function in the social mobility of hitherto backward and downtrodden sections of the people as well. It is observed that social reform movements within communities which are backward or disadvantaged in terms of caste, class, gender occupations and economic strength generate a higher demand for education. This is because these sections have recognised the value of education as an investment for the betterment of their economic conditions and social upheaval.

There are three paradigms of social development viz the Modernisation Theory, the Marxist Theory and the Dependence Theory. All these theories stress economic development by social transition through education.

The Modernisation theory is influenced by the western capitalist world, where modernisation is equivalent to westernisation and hence development would mean following the path traversed by the developed countries of western Europe, North America or Japan. To achieve this, education stands as a catalyst of social change and economic development.

The Marxian Society evolves and progresses by stages, from a primitive stage through slavery, feudalism, capitalism and socialism and

finally to a visionary kind of communism. This is the result of qualitative transformation due to conflicts within the society and changes in the method of production. This transition is inevitable in the process of development. Hence the Marxian theory sees mass literacy and ideological consciousness as the essential components which conscientize the working class of its exploited situation.

The dependence theory is based on the orthodox Marxist Leninist perspective on development. According to this, development and underdevelopment are the two sides of the same coin; the development of a region or a society is clearly linked to the underdevelopment of another region or an outside society. Hence the exploitative relationships that exist between nations and classes have to undergo qualitative changes. And for this, structural changes are required in the socio-political-economic set up within the nations and between the nations. In the socio-political-economic se tup, structural change is possible only through proper education.

Historical version of the significance of education

It is found that Economists have long since recognised that 'investment in man' is as much necessary for economic growth as 'investment in machine'. The perception of a link between human resource development and economic growth is by no means novel in the literature on economic and social development. Economists have recognised the importance of investment in human capital as both in the

individual and social point of views from the time of mercantalists onwards. These mercantalists had some sort of appreciation in the idea of investment in man for which they laid great stress on the importance of 'art and ingenuity' or skilled manpower as a key to growth in national wealth.

Adam Smith has recognised education "as the acquired and useful abilities of all inhabitants or members of the society."[5] Emphasising the importance of education as national investment, Alfred Marshall expressed the view that "the most valuable of all capital is that invested in human beings".[6]

In the words of Bowman M.J. (1972) "Malthus does indeed bring education back into the economics of growth, but walking backward as it were, education would contribute to population control and hence raise or maintain national income by reducing the number of labour force".[7]

Kalirajan, K.P. (1989) remarked: "Both Adam Smith and Malthus were concerned with education for the betterment of man, and not for the creation of human resources. However with the introduction of Schumpeterian theory of economic development, the importance of human capital has received its due recognition among development economists, especially among the agricultural economists".[8] The level of contribution of human capital for a given level of farm is defined as

ratio of actual production to the corresponding potential production, if the farm made use of its human capacity fully.[9]

According to Blaug (1970) "Economics of education is relatively a recent branch of study. It really forms a part of new approach to investment in human resources. The entire new approach owes much to the conceptual work done by T.W. Schultz, Garry Becker and Edward Dension. The report of T.W. Schultz, Garry Becker and Edward Dension. on human capital, state that, as anything that yields a stream of income overtime and income as the product of capital".[10]

Schultz (1988) argues that increasing return to total factor productivity is due to investment in specialised human capital and this kind of human capital checks the general pattern of diminishing returns.[11]

Nalla Gounden. A.M. (1969) in his study on "Rate of Returns to Education, Issues in Empirical Analyses" expressed that in India the level of education is positively correlated with personal earnings and earning profiles of higher educated persons lie above those persons with lower level of education.[12]

The Report of the Education Commission (1966) stated that "in a world based on science and technology, education determines the level of prosperity, welfare and security of the people. Their quality and number will determine the success in the great enterprise of national

reconstruction whose principal objective is to raise the standard of living of our people".[13]

National Policy on Education (1986) gave stress on the twin dimensions of education, namely removal of disparities and equalisation of educational opportunities. At the same time, it emphasised the fact that unless the University system is reformed to become a centre dedicated to technical pursuit of excellence, higher education through the University system, as being currently practised has very little to offer to the society.[14]

World Bank's (1993) recent study on Economic Growth and Public Policy in East Asia, highlights the pivotal role of education in East Asian miracle.[15] Human Capital is critical in industrial development particularly in resource scarce countries and for their entry into take off stage of economic growth.

The World Bank study showed that there were four reasons for the success of the East Asian countries: a) reliance on markets for economic decisions. b) greater openness in the external sector, c) investment in man, i.e. higher per capita expenditure on health and education, and d) a guiding role of the state. The policy prescription of the study advocates a similar package for developing countries such as India.

NEED AND SIGNIFICANCE OF THE STUDY

The experience of the last 50 years has brought to sharp focus the growing unsustainability of public financing of education in general, and higher education in particular. Several studies have shown that the private rate of return on higher education is much higher than the social rate of return.[16] Tilak. J.B.G. (1997) views that "higher education is bound to get a substantial long term benefits from education and hence it is only a matter of justice that he/she should bear part of the cost of education. The absence of such a contribution points to the regressive nature of public financing of education,[17] as the majority of students in higher education are from relatively affluent sections of the society."[18] While the rich contribute to less than 15% of the tax revenue of the Government via direct taxes, public financing effectively transfers resources from the poor to the rich. From the point of view of economic efficiency as well as social justice it is imperative that this bias is reversed. It is noticed that in spite of the rapid strides achieved in literacy etc. the nation still contains as many illiterates today as it had been 50 years back. It is a clear fact that the growing need for professional courses and technical education increases the burden on the part of the government to meet this demand and hence the principle of the beneficiary paying for the benefit have to be implemented.

Indeed, since the introduction of the Structural Adjustment And Stabilisation Policies (SAAP) which ushered in the era of liberalisation and globalisation, the withdrawal of the state from several areas which were previously its exclusive domain is becoming a reality. A direct consequence of SAAP is the exclusive focus on fiscal deficit (indicating the size of state's intervention in the economic sphere) as the major policy variable. In a large number of countries adopting SAAP there is ample evidence to show that pruning of the social sector expenditure has been the way in which the fiscal deficit was brought under control. The experience of India since 1991 has not been different. Faced with the growing volume of subsidies, interest payments and defence expenditure and the mounting pressure to reduce its deficit, the State in the era of liberalisation has increasingly been forced to privatise many of its erstwhile domains. The search for alternatives to public financing of education in turn give rise to the idea of private or 'self financing of higher education whereby an institution is made increasingly to rely upon its 'own' resources in the form of fees, donation, endowments etc., rather than aid from the government. This method of financing was seen as a more sustainable and equitable method when compared to public financing of education.

Till recently, in almost all states of India education upto secondary school level has been free for the children and all financial burden, for the maintenance and payment of salary and other allowances

to the teachers and establishment staff has been on the Government. Owing to the ever increasing burden there has been change in shifting the burden on private sector. Private sector is now permitted to start unaided schools, as self financed schools with out any financial burden to the Government.

In the case of higher education, consequent on direct payment of salary and allowances, by some states in India, to the teaching and other staff members in colleges and also on the implementation of U.G.C. scales of pay to teachers, it has become increasingly difficult for the Government even to maintain or to improve the existing system. The state of Kerala is an excellent example to this critical situation. The Government agencies have been thus trying to seek alternatives by which the problems facing higher education both technical and professional can be solved without affecting progress in this field. Thus the new trend is to privatise higher education both technical and professional as far as possible and as a consequence 'self financed' institutions have become the order of the day since 1990.

It is a commonly known fact that higher education under public sector has been proved to be very costly to the Government and that the quality of education imparted has become of inferior in recent times. There is an increasing trend for privatization of many of the productive enterprises. Even though education under self-financed institutions is

costly for the students, they are provided with quality and higher standard technical education through a number of self-financed institutions of par excellence. Education has become essentially job and economic oriented rather than knowledge oriented. Hence to analyse the problems of self financed institutions and their usefulness in the economic and academic realms, the Investigator has made an earnest effort in this study. The investigator has attempted to study the pattern of resource mobilisation and the availability of infrastructure facilities and their commercial consideration including social obligation and quality of education provided by self financed institutions. There has been very little attempts to study the significance of courses and the functioning of self financing category or self financed courses. The investigator in his study has made an earnest attempt to analyse the various aspects of self financed institution under the Bharathiyar University. The study has been confined to the institutions, conducting B.E., B.Tech., M.C.A and M.B.A. courses, these courses are widely recognized as highly job oriented and hence popular.

MAJOR OBJECTIVES OF THE STUDY

1. To study the structure and growth of self-financed higher educational institutions.

2. To examine the economic viability of self-financed institutions.

3. To analyse the quality of education in self financed institutions.

4. To study the socio-economic background of the students and the costs and the benefits of self financed education.

HYPOTHESIS

1. The self financed higher educational institutions are economically viable.

2. Though the terms and conditions of the employment of teachers in self-financed higher educational institutions are not satisfactory, their performance is remarkably high.

3. The students seeking admission in self financed higher educational institutions, mainly represent the socially and economically forward sections of the society.

4. The benefits derived by the students undergoing self financed higher educational institutions are justifiable to their costs.

METHODOLOGY

The methodology adopted in the present study is explained in terms of area covered, sample size, data collection, tools of analysis and methods of analysis.

Area covered

Indian education system has witnessed tremendous changes as a result of Structural Adjustment and Stabilisation Policies of the

Government. The most prominent outcomes of such policy is the growth of self-financed educational institutions in different parts of India. Tamil Nadu has made considerable progress in self financed education in the past decade. Among the southern states Tamil Nadu is a progressive state in the field of self financed education. Hence Tamil Nadu is selected for the purpose of present study. In Tamil Nadu, the Bharathiar University has made tremendous progress in self financed education and hence the sample for the present study comprises self financed institutions and its beneficiaries under the jurisdiction of the Bharathiar University.

Self financed institutions offer a variety of courses depending upon the financial viability and the need of beneficiaries Among the courses B.E. and B.Tech are popular in the Engineering disciplines and MBA and MCA in the Arts and Science discipline. Thus to study the viability from students pint of view, the most popular courses such as B.E. and B.Tech., M.B.A and M.C.A are considered. In order to study viability from institutions point of view all courses are considered. This is because the proportion of the level of investment to run the courses like B.E. and B.Tech., M.B.A and M.C.A cannot be ascertained separately.

Sample Size

The samples selected for the present study are from (1) Institutions (2) Teaching staff and (3) Students.

There were 90 colleges affiliated to the Bharathiar University as on 2001, out of this 61 colleges are self financed or unaided institutions. In the Arts and Science category 33 institutions conduct M.B.A and M.C.A courses simultaneously. Of these, 18 institutions are in the rural area and 15 institutions are in the urban area. The sample size of Arts and Science institutions for the present analysis comprises of three institutions each from rural and urban areas. These institutions were selected at random. In the Engineering category three institutions conduct BE and B.Tech. courses simultaneously. Of these two institutions belong to rural area and one institution belongs to urban area. The entire units were taken for the purpose of the present study.

The teaching strength of the nine institution selected for the study is 396. Out of which 238 belonged to the Arts and Science category and 158 in the Engineering category. Among the teachers of Arts and Science institutions 110 are employed in the rural area and 128 are employed in the urban area. List of the teachers were collected coursewise from the sample colleges and 8 teachers were selected from each Arts discipline at random separately from rural and urban institutions.

Total strength of teachers selected in the Engineering category is 158. Out of this, 80 teachers are working in the rural institutions and 78 teachers are working in the urban institutions. From the list of the teachers, 30 teachers from rural and 30 teachers from urban institutions were selected randomly.

Five batches of students commencing from 1992 were taken for the purpose of the analysis from students perspective. The pass out year of the students vary depending upon the duration of the course. The duration of the course for M.B.A, M.C.A, B.E./B.Tech is 2, 3 and 4 years respectively.

The total number of students who have passed out M.B.A course from the sample colleges between 1994-98 was 1500. Out of this 720 students belonged to rural institutions and 780 students belonged to urban to institutions. The total number of students who have passed out M.C.A. course between 1995-99 was 1200. Out of this, 620 students represent rural institutions and 580 students represent urban institutions. Addresses of the students were collected from the institutions batchwise and 36 students were drawn randomly with a minimum of 7 students from each batch separately from rural and urban colleges. Thus altogether there were 144 sample students from the Arts and Science Discipline.

Students selected for the purpose of the study from BE and B.Tech courses represent those opted for Electronics, Chemical and Textile Technology branches of study. The total number of students who have passed out B.E. courses between1996-2000 was 600. Out of this, 310 students have passed out from urban institutions and 290 students have passed out from rural institutions. From the list of the students 28 students were selected at random from both areas.

The total number of students who have passed out B.Tech course between 1996-2000 was 540. Out of this, 280 students belonged to rural institutions and 260 students have passed out from urban institutions. From the list of the students 28 students were selected randomly as sample from rural and urban institutions.

Collection of Data

The data for the purpose of analysis were obtained from primary and secondary sources. The primary data were collected through structured questionnaire designed separately for self financed institutions, teaching staff and students. Copies of the questionnaires are given in the appendix. The questionnaires used for the study was tested during the pilot survey.

The secondary data for the analysis comprises publication of Bharathiar University, books, journals, websites and soforth.

Tools of Analysis

Few statistical tools were employed for the purpose of the analysis. The statistical tools include: Arithmetic mean, Standard deviation, Correlation analysis, Regression analysis, Testing of Significance and ANOVA. The financial management tools adopted include Break Even Analysis, Cost Benefit Analysis and Return on Investment.

Method of Analysis

Inorder to assess the financial viability of self financed institutions cost and revenue and surplus of institutions were worked out and compared with. Costs consists of fixed and variable components. Fixed cost remains fixed in the short run regardless of number of students and vary in the long run. Variable cost on the other hand vary directly with number of students. Salary of teaching staff, salary of non teaching staff, depreciation, etc. are regarded as fixed cost. The salary of the temporary teaching staff even though variable in nature is not separated from the total salary expenses as their size was low and hence accounted insignificantly in the total salary bill. The surplus or deficit is arrived at by comparing total revenue with total cost . It is then compared with total investment to arrive at rate of return on investment As government is not involved in the conduct of self-financed institutions public cost is not considered.

Apart from the Return on Investment method the Break Even Analysis was attempted to show the financial viability of self financed institutions area wise and discipline wise. Inorder to find out break even point it is assumed that fees and number of students remain constant irrespective of the period. The methodology of Break Even Analysis is explained below.

(a) Variable and fixed costs are ascertained.

(b) Contribution is computed by subtracting variable costs from revenue.

(c) The ratio of contribution is ascertained by applying the formula

$$\text{Contribution ratio} = \frac{\text{Contribution}}{\text{Sales}} \times 100$$

(d) The Break Even point is equal to

$$\frac{\text{Fixed Cost}}{\text{Contribution ratio}}$$

An analysis of Private cost and benefit of self financed higher education was also done. The private cost of education is that part of investment in education which is made either by the students or by parents or by both. The question of inclusion of opportunity cost of

education that is the foregone earnings of the students during the period of study has been subjected to differences of opinions among economists. The economists like Bowman[19] (1970), Blaug[20] (1972), Tilak[21] (1983) argued for the inclusion of foregone earnings of the students but Vaizly[22] (1973), Nalla Gounden[23] (1967) favour exclusion of the forgone cost. Nalla Gounden has not included the earnings forgone by the students in his study as there is considerable gap between the completion of the course and securing job. In the context of wide spread unemployment in our country the opportunity cost of students who complete plus two courses is insignificant and hence not considered for the purpose of present analysis.

In order to find out the cost-benefit analysis of candidates with M.B.A, M.C.A, B.E and B.Tech degree, we took five passed out batches of students of various self financing institutions in the chosen courses commencing from 1992. Since the duration of the courses are different, the five different batches complete their courses in different years, such as 1994, 95,96, 97 98 in the case of M.B.A (2 year course). M.C.A (3 year course) candidates complete their courses in 1995, 96, 97, 98, 99. Whereas B.E and B.Tech (4 years courses) candidates complete their courses by 1996, 97,98,99 and 2000. Initially we have worked out the average cost for each of the 5 batches of students. From this we worked out the average cost per batch of a course of study. This forms the basis of cost in the cost benefit analysis.

Comparison between these four categories of skills are made by taking the average income of the five batches by assuming that passed out students from each batch get employed within one year after the completion of the course. The time lag between the completion of the course and generation of income is found marginal and hence it is ignored for the present analysis. While calculating the average cost and income the effect of price level changes was not taken in to account because of the compensating nature of it impact. The revenue streams of the passed out batch of studied were taken as follows.

a) M.B.A - 1994,95,96,97,98 and 1999

b) M.C.A - 1995,96,97,98 and 1999

c) B.tech - 1996,97,98, 99and 2000.

Initially we have worked out at the average income for each of the 5 batches of students and from this we have computed the average income per batch of a course of study. This forms the basis of benefit in the cost benefit analysis.

Average income of the five passed out batches of students thus arrived at is assumed to be constant for 9 years. Nine years is considered here because some major studies (Nalla Gounden 1967, Psachara Poulos, 1969,[24] Blaug, 1971) show that rate of return on higher level of education is approximately 11 percent. A period of nine years is taken as optimum period for the pay back of the cost incurred by the

students along with reasonable income from employment . The discounted rate of benefit is 11 percentage the rate being the average rate of educational loan, offered by commercial banks.

We then compared the average private cost of students of five batches with discounted value of their average income. The Benefit cost ratio worked out accordingly was used to study the benefit accruing to a student on a regional and discipline wise perspective.

PLAN OF THE THESIS

The book is divided into nine chapters. The introductory chapter highlights the definition of education, importance of education, historical version of the significance of education, need and significance of the study, major objectives of the study, hypothesis, methodology of the study, plan of the thesis and scope and limitation.

The second chapter deals with an overview of higher education in India.

A brief review of the available important literature on cost and returns of higher education, equity aspect of self financed higher education etc. are attempted in chapter III.

Fourth chapter examines a profile of self financed higher education which consists of general profile, investment profile and financing profile.

Financial viability from the point of view of self financed institutions, is discussed in chapter V which contains cost, revenue and profitability of self financed higher education.

Chapter VI presents the conditions of teachers in self financed institutions – a profile which includes general profile of the teachers, incentives of teachers and the working conditions of teachers.

Socio, economic, educational profile of the students is examined in chapter VII. Cost-Benefit analysis from the student's point of view is analysed in chapter VIII and the final chapter contains the main findings and conclusions.

SCOPE AND LIMITATIONS

The purpose of the study is to identify the problems, the usefulness and economic viability of self financed institutions conducting technical courses such as B.E., B.Tech., M.C.A. and also M.B.A.

The following are the limitations of the study.

(a) The study is confined only to the courses of B.E., B.Tech., M.C.A. and M.B.A.

(b) The study is limited to self financed institutions affiliated to Bharathiar University.

(c) As the area is one coming under Bharathiar University, the investigator had to rely wholly on the facts revealed by the institutions.

Notes

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CHAPTER II

DEVELOPMENT OF HIGHER EDUCATION IN INDIA – AN OVERVIEW

Though traditionally economic development was considered as an outcome of the productive factors like land, labour and capital, human factor acquired immense importance only in modern times. It is found that a considerable part of the increase in GNP is due to the heavy investment in human resources. Article 45 of the constitution of India provides for free and compulsory education to all children up to the age of 14, here education means general education. Time passed. Scientific and technological developments have acquired unprecedented advancement by leap and bounds. As a result of the above, educational scenario has been changed very much, since 1950. So also the old concept of education for mere knowledge has lost its relevance, rather education has become an investment as in the case of other economic fields.

Prior to Independence, under the British regime education was imparted to the Indians with a view to making them fit to support the administration of the colonial rule. Since independence it was the bounden duty of the Government to make large portion of the population literate and also capable of undertaking new challenges in

the nefarious economic and other activities. Scientific education has got importance in the Independent India rather than creating mere literates.

Growth Rate

In 1947 out of the total population of 40 millions in the age group 6 to 11, only 14.11 million, that is 35 percent, has attended classes I to V.[1] The number of secondary schools was only 5297 and enrolment in schools was only 3.87 percent of the population, below the age of 14.[2] There were in 1947 19 universities and 297 Arts and Science Colleges with an enrolment of .21 million students and 140 professional and technical colleges with an enrolment of .04 million students.[3] Only 17 percent of the people in the country was made literate, the total expenditure on education in 1947 was Rs.576.6 million, that is, Rs.1.94 per head of which the Government contribution was only Rs.0.69.[4] The above statistics explains the educational backwardness of India in the pre independence period.

Since the independence in 1966 planning commission has laid down certain suggestions to improve over all educational performance of the country. The Report of the planning commission (1966) contained the following recommendations.

1. Reorientation of the educational system, and integration of different stages and branches.

2. Expansion of various fields especially those of basic and social education, remodeling of secondary education and technical and vocational education.
3. Consolidation of the existing secondary and university education and devising a system of higher education suited to the needs of rural area.
4. Expansion of facilities for women's education especially in rural areas.
5. Training of teachers especially women teachers and teachers of basic schools and improvement of their pay scales and conditions of service.
6. Helping backward states by giving preferential treatment in the matter of grants.

The above recommendations have provided a broad guideline for the educational activities undertaken since Independence.

The Independent India has had to undertake the heavy burden of promoting the nations from the low level of its educational, economic, political and cultural backwardness. The huge investment made for the educational sector in the various five year plans hitherto implemented were earmarked. The following are the budgetary outlay on education under different five year plans.

Table 2.1

Pattern of resource allocation for education in the five year plans in India (centre and state)

Level of Education	First plan (1951 - 56)	Second plan (1957 - 62)	Third plan (1963 - 68)	Plan Holiday 196,8.69	Fourth plan (1970 - 75)	Fifth plan (1976 – 81)	Sixth plan (1982 – 87)	Seventh plan (1987 - 92)	Eighth plan 1992-97
Elementary Education	56 (850)	35 (950)	34 (2,010)	24 (750)	30 (2,390)	35 (3,170)	33 (8,360)	37 (28,490)	47 (92,010)
Secondary Education	13 (200)	19 (510)	18 (1,030)	16 (530)	18 (1,400)	17 (1,560)	21 (5,300)	24 (18,320)	18 (34,980)
Adult Education	-	-	-	-	-	-	9 (2,240)	6 (4,700)	9 (18,480)
Higher Education	9 (140)	18 (480)	15 (870)	24 (770)	25 (1,950)	22 (2,050)	22 (5,590)	16 (12,010)	8 (15,160)
Others	9 (140)	10 (300)	12 (730)	11 (370)	14 (1,060)	14 (1,270)	4 (1,080)	3 (1,980)	4 (7,510)
Technical Education	13 (200)	18 (490)	21 (1250)	25 (810)	13 (1,060)	12 (1070)	11 (2,730)	14 (10,830)	14 (27,860)
Total	100 (1,530)	100 (2,730)	100 (5,890)	100 (3,230)	100 (7,860)	100 (9,120)	100 (25,300)	100 (76,330)	100 (196,000)

Source: Ramamurthy, 1990, Page No.168.
Note: Figures in bracket are in Rs. million
Figures are in percentages.

From the above table we get an idea of the mode and pattern of expenditure on various levels of education incurred by the centre and state governments during the plan period. The expenditure seems to be increasingly spent on elementary education in 1951-56 to 1992-97. The amounts spent during the first plan period on elementary education was Rs. 850 million and it increased to Rs. 92,010 millions during the 8th plan period (1992-97), whereas expenditure on higher education has increased from Rs.140 million during the 1st plan period to Rs.15,160 million during the 8th plan period. The amounts spent on higher education during the above periods were 9 percent and 8 percent

respectively of the total expenditure on education. The expenditure on technical education marked Rs. 200 million (13 percent) during 1951-56 and it is increased to Rs. 27,860 million (14 percent) during the 8th plan. The total expenditure on education has increased from Rs.1530 millions during 1st plan period to 1.96 lakh million during the 8th plan period. In higher and technical education where substantial capital investment is required, the Government expenditure seems to be quite inadequate while there is ostensible demand for heavy capital input.

Institutional Development

There has been considerable progress in the growth of higher education in India since 1950-51 (the inception of first year plan). The growth profile in terms of institutions, colleges, universities etc. are given under Table 2.2.

Table 2.2

GROWTH OF EDUCATIONAL INSTITUTIONS

Year	Primary	Upper primary	High/Hr secimer pre Jr colleges	Colleges for general education	Colleges for professional education	Universities
1950-54	209671	13598	7416	370	208	27
1955-56	278135	21730	10838	466	218	31
1960-61	330399	49663	17329	967	452	45
1965-66	391064	75798	27614	1536	670	64
1970-71	408378	90621	37051	2285	802	82
1975-76	454270	106571	43054	2667	3276+	101
1980-81	494503	118555	51573	3421	3542+	110
1985-86	528872	134848	65837	4067	1533+	126
1990-91	560935	151458	79796	4862	882	184
1991-92	566744	155926	82576	5058	950	196
1992-93	572541	153921	84076	5334	989	207
1993-94	572923	155707	84811	5639	1125	213
1994-95	581305	163605	92252	6089	1230	219
1995-96	590421	171216	98134	6569	1354	226
1996-97	598354	176772	102183	6759	1770	228
1997-98	610763	185506	107100	7199	2075	229

Source: University Development in India (1999).
+ including Physical education, Music, Agriculture, veterinary etc.

The growth of educational institutions since 1950-54 to 1997-98 as evidenced by the table above is a clear picture of the progress that has been achieved in this field. The number of colleges for general education was 370 in 1950-54 where as it touched the tune of 7199 in 1997-98. The professional colleges, present in the country were only 208 during 1950-54 where as the number rose to 2075 in 1997-98.

There were only 27 universities in our country in 1950-54 but it increased to 229 in 1997-98. Though the growth rate of professional institutions has marked very high they were found inadequate to cope up with the increasing requirements of professionally qualified individuals. Hence it is found necessary to develop the higher education with the participation of the private section. This would brighten the prospect of the education labour force of our country by providing gainful employment in the field of global service marketing.

It would be advisable to compare the educational outlay of some of the developed nations in this connection. It has been noticed that even after 50 years of Independence only 3.8 percent of GDP had been utilised on education but Education Commission (1968) insisted that a minimum of 6 percent GDP may be spent in the field of the Education.[5]

In countries like USA and UK the expenditure on education was 5.5 percent and 5.4 percent respectively during 1999-2000.[6] The corresponding figures were 5.3 percent of the GDP of Malasia and 4.5 percent of GDP in South Korea.[7] This also shows that the field of education especially higher education calls for heavy capital investment to bring forth technical excellence and to increase the number of professionally qualified persons to be engaged in the process of national development. Nevertheless India lacks potential in employment

opportunities in the field of industry and commerce where substantial capital investment is warranted.

Growth of Enrolment

Growth of enrolment of male and female students in higher education sector from 1950 onwards is given under Table 2.3.

The growth of enrolment of students in higher education requires an overview of the number of male and female students enrolled in various years. The reports of the UGC pertaining to the years 1994-95, 1995-96, 1996-97 are consolidated in the table 2.3.

Table 2.3

THE GROWTH OF ENROLMENT IN HIGHER EDUCATIONAL LEVEL FROM 1950 TO 1997

Year	Male	Female	Total
1950-51	353459	43126	396585
1960-61	879490	170455	1049945
1970-71	2345742	655822	3001564
1980-81	1968734	738589	2707323
1991-92	3579960	1685926	5265886
1992-93	3723851	1811115	5534966
1993-94	3885922	1931327	5817249
1994-95	4048947	2064982	6113929
1995-96	4234986	2191138	6426124
1996-97	4452294	2303161	6755455
Compound Annual Growth rate (%)	7.08%	11.35%	7.96%

Source: Consolidated report of UGC in 1994-95, 1995-96, 1996-97.

It is seen from the table 2.3 that between 1950-51 and 1996-97 the total enrolment of students increased by a compound annual growth rate of 7.96 percent. The enrolment of male increased by 7.08 percent but the female enrolment increased by 11.35 percent. Female enrolment to total enrolment was increasing from 10.9 percent to 34.14 percent during the period where as the male enrolment to total enrolment declined from 89.1 percent to 65.86 percent. It may be due to the increased awareness among the public to the necessity of women education, formerly almost neglected. However the number of women population is almost less than half of the men being enrolled in higher education.

It is useful to have an overview of the expenditure pattern on higher education during the period 1950-51 to 1995-96. The table 2.4 depicts expenditure on higher education and its growth rate during the plan period.

Table 2.4

EXPENDITURE ON HIGHER EDUCATION

(Rs. In million)

Year	Total	Expenditure as % of GDP
1950-51	171.5	.19
1955-56	283.8	.29
1960-61	544.7	.39
1965-66	1269.6	.58
1970-71	2791.2	.77
1975-76	4673.8	.70
1980-81	10792	.98
1983-84	16533	.89
1990-91	36720	1.10
1995-96	63085	1.32

Source: UGC Report of 1998.

The public expenditure on higher education grew from Rs. 171.5 million in 1950-51 to Rs. 63085 millions in 1995-96. The expenditure on higher education as a percentage of GDP rose from 0.19 percent in 1950-51 to 1.32 percent in 1995-96. The expenditure on higher education as percentage of GDP has been increasing in absolute terms.

Consequent on the establishment of UGC there has been considerable improvement in the field of higher education. However the progress in the field of technical education found to be quite inadequate in relation to the requirement for nation building and development.

This has prompted the Government to launch a liberalised pattern of investment as early as 1980 for the development of human resources.

The total expenditure of central and state government on education during 1980-81 to 1995-96 are given in table 2.5.

Table 2.5

EXPENDITURE ON EDUCATION (at current prices Rs. Million)

Year	Centre	State	Total
1980-81	2291 (6.8)	31461 (93.2)	33755
1985-86	5553 (7.4)	69805 (92.6)	75359
1990-91	16507 (9.6)	155632 (90.4)	172139
1995-96	35945 (11.1)	287388 (88.9)	323333

(Figures in bracket are percentage shares)
Source: Analysis of budgected expenditure on Education (various years).
UGC Report 1998.

In India, Centre and State Governments are responsible for educational development, as education comes under the concurrent list of administration. The table shows that the central Government share of total expenditure increased to 11.1 percent during 1995-96 where it was only 6.8 percent in 1980-81. Share of the state Government was reduced from 93.2 percent to 88.9 between 1980-81 to 1995-96.

Table 2.6 shows the plan and non plan revenue expenditure on education (State and Centre) during 1980-81 to 1995-96.

Table 2.6

PLAN AND NON PLAN REVENUE EXPENDITURE ON EDUCATION

(at current prices Rs. Million)

Year	Plan expenditure			Non plan expenditure			Total expenditure		
	Centre	State	Total	Centre	State	Total	Centre	State	Total
80-81	750 (26.0)	2152 (74.0)	2902 (100.0)	1493 (5.0)	29048 (95.0)	30541 (100.0)	2243 (7)	31200 (93)	33443 (100)
85-86	2505 (29.0)	6126 (71.0)	8631 (100.0)	2901 (4.0)	62933 (96)	65834 (100.0)	5406 (7)	69059 (93)	74465 (100)
90-91	8887 (39.0)	14127 (61.0)	23014 (100.0)	7343 (5.0)	139625 (95)	146968 (100.0)	16230 (10)	153752 (90)	169982 (100)
95-96	25140 (41.0)	36027 (59.0)	61167 (100.0)	10490 (4.0)	249074 (96)	259564 (100.0)	35630 (11)	285101 (89)	320731 (100)

Figures in bracket are percentages
Source: Analysis of the budgected expenditure on education (various years)
UGC Report 1998

From the table above it is noted that the bulk of the educational expenditure comes under non plan expenditure of the state government. During 1995-96, 4 percentage of the central expenditure was from non plan budget provisions and 41 percent was from plan provision. Since a major portion of the expenditure on education is spent by the respective State governments by way of non plan expenditures; that is, for the maintenance and functioning of already existing educational institutions, the development activities cannot be undertaken from the State funds due to heavy financial burden to support of the existing system. Every state has to rely on the central government for the development of the existing system but the Centres fund allocation under plan expenditure

for improving and developing educational activities seem to be inadequate.

Inter country comparison:- It is pertinent to know whether there exists any optimal size of expenditure on higher educational sector in the country with respect to its requirements. It becomes difficult to resolve the matter without examining the contributions this sector has made to the overall socio economic development of the nation. In this connection, the report of the World Bank and UNESCO is relevant. The report states that higher education simultaneously improves the individual lives and enriches wider society; raises wages and productivity, making both individuals and countries richer; encourages independence and initiative, creates educated people and environment in which economic development is possible. The Report also points out that good governance, strong institution, and developed infrastructure are not possible without highly educated people. It has insisted on giving priority to higher education. The report pressed the need for urgent action to expand the quantity and improve the quality of higher education, in developing countries. It is pointed out in this report that the benefits of higher education are continuing to rise, in accordance with the cost. It is a fact that unless human capital is improved considerably, the developing countries will essentially fall far behind the developed nations in relation to the intellectual experience resulting in economic marginalisation and isolation. It is said that human capital

in US is now estimated to be atleast three times more important than physical capital.

In this context it would be useful to have a comparative view of higher educational development indicators of important countries of the world.

The following table gives a comparative view of the over all higher educational development indicators of some of the major countries of the world.

Table 2.7

EDUCATIONAL DEVELOPMENT – AN INTER COUNTRY COMPARISON

Country	Overall Education Index (2000)		Higher Education Number of students per 1,00,000 inhabitants			
	Value of index	Rank per index	1980		1996	
			Number	Index	Number	Index
Sweden	0.99	1	2423	4.7	3116	4.9
Australia	0.99	3	2222	4.3	5682	8.9
Netherlands	0.99	4	2546	4.9	3018	4.7
UK	0.99	6	1468	2.9	3237	5.1
Norway	0.98	8	2546	4.9	4239	6.6
US	0.98	10	5311	10.3	5341	8.4
France	0.97	12	1998	3.9	3541	5.6
Germany	0.97	13	2110	4.1	2603	4.1
South Korea	0.95	18	1698	3.3	6106	9.6
Japan	0.93	25	2065	4.0	3131	4.9
Philippines	0.91	40	2641	5.1	2958	4.6
Singapore	0.87	63	963	1.9	2730	4.3
Thailand	0.84	80	1284	2.5	2252	3.5
Malaysia	0.80	93	419	0.8	1048	1.6
China	0.80	96	116	0.2	473	0.7
Indonesia	0.79	101	367	0.7	1157	1.8
Namibia	0.81	91	300	0.6	735	1.2
Zimbabwe	0.81	92	197	0.4	661	1.0
India	0.57	141	515	1.0	638	1.0

Source: Human Development Report, 2002, World Education Report 2000 (UNESCO), Page 102.

From the table above it is evident that India's position is 141st among other nations in the field of education. Sweden ranks first in the field of education. Australia, Netherlands and UK occupy third, fourth and sixth places respectively in education.

In India the backwardness of higher education might be due to the lack of ample opportunities of employment for human capital, in productive enterprises. The field of higher education will acquire acceleration in development only if the educated persons get gainful employment opportunities either within the country or outside. It is a fact that there is an exodus of immense human capital from India to other developed and developing countries of the world in search of gainful employment. The number of students being enrolled in higher education per 1 lakh inhabitants was 2423 in 1980 and 3116 in 1996 in Sweden. The corresponding figures were 515 and 638 in Inda.. The US ranks first in higher education with an enrollent rate of 5311 and 5341 per one lakh inhabitants respectively during 1980 and 1996. The data reveals that our country has to advance a lot to cope up with most of the other countries of the world.

The analysis of the table reveals that India needs more and more investment in human capital especially in higher education. The Government cannot afford such a heavy capital investment as revealed above, in the higher education sector especially with regard to technical

and professional education which calls for huge capital outlay. The public exchequer of the government is not strong enough to take the urgent task of developing higher education in tune with other countries of the world. Since the nation is falling very much behind most of the countries of the world in this field of higher education and human resource development, it has become imperative to resort to some other alternatives for investments in higher education by inviting private sectors and other global investors to come to the rescue.

Apart from investment in infrastructure, education development depends on the quantity and quality of the teaching staff. Table 2.8 depicts data to study the Teachers strength in different parts of the world

Table 2.6

TEACHRES STRENGTH IN HIGHER EDUCATION – AN INTER COUNTRY COMPARISON

Regions	Teacher per Million in habitants		
	1985	1997	1985-100
North America	2980	3611	121.2
Asia/Oceanna	2162	3205	148.2
Europe	2042	2393	117.1
Arab States	653	730	111.8
Latin American	1422	1608	113.1
India	436	434	99.6
World total	965	1084	112.5

Source: The World Education Report, 1995 and 2000 (UNESCO).

In respect of teachers per million inhabitants North America ranks first with 2980 teachers in 1985 and 3611 teachers whereas in 1997 Europe ranks IIIrd with 2042 in 1985 and 2393 in 1997. India had only 436 in 1985 and 434 in 1997 per million inhabitants depicting a negative growth rate. This proves that India needs more qualified teachers in the field of higher education.

Table 2.8 shows country wise analysis of public expenditure on higher education.

