CHAPTER 2
A BRIEF REVIEW OF LITERATURE

The literature, on Economics of Education that is central to Economics of Human Resource Development, is vast. Mark Blaug has initially published a bibliography on the subject in 1966 with nearly 800 items. The third edition of the same published in 1978 contained over 2000 entries. The economics of education is a branch of economics and has a much longer history. Several of the classical and neoclassical economists' writings in the 18th and 19th centuries including Adam Smith, John Stuart Mill and Alfred Marshall drew attention to the importance of education as a form of investment and considered the question of how education should be financed. But specialized studies in this area started only after the 1960s.

According to Smith, "a man educated at the expense of much labour and time, which require extraordinary dexterity, and skill may be compared to one of those expensive machines. The work, which he learns will replace to him the whole expense of education.... The difference in the wages of skilled and common labour is founded upon this principle.... The acquisition of such talents through education always costs a real expense which is a capital fixed..." (Smith 1776).

According to Marshall, "the most valuable of all capital that is invested in human beings is education and therefore it must be considered as national investment. The wisdom of expanding public and private funds on education is not to be measured by its direct fruits alone...." (Marshall 1890).

Schultz (1961a; 1961b; 1971) has developed and analyzed the concept of human capital, treating education and training as a form of investment producing future benefits via higher incomes, both for the educated and the
society. He has analyzed the relationship between educational expenditure, income growth and physical capital formation in USA for period 1900–1956 and shown that, "... the resources allocated to education rose about 3.5 times and that the income elasticity of the demand for education was 3.5 times higher relative to consumer income and gross formation of physical capital ..."

Impact of education on occupational choice, employment, earnings, saving and consumption behaviour has been studied in various country contexts for different time periods (Denison 1962; Grilliches and Mason 1972; Blaug 1974; Psacharopoulos 1980, 85, 87, 94; Tilak 1981, 87, 89; Ramesh 1990; Clara 1998). Minor deviations apart, all these studies agree that education influences income of the private individual and the public, quite significantly.

The concept of human capital refers to the fact that human beings invest in them by means of education and training, which raises income throughout their lifetime. In this context Becker (1964; 1975) have developed the theory of human capital formation and analyzed the rate of return on investment in education and training. According to this, education results in differences in productivity ... Other things being equal, the more educated and those who do not suffer from ill health will be able to produce more than their counterparts. Firms pay higher wages to them. Thus education is no longer seen as a consumption good but as a form of investment. Occupations that offer high wages will, other things being equal, encourage people to invest more in educational programmes. ... Homogeneity of labour is no longer assumed and labour demand has come to be interpreted in a set of markets each with a demand for specific productivity determining worker characteristics with education and training being the most important. In response to these, individuals are assumed to compare the cost of acquiring education with expected increase in earnings.
The Economics of Education (Robinson and Vaizey ed. 1966), in seven parts touches upon almost every aspect of economics of education. Part 1, is a discussion on general problems of education viz; consequences of investment in human capital, demand and supply of education, distribution of educational expenditure (Papi); growth of educational expenditure in relation to national aggregates (Edding); education and research in economic growth (Svennilson). Part 2, is devoted for the discussion on education and economic progress, measurement of its contribution in economic growth (Kaser, Eide, Denison, Sarc, Strumilin, Jamin and Nozko). The crux of the discussion in part 3 is the demand and supply of education with a description on quantitative indicators of human resource development (Harbison) and issues related to the absorption of the educated (Rashid). Part 4 gives an exposure to the costing and financing of education (Bowman; Mushkin) and certain criteria for public expenditure on education (Vaizey; Okigbo). Issues related to the need for balancing different forms of education are dealt in part 5 (Andre Page; Suchodolski; Debeauvais; Karl Abraham and Fedorenko). While part 6, reviews the international aid in education and its significance (Phillips; Ripman). And, part 7 is the summary of discussion (Williams). In fact, the book is really worth for further discussion, research and policy formulation.

Blaug (1967; 1968; 1970) has assessed the contribution of education to economic growth and analyzed the efficiency of education system. The central theme was educational planning for which the technique of cost–benefit analysis; cost effectiveness analysis; production function measurements and manpower forecasting are explored in detail. He examined the cost of financing of educational system and summarized the controversy between advocates of ‘manpower forecasting approach and cost–benefit approach’, stating that the disagreement is fundamentally one about the degree of flexibility in the
economy and the labour market. Similarly, he also argued that, "social demand projections, manpower forecasting and rate of return analysis are reconcilable and in fact complementary techniques of educational planning."