Table 2.9
STATE COMMITMENT TO EDUCATION – AN INTER COUNTRY COMPARISON

Countries	Public Expenditure on education								Public Expenditure on higher Education			
	As Percentage of GNP				As Percentage of total Govt. dxpenditure				As Percentage of expenditure on all levels			
	1980		1997		1985-87		1995-97		1985-86		1995-97	
	Percent	Index	Percent	Index	Percent	Index	Percent	Index	Percent	Index	Percent	Index
Sweden	9.0	3.0	8.3	2.6	12.8	1.5	12.2	1.1	13.1	0.9	27.2	2.0
Australia	5.5	1.8	5.4	1.7	12.5	1.5	13.5	1.2	30.5	2.0	30.5	2.2
Netherlands	7.7	2.6	5.1	1.6	-	-	9.8	0.8	26.4	1.7	29.3	2.1
UK	5.6	1.9	5.3	1.7	11.3	1.3	11.6	1.0	19.8	1.3	23.7	1.7
Norway	6.5	2.2	7.4	2.3	14.7	1.7	16.8	1.4	13.5	0.9	27.9	2.0
US	6.7	2.2	5.4	1.7	11.9	1.4	14.4	1.2	25.1	1.6	25.2	1.8
France	5.0	1.7	6.0	1.9	18.0	2.1	10.9	0.9	12.9	0.8	17.9	1.3
Germany	-	-	4.8	1.5	-	-	9.6	0.8	-	-	22.5	1.6
S.Korea	3.7	1.2	3.7	1.2	-	-	17.5	1.5	10.9	0.7	8.0	0.6
Japan	5.8	1.9	3.6	1.1	-	-	9.9	0.9	-	-	12.1	0.9
Phillippines	1.7	0.6	3.4	1.1	11.2	1.3	15.7	1.4	22.5	1.5	18.0	1.3
Singapuur	2.8	0.9	3.0	0.9	11.5	1.4	23.3	2.0	27.9	1.8	34.8	2.5
Thailand	3.4	1.1	4.8	1.5	17.9	2.1	20.1	1.7	13.2	0.9	16.4	1.2
Malaysia	6.0	2.0	4.9	1.5	18.8	2.2	15.4	1.3	14.6	1.0	25.5	1.9
China	2.5	0.8	2.3	0.7	11.1	1.3	12.2	1.1	21.8	1.4	15.6	1.1
Indonesia	1.7	0.6	1.4	0.4	4.3	0.5	7.9	0.7	-	-	24.4	1.8
Namibia	1.5	0.5	9.1	2.8	-	-	25.6	2.2	-	-	13.1	1.0
Zimbabwe	5.3	1.8	-	-	15.0	1.8	-	-	-	-	17.3	1.3
India	3.0	1.0	3.2	1.0	8.5	1-0	11.6	1.0	15.3	1.0	13.7	1.0

Source: World Development Indicators (2000)
The Human Development Report 2002 (UNDEP)

Among the 19 countries, percentage of investment on education is highest in Sweden. India's position is low as evidenced by the data above. Swedan had spent 9 and 8.3 percentage of GNP for education during 1980 and 1997 respectively. The corresponding figures were 3% and 3.2% in India.

While comparing the public expenditure on higher education as a percentage of expenditure, Australia ranks first in 1985-86 with 30.5 percent and rank second in 1995-97 with the same percentage. Singapore ranks second in 1985-86 (27.9 percentage) and ranks first in 1995-97 with 34.8 percent each during the period. The India's expenditure was 15.3 percent in 1985-86 and 13.7 percent in 1995-97. The figure shows that India's expenditure on higher education as a percentage of total expenditure has not been satisfactory and adequate. From the figures above, the state commitment to higher education among the major countries of the world reveal that India's pattern of expenditure on general education and higher education is quite unsatisfactory.

The table below shows the growth rate of registration with the employment exchanges by various levels of 12 disciplines of education from 1970 to 1988. This led to an overview of the rate of employed educated persons with different levels of academic achievements in

general, technical and professional areas as per the employment review report of DGE, New Delhi 1984-85.

Table 2.10

COMPOUND GROWTH RATE OF EMPLOYMENT SEEKERS BY VARIOUS LEVELS OF EDUCATION DURING 1972 TO 1988

Level of Education/Year	1972-76	1976-80	1980-84	1984-88
Metric & Higher Secondary	-1.6	1.8	5.2	1.8
Graduates Arts	4.3	-1.6	2.1	1.6
Science	-1.7	-7.3	0.04	-3.0
Commerce	6.9	0.7	6.4	4.6
Eng & tech	11.7	-3.9	4.9	-3.8
Medicine	0.6	7.1	4.3	4.0
Veterinary science and Agriculture	-8.0	-2.3	12.7	0.7
Law	4.6	0.2	6.8	3.8
Education	5.5	-3.2	8.2	3.4
Others	-0.8	4.9	6.1	-0.8
Total	2.3	-2.5	3.3	1.5
Postt graduates	5.3	-0.8	10.3	4.8
Grand total	-0.8	0.9	5.0	1.7

Projected from 1984 data.
Source: Employment Review Report, DGE, New Delhi, 1984-85.

The above table shows that even the technically qualified persons remain unemployed and unemployment among the qualified decreased in 84-88 compared to 1972-76. For instance, the registration recorded a rate of growth of 11.7 percent in respect of Engineering and other technical candidates in 1972-76 but it was only negative 3.8 percent in

84-88. Hence the unemployment of technically qualified persons is very low. It is a fact that we have advanced very much in quality and quantity of technically qualified persons fit for being absorbed in various productive enterprises.

The growth rate of registration of graduates, according to their field of specialization shows that the registration of graduates having non professional education like arts and commerce except from the discipline of science was positive during 1972-76. In 1976-80 the rate was reduced and became negative except the candidates from the discipline of commerce. In 1980-84 it was increased and became positive- During 84-88 the growth rates of science graduates was negative. The growth rate of registration of graduates with professional education except from the disciplines of Agriculture and Veterinary Science was positive during 1972-76. The growth rate of veterinary science and Agriculture marked positive in 1984-88.

The growth rate of registration of educated unemployed persons as a whole was negative during 1972-76 and started increasing and became positive during 76-80 and 80- 84 by .9 percent and 5 percent respectively. The trend again changed reducing the rate to 1.7 percent during 84-88. From the table above it can be inferred that the educated unemployed has been increasing considerably upto 1984-and had started decreasing in 1984-88.

Many persons with higher education go for self employment where by the growth rate for unemployment as per the records available with employment exchanges show a false trend. Further, technically and professionally qualified persons registered at the employment exchanges remain either self employed or their unemployment is quite insignificant. It suggests that there is ample scope for higher education in technical and professional fields. Nevertheless investments in these sectors call for substantial capital input which cannot be undertaken by the state Government or centre Government alone.

The table given below the table shows the educated job seekers for the period 1995 – 1999.

Table 2.11
EDUCATED JOB SEEKERS

(in '000)

Year	Women	Schedule Caste	Schedule Tribe	Total educated job seekers at the register
1995	5878.6 (23.5)	2992.3 (11.5)	814.5 (3.3)	24795.0
1996	6163.6 (24.4)	3134.0 (12.4)	876.1 (3.4)	25265.33
1997	6846.5 (25.1)	3539.7 (13.4)	958.1 (3.5)	27282.0
1998	7308.3 (26.3)	3858.5 (13.9)	1005.4 (3.6)	27788.9
1999	7724.2 (27.0)	3961.6 (13.8)	1209.7 (4.2)	28660.3

Note: Percent to total educated job-seekers are in brackets
Source: DGET: Ml.in/Publication.

It may be seen from the above table that educated women at the end of 1999 occupied 27.0% of the total educated job-seekers.

Educated SC/ST job-seekers have also registered an increase over the years. Educated SC job seekers have increased from 29.9 lakh (11.5% of the total educated) in 1995 to 39.6 lakh (13.8% of total educated) in 1999. Educated ST job seekers have increased from 8.1 lakh (3.3% of total educated) in 1995 to 12.1 lakh (4.2% of total educated) in 1999.

Conclusion

From the inter country comparison (Table 2.8) and from the low stock of technically qualified educated unemployed as revealed by the data already furnished above it can be concluded that the programme of self financed higher education developed since 1980 can be viewed on the following grounds.

The unemployed stock of individuals with higher technical education is insignificant. The traditional system of higher education ought to be changed in accordance with the challenging needs of the advancement of technological and scientific education globally. Due to increased liberalisation policies of the economically advanced countries of the world, the world market urgently needs the services of highly competent and technically qualified personnel for productive purposes.

This calls for additional heavy outlay in the field of higher education for investing in human capital resource development. This is possible to be carried out efficiently by private agencies including global investors especially in a country like ours, following democratic socialism; where there is tough competition between private and public sector and that the public sector often being the looser.

It was therefore found advisable to permit private agencies as well to establish their own educational institutions in the field of higher education without any aid from external agencies. Such institutions are termed as self financed institutions, where students are admitted, teachers are employed and necessary infrastructural facilities are provided by the private agencies, according to some general norms fixed by All India Council of Technical Education. Many of the self financing institutions have emerged since 1990 and they have been given considerable freedom in running their institutions and the government has no financial burden in the organization of such institutions.

Notes

1. The Gazetteer of India, *Economic Structure and Activities*, Volume 3, Publications Division, Ministry of Information and Broadcasting, Government of India, New Delhi, 1975, Page 139.

2. Ibid., Page 140.

3. Ibid.

4. Ibid.

5. Susheela Subhramaniya, "What ails India's higher education", *Southern Economist*, Volume 42, Number 7, August 1, 2003.

6. Ibid.

7. Ibid.

CHAPTER 3
REVIEW OF LITERATURE

The overview of higher education in India and Tamil Nadu in the previous chapter show that the Privatisation of education has become a reality in India. However, this raises a number of questions.

(a) What does self financing of education imply ? What are the types of self financing institutions? Can professional educational institutions be completely be self financed ?.

(b) Does self financing of higher education help ease the budgectory constraints of the state ?

(c) Are self financing institutions viable ? Do they provide quality education to the students ? Are they able to attract good teachers and provide adequate facilities ?

(d) Are self financing institutions socially and economically equitable? Are they accessible to the socially and economically backward sections ? Do they act as instruments of upward mobility for these sections?.

(e) Does professional education, that is self financed provide a rate of return to justify that expenditures by a family ?

(f) Is there a steady and growing market for professional and higher education that would justify privatisation ? A number of countries have embarked upon this privatisation of education. Thus the consequences of the privatization has been witnessed. This has been explored and debated.

In this chapter we provide a review of existing literature to see how far they have attempted to answer these questions. The studies answering the above questions are presented according to the following topics:-

1. Education as a public good showing the need for public investment in education.

2. Studies showing the problems of public financing of education.

3. Studies covering variants of privatisation of education including results from cross country comparison after the implementation of Structural Adjustment and Stabilisation Policy of the Government.

4. Education as an investment and rate of return on education.

5 Equity issues in privatised education.

I - EDUCATION AS A PUBLIC GOOD

It has long been realised that education is a public good. As a public good, it has externalities, ie, its social cost and return far exceed its private costs and returns and the exclusion principle does not apply.

Schultz[1] (1961), a strong supporter of human capital concept of education argues that knowledge and skill are great part of the product of investment and combined with other human investments, predominantly account for productive superiority of technically advanced countries.

Panchamukhi[2] (1977) state that education is a public good at the university level. In view of the weak financial position of the Universities he suggests the enhancement of tuition fee, examination fee, donation etc to augment the revenue position of the universities even in the mid of seventies.

Panchamukhi[3] (1989) pointed out that education is the responsibility of the government irrespective of its level. In the Indian Federal set up, the intervention of different layers of government like regional interest groups, community interest groups and the individual

interest groups have created a peculiar institutional frame work which proves to be self-defeating to the objective of state intervention.

Minhas[4] (1991) states that government intervention is necessary in the provision of such goods where market fails due to the existence of monopolistic situation, externalities and informational deficiencies. Such goods are treated as collective good or social goods where exclusion principle does not exist. In this respect, he treats higher education as a social good.

Tilak[5] (1993) treats higher education neither as a public good nor as a private good but as a quasi public good. The purchaser of quasi public good does not take into account the social benefits which are far greater than those perceived by the individual. Therefore government intervention becomes necessary in the provision of this quasi public good. In the cases of quasi public good like education, government intervenes to change, if not to override the taste for and demand of the people for quality and quantum as education also represents a social merit good.

Ram Reddy[6] (1994) emphasised social equity concept of higher education and its interlink with all other levels of education. He was against the view that higher priorities can be attached to the primary level of education by diverting funds from the higher level. All levels

of education are interlinked. He treats higher education as a social good and so the policy makers have to find some other ways and means to mobilise resources to make reforms in the higher educational sector as according to the needs of the day.

Guljit Arora[7] (1998) states that higher education combines the joint features of consumption and investment. It brings out many types of 'spill over benefits' like upward social mobility of the backward class. These external benefits cannot be measured in monetary terms. This does not mean that higher education is to be restructured. He is of the opinion that while reforming higher education, social context cannot be ignored altogether to give way to the pure private system.

The role of the state in providing a public good like education has been emphasised by the idea that expenditure on education is not a consumption expenditure but an investment. The development of human capital formation theories during the 1960's and 1970's substantiated this argument.

II - PROBLEM OF PUBLIC FINANCING OF EDUCATION

While the importance of public funding of education has been recognised and the state expenditures have been secularly on the rise throughout the developing world, the fiscal crisis also began to surface.

Tilak (1993)[8] in his article "Financing of Higher Education in India" points out that public financing of education in India has major limitations. Even though the rapid growth of higher education in the post independence period has resulted in the democratisation of higher education, the majority of the students are still from forward caste communities. Further, the progress in higher education has been made possible at the cost of elementary education. He notes that elementary education produces higher pay offs both for economic growth and income distribution. As a result it is more difficult to make a case for general (or social) benefit of higher education and for the corresponding general subsidy approach than for elementary and secondary education.

World Bank (1994)[9] observes that higher education is of paramount importance for economic and social development. In most countries, higher education heavily depends upon public funding. The Report observes that despite the clear importance of investment in higher education for economic growth, this sector is in crisis throughout the world. The report observes that higher education in many developing countries is characterised by low student staff ratio, under utilised facilities, duplicate programme offering, high dropout and repetition ratio and a very large share of the budget allocated to non educational expenditure such as subsidised housing, food and other services for students (page.3). The Report argues that higher education

should not have the priority claim on investment of public resources available, particularly for those that have not yet achieved adequate access, equity and equality in the primary and secondary levels. The Report suggests policy reforms encouraging greater differentiation of institutions including the development of private institutions, providing incentives for public institutions to diversify their sources of funding including cost sharing with students and introducing policies for promoting equality and equity in education (page 4).

Azad (1999)[10] states that while considering the resources constraint in the higher educational sector, investment in higher education should be based upon the principles of adequacy, transparency, autonomy and accountability. Discussing various alternative funding mechanisms like negotiated funding, output funding and input funding, he argues that input funding based upon the unit cost principle appears to be most promising.

Gupta (1999)[11] argues that establishment of professional education requires huge capital investment and annual recurring expenditure and therefore if private organisations are encouraged to set up institutions the public funds thus saved can be used for expansion and maintenance of primary and secondary education by the state and the central governments.

Tilak (1999)[12] in his article "Education in Union Budget" published in the Journal of Economic and Political Weekly states that allocation of 6% of GDP to the primary level is required to achieve the constitutional goal of "Universalisation of primary level of education". Subsidy at the higher level of education is regressive in nature. Subsidisation of elites through larger and increasing flow of government fund is indirect and less open. Hence it does not cause any public resentment. This is termed as fiscal illusion in educational finance.

Allen Roy, Kamat and Govinda Rao (2000)[13] state that there exists unutilised capacity in the higher educational sector especially after 1990's. This can be attributed to shift in preference from Government education to private education. So any effort to rationalise the utilisation of existing capacity must involve improvement of the quality of education in the Government sector.

III - TYPES OF SELF-FINANCING

The crisis of public financing of education has encouraged policy makers to find alternative ways of funding. Amrik Singh (1992)[14] and World Bank (1994) have advocated provisions of loans at low rates of interest to meet the cost of education.

Tilak (1993)[15] discusses alternative ways of mobilising resources for higher education. There are essentially two types of proposals (a) provision of additional resources for higher education from government tax revenue (b) mobilisation of resources from non governmental sources. The former includes special taxations such as graduate tax (to be levied when a person gets employment) or educational cess (a general tax earmarked for a specific purpose). The latter option again has four variants 1) Extreme privatisation where the institution becomes completely self financed 2) Strong privatisation where full cost recovery is made from the students and little amount of Government interference is found. 3) Weak privatisation implying public provision of education with a reasonable level of finance mobilised from non governmental sources 4) Pseudo privatisation where private provision of education is made with public finances. He argues the third type of variant to overcome the crisis of public financing of education.

World Bank (1994)[16] has argued for greater cost sharing with the students, who can be expected to get a significantly higher life time earnings as a result of receiving higher education. Cost sharing can be attempted by raising fees and eliminating subsidies for instructional cost. Government can encourage public institutions to establish their own fee norms and motivate them to pursue income generating activities

such as short term courses, contract research for companies and offer consultancies. Government can offer incentives by raising the funds raised from outside sources. Greater reliance on outside sources can also be attempted by creating a loan market for higher education. Imperfection of capital market curtail the ability of the individual to borrow adequately for education. Public intervention can indirectly remove capital market imperfections including lack of adequate information flow and thereby stimulate development of loan market for higher education.

Bava (2000)[17] has shown that income from fees in educational institutions has been less than 20% of total income from all sources. This figure was 7.5% in 1983-84 which has gone up since 1990. The trend now is towards raising fees with the objective of recovering about 25% of the total cost of providing education.

IV - RATE OF RETURN

Becker (1960)[18] in a study using the US census data, estimated private rate of return on college education for the years 1940 and 1950. He concluded that there was no evidence of under investment in college education. The private rate of return, according to the study were 12.5 percent in 1940 and 10 percent in 1950 and the social rates of returns were 9 percent in these years.

In his study on returns to education of college graduates Becker (1964)[19] found that the private rates of return were 14.5 percent in 1939, a little more than 13 percent in 1949 and around 15 percent in 1958 and 1961.

Harberger and Selowsky (1966)[20] estimated social rates of return in Chile in 1959, using the case studies for estimating income of the labour force by years of schooling and cost of education. The rates were found to be 24 percent for the primary level, 16.9 percent for the secondary level, and 12.2 percent for the university level.

In his study on the returns on education in Israel, Klinov-Malul (1966)[21] relied on the family sample survey of 3000 urban families in 1957-58. The study estimated the private rates as 27 percent for primary, 6.9 percent for secondary and 8 percent for university education. The corresponding social returns were 16.5 percent, 6.9 percent and 6.6 percent respectively.

In his descriptive investigation, Nalla Gounden (1965)[22] estimated the rate of return to education as 15.9% for literates, 15.3% for primary and middle, 12.1% for matriculation, 8.9% for degree and 9.6% for professional degree.

Blaug (1967)[23] in his study with the help of a sample of about 2800 male employees in five large firms, estimated both private and

social rates of return in respect of different educational qualification above school leaving age. The private rate of return for the ordinary university degree was found to be 8.5 percent while the social rate of return was 6 percent.

In another study, Nalla Gounden (1967)[24] used the data from an urban income survey of about 5000 males conducted by national council of Applied Economic Research and from the monthly pay of about 4000 engineers as reported by the Council of Scientific and Industrial Research. The study estimated social rate of return as 16.8%, 11.8%, 10.2% , 7% and 9.8% for primary, middle, matriculation, bachelor degree and Engineering degrees respectively.

The study on returns to education in New Zealand by Ogilvy (1968)[25] was based on the starting salaries of employees in various states and quasi state enterprises. The private rates of return was 20 percent for secondary schooling and 14.7 percent for a university degree. The social rates for secondary and university education were 19.4 percent and 13.2 percent respectively.

Making use of the same data used by Nalla Gounden with additional samples of 20,000 employees in various factories, Blaug (1969)[26] estimated the rate of return of investment in education in India. The private rates of return were found as 18.7 percent, 10.4 percent and

15.5 percent for primary, first degree over matriculation and Engineering degree respectively.

Psacharapoulos (1969)[27] in his study of return on education comes to the following conclusions.

1) Return on investment in all levels of education in the countries reviewed are well above the 10% normally used as a criteria for considering an investment project.

2) Secondly returns on primary level of education is higher than return on secondary and higher level of education.

3) Returns on arts subjects are greater than return on technical level of education because cost of technical level of education is higher than cost of arts.

Psacharo Poulos (1969)[28] estimates private and social rate of returns to investment in education. The study finds that the private rate of return for elementary education has an infinite value while it is 5.1% for high school and 11% for college.

Thias and Carnoy (1969)[29] calculated rates of return on education in Kenya using special survey data. In their study the private rates were found to be 32.7 percent, 30 percent and 27.4 percent for primary, secondary and university level of education respectively. The

social rates were estimated as 21.7 percent, 19.2 percent and 8.8 percent respectively.

Based on sample survey data from firms employing ten and more persons, Bowman (1970)[30] estimated rates of return to investment in education in Japan for 1959, 1961 and 1966. He concentrated on the private rates for higher secondary which were found to be 8 percent in 1954, 7 percent in 1961 and 5 percent in 1966. For four years of university education the rates were found to be 19 percent, 10 percent and 13 percent in the respective years.

Relying on the census data of 1970 of Pureto Rico, Carnoy (1970)[31] found that private rates of return of male labour force were over 100 percent for primary, 26.4 percent for secondary and 23 percent for higher education.

Blaug (1971)[32] in his article "Rate of Return on Investment in Education" state that in Great Britain in 1963, the private rate of return on three years of higher education is about 14%. These yields are about 50% higher than those that can be earned by investing in equities and debentures. Even after allowing a considerable premium for the greater illiquidity and uncertainty of investment in human capital, it appears that private rate of return on educational investment exceeds the yields of risk capital in business sector. According to him, the investment of

private individuals is economically justifiable if the discounted value of direct income benefits minus tax exceeds the present cost of investing in additional education.

Shortlidge (1973)[33] applied the cost benefit technique in the evaluation of agricultural education and estimated private and social rates of return.

Prakash and Sumitra Chowdhary (1977)[34] state that to calculate the returns on education, we need age, education, income profiles etc. The first step to calculate rate of return is the transformation of life long income profiles to their present value by the application of an appropriate discount rate to the total differential earnings expected to accrue during the entire working life span. They have applied the following formula to find out discount rate

Let 'r' be the discount rate and E (it) be the differential earnings of persons with the ith education at the age 't', Ct is the cost of ith education

$$\frac{\sum [E(it) - ct]}{(1+r)^n} = 0$$

Tilak (1980)[35] in his investigation used the data collected through a sample survey of 415 households in West Godavari district.

The study focused attention on inequality of rates of return on education of different groups of population.

Nalla Gounden (1982)[36] in his investigation about the rate of return to education states that the level of education is positively correlated with personal earnings. Earning profiles of higher level of education lies above that of persons with lower level of education. Externalities of investment in education are not captured by earnings.

Martin Palme and Robert Wright (1991)[37] in their article "Changes in the Rate of Retun to Education in Sweden" during 1968-91 examines the issues relating to the rate of retun to education in Sweden. The important conclusions that emerge from the analysis are the following.

1) The rate of return to education declined considerably between 1968 and 1991 and most of the decline occurred during the 1968 - 81 period.

2) The magnitude of the decline was not the same across all levels of education with the decline being particularly pronounced for University Education.

3) The decline was not equally shared between men and women, the decline (percentage terms) being larger for women.

It is found that, in Sweden between 1961 and 1991, except for University education, each additional year of schooling completed is associated with an increase in income.

Pillai and Bhaskaran Nair (1994)[38] in the combined effort of "Cost and Return of University Education" arrive at the following conclusions. A striking features noticed is that whereas the earning differentials of the non Teaching staff with MSc degree are as high as Rs.15,244.64 at the age group 51-55, they are as low as Rs.9,817.92 for the teachers with the same qualification. While the differentials in respect of non teachers with MA/M.Com degree at the age group of 51-55 are Rs.15,065.88, they amount to only Rs.7,459.80 for the teachers with same qualification. The earning differentials of individuals with doctorate degree in both the faculties at the age groups of 51-55 are comparatively low namely (Rs.5,143.34) and (Rs.5,849.40) in the Faculty of Humanities and the Faculty of Science respectively. But the differentials at the age groups 56-60 in both the faculties are remarkably higher namely Rs.30,412.80 and 31,164) in the faculty of science) respectively. This is owing to the fact that the differentials have been worked out by subtracting the pension amount of the teachers who work mostly in the colleges and retires at 55 from the earnings of doctorate holders, most of whom work in the University Departments whose retirement age is 60.

V - COST OF HIGHER EDUCATION

Amin and Pathack (1964)[39] estimated the per student annual cost of education in 1964-65 in certain faculties of Sardar Patel University. The cost included total amount of direct and indirect expenditure incurred by the individuals and institutions.

The average annual private cost of medical course was done by Rachel John (1965)[40].

Pillai (1965)[41] found that parental cost in the education of children in Kerala for the three year degree course was Rs.4608/-.

Prasadachandran Nair (1965)[42] in his study found that average annual cost of the engineering students was Rs.1882/- which constituted 41 percent of the average annual income of the parents.

Sen (1965)[43] in his article "Crisis in Indian Education" states that average cost of educating undergraduate courses in Arts and Science for one year is same as educating 22 students in primary schools. The cost of giving one year education at MA level equals giving schooling to 41 primary students and one MSc student costs us 89 primary students in equivalent terms.

Panchamukhi (1965)[44] estimated total cost of education in India for the period of 1950-51 to 1959-60. He computed resource cost as well as opportunity cost of education. In 59-60 total cost of education constituted 6.2% of GNP.

Kothari (1966)[45] made a study of total cost of education in India for three independent years and comes to the conclusion that expenditure on education formed 5 to 6.5% of national income in 1960-61 and not 2.5% as was generally believed based on the calculation of institutional cost alone.

Kamat (1969)[46] attempted to estimate the recurring annual institutional expenditure per student at the under graduate and post graduate stages in the university of Poona. The study has revealed that per pupil cost for four year period covering the predegree, three year degree course in commerce, Arts and Science are approximately Rs.1,200/-, Rs.1500/- and Rs.1800/- respectively.

Raddar Datt (1969)[47] in his study on the colleges in Haryana estimated unit cost in Government and private colleges and used the regression techniques to examine the variation in unit cost in terms of the age of the college, size of the college etc.

International Institute for Educational Planning (1972)[48] concluded that cost analysis serves various purpose in educational planning. They are 1) Testing the economic feasibility of expansion plans, proposals or targets 2) Projecting future level of educational cost 3) Estimating the cost of alternative policies and of educational reforms or innovations 4) Comparing alternative ways of achieving the same objective, inorder to select the most efficient or economical 5) Comparing the profitability of alternative investment projects 6) Improving the efficiency of resource utilisation.

Najumdappa (1976)[49] argued that there was growing gap between the cost of higher education and fees charged and also that there is several adjustment between output of the university and needs of an economy.

Dougherty and Psachara Poulos (1977)[50] criticised the role of general price index to evaluate cost of education overtime. The commodities that enter the educational activity constitute a minor component of the basket of commodities and so the general price index cannot serve the purpose adequately. Therefore an appropriate price index is required in the 'Educational Finance' to evaluate cost of education over time.

Chalam (1978)[51] in his study on Andhra University estimated cost of education in Andhra University in various disciplines. The result of the study indicates that comprehensive cost of University students in Arts based subject is about 24,000/- and in Science based subject is about 31,000/-

Fieldman and Pearson (1978)[52] examined the importance of cost analysis in the field of optimistation of educational finance. He reminded the educational staff to make the best use of resources to reduce the cost on education and increase the efficiency of education.

Tilak (1979)[53] in his article "Unit cost analysis of higher education in India" states that in a rationale educational industry one can visualise strong relationship between enrolment and unit cost. From Tilak's study on private cost of general education, Technical education and other education, he came to the conclusion that unit cost of professional education is higher than general.

Chalam (1981)[54] estimated unit cost, both private and institutional, of higher education in Andhra Pradesh according to the level of education and types of management for 79-80. Some of the important findings are

1. The unit institutional cost of research in 1979-80 in Arts, commerce and Law College was Rs.4,470/- per annuam whereas in the case of science colleges, the amount went up to Rs.7,215/.

2. Andhra Pradesh has reached the optimum point in the allocation of funds for education long back.

3. More than 1/4 of the per capita expenditure on education went to higher education in the state.

Alain Mingat and Jee Peng Tan (1987)[55] in their article Estimating and Analysing Unit Cost have projected some selected problems in the Unit cost analysis. They are the problem of pooling information from micro and macro perspective when data are incomplete. The second is calculating the cost per graduate to reflect the effects of drop out. The third problem is estimating costs when there are economies of scale.

Tilak (1995)[56] in his article "Analysis of cost of Education" states the difference between expenditure on education and cost of education. The part of expenditure which has some relationship with the production process and output can be referred to as `cost' and that part which has no relationship with the production process and output is merely expenditure.

Salim (1997)[57] in his book "The cost of Higher Education in India" has shown that in 1989-90, in Kerala, capital cost per student in Engineering Education was more than two and half times of general education. During 1976-90, the per pupil capital cost has declined marginally in the case of Engineering Education while it increased in the case of general education, inspite of steady rise in enrolment. Unit capital cost in the government Engineering College was higher than that of private Engineering College whereas that of Government Arts and Science Colleges is low in relation to its counterpart in the private sector.

Prakash Sumithra Chowdhary (1997)[58] in his article "Production and Cost Function of Education" in his book Expenditure on Education Theory Models and Growth published by National Institute of Education, Planning and Administration state's that (a) Educational output has been considered as a function of the quality of teaching and non teaching staff in an educational institution (b) Teacher student ratio is a variable of great consequence in educational production (c) Education is highly labour intensive industry where proportion of total enrolment cost accounted by teachers salary ranges from 55 to 99% from lower to higher and general to professional and Technical Education.

VI - EQUITY ISSUES

It is thus clear that higher education has a high economic rate of return which would justify its privatisation. The mild or full variant of privatisation discussed by Tilak could thus provide a way out of the current impasse faced by public financing of education. However, the literature also contains several studies discussing the highly inequitous nature of higher education today and discussing the social equity aspect of such a move towards privatisation. These are briefly discussed below.

Suma Chitinis (1975)[59] in her article "Education of the Scheduled Caste" states that enrolment of SC/ST in professional and technical course is less. Their representation at the higher level of education is low. They tend to enrol in education that have lower level of performance in examination.

Ahmad Karuna (1979)[60] has presented a statistical profile to analyse the trends in women's participation in higher education. It shows that though the drop-out rate of men and women at different levels is same, there is a clear cut tendency for women to be concentrated only in a few faculties.

Uma Ramaswamy (1985)[61] states that the preferential policies towards the upliftment of Harijans educationally produced drastic improvement in the educational development of Harijan at the primary stage. In between 1941 and 1981, the growth of literacy of Harijans increased from 2.4% to 21.4%. Their enrolment in the professional colleges has stepped up from 6% in 1967 to 9.4% in 1978. Their proportion at the Arts and Science colleges is declining.

Chinappan (1991)[62] in his study at a micro level in Madurai district of Tamil Nadu states that there is considerable degree of inequity in the educational development of scheduled caste. This is in sharp contrast to the conviction in the New Educational Policy of 1986 which observes that India has reached a stage in its education and technical development and a call for dynamic efforts is made to derive the maximum benefits from the assets already created to ensure that fruits of change reach all sections. The degree of inequality within the caste group is more severe than inequality between the caste groups.

Valiathanan (1994)[63] in his article "Some Reflections on University Education in India" states that especially after Structural Adjustment policy, in 1992, Fee pay structure of the students was highly revised. Though theoretically it was supposed to mobilise 100% cost of education of students by means of fees, but, rather, it was seen that fee structure is rationalised in such a way that 30-40% of private cost was

met by the beneficiaries as fees, since Unnikrishnan's case, payment quota was reduced to 50% in the Engineering self financing colleges. The immediate impact of this is that 50% of students in the middle income group have to cross subsidise the remaining 50%.

Shah and Srikantiah (1994)[64] have conducted a survey in M.S.University of Baroda to know the extent of subsidy and the real beneficiaries of subsidies. With regard to MS University of Baroda of the total per pupil institutional cost of 856/- in 60-61, the students contributed 1/4 of it. With regard to cost of SC/ST students, the entire institutional cost takes the nature of over all public subsidy.

Shatrugna (1995)[65] states that shift towards greater financing would improve the quality of student selection, and students performance because students would have a great financial stake in their studies. According to him, philosophically and conceptually privatisation and equity do not go together. Affluent are the chief beneficiaries of subsidised higher education, reservation based on caste will enable the needy to pursue higher education with the help of state funds.

Azad (1999)[66] in his article "Criteria Based Funding of Higher Education" states that while considering the resource constraint in the higher educational sector, investment in higher education should be

based upon the principles of adequacy, transparency, autonomy and accountability. Among some of the funding mechanisms like negotiated funding, output funding and input funding, input funding based on unit cost appears to be most promising.

Jacques Hallack (1999)[67] in his article "Education and Globalisation" (1999) state that the Structural Adjustment and Stablilisation policies in the 1990's led to the depressing results like segmentation between different types of educational institution, a decrease in access to good quality of education, limitation on those who could afford to pay as well as a general drop in the quality of education. The invasion of the education section by economic concerns entails several consequences. Education must meet the requirements of efficiency and profitability.

Chatterjee (1999)[68] states that the trend of commercialisation and privatisation of higher education has come to stay with adoption of the New Economic Policy of 1991. Privatisation and commercialisation can never increase absolute enrolment in a poor country like ours. Rather, it will generate further elitism, deprive the socially disadvantaged sections, destroy the ideas of equity, introduce more discrimination and deprivation in society and impede harmonious economic growth.

We conclude that the social equity aspect of the move towards privatisation is far from clear. while this is so, prevailing resource constraint has forced many states in India to adopt partial or full private financing as a way out in higher education. A few studies covering such instances of privatisation are mentioned below.

VII - STUDIES IN GENERAL

Sankar and Venugopal Reddy (1990)[69] state that advocacy of privatisation aims at change of ownership. The essential aspect of privatisation is to seek efficiency through competition where ownership transfer is incidental. Some countries, including peoples Republic of China are not using the words micro privatisation and macro privatisation to differentiate between various elements.

Dandekar (1991)[70] states that teacher will become more accountable if students pay full cost of higher education and students will become more responsible if they study at their own cost.

Tilak (1993)[71] in his article states that due to Structural Adjustment and Stabilisation policies, the share of education in total government expenditure declined in majority of the countries that have adopted Adjustment Policies, while in majority of the counties that have not adopted Adjustment policies state expenditure either increased or remained stable. According to Tilak under normal economic conditions

there does not seem to be any significant relationship between economic condition and public investment in education. Under worsening economic condition there seems to be a strong positive relationship between economic condition and level of investment.

Shatrugna (1993)[72] in his article "Commercilisation of Higher Education in Andhra Pradesh" found the fee structure of Engineering course in Andhra Pradesh as low. In Andhra Pradesh, after 1990, higher educational sector, especially professional educational sector was thrown open to private sector. Though the fees of the Engineering course were enhanced from Rs.1500/- to Rs.1750/- after 1990, this was not anywhere to match with fee structure in the self financed colleges where the fee per annum for Engineering course was Rs.26,250/-.

Marjorie Fernades (1994)[73] examining the higher education scenario concludes higher education as 'non merit good' and states that subsidy on higher education is non merit in nature and therefore it needs to be sharply reduced. Thus indirectly this paper welcomed the 1990's SAAP. Non Governmental agencies should be given permission to expand self financing institution on larger scale provided they have necessary infrastructural facilities to start such institutions.

Francis Soundaraj (1999)[74] was of the opinion that privatisation in the higher educational sector since 1990 is a progressive step in

the educational reform provided this would not lead to commercilisation. It is desirable to consider self financing educational agencies as potential mid way experiment between public and private educational enterprises.

Pylee (1994)[75] has welcomed the new trend in the higher educational sector especially after SAAP and reached the following conclusions.

A) Autonomous institutions with the introduction of job oriented courses should be expanded on large scale.

B) Non-Governmental agencies should be given permission to expand self-financing institutions on a large scale provided they have necessary infrastructural facilities to start such institutions.

Mahesha Chandra Guru (1999)[76] in his article "Future of Higher Education in India" states that output of the academic institutions is not in tune with the demand of the market. In the present era of globalisation and liberalisation people have to improve their competence inorder to seize the opportunities for income and employment expansion through higher education. We need educational institutions which could be interlinked with our cultural heritage on the one hand and economic

and social development on the other hand inorder to lead the nation successfully towards 21st century.

Vignesh. Bhat (1999)[77] cautioned the threat of privatization of higher education which is found to be a victim of foreign syndrome. Privatisation has led to over centralisation of professional skills resulting in a sort of training that motivated the receiver of education to exploit his own people. Hence the attempt to privatise and promotion of financing educational course needs to be strictly monitored and they may be made socially accountable and socially responsive.

Anand Sarup (1999)[78] in his article "Deregulation of the system of Higher Education" thoroughly examined the Educational Policy of 1986 which recognised the need for deregulation in the higher educational sector. This led to the dissolution of linkage between affiliating Universities and Colleges through the establishment of autonomous colleges. Inspite of these policy pronoucements, all system of higher education are neatly arranged in hierarchy.

Joshi (2000)[79] has conducted a Survey among the students and teachers in the University of Gujrat to know the opinion of students and teachers about privatisation and the introduction of self financed courses. 79% of the surveyed persons favoured privatisation of higher

education and 94% favoured and agreed with the probability of eradicating the University deficits by means of self financed courses.

Kumar (2000)[80] in his article "Self Financed Educational Programme in the University System" states that government has given red signal to funding and green signal to making money by the Universities. The Government because of financial crisis is now shirking its responsibility of financing education. The alternative is to start self-financed colleges or course in the university.

Subodh Dawan (2000)[81] examines self-financing course in Utter Pradesh and comes to the conclusion that existing nepotism, sycophancy and castetism in the higher educational sector got aggravated after Structural Adjustment and Stabilisation policies in the 90's. This has resulted in the deterioration of the academic standard of Utter Pradesh University. It is found that more than 500 theses were submitted at different universities in Utter Pradesh on a single day.

Louis Vernail (2000)[82] in his article, "Higher Education in India, Access and Importance", states that in a fast changing world and with the advents of information technology, human resource quality is to be adequately upgraded and attitudes to be changed to meet the challenges of the new millennium. He says that self financed institution is the only alternative to achieve the above goals in India.

Tripathi (2000)[83] has projected the danger of running self financing course in the aided colleges.

Karuna Channa (2000)[84] has focused attention on the impact of globalisation and liberalisation upon the female enrolment in the professional courses. Since 1990 women's share in general education and professional education in particular is likely to receive a set back as the state withdraws from higher education and the private cost of education goes up. Unless a clear policy is enunciated to increase the representation of women in higher education, especially in the professional education through supportive measures, women's representation is unlikely to increase.

Malik (2001)[85] in his article "Globalisation and Human Resource Development" states that economic reforms do not lead directly to human resource development. Since 1990, there was a reduction in budgetory expenditure on education. Even if there is a compulsion of reducing total budgetory expenditure, the development of social sector like Education and Health can be maintained if the actual spending on social sectors is protected.

In this chapter, we have revealed renewed the literature on "Economics of Education" in the following classified form.

a) Education as a public good

b) Problems of public financing of education

c) Types or forms of self financing

d) Cost of education

e) Rate of return on education

f) Equity issues

g) Opinion about experimentation of privatisation

It can be observed that there are conflicting views on some of the impact of privatisation of education. There are also different aspects to privatisation say the cost benefit of privatization, the quality of teaching, the condition of teachers etc. All these call for more studies on the working of self financed education.

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CHAPTER IV

DEVELOPMENT OF SELF FINANCED EDUCATION - A PROFILE

India is a country which experiences excess demand for higher education in general and professional education in particular. Thus, of late, private sector has come to play a significant role in the expansion of higher educational facilities. Tamil Nadu is one of the pioneer states in India in this respect. From 1980 onwards unaided colleges were started in Tamil Nadu to offer professional education to meet this excess demand. Structural Adjustment and Stabilisation Policies (SAAP) in the 90's which spread the slogan "think globally and act locally"[1] gave momentum to this growth. Since the introduction of Structural Adjustment and Stabilisation Policies in Tamil Nadu there has been phenomenal expansion of professional educational institutions in the unaided sector. This chapter makes an overall review of this development with a view to studying the unique features of higher level of education in Tamil Nadu especially the features of self-financed institutions.

An Overview of Higher Education in Tamil Nadu

Total population of Tamil Nadu according to 1994 statistics was 5.40 crores.[2] Tamil Nadu is the seventh most populous state in India. Its literacy rate was 62.66%.[3] According to 1990-91 census

it occupied second place among 22 states in the literacy rate. Female and male literacy were 51.2 percent and 74.2 percent. Literacy at all India level has increased by 15.98 percent while in Tamil Nadu, it has grown by 16.10 percent in the same period.[4] Educational expenditure as percentage of total expenditure on primary, secondary and higher lever of education in Tamil Nadu were 8.40, 6.63, 1.72 percent respectively.[5]

Since independence, enrolment in higher education expanded at a very fast rate in Tamil Nadu. In between 56-57 to 94-95, the number of students in the colleges has increased from 36,853 to 4,20,433.[6]

Total enrolment at the higher level of education has increased by 11 times in between these periods. Given the same period, the number of teachers in the Arts and Science colleges have increased from 3000 to 17,861.[7]

This necessitated increasing expenditure on the part of the Tamil Nadu Government to meet growing demand for higher education, especially for the technical level of education. Between 80-81 to 95-96, per pupil expenditure at the University and the higher level has reduced from 253/- to 197/-.[8] At the technical level, per pupil expenditure has increased from 1446/- to 1541/- between 80-81 to 95-96.[9]

The above discussion shows that at the University and at the higher level, enrolments was increasing at a faster rate than State Goverment's expenditure and at the technical level, State Government's expenditure was increasing at a faster rate than enrolment.

These two factors affect the higher educational sector in the following ways 1) Quality of education at the higher and University level is deteriorating 2) At the technical level, monetary burden of the government is increasing.

These two factors have opened the eyes of the policy makers to shift the burden of higher level of education including technical level of education gradually from the Government sector to the unaided sector. This tendency was visible even at the mid of 80's but captured momentum especially after Structural Adjustment and Stabilisation Policies of the government in the 90's.

Since 1990's there was a mush room growth of colleges conducting conventional courses and professional courses under unaided sector. This change in the trends in the higher level of education at Tamil Nadu has spread to all universities rapidly. The reflection of this trend was pronounced even in Bharathiar University.

Growth of Professional Education in Tamil Nadu

Table 4.1 depicts data highlighting the growth of professional education in Engineering and allied disciplines

Table 4.1

GROWTH OF ENGINEERING AND POLYTECHNIC COLLEGES IN TAMIL NADU

	Engineering Colleges				Poly Technics			
Year	Govt.	Aided	Self Financing	Total	Govt.	Aided	Self Financing	Total
1990-91	5	4	26	35	23	35	72	130
1991-92	6	4	26	36	23	35	74	132
1992-93	6	4	29	39	23	35	74	132
1993-94	6	4	34	44	23	35	74	132
1994-95	7	4	43	54	23	35	76	134
1995-96	7	4	60	71	23	35	83	141
1996-97	7	4	68	79	23	35	97	155
1997-98	7	4	72	83	23	35	104	162
1998-99	7	4	104	115	23	35	141	199
1999-00	7	4	106	117	23	35	142	200
2000-01	7	4	140	151	23	35	152	210
2001-02	7	4	205	216	23	35	154	212

Source : Statistical abstract published by Directorate of Economics and Statistics - 2001 - 2002 in Tamil Nadu.

Regarding the growth profile of Engineering and Polytechnic colleges it is seen from the table that Government Engineering colleges have increased by 40 percent between 1990-91 and 2001 - 2002. Between these periods the number of aided

Engineering colleges remained more or less constant whereas self-financing Engineering colleges increased by 688 percent (26 to 205 numbers). In between 1990-2000 the number of Government Polytechnics and aided Polytechnics remained more or less the same but self-financing Polytechnics increased by 114 percent (72 to 154 numbers.) Thus self-financing institutions have come to dominate in the professional education sector immensely.

During the first plan period there were three Engineering colleges in Tamil Nadu.[10] The total strength of students in three Engineering colleges in 1956 was 500.[11] In the 80's the number of Engineering colleges increased to seven.[12]

During 1999-2000 the total student strength of Engineering colleges was 30463 where 91 percent belonged to self-financing colleges and 9 percent belonged to Government and aided Engineering Colleges.[13] Similarly the statistics indicates that number of medical colleges increased from one to fifteen between 1956 and 1999.[14] Out of these 15 institutions the relative shares of Government, quasi government, minority and unaided institutions were 11, 1, 1 and 2 respectively. To get a better perspective on the growth of professional education the total number of population served by one institution may be a better yard stick. In the Engineering and Technical field in 1989 the total number of

population served by one institution was 14,05,589 and in the medical field it was 59,34,711.[15] In the same year the number of population served by one Engineering and Technical Institution in Kerala was 40,47,271 and in the Medical field it was 56,66,180.[16] This shows that Tamilnadu has a clear edge over Kerala in expanding the facilities for Engineering education.

Self financed Engineering Education in Southern States

The Table 4.2 shows the profile of southern states in respect of Engineering education as per the Report of All India Council of Technical Education.

Table 4.2

NUMBER OF SELF FINANCED ENGINEERING INSTITUTIONS IN SOUTHERN STATES

States	Degree Engineering		Diploma Engineering		Institution	Intake
	No.of Institution	Intake	No.of Institution	Intake	Total	Total
Andhra Pradesh	104 27.95%	30150 27.94%	92 16.55%	16175 22.20%	196 21.12%	46325 25.63%
Tamil Nadu	160 43.01%	40491 37.52%	213 38.31%	45394 62.30%	373 40.20%	85885 47.51%
Karnataka	80 21.51%	30152 27.94%	199 35.79%	2864 3.93%	279 30.06%	33016 18.26%
Kerala	28 7.53%	7110 6.59%	52 9.35%	8430 11.57%	80 8.62%	15540 8.60%
Total	372 100%	107903 100%	556 100%	72863 100%	928 100%	180766 100%

Source : Statewise listing of institution in south India 1999 - 2001 by All India Council of Technical Education

Regarding the profile of southern states in respect of Engineering education it can be seen from the table that out of the total professional institutions 21 percent belongs to Andhra Pradesh, 40 percent belongs to Tamil Nadu, 30 percent belongs to Karnataka and 9 percent belongs to Kerala. Besides this, it is observed that

the intake of students of professional institution in Andhra Pradesh, Tamil Nadu, Karnataka and Kerala is 26, 48, 18 and 9 percent respectively of the total intake of students. In terms of number of institutions and intake of students Tamil Nadu is far ahead compared to other southern states of India. Tamil Nadu is thus considered a progressive state in the field of self financed professional education.

Bharathiar University is one of the Universities in Tamil Nadu which was established in Coimbatore in the year 1982 according to the Tamil Nadu Educational Act of 1981. It was established with jurisdiction over the revenue districts of Coimbatore, Erode and Nilgiris by trifurcating the University of Madras. Some of the important features of the self-financed institutions in Bharathiar University are analysed in the following sections. A rural and urban perspective is also given for the analysis. The analysis is presented in three sections. They are, general profile of the institutions, their investment and financing profiles.

Section I

GENERAL PROFILE

This section examines general aspects of self financed institutions such as courses offered, nature of the institution, its growth, student enrolment and so forth.

a) Courses offered

Self -financed institutions in Bharathiar University offer a variety of courses ranging from Arts and Science subjects to Airforce Administration. A brief profile of these courses are given in the table 4.3.

Table 4.3

COURSE WISE CLASSIFICATION OF INSTITUTIONS

Name of the course	Rural	Urban	Total
a) Arts and Science	36 66.67%	30 83.33%	66 73.33%
b) Engineering	11 20.37%	4 11.11%	15 16.67%
c) Management	4 7.41%	2 5.56%	6 6.67%
d) Law	1 1.85%	0 0%	1 1.11%
e) Airforce Administration	1 1.85%	0 0%	1 1.11%
f) Physical Education	1 1.85%	0 0%	1 1.11%
Total	54 100%	36 100%	90 100%

Source : Annual Report of Bharathiar University 2001

It is evident from the coursewise classification of institutions that out of the total colleges, 73 percent are Arts and Science colleges and 17 percent are Engineering colleges. The remaining 10 percent institutions consists of Management Colleges, Law Colleges, Airforce Administrative College, and Physical Education College.

In addition to this it is seen that 60 percent of institutions (54 numbers) belongs to rural area and 40 percent of institutions (36 numbers) belongs to urban area. Among the self-financed institutions Arts and Science colleges dominate the scene both in urban area and rural area, Engineering and Management colleges occupy 2nd and 3rd position.

b) Nature of the institution

It is now proposed to analyse the nature of institutions on the basis of pattern of financing (see Table 4.4)

Table 4.4

TYPE OF INSTITUTIONS

Nature of College	Rural		Urban		Total
	Arts & Science	Eng.	Arts & Science	Eng.	
Aided	12 25.53%	-	6 21.43%	2 33.33%	20 22.2%
Unaided	33 70.21%	9 100%	16 57.14%	3 50%	61 67.78%
Government					
a) State	2 4.26%	-	5 17.86%	1 16.67%	8 8.89%
b) Central	-	-	1 3.57%	- -	1 1.11%
Total	47 100%	9 100%	28 100%	6 100%	90 100%

Source : Annual Report of Bharathiar University 2001

Classified according to financing pattern it can be observed from the table that 22 percent of institutions are aided, 68 percent unaided, 9 percent run by the state government and 1 percent by the central government. In the rural area, among the Arts and Science category, 70 percent are unaided and among the Engineering category, all are unaided. In the urban area among the Arts and Science category 57 percent are unaided and among the Engineering category 50 percent are unaided. All unaided institutions are registered as charitable institutions. Unaided colleges have thus come to dominate in the educational field in the state.

c) Growth of institutions

The growth of educational institutions is studied over a time frame of 10 years from 1990 - 2000 in the following analysis (See table 4.5).

Table 4.5

GROWTH OF EDUCATIONAL INSTITUTIONS

	Year	Aided	Unaided	Government	Total
On or Before	1990	20 100%	12 19.67%	9 100%	41 45.56%
	1991	-	4 6.56%	-	4 4.44%
	1992	-	2 3.28%	-	2 2.22%
	1993	-	1 1.64%	-	1 1.11%
	1994	-	7 11.48%	-	7 7.77%
	1995	-	5 8.20%	-	5 5.55%
	1996	-	8 13.11%	-	8 8.89%
	1997	-	11 18.03%	-	11 12.22%
	1998	-	9 14.75%	-	9 10%
	1999	-	2 3.28%	-	2 2.22%
	2000	-	-	-	-
	TOTAL	20 100%	61 100%	9 100%	90 100%

Source : Annual Report of Bharathiar University 2001

By yearwise classification of institutions it is found that it was during the 90's that most of the unaided institutions were developed. Accordingly till 1990 there were only 12 institutions in the unaided sector. Since 1990, 49 institutions were added to the unaided sector. Almost all the colleges in the aided and Government sector were started even before 1990. Thus the development since 1990 was characterised by phenomenal growth of unaided institutions in the higher educational sector.

Those Educational institutions in the unaided sector which were set up to meet this excess demand for professional and non-professional courses at the university level are known as capitation fee institutions or self-financed institutions. Most of these institutions are said to offer courses responding to market demand to make quick financial gains. These institutions offer marketable self-financing courses such as M.B.A. (Master of Business Administration), M.C.A. (Master of Computer Application), B.E. (Bachelor of Engineering), B.Tech (Bachelor of Technology).

No attempt has been made so far to explain the nature and functioning of self-financed institutions. In view of this the following section focusses on the structure of self-financed institutions in terms of strength of the students, courses offered, strength of the teaching and non-teaching staff, level of investment and pattern of

financing based on the primary data collected from the sample colleges.

d) Student enrolment

Total enrolment in six Arts and Science colleges and three Engineering colleges in our sample at present is 8125 according to 2001 statistics giving an average student strength of 903 per institution. Out of 8125 students, 5417 students are boys and 2708 students are girls. Thus male female ratios comes to 2:1. Table 4.6 depicts student -strengthwise classification of self-financed institutions.

Table 4.6

STUDENT STRENGTH

Student Strength	Arts & Science	Engineering	Total
Below - 500	1 16.67%	0 0%	1 11.11%
500 - 750	1 16.67%	1 33.33%	2 22.22%
750 -1000	3 50%	0 0%	3 33.33%
1000 -1250	1 16.66%	1 33.33%	2 22.22%
1250 -1500	0 0%	0 0%	0 0%
Above -1500	0 0%	1 33.33%	1 11.11%
Total	6 100%	3 100%	9 100%

Source : Compiled from Primary data collected through questionnaire

Coming to student strength it is evident from the table that irrespective of the courses 66.66 percent of institutions had a student strength below 1000 and 33.33 percent had above 1000. One institution had a strength of above 1500 which happened to be an Engineering college. Among the Engineering colleges one institution had a student strength between 500 and 750 and one institution had a strength between 1000 and 1250. Among the Arts and Science colleges 50 percent of the colleges had a strength between 750 and 1000; one Arts and Science College had a strength below 500. The analysis of data in the table revealed that the average student strength of Arts and Science college is 792 and Engineering college is 1124. It is thus clear that student strength of Engineering college is higher than that of Arts and Science college.

e) Gender differences

Genderwise classification of students will help to study the proportion of male and female students in self-financed institutions (see table 4.5)

Table 4.7

GENDER WISE CLASSIFICATION OF STUDENTS

	Arts & Science	Engineering	Total
Male	2765 58.19%	2652 78.62%	5417 66.67%
Female	1987 41.81%	721 21.38%	2708 33.33%
Total	4752 100%	3373 100%	8125 100%

Source : Compiled from Primary data collected through questionnaire

Regarding the genderwise classification of students it is clear from the table that 67 percent are male students and 33 percent are female students. The male female ratio is 2:1. The same pattern of gender difference is found in Engineering and Arts and Science segments. It is evident from the table that male domination is found in the self-financed institutions. Besides this compared to Arts and Science category, in the Engineering category female-male ratio is low.

f) Courses offered

Table 4.8 shows course offered as well as male female enrolment in sample units (See Table 4.8)

Table 4.8

COURSEWISE CLASSIFICATION OF STUDENTS

Course	Male	Female	Total
M.C.A.	626 11.55%	392 14.47%	1018 12.52%
M.B.A.	580 10.70%	322 11.89%	902 11.10%
Conventional Course	1210 22.33%	573 21.16%	1783 21.94%
B.E.	2000 36.92%	500 18.46%	2500 30.76%
B.Tech	652 12.04%	221 8.16%	873 10.74%
Bio-Chemistry	50 .92%	50 1.85%	100 1.23%
Micro Biology	30 .55%	50 1.85%	80 .98%
Bio-Technology	40 .74%	50 1.85%	90 1.11%
Others	229 4.23%	550 20.31%	779 9.59%
TOTAL	5417 100%	2708 100%	8125 100%

Source : Compiled from Primary data collected through questionnaire

It is clear from the table that self financed institutions offer both conventional and non-conventional courses. However non-conventional courses dominate in their course portfolio. It is observed from the table that of the total students 22 percent are doing conventional degree and post-graduate degree courses, 71 percent are doing M.B.A., M.C.A., B.E. and B.Tech and 7 percent are doing Bio-Chemistry, Micro Biology, Bachelor of Business Management, Master of Business Management, Master of Foreign Trade, Master of Financial Control, Bachelor of Business Administration etc. A glance at the table shows that BE students out number students in all other courses.

g) Teacher's Strength

We will now examine the teachers strength in self financed institutions from a rural and urban perspective (see table 4.9).

Table 4.9
TEACHER STRENGTH

	Arts & Science	Engineering	Total
Rural	110 46.22%	80 50.63%	190 47.98%
Urban	128 53.78%	78 49.37%	206 52.02%
Total	238 100%	158 100%	396 100%

Source : Compiled from Primary Data collected through questionnaire

In the case of rural-urban classification of teachers it is clear from the table that out of the total teachers 48 percent are teachers in the rural institutions and 52 percent are teachers in the urban institutions. Out of teachers in the urban institutions, 128 (62 percent) belong to Arts and Science colleges and 78 (38 percent) belong to Engineering college whereas out of teachers in the rural institutions 110 (58 percent) are teachers of Arts and Science colleges and 80 (42 percent) are teachers of Engineering colleges. Regarding the number of teachers there is not much pronounced difference between rural and urban areas.

Table 4.10 examines the gender differences among teaching staff in self-financed institutions.

Table 4.10
GENDERWISE CLASSIFICATION OF TEACHERS

	Arts & Science			Engineering			Total		Grand
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Rural	58 52.72%	52 47.28%	110 100%	50 62.5%	30 37.5%	80 100%	108 56.84%	82 43.16%	190 100%
Urban	60 46.88%	68 53.12%	128 100%	50 64.10%	28 35.90%	78 100%	110 53.40%	96 46.60%	206 100%
Total	118 49.58%	120 50.42%	238 100%	100 63.29%	58 36.71%	158 100%	218 55.05%	178 44.95%	396 100%

Source : Compiled from Primary data collected through questionnaire

Based on genderwise classification of teachers it is evident from the table that out of the total teachers 55 percent are male teachers and 45 percent are female teachers. In the Arts and Science category 50 percent are male teachers and 50 percent are female teachers whereas in Engineering category 63 percent are male teachers and 37 percent are female teachers. The same pattern of male domination is found both in the rural and urban area with the exception of urban Arts and Science institution where female teachers outnumber male teachers. Male and female teachers are more or less evenly distributed between the rural and urban areas.

In the Arts and Science category the male and female ratio is closer to 1:1 whereas in the Engineering category the ratio is 1.7:1. Thus it is clear that compared to Arts and Science colleges, in the Engineering colleges there is more male dominance.

h) Non-teaching Staff

The non-teaching staff strength of self-financed institutions is given in table 4.11.

Table 4.11
NON-TEACHING STAFF STRENGTH

	Arts and Science			Engineering			Total		Grand
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Rural	20 52.63%	18 47.37%	38 100%	20 55.56%	16 44.44%	36 100%	40 54.05%	34 45.95%	74 100%
Urban	40 68.97	18 31.03%	58 100%	30 62.50%	18 37.50%	48 100%	70 66.03%	36 33.97%	106 100%
Total	60 62.50%	36 37.50%	96 100%	50 59.52%	34 40.48%	84 100%	110 61.11%	70 38.89%	180 100%

Source : Compiled from Primary Data collected through questionnaire

Regarding the gender wise classification of non-teaching staff, it is seen from the table that out of the total non-teaching staff, 61 percent are male and 39 percent are female. In the Arts and Science category, 63 percent are male and 37 percent are female where as in the Engineering category, 60 percent are male and 40 percent are female. Out of the total non-teaching staff, 41 percent (74/180) belong to rural institutions and 59 percent (106/180) belong to urban institutions.

i) Proportion of teaching staff to non-teaching staff

Let us now examine the ratio of teaching staff and non-teaching staff with a view to analysing their relative strength. (See table 4.12)

Table 4.12

PROPORTION OF TEACHING STAFF TO NON-TEACHING STAFF

	Arts		Engineering		Total	
	Teaching	Non Teaching	Teaching	Non Teaching	Teaching	Non Teaching
Rural	110	38 (2.89)	80	36 (2.2)	190	74 (2.57)
Urban	128	58 (2.2)	78	48 (1.63)	206	106 (1.94)
Total	238	96 (2.48)	158	84 (1.88)	396	180 (2.2)

(Figure in brackets - proportion of teaching staff to non-teacing staff)

Source : Compiled from Primary data collected through questionnaire

In Arts and Science category, the proportion of teaching staff to non-teaching staff is 2.48:1 whereas in Engineering category the proportion is 1.88:1. When both categories are taken together the proportion is 2.2:1. The analysis reveals that the proportion of teaching staff to non teaching staff is high in Arts and Science category when compared to Engineering category. Rural institutions exhibit a higher teaching to non-teaching staff ratio when compared to their counter parts in urban areas.

Section II

INVESTMENT PROFILE

(a) Level of Investment

Development of infrastructure for higher education involves huge investment and it may be one of the compelling reasons for the Government to encourage private sector participation in higher education. It will be revealing to examine the level of investment and its pattern in respect of self-financed institutions to study the magnitude of investment in Arts and Science and Engineering institutions.

Table 4.13

LEVEL OF INVESTMENT IN SELF FINANCED INSTITUTIONS

Level of Investment (In crores)	Rural		Urban		Total		Grand Total
	Arts & Science	Eng.	Arts & Science	Eng.	Arts & Science	Eng.	
Less than -5	2 66.67%	0 0%	0 0%	0 0%	2 33.33%	0 0%	2 22.22%
5 - 10	0 0%	1 50%	0 0%	0 0%	0 0%	1 33.33%	1 11.11%
10 - 15	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
15 - 20	1 33.33%	0 0%	1 33.33%	0 0%	2 33.33%	0 0%	2 22.22%
20 - 25	0 0%	1 50%	0 0%	0 0%	0 0%	1 33.33%	1 11.11%
25 - 30	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
30 - 35	0 0%	0 0%	2 66.67%	0 0%	2 33.33%	0 0%	2 22.22%
35 - 40	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
40- 45	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
45 - 50	0 0%	0 0%	0 0%	1 100%	0 0%	1 33.33%	1 11.11%
TOTAL	3 100%	2 100%	3 100%	1 100%	6 100%	3 100%	9 100%
Average Investment	10.64 crores		32.50 crores		17.68 crores	25.71 crores	20.36 crores

Source : Compiled from Primary data collected through questionnaire

Coming to the size of investment it can be seen from the table 4.13 that 22.2 percent of institutions have investment less than Rs.5 crores, 11.11 percent between Rs.5 to 10 crores, 22.22 percent in the range of Rs. 15 to 20 crores, 11.1 percentage between Rs.20 to 25 crores, 22.22 percent in the range of Rs. 30 to 35 crores and 11.11 percent in between Rs.45 to 50 crores. The investment per institution in the rural area works out to be Rs.10.64 crores whereas investment per institution in the urban area is Rs.32.50 crores. The investment per Arts and Science college is Rs.17.68 crores whereas the investment per Engineering college is Rs.25.71 crores. Thus investment varies according to the nature of the college and the area where the institution is located.

It is evident from the table that two third of self financed Arts and Science colleges have reported investment below 20 crores whereas two third of Engineering colleges have reported investment above Rs. 20 crores. Average investment per Engineering institutions is higher than that of Arts and Science institutions. Similarly average investment per institution in urban area is higher than that of rural areas.

b) Components of Investment

Table 4.14 depicts the components of total investment in self-financed institutions.

Table 4.14

COMPONENTS OF TOTAL INVESTMENT
(Amount in Crores)

Components	Urban	Rural	Total
Land	47.475 36.53%	12.79 24.04%	60.27 32.90%
Building	36.802 28.32%	14.73 27.69%	51.53 28.13%
Lab Computer	23.290 17.92%	9.33 17.54%	32.62 17.80%
Library	6.994 5.38%	4.44 8.35%	11.43 6.25%
Furniture	1.986 1.53%	2.01 3.78%	3.99 2.18%
Hostel	5.719 4.40%	3.96 7.44%	9.68 5.28%
Transport	4.903 3.77%	4.44 8.35%	9.34 5.09%
Others	2.801 2.16%	1.50 2.82%	4.30 2.35%
TOTAL	129.97 100%	53.20 100%	183.17 100%

Source : Compiled from Primary data collected through questionnaire

Valuation of Investment Components

1. Land value is determined by the total area of land possessed by the institution and used for the purpose of conducting the course multiplied by the land value fixed by the concerned revenue department or local administrative bodies.

2. All buildings are in good condition so that its valuation is made on the basis of considering total plinth area multiplied by cost of construction per square meter (including hostal buildings). Since the difference between the depreciation and maintenance cost plus the appreciation of real assets (buildings) due to inflation is marginal, we can estimate the present value of the buildings on the basis of plinth area times cost of construction at present price.

3. In the case of all other components, valuation is made by examining the purchase order of the institution. All these accounts are properly maintained in all these institutions and are duly audited by the competent authorities.

In connection with the analysis of different components of total investment, it is evident from the table that irrespective of the area 33 percent of investment is on land, 28 percent investment on building, 18 percent on lab and computer, 6.25 percent on library, 2.18 percent on furniture, 5.28 percent on hostel, 5.09 percent on transport and 2.35 percent on others and miscellaneous items.

Investment in the urban areas account for 71 percent (Rs. 129.97 crores) of the total investment of all institution and the share of the rural area in this respect is 29 percent (Rs. 53.20 crores). In the urban area, investment on land is the highest (36.53%) whereas in the rural area investment on building is the highest (27.69%). This may be attributed to higher cost of land in the urban area. In the urban area investment on building, lab and computer, library, furniture, hostel, transport and others constitute 28.32 percent, 17.92 percent, 5.38 percent, 1.53 percent, 4.40 percent, 3.77 percent and 2.16 percent respectively of the total investment. In the rural area, investment on land, lab and computer, library, furniture, hostel, transport and others constitute 24.04 percent, 17.54 percent, 8.35 percent, 3.78 percent, 7.44 percent, 8.35 percent and 2.82 percent, respectively of the total investment. This shows that the inter regional differences with regard to the pattern of investment is more or less similar except in the case of investment on land and building.

A perusal of the table shows that total investment of institutions in the urban area is 2.44 times greater than that of investment of institution in the rural area even when we discount the fact that sample size of rural institution is greater than urban institution. Apart from that in the urban area, investment on land is the highest whereas in the rural area investment on building is the highest.

The component of investment per self-financed institutions is explained in the table 4.15.

Table 4.15

COMPONENTS OF AVERAGE INVESTMENT

(Amount in Crores)

Components	Urban	Rural	Combined Average
Land	11.87 36.51%	2.558 24.04%	6.69 32.87%
Building	9.20 28.31%	2.946 27.68%	5.73 28.16%
Lab Computer	5.82 17.92%	1.866 17.54%	3.62 17.79%
Library	1.75 5.38%	.888 8.35%	1.27 6.24%
Furniture	.50 1.53%	.402 3.78%	.44 2.16%
Hostel	1.439 4.40%	.792 7.44%	1.08 5.31%
Transport	1.233 3.79%	.888 8.35%	1.04 5.11%
Others	0.70 2.16%	.300 2.82%	.48 2.36%
Combined Total and Average	32.50 100%	10.64 100%	20.35 100%

Source : Compiled from Primary data collected through questionnaire

With respect to the rural-urban components of average investment per institution it may be seen from the table that the combined average investment of urban and rural area is Rs.20.35 crores. Average investment of urban area is Rs.32.50 crores whereas average investment in rural area is Rs.10.64 crores. In the urban area average investment on land, building, lab and computer, library, furniture, hostel, transport and others are Rs.11.87 crores, Rs.9.20 crores, Rs.5.82 crores, Rs.1.75 crores, Rs. .50 crores, Rs.1.43 crores, Rs.1.23 crores, and Rs. .70 crores respectively. In the rural area average investment on land, building, lab and computer, library, furniture, transport and others is Rs.2.558 crores, Rs. 2.946 crores, Rs.1.866 crores, Rs. .888 crores, Rs. .402 crores, Rs. .792 crores, Rs. .88 crores and Rs. .300 crores respectively.

A glance at the table shows that in the urban area average investment on land is the highest (Rs.11.87 crores) whereas in the rural area average investment on building is the highest (Rs. 2.946 crores). Average investment of urban institution is 3.05 times greater than that of average investment of rural institution.

c) Institutionwise components of total investment

Let us now look into the institutionwise analysis of components of total investment (See table 4.16).

Table 4.16

INSTITUTION-WISE CLASSIFICATION OF THE COMPONENTS OF TOTAL INVESTMENT
(Amount in Crores)

Components	Arts & Science	Engineering	Total
Land	37.131 35%	23.14 30.01%	60.27 32.91%
Building	31.58 29.78%	19.95 25.88%	51.53 28.13%
Lab Computer	15.82 14.92%	16.79 21.78%	32.61 17.80%
Library	6.85 6.46%	4.58 5.94%	11.43 6.24%
Furniture	1.55 1.46%	2.45 3.18%	4.00 2.18%
Hostel	5.79 5.46%	3.89 5.05%	9.68 5.28%
Transport	5.22 4.92%	4.12 5.34%	9.34 5.10%
Others	2.12 2%	2.18 2.83%	4.30 2.35%
TOTAL	106.06 100%	77.10 100%	183.16 100%

Source : Compiled from Primary Data collected through questionnaire

Regarding the institutionwise classification of total investment it is found from the table that irrespective of the discipline 32.91 percent of investment is on land, 28.13 percent on building, 17.80 percent on lab and computer, 6.24 percent on library, 2.18 percent on furniture 5.28 percent on hostel, 5.10 percent on transport and 2.35 percent on others.

An examination of the components of total investment for Arts and Science and Engineering category shows that investment on land is the highest for both categories. The estimated total investment for Arts and Science and Engineering category is Rs. 183.16 crores out of which the total investment on Arts and Science category is Rs.106.06 crores whereas total investment on Engineering category is Rs. 77.10 crores. In respect of Arts and Science category 35 percent of the total investment is incurred on land. The next highest investment (29.78%) is on building. Total investment on other components such as lab and Computer, library, furniture, hostel, transport and others constitute 14.92 percent, 6.46 percent 1.46 percent, 5.46 percent, 4.92 percent, and 2 percent respectively of the total investment of Arts and Science category. In respect of the Engineering category, investment on land is the highest. (30.01 percent). The next highest investment (25.88 percent) is on building. The total investment on all other components such as lab and computer, library, furniture, hostel, transport and others constitute 21.78 percent, 5.94 percent, 3.18

percent, 5.05 percent, 5.34 percent and 2.83 percent respectively of the total investment of Engineering category.

Table 4.17 depicts the institutionwise components of average investment per institution.

Table 4.17

DISCIPLINE WISE CLASSIFICATION OF THE COMPONENTS OF AVERAGE INVESTMENT
(Amount in Crores)

Components	Arts & Science	Engineering	Combined Average
Land	6.19 35.01%	7.71 29.99%	6.70 32.89%
Building	5.26 29.75%	6.65 25.87%	5.72 28.09%
Lab Computer	2.64 14.93%	5.60 21.78%	3.63 17.82%
Library	1.14 6.45%	1.53 5.95%	1.27 6.23%
Furniture	.26 1.47%	.82 3.19%	.45 2.20%
Hostel	.97 5.49%	1.30 5.06%	1.08 5.31%
Transport	.87 4.92%	1.37 5.33%	1.04 5.11%
Others	.35 1.98%	.728 2.83%	.476 2.34%
Combined Total and Average	17.68 100%	25.71 100%	20.36 100%

Source : Primary Data collected through questionnaire

From an analysis of institutionwise components of average investment per institution it is seen that combined average investment of Arts and Science and Engineering category is Rs. 20.36 crores. Average investment of Arts and Science category is Rs. 17.68 crores whereas average investment of Engineering category is Rs. 25.71 crores. In the Arts and Science category, average investment on land, building lab and computer, library, furniture, hostel, transport and others are Rs.6.19 crores, Rs.5.26 crores, Rs.2.64 crores, Rs.1.14 crores, Rs. .26 crores, Rs. .97 crores, Rs. .87 crores, and Rs. .35 crores respectively. In the Engineering category average investment on land, building, lab and computer library furniture, hostel, transport and others are Rs. 7.71 crores, Rs. 6.65 crores, Rs. 5.60 crores, Rs. 1.53 crores, Rs. .82 crores, Rs. 1.30 crores, Rs. 1.37 crores, and Rs. .728 crores respectively.

A perusal of the table shows that the average investment of Engineering category (Rs.25.71 crores) is higher than average investment of Arts and Science category (Rs. 17.68 crores).

Section III

FINANCING PROFILE

The foregoing analysis of investment pattern of self financed institutions revealed that they spent huge amount for land, building and other infrastructure.

Now there arises a pertinent question. The question is how this huge amount of investment is mobilised by the institution. Let us now examine the financing profile of self-financed institutions with a view to ascertaining the pattern of financing. The major sources of funding are the owned fund, capitation fee or compulsory donation collected from students. Almost all institutions use their own funds which have been channelised from other business concerns of their own to self financed institutions. It is found from the survey that contribution from public, contribution from UGC, foreign assistance, student deposits, borrowing from banks and financial institutions etc. were almost nil in self financed institutions. Though the amount is nominal some colleges have endowments which they use for providing gold medals to rank holders.

a) Donations

The table 4.18 depicts the level of funds per annum mobilised by Arts and Science and Engineering colleges as donation of students in the rural and urban area of self-financed institutions.

Table 4.18

DONATION AS A SOURCE OF FUNDS PER ANNUM
(Amount in Crores)

	Arts	Engineering	Total
Rural	4.1	9.7	13.8
Urban	6.5	6.38	12.88
Total	10.6	16.08	26.68

Source : Compiled from Primary data collected through questionnaire

With respect to the level of total students donation per annum it is seen from the table that rural institutions mobilised Rs 13.8 crores by means of donation per annum whereas in the urban institutions the corresponding amount is Rs 12.88 crores. Out of the funds mobilised by rural institutions by means of students donation, Arts and Science category has mobilised Rs 4.1 crores whereas Engineering category has mobilised Rs 9.7 crores. Out of the funds mobilised by urban institutions by means of students donation Arts and Science category has mobilised Rs 6.5 crores and Engineering category has mobilised Rs 6.38 crores. Irrespective of the area Arts and Science category has mobilised Rs 10.6 crores where as Engineering category has mobilised Rs 16.08 crores by means of students donation.

An examination of the table reveals that rural institutions have mobilised more funds by means of students donations than urban institution. Besides this, Engineering category has mobilised more funds by means of student donation than Arts and Science category. To get a better perspective of students donation, we have to undertake areawise and discipline wise analysis of donations.

Table 4.19 shows areawise classification of student donation per institution by rural and urban self-financed institutions.

Table 4.19

AREAWISE CLASSIFICATION OF DONATION PER INSTITUTION PER ANNUM

(Amount in Crores)

Area	Total	Average
Rural	13.8	2.76
Urban	12.88	3.22
Combined Total and Average	26.68	2.96

Source : Compiled from Primary data collected through questionnaire

Regarding the area wise classification of students donation per institution it is found from the table that combined average of donation for rural and urban area is Rs 2.96 crores. The donation per institution in the rural area works out to be Rs 2.76 crores whereas donation per institution in the urban area works out to be Rs 3.22 crores. A perusal of the table shows that institutions in the urban area have mobilised more by means of donation than their rural counter parts.

A discipline wise analysis of donation per institution is depicted in the table 4.20.

Table 4.20

DISCIPLINE WISE CLASSIFICATION OF DONATIONS PER INSTITUTION PER ANNUM

(Amount in Crores)

Category	Total	Average
Arts and Science	10.6	1.77
Engineering	16.08	5.36
Combined Total and Average	26.68	2.96

Source : Compiled from Primary data collected through Questionnaire

While analysing disciplinewise classification of students donation per institution it is found from the table that combined average of students donation for Arts and Science and Engineering category is Rs 2.96 crores. The students donation per institution of Engineering category works out to be Rs 5.36 crores where as students donation per institution of Arts and Science category works out to be Rs 1.77 crores.

A glance at the table shows that Engineering institutions collect more donations per annum from students than Arts and Science institutions.

b) Owned fund

Data pertaining to the use of owned fund for financing couldn't be collected for want of co-operation from self financed institutions. Institutions covered by the sample did not disclose data pertaining to the contribution of owned funds. It is a well known fact that self financed institutions are collecting capitation fee/donation with a view to financing their investment in physical infrastructure. An attempt is being made to study the extent of investment recouped through such donation.

Table 4.21

RECOUPMENT OF INVESTMENT THROUGH DONATION (AREA WISE)

(Amount in Crores)

	Rural	Urban	Total
Total investment	53.20	129.97	183.17
Donation per annum	13.80	12.88	26.68
Investment/donation ratio	3.85	10.09	6.86
Average age of Institution	14 years	11 Years	13 years

Source : Compiled from Primary data collected through questionnaire

The study reveals that total capitation fee collected by self financed institutions exceeded their total investment which indicates the withdrawal of surplus by the owners for their own purpose or for reinvestment. The table 4.21 exhibits information for this analysis. Investment/donation ratio reveals the pay back period of investment through donation income. A higher average age over the investment/donation ratio indicates the surplus while lesser average age indicates deficiencies. The investment/donation ratio for the self financed institution is 6.86 as a whole where as average age of institution is 13 years. This indicates creation of surplus by self-

financed institutions. When we make comparison between urban and rural areas with reference to the surplus/deficiency generated, the rural institutions have generated more surplus as indicated by a lesser investment donation ratio when compared to their average age. In the urban institutions the difference between investment/ donation ratio and average age of institution is marginal which indicates a low level of surplus generation. This may be attributable to a comparatively higher level of investment in the urban area.

Table 4.22

RECOUPMENT OF INVESTMENT THROUGH DONATION - DISCIPLINEWISE

(Amount in Crores)

	Arts & Science	Engineering	Total
Total investment	106.07	77.10	183.17
Donation per annum	10.6	16.08	26.68
Investment/Donation	10	4.79	6.86
Average age of the institution	13	12	13

Source: Compiled from primary data collected through questionnaire.