Coombs and Hallack (1972) after analyzing the educational costs recommended cost analysis as a powerful and necessary tool for modern educational planning and management.

Hans and Martin (1972) has worked out a Cost-Benefit Analysis in Education as a Case Study of Kenya. It concentrates on income effect of education and does provide a framework for an economic evaluation of private and social rates of return to investment in education, future wage/employment and rates of return per pupil. The study on the whole tries to meet the usual objection in applying a cost–benefit technique to a social product such as education. The study is arranged in six chapters. Following introduction, the 2nd chapter presents the background information on Kenya and its educational system, 3rd and 4th chapters give an in-depth analysis of the data on age-income profile, rates of return, etc. using regression analysis. Chapter 5 indicates the possible uses of rates of return for planning purposes, and sixth gives conclusion on major findings.

Pickford (1975) focusing on universities in UK reviewed the economic aspect of University administration. The main objective was to investigate the potential economies of university. The study, in two parts, contained a detailed analysis of the cost of educational activities: teaching, research and economies of scale. To improve the efficiency in utilization of university resources, the study proposed changes in the existing system of finance.

Many studies have shown that education, occupational status and earnings are positively correlated (Jencks et al, 1979). Studies on the
relationship between these have resulted in two major findings: (1) the main
criteria used by employers to recruit new entrants into the occupational structure
are level and type of education. And (2) there is a very close correlation
between an individual’s educational attainments and level of lifetime earnings.

Higher Education, the very top step of the learning ladder sometimes
finds itself at the bottom of the hierarchy when considering the priorities in
educational spending. Given this setting, the study looks into the socio-
economic rationale of higher education provision in developing countries
(Psacharopoulos 1980). The document contains eight sections in addition to
introduction. Section 2 contains trends in the educational allocation in 1970’s
around the world; Section 3 spells out the criteria of social choice in
education; Sections 4 and 5 analyses the educational cost and document on the
cost differences in University faculties; Section 6 deals with quantitative side
of higher education benefits; Section 7 brings together the cost and benefits;
and Section 8 argues to include certain non-quantitative aspects in the choice
between liberal and vocational education.

“Economics of Education” (Psacharopoulos 1987) discusses various
aspects. Part 1 deals with the supply side of human capital: how it is formed
and its links to population quality. Part 2 is devoted to topics on human capital
creation, analytical work on educational production function, school quality
and the determinants of cognitive achievements. Part 3 focus on the costs and
benefits of education. Part 4 contains the relationship between education and
employment holding that economics of education has strong links with labour
economics. The value of education is reflected in the earnings of labour with
different educational qualifications is the crux of the discussion in Part 5. Part
6 includes the distributional aspects of education. If education affects the level
of earnings of its recipients, then it must also affect the distribution of income
in a given society. Part 7 deals with certain controversies in economics of
education – screening. Parts 8 and 9 are devoted to discussions pertaining to
manpower planning with emphasis on the variety of analytical models.

How “affordable” education in US is the concern in “Projections of
College Costs, Affordability and Tuition Dependency” (McPherson and
Shapiro 1993). It also examined the possible effects on families and
institutions in regard to costs and sources of revenue. The forecasts indicated
that if recent trends and current policies remain unchanged: (1) costs of
attendance will increase most substantially at privates, and least at public. (2)
The net price for aided students will fall in real terms at public schools, but
will remain stable among private. (3) The income burden for families of non­
aided students will remain stable at public, but will increase considerably at
private. The final conclusions arrived at are (1) economy plays a dominant role
in determining the future affordability of higher education. (2) Rate of growth
in costs has a much larger effect on future affordability than does the growth
rate of institution-based aid; therefore, institutions need to stop the current
trend of high growth rates of costs. (3) Continued strong economy seems
unlikely that institutions need to concentrate on controlling costs.

From 1972 to 1987, among American colleges and universities,
business enrollments soared (Easterlin 1993). The main point of the analysis is
that, while prices have influenced the switch to business careers, the dominant
force behind are plausible economic causes coupled with abilities and interests
of students. For most college students, choices of major is geared to a career
objective and most already have a career in mind on entering college. In
addition a progressive worsening of inflation and unemployment created
increased concern about their financial situation and choice.
By reviewing available studies, the authors (Dennis, et.al, 1994), assess the state of the art in model-based enrollment prediction for U.S. higher education. To them, existing studies have tended to concentrate more on determining variables that are statistically significantly related to college enrollment than in constructing models that forecast enrollment well. Initial section discusses structural econometric models of enrollment while sections 2 deals with econometric forecasting models, 3 considers the basic methodological differences between these approaches, 4 compares the forecasting performance of several different enrollment models and 5 conclusions. The study shows that though there are serious measurement problems, family income (positive), parents' educational attainment (positive), tuition levels (negative), student aid levels (positive), and student's academic aptitude (positive), rate of return (positive) consistently turn up as having statistically significant effects on enrollment, across a wide range of studies.