When we make comparison between Arts and Science and Engineering category with reference to the surplus/deficiency generated, the Engineering institutions have generated more surplus as indicated by lesser investment donation ratio when compared to their average age. In the Arts and Science institutions the difference between investment/donation ratio and average age of the institution is marginal which indicates low level of surplus generation. This may be attributable to a comparatively lesser level of donation per annum in the Arts and Science category.

So far we have seen the structure of self-financed institutions in terms of strength of the students, course offered, strength of teaching and non-teaching staff, level of investment and pattern of financing. Regardless of the nature of course and area, self-financed institutions are spending huge amount of money on infrastructural facilities. In order to understand how far investment in self-financed institutions is worth we have to find out the viability of the institution. This issue is taken up for examination in the following chapter.

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CHAPTER V

FINANCIAL VIABILITY OF SELF FINANCED HIGHER EDUCATIONAL INSTITUTIONS

Higher education in general and professional education in particular play a vital role in the economic and social development of a country. It supplies a wide range of increasingly sophisticated and ever changing variety of trained man power needed in the fields of Engineering, Medicine, Agriculture, Management, Communication, Law etc. Recognising the role of education in the economic and social development, in a welfare state like India the state owes the responsibility of education. This was the environment until the Educational Policy of 1986. However Structural Adjustment and Stabilisation Policies adopted since 1990 have modified this view of the Government's role in education. But the significant part of the whole gamut is that private sector has acquired only the more viable part of education and conventional and non-viable part is left to the Government.

There is a general belief among the people that higher education under private sector is profitable. To substantiate this argument we need data on total expenditure and total revenue. In

the last chapter we have seen the structure of self-financed institutions in terms of student strength, the teaching and non-teaching staff strength, the courses offered, the level of investment and sources of financing. This chapter would make a study of cost, revenue and viability of self-financed institutions.

COST STRUCTURE

Cost means that part of expenditure which has some relationship with production process and output. Cost of education is defined as cost incurred by the parents/students (private cost) and the Government/institution (Institutional cost) for education. Private cost is defined as that part of investment in education which is made either by the student or by the parent or by both. Institutional cost indicates the expenditure incurred by the Government or by the institution for providing the facilities of education. Institutional costs are fixed and variable in nature. The fixed cost remains fixed in the short run regardless of the number of students and vary in the long run. Variable cost on the other hand vary directly with number of students. Salary of teaching staff, salary of non-teaching staff and depreciation are treated as fixed cost. The salary of the temporary teaching staff eventhough variable in nature is not separated from the total salary expenses owing to its relatively low

contribution to the salary bill. All other components of cost are variable. Total cost is the sum of fixed and variable. Some cost are semi-variable in nature. However for the purpose of the present analysis semi-variable expenses such as chalk, duster, electricity, water bill etc. are treated as variable cost owing to the relatively insignificant fixed cost components in them.

a) Total cost

Table 5.1 highlights the components of total cost.

Table 5.1
COMPONENT WISE CLASSIFICATION OF TOTAL COST
(Amount in Crores)

Components	Urban		Rural		Total		Grand Total
	Arts & Science	Engg.	Arts & Science	Engg.	Arts & Science	Engg.	
Chalk Duster	0.005 0.16%	0.002 0.109%	0.004 0.14%	0.005 0.19%	0.009 0.15%	0.007 0.16%	0.016 0.15%
Electricity water bill	.60 19.07%	.54 29.48%	.746 26.77%	.76 28.56%	1.346 22.68%	1.30 28.93%	2.646 25.38%
White wash polish painting	.06 1.91%	.01 0.546%	.060 2.15%	.04 1.50%	.120 2.02%	.05 1.11%	.17 1.63%
Repair Furniture	.05 1.59%	.01 0.546%	.021 0.75%	.02 0.75%	.071 1.2%	.03 0.67%	.101 0.97%
Tax	.08 2.54%	.10 5.46%	.05 1.79%	.04 1.50%	.130 2.19%	.14 3.12%	.27 2.59%
Transport	.08 2.54%	.10 5.46%	.05 1.79%	.02 0.75%	.130 2.19%	.12 2.67%	.25 2.39%

Depreciation	.05 1.59%	.10 5.45%	.02 0.71%	.20 7.52%	.070 1.18%	.30 6.68%	.37 3.55%
Advertisement	.17 5.40%	.03 1.64%	.06 2.15%	.16 6.01%	.23 3.87%	.19 4.23%	.42 4.01%
Salary of teaching staff	.90 28.60%	.60 32.75%	1.15 41.25%	.80 30.06%	2.05 34.55%	1.40 31.16%	3.45 33.09%
Salary of non teaching Staff	.34 10.80%	.12 6.55%	.186 6.67%	.08 3%	.526 8.86%	.20 4.45%	.726 6.96%
Other maintenance	.02 0.64%	.003 0.16%	.03 1.07%	.02 0.75%	.05 0.84%	.023 0.51%	.073 0.7%
Postal, stationery Printing	.02 0.64%	.003 0.16%	.02 0.71%	.01 0.38%	.04 0.67%	.013 0.29%	.053 0.51%
Hostel Expenses	0.752 23.9%	0.21 11.46%	0.38 13.64%	0.496 18.64%	1.13 19%	0.71 15.8%	1.838 17.63%
Others	.02 0.64%	.004 0.22%	.01 0.36%	.01 0.38%	.03 0.51%	.014 0.31%	.044 0.42%
TOTAL	3.147 100%	1.832 100%	2.787 100%	2.661 100%	5.934 100%	4.493 100%	10.427 100%

Source : Compiled from Primary data collected through questionnaire

In the case of the components of total cost it is evident from the table that total cost incurred by Arts and Science category is Rs. 5.934 crores whereas in the Engineering category it is Rs. 4.493 crores. In the urban area Arts and Science category spends Rs. 3.147 crores on the fixed and variable items whereas in the rural area Arts and Science category spends Rs. 2.787 crores for the same. In the Engineering category total cost amounted to Rs. 1.832 crores and 2.661 crores in the rural and urban areas respectively.

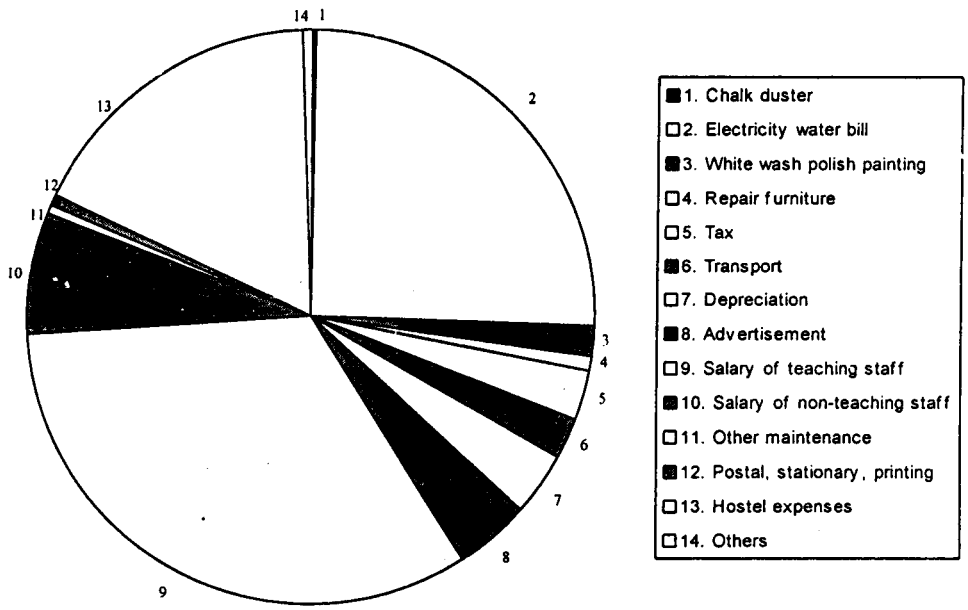
In the urban area out of the total cost of Arts and Science category, components like electricity and water bill, salary of the teaching and non-teaching staff and hostel expenses accounted for 82.37 percent. In the Engineering category, corresponding cost components account for 80.24 percent of the total cost.

The same pattern of total cost prevails with regard to the share of electricity, water, salary bill and hostel expenses to total expenses in the rural area. The proportion of these items is 88.33 percent and 80.26 percent respectively in Arts and Science and Engineering category.

Irrespective of the area and the discipline the highest total cost component is salary of the teaching staff and the next highest component is cost on electricity and water bill.

Chart given below highlights the relative share of each component to total cost of self-financed institutions. It is clear from the chart that salary of the teaching staff account for a major share in the total cost followed by electricity and water bill and hostel expenses.

Total Cost



b) Average cost

Let us now anaylse the components of average cost per institution in order to study cost structure at the institutional level.

Table 5.2

COMPONENT WISE CLASSIFICATION OF AVERAGE COST PER ANNUM

(Amount in Crores)

Components	Urban		Rural		Rural-Urban combined		All combined
	Arts & Science	Engg.	Arts & Science	Engg.	Arts & Science	Engg.	
Chalk Duster	.002 0.19%	.002 0.11%	.001 0.11%	.003 0.23%	.0015 0.15%	.002 0.13%	.002 0.17%
Electricity water bill	.20 19.07%	.54 29.48%	.249 26.80%	.380 28.55%	.224 22.65%	.430 28.70%	.293 25.35%
White wash polish painting	.02 1.91%	.01 0.55%	.020 2.15%	.02 1.50%	.02 2.02%	.017 1.13%	.019 1.64%
Repair Furniture	.017 1.62%	.01 0.55%	.007 0.75%	.01 0.75%	.012 1.2%	.01 0.67%	.011 0.95%
Tax	.027 2.57%	.10 5.46%	.017 1.79%	.02 1.50%	.022 2.22%	.05 3.33%	.03 2.60%
Transport	.027 2.57%	.10 5.46%	.017 1.82%	.01 0.75%	.022 2.22%	.04 2.67%	.028 2.42%

Depreciation	.017 1.62%	.10 5.46%	.007 0.75%	.1 7.52%	.012 1.2%	.10 6.68%	.04 3.46%
Advertisement	.057 5.43%	.03 1.64%	.020 2.15%	.08 6.01%	.038 3.84%	.06 4.01%	.05 4.33%
Salary of teaching staff	.30 28.60%	.60 32.75%	.383 41.23%	.40 30.05%	.34 34.37%	.47 31.37%	.38 32.87%
Salary of non teaching Staff	.113 10.80%	.12 6.55%	.062 6.67%	.04 3%	.088 8.89%	.07 4.67%	.080 6.92%
Other maintenance	.007 0.66%	.003 0.16%	.01 1.08%	.01 0.75%	.008 0.81%	.008 0.53%	.008 0.69%
Postal, stationery Printing	.007 0.66%	.003 0.16%	.007 0.75%	.005 0.38%	.007 0.71%	.004 0.27%	.006 0.52%
Hostel Expenses	.251 23.9%	.21 11.46%	.127 13.67%	.248 18.64%	.189 19.11%	.235 15.69%	.204 17.65%
Others	.007 0.67%	.004 0.22%	.003 0.32%	.005 0.376%	.005 0.51%	.005 0.33%	.005 0.43%
TOTAL	1.049 100%	1.832 100%	0.93 100%	1.331 100%	0.989 100%	1.498 100%	1.156 100%

Source : Compiled from Primary data collected through questionnaire

With respect to componentwise classification of average cost per institution it is seen from the table that irrespective of the area and discipline average cost works out to be Rs 1.156 crores. Average cost of Arts and Science category is Rs 0.989 crores whereas in the Engineering category it is Rs 1.498 crores. Combined average of cost of Arts and Science and Engineering college in the urban area is Rs 1.24 crores whereas combined average cost of Arts and Science and Engineering college in the rural area is Rs 1.09 crores.

Arts and Science college in rural and urban areas on an average spends Rs 38 lakhs and Rs 30 lakhs respectively for the payment of salary of teaching staff whereas Engineering college in the rural and urban area on an average spend Rs 40 lakhs and Rs 60 lakhs respectively for the same. Arts and Science college in the rural and urban area on an average spends Rs 13 lakhs and Rs 25 lakhs respectively for the payment of hostel expenses where as Engineering college in the rural and urban area on an average spends Rs 25 lakhs and Rs 21 lakhs respectively on this account. As far as the electricity bill is concerned, each institution in the Arts and Science category of rural and urban area spends Rs 25 lakhs and Rs 20 lakhs respectively whereas each institution in the Engineering category of rural and urban areas spends Rs 38 lakhs and Rs 54 lakhs for the same.

On an average an institution in the rural and urban area of Arts and Science category spends Rs 6 lakhs and Rs 11 lakhs respectively as the payment of salary of non-teaching staff whereas for the Engineering category an institution on an average in the rural and urban areas spends Rs 4 lakhs and Rs 12 lakhs respectively for the same. This disparity in the payment of salary to non-teaching staff per institution in the rural and urban area is mainly because of the fact that number of non-teaching staff per institution in the urban area is significantly higher than in the rural area. Higher salary per non-teaching staff in the urban area compared to rural area is the another reason for this disparity.

Higher level of advertisement is a unique feature of self-financed institutions. Each institution spends huge amount on advertisement and publicity. On an average an institution in the rural and urban areas of Arts and Science category spends Rs 2 lakhs and Rs 6 lakhs respectively for advertisement and publicity whereas an institution in the rural and urban areas of Engineering category on an average spends Rs 8 lakhs and Rs.3 lakhs respectively for the same.

An examination of the table shows that average cost of the urban institution (Rs 1.25 crores) is greater than that of their counterpart in the rural area (Rs 1.09 crores). Besides this it is seen that average cost of Engineering category is greater than Arts and Science category. This is true in the case of rural and urban institution.

c) Cost per seat

We now pass on the study of cost per seat in self-financed institutions. Table 5.3 depicts information relating to this aspect.

Table 5.3

COST PER SEAT PER ANNUM - DISCIPLINEWISE

Components	Arts & Science	Engineering	Total
Total Cost (Rupees in Crores)	5.934	4.493	10.427
Number of seats	4752	3373	8125
Cost per seat (in Rupees)	12487	13320	12833

Source : Compiled from Primary data collected through questionnaire

Coming to cost per seat it is clear from the table that on an average self-financed institutions spends Rs. 12487/- towards total expenses to maintain a seat at hundred percent enrolment. Cost per seat in the Engineering category (Rs. 13320/-) is marginally higher than that of Arts and Science category (Rs. 12487/-).

Table 5.4 shows the cost per seat in rural and urban areas.

Table 5.4

COST PER SEAT PER ANNUM - AREA WISE

Components	Rural	Urban	Total
Total cost (Rupees in Crores)	5.448	4.979	10.427
Number of seats	4624	3501	8125
Cost per seat (in Rupees)	11782	14222	12833

Source : Compiled from Primary data collected through questionnaire

Area wise classification of cost per seat shows that cost per seat in the rural institution is Rs. 11782/- whereas cost per seat in the urban institution is Rs. 14222/-. Cost per seat in the urban institutions is considerably higher than rural institutions.

SOURCES OF REVENUE

We shall now turn to the revenue side of self-financed institutions. The important sources of revenue are tuition fee, hostel fee, registration fee, special fee, fines, penalties, lab fees, library fees and others.

Table 5.5
COMPONENT WISE CLASSIFICATION OF TOTAL REVENUE PER ANNUM
(Amount in Crores)

Components	Urban		Rural		Total		Grand Total
	Arts&Science	Engg.	Arts&Science	Engg.	Arts&Science	Engg.	
Tuition Fee	8.733 72.61%	3.88 75.70%	3.087 63.35%	6.58 73.07%	11.82 69.94%	10.46 74.03%	22.28 71.80%
Hostel Fee	1.34 11.14%	.461 9%	.90 18.46%	.799 8.87%	2.24 13.25%	1.26 8.92%	3.50 11.28%
Registration Fee	.10 0.83%	.05 0.97%	.12 2.46%	.10 1.11%	.22 1.30%	.15 1.06%	.37 1.19%
Special Fee	.80 6.65%	.168 3.28%	.31 6.36%	.252 2.80%	1.11 6.57%	.42 2.97%	1.53 4.93%
Fines	.218 1.81%	.05 .98%	.122 2.50%	.09 .99%	.34 2.01%	.14 .99%	.48 1.55%
Penalties	.266 2.21%	.118 2.30%	.164 3.37%	.162 1.80%	.43 2.54%	.28 1.98%	.71 2.29%
Lab Fee	.20 1.66%	.218 4.25%	.05 1.03%	.342 3.80%	.25 1.48%	.56 3.96%	.81 2.61%
Library Fee	.28 2.33%	.10 1.95%	.07 1.44%	.32 3.55%	.35 2.07%	.42 2.97%	.77 2.48%
Others	.09 .75%	.08 1.56%	.05 1.03%	.36 4%	.14 .83%	.44 3.11%	.588 1.89%
TOTAL	12.027 100%	5.125 100%	4.873 100%	9.005 100%	16.90 100%	14.13 100%	31.03 100%

Source : Compiled from Primary data collected through questionnaire

While considering the componentwise classification of total revenue it is evident from the table 5.5 that irrespective of area and discipline 71.80 percent constitutes tuition fee, 11.28 percent constitutes hostel fee and 4.93 percent constitutes special fee etc.

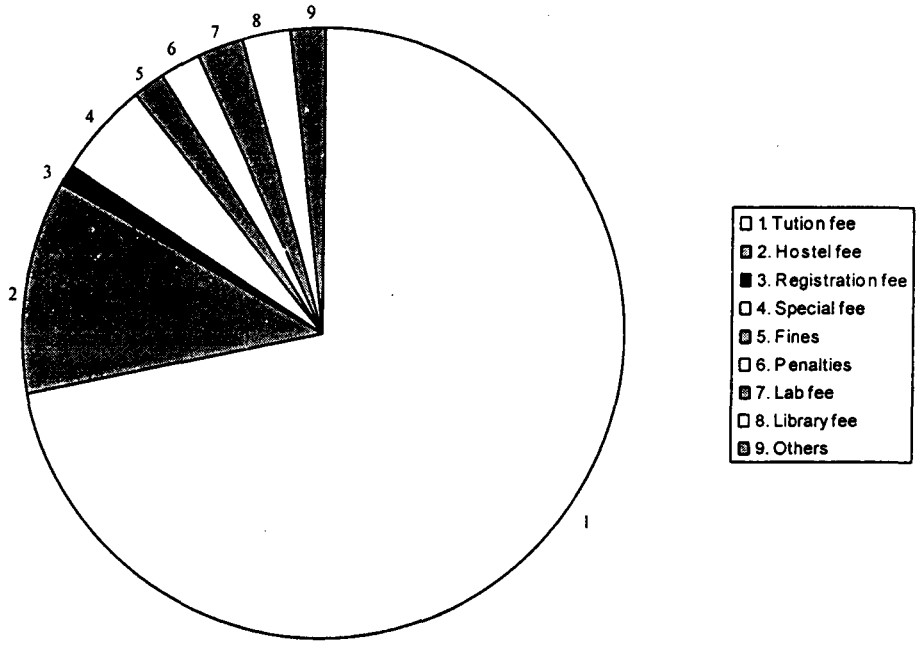
Arts and Science and Engineering category together earn Rs.31.03 crores per annum out of which total revenue of Arts and Science category is Rs.16.90 crores whereas total revenue of Engineering category is Rs.14.13 crores. Out of the total revenue of Arts and Science category, tuition fee, hostel fee and special fee account for 89.76 percent. All other components constitute 10.14 percent of the total revenue. Out of the total revenue of Engineering category, tuition fee, hostel fee and special fee account for 85.92 percent. All other components constitute 14.08 percent of the total revenue.

In the urban area out of the Arts and Science category tuition fee, hostel fee and special fee account for 90.4 percent of the total revenue In the Engineering category, tuition fees, hostel fee and special fee account for 87.98 percent of the total revenue. The same pattern of revenue prevails with regard to the share of tuition fee, hostel fee and special fee in the rural area. The proportion of these items are 88.17 percent and 84.74 percent respectively in the Arts and Science and Engineering category.

An examination of the table shows that major component of total revenue of Arts and Science and Engineering category is tuition fee. The next important component is hostel fee.

The chart given below highlights the relative share of each component to total revenue. It is clear from the chart that tuition fee accounts for a major share to total revenue followed by hostel fee and special fee.

Revenues



b) Components of Average revenue per institution

Let us now examine the components of average revenue at the institution level.

Table 5.6

COMPONENT WISE CLASSIFICATION OF AVERAGE REVENUE PER ANNUM
(Amount In Crores)

Components	Urban		Rural		Rural and Urban Combined		All Combined
	Arts & Science	Engg.	Arts&Science	Engg.	Arts&Science	Engg.	
Tuition Fee	2.911 72.59%	3.88 75.70%	1.029 63.44%	3.29 72.99%	1.97 69.98%	3.49 73.94%	2.48 71.88%
Hostel Fee	.45 11.22%	.461 9%	.30 18.49%	.40 8.88%	.375 13.32%	.42 8.90%	.39 11.30%
Registration Fee	.03 0.74%	.05 0.97%	.04 2.46%	.05 1.11%	.035 1.24%	.05 1.06%	.04 1.16%
Special Fee	.27 6.73%	.168 3.28%	.10 6.17%	.126 2.80%	.185 6.57%	.14 2.97%	.17 4.93%
Fines	.073 1.82%	.05 .98%	.04 2.47%	.05 1.11%	.06 2.13%	.05 1.06%	.05 1.45%
Penalties	.09 2.24%	.118 2.30%	.05 3.08%	.08 1.78%	.07 2.49%	.09 1.91%	.08 2.32%
Lab Fee	.07 1.75%	.218 4.25%	.02 1.23%	.171 3.79%	.04 1.42%	.19 4.03%	.09 2.60%
Library Fee	.09 2.24%	.10 1.95%	.023 1.42%	.16 3.55%	.06 2.13%	.14 2.97%	.09 2.60%
Others	.03 .75%	.08 1.56%	.02 1.23%	.18 3.99%	.02 .71%	.15 3.18%	.06 1.74%
TOTAL	4.01 100%	5.125 100%	1.622 100%	4.507 100%	2.815 100%	4.72 100%	3.45 100%

Source : Compiled from Primary data collected through questionnaire

With respect to componentwise classification of average revenue per institution it is clear from the table 5.4 that irrespective of area and discipline, tuition fee, hostel fee and special fee account for 88.11 percent of the average revenue. In the Arts and Science category tuition fee, hostel fee and special fee account for 89.87 percent of the average revenue whereas in the Engineering category the corresponding figure is 85.81 percent.

Combined average revenue of Arts and Science and Engineering category works out to Rs.3.45 crores. Combined average revenue of Arts and Science and Engineering category in the urban and rural area are Rs.4.29 crores and Rs.2.776 crores respectively.

A perusal of the table shows that average revenue of the Engineering category is higher than average revenue of Arts and Science category. Apart from that average revenue of self-financed institutions in the urban area is greater than that of in the rural area.

c) Revenue per seat

Let us now consider the revenue per seat in self-financed institutions.

Table 5.7

REVENUE PER SEAT PER ANNUAM - DISCIPLINEWISE

Components	Arts & Science	Engineering	Total
Total Revenue (Rupees in crores)	16.90	14.13	31.03
Number of seats	4752	3373	8125
Revenue per seat (in Rupees)	35564	41891	38191

Source : Compiled from Primary Data collected through questionnaire

Coming to the revenue per seat it is clear from the table 5.7 that on an average self-financed institutions receive Rs. 38191/- per seat at hundred percent enrolment. Revenue per seat in the Engineering category is higher than revenue per seat in the Arts and Science category.

Table 5.8 shows area wise analysis of revenue per seat.

Table 5.8

REVENUE PER SEAT PER ANNUM - AREA WISE

Components	Rural	Urban	Total
Total revenue (Rupees in Crores)	13.878	17.152	31.03
Number of seats	4624	3501	8125
Revenue per seat (in Rupees)	30013	48992	38191

Source: Compiled from Primary data collected through questionnaire.

Area wise classification of revenue per seat shows that self financed institutions on an average generate Rs. 38191 per seat every year. It is found from the table 5.8 that revenue per seat in the urban institutions is significantly higher than that of their counter parts in the rural area.

VIABILITY OF THE INSTITUTIONS

We shall now look at the viability of self-financed institutions based on cost and revenue profiles.

a) Total surplus

Table 5.9 depicts the total surplus of self-financed institutions.

Table 5.9

VIABILITY OF SELF FINANCED INSTITUTION PER ANNUM
(Amount in Crores)

Components	Urban		Rural		Total		Grand Total
	Arts&Science	Engg.	Arts&Science	Engg.	Arts&Science	Engg.	
Cost	3.147	1.832	2.787	2.661	5.934	4.493	10.427
Revenue	12.027	5.125	4.873	9.005	16.90	14.13	31.03
Surplus	8.88	3.293	2.086	6.344	10.966	9.637	20.603

Source : Compiled from Primary data collected through questionnaire

With respect to viability of self-financed institution it is evident from the table that regardless of the area and discipline total surplus is Rs. 20.603 crores out of which surplus of the Arts and Science category is Rs. 10.966 crores where as surplus of the Engineering category is Rs. 9.637 crores. It is clear from the table that self financed institutions are viable regardless of the location or courses offered.

b) Surplus per institution

Table 5.10 depicts surplus per institution.

Table 5.10

COST AND REVENUE PER INSTITUTION PER ANNUM
(Amount in Crores)

Components	Urban		Rural		Total		Grand Total
	Arts & Science	Engg.	Arts & Science	Engg.	Arts & Science	Engg.	
Cost per Institution	1.049	1.832	0.929	1.331	0.989	1.498	1.149
Revenue per Institution	4.009	5.125	1.62	4.502	2.82	4.71	3.45
Surplus per institution	2.96	3.293	0.691	3.171	1.831	3.212	2.301

Source : Compiled from Primary data collected through questionnaire.

In connection with surplus per institution of self financed institutions it is clear from the table that the combined average of surplus of Arts and Science and Engineering category is Rs. 2.301 crores. The average surplus in the Arts and Science category is

Rs. 1.831 crores whereas average surplus of Engineering category is Rs. 3.212 crores. Combined average of the surplus of Arts and Science and Engineering category in the urban area is Rs. 3.04 crores whereas combined average surplus of Arts and Science and Engineering category in the rural area is Rs. 1.68 crores.

An examination of the table shows that surplus per institution in the Engineering category is higher than Arts and Science category. Apart from that average surplus of self financed institutions in the urban area is higher than that of its counterpart in the rural area.

c) Surplus per Seat - Discipline wise

Table 5.11 analyses surplus per seat.

Table 5.11

SURPLUS PER SEAT PER ANNUM - DISCIPLINEWISE

Components	Arts & Science	Engineering	Total
Total surplus (Rupees in Crores)	10.966	9.637	20.603
Number of seats	4752	3373	8125
Surplus per seat (in Rupees)	23076	28571	25357

Source: Compiled from data collected through questionnaire

With regard to surplus per seat it is seen from the table 5.11 that on an average self-financed institutions receive Rs 25357 per seat as surplus at hundred percent enrolment. Surplus per seat in the Engineering institutions is higher than surplus per seat in the Arts and Science category.

d) Surplus per seat - Area wise

Table 5.12 depicts area wise surplus per seat.

Table 5.12

SURPLUS PER SEAT PER ANNUM - AREAWISE

Components	Rural	Urban	Total
Total surplus (Rupees in Crores)	8.430	12.173	20.603
Number of seats	4624	3501	8125
Surplus per seat (in Rupees)	18231	34770	25357

Source: Compiled from Primary data collected through questionnaire.

With regard to area wise surplus per seat it is found that surplus per seat in the urban institutions is significantly higher than that of rural institutions. (See table 5.12).

e) Rate of surplus

The real viability of an institution can be studied only when we compare the surplus earned with total investment made by that organisation. Table 5.13 shows this aspect.

Table 5.13

RETURN ON INVESTMENT OF SELF-FINANCED INSTITUTIONS

(Amount in Crores)

Components	Urban		Rural		Total		Grand Total
	Arts & Science	Engg.	Arts & Science	Engg.	Arts & Science	Engg.	
Surplus	8.88	3.29	2.09	6.34	10.97	9.64	20.603
Investment	83.06	46.90	23	30.20	106.06	77.10	183.16
Rate of surplus (%)	10.69	7.02	9.09	20.99	10.34	12.50	11.25

Source: Compiled from Primary data collected through questionnaire

It is clear from the table that self -financed institutions are making an average of 11.25 percentage return on their investment. Taking into consideration of the nature of their business, they are making a reasonable return on their investment. The rate of surplus of Engineering category is higher than that of Arts and Science category. Rate of surplus of urban institution offering Engineering courses is less than their counterpart in the rural areas. This may be attributed to higher investment cost in the urban area of Engineering category. Rate of surplus of Arts and Science category in the urban area is marginally higher than that of rural areas.

It is clear from the foregoing analysis that self financed institutions are making surplus. Self-financed institutions require

more investment in fixed capital items such as building, land, equipment etc. than working capital such as salary, electricity and water bill and so forth. The important factor responsible for this difference in fixed and working capital among the institutions is due to the fact that self financed institutions are giving undue importance to basic infrastructure facilities like building, furniture, laboratory equipments etc. When this characteristic of self-financed institutions is taken into account we can see that they are making fair return on their investment. Since a major part of their investment is committed in the initial years their long term viability will be very high. The study also reveals that there exists rural-urban difference with regard to viability.

f) Break Even Analysis

Through break even analysis it is possible to find out the break even point of an institution. Break even point is no profit no loss activity / sales level of an organisation. When revenue crosses the break even point the institution starts generating surplus. Earlier the institution reaches the break even point, the better will be the surplus making potential of the institution. This is explained in the table 5.14.

Table 5.14

FINANCIAL VIABILITY - BREAK EVEN ANALYSIS

(Rupees in crores)

Particulars	Urban		Rural		Combined	
	Arts & Science	Engg.	Arts& Science	Engg.	Arts& Science	Engg.
(a) Revenue	4.009	5.125	1.62	4.507	2.82	4.71
(b) Fixed cost	0.43	0.82	0.452	0.54	0.44	0.64
(c) Variable cost	0.619	1.012	0.477	0.791	0.549	0.858
(d) Contribution (a-c)	3.39	4.113	1.143	3.711	2.271	3.852
(e) Contribution/ Revenue ratio	84.5%	80.25%	70.55%	82.43%	80.53%	81.78%
(f) Break even point (b/e)	0.51	1.02	0.64	0.66	0.55	0.78

Source: Compiled from primary data collected through questionnaire.

The analysis is based on the following assumptions:

(1) The cost can be classified into fixed and variable. In the case of self-financing institution, cost items such as salary to staff (teaching and non-teaching) and depreciation are treated as fixed cost. Other items of cost are treated as variable.

(2) Fee structure is constant with all level of student enrolment.

(3) Enrolment is more or less constant irrespective of the period.

Methodology of break even analysis is explained below:

(1) Variable and fixed cost are ascertained.

(2) Contribution is computed by subtracting variable cost from revenue.

(3) Contribution ratio is ascertained by applying the following formula. Contribution ratio = (Contribution/revenue) * 100.

(4) The break even point is equal to (Fixed cost / Contribution ratio)

A comparative study of break even points of institutions reveals that Arts and Science institutions reach the break even point (55 lakhs) faster than Engineering institutions (78 lakhs). Rural urban comparison of break even point of Arts and Science institutions reveals that Urban institutions exhibit lower break even point than that of their counterpart in the rural area. Rural urban comparison of Engineering institutions reveals that the break even revenue level for urban institution (1.02 crores) is higher than that of their counter part in rural area (66 lakhs).

The foregoing analysis of financial viability reveals that irrespective of the area and discipline highest cost component of a self financed institution is salary of teaching staff and next highest cost component is cost of electricity and water bill. It is found

from the foregoing discussion that average cost of urban institution is greater than average cost of rural institution. Apart from this average cost of Engineering category is higher than average cost of Arts and Science category. This is reflected in the cost per seat in Engineering and Arts and Science categories. Cost per seat (Rs. 13320/-) in the Engineering category is higher than that of the Arts and Science category (Rs. 12487/-). Cost per seat (Rs. 14222/-) in the urban institutions is higher than that of the rural institutions (Rs. 11782/-).

Irrespective of the area and discipline the major component of revenue of self-financed institutions is tuition fee and the next major component is hostel fee. Average revenue of the urban self-financed institutions is higher than its counterpart in the rural area. Apart from that average revenue of Engineering category is higher than that of Arts and science category. This is reflected in revenue per seat differences revealed by the inter category analysis. Revenue per seat in the Engineering category (Rs. 41891/-) is higher than that of Arts and Science category (Rs. 35564/-). Revenue per seat in the urban institutions (Rs. 48992/-) is higher than that of rural institutions (Rs. 30013/-).

Self financed institutions are viable regardless of the location or courses offered. Surplus per seat in the Engineering category (Rs. 28571/-) is higher than their counterparts in the Arts and Science category (Rs. 23076/-). Surplus per seat in the urban institutions (Rs. 34770/-) is higher than that of rural institutions (Rs. 18231/-). Rate of surplus differs with respect to the location and discipline. Self financed institutions are making on an average 11.22 percentage return on their investment. Taking into consideration of the nature of activity they are making reasonable rate of return. Break even analysis reveals that Arts and Science institutions reach the break even point (Rs. 55 lakhs) faster than Engineering institutions (Rs. 78 lakhs). The analysis of financial viability reveals that self financed institutions are making surplus regardless of their location or courses offered. Thus the first hypothesis that the self-financed higher educational institutions are economically viable is substantiated.

CHAPTER VI

WORKING CONDITIONS OF TEACHERS IN SELF-FINANCED INSTITUTIONS

In the previous chapter, we saw that self-financed institutions are a viable proposition for the people/Educational trust who run them. They are able to get a rate of return on their investment which is comparable to many other market ventures undertaken on private initiative. While this conclusion is sufficient to show that there will be a good deal of private investment forthcoming if education is privatised, the issue of the quality of education provided by self-financed institutions need to be settled. There are a large number of factors affecting the quality of education in any institution. Of these the quality of teachers, their commitment and motivation levels etc. occupy the most important place. Qualified and motivated teaching staff is an essential input for quality education. To what extent this is realised in self-financed institutions is the moot point. In this chapter, we look into this issue with reference to the competence, the service and working conditions of the teachers in self-financed institutions. The consideration of quality is important because the students in the professional courses will have to enter a job market where stiff competition is the rule of the day. The study covers 156 teachers of nine self-financed institutions in the Arts and science and Engineering categories of the Bharathiar University. An urban and rural perspective about this issue is also provided in the chapter wherever necessary.

The study is presented in two sections. The first section deals with the general profile of the teachers and the second section discusses the incentives for working conditions of the teachers in self-financed institutions.

Section I

GENERAL PROFILE OF THE TEACHERS

Let us now examine the general profile of teachers in terms of age, sex, religion, community, area, experience, job mobility and qualification.

a) Age

Agewise classification of teachers is presented below in table 6.1

Table 6.1

AGE-WISE CLASSIFICATION OF TEACHERS

Age	Arts and Science	Engineering	Total
20 - 30	54 56.25%	30 50%	84 53.84%
30 - 40	32 33.33%	10 16.67%	42 26.92%
40 - 50	4 4.16%	5 8.33%	9 5.76%
50 - 60	3 3.12%	10 16.67%	13 8.33%
60 - 70	3 3.12%	5 8.33%	8 5.12%
Total	96 100%	60 100%	156 100%

Source : Compiled from primary data collected through questionnaire

Regarding the agewise classification of teachers it can be observed from the table that in the Arts and Science category, 56.25 percent belong to the age group 20-30, 33.33 percent to the age group 30-40, 4.16 percent to the age group 40 - 50, 3.12 percent to the age group 50-60 and 3.12 percent to the age group 60-70. In the Engineering category, 50 percent belong to the age group 20-30, 16-67 percent to the age group 30-40, 8.33 percent to the age group 40-50, 16.67 percent in the age group 50-60, and 8.33 percent in the age group 60-70. Thus it emerges that young teachers dominate in these institutions.

b) Rural Urban classification of teachers according to age

Rural urban classification of teachers according to age is depicted in table 6.2.

Table 6.2

RURAL URBAN CLASSIFICATION OF TEACHERS ACCORDING TO AGE

Age	Rural	Urban	Total
20 - 30	51 65.38%	33 42.30%	84 53.85%
30 - 40	12 15.38%	30 38.46%	42 26.92%
40 - 50	4 5.13%	5 6.41%	9 5.77%
50 - 60	10 12.82%	3 3.85%	13 8.33%
60 - 70	1 1.28%	7 8.97%	8 5.13%
Total	78 100%	78 100%	156 100%

Source : Compiled from primary data collected through questionnaire

Regarding the areawise classification of teachers it is found from the table that irrespective of the area most of the teachers belong to the age group of 20-30. In the rural area 65.38 percent belong to the age group of 20-30 whereas in the urban area 42.30 percent belong to the age group of 20-30. It is found that in the rural area average age of teacher is 31.92 years whereas in the urban area average age of teacher is 34.88 years.

Average age of the sample is 31.35 years in the Arts and Science category and 36.67 years in the Engineering category.

Overall average age of the sample comes to 33.4 years. Thus it can be observed that teachers in the self-financed institutions are young.

c) Sex

We now consider the sexwise classification of teachers (See table 6.3).

Table 6.3

SEXWISE CLASSIFICATION OF TEACHERS

Sex	Arts and Science	Engineering	Total
Male	64	50	114
	66.66%	83.33%	73.08%
Female	32	10	42
	33.33%	16.67%	26.92%
Total	96	60	156
	100%	100%	100%

Source : Compiled from primary data collected through questionnaire

Sexwise classification of teachers presented in table 6.3 reveals that out of the total teachers 73 percent are male and 27 percent are female. In the Arts and Science category, 67 percent are male teachers and 33 percent are female teachers. In the Engineering category, 83 percent are male teachers and 17 percent are female teachers. Thus self-financed institutions exhibit male

domination. Engineering category has a clear edge over Arts and Science category in terms of male domination.

d) Teacher student ratio

Teacher student ratio is an indicator to judge the quality of education. Table 6.4 depicts the teacher student ratio in self-financed institution.

Table 6.4

TEACHER-STUDENT RATIO

Category	Teachers	Students	Teacher Student Ratio
Arts and Science	96	1920	1:20
Engineering	60	1080	1:18
Total	156	3000	1:19

Source : Compiled from primary data collected through questionnaire

Regarding the teacher student ratio it is observed from the table that teacher student ratio in the Arts and Science college is 1:20 whereas in the Engineering college teacher student ratio is 1:18. Thus it is seen that teacher student ratio in the Arts and Science category is lower than teacher student ratio in the Engineering category.

e) Religion

Religion is an important indicator of social status in Indian society. To get a profile of teachers we examine religious distribution of teachers. Table 6.5 shows the religionwise distribution of teachers in self financed institutions.

Table 6.5

RELIGIONWISE CLASSIFICATION OF TEACHERS

Religion	Arts and Science	Engineering	Total
Hindu	80	28	108
	83.33%	46.67%	69.23%
Christian	5	30	35
	5.21%	50%	22.44%
Muslim	11	2	13
	11.46%	3.33%	8.33%
Total	96	60	156
	100%	100%	100%

Source: Compiled from primary data collected through questionnaire

With respect to religionwise classification of teachers it is found from the table that out of the total teachers 69.23 percent belong to Hindu religion, 22.44 percent to Christian religion and 8.33 percent to Muslim religion. Out of the teachers in Arts and Science category, 83.33 percent of teachers belong to Hindu religion, 5.21 percent of teachers to Christian religion and 11.46 percent to Muslim

religion. In the Engineering category, 46.67 percent belongs to Hindu religion, 50 percent to Christian religion and 3.33 percent to Muslim religion. An examination of the table shows that compared to Engineering category, in the Arts and Science category teachers belonging to Hindu religion dominate. However teachers belonging to Christian community are found more in the Engineering category.

f) Community

Let us now analyse the communitywise classification of teachers. (See table 6.6)

Table 6.6

COMMUNITYWISE CLASSIFICATION OF TEACHERS

Community	Arts and Science	Engineering	Total
Forward	58	40	98
	60.42%	66.67%	62.82%
Backward	19	17	36
	19.79%	28.33%	23.08%
Most Backward	11	3	14
	11.46%	5%	8.97%
SC/ST	8	0	8
	8.33%	0%	5.13%
Total	96	60	156
	100%	100%	100%

Source : Compiled from primary data collected through questionnaire

In the case of communitywise classification of teachers it is seen from the table that the proportion of forward community, backward community, most backward community and SC/ST teachers are 63, 23, 9 and 5 percentage respectively of the total teachers. An examination of the table shows that among the teachers, those representing forward community dominate. Besides this, no SC/ST teacher was found in the Engineering category.

g) Experience

We can now proceed to analyse the experiencewise classification of teachers in self-financed institutions. (See table 6.7)

Table 6.7

EXPERIENCE OF TEACHERS

Year of Experience	Rural	Urban	Total
0 - 2	8 10.26%	6 7.69%	14 8.97%
2 - 4	26 33.33%	18 23.08%	44 28.20%
4 - 6	15 19.23%	22 28.21%	37 23.72%
6 - 8	11 14.10%	8 10.26%	19 12.18%
8 - 10	10 12.82%	13 16.67%	23 14.74%
10 - 12	5 6.41%	3 3.85%	8 5.13%
12 - 14	2 2.56%	2 2.56%	4 2.56%
14 - 16	1 1.28%	6 7.69%	7 4.49%
Total	78 100%	78 100%	156 100%

Source : Compiled from primary data collected through questionnaire

Coming to experiencewise classification of teachers it is observed from the table that most of the teachers have teaching

experience of 6 years or below. In the rural area 76.92 percent of teachers have teaching experience below 8 years whereas in the urban area 69.24 percent of teachers have teaching experience below 8 years. Average year of experience of teacher in the rural area is 5.44 years whereas average year of experience of teachers in the urban area is 6.31 years. This shows that institutions in the urban area have more experienced teachers than institutions in the rural area.

h) Job mobility

The table 6.8 depicts the job mobility of teachers in self-financed institutions.

Table 6.8

TEACHERS TURNOVER

	Rural				Urban				Grand Total			
	Ist Inst.	IInd Inst.	IIIrd Inst.	Total Inst.	Ist Inst.	IInd Inst.	IIIrd Inst.	Total Inst.	Ist Inst.	IInd	IIIrd	Total
Arts &	15	16	17	48	25	14	9	48	40	30	26	96
Science	31.25%	33.33%	35.42%	100%	52.08	29.17%	18.75%	100%	41.67%	31.2%	27.08%	100%
Engg.	20	8	2	30	20	8	2	30	40	16	4	60
	66.66%	26.67%	6.67%	100%	66.67%	26.67%	6.67%	100%	66.67%	26.67	6.67%	100%
Total	35	24	19	78	45	22	11	78	80	46	30	156
	44.87%	30.77%	24.36%	100%	57.69	28.21%	14.10%	100%	51.28%	29.49	19.23%	100%

Source : Compiled from primary Data collected through questionnaire

Regarding the job shifting pattern of teachers in the self-financed institutions it is observed from the table 6.8 that in the rural area out of the teachers in the Arts and Science category 31.25 percent have remained in the same institution 33.33 percent have shifted from first institution to second institution and 35.42 percent of teachers have moved from second institution to third institution. In the rural area out of the teachers in the Engineering category, 66.66 percent have sticked on in the same institution, 26.67 percent have moved from first institution to second institution and 6.67 percent have shifted from second institution to third institution. In the urban area out of the teachers in the Arts and Science category, 52.08 percent have remained in the same institution, 29.17 percent have shifted from first institution to second institution and 18.75 percent have moved from second institution to third institution. In the urban area out of the teachers in the Engineering category, 66.67 percent have sticked on in the same institution 26.67 percent have moved from first institution to second institution and 6.67 percent have shifted from second institution to third institution.

A perusal of the table shows that mobility of teachers in the rural institutions is more than teachers in the urban institutions. Besides this, shift of teachers of Arts and Science category is more than the teachers of Engineering category.

i) Subject and experience

Table 6.9 depicts the subjectwise and experiencewise classification of teachers.

Table 6.9
SUBJECTWISE AND EXPERIENCEWISE CLASSIFICATION OF TEACHERS

Teaching Experience	MCA	MBA	BE	B.TECH	TOTAL
0 - 2	2 4.17%	2 4.17%	3 10%	7 23.33%	14 8.97%
2 - 4	8 16.67%	8 16.67%	16 53.33%	12 40%	44 28.21%
4 - 6	12 25%	12 25%	7 23.33%	6 20%	37 23.72%
6 - 8	7 14.58%	10 20.83%	1 3.33%	1 3.33%	19 12.18%
8 - 10	13 27.08%	8 16.67%	1 3.33%	1 3.33%	23 14.74%
10 - 12	4 8.33%	2 4.17%	1 3.33%	1 3.33%	8 5.13%
12 - 14	2 4.17%	2 4.17%	0 0%	0 0%	4 2.56%
14 - 16	0 0%	4 8.33%	1 3.33%	2 6.67%	7 4.49%
Total	48 100%	48 100%	30 100%	30 100%	156 100%

Source : Compiled from primary data collected through questionnaire

Coming to the subjectwise and experiencewise classification of teachers it is evident from the table that 12 percent of teachers have been teaching in self-financed colleges for more than 10 years. 16.67 percent of the M.B.A. teachers have more than 10 years experience. The corresponding proportion for the M.C.A., B.E. and B.TECH disciplines are 12.5, 6.67 and 10 percents respectively.

Average experience of teachers in M.B.A. and M.C.A. disciplines is 7 and 6.71 years respectively whereas the average experience of teachers in B.E. and B.TECH disciplines is 5.3 years. In all disciplines except M.C.A. there are teachers who have put in more than 14 years experience.

j) Qualification

Teachers are classified into three categories according to their qualification. They are qualified, moderately qualified and highly qualified teachers. Qualified teachers are those who possess the required minimum qualification to handle the paper. Moderately qualified teachers are those who have additional qualification like diploma in Arts and Science and Engineering, B.Ed and or M.Phil. Highly qualified teachers are those who have additional qualification like Ph.D in addition to the minimum qualification. Table 6.10 depicts qualificationwise classification of teachers.

Table 6.10

QUALIFICATION OF TEACHERS

Qualification	Rural		Urban		Total		
	Arts	Engg.	Arts	Engg.	Arts	Engg.	Total
Qualified	12	18	9	12	21	30	51
	25%	60%	18.75%	40%	21.87%	50%	32.69%
Moderately	9	8	15	15	24	23	47
Qualified	18.75%	26.67%	31.25%	50%	25%	38.33%	30.13%
Highly	27	4	24	3	51	7	58
Qualified	56.25%	13.33%	50%	10%	53.13%	11.67%	37.18%
Total	48	30	48	30	96	60	156
	100%	100%	100%	100%	100%	100%	100%

Source : Compiled from primary data collected through questionnaire

With respect to classification of teachers on the basis of qualification it is evident from the table that 32.69 percent of teachers are qualified teachers, 30.13 percent of teachers are moderately qualified teachers, and 37.18 percent of teachers are highly qualified teachers.

It is seen that teachers in the urban area are more qualified than their rural counterparts. For example, 62 percent of the rural teachers (48/78) are moderately and highly qualified whereas the corresponding proportion in the urban area is 73 percent (57/78). Besides this, teachers in the Arts and Science category are found more qualified than teachers in the Engineering category. For example 78 percent of teachers in the Arts and Science category are

moderately and highly qualified whereas the proportion in the Engineering category is 50 percent.

So far we have seen the general profile of teachers in self-financed institutions in terms of age, religion, community, area where institution belongs to, experience, job mobility and qualification. The following section deals with the incentives of teachers like nature of employment, income, workload, etc.

Section II

INCENTIVES OF TEACHERS

a) Nature of employment

Let us now analyse the service conditions of teachers in self-financed institutions. Table 6.11 depicts the employment profile of teachers.

Table 6.11

TERMS OF EMPLOYMENT OF TEACHERS

Terms of employment	Rural		Urban		Total		
	Arts	Engg.	Arts	Engg.	Arts	Engg.	Total
Permanent	45	26	42	23	87	49	136
	93.75%	86.67%	87.5%	76.67%	90.63%	81.67%	87.18%
Temporary	3	4	6	7	9	11	20
	6.25%	13.33%	12.5%	23.33%	9.38%	18.33%	12.82%
Total	48	30	48	30	96	60	156
	100%	100%	100%	100%	100%	100%	100%

Source : Compiled from primary data collected through questionnaire

The data of the table reveals that self-financed institutions give permanet employment to 87 percent of its teachers. It is seen from the table that permanent teachers are found more in the rural area than in the urban area. Out of the permanent teachers 52 percent (71 out of 136) belong to institution in the rural area and 48 percent (65 out of 136) belong to institutions in the urban area. Out of the teachers in the Arts and Science category, 91 percent (87/96) are permanent hands and 9 percent are temporary hands. In the Engineering category 82 percent (49/60) are permanent hands and 18 percent temporary hands. Permanent teachers are found more in the Arts and Science category than the Engineering category.

The analysis indicate that self-financed institutions function as a near permanent source of income and livelihood for the teachers. It is therefore worthwhile to look in to the employment condition of teachers in self-financed institutions.

b) Income

Table 6.12 shows the classification of teachers according to the level of income.

Table 6.12

INCOMEWISE CLASSIFICATION OF TEACHERS

Income	Teachers
3000 - 3500	2 (1.28%)
3500 - 4000	12 (7.69%)
4000 - 4500	6 (3.84%)
4500 - 5000	4 (2.56%)
5000 - 5500	12 (7.69%)
5500 - 6000	17 (10.90%)
6000 - 6500	9 (5.77%)
6500 - 7000	12 (7.69%)
7000 - 7500	15 (9.61%)
7500 - 8000	13 (8.33%)
8000 - 8500	20 (12.82%)
8500 - 9000	26 (16.67%)
9000 - 9500	1 (.64%)
9500 & Above	7 (4.49%)
TOTAL	156 (100%)

Source : Compiled from primary data collected through questionnaire

Coming to incomewise classification of teachers it is observed from the table 6.12 that 47 percent of teachers have income below Rs.7000/- and 53 percent of teachers have income above Rs.7000/-. Average income of the teachers working in self-financed institutions is equal to Rs.6881. This shows that more than 50 percent of teachers have income greater than the average level.

c) Rural-urban classification of teachers according to level of income

Table 6.13 depicts the areawise classification of teachers according to the level of income.

Table 6.13

RURAL-URBAN CLASSIFICATION OF TEACHERS ACCORDING TO LEVEL OF INCOME

(Amount in Rupees)

Income	Urban	Rural	Total
3000 - 3500	0 0%	2 2.56%	2 1.28%
3500 - 4000	5 6.41%	7 8.97%	12 7.69%
4000 - 4500	3 3.84%	3 3.84%	6 3.85%
4500 - 5000	4 5.12%	0 0%	4 2.56%
5000 - 5500	5 6.41%	7 8.97%	12 7.69%
5500 - 6000	7 8.97%	10 12.82%	17 10.89%
6000 - 6500	3 3.84%	6 7.69%	9 5.76%
6500 - 7000	6 7.69%	6 7.69%	12 7.69%
7000 - 7500	9 11.54%	6 7.69%	15 9.62%
7500 - 8000	3 3.84%	10 12.82%	13 8.33%
8000 - 8500	10 12.82%	10 12.82%	20 12.82%
8500 - 9000	15 19.23%	11 14.10%	26 16.67%
9000 - 9500	1 1.28%	0 0%	1 0.64%
9500 & Above	7 8.97%	0 0%	7 4.49%
Total	78 100%	78 100%	156 100%

Source : Compiled from primary data collected through questionnaire

In connection with rural-urban classification of teachers it is found from the table 6.13 that in the urban area 57.68 percent of teachers have income greater than 7000/- whereas in the rural area 47.43 percent of teachers have income greater than 7000/-. Average level of income of teachers in the rural area is found to be Rs.6634/- whereas average level of income of teachers in the urban area is found to be Rs.7130/-. This shows that teachers in the urban institutions get more income compared to their counterparts in the rural areas. Teachers in the urban institution are paid 7 percent higher than teachers in the rural institutions. Coefficient of variation of income of the urban area (24.7%) is marginally higher than that of the rural area (23.21%).

d) Subject and Incomewise classification of Teachers

Table 6.14 depicts the subject and incomewise classification of teachers.

Table 6.14
SUBJECT AND INCOMEWISE CLASSIFICATION OF TEACHERS

(Amount in Rupees)

Income	Rural		Urban		Total		Total
	Arts & Science	Engg.	Arts & Science	Engg.	Arts & Science	Engg.	
3000-3500	0 0%	2 6.67%	0 0%	0 0%	0 0%	2 3.33%	2 1.28%
3500-4000	4 8.33%	3 10%	2 4.17%	3 10%	6 6.25%	6 10%	12 7.69%
4000-4500	1 2.08%	2 6.67%	2 4.17%	1 3.33%	3 3.13%	3 5%	6 3.84%
4500-5000	0 0%	0 0%	0 0%	4 13.33%	0 0%	4 6.67%	4 2.56%
5000-5500	4 8.33%	3 10%	0 0%	5 16.67%	4 4.17%	8 13.33%	12 7.69%
5500-6000	6 12.5%	4 13.33%	6 12.5%	1 3.33%	12 12.5%	5 8.33%	17 10.89%
6000-6500	5 10.42%	1 3.33%	1 2.08%	2 6.67%	6 6.25%	3 5%	9 5.76%

6500-7000	0 0%	6 20%	4 8.33%	2 6.67%	4 4.17%	8 13.33%	12 7.69%
7000-7500	3 6.25%	3 10%	6 12.5%	3 10%	9 9.38%	6 10%	15 9.61%
7500-8000	6 12.5%	4 13.33%	2 4.17%	1 3.33%	8 8.33%	5 8.33%	13 8.33%
8000-8500	8 16.67%	2 6.67%	4 8.33%	6 20%	12 12.5%	8 13.33%	20 12.82%
8500-9000	11 22.92%	0 0%	14 29.17%	1 3.33%	25 26.04%	1 1.67%	26 16.67%
9000-9500	0 0%	0 0%	1 2.08%	0 0%	1 1.04%	0 0%	1 .64%
9500 & Above	0 0%	0 0%	6 12.5%	1 3.33%	6 6.25%	1 1.67%	7 4.49%
Total	48 100%	30 100%	48 100%	30 100%	96 100%	60 100%	156 100%

Source : Compiled from primary data collected through questionnaire

Considering the classification of teachers according to income it is found from the table 6.14 that 16.67 percent of teachers have monthly income in the range of Rs. 8500-9000 and 12.82 percent have income in the range of Rs. 8000-8500. Average income of teachers in the self-financed institutions of Arts and Science category is equal to Rs.7318 whereas for the Engineering category average income is Rs.6183/.

It is found that variability in earnings of teachers in the Engineering category is more than that of teachers in the Arts and Science category. The coefficient of variation of income in the case of Arts and Science category is 22.54 percent while that of teachers in the Engineering category is 26.03 percent. This aspect is analysed further with the help of Lorenz curve.

Table 6.15

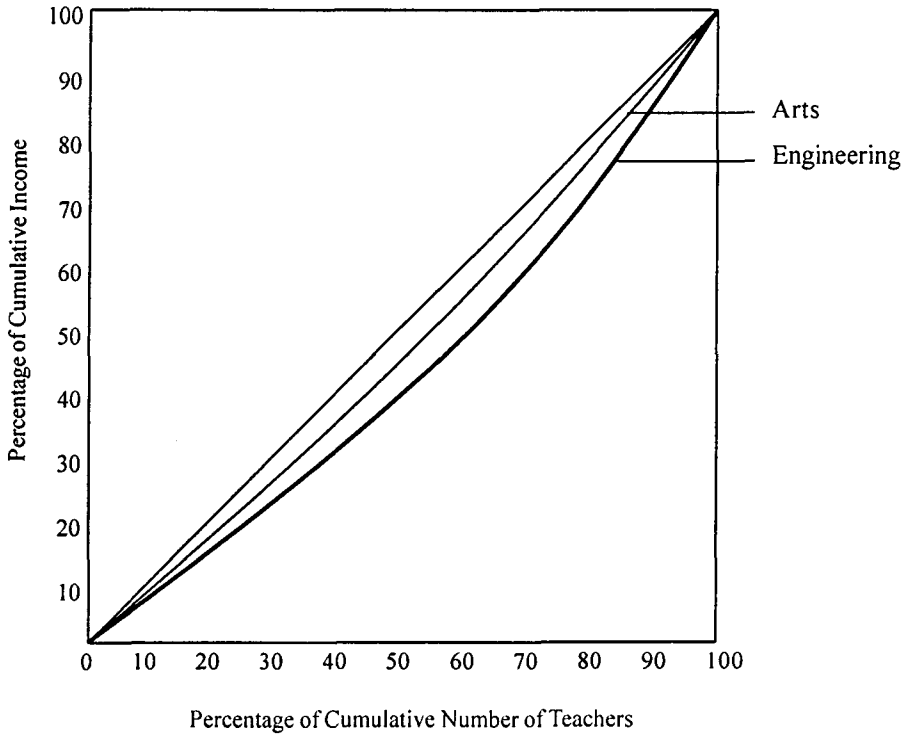
INCOME DISTRIBUTION BY

CUMULATIVE PERCENTAGE

Income	Mid point	No. of Teachers		Percentage of			
		Arts	Engg.	Cf1	Cf1x	Cf2	Cf2x
3000-3500	3250	0	2	0	0	3.33	1.75
3500-4000	3750	6	6	6.25	3.2	13.33	7.81
4000-4500	4250	3	3	9.38	5.01	18.33	11.25
4500-5000	4750	0	4	9.38	5.01	25	16.37
5000-5500	5250	4	8	13.54	8	38.33	27.69
5500-6000	5750	12	5	26.04	17.82	46.67	35.44
6000-6500	6250	6	3	32.29	23.17	51.67	40.5
6500-7000	6750	4	8	36.46	27.01	65	55.05
7000-7500	7250	9	6	45.83	36.3	75	66.78
7500-8000	7750	8	5	54.17	45.12	83.33	77.22
8000-8500	8250	12	8	66.67	59.22	96.67	95.01
8500-9000	8750	25	1	92.71	90.36	98.33	97.37
9500-9500	9250	1	0	93.75	91.67	98.33	97.37
9500 & above	9750	6	1	100	100	100	100
Total		96	60	100	100	100	100

Source : Compiled from primary data collected through questionnaire

Lorenz Curve



Lorenz curve reinforce our finding on the variability of income of the teachers in Arts and Science category and Engineering category.

There is not much difference in the variation of income received by teachers in Arts and Science category and Engineering category. But the variability is slightly higher among teachers in the Engineering category. Since both curves are closer to the line of equal distribution, the variability is low in both sectors.

Now there arises some pertinent questions. What determines the level of income of the teachers ? Are earnings correlated to experience, qualification and workload ? We shall see these aspects one by one.

e) Servicewise and earningwise classification of teachers

Servicewise and earningwise classification of teachers is presented in the table 6.16.

Table 6.16

SERVICEWISE AND EARNING WISE CLASSIFICATION OF TEACHERS

Amount in rupees

Income	Years of Experience								Total
	0 - 2	2 - 4	4 - 6	6 - 8	8 - 10	10 - 12	12 - 14	14 - 16	
3000-3500	2 14.28%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	2 1.28%
3500-4000	10 71.43%	0 0%	1 2.70%	0 0%	1 4.35%	0 0%	0 0%	0 0%	12 7.69%
4000-4500	0 0%	6 13.64%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	6 3.84%
4500-5000	0 0%	4 9.09%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	4 2.56%
5000-5500	1 7.14%	7 15.90%	4 10.81%	0 0%	0 0%	0 0%	0 0%	0 0%	12 7.69%
5500-6000	1 7.14%	4 9.09%	11 29.72%	0 0%	0 0%	0 0%	1 25%	0 0%	17 10.89%

6000-6500	0 0%	3 6.82%	6 16.22%	0 0%	0 0%	0 0%	0 0%	0 0%	9 5.77%
6500-7000	0 0%	12 27.27%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	12 7.69%
7000-7500	0 0%	7 15.91%	4 10.81%	4 21.05%	0 0%	0 0%	0 0%	0 0%	15 9.61%
7500-8000	0 0%	1 2.27%	6 16.22%	0 0%	4 17.39%	1 12.5%	1 25%	0 0%	13 8.33%
8000-8500	0 0%	0 0%	5 13.51%	6 31.58%	8 34.78%	1 12.5%	0 0%	0 0%	20 12.82%
8500-9000	0 0%	0 0%	0 0%	9 47.36%	10 43.47%	4 50%	2 50%	1 14.29%	26 16.67%
9000-9500	0 0%	0 0%	0 0%	0 0%	0 0%	1 12.5%	0 0%	0 0%	1 .64%
9500 & Above	0 0%	0 0%	0 0%	0 0%	0 0%	1 12.5%	0 0%	6 85.71%	7 4.48%
Total	14 100%	44 100%	37 100%	19 100%	23 100%	8 100%	4 100%	7 100%	156 100%

Source : Compiled from primary data collected through questionnaire

With respect to servicewise and earningwise classification of teachers it is found from the table that 43 percent of teachers have earnings above Rs.7500/- and of this 99 percent have experience of four years or above, 46 percent of teachers have earnings below Rs.7000/- and of this 32 percent have experience of four years or above. 10 percent of teachers have earnings between Rs.7000-7500, of this 53 percent have teaching experience of four years or above.

The correlation coefficient between year of experience and income is found to be 0.76 which shows high positive correlation between experience and income. Using students 't' test the value of correlation coefficient is tested for significance and it is found to be significant at 5 percent level. Calculated value of 't' (22.35) is greater than table value of 't' at 5 percent level of significance (1.96). We conclude that income is therefore a function of experience of the teacher.

f) Qualificationwise and incomewise classification of teachers

It is now proposed to analyse the qualification and income-wise classification of teachers. Table 6.17 depicts the qualification-wise classification of teachers income.

Table 6.17
QUALIFICATIONWISE CLASSIFICATION OF TEACHERS INCOME
Amount in Rupees

	Arts and Science Engineering			Engineering			
	Qualified	Moderately Qualified	Highly Qualified	Qualified	Moderately Qualified	Highly Qualified	Total
3000-3500	0 0%	0 0%	0 0%	2 11.11%	0 0%	0 0%	2 1.28%
3500-4000	3 9.09%	2 7.41%	2 5.55%	3 16.67%	1 5%	1 4.55%	12 7.69%
4000-4500	5 15.15%	0 0%	0 0%	1 5.56%	0 0%	0 0%	6 3.85%
4500-5000	4 12.12%	0 0%	0 0%	0 0%	0 0%	0 0%	4 2.56%
5000-5500	6 18.18%	1 3.70%	2 5.55%	3 16.67%	0 0%	0 0%	12 7.69%
5500-6000	7 21.21%	3 11.11%	3 8.33%	2 11.11%	2 10%	0 0%	17 10.90%

6000-6500	2 6.06%	4 14.81%	1 2.77%	2 11.11%	0 0%	0 0%	9 5.77%
6500-7000	2 6.06%	5 18.52%	4 11.11%	1 5.55%	0 0%	0 0%	12 7.69%
7000-7500	4 12.12%	5 18.52%	3 8.33%	1 5.55%	0 0%	2 9.09%	15 9.62%
7500-8000	0 0%	3 11.11%	4 11.11%	3 16.67%	3 15%	0 0%	13 8.33%
8000-8500	0 0%	3 11.11%	7 19.44%	0 0%	10 50%	0 0%	20 12.82%
8500-9000	0 0%	1 3.70%	7 19.44%	0 0%	3 15%	15 68.18%	26 16.67%
9000-9500	0 0%	0 0%	0 0%	0 0%	1 5%	0 0%	1 .64%
9500 & Above	0 0%	0 0%	3 8.33%	0 0%	0 0%	4 18.18%	7 4.48%
Total	33 100%	27 100%	36 100%	18 100%	20 100%	22 100%	156 100%

Source : Compiled from Primary data collected through questionnaire

With respect to qualification and incomewise classification of teachers it is found from the table 6.17 that in the Arts and Science category 12.12 percent of qualified teachers, 44.44 percent of the moderately qualified teachers and 66.67 percent of highly qualified teachers have incom more than Rs.7000/- per month.

In the Engineering category 22 percent of qualified teachers, 85 percent of the moderately qualified teachers and 95.45 percent of highly qualified teachers have income more than Rs. 7000/-

Average income of qualified teachers is Rs.5436.27, moderately qualified teachers is Rs.7014.71 and highly qualified teachers is Rs.7896.55/-.

Chi square test is used to show whether the income of the teacher in the self-financed institution depends upon qualification or not.

Table 6.18

CHI-SQUARE TABLE

Income (Rs)	Qualification			
	Qualified	Moderately Qualified	Highly Qualified	Total
3000-5000	18	3	3	24
5000-7500	30	20	15	65
7500-10000	3	24	40	67
Total	51	47	58	156

Source : Compiled from primary data collected through questionnaire

Table 6.19

TABLE OF THE EXPECTED FREQUENCIES

Income (Rs)	Qualification			
	Qualified	Moderately Qualified	Highly Qualified	Total
3000-5000	8	7	9	24
5000-7500	21	20	24	65
7500-10000	22	20	25	67
Total	51	47	58	156

Source : Compiled from primary data collected through questionnaire

Table 6.20

TABLE REPRESENTING THE CALCULATION OF CHI SQUARE VALUES

O	E	$(O-E)^2$	$(O-E)^2/E$
18	8	100	12.5
3	7	16	2.285
3	9	36	4.000
30	21	81	3.857
20	20	0	0
15	24	81	3.375
3	22	361	16.409
24	20	16	.800
40	25	225	9.000
Chi Square = 52.226			

Source : Compiled from primary data collected through questionnaire

O^* - Observed values E^* - Expected Values

The calculated value of X^2 (52.226) is greater than the tabular value X^2 9.488 and it is significant at 5% level. Hence we can conclude that the income of the teachers very much depends on their qualification. That is higher remuneration is given to highly qualified teachers.

g) Income and workload

Table 6.21 depicts the income and workload of teachers.

Table 6.21

INCOME AND WORKLOADWISE CLASSIFICATION OF TEACHERS

Amount in Rupees

Income	Workload per day			Total
	3 hrs.	4 hrs.	5 hrs.	
3000-3500	2 4.87%	0 0%	0 0%	2 1.28%
3500-4000	8 19.51%	4 8%	0 0%	12 7,69%
4000-4500	2 4.87%	2 4%	2 3.08%	6 3.84%
4500-5000	0 0%	2 4%	2 3.08%	4 2.56%
5000-5500	4 9.76%	4 8%	4 6.15%	12 7.69%
5500-6000	7 17.07%	4 8%	6 9.23%	17 10.90%
6000-6500	2 4.88%	2 4%	5 7.69%	9 5.77%
6500-7000	2 4.88%	3 6%	7 10.77%	12 7.69%
7000-7500	2 4.88%	10 20%	3 4.62%	15 9.62%
7500-8000	4 9.76%	3 6%	6 9.23%	13 8.33%
8000-8500	3 7.32%	6 12%	11 16.92%	20 12.82%
8500-9000	5 12.20%	8 16%	13 20%	26 16.67%
9000-9500	0 0%	1 2%	0 0%	1 .64%
9500 & Above	0 0%	1 2%	6 9.23%	7 4.49%
Total	41 100%	50 100%	65 100%	156 100%

Source : Compiled from Primary data collected through questionnaire

Regarding the incomewise and workloadwise classification of teachers it is evident from the table that 26 percent of teachers (41 out of 156) have workload of 3 hrs per day, 32 percent (50 out of 156) have workload of 4 hrs per day and 42 percent (65 out of 156) have work load of 5 hours per day. Income per hour for those who work 3 hrs per day is Rs. 66.73/- whereas income per hour for 4 hrs and 5 hrs, per day is Rs.57.25/- and Rs.49.56/- respectively. This signifies the fact that monthly level of income rises with rise in the workload but income per hour declines. This is because of the fact that proportionate increase in the workload does not bring about proportionate increase in the level of income.

The correlation coefficient between earning and workload works out to 0.33. The 't' value worked out by us suggests that the correlation coefficient is significant at 5% level. The calculated value of 't' (4.3505) is greater than table value of 't' at 5 percent level of significance (1.96).

Thus in self-financed institutions what matters more in the case of earning is experience and qualification. The mode of payment of the teachers in these institutions is designed in such a way that the payment bears a direct relation to experience, qualification and workload. In the case of earning, the quantum of work done by the individual teacher is not very much taken into

account. In profit making concerns one would expect the payment to bear a direct relation to the amount of work done. Self-financing institutions are profit making concerns but they consider experience and qualification as the basis for the payment of teachers. Teachers in the self-financed institutions receive monthly payments as in the case of regular establishments. They are permanent in the sense that most of the teachers in the sample are getting vacation salary as permanent employee get. Permanent employees have examination works. They are paid not like piece rate workers in the modern industrial concerns.

Now let us examine how far the income is sufficient to meet the personal expenses. For this we have to see the monthly expenditure pattern of the teachers.

h) Monthly expenses :

Table 6.22 depicts the componentwise classification of monthly expenses per teacher.

Table 6.22

MONTHLY EXPENSES OF THE TEACHERS

Components	Amount
Hostel/Lodging	1200 44.44%
Travel Expense	300 11.11%
Food	750 27.78%
Clothing	100 3.70%
Cosmetics	50 1.85%
Books	80 2.96%
Journals	40 1.48%
Stationery	20 .74%
Entertainment	60 2.22%
Other expenses	100 3.70%
Total	2700 100%

Source : Compiled from primary data collected through questionnaire

In connection with monthly expenses per teacher it is seen from the table that major component of monthly expense per teacher is the expense on hostel/lodging. This constitutes 44.44 percent of the total expenses. Another major component is expense on food which constitutes 27.78 percent of the total expense. Travel expense is the next major component which constitutes 11.11 percent of total expense. Thus the analysis shows that the average monthly income of the teacher, Rs. 6881 (see table 6.12) is sufficient to meet expenses.

i) Analysis of job satisfaction

Job satisfaction is a key factor influencing the productivity of the employees in any organisation. In a self-financed institution the good will/reputation of the institution depends heavily on the quality of service offered to the students. The critical factors affecting the quality of service are infrastructure offered by the management as well as productivity of the teaching staff. Since the productivity of teaching staff is closely related to the level of job satisfaction it would be worth looking into factors contributing to job satisfaction in self-financed institutions. An analysis of monetary and non monetary factors of job satisfaction in the context of working environment are studied in the following analysis.

Monetary Incentives

Monetary incentives for the purpose of this analysis include salary, retirement benefits and other monetary benefits offered to teachers by the management.

a) Salary :

Salary is a key motivator of employees in any organisation. A detailed analysis of salary and its association with length of service is provided in table no 6.16.

Out of the 156 teachers covered by the sample, only 7 have reported salary above Rs.9500/- and 6 of them have experience of more than 14 years of teaching. It is also interesting to see that among the 156 teachers only 8 have salary above Rs.9000/- and all of them have more than 10 years of teaching experience. A look at the AICTE pay structure offered to their counterparts in aided/ government institutions reveals that the basic salary of teacher begins at Rs.8,000/- and increases to Rs.10,000/- in the 7th year of service when we ignore career advancement incentives offered by the scheme. A teacher receives a gross emolument of more than Rs.10,000/- as per the AICTE scale at the time of entry into service. A look at the salary structure of self-financed institution provided by the table in the background of AICTE pay structure reveals that

the salary structure of teachers in self-financed institutions is inferior to that of their counterpart in the Government aided institutions. All India Council of Technical Education has fixed certain norms to regulate the working conditions of teachers. Among other things these norms cover salary and other monetary benefits. It is surprising to see that teachers of self financed institutions are not paid according to the norms of AICTE.

There is no uniformity in the pay and scale of pay of teachers between college and course. Government has also not fixed running scale of pay for the staff in the self-financed institutions unlike in the aided colleges. Neither the University nor the Government bothers to implement orders regarding the payment of scale to the teaching staff and non-teaching staff in self-financed colleges. Because of this, some teachers leave the college after one or two years of service. So the teachers turn over ratio is more. Number of teachers left during an academic year divided by average number of teachers is the turn over ratio. Turn over ratio is found to be 0.23:1. This shows that out of the average of 100 teachers 23 teachers leave the institution during an academic year. Thus the high labour turn over ratio and lack of parity in salary with their counterparts in the aided/Government institutions signal low level of job satisfaction among the teachers of the self financed institutions. The situation in this respect is found to be slightly better in the urban area than in the rural area.

b) Retirement and other benefits :

In addition to monthly salary retirement and other benefits also motivate an employee towards better performance. Analysis of the data in respect of the retirement benefits and other benefits offered to teachers in self-financed institution is provided in table 6.23.

Table 6.23

AVAILABILITY OF RETIREMENT AND OTHER BENEFITS

Benefits	Arts and Science		Engineering		Total
	Getting	Not Getting	Getting	Not Getting	
Provident Fund	29	67	9	51	156
*Pension	0	96	-	60	156
Gratuity	-	96	-	60	156
Medical reimbursement	-	96	-	60	156
Exam remuneration	87	9	49	11	156
Free Transport	68	28	48	12	156
Housing loan	-	96	-	60	156

Source : Compiled from primary data collected through questionnaire

Note : *Some institutions maintain provident fund linked pension scheme.

Coming to retirement and other benefits in self-financed institutions it is clear from the table 6.23 that several benefits such as pension, gratuity, medical reimbursement and housing loan are not offered to teachers. However teachers in the unaided colleges have invigilation and valuation work in connection with the conduct of examinations. For this they are paid extra remuneration. Irrespective of the discipline and the area, each teacher gets Rs.50/ - per session for invigilation work and Rs.4/- per paper for valuation work. In addition to the remuneration they are paid DA. Altogether on an average each teacher gets Rs.120/- per day for the valuation and invigilation work. On an average each teacher gets 20 days of invigilation or valuation work every year. Most of the teachers receive vacation salary. These aspects to some extent relieve the teachers from their grievances caused by the absence of several benefits enjoyed by their counterpart in the aided colleges.

The provident fund scheme is not enforced in all institutions. The study reveals that 30 and 15 percent of teachers in the Arts and Science and Engineering colleges respectively enjoy provident fund benefits. The study further reveals that the provident fund maintained by the institution is contributory in nature with equal contribution from the part of the employer and the employee. These institutions have pension linked provident fund scheme where 12 percent of the monthly gross salary is deducted towards provident

fund contributions out of which 2 percent goes to pension scheme. The foregoing analysis of retirement benefits shows that several incentive factors are generally absent or inadequate in several self-financed institutions which may dampen the job satisfaction level of the employee. Inspite of this it is found from the survey that 80 per cent of permanent teachers are satisfied with their occupation. Let us now turn our attention to other working conditions and their impact on job satisfaction.

THE WORKING CONDITION OF TEACHERS

The working condition of teachers in terms of workload, student teacher ratio and inter personal relationships are discussed below.

a) Workload

All India Council of Technical Education has fixed certain norms to regulate the working condition of teachers. As per the norms the minimum working hours per day is 4 and the maximum is 5 including practical classes for those who deal with the papers like M.B.A., M.C.A., B.E. and B.Tech. It is found from the study that 74 percent of teachers have four hours or more workload and

26 percent of teachers have workload less than the minimum workload prescribed by All India Council of Technical Education.

b) Student Teacher Ratio :

The workload of the teacher is reflected in student teacher ratio. It is an indicator to judge the quality of education. In most of the private unaided educational institutions the ratio is high. All India Council of Technical Education, the apex body to regulate the functioning of some courses in self-financed institutions especially the courses like M.B.A., M.C.A., B.E. and B.Tech has put certain norms in the case of students for each course, total number of teachers to deal with these papers etc. The student staff ratio in a class depends upon the teacher's time required for formal instructions and contact hours. As per the norms of AICTE the desirable student teacher ratio for the Engineering degree programme for the model curriculum is 10:1 whereas desirable student teacher ratio for courses like M.B.A. and M.C.A. will be 12:1.