McPherson (1994) using data from the American Freshman Survey addresses “choice” and "access" issues in higher education and tries to determine how family income has affected the choice of institution. They find that students from middle-income backgrounds have been most affected by increases in tuition fees. Students from lower income backgrounds qualify for need-based financial aid, lessening the chance of affordability problem. Those from upper income backgrounds receive a different but analogous form of financial aid – parental contributions. When tuitions rise faster than other economic indicators, students from middle-income – too rich for financial aid but too poor to afford tuitions – backgrounds force to switch over to less costly educational alternatives. They also found that only 18.3 per cent of L-I-S attended private colleges and universities, a figure that rises to 23.4 per cent
for M-I-S, and to 42.5 per cent for H-I-S and concluded that the probability of student enrollment depends critically on parent's income.

Linking the labour market with appropriate demand and supply factors can smooth and in harmony only if the nature, type, quality and quantity of demand are matched with the supply of that kind of labour. (Warrender 1996) In most of the developing countries, a wide range of disparity exists between the demand for and supply of labour due to the fact that (1) the training providers (educators) do not deliver the skills required by the industry / economy (employment) and (2) the industry / economy is not aware of how should it effectively use its available labour supply. Unemployment and underemployment in a country is wastage of its human resources. The book examined the former factor as responsible for the disparity in the labour market. It attempts to find out how the labour market signals and indicators can be used to identify the needs via the Technical and Vocational Education and Training. In other words, it attempts to analyze; (a) are labour market signals and indicators now being used in the place of traditional manpower planning techniques? (b) Is there infrastructure to collect and make use of such signals and indicators? And (c) how might developing countries make more effective uses of such indicators in planning and refining TVET? Further, it attempts to identify the multiple uses and users and to extend its analysis to the informal sector as well. The book stands to be a real addition to labour market literature.

“Subsidies, Costs, Tuition, and Aid in US Higher Education” (Lewis and Winston 1997) addressed the following. The ability to give subsidies is recognized as a central determinant of an educational institution’s economic circumstances and strategy. Subsidy resources allow a school to sell its educational services at a net price below the costs of production, making prices always less than cost. The study observed (a) the prices that students
paid changed between institutions, and in turn influenced enrollment choices. (b) Subsidies are big, both in dollar terms and as a share of the typical student’s total educational costs. (c) Private colleges and universities, on average, give subsidies that are virtually the same size as those of public colleges and universities. But an important difference is that, public sector pays for relatively inexpensive education – the average public institutions sold $8760 worth education at $921 while private sector sold $12669 worth education at $5424. (d) Subsidies are much skewed in their distribution among institutions. (e) Subsidies affect the economic structure of higher education – poor school cannot offer high quality education at low price. (e) The sticker price serves only to divide given amount of subsidy – higher sticker price means more of the subsidy is distributed as individual financial aid and less as general aid. (The general subsidy is what given to all students at a school, regardless of their individual characteristics. It is the subsidy the “full-pay student” gets) (f) Most schools in the public sector reducing subsidy resources by cutting educational spending and raising net tuition. In contrast, average subsidies at private sector shown rising. Finally, the study concluded by stating that, “Sticker prices are rising, States have been cutting support to public higher education”.

Gordon (1997) opines that, although Colleges and universities sell goods and services (education) for a price (tuition fee), make those goods and services with purchased inputs and hired workers (professors, staff), use a lot of plant and equipment (classrooms and labs and parks and computers) and they compete hard for customers and for faculty inputs, it isn’t like a firm. According to him, there are half a dozen economic characteristics that differentiate colleges and universities fundamentally and economically from for-profit business firms: (1) “Non-distribution constraint.” Non-profit firms can make profits, but they
can't distribute it to their owners, and, indeed, they don’t have any owners. (2) Asymmetric information – where customers don’t really know what they’re buying and these are “trust markets.” - the outcome from educational investment can’t be known for 20 – 30 years, besides, it is a once-in-a-lifetime decision that can’t be corrected next time around. (3) There is reduced pressure on management to operate efficiently – since they are motivated by different and typically more idealistic goals than that of normal business firms. (4) Revenue sources – Donative non-profits rely for revenues on charitable donations while Commercial nonprofits (hospitals, medical insurance and nursing homes) sell product for a price. Colleges and universities are a mix – “Donative Commercial Non-profits”. Part of their income comes from sales revenues - tuition and fees - and part of it from charitable contributions, endowment income, gifts and government appropriations (grant). Thus donative-commercial non-profits don’t have to charge a price that covers their production costs. To the extent they’ve got donative revenues, they can give their customers a subsidy. (5) The way it’s produced - often made by a strange technology, say “customer-input technology.” Colleges and universities can buy one important input from their own customers – students help educate students, known as “peer effects”. (6) “Heterogeneity.” Colleges differ very much – quality, ambience, price, subsidy, etc.

“Financing Undergraduate Education” (McPherson & Schapiro 1997) deals with pricing, aid, access and choice in American higher education. They found (1) Governments, both federal and state, have been decreasing the share since mid-1980. These have put pressure on families of moderate means. (2) Higher net costs of college are restricting the college options of lower income students - the only financially viable option for many students from lower-income families is to live at home and attend the local community college.
Thus the study concludes that, the real increases in net tuition have impaired access and choice principally for students from low-income families and argue that the nation needs a higher education program that provides more assistance to the students for whom the issue of college affordability is the most pressing.

In the context of thinking about the difficult issue of pricing and the way students think about the amount they pay, and what students get for their money, a similar study (Goethals 1997) suggests that students tend to think that colleges charge too much. However, students revise those initial judgments when they've thought a little more about what they're getting for what they're paying. The study however shows that students clearly think about the reasonableness of what they pay in terms of what they get. But that is not the only consideration. Even if they feel that they get a great deal, and what they get is fairly priced, they also feel that they or their families simply cannot afford their education, then they believe that the price is too much.

Elcharen's (1997) Market Approach to Education is in three parts. Part I deals with the theory and practice of choice in education; in Part II, are private schools superior to public schools? And Part III contains empirical studies of schools choice and vouchers. In a competitive market there is freedom to choose – Parents should have the freedom to choose schools for their children. And that, govt. controls result in monopoly and inefficiency; on the contrary private schools make their own decisions, and since private sector is subjected to market forces, strong leadership is built. Thus market approach to education is expected to raise the productivity and relevance of schools. However, the author concludes that, still purely on theoretical ground it is not possible to say which is correct, market approach or regulated one.
A Guide to Measuring College Costs (Gordon 1998) reviews the major conceptual and practical problems in estimating the cost of education. The three major areas discussed are: cost of physical capital (the cost of using land, buildings, and equipment); student financial aid (price discount); and how to separating out costs in a “multi-product” (UG, PG and other courses) university. According to him, “It’s surprisingly complicated conceptually, to compute these costs. Part A deals with a discussion on Current operating costs and suggest three modifications – (1) some entries need to be subtracted off either because they’re irrelevant (Life income payments) or are to be replaced by other variables (Depreciation, Interest, etc), (2) Scholarships and fellowships: If a school uses financial aid grants to increase student demand and fill seats, they’re clearly a price discount and should be eliminated from costs. (3) Costs of operation and maintenance of plant - renovation and repair, should be subtracted. Part B deals on the issues of tackling the estimation of capital service costs (The Cost of Using Physical Capital). Part C discusses cost allocation in a multi-product university. Parts D and E touches on calculation of student aid.

A similar study (Gordon, Carbone and Lewis 1998) identifies the major trends that in US higher education from 1986-7 to 1994-5. It deals with the issues like sticker prices, enrollment, financial aid, subsidies, production costs, etc. The study observed that: (1) Privatization swept the public sector though enrollments grew sharply. (2) The private sector was characterized by increasing competition. (3) New enrollments, subsidies, and educational spending were very unevenly distributed over schools in the private sector. (4) The price of a dollar’s education at private university rose by 18 per cent. Finally, different schools lived in different worlds. Those in the public sector were, starved by a tax revolt and inundated by increased enrollments that forced
increased privatization – i.e., the shift of financial responsibility from society to student. While Schools in the private sector suffered less from withdrawal of donor support and were better able to increase educational expenditures using proportionately smaller tuition increases, permitting price competition. The crucial facts that come from these are: (a) For a business firm, price is always greater than production costs and any difference is profits. So Price = Costs + Profits (b) For a college, price is always less than production costs and any difference is student subsidy. So Price + Subsidy = Cost. (c) Colleges are non-profit firms. And that leads relentlessly to questions about increased waste, abuse, and corruption – rising administrative bloat, more indulged and less productive faculty, excessively elaborate buildings and equipment, etc.