It is found from the survey that average student teacher ratio in self financed institutions is 19:1 (see table 6.4). This signifies the fact that total number of students per teacher is higher. This may increase the workload of the teachers and cause reduction in job satisfaction level.

c) Teacher student relationship:

Generally teacher student relationship in self-financed institutions is healthy and cordial contributing to the effective implementation of teaching-learning process. It is found from the survey that 90 percent of the teachers are of the opinion that students they teach hail from highly educated families with middle income. Apart from that teachers are of the opinion that no politics is involved in the college campus among students and they are highly disciplined and well behaved. There is a formal system of evaluation of student performance by teachers on a continuous basis which not only promotes better student teacher interaction throughout the course but also forms the basis for award of marks for internal assessment. In some institutions it is found that there exists an informal system of teacher assessment by students which is utilised by the management to evaluate the quality of the teaching staff. Teacher - student interaction is not restricted to academic matters alone in self-financed institutions. Teachers also get involved whole heartedly in extracurricular activities of the students such as sports, fine arts etc.

d) Teacher Management Relationship:

A healthy employer-employee relationship is essential for organisational efficiency. Study reveals that teacher management relationship is almost cordial or healthy in self-financed institutions, though their terms and conditions of service are not conducive.

However there are cases of interference by the management on day to day working of teachers. Sometimes management may not hesitate to bypass hierarchical lines to exert their influence on teachers. There are instances of terminating the services of the teachers without giving the teachers enough time to explain their position. This is mainly attributable to the lack of legal protection in the form of statutes, regulations and service rules to the employees of self-financed institutions compared to their counterpart in Government/aided colleges.

Most of the self financed institutions are making huge surplus but they are found very much conservative in the context of fixing fair remuneration to the teachers. Now we can examine the performance of a teacher in self financed institutions. Performance of a student in the examination is a better yardstick to evaluate the equality of the teacher. Though the performance of a student depends up on various other factors like infrastructure, number of

books per student, computer per student etc. the crucial factor which determines the performance of a student is the quality of teaching. So we can now turn to analyse the results of the students.

Analysis of Students Performance

The quality of education offered by an institution can be measured in terms of its output, i.e., students performance. Students performance is also an indicator of the performance of the teachers. This aspect is analysed with a view to study the quality of service of self financed institutions. For the purpose of this analysis students performance is compared with the performance of their counterpart in regular colleges. The analysis will also throw light the rural-urban difference in students performance. The period of the study covers seven years from 1995 to 2001. Reason for selecting the period is that the secondary data for the analysis is available for that period.

The following discussion shows the performance of M.B.A., M.C.A., B.E. and B.Tech students in terms of pass percentage. (See table 6.24).

Table 6.24

STUDENTS PERFORMANCE (M.B.A. COURSE)

(PASS PERCENTAGE)

Year	University level	Regular	Self financed		
			Rural	Urban	Combined
1995	65	60	60	80	70
1996	69	66	62	82	72
1997	72	68	74	78	76
1998	76	72	78	82	80
1999	70	68	70	74	72
2000	66	72	58	62	60
2001	72	76	60	76	68
Avg.	70	69	66	76	71

Source: Annual Report of Bharathiar University, 2001.

It is seen from the table that average pass percentage of the MBA students in self financed institution for the period 1995-2001 is 71 where as average pass percentage of the regular stream for the same period is 69. The table value of 't' at 5 percent level of significance is 2.179. Calculated value of 't' is 0.74 lesser than table value. Therefore, there is no significant difference between the means of pass percentage of self financed and regular stream.

Average pass percentage of students at the University level for the period 1995-2001 is 70 which is slightly lower than average pass percentage of self financed institution. The calculated value of t (0.41) is lesser than table value of 't' at 5 percent level of significance (2.179). This shows that there is no significant difference between University and self financed institution as far as examination results and quality of education is concerned. Average pass percentage of the rural institutions of the self financed stream is 66 as against the average pass percentage of 76 in the case of urban institution. The 't' value worked out by us suggests that calculated value of 't' (2.58) is greater than the tabular value of 't' at 5 percent level of significance (2.179). Hence we conclude that there is significant difference in average value of the pass percentage between self financed institution in the rural and urban area.

Table 6.25

STUDENTS PERFORMANCE (M.C.A. COURSE)

Year	University level	Regular	Self financed		
			Rural	Urban	Combined
1995	80	92	86	90	88
1996	92	90	98	90	94
1997	83	80	82	90	86
1998	100	100	100	100	100
1999	92	90	90	98	94
2000	90	88	88	96	92
2001	96	92	100	100	100
Avg.	90	90	92	95	93

Source: Annual Report of Bharathiar University, 2001.

It is evident from the table that average pass percentage of the M.C.A. students in the self financed institutions for the period 1995-2001 is slightly higher than the average pass percentage of M.C.A. students at the University level and regular stream. When we compare the performance of M.C.A. students at University level with self financed stream we can see that the calculated value of 't' (0.90) is lesser than table value of t (2.179) at 5 percent level of significance. Hence we can conclude that there is no significant

difference in average pass percentage between the two streams. A comparison of student performance between regular and self financed also yielded similar results. Here the calculated value of t = 1.04 is lesser than the table value of t (2.179) at 5 percent significance level. A comparison of performance between rural and urban institutions in the self financed category shows that there is no significant difference between average pass percentage of rural and urban institutions. The calculated value of t (0.87) is lesser than the table value of t (2.179) at 5 percent level of significance.

Table 6.26

STUDENTS PERFORMANCE (B.E COURSE) (PASS PERCENTAGE)

Year	University level	Regular	Self financed		
			Rural	Urban	Combined
1995	82	86	72	84	78
1996	85	88	81	83	82
1997	79	79	72	86	79
1998	85	88	80	84	82
1999	91	94	87	89	88
2000	89	93	82	88	85
2001	94	98	88	92	90
Avg.	86	89	80	87	83

Source: Annual Report of Bharathiar University, 2001.

It is seen from the table that average pass percentage of the B.E. students for the period 1995-2001 in self financed institution is slighly lower than average pass percentage of their counterparts at the University level and regular stream. When we compare the performance of B.E. students at the University level with self financed stream we can see that the calculated value of 't' (1.15) is lesser than table value of t (2.179) at 5 percent level of significance. This shows that there is no significant difference in average pass percentage between students at the University level and self financed institution. The comparison of the performance of BE students under the self financed stream with their counterpart in the regular stream show no significant difference at the performance level. The calculated value of 't' (2.07) is found less than table value of t (2.179) at 5 percent level of significance. However there is significant difference between the performance of students of rural and urban segments of self financed institutions. The calculated value of 't' (2.31) is higher than table value of 't' 2.179 at 5 percent level of significance.

Table 6.27

STUDENTS PERFORMANCE (B.TECH COURSE)

Year	University level	Regular	Self financed		
			Rural	Urban	Combined
1995	98	100	98	94	96
1996	98	100	98	94	96
1997	96	100	90	94	92
1998	94	98	88	92	90
1999	98	100	94	98	96
2000	96	98	96	92	94
2001	99	100	98	98	98
Avg.	97	99	95	95	95

Source: Annual Report of Bharathiar University, 2001.

It is evident from the table that average pass percentage of the B Tech students in self financed institutions for the period 1995-2001 is 95 where as average pass percentage of the regular stream for the same period is 99. The table value of 't' at 5 percent level of significance is 2.179. Calculated value of 't' is (4.38). The calculated value of 't' is greater than the table value (2.179). This shows that there is significant difference between means of pass percentage of self financed institution and regular stream. Rural-urban comparison

of performance of self financed institutions reveals no difference in the performance level. A comparison of student performance at the University level and self financed stream reveals no significant difference between means of pass percentage at University level and self financed stream. The calculated value of 't' (1.97) is found lesser than table value at 5 percent level of significance.

The results of the students of self financed institutions of various disciplines show that teachers performance is remarkably good. But their salary and other working conditions are not satisfactory as compared to the salary and working conditions of teachers in the aided and Government sector.

In the aided/Government sector teachers are well organised through trade unions. These trade unions play a key role in protecting the income and service conditions of teachers through collective bargaining. Self-financed institutions paint a different picture with regard to the trade union activities. Teachers in self-financed institutions are found to be not united under any trade union. This has reduced their bargaining power in the context of the protection of employees rights.

With regard to other amenities enjoyed by the teachers it is found that all institutions have common staff room, hostel and library facilities. It is seen that high workload, high student teacher ratio, low income, absence of retirement benefits etc. adversely affect the job satisfaction level of the teachers. The performance of the students in self-financed institutions are comparable with the performance of their counter part in the government and aided colleges. Thus we have accepted the hypothesis that though the terms and conditions of employment of teachers engaged in self-financed higher educational institutions are not conducive their performance is reasonably good.

CHAPTER VII

STUDENTS IN SELF FINANCED INSTITUTIONS - A SOCIO ECONOMIC EDUCATIONAL PROFILE

In this chapter an attempt is made to study the social and economic background of the students of self- financed institutions to understand who are the beneficiaries of the private financed institutions. This study is relevant from the point of view of equity aspect of self-financed institution. There is a strong belief that self financed educational institutions is inaccessible to socially and economically backward sections. Our attempt is to ascertain the role of factors like, caste, community, gender, income, previous educational performance of the students and his/her parental background in determining access to private financed education. We propose to investigate the hypothesis that private financed education is heavily biased towards the relatively better off section of the society. The validation of this hypothesis would mean that private financed education do not act as a vehicle for upward social mobility for the socially backward and economically weaker sections.

This chapter would focus attention on the social and, educational profiles of the students, as well as income profile of the parents and family background. The analysis is presented under two sections. Section I deals with the social and educational profile of students. Section II presents the economic and social profile of parents.

Section I

SOCIAL AND EDUCATIONAL PROFILE OF STUDENTS

In this section we examine the religion and community background of the students.

(a) Religion

Table 7.1 shows religious profile.

Table 7.1

RELIGIONWISE CLASSIFICATION OF STUDENTS

Religion	Rural			Urban			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Hindu	41	19	60	22	20	42	63	39	102
	61.19%	57.58%	60%	36.07%	51.28%	42%	49.22%	54.17%	51%
Christian	12	8	20	32	16	48	44	24	68
	17.91%	24.24%	20%	52.46%	41.03%	48%	34.38%	33.33%	34%
Muslim	14	6	20	7	3	10	21	9	30
	20.90%	18.18%	20%	11.48%	7.69%	10%	16.41%	12.5%	15%
Total	67	33	100	61	39	100	128	72	200
	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source : Compiled from Primary data collected through questionnaire

Religionwise classification of students depicted in the table 7.1 reveals that irrespective of the gender Hindu students account for a lion's share of enrolment in self financed institutions followed by students from Christian and Muslim religions. However in the rural area among the male segments the proportion of Muslim students is marginally higher than students belonging to Christianity. In the urban area students belonging to Christianity command a greater share in total enrolment followed by students belonging to Hindu and Muslim communities. However this pattern does not prevail among the female segment of urban institutions where students from Hindu religion dominate the scene.

b) Community

Now let us examine the community profile of students in self-financed institutions (See table 7.2)

Table 7.2

COMMUNITY WISE CLASSIFICATION OF STUDENTS

	Rural			Urban			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Backward	21 31.34%	9 27.27%	30 30%	18 29.51%	14 35.89%	32 32%	39 30.47%	23 31.94%	62 31%
Most Backward	8 11.94%	0 0%	8 8%	5 8.20%	0 0%	5 5%	13 10.16%	0 0%	13 6.5%
Scheduled Caste	8 11.94%	3 9.09%	11 11%	7 11.48%	1 2.56%	8 8%	15 11.72%	4 5.56%	19 9.5%
Scheduled Tribe	2 2.99%	0 0%	2 2%	0 0%	1 2.56%	1 1%	2 1.56%	1 1.39%	3 1.5%
Forward	28 41.79%	21 63.64%	49 49%	31 50.82%	23 58.97%	54 54%	59 46.09%	44 61.11%	103 51.5%
Total	67 100%	33 100%	100 100%	61 100%	39 100%	100 100%	128 100%	72 100%	200 100%

Source : Compiled from Primary data collected through questionnaire

It is evident from the table that students belonging to forward community occupy a major share of student strength in self-financed institutions. Regardless of location and gender, the relative share of forward, backward, most backward, scheduled caste and scheduled tribe students are 51.5, 31, 6.5, 9.5 and 1.5 percent respectively. Genderwise analysis shows that the relative share of scheduled

caste and scheduled tribe students in the total student strength is higher in the male category than that of their share in the female category. The opposite is true in the case of forward community students.

Another prominent feature is that no female are observable from most backward category in self-financed institutions. Similarly no female intake of scheduled tribe is found in the rural segment. In the urban segment there is no intake of scheduled tribe male students.

The foregoing discussion shows that self-financed institutions are more accessible to forward community Secondly in the forward community, the male female ratio is less. In all other communities male female ratio is higher. Thirdly among the most backward community population no female enrolment is found.

c) Community and discipline

Table 7.3 depicts the community and disciplinewise classification of students (See table 7.3)

Table 7.3

COMMUNITY AND DISCIPLINEWISE CLASSIFICATION OF STUDENTS

Community	MBA	MCA	BE	B.TECH	Total
Backward	22	25	7	8	62
	30.55%	34.72%	25	28.57%	31%
Most backward	5	5	2	1	13
	6.94%	6.94%	7.14%	3.57%	6.5%
Scheduled Caste	3	7	6	3	19
	4.16%	9.72%	21.42%	10.71%	9.5%
Scheduled Tribe	0	1	1	1	3
	0%	1.38%	3.57%	3.57%	1.5%
Forward	42	34	12	15	103
	58.34%	47.22%	42.86%	53.57%	51.5%
Total	72	72	28	28	200
	100%	100%	100%	100%	100%

Source : Compiled from Primary data collected through questionnaire

From the table it is evident that forward community students occupy a lion's share of the student strength regardless of the discipline. Their share to total enrolment in the M.B.A., M.C.A., B.E. and B.Tech courses is 58, 47, 43 and 54 percent respectively. Backward community occupies the second position in the total

intake regardless of disciplines. The analysis shows that there is no intake of scheduled tribe students for M.B.A. programme.

Now there arises a pertinent question. How far self financed institutions are following the reservation policy of the Government. For this we have to examine the reservation policy of the Government of Tamil Nadu first.

d) Reservation Policy

The policy of reservation concerning admission of backward communities including SC/ST to educational institutions has been in vogue in the state of TamilNadu since 1921. It was to facilitate and speed up the upliftment of under privileged and deprived classes and to enable them to compete on equal footing with the developed section of the society. This policy was enforced in the year 1980. In that year the Government fixed the percentage of reservation at 68 percent and it has been continuing at that level until 1990. Since then in the year 1990, an additional one percent reservation for scheduled tribe was given making the total reservation to 69 percent. At present in both of Arts and Science and Engineering categories, 31 percent is reserved for merit quota, 30 percent for backward classes, 20 percent for most backward class and 19 percent for SC/ST.

Now let us turn over our attention to the level of compliance of reservation policy of Government by self financed institutions.

Table 7.4

COMPLIANCE OF RESERVATION POLICY IN THE ARTS AND SCIENCE CATEGORY

Communities	Total Seats as per reservation	Enrolment	Vacancy/Over Enrolment
Backward	1426	1330	+96
Most backward	950	285	+665
Scheduled Caste/ Tribe	903	286	+617
Forward	1473	2851	-1378

Source : Compiled from Primary data collected through questionnaire

Table 7.5

COMPLIANCE OF RESERVATION POLICY IN THE ENGINEERING CATEGORY

Communities	Total Seats as per reservation	Enrolment	Vacancy/Over Enrolment
Backward	1012	1113	-101
Most backward	675	202	+473
Scheduled Caste/ Tribe	641	102	+539
Forward	1046	1956	- 910

Source : Compiled from Primary data collected through questionnaire

Table 7.4 and 7.5 exhibit the ground reality with regard to compliance of the reservation policy of the Tamil Nadu Government by self-financed institutions. The analysis is made separately for Arts and Science and Engineering category. It is evident from the table that seats reserved for backward, most backward and scheduled caste/tribe students remain vacant in the Arts and Science category. This vacancy is compensated by over enrolment of forward category. These facts are displayed in chart No. where the negative values of 1378 indicates the excess enrolment of the forward category.

Figure 1
Bar Diagram Showing Compliance of Reservation Policy in the Arts and Science Category

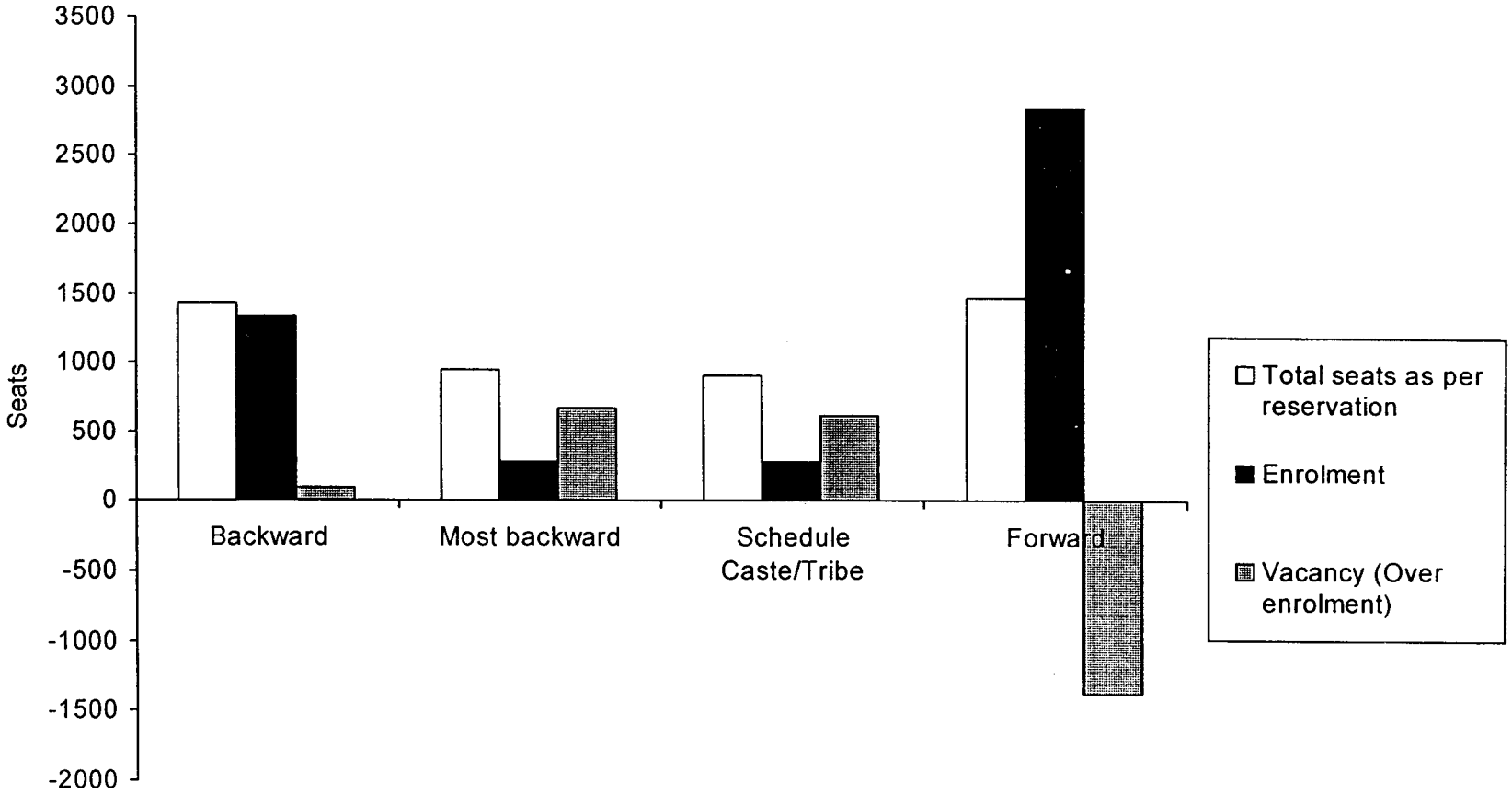
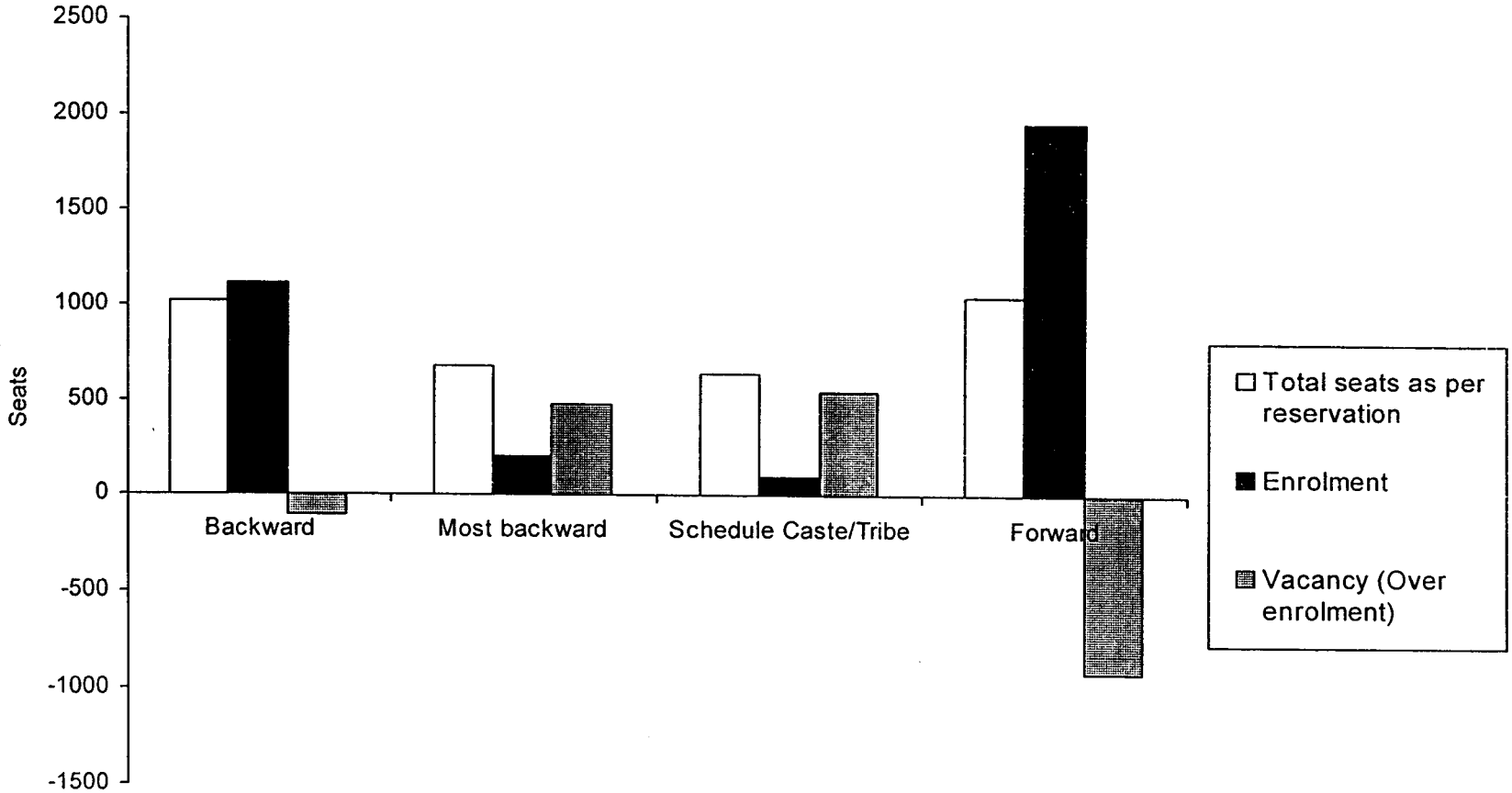


Table 7.5 depicts the compliance of reservation policy by Engineering institutions. It is clear from the table that the under enrolment in backward, most backward and SC/ST category has been compensated by over enrolment of the forward category. A diagrammatic representation of the analysis is given in the following chart.

Figure 2
Bar Diagram Showing Compliance of Reservation Policy in the Engineering Category



It is clear from the above analysis that self-financed institutions are not following the reservation policy of the Government and are engaged in the practice of recruiting more students from the forward community at the cost of backward and SC/ST students.

The proportion of SC/ST students in self-financed institutions is much low. The decline in the proportion of SC/ST students at the higher levels of education calls for explanation. Before making such an attempt, let us turn to previous educational performance of students in self-financed colleges.

The previous educational performance of the students is an important determinant of his/her access to next stage. It is said that self-financed institutions are quick money making ventures. Still colleges conduct entrance examinations to get students with good academic potential.

The tables below (7.6, 7.7) summarise the educational performance of the M.B.A./M.C.A./B.E./B.Tech students enrolled at their degree and predegree level.

Table 7.6

EDUCATIONAL PERFORMANCE OF THE M.B.A./M.C.A. STUDENTS AT THEIR QUALIFYING EXAMINATION

Course	80% and above			60% - 80%			50% - 59%			Below 50%			Total			Average
	R	U	T	R	U	T	R	U	T	R	U	T	R	U	T	
M.B.A.	-	-	-	28 39%	30 42%	58 81%	8 11%	6 8%	14 19%	-	-	-	36 50%	36 50%	72 100%	67
M.C.A.	8 11%	6 8%	14 19%	20 28%	20 28%	40 56%	8 11%	10 14%	18 25%	-	-	-	36 50%	36 50%	72 100%	70
TOTAL	8 6%	6 4%	14 10%	48 33%	50 35%	98 68%	16 11%	16 11%	32 22%	-	-	-	72 50%	72 50%	144 100%	68.61

Source : Compiled from Primary data collected through questionnaire

R = Rural U = Urban T = Total

The important highlights of the table are the following. Irrespective of the course all students in self financed institutions have secured marks greater than 50 percentage at their qualifying examination. It can also be seen from the table that 78 percent of the students of self-financed institutions have secured more than 60 percentage marks at their qualifying examination (112/144). A further study of the performance at the qualifying examination reveals that nearly 19 percent of the M.C.A. students have got distinction or above distinction. This category of students is absent for the M.B.A. course. 81 percent of the students opted for M.B.A. have secured more than 60 percent marks at their qualifying examination (58/72). The corresponding percentage for the M.C.A. course is 75 (54/72).

A look at the average marks of the M.B.A./M.C.A. students reveal that the educational performance at the qualifying level of M.C.A. students is better than that of the M.B.A. students.

The rural-urban difference with regard to marks at the qualifying examination is marginal.

The absence of students with distinction for M.B.A. course may be attributable to the nature of qualifying examination. It is found that 90 percent of M.B.A. students have qualified degree either in economics or in commerce where the mark scoring potential is lower than that of science students.

Table 7.7

EDUCATIONAL PERFORMANCE OF B.E./B.Tech STUDENTS AT THEIR QUALIFYING EXAMINATION

Course	80% and above			60% - 80%			50 %- 59%			Below 50%			Total			Average
	R	U	T	R	U	T	R	U	T	R	U	T	R	U	T	
B.E.	6 21%	0 0%	6 21%	7 25%	8 29%	15 54%	1 4%	6 21%	7 25%	-	-	-	14 50%	14 50%	28 100%	70.53
B.Tech	8 29%	6 21%	14 50%	4 14%	6 22%	10 36%	2 7%	2 7%	4 14%	-	-	-	14 50%	14 50%	28 100%	77.85
TOTAL	14 25%	6 11%	20 36%	11 20%	14 25%	25 45%	3 5%	8 14%	11 19%	-	-	-	28 50%	28 50%	56 100%	74.19

Source : Compiled from Primary data collected through questionnaire

R = Rural, U = Urbanj, T = Total

An examination of the table reveals that there are no students with less than 50 percent marks at their qualifying examination who have joined for B.E/B.TECH course. On an average 36 percentage of the students have secured marks greater than 80 percentage at their qualifying examination (45/56).

A closer look at the rural and urban students shows that in the above 80 percent category, students of rural institutions out performed the students of urban institutions. However the difference is marginal in 60-80 category. A study of the pattern of marks with reference to B.E/B.Tech courses reveals that a higher percentage of students with distinction opted for B.Tech course. Similarly 86 percentage of B.Tech students have secured more than 60 percentage of marks at their entry examination (24/28). The corresponding percentage for BE course is 75 (21/28).

A look at the average figures depicted in the table signals that the academic performance of B.Tech students is better than that of B.E students.

Thus we find that most of the students enrolled for the M.B.A., M.C.A., B.E. and B.Tech courses in self-financed colleges have a record of brilliant academic performance at the qualifying examination. The study further reveals that all of the students covered by the sample have passed their qualifying examination in the first chance itself with good marks.

Table 7.8

COMMUNITY WISE EDUCATIONAL PERFORMANCE OF THE M.B.A. AND M.C.A. STUDENTS AT THEIR QUALIFYING EXAMINATION

A: M.B.A. STUDENTS

Caste	Above 80% (Distinction)	60% - 80% (First class)	50 -59% (Second class)	Below 50% (Third class)	Total	Course Average
FC	-	38 90%	4 10%	-	42 100%	68.57
BC	-	20 91%	2 9%	-	22 100%	68.63
MBC	-	0 0%	5 100%	- -	5 100%	55
SC/ST	-	0 0%	3 100%	-	3 100%	55
Total	-	58 81%	14 19%	-	72 100%	67.08

B: M.C.A. STUDENTS

FC	9 26%	18 53%	7 21%	-	34 100%	72.2
BC	4 16%	18 72%	3 12%	-	25 100%	71.4
MBC	1 20%	2 40%	2 40%	- -	5 100%	68
SC/ST	0 0%	2 25%	6 75%	- -	8 100%	58.75
Total	14 19%	40 56%	18 25%	- -	72 100%	70.14

Source : Compiled from Primary data collected through questionnaire

FC = Forward Community, BC = Backward Community, MBC = Most Backward Community, SC/ST = Scheduled Caste / Scheduled Tribe.

Coming to the communitywise educational performance of the M.B.A./M.C.A. students at their qualifying examination it is seen from the table that among the forward community students enrolled for M.B.A. course about 90 percent are first class holders and among the backward community students 91 percent are first class holders at the qualifying examination. Surprisingly there is not even a single first class holder among most backward and SC/ ST community is found at this level. Among the first class holders 65.52 percent (38 out of 58) of students belong to forward community and 34.48 percent (20 out of 58) of students belong to backward community.

Among the forward community students enrolled for M.B.A. course 10 percent are second class holders at the qualifying examination. 9 percent of the backward community students, 100 percent of the most backward community students and SC/ST students enrolled for the M.B.A. course have secured marks between 50-60 percentage at their qualifying examination. Among the second class holders, 28.57 percent (4 out of 14) of students belong to forward community, 14.29 percent (2 out of 14) belong to backward community, 35.71 percent (5 out of 14) belong to most backward community and 21.43 percent (3 out of 14) belong to SC/ST.

Among the forward community enrolled for the M.C.A. course, 26 percent has got distinction and above distinction at their qualifying examination. In the backward community, most backward community and SC/ST enrolled for the M.C.A. course the percentage with distinction holders are 16, 20 and zero respectively. Among the distinction holders 64.29 percent (9 out of 14) belong to forward community, 28.57 percent (4 out of 14) belong to backward community and 7.14 percent (1 out of 14) belong to most backward community. There is not even a single student with distinction among SC/ST opted for M.C.A. course. Among the forward community students enrolled for the M.C.A. course 53 percent have got first class and above first class at their qualifying examination. Among the backward community, most backward community and SC/ST students enrolled for the M.C.A. course, the percentages of first class holders are 72 percent, 40 percent and 25 percent respectively. Among the first class holders, 45 percent (18 out of 40) belong to forward community, 45 percent (18 out of 40) belong to backward community, 5 percent (2 out of 40) belong to most backward community and 5 percent (2 out of 40) belong to SC/ST community. Among the forward community enrolled for the M.C.A. course 21 percent are second class holders at their

qualifying examination. Among the backward community, most backward community and SC/ST enrolled for the M.C.A. course, the percentages of second class holders are 12, 40 and 75 respectively. Among the second class holders 38.89 percent (7 out of 18) belong to forward community, 16.67 percent (3 out of 18) belong to backward community, 11.11 percent (2 out of 18) to most backward community and 33.33 percent (6 out of 18) to SC/ ST community.

A look at the average figure in the last column of the table reveals that at the M.B.A. level the performance of the backward community is marginally higher than that of the forward community students. However at the M.C.A. level forward community students have fared marginally better than that of backward community students.

Thus we find that at the degree level, the performance of forward community students is found better than that of the backward community, most backward community and SC/ST students. Among the latter three groups the backward community students have fared better than most backward community and SC/ ST students.

Table 7.9

COMMUNITYWISE EDUCATIONAL PERFORMANCE OF THE BE/B.TECH STUDENTS AT THEIR QUALIFYING EXAMINATION

A: B.E.

Caste	Above 80% (Distinction)	60% - 80% (First class)	50 -59% (Second class)	Below 50% (Third class)	Total	Course Average
FC	4 33%	6 50%	2 17%	-	12 100%	74.16
BC	2 29%	3 42%	2 29%	-	7 100%	71.42
MBC	0 0%	2 100%	0 0%	-	2 100%	70
SC/ST	0 0%	4 57%	3 43%	-	7 100%	63.57
Total	6 21%	15 54%	7 25%	-	28 100%	71

B: B.Tech

FC	12 80%	2 13%	1 7%	-	15 100%	85
BC	2 25%	6 75%	0 0%	-	8 100%	75
MBC	0 0%	0 0%	1 100%	-	1 100%	55
SC/ST	0 0%	2 50%	2 50%	-	4 100%	62.5
Total	14 50%	10 36%	4 14%	-	28 100%	77.86

Source : Compiled from Primary data collected through questionnaire

FC = Forward Community, BC = Backward Community, MBC = Most Backward Community, SC/ST = Scheduled Caste / Scheduled Tribe.

Regarding the communitywise educational performance of B.E./B.Tech students at their qualifying examination it is found from the table 7.9 that among the forward community students, 33 percent are distinction holders. In the backward community enrolled for B.E. course 29 percent are distinction holders. We cannot find any most backward community or SC/ST community students who have secured distinction at their qualifying examination. Among the distinction holders 67 percent (4 out of 6) belong to forward community and 33 percent (2 out of 6) belong to backward community students. Among the forward community students 50 percent have got first class and above first class at their qualifying examination. In the backward community, most backward community and SC/ST students enrolled for the B.E. course, the percentages of first class holders are 42 percent, 100 percent and 57 percent respectively. Among the first class holders, 40 percent (6 out of 15) belong to forward community, 20 percent (3 out of 15) belong to backward community, 13 percent (2 out of 15) to most backward community and 27 percent (4 out of 15) to SC/ST community. Among the forward community students, 17 percent have second class and above second class at their qualifying examination. Among the backward community and SC/ST enrolled for the B.E. course the percentages of second class holders are 29 percent and 43 percent respectively. None of the most backward

community students have second class and above second class at their qualifying examination. Among the second class holders, 29 percent (2 out of 7) belong to forward community, 29 percent (2 out of 7) to backward community and 43 percent (3 out of 7) to SC/ST community.

Among the forward community students enrolled for B.Tech course 80 percent have got distinction and above distinction at their qualifying examination. In the backward community, most backward community and SC/ST, the percentages of distinction holders are 25 percent, 0 and 0. It is seen that most backward community and SC/ST students enrolled for B.Tech have no distinction and above distinction at their qualifying examination. Among the distinction holders 86 percent (12 out of 14) belong to forward community and 14 percent (2 out of 14) belong to backward community.

In the forward community students enrolled for B.Tech course 13 percent have got first class and above first class at their qualifying examination. Among the backward community, most backward community and SC/ST students enrolled for the B.Tech course the percentages of first class holders are 75 percent, 0 percent, and 50 percent respectively. Among the first class holders 20 percent (2 out of 10) belong to forward community, 60 percent

(6 out of 10) to backward community and 20 percent (2 out of 10) to SC/ST community. No most backward community students at the B.Tech level have got first class and above first class at their qualifying examination.

Among the forward community students enrolled for B.Tech course, 7 percent have got second class and above second class at their qualifying examination. Among the backward community, most backward community and SC/ST enrolled for the B.Tech level, the percentage of second class holders are 0,100 and 50 respectively. Among the second class holders, 25 percent (1 out of 4) belong to forward community, 25 percent (1 out of 4) to most backward community and 50 percent (2 out of 4) to SC/ST. It is found that no backward community students have got second class and above second class at their qualifying examination.

It is seen that irrespective of the course, academic brilliance of forward community is higher than that of their counterparts. The academic performance of backward community is better than most backward community and SC/ST students. The decline in proportion of SC/ST students at the higher level is attributed to the poor academic performance at the qualifying degree examination. It is found that nearly 55 percent of SC/ST students at the B.E./B.Tech level have secured first class and above at the qualifying examination whereas at the M.B.A., M.C.A. level the

proportion of first class holders among SC/ST at the degree qualifying level is 18.33 percent. A look at the average figure in the last column shows that at the B.E./B.Tech level the performance of the forward community is higher than backward, most backward, SC/ST community. The average figure relating to M.B.A. and M.C.A. shows similar results except in the case of M.B.A. where the performance of backward community is found marginally better than that of forward community.

It is observed that among social groups, the academic performance of the forward community is the highest. They are followed by the backward, most backward and SC/ST students.

The difference observed in the level of academic performance of different social groups calls for explanation. For that we have to look into the class/caste factor of education. Educational attainment of a student has a very close relationship with his socio-economic status. His/her accessibility to higher level of education and his/her performance at each stage is very much influenced by class/caste factor (Bowles 1971, Beteille 1965, Bhagawathi J.N., 1973). These aspects are studied in the next section.

SECTION II

INCOME AND SOCIAL PROFILE OF PARENTS

Given the level of inequality in the distribution of income, the accessibility of low income groups to higher level of education is likely to be less than that of higher income groups (Blaugh.M Chitinis 1979, Kamat A.R.1979). Inorder to test this hypothesis we can turn to an examination of the income level of the parents enrolled in self-financed colleges.

a) Income

Table 7.10 depicts the classification of students according to annual family income (see table 7.10)

Table 7.10

CLASSIFICATION OF STUDENTS ACCORDING TO ANNUAL FAMILY INCOME

Parental Income (in lakhs)	Students		Total
	Rural	Urban	
Less than .5	7 7%	0 0%	7 3.5%
.5 - 1	9 9%	16 16%	25 12.5%
1 - 1.5	20 20%	19 19%	39 19.5%
1.5 - 2	25 25%	19 19%	44 22%
2 - 2.5	15 15%	18 18%	33 16.5%
2.5 - 3	2 2%	2 2%	4 2%
3 - 3.5	10 10%	10 10%	20 10%
3.5 - 4	8 8%	13 13%	21 10.5%
4 - 4.5	2 2%	1 1%	3 1.5%
4.5 - 5	2 2%	2 2%	4 2%
Total	100 100%	100 100%	200 100%
Average	1.97	2.10	2.03

Source : Compiled from primary data collected through questionnaire

While considering incomewise distribution of students it is found from the table that bulk of the students come from middle income groups irrespective of the region. Average annual income

of the parents in the rural area comes around Rs.1.97 lakhs whereas in the urban area it comes around Rs.2.10 lakhs. The combined average income of the parents in the urban and rural areas is Rs.2.03 lakhs. Nearly 57.5 percent of students lie below the annual income level of Rs 2 lakhs. Their proportion in the urban and rural areas are 54 percent and 61 percent respectively. In the urban area, the parental income of all students is greater than Rs 0.5 lakhs whereas in the rural area the proportion of parents whose income is less than Rs 0.5 lakhs is 7 percent.

It is clear from the foregoing discussion that most of the students in self-financed institutions belong to income groups below Rs. 2 lakh. Their proportion is more or less the same in both the regions. But it is found that in the rural area 7 percent of parents reported income less than Rs. 50,000 per annum.

From the foregoing discussions there arises certain valid questions regarding the motivation of the parents with low income for sending their children to self-financed institutions to undergo the professional course sparing a lion's share of their family budget. This factor is analysed in the next chapter.

b) Community and incomewise distribution of students

In order to identify the low income groups we have to examine the communitywise distribution of students by income. Table 7.11 depicts community and incomewise distribution of students.

Table 7.11

COMMUNITY AND INCOMEWISE DISTRIBUTION OF STUDENTS

Parental Income (In lakhs)	FC	BC	MBC	SC/ST	TOTAL
Less than .5	1 .97%	1 1.61%	1 7.69%	4 18.18%	7 3.5%
.5 - 1	0 0%	1 1.61%	10 76.92%	14 63.63%	25 12.5%
1 - 1.5	17 16.50%	18 29.03%	2 15.38%	2 9.09%	39 19.5%
1.5 - 2	28 27.18%	14 22.58%	0 0%	2 9.09%	44 22%
2 - 2.5	13 12.62%	20 32.26%	0 0%	0 0%	33 16.5%
2.5 - 3	4 3.88%	0 0%	0 0%	0 0%	4 2%
3 - 3.5	16 15.53%	4 6.45%	0 0%	0 0%	20 10%
3.5 - 4	19 18.44%	2 3.22%	0 0%	0 0%	21 10.5%
4 - 4.5	1 .97%	2 3.22%	0 0%	0 0%	3 1.5%
4.5 - 5	4 3.88%	0 0%	0 0%	0 0%	4 2%
Total	103 100%	62 100%	13 100%	22 100%	200 100%
Average	2.50	1.97	.79	.79	2.03

Source : Compiled from Primary data collected through questionnaire

FC = Forward Community, BC = Backward Community, MBC = Most Backward Community, SC/ST = Scheduled Caste / Scheduled Tribe.

Regarding the community and incomewise distribution of students it is evident from the table that nearly 91 percent of scheduled caste/tribe students have annual income below Rs.1.5 lakhs. Out of this 18.18 percent of scheduled caste/tribe students have annual income below Rs. 0.5 lakhs. All parents belonging to most backward community have annual income below Rs. 1.5 lakhs. 32 percent of the backward community students lie below this income level. The proportion of forward community in this category is 17.47 percent.

Thus it is clear that relatively higher percentage of low income groups are those who belong to most backward and SC/ST community. Economic position of most backward community is found to be more or less similar to SC/ST. The average figure depicted in the table reinforces these findings.

100 percent of students in the most backward community together with 33 percent of students in backward community and 18 percent of students of the forward community have income less than Rs. 1.5 lakhs. They together represent 35 percent of the population. Even though this level of income is sufficient to cover average cost it is likely to absorb a major chunk of the annual budget of the individual.

So any hike in private cost of education is likely to effect many parents who are financially not very much sound. It is seen that even in the aided colleges, where courses like M.B.A., M.C.A., B.E. and B.Tech are offered, It has been found (Chapter VIII) that private cost of education under self-financed stream is much higher than aided stream. Inspite of these it is interesting to look into those other factors that motivate a student to take up a course in a self financed institution.

c) Reason for the selection of the course

A survey has been conducted among the students to know why they have selected their respective courses. Table 7.12 depicts the survey results.

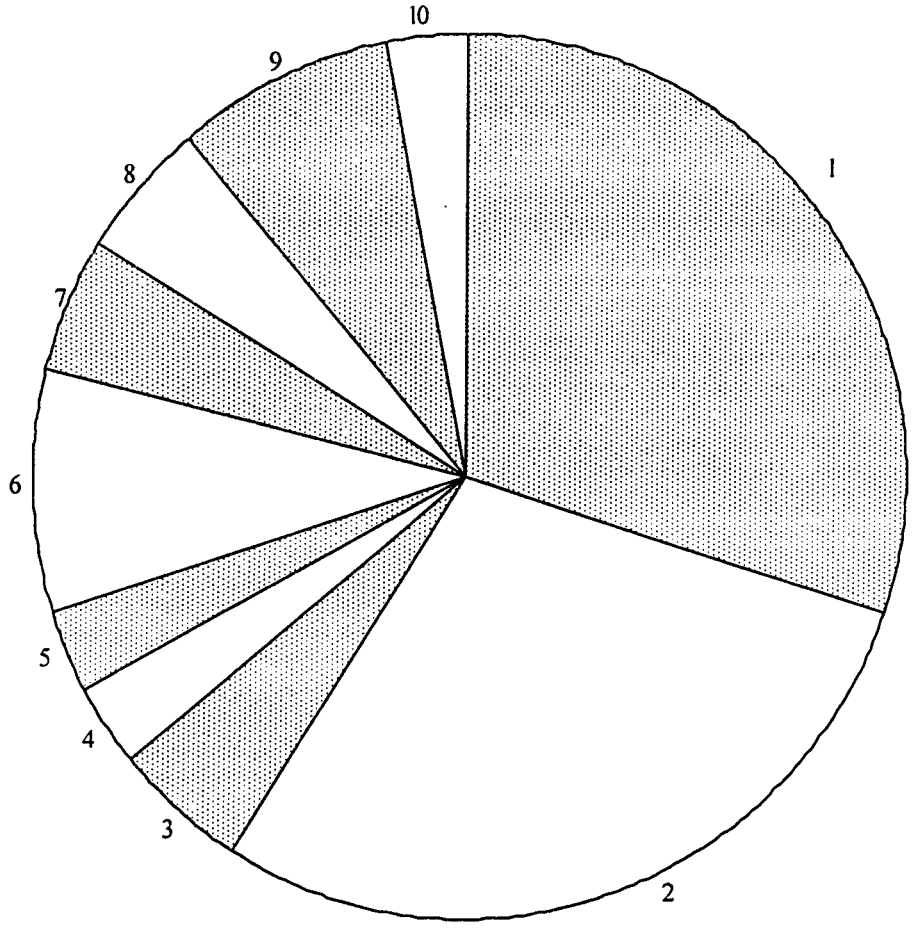
Table 7.12

MOTIVES BEHIND THE SELECTION OF THE COURSE

	Motivators for the selection of the course	Weight (in %)
1	Aspiration of parent	30%
2	Lack of employment opportunities	29%
3	Parents are educated	5%
4	Higher education gives status	3%
5	Others are studying	3%
6	It improves employment opportunities	9%
7	Financial resources are available	5%
8	To get an appropriate bride or bride groom	5%
9	Because of higher pay for higher education	8%
10	Self interest	3%
	Total	100%

Source : Compiled from primary data collected through questionnaire

Figure 3
Pie Diagram Showing the Motivation Behind the Selection of the Course



1. Aspiration of parent
2. Lack of employment opportunities
3. Parents are educated
4. Higher education give status
5. Others are studying
6. It imprcves employment opportunities
7. Financial resources are available
8. To get an appropriate bride or bridegroom
9. Because of higher pay for higher education
10. Self interest

Coming to the reason for the selection of the course it is seen from the table 7.12 that majority (30%) are of the opinion that the reason behind selection of a course is to satisfy the aspiration of the parents. The second prominent reason was lack of employment opportunities (29%). Third option is it improves employment opportunities (9%).

Aspiration of the parent is likely to depend upon educational background of the parent and occupational distribution of income. It is found that there is 'preferential bias' among parents of students to send their children to undergo professional course in self-financed institutions.

d) Educational background of the parents

Let us now see the educational background of the parents. Table 7.13 depicts educational background of the parents.

Table 7.13

EDUCATIONAL BACKGROUND OF THE PARENTS

Educational Background	FC	BC	MBC	SC/ST	TOTAL
Both PG	11 10.68%	5 8.06%	0 0%	0 0%	16 8%
At least one PG	16 15.53%	4 6.45 %	0 0%	0 0%	20 10%
Both Graduates	20 19.42%	11 17.74%	5 38.46%	0 0%	36 18%
Atleast one graduate	15 14.56%	8 12.90%	0 0%	1 4.55%	24 12%
Both SSLC Passed	11 10.68%	6 9.68%	2 15.38%	7 31.82%	26 13%
At least one SSLC Passed	15 14.56%	13 20.97%	3 23.08%	5 22.73%	36 18%
Both below SSLC	15 14.56%	15 24.19%	3 23.08%	9 40.91%	42 21%
Total	103 100%	62 100%	13 100%	22 100%	200 100%

Source : Compiled from primary data collected through questionnaire

FC = Forward Community, BC = Backward Community, MBC = Most Backward Community, SC/ST = Scheduled Caste / Scheduled Tribe.

Coming to educational background of the parents it is evident from the table that among the forward community, the proportion of the parents who have educational background with degree and above is 60.19 percent. 45 percent of the parents belonging to backward community have educational background with degree or above. Among the most backward community the proportion of the parents who have educational background degree or above is 38.46 percent. It is found that 4.55 percent of the parents belonging to SC/ST have educational background degree or above.

Out of the most backward community population, 62 percent have educational background below the degree level. In the case of SC/ST population, 96 percent have educational background below the degree level.

The foregoing discussion shows that self -financed institutions cater to the needs of socially and economically forward community having high family educational background.

e) Occupationwise distribution of parents

It is now proposed to analyse occupationwise distribution of parents. Table 7.13 depicts data pertaining to occupationwise distribution of parents.

Table 7.14

OCCUPATIONWISE DISTRIBUTION OF PARENTS

Occupation	FC	BC	MBC	SC/ST	TOTAL
Land Lords	14 13.59%	4 6.45%	0 0%	0 0%	18 9%
Agriculture labour	4 3.88%	3 4.84%	2 15.38%	21 95.45%	30 15%
Unorganised workers	3 2.91%	20 32.26%	4 30.77%	1 4.55%	28 14%
Entrepreneur	10 9.71%	12 19.35%	2 15.38%	0 0%	24 12%
Administrative officers at the private sector	15 14.56%	5 8.06%	0 0%	0 0%	20 10%
Private college teachers	12 11.65%	6 9.68%	2 15.38%	0 0%	20 10%
Clerical staff at private sector	6 5.83%	3 4.84%	1 7.69%	0 0%	10 5%
Peon, Watchman	5 4.85%	3 4.84%	2 15.38%	0 0%	10 5%
Public administration learned profession	31 30.09%	5 8.06%	0 0%	0 0%	36 18%
Others	3 2.91%	1 1.61%	0 0%	0 0%	4 2%
Total	103 100%	62 100%	13 100%	22 100%	200 100%

Source : Compiled from primary data collected through questionnaire

FC = Forward Community, BC = Backward Community, MBC = Most Backward Community, SC/ST = Scheduled Caste / Scheduled Tribe.

Coming to occupational distribution of parents it is clear from the table 7.14 that almost all the parents of SC/ST students are either agricultural labourers or unorganized workers like mason/ carpenters etc. In the most backward community population, 30 percent are unorganized workers, 15 percent are agricultural workers, 15 percent run industrial and other concerns 40 percent constitute college teachers, officers, clerical staff, peon, watchman etc. In the backward community population, 32 percent of parents represent unorganized workers category. This is followed by entrepreneurs, private college teachers, clerical staff etc. who occupy 19.35, 9.68, 4.84 percent respectively. Rest of the parents represent other occupational groups.

Among the forward community 13.59 percent are land lords, 3.88 percent are agricultural labourers, 2.91 percent are self employed workers, 9.71 percent are entrepreneurs, 14.56 percent are administrative officers, 11.65 percent are private college teachers, 5.83 percent are clerical staff in the private sector, 4.85 percent are peon watchman and 30 percent depends upon government sector.

It is clear from the table 7.14 that most of the forward community groups depend upon comparatively dignified professions. On the other hand cent percent of the SC/ST groups

are either agricultural labourers (95%) or unorganized workers (5%) who generally represent lowest paid worker category. Among the backward community the parental occupation is almost scattered among various categories of occupation.

It is seen that in self financed institutions, different categories of society study together. But their educational performance at the qualifying examination, educational background of the family, income, status etc. are different. Though these institutions exhibit the presence of socially forward communities from good family background with sound economic condition we cannot deny the presence of other section also.

The foregoing analysis on the socio-economic educational aspects of higher education reveals that eventhough self-financed institutions cater to the needs of different social groups it is dominated by students belonging to Hindu religion. Most of the beneficiaries of self-financed education are those who belong to forward community and many of the self-financed institutions, are found violating the reservation norms set by the government. This has also contributed positively to the dominance of forward community in self-financed higher education. Analysis of the socio economic and educational background of the student reveals that a

lion's share of the beneficiaries belong to economically well off communities with fairly good educational background.

It is very much interesting to know why parents send their children to self financed institutions inspite of the incidence of high private cost of education. The cost benefit analysis of investment in self financed education from beneficiary view points attempted in the next chapter provide an answer to this.

From the above discussions on the basis of the data analysed it has become clear that the students seeking admissions to self financed higher educational institutions mainly represent the socially and economically forward sections of the society. Thus the third hypothesis also stands proved.

The undesirable aspect of the expansion of self financed higher educational institution is that higher education would become more and more costly and affordable to the affluent classes of the society only. The heavy fees collected by these institutions will attract only the rich and socially forward sections of the society. This is against the total concept of a welfare state.

CHAPTER VIII

SELF-FINANCED HIGHER EDUCATION:- A COST BENEFIT ANALYSIS

In this chapter we shall discuss the private cost of education of students in self financed colleges and the return they secure from education. Private cost of education is all costs incurred by an individual student and parents less scholarship and fellowship received during the period of university education[1]. Private cost is broadly divided into direct cost and indirect cost. Direct private cost is defined as the value of money directly incurred by the household for the education of the students.[2]. Direct private cost is the academic cost which includes preadmission cost, fees, donation, cost on stationary articles, study tours and indirect private cost is the incidental cost which includes hostel charges, clothing entertainment, travel and others[3].

Benefits of self financed higher education from the view point of parents/students may be classified into direct and indirect categories. Direct benefits are benefits in terms of income accrued to a student after getting employed. It includes present as well as expected future income. Indirect benefits are those accruing to the society. This chapter attempts to make a comparative study of costs and benefits associated with self financed higher education from the view point of its main beneficiaries - students.

Private cost of Education:

In the following analysis of private cost of education we have studied the components of private cost on a coursewise basis The

courses selected are Management Education (M.B.A.) Computer Education (M.C.A.) Engineering Education (B.E.) and Technical Education (B.Tech)

a) Management Education

The table below summarises the annual private cost of education per student in self-financed institutions at the M.B.A. level (See table 8.1).

Table 8.1

ANNUAL PRIVATE COST PER STUDENT - MANAGEMENT EDUCATION

(Amount in Rupees)

Components	Annual Private cost Per student
Pre Admission	250.00 (.31%)
Tuition Fee Examination Fee	13,262.00 (16.19%)
Text Book Stationery Note Book	1,881.50 (2.30%)
Donation	48,190.00 (58.81%)
Travel	530.50 (.65%)
Clothes	1,643.00 (2.01%)
Entertainment	787.50 (.96%)
Hostel Expenses	
a) Rent	8,285.00 (10.11%)
b) Food	6,252.00 (7.63%)
Interest and others	856.50 (1.05%)
Total	81,938.00 (100%)

Source: Compiled from Primary data collected through questionnaire

It is clear from the table that donation accounts for 58.81 percent of annual private cost of education per M.B.A. student. Tuition fee and examination fee component is 16.19 percent of the annual private cost. 10.11 percent of the annual private cost of education is hostel rent and 7.63 percent of the average annual private cost of education is cost on food. All other expenses constitute 7.28 percent of the average annual cost per student.

Table 8.2 explains total private cost for management education per student.

Table 8.2

TOTAL PRIVATE COST PER STUDENT-MANAGEMENT EDUCATION (for Two years) (Amount in Rupees)

Components	Total Private cost per student	
Pre Admission	500.00	(.31%)
Tuition Fee Examination Fee	26,524.00	(16.19%)
Text Book Stationery, Note Book	3,763.00	(2.30%)
Donation	96,380.00	(58.81%)
Travel	1,061.00	(.65%)
Clothes	3,286.00	(2.01%)
Entertainment	1,575.00	(.96%)
Hostel Expenses		
a) Rent	16,570.00	(10.11%)
b) Food	12,504.00	(7.63%)
Interest and Others	1,713.00	(1.05%)
Total	1,63,876.00	(100%)

Source: Compiled from Primary data collected through questionnaire

It is evident from the table that total cost per student for the completion of M.B.A. course for two years is Rs 1,63,876 out of which cost on donation is Rs. 96,380/- (58.8%). Another major component of total cost are tuition fee and examination fee which come around Rs 26,524/- (16.19%) for the course. The next major item in the total cost is cost on accommodation and food which comes to Rs.16,570 (10.11%) and Rs.12,504 (7.63%) respectively. All other costs together comes to Rs.11,898/- which is 7.28 percent of the total cost.

b) Computer Education

Table 8.3 depicts the annual private cost of computer education per student.

Table 8.3

ANNUAL PRIVATE COST PER STUDENT - COMPUTER EDUCATION (Amount in Rupees)

Components	Annual private cost per student
Pre Admission	166.67 (.27%)
Tuition Fee Examination Fee	10,221.00 (16.28%)
Text Book Stationery Note Book	1,306.66 (2.08%)
Donation	36,774.00 (58.58%)
Travel	750.00 (1.19%)
Clothes	1,005.00 (1.60%)
Entertainment	613.50 (.98%)
Hostel Expenses	
a) Rent	6,643.00 (10.58%)
b) Food	5,057.00 (8.06%)
Interest and others	240.98 (.38%)
Total	62,777.81 (100%)

Source : Compiled from Primary data collected through questionnaire

The table shows that donation accounts for 58.58 percent of average annual private cost of education per M.C.A. student. Tuition fee and examination fee components is 16.28 percent of the average annual private cost of education per M.C.A. student.

10.58 percent of the average annual cost is hostel rent and 8.06 percent of the average annual cost is cost on food.

Table 8.4 shows total cost for three years for computer education per student.

Table 8.4

TOTAL PRIVATE COST PER STUDENT - COMPUTER EDUCATION (for Three years)

(Amount in Rupees)

Components	Total private cost per student	
Pre Admission	500.00	(.27%)
Tuition Fee Examination Fee	30,663.00	(16.28%)
Text Book Stationery Note Book	3,919.98	(2.08%)
Donation	1,10,322.00	(58.58%)
Travel	2,250.00	(1.19%)
Clothes	3,015.00	(1.60%)
Entertainment	1,840.50	(.98%)
Hostel Expenses		
a) Rent	19,929.00	(10.58%)
b) Food	15,171.00	(8.06%)
Interest and others	722.96	(.38%)
Total	1,88,333.44	(100%)

Source: Compiled from Primary data collected through questionnaire

It is evident from the table that total cost per student for the completion of M.C.A. course for three years is Rs.1,88,333.44/ - out of which cost of donation is Rs.1,10,322/- (58%). Another major component of total cost is tuition fee and examination fee component which comes around Rs. 30,663/- (16%). The next major item in the total cost is on accommodation and food which comes to about Rs.19,929/- (11%) and Rs.15,171/- (8%) respectively. All other components cost amounted to Rs.12,248.44/ - which is 6.50 percent of the total cost.

c) Engineering Education

Let us now examine the annual private cost of the BE student (See table 8.5).

Table 8.5

ANNUAL PRIVATE COST PER STUDENT - ENGINEERING EDUCATION (B.E.) (Amount in Rupees)

Components	Average Annual Cost	
Pre Admission	150.00	(.20%)
Tuition Fee Examination Fee	28,500.00	(38.13%)
Text Book Stationery Note Book	750.00	(1%)
Donation	25,000.00	(33.45%)
Travel	468.75	(.63%)
Clothes	375.00	(.50%)
Entertainment	187.50	(.25%)
Hostel Expenses		
a) Rent	10,500.00	(14.05%)
a) Food	7,950.00	(10.64%)
Interest and others	856.50	(1.15%)
Total	74,737.75	(100%)

Source : Compiled from primary data collected through questionnaire

It is clear from the table that cost on tuition fee and examination fee account for 38.13 percent of average annual private cost of education of a B.E. student. 33.45 percent of the average annual private cost of education is donation. 14.05 percent of the average

annual private cost of education is hostel rent and 10.64 percent is cost on food. All other expenses constitute of 3.73 percent of average annual cost.

Table 8.6

TOTAL PRIVATE COST PER STUDENT - ENGINEERING EDUCTION (for Four years) (B.E.) (Amount in Rupees)

Components	Total private cost per student	
Pre Admission	600.00	(.20%)
Tuition Fee Examination Fee	1,14,000.00	(38.13%)
Text Book Stationery, Note Book	3,000.00	(1%)
Donation	1,00,000.00	(33.45%)
Travel	1,875.00	(.63%)
Clothes	1,500.00	(.50%)
Entertainment	750.50	(.25%)
Hostel Expenses		
a) Rent	42,000.00	(14.05%)
b) Food	31,800.00	(10.64%)
Interest and others	3,426.00	(1.15%)
Total	2,98,951.50	(100%)

Source : Compiled from Primary data collected through questionnaire

It is observed from the table that total cost for the completion of B.E. course per student for four years is Rs.2,98,951/-. Out of this the cost on tuition fee and examination fee is Rs.1,14,000/- (38%). Cost on donation is Rs. 1,00,000/- (33%). Another major

component of total cost is cost of accommodation and food which comes to a total of about Rs.42,000/- (14%) and 31,800/- (11%) respectively. All other costs account for 3.73 percent of total private cost per student.

d) Technical Education

It is now proposed to analyse annual cost of technical education per student (See table 8.7)

Table 8.7

ANNUAL PRIVATE COST PER STUDENT - TECHNICAL EDUCATION (B.Tech) (Amount in Rupees)

Components	Average Annual Cost	
Pre Admission	150.00	(.19%)
Tuition Fee Examination Fee	30,000.00	(38.62%)
Text Book Stationery Note Book	937.50	(1.21%)
Donation	26,000.00	(33.47%)
Travel	562.50	(.72%)
Clothes	375.00	(.48%)
Entertainment	93.75	(.12%)
Hostel Expenses		
a) Rent	10,800.00	(13.90%)
b) Food	8,100.00	(10.43%)
Interest and others	663.75	(.85%)
Total	77,682.50	(100%)

Source : Compiled from primary data collected through questionnaire

It is clear from the table that cost on tuition fee and examination fee account for 38.62 percent of average annual private cost of education of B.Tech student. 33.47 percent of the average annual private cost is donation, 13.90 percent is attributable to hostel rent and 10.43 percent is on cost on food. All other expenses constitute 3.57 percent of the average annual cost.

Table 8.8

TOTAL PRIVATE COST PER STUDENT - TECHNICAL EDUCATION (for Four years) (B.Tech)
(Amount in Rupees)

Components	Total Private cost per student	
Pre Admission	600.00	(.19%)
Tuition Fee Examination Fee	1,20,000.00	(38.62%)
Text Book Stationery Note Book	3,750.00	(1.21%)
Donation	1,04,000.00	(33.47%)
Travel	2,250.00	(.72%)
Clothes	1,500.00	(.48%)
Entertainment	375.00	(.12%)
Hostel Expenses		
a) Rent	43,200.00	(13.90%)
b) Food	32,400.00	(10.43%)
Interest and others	2,655.00	(.85%)
Total	3,10,730.00	(100%)

Source : Compiled from primary data collected through questionnaire

It is evident from the table that total cost for the completion of B.Tech course per student for four years is Rs.3,10,730/- out of which cost on tuition fee and examination fee come to Rs. 1,20,000/- (39%). Cost on donation is Rs.1,04,000/- (33%). Another major component of total cost per student is cost on accommodation and food which comes to about Rs.43,200/- (14%) and Rs. 32,400/- (10%) respectively. All other components cost account for 3.57 percent of total cost.

Private cost of education: Regionalwise analysis

Let us now turn over our attention to regionalwise analysis of private cost of education.

a) Management Education

Table 8.9 highlights rural urban differences pertaining to total cost of a student for undergoing M.B.A. course.

Table 8.9

REGION WISE CLASSIFICATION OF TOTAL COST PER STUDENT OF MANAGEMENT EDUCATION FOR TWO YEAR COURSE (Amount in Rupees)

Components	Total Private cost per student	
	Rural	Urban
Pre-Admission	500 (.34%)	500 (.27%)
Tuition fee Examination fee	23048 (15.95%)	30000 (16.38%)
Text Book Stationery, Note Book	3763 (2.60%)	3763 (2.05%)
Donation	82768 (57.26)	1,10,000 (60.04%)
Travel	1061 (.73%)	1061 (.58%)
Clothes	3272 (2.26%)	3300 (1.80%)
Entertainment	1575 (1.09%)	1575 (.85%)
Hostel Expenses a) Rent	15140 (10.47%)	18000 (9.83%)
b) Food	12000 (8.31%)	13000 (7.10%)
Interest and others	1426 (.99%)	2000 (1.09%)
Total	1,44,553 100%	1,83,199 100%

Source : Compliled from primary data collected through questionnaire

It is evident from the table that total cost of M.B.A. student for two years in the rural area is Rs.1,44,553/- whereas total cost of M.B.A. student in the urban area is Rs.1,83,199/-. Combined average of the private cost of M.B.A. student for two years in both areas works out to Rs.1,63,876/-. Inter regional difference in total cost is mainly attributable to absolute difference in donation, tuition fee and hostel expenses. In the urban area an average student spends Rs.1.10 lakhs as donation whereas in the rural area the donation amount per student is Rs. 82,768-. Tuition fee also differs between rural and urban institution. In the urban area tuition fee per student for the M.B.A. course is Rs.30,000/- whereas in the rural area the amount is Rs.23,048/-. Cost on hostel, accommodation and food per M.B.A. student for two years in the urban area is Rs.31,000/- whereas in the rural area the amount is Rs. 27,140/-.

b) Computer Education

Let us now examine the areawise analysis of the total cost per student on computer education. See table 8.10.

Table 8.10

REGION WISE CLASSIFICATION OF TOTAL COST PER STUDENT OF COMPUTER EDUCATION FOR THREE YEARS COURSE (Amount in Rupees)

Components	Total Private cost per student	
	Rural	Urban
Pre-Admission	500 (.31%)	500 (.23%)
Tuition fee Examination fee	26326 (16.50%)	32500 (14.96%)
Text Book Stationery	4200 (2.63%)	6139.96 (2.82%)
Donation	90322 (56.61%)	130322 (60.03%)
Travel	2350 (1.47%)	2150 (.99%)
Clothes	2430 (1.52%)	3600 (1.66%)
Entertainment	1681 (1.05%)	2000 (.92%)
Hostel Expenses		
a) Rent	17858 (11.19%)	22000 (10.13%)
b) Food	13342 (8.36%)	17000 (7.83%)
Interest and others	549.92 (.34%)	900 (.41%)
Total	1,59,558.92 100%	2,17,111.96 100%

Source : Compiled from primary data collected through questionnaire

It is observed from the table that total cost per M.C.A. student for three years in the rural area is Rs.1,59,558.92 whereas in the urban area is Rs.2,17,111.96/-. Combined average of M.C.A. student for three years in both areas works out to be 188333.44/-. Variation in the total cost per M.C.A. student for three years between rural and urban institutions is mainly due to absolute difference in donation, tuition fee and hostel expenses among institutions. In the urban area an average student spends Rs.1.30 lakhs as donation for the M.C.A. seat where as in the rural area, the donation amount per student is Rs.90,322/-. In the urban area tuition fee per student for the M.C.A. course is Rs. 32,500/- whereas in the rural area the amount is Rs. 26326/-. Cost on accommodation and food per M.C.A. student for three years in the urban area is Rs.39000/- whereas in the rural area it amounts to Rs.31,200/-.

c) Engineering education

Let us now analyse areawise classification of total cost per student for four years of Engineering education (See table 8.11)

Table 8.11

REGION WISE CLASSIFICATION OF TOTAL COST PER STUDENTS OF ENGINEERING EDUCATION FOR FOUR YEARS COURSE (B.E.) (Amount in Rupees)

Components	Total private cost per student	
	Rural	Urban
Pre-Admission	600 (.24%)	600 (.17%)
Tuition fee Examination Fee	98000 (38.81%)	130000 (37.64)
Text Book Stationery	3000 (1.19%)	3000 (.87%)
Donation	75000 (29.70%)	125000 (36.19%)
Travel	1800 (.71%)	1950 (.56%)
Clothes	1400 (.55%)	1600 (.46%)
Entertainment	750 (.30%)	750 (.22%)
Hostel Expenses		
a) Rent	38000 (15.05%)	46000 (13.32%)
b) Food	30600 (12.12%)	33000 (9.56%)
Interest and others	3352 (1.33%)	3500 (1.01%)
Total	2,52,502 (100%)	3,45,400 (100%)

Source : Compiled from primary data collected through questionnaire

It is found from the table that total cost per B.E. student for four years in the rural area is Rs. 2,52,502/- whereas in the urban area is Rs. 3,45,400/-. Combined average of B.E. student for four years in both areas works out to be Rs.2,98,951/-. Variation in the total cost per B.E. student for four years between rural and urban institutions is mainly due to absolute difference in donation, tuition fee and hostel expenses. In the urban area, an average student spends Rs. 1,25,000/- as donation whereas in the rural area, an average student spends Rs. 75,000/- as donation. In the urban area an average student spends Rs.1,30,000/- as tuition fee whereas in the rural area tuition fee comes to around Rs.98,000/-. Cost on accommodation and food per B.E. student for four years in the urban area is Rs. 79,000/- whereas in the rural area the amount is Rs. 68,600/-.

d) Technical Education

Let us now examine the areawise classification of total cost per student for B.Tech course. Table 8.12 depicts this analysis.

Table 8.12

REGION WISE CLASSIFICATION OF TOTAL COST PER STUDENT OF TECHNICAL EDUCATION FOR FOUR YEAR COURSE (B.Tech) (Amount in Rupees)

Components	Total cost per student	
	Rural	Urban
Pre-Admission	600 (.23%)	600 (.17%)
Tuition fee Examination fee	105000 (39.72%)	135000 (37.80%)
Text Book Stationery	3750 (1.42%)	3750 (1.05%)
Donation	80000 (30.27%)	128000 (35.84%)
Travel	2250 (.85%)	2250 (.63%)
Clothes	1500 (.57%)	1500 (.42%)
Entertainment	375 (.14%)	375 (.11%)
Hostel Expenses		
a) Rent	38400 (14.53%)	48000 (13.44%)
b) Food	29800 (11.27%)	35000 (9.80%)
Interests and others	2655 (1%)	2655 (.74%)
Total	2,64,330 100%	3,57,130 100%

Source : Compiled from primary data collected through questionnaire

It is clear from the table that total cost per B.Tech student for four years in the rural area is Rs.264330/- whereas total cost per B.Tech student for four years in the urban area is Rs.357130/- Combined average of B.Tech student for four years in both area works out to Rs.310730/-. Variation in the total cost of B.Tech students for four years between rural and urban institutions is mainly due to absolute difference in donation, tuition fee and hostel expenses. In the urban area an average student spends Rs 1,28,000/ - as donation whereas in the rural area an average student spends Rs. 80,000/- for the same. In the urban area an average student spends Rs.1,35,000/- as tuition fee whereas in the rural area tuition fee amount comes to Rs.105000/-. Cost on accommodation and food per B.Tech student for four years in the urban area is Rs.83,000/- whereas in the rural area the amount is Rs.68,200/-. The foregoing analysis reveals that there exists region wise and discipline wise difference in terms of private cost of education. On a regional perspective the cost of education in urban institution is higher than their counterparts in the rural area. The cost difference is attributable to donations, tution fee and hostel expenses. On the basis of courses it is found that the private cost of engineering students is higher than Arts and Science students.

Trend of private cost of education

The foregoing analysis has concentrated on the structure of private cost of education and its inter regional differences. Let us now examine the trend of the private cost of education in self-financed institutions. The student batches selected for this analysis

range from 1992 to 1996. Tables 8.13 to 8.16 depicts the results of this analysis.

Cost Index

Inorder to know whether change in cost of education is uniform or not with respect to different courses, course index is constructed. Table 8.13 depicts cost index of MBA and MCA students.

Table 8.13

TOTAL COST INDEX OF M.B.A. AND M.C.A. COURSES

Year of completion	M.B.A. Total Cost per student	M.B.A. Cost Index	M.C.A. Total Cost per Student	M.C.A. Cost Index
1994	156957.75	100.00		
1995	160369.88	102.17	185459.73	100.00
1996	163876.00	104.41	187391.60	101.04
1997	167194.125	106.52	188333.44	101.55
1998	170606.25	108.69	191255.35	103.13
1999			193187.22	104.17

Source : Compiled from primary data collected through questionnaire

It is observed from the table (table 8.13) that the total private cost per M.B.A. student has increased by 8.7 percent between the base year (1994) and 1998. In the case of M.C.A. students the private cost has increased by 4.17 percent between 1995 and 1999.

Table 8.14

TOTAL COST INDEX OF B.E. AND B.Tech COURSES

Year	B.E. Total Cost per student	B.E. Cost Index	B.Tech Total cost per student	B.Tech Cost Index
1996	297071.50	100.00	301072.00	100.00
1997	298078.32	100.33	302078.00	100.34
1998	298951.00	100.63	310730.00	103.21
1999	308090.12	103.70	310926.00	103.27
2000	308895.79	103.98	311911.00	103.60

Source : Compiled from primary data collected through questionnaire

It is found from the table (8.14) that the total private cost per BE student has recorded 3.98 percent growth between the base year (1996) and 2000. In the case of B.Tech students the increase in private cost per student was 3.6 percent in the corresponding period. Table 8.15 - 8.19 present data to study the trend of cost in a rural/urban perspective.

Table 8.15

TOTAL COST INDEX OF THE M.B.A. COURSE - REGION WISE CLASSIFICATION

Year of completion	Rural		Urban		Total	
	Total Cost per student	Cost Index	Total Cost per student	Cost Index	Total Cost per student	Cost Index
1994	138000	100.00	175915.50	100.00	156957.75	100.00
1995	141000	102.17	179739.76	102.17	160369.88	102.17
1996	144553	104.75	183199.00	104.14	163876.125	104.41
1997	146000	105.80	188388.25	107.09	167194.125	106.52
1998	147000	106.52	194212.50	110.40	170606.25	108.69

Source : Compiled from primary data collected through questionnaire

It is evident from the table (8.15) that between 1994 - 98 in rural and urban areas together total cost of education of M.B.A. student has increased by 8.69%. In the rural area between 1994 - 98 total cost has increased by 6.52 percent whereas in the urban area it has increased by 10.40 percent during the same period.

Table 8.16

TOTAL COST INDEX OF MCA COURSE - REGION WISE CLASSIFICATION

Year of completion	Rural		Urban		Total	
	Total Cost per student	Cost Index	Total Cost per student	Cost Index	Total Cost per student	Cost Index
1995	155919.46	100.00	215000.00	100.00	185459.73	100.00
1996	157783.20	101.20	217000.00	100.93	187391.60	101.04
1997	159554.00	102.33	217111.96	100.98	188333.44	101.55
1998	162510.70	104.22	220000.00	102.33	191255.35	103.13
1999	164374.44	105.42	222000.00	103.26	193187.22	104.17

Source : Compiled from primary data collected through questionnaire

It is seen from the table (8.16) that between 1995-1999 in rural and urban areas together, total cost of education per M.C.A. student has increased by 4.17 percent. In the rural area between 1995 -1999 total cost per student has increased by 5.42 percent whereas in the urban area between 1995-99 total cost per student has increased by 3.26 percent.

Table 8.17

TOTAL COST INDEX OF B.E. COURSE - REGION WISE CLASSIFICATION

Year of completion	Rural		Urban		Total	
	Total Cost per student	Cost Index	Total Cost per student	Cost Index	Total Cost per student	Cost Index
1996	262508.00	100.00	331634.00	100.00	297071.50	100.00
1997	264390.00	100.72	331766.00	100.04	298078.32	100.33
1998	265662.00	101.20	332240.00	100.18	298951.00	100.63
1999	268255.00	102.19	347925.00	104.91	308090.12	103.70
2000	268815.00	102.40	348975.00	105.23	308895.79	103.98

Source : Compiled from primary data collected through questionnaire

It is clear from the table (8.17) that between 1996-2000 in both areas, urban and rural together total cost has increased by 3.98 percent. In the rural area between 1996-2000 total cost has increased by 2.40 percent whereas in the urban area it has increased by 5.23 percent during the same period.

Table 8.18

TOTAL COST INDEX OF B.TECH COURSE - REGION WISE CLASSIFICATION

Year of completion	Rural		Urban		Total	
	Total Cost per student	Cost Index	Total Cost per student	Cost Index	Total Cost per student	Cost Index
1996	281322.00	100.00	320822.00	100.00	301072.00	100.00
1997	282000.00	100.24	322156.00	100.42	302078.00	100.34
1998	282600.00	100.45	338860.00	105.62	310730.00	103.21
1999	282700.00	100.49	339152.00	105.72	310926.00	103.27
2000	283500.00	100.77	340322.00	106.08	311911.00	103.60

Source : Compiled from primary data collected through questionnaire

It is observed from the table (8.18) that between 1996- 2000 in both rural and urban areas together total cost per student increased by 3.60 percent. In the rural area between 1996-2000 total cost per student has increased by .77 percent whereas in the urban area between 1996-2000 it has increased by 6.08 percent during the same period.

Thus it is seen that irrespective of the course and the region total private cost per student has been increasing. Rate of increase is found higher in the urban institutions. Arts and Science institutions exhibited a higher growth rate in private cost than their counterparts in Engineering discipline.

Private cost of Education - Inter Sectoral Analysis

Let us now pass on the study of the impact of the burden of private cost on self financed education. This is done by conducting comparative study of the incidence of private cost of education in the self financing and aided sectors.

We have selected 60 hostelers as sample from six aided colleges offering the courses M.B.A., M.C.A., B.E. and B.Tech. Our comparison is mainly confined to the component of total private cost per student for the course between aided stream and self financing stream.

Table 8.19

COMPARATIVE ANALYSIS OF PRIVATE COST OF EDUCATION - AIDED AND UNAIDED CATEGORY

Component	M.B.A.		M.C.A.		B.E.		B.Tech	
	Self financing	Aided	Self financing	Aided	Self financing	Aided	Self financing	Regular
Pre-admission	500 .30%	300 .59%	500 .27%	400 .71%	600 .20%	400 .40%	600 .19%	400 .43%
Tuition fee Examination fee	26524 16.19%	9472.50 18.64%	30663 16.28%	9800 17.33%	114000 38.13%	22800 22.55%	120000 38.62%	20000 21.66%
Text Book Stationery Note Book	3763 2.30%	4200 8.27%	3919.98 2.08%	4500 7.96%	3000 1%	3000 2.97%	3750 1.21%	2950 3.19%
Donation	96380 58.81%	-	110322 58.58%	-	100000 33.45%	-	104000 33.47%	
Travelling	1061 .65%	1500 2.95%	2250 1.19%	3000 5.31%	1875 .63%	2000 1.98%	2250 .72%	1800 1.95%
Clothes	3286 2%	3500 6.89%	3015 1.60%	4000 7.07%	1500 .50%	1400 1.38%	1500 .48%	1200 1.30%

Entertainment	1575 .96%	2000 3.94%	1840.50 .98%	3000 5.31%	750 .25%	1500 1.48%	375 .12%	1000 1.08%
Hostel Expenses								
Rent	16570 10.11%	15600 30.71%	19929 10.58%	16000 28.29%	42000 14.05%	35000 34.62%	43200 13.90%	33000 35.73%
Food	12504 7.63%	12720 25.04%	15171 8.05%	15000 26.53%	31800 10.64%	33000 32.64%	32400 10.43%	30000 32.49%
Others	1713 1.05%	1500 2.95%	722.96 .38%	850 1.50%	3426 1.15%	2000 1.98%	2655 .85%	2000 2.17%
Total	163876 100%	50792.50 100%	188333.44 100%	56550 100%	298951 100%	101100 100%	310730 100%	92350 100%

Source : Compiled from primary data collected through questionnaire

The table 8.19 shows that the total private cost per student in self financed categories - two or three times higher than that of aided sector under different course categories. Further donation as a cost component is not found in the aided sector. However in the unaided category donations account for a major element of cost. Next to donations, tution fee represents the second major element of cost in self financed institutions. In the case of aided institutions tution fee represents the most important component of cost. An inter sectoral comparison of cost reveals the following results. Tution fee as a component of cost is 2 to 3 times high in self financed institutions. No significant difference on hostel rent and food expenses is visible between self financed and aided institutions.

Thus the analysis shows that the students of self-financing streams have to bear substantially higher burden of private cost than their counterpart in the aided stream. Let us now turn our attention to the benefits accruing to the students of self financed institutions.

Benefits of self financed higher education

The benefits of self financed education fall in two categories. direct and indirect. Direct benefits are those that accrue to the students in the present as well as in the future. This includes income from employment. Indirect benefits are benefits which accrue to

persons other than those who actually undergo the course of education. It includes spill over income gains to contemporaries as well as their descendants through their connections with the individual who acquires educational advancement. In the present analysis we have taken only the direct benefits accruing to the student from education. It is also studied on a regional perspective.

Table 8.20 depicts average earnings of the M.B.A. holder.

Table 8.20

AVERAGE ANNUAL EARNINGS OF THE M.B.A. HOLDER

Year	Average earnings per student of each batch		
	Rural	Urban	Combined
1994	65,000	85,000	75,000
1995	67,000	85,000	76,000
1996	70,000	74,000	72,000
1997	68,000	84,860	76,430
1998	70,900	81,960	76,430
Average earning per batch	68,180	82,164	75,172
Average private cost per batch	143,311	184,291	163,801

Source: Compiled from primary data collected through questionnaire.

Table 8.21 represents average earnings of the M.C.A. holder.

Table 8.21

AVERAGE ANNUAL EARNINGS OF THE M.C.A. HOLDER

Year	Average earnings per student of each batch		
	Rural	Urban	Combined
1995	80,000	120,000	100,000
1996	90,000	160,000	125,000
1997	120,000	100,000	110,000
1998	125,000	71,000	98,000
1999	99,906	112,140	106,023
Average earning per batch	102,981	112,628	107,804.60
Average private cost per batch	160,028.36	218,222.39	189,125.47

Source: Compiled from primary data collected through questionnaire.

Table 8.22 depicts average earnings of the B.E. student.

Table 8.22

AVERAGE ANNUAL EARNINGS OF THE B.E. HOLDER

Year	Average earnings per student of each batch		
	Rural	Urban	Combined
1996	140,000	140,000	140,000
1997	138,000	162,000	150,000
1998	142,000	148,000	145,000
1999	141,000	179,000	160,000
2000	141,064	164,954	153,009
Average earning per batch	140,413	158,791	149,602
Average private cost per batch	265,926	338,508	302,218

Source: Compiled from primary data collected through questionnaire.

Table 8.23 shows average earnings of the B.Tech holder.

Table 8.23

AVERAGE ANNUAL EARNINGS OF THE B.TECH HOLDER

Year	Average earnings per student of each batch		
	Rural	Urban	Combined
1996	160,000	130,000	145,000
1997	158,000	142,000	150,000
1998	165,000	139,000	152,000
1999	160,000	136,000	148,000
2000	140,750	245,966	193,358
Average earning per batch	156,750	158,593	157,671
Average private cost per batch	282,424	332,262	307,343

Source: Compiled from primary data collected through questionnaire.

Now there arises a pertinent question regarding how far the investment in different courses is worth. In order to explain how far the investment in different courses is worth, we have to start with the hypothesis that investment on education is worth. The analysis is based on the relative merit of different courses reflected by their benefit cost ratio.

Table 8.24

AVERAGE BENEFIT COST RATIO - A COURSEWISE ANALYSIS

Course	Rural	Urban	Combined Average
M.C.A.	4.29	3.30	3.80
M.B.A.	3.12	2.88	3
B.E.	3.52	3.14	3.33
B.Tech	3.70	3.14	3.42
COMBINED AVERAGE	3.66	3.12	3.39

Source: Compiled from primary data collected through questionnaire

A look at the table reveals the variation in benefit accruing to students at the course level as well as at the regional level. At the course level M.C.A. students received the highest benefits in the rural as well as urban institutions. Irrespective of the course rural institutions provided greater benefits to students than their counterparts in the urban areas. This may be attributable to lower cost of education in rural institutions. Table below studies this aspect in detail.

Table 8.25

VARIATION IN BENEFIT COST RATIO (ANOVA TABLE)

Source of Variation	SS	DF	MSS	F-RATIO	Total value of F at 5% level
Between Regions	0.588625	1	0.588625	11.09	10.13
Between Discipline	0.64115	3	0.21372	4.03	9.28
Error	0.159225	3	0.053075		
Total	1.389	7			

From the anova table it may be interpreted that the average benefit cost ratio in the rural area is significantly higher than that in urban area. The reason for this may be the lower cost of education in rural areas. Also it may be seen that there is no significant difference between the average benefit cost ratio for various disciplines.

Table 8.26

VARIATION IN BENEFIT COST RATIO - REGIONWISE

Ratio	Rural	Urban	Total
Upto 2.5	2	7	9
2.5 - 3	16	30	46
3.01 - 3.5	25	55	80
3.51 - 4	25	4	29
4.01 - 4.51	32	0	32
4.51 - 5	0	4	4
	100	100	200

Average ($\overline{X}$)	3.595	3.111
Standard deviation (σ)	.56875	.47476

Source : Compiled from primary data collected through questionnaire

It is clear from the table that out of a sample of 100 students in rural areas 82 beneficiaries have shown the benefit cost ratio greater than 3.01. Number of students belonging to this category in the urban institutions is 63. It shows that beneficiaries of rural institutions receive greater returns than their counterparts in urban area. Average benefit cost ratio is higher in the rural area. The standard deviation is also higher in the rural area. The coefficient

of variation in the rural area is slightly larger than coefficient of variation in the urban area.

The 'Z' test is used to test the significance of difference in standard deviation. The calculated value of Z is greater than tabular value (1.645), ie. the difference between SD is significant at 5% level. Therefore we can conclude that variability in the rural area is higher than that in the urban area.

Table 8.27

VARIATION IN BENEFIT COST RATIO - DISCIPLINE WISE

Ratio	Arts and Science	Engineering	Total
Upto 2.5	3	5	8
2.5 To 3	30	10	40
3 to 3.5	60	20	80
3.5 to 4	14	16	30
4 to 4.5	37	4	41
4.5 to 5	0	1	1
Total	144	56	200

Average $(\overline{X})$	3.438	3.3125
Standard deviation (σ)	.5671	.5595

Source: Compiled from primary data collected through questionnaire

The average benefit cost ratio is higher in Arts and Science category. But the coefficient of variation is slightly higher is Engineering section. The standard deviation of the Arts and Science category is higher than Engineering category.

The 'Z' test is used to show whether the difference in standard deviation is significant. The calculated value of 'Z' is larger than the tabular value (1.645) at 5% level. Hence we can conclude that variability in discounted benefits is significantly higher in Arts and Science category.

There is variation in the distribution of benefits according to region and course. It is found that rural institutions provide greater benefits cost ratio to students than their counterparts in the urban area. This may be attributable to lower cost of education in rural institution. Variability in the observed benefit cost ratio is significantly higher in Arts and Science category.

From the data analysed relating to the cost incurred and the benefits derived by the students, the benefits exceeds very much the costs. Hence students are widely attracted to self financed institutions offering job oriented courses. Thus the fourth hypothesis of the investigation that the benefits derived by the students admitted to self financed higher educational institutions are justifiable to their costs also is substantiated.

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CHAPTER IX

CONCLUSION

Self financed institutions have come to occupy a major role in the educational development especially in the field of higher education in almost all the countries. The growth of self financed institutions could be traced to Structural Adjustment and Stabilisation policies pursued at the global level. Even before 1990 there were Arts and Science College and Engineering Colleges in the Unaided sector. But growth of these institutions gathered momentum especially after 1990 due to the widespread policies adopted at the global level to privatise higher education.

In India universalisalisation of primary level of education is a constitutional goal which is not achieved so far. This may be attributed partly to the neglect during the colonial period and partly due to the lack of emphasis on educational investment during the post independence period. At present India spends 3.8% of GDP on education, a figure much low compared to the advanced countries. To achieve the constitutional goal, National Policy of Education of 1986 emphasised 6% growth of GDP on education. Also there is need for a reallocation of investment on education more in favour of primary education. Reallocation of resources for primary level requires huge investment.

Subsidy at the higher level of education is regressive in nature. Children from relatively better off households have more access to education. So they receive large share of subsidy leading to inequitable outcomes. Therefore reallocation of resources for primary level is possible only through gradual withdrawal of subsidy from higher level and diversion of resources to primary level.

The stagnation in the professional educational sector and the resultant inadequacy in the supply of skilled professional added fuel to increasing demand for self financed courses. As a result there has been mushrooming growth of self financed institutions throughout the length and breadth of the nation. In southern part of India also these institutions are scattered and concentrated. In terms of number of institutions and intake of students Tamil Nadu is far ahead compared to other southern states in India. Among the universities in Tamil Nadu Bharathiar University is progressive in the field of self financed professional education. In Tamil Nadu, Bharathiar University has made tremendous progress in self financed institutions and hence the sample for the present study comprises self-financed institutions and its beneficiaries under the jurisdiction of the Bharathiar University.

The study mainly looks into the structure and profitability of self financed institutions, the working condition of teachers, socio educational and economic background of the student, private cost and

the cost benefit analysis of self financed higher education from the students angle.

Development of self financed education – A profile : In this chapter we have studied the structure of self financed institutions. Besides providing a general profile of self financed institutions this chapter unveils the investment and financing profiles of self-financed institutions of Bharathiar University.

General Profile: Bharathiar University offers variety of courses ranging from Arts and Science to Airforce Administration. 68 per cent of the institutions are unaided and all are registered as charitable institutions. It is found from the survey that among the self financed institutions Arts and Science colleges dominate the scene both in the rural and urban areas. Till 1990 there were 12 institutions in the unaided sector. Since 1990, 49 institutions were added to the unaided sector. Almost all colleges in the aided and government sector were started before 1990. Thus the development since 1990 is characterised by phenomenal growth of unaided institutions in the higher educational sector.

Total student strength of nine institutions is found to be 8125 students where male female ratio is 2:1.Among the self financed institutions irrespective of the area and discipline, male enrolment is higher than female. Student strength per Arts and Science College (792)

is found to be lesser than student strength per engineering college (1124). Total teaching strength of nine institutions is 396. Teachers strength per Engineering college is higher compared to its counterpart. Male-female ratio of teachers in the Engineering category which is 1.7:1 is higher than male female ratio of teachers in Arts and Science category, 1:1. It is found from the survey that in the Arts and Science category, the proportion of teaching staff to non teaching staff is 2.48:1 whereas in the Engineering category the proportion is 1.88:1.

Investment Profile: Total investment of nine institutions worked out to be Rs.183.17 crores. Investment per institution in the urban area is Rs.32.50 crores where as investment per institution in the rural area is Rs.10.64 crores. Among the components of investment per institution in the rural area, investment on building is the highest (Rs.2.94 crores) whereas in the urban area, investment on land is the highest (Rs.11.87 crores). Inter regional differences with regard to the pattern of investment is more less similar except in the case of investment on land and building. In the Arts and Science category, investment per institution is Rs.17.68 crores whereas in the Engineering category investment per institution worked out to be Rs.25.71 crores. The inter category differences in the pattern of investment per institution showed that in both Arts and Science and Engineering Category investment on land represents largest component followed by investment on building.

Financing Profile: Owned fund and donation/capitation fee represent major source of financing for investment. Almost all institutions use their own funds which have been channelised from other business concern of their own to self financed institutions. Owned funds account for a significant source of financing in the initial year of establishment of self financed institutions. However the study revealed that the contribution of owned fund is relatively insignificant in later years as self financed institutions finance their major part of their investment needs through capitation fee/donation.

Irrespective of the area and discipline, total donation mobilised by 9 self financed institutions per annum is Rs.26.68 crores. The donation per institution in the rural area work out to be Rs.2.76 crores whereas in the urban area donation per institution is Rs.3.22 crores. In the Arts and Science category, donation per institution is Rs.1.77 crores whereas in the Engineering category Rs.5.36 crores is donation per institution.

An attempt is made to study the extent of investment recouped through donation. Irrespective of the area and discipline, the investment/donation ratio for the self financed institutions is 6.86 years as a whole whereas average of institution is 13 years. This indicates creation of surplus by self financed institutions. When we make comparison between rural and urban areas with reference to surplus/deficiency generated the rural institutions have generated more

surplus as indicated by lesser investment/donation ratio when compared to their average age. In the urban institutions the difference between investment/donation ratio and average age of the institution is marginal which indicates low level of surplus generation. This may be attributable to a comparatively higher level of investment in the urban area. The Engineering institutions have generated more surplus as indicated by lesser investment donation ratio when compared to their average age. In the Arts and Science institutions the difference between investment/ donation ratio and average age of the institution is marginal which indicates low level of surplus generation. This may be attributable to a comparatively lesser level of donation per annum in the Arts and Science category.

Financial viability of Self-financed Educational Institutions

Irrespective of the area and discipline, total cost of self financed institutions per annum comes around Rs.10.427 crores with an average of Rs.1.156 crores per institution. Cost per institution in the urban area is Rs.1.25 crores whereas cost per institution in the rural area is Rs.1.09 crores. Cost per Arts and Science and Engineering category are Rs.989 crores and Rs.1.498 crores respectively. Among the components of cost per institution, salary of the teaching staff, hostel expenses and electricity bill are the major items. Irrespective of the area and

discipline, salary of the teaching staff, electricity bill and hostel expenses constitute 75.87 percent of cost per institution.

As far as cost per seat is concerned, on an average the self financed institutions spend Rs.12,833/- towards total expenses to maintain hundred percent enrolment. Cost per seat in the Engineering category Rs.13,320/- is higher than that of Arts and Science discipline (Rs.12,487).

Irrespective of the area and discipline, total revenue earned by self financed institutions per annum is Rs.31.03 crores. Revenue per institution in the urban area is Rs.4.29 crores. As against this, revenue per institution in the rural area is Rs.2.776 crores. Revenue per Arts and Science college is Rs.2.815 crores. At the same time, revenue per Engineering College is Rs.4.71 crores. Tuition fee, hostel fee, special fee are the major components of revenue per institution. Regardless of the area and discipline, all these components constitute 88.11 per cent of revenue per institution. More or less the same pattern prevails area wise and discipline wise. As far as revenue per seat is concerned, self-financed institutions receive Rs.38191 per seat at hundred percent enrolment.

Regardless of the location and discipline, total surplus of self financed institutions is equal to Rs.20.603 crores.

The combined average of surplus of Arts and Science and Engineering Category is Rs.2.301 crores. The surplus per Arts and Science category is Rs.1.831 crores. As against this surplus per Engineering category is Rs.3.212 crores. Urban and Rural institutions have an average surplus of Rs.3.04 crores and Rs.1.683 crores respectively. Surplus per seat in the Engineering institutions is Rs.28,571/- whereas surplus per seat in the Arts and Science category is Rs.23,076/-. It is seen that self financed institutions are making on an average 11.25 percent return on their investment. Rate of surplus of urban institutions offering Engineering course (7.02 percent) is lesser than their counterpart in the rural area (20.99 percent). This may be attributed to higher level of investment in the urban area of Engineering category. Rate of surplus of Arts and Science category in the Urban area (10.69 percent) is marginally higher than that of Arts and Science college in the rural area (9.09 percent).

Break even analysis is worked out to analyse the break even point of the institution. A comparative study of the break even points of different institutions revealed that Arts institutions reach the breakeven point (Rs.55 lakhs) faster than Engineering institutions (Rs.78 lakhs). Rural urban comparison of break even point of Arts institutions revealed that urban institutions exhibit lower break even point (Rs.51 lakhs) than that of their counterpart in the rural area (Rs.64 lakhs). Rural urban comparison of Engineering institutions revealed that the breakeven

revenue level for urban institutions (Rs.1.02 crores) is higher than that of their counterpart in the rural area (Rs.66 lakhs).

Working Condition of Teachers

The study of the working condition of teachers in the self financed institutions of Arts and Science and Engineering category of Bharathiar University is analysed from rural and urban perspective. The study is presented in two sections. The first section dealt with general profile of the teachers and second section dealt with the incentives of teachers.

General Profile: In the self financed institutions regardless of the location and discipline most of the teachers belong to the age group 20-30. This shows that young teachers dominate in these institutions very much. In the Arts and Science and Engineering category, 56.25 percent and 50 percent of the teachers belong to the age group 20-30. In the rural and urban institutions the proportion of teachers belonging to the age group 20-30 is 65 and 42 percent respectively. In the self-financed institutions regardless of the location and discipline, male teachers dominate. Teacher-student ratio in the Engineering category is 1:18 whereas teacher student ratio in the Arts and Science category is 1:20. In the Arts and Science category teachers belonging to Hindu religion dominate whereas in the Engineering category teachers in the Christian religion dominate. Regardless of the location and discipline forward

community teachers dominate the scene. Experience of teachers vary with regard to area and discipline. Institutions in the urban area have more experienced teachers than institutions in the rural area. Teachers in the Arts and Science discipline are found to be more experienced than teachers in the Engineering discipline. As far as Job mobility of the teachers is concerned, teachers in the rural institutions shifted more from one institution to another institution than teachers in the urban institution. Besides this teachers of Arts and Science category moved more from one institution to another institution than teachers in the Engineering category. As far as qualification of teachers is concerned, teachers in the Urban area are more qualified than teachers in the rural area. Moreover teachers in the Arts and Science category are found more qualified than teachers in the Engineering category.

Incentives of teachers: The important incentive factor of teachers in self financed institutions are nature of employment, income, work load, etc. As far as nature of employment is concerned, permanent teachers are found more in the Arts and Science category than in the Engineering category. Permanent teachers are found more in the rural area than in the urban area. In self financed institutions, teachers income differs with respect to location and discipline. Average level of income of teachers in the rural area is found to be Rs.6634/- whereas average income of teachers in the urban area is found to be Rs.7130/-. In the Arts and Science category, average income of the teachers is Rs.7318/-

whereas for Engineering category, it is Rs.6183/-. This shows that average level of income of teachers in the urban area is greater than rural area. Apart from that teachers in the Arts and Science category get more income per annum than teachers in the Engineering category.

The income of teachers in self financed institution is a function of experience, qualification and workload. The correlation coefficient between year of experience and income is found to be .76 which shows high positive correlation between experience and income. Using 't' test the value of correlation coefficient is tested for significance and it is found to be highly significant at 5% level. That is, higher the remuneration is given for highly experienced teachers. Chi-square test was used to find whether the correlation between qualification and income is significant. The calculated value of chi-square is greater than tabular value and hence we came to conclusion that income depends upon qualification. The correlation coefficient between earnings and workload worked out to be .33. The 't' value worked out by us suggests that the correlation coefficient is significant at 5% level. Self-financed institutions are profit making concerns but they consider mainly the experience and qualification as base for the payment of teachers. Teachers in the self financed institutions have monthly payments as in the regular establishments. Most of the teachers in self financed institutions have no retirement benefits. Some institutions have pension linked PF scheme where 12 percent of the monthly gross salary is

deducted towards provident fund contributions out of which 2 percent goes to pension scheme.

An average teacher in the self financed institutions spend monthly Rs.2700/- out of which hostel fee and food account for 72.22 percent.

Teachers in the self financed institutions are not paid according to the norms of All India Council for Technical Education. They are paid three times lesser compared to the teachers in the aided or government college. There is no uniformity in the pay and scale of pay of the teachers between colleges and course. Neither government or the university fix running scale of pay for the staff in the self financed colleges. Because of this some teachers leave the college after one or two years of service. So the turn over ratio is very high. The student teacher ratio is found to be 20:1 for the MBA, MCA discipline and 18:1 for the Engineering discipline. MBA teachers are handling Bachelor of Business Management courses. All India Council of Technical Education, the apex body to regulate the functioning of some courses in self financed institutions especially the courses like M.B.A., M.C.A., B.E. and B.Tech. has put certain norms in the case of student teacher ratio in self-financed institutions. The desirable student teacher ratio for Engineering degree programme for the model curriculum will be 10:1. The desirable student teacher ratio for the courses like M.B.A. and M.C.A. will be 12:1.

Permanent teachers in the unaided colleges have invigilation and valuation work. For this they are paid extra remuneration. Altogether on an average each teacher gets Rs.120/- per day for valuation or invigilation work. On an average each teacher gets 20 days of invigilation or valuation work. They have vacation salary also. Performance of a student in the examination is a better yardstick to evaluate the quality of a teacher. Though the performance of a student depends upon various factors like infrastructure, number of books available per student, computer per student etc. the crucial factor which determine the performance of a student is the quality of teaching. The results of the students in self financed institutions is comparable to the results of aided and Government stream. Though the terms and conditions of employment of teachers engaged in self financed higher educational institutions are not conducive their performance is reasonably good.

It is found from the survey that 90 percent of the teachers are of the opinion that students they teach hail from highly educated families with middle income. Apart from this they are of the opinion that no politics is involved in the college campus among the students and students are highly disciplined and well behaved.

It is found that all institutions have good toilet facilities for the staff, common staff room and hostel facilities.

Students in self-financed institutions – In this chapter we have studied social profile, educational profile of the students, income profile of the parents and family background.

Social Profile: In the urban institutions students belonging to Christian religion dominate whereas in the rural institutions, students belonging to Hindu religion dominate.

Self financed institutions are more accessible to forward community. Forward community students consists of 52 per cent of the total students. Compared to all other communities, in the forward community, male female ratio is lesser.

Enrolment of various communities in self financed institutions show that self financed institutions do not strictly follow the rules and regulations of the government. It is seen that out of the various students enrolled for various courses in Bharathiar University, forward, backward, most backward and SC/ST community constitute 59.16, 30.07, 5.99 and 5.88 percent of the total population. This is against the reservation rules of the Tamil Nadu State Government. It is clear from our study that self financed institutions are not following the reservation policy of the Government and are engaged in the practice of recruiting more students from the forward community at the cost of backward and SC/ST students.

Educational Profile: Performance of the M.C.A. students at their qualifying examination is better compared to M.B.A. students. Among the M.B.A. students no one has got distinction or above distinction at their qualifying examination whereas among the MCA students 19.44% have got distinction at their qualifying examination. It is found that 90 percent of the M.B.A. students have qualified degree either in economics or in commerce where mark scoring potential is lower than that of science students. Educational performance of the B.Tech students at their qualifying examination is better than B.E. students. Among the B.E. students 21 percent have got distinction and above distinction at their qualifying examination where as among the B.Tech students 29 percent have got distinction and above distinction at their qualifying examination. Most of the students enrolled at the MBA, MCA, BE and B.Tech level in self financed colleges have a record of brilliant academic performance at their qualifying examination. The study further reveals that all of the students covered by the sample have passed their qualifying examination in the first chance itself with good marks.

Performance of the forward community students is better than backward community, most backward community and SC/ST at the degree level. But as far as the performance of students at the M.B.A. level is concerned, the performance of backward community is marginally higher than that of forward community. Among B.E., B.Tech. students, performance of forward community is better than

backward, most backward and SC/ST community. Between the latter three groups, backward community have fared better than most backward community and SC/ST students.

Income Profile: Irrespective of the area bulk of the students come from middle income groups. Average annual income of the parents in the rural area comes to around Rs.1.97 lakhs whereas average annual income of the parents in the Urban area comes to around Rs.2.10 lakhs. In the urban area the parental income of all students is greater than Rs.5 lakhs whereas in the rural area the proportion of the parents whose income less than Rs.5 lakhs is 7 percent. Relatively higher percentage of low income groups are those who belong to most backward and SC/ST community. Budget of the parents are affected by high private cost and hike in private cost of education.

A survey has been conducted among the students to know why they have selected the course. The majority of the students are of the opinion that the first option to select the respective course is to satisfy the aspiration of the parents. Aspiration of the parents depends upon educational background of the parents and their occupation. Parents belonging to forward community have high educational background. Out of the forward community population, the proportion of the parents who have educational background degree and above is 60.19 percent. 45 percent of the parents belonging to backward community have

educational background degree and above. Among the most backward community population, the proportion of the parents who have educational background degree and above is 38.46 percent. 4.55 percent of the parents belonging to SC/ST community have educational background degree and above.

Self financed institutions thus cater to the needs of socially forward community having high educational background at the most. Forward community groups depend upon comparatively dignified profession. Cent percent of the SC/ST groups are either agricultural labourers or unorganised workers, the lowest paid among different categories.

Self financed higher education: A cost benefit analysis: In this chapter we have discussed the private cost of education in self financed colleges and the return they secure from education. Total private cost of education per course per student of M.B.A., M.C.A., B.E. and B.Tech. students worked out to be Rs.1,63,876/- Rs.1,88,333/- Rs.2,98,951/- and Rs.3,10,730/- respectively. In the M.B.A. and M.C.A. discipline, the major components of private cost of education is donation whereas in the B.E., B.Tech. disciplines, the major component of private cost of education is tuition and examination fee.

Irrespective of the course region wise classification of total private cost of the students show that total private cost of students of

urban institution is greater than total private cost of education of students at the rural institutions.

Time series data regarding total cost of M.B.A. and M.C.A. students show that total private cost per student at the MBA level has increased by 8.69 percent between 1994-98 and the total private cost per student at MCA level has increased by 4.17 percent between 1995-99. Among the B.E., B.Tech students, the total private cost of education per student has increased by 3.98 percent and 3.60 percent between 1996-2000.

Rate of increase in total private cost is different in different regions. As far as M.B.A., B.E. and B.Tech. students are concerned, increase in total private cost per student of the urban institutions is greater than that of their counter part in the rural institutions whereas in the case of M.C.A. students rate of increase in total private cost per student of the rural institutions is greater than total private cost per student of the urban institution.

We have conducted a survey among 60 hostelers from six aided colleges to make a comparison between total private cost for the course of the aided stream with self financing stream. Total private cost per student of M.B.A., M.C.A. disciplines in self financing stream is 3.22 and 3.33 times higher than total private cost per M.B.A., M.C.A. students in the aided stream. Total private cost of B.E. and B.Tech

students in the self financing stream is 2.95 and 3.36 times higher than total private cost per B.E. and B.Tech students in the aided stream.

There is variation in the distribution of benefits according to region and course. It is found that rural institutions provide greater benefits cost ratio to students than their counterpart in urban area. This may be attributable to lower cost of education in rural institutions. Variability in the discounted benefit cost ratio is significantly higher in Arts and Science category. This may be attributable to lower cost of education in Arts and Science category.

The self financed institutions play an integral part in the higher education field however its performance is not free from deficiencies. Hence the following suggestions are put forward to improve the service of the self-financed institutions. Suggestions are presented in two categories.

(a) Suggestion to the government or to the policy makers
(b) Suggestions to the promoters of self financed institutions

Suggestions to the Government

1. Privatisation can be advocated provided there is social control. Bharathiar University has witnessed the emergence of self financing institutions as an alternative system of higher education especially after 1990. Education under self financed institutions is

moderately elitist in character. Poor section of the population is deprived of higher education due to social and economic factors. So government control should be there to regulate and stabilize the fee structure in such a way that these institutions should be made accessible to overwhelming section of population who is deprived of higher education due to social and economic factors.

2. Government should monitor whether self financed institutions are strictly following the reservation norms. These steps to certain extent can control the marginalisation of socially and economically deprived.

3. Government should enact norms and supervise enforcement of such norms for protecting the interest of the students and the society. Students who are admitted on the basis of merit should pay the tuition fee payable in Government run colleges. Government should monitor whether self financed institutions are strictly following these norms.

4. Government should monitor compliance of quality standards of self-financed institutions. Inorder to bring out transparency in working and to promote good governance by self-financed institutions financial reporting by self-financed institutions should be made mandatory.

5. Government should protect the interest of the teachers in self financed institutions by fixing running pay of scale.

6. Unhealthy competition between institutions should be regulated.

7. Government should promote scheme for financing for studies in self-financed institutions in association with financial institutions with a view to widen the coverage of higher education to a larger section of the population. Bank credit improves access of students to higher education.

Suggestions to Management of Self financed Institutions

1. Inorder to enhance financial viability and to make the fee structure progressive a discriminative free structure should be introduced distinguishing between different sections such as NRI, high income groups, middle income groups and low income groups.

2. Campus interview and tie up with industrial organisations, financial organisations etc. are necessary to ensure that students of self financed institutions will be properly placed.

3. As educational institutions depends heavily on human beings for delivering quality of service proper care in human resource management should be made by making the service conditions of the teachers conducive for promoting loyalty, dedication and attitude towards hard work. Maintaining the service conditions at

par with the similar courses in the aided and government sector will enhance the motivation level of the employees.

4. Self financed institutions can provide financial services to prospective students through educational loans in line with Bank credit for education. This, besides attracting students provides some extra revenue to the institution.

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QUESTIONNAIRE – I

INSTITUTION

01	Name of the institution	:
02	Year of establishment	:
03	Year in which course started	:
04	Nature of the college	: Aided / Unaided
05	Nature of the course	: Technical / General
06	Nature of ownership	: Individual / Corporate / Charitable
07	Type of building	: Rented / Owned
08	Types of General education	:
09	Sources of funding	

Source		Amount
a) Capital contributed to the institution by management	:	
b) Students Donation	:	
i) Voluntary	:	
ii) Compulsory	:	
c) Teachers Donation	:	
i) Voluntary	:	
ii) Compulsory	:	
d) Contribution of public	:	
e) U.G.C.	:	
f) Foreign	:	
g) Endowment	:	

h) Student deposits :

i) Borrowing :

j) Grants in aid :

k) Others

1) :

2) :

3) :

10. Items of investment

Investment		Amount
a) Land	:	
b) Building	:	
c) Laboratory	:	
d) Library	:	
e) Furniture	:	
f) Hostel	:	
g) Transport	:	
h) Computer	:	
i) Others	:	
i)	:	
ii)	:	
iii)	:	

11. Sources of income per annum :

Sources		Amount
a) Tuition fee	:	
b) Hostel fee	:	
c) Registration fee	:	
d) Special fee	:	
e) Fines	:	

f) Penalties :

g) Lab fee :

h) Library fee :

i) Others :

12. Items of expenditure per annum :

Item		Amount
a) Chalk, duster	:	
b) Electricity, water bill	:	
c) White wash, polish, painting	:	
d) Repair furniture	:	
e) Tax	:	
f) Transport	:	
g) Depreciation	:	
h) Advertisement	:	
i) Salary of teaching staff	:	
j) Salary of non teaching staff	:	
k) Other maintenance	:	
l) Hostel expenses	:	
m) Postal, stationery, printing	:	
n) Others	:	

13. Students strength :

14. Gender of students : Male : _____ Female : _____

15. Teachers strength :

16. Gender of Teachers : Male : _____ Female : _____

17. Non-teaching staff strength :

18. Gender of non-teaching staff : Male : _____ Female : _____

19. Total number of books in the library :

20. How many Indian, Foreign journals you subscribe per year? :

21. How many computers you have?:

22. Do you have Photostat machines? :

23. If answer is yes, how much? :

24. Problems :

Financial	: Yes / No
Availability of qualified teachers	: Yes / No
Students politics	: Yes / No
Teachers politics	: Yes / No
Government regulation	: Yes / No
University regulation	: Yes / No
All India Council of Technical education regulation	: Yes / No
Competition	: Yes / No

25. Any other comments :

QUESTIONNAIRE – II

TEACHER

01 Name :

02. Age :

03. Sex :

04. Religion :

05. Caste :

06. Address :

07. Qualification :

08. Subject you taught :

09. Experience :

10. Employment history :

Nature of Job

a) Job immediately after the completion of the education :

b) Job after resigning from the Ist (IInd job category) :

c) Job at present :

11. Gross salary at present :

12. Deduction at source :

a) Provident Fund :

b) Gratuity :

c) LIC

d) Others :

13. Number of working hours per month :

14. Do you have vacation salary? :

15. Nature of employment : Permanent / Temporary

16. Have you paid donation to get the job? :

17. Do you have hostel facility? :

18. Monthly expenses :

Components		Amount
a) Hostel / Lodging	:	
b) Travel	:	
c) Food	:	
d) Clothing	:	
e) Cosmetics	:	
f) Text book	:	
g) Note book	:	
h) Journals	:	
i) Stationery	:	
j) Entertainment	:	
k) Other expenses	:	

18. Do you have invigilation work? :

19. Do you have valuation work? :

20. Are you additionally paid for valuation and invigilation works? :

21. If answer is yes, how much? : Invigilation : _____

Valuation : _____

22. Your comments regarding the quality of education imparted in the institution :

	Rich	Middle	Poor
Income			

	Highest	Average	Poor
Education			

	Good	Average	Bad
Behaviour			

	Involved	Not involved
Politics		

	Good	Average	Bad
Discipline			

23. Results of the students for the last seven years :

Year		Pass Percentage
1995	:	
1996	:	
1997	:	
1998	:	
1999	:	
2000	:	
2001	:	

24. Your relationship with students :

25. Your relationship with management :

26. Do you have separate room? :

27. Do you have bathroom facility? :

28. Do you have any organisations? :

29. Do you have retirement benefits? :

30. Family background : Well off / Middle / Poor

31. Any other comments :

QUESTIONNAIRE – III

STUDENTS

01	Name	:	
02	Age	:	
03	Sex	:	
04	Address	:	
05	Religion	:	
06	Caste	:	
07	Name of the institution	:	
08	Area	:	Rural / Urban
09	Name of the course	:	
10	Year of admission	:	
11	Year of completion	:	
12	Period when you were day scholar	:	
13	Period when you were hosteller	:	
14	Educational performance at the qualification examination	:	Distinction and above / First class and above / IInd Class / IIIrd Class
15.	Parental income	:	

16. Motive behind the selection of the course :
(a) Aspiration of parents
(b) Lack of employment opportunities
(c) Parents are educated
(d) Higher education gives status
(e) Others are studying
(f) It improves employment opportunities
(g) Financial resources are available
(h) To get an appropriate bride/ bridegroom
(i) Because of higher pay for higher education
(j) Self interest

17. Educational background of the parents :
(a) Both PG
(b) Atleast one PG
(c) Both graduates
(d) Atleast one graduate
(e) Both SSLC passed
(f) Atleast one SSLC passed
(g) Both below SSLC

18. Occupation of the parent :

19. Total expenses incurred for your study :

Components		Amount
(a) Pre admission	:	
(b) Tuition fee	:	
(c) Examination fee	:	
(d) Text book	:	
(e) Stationery	:	
(f) Note book	:	
(g) Donation	:	
(h) Travel	:	
(i) Clothes	:	

(j) Entertainment :

(k) Hostel expenses :

(a) Rent :

(b) Food :

(l) Interest and others :

20. Did you get any external financial assistance for your study? :

21. If answer is yes, source :

22. Employment history :

Period	Nature of employment	Nature of employer	Gross salary

23. Did you have financial problem at the time of your study? :

24. Did you get proper co-operation from teaching and non teaching staff to continue your education? :

25. Are you satisfied with the present job? :

26. Any other comments? :