“For-Profit Higher Education” (Gordon 1998) deals on the issue of “privatization” and “the market.” Who’s vulnerable to this competition and why? New information technologies and the organizational efficiencies of privatization can lower the cost of producing higher education - offering students a better deal and still make profit, Or produce an education that students deem more appropriate. So, costs and prices will be lower or the education will be better, or both. Economically, it looks like a classic case of market entry – Price less average cost equals unit profit. But in higher education, there’s a serious hitch in that familiar scenario: (1) Price is always less than cost. (2) The difference is made up of “donative resources”. (3) So each student -customer - gets a subsidy (subsidy = cost – net price). (4) Higher education is a sharply hierarchical industry in which cost, price, and subsidies vary dramatically among schools. Whether a school is vulnerable depends crucially on what kind of education it impart and how efficiently it does so.

The relevance of knowledge and learning in the process of economic development has been analyzed from two perspectives. On the one side,
human competence and the other, the production, distribution and use of knowledge (Aldo 1999). Discussing on economics of knowledge production, the book is arranged in four parts, allows one to evaluate the consequences of the new approach to university behaviour and funding.

In India, as in the rest of the world, considerable amount of research has done on the economic problems of education including higher education, since 1960. A brief review of some of them is presented below.

Panchamukhi (1965) computed resource costs as well as opportunity costs of education while estimating the total cost of education in India for the period 1950-51 to 1959-60. According to him, the total cost of education constituted 6.2 per cent of the GNP in 1959-60.

Kothari (1966) has done a similar study for periods 1950-51, 1955-56 and 1959-60. He estimated private costs and institutional cost of education and then calculated opportunity cost for male, female, urban and rural people, separately. In his estimate, the foregone earnings constituted the huge part of the total cost of education. The study finally has shown that the total cost of education was 5 to 6.5 per cent of National Income in 1960-61.

Pandit (1972) has computed the social and private cost of education and has shown that the share of direct cost (tuition and non-tuition) in the total private cost had declined while the share of opportunity cost (income foregone) had risen over the period. Regarding the institutional cost, the study observed that the current cost per student had risen while the capital cost remained constant during the period.

Based on the cost at the degree and postgraduate levels in the University of Pune for the year 1964-65, Kamat found that the unit cost for
degree course in commerce, arts and science were about Rs. 1200, 1500, and 1800, respectively (Kamat 1973). Annual unit cost of post graduation in the University department was 4 to 5 times higher than that of graduation in the colleges. In fact, the study is worth as it gives a detailed analysis of the unit recurring cost of higher education by levels and types of education.

Mathur (1974) analyzed the cost of education in India for period 1951-61. The important objectives of the study were (a) to analyze the growth and variation in expenditure with respect to objects, institutions, states, sources and management, (b) to analyze the pattern of expenditure, and (c) to account the relative performance of different States in education. The study has shown that the total expenditure increased by 201 per cent while per pupil expenditure rose by 162 per cent during the period. It also revealed that the relative contributions of fees to total expenditure on education were declining. Wide inter-state variations in respect of the rate of growth of expenditure were also noticed.

Later, Panchamukhi (1975) examined whether (a) the expenditure budget for higher education in India including its allocation was optimal and (b) whether it met adequate democratization and equity. It is observed that, the contributions from fees and private charities are on the decline while that of the State agencies is on the increase. To him, the role of government in financing of higher education should be limited to the minimum, i.e., to the extent of helping the under privileged class by scholarships and other facilities and that the fee rates should be fairly high to cover the full cost of higher education.

In spite of the phenomenal growth in the number of Universities from only 3 in 1857 to more than 230 with 8500 affiliated colleges, certain important aspects of Indian Higher Education like the micro economics of higher education, nature of cost curves, etc. have not received due attention (Swamiraj
Consisting of 12 essays in four parts, author touches the topics relating to 3rd world higher education, higher education in India, Christian educational endeavor in India and the future scenario. It also takes us to the consideration of the methodology for analyzing comparative education, developmental education and international education. While comparative education concentrates on more of the static part, development education is concerned with the dynamics of change. International education has the perspective of promoting international understanding and co-operation, as the author rightly claimed.

The important objectives of the study (Hommadi 1984) were: (1) To give a better picture of educational administration in the 3rd world countries; (2) To study and analyze the nature of university administration; (3) To study the role of administration, professors, government, students, society and community in educational administration; (4) To frame effective rules for better administration of universities; and (5) To set novel educational practices in universities. Study pointed out many drawbacks of University administration in developing countries, especially in Indian Universities.

'Economics of Education' (Heggade 1992) covers almost all aspects of the Indian education system. It is an in-depth study and analysis and deals with inter-relations between education and economic development; different approaches to educational planning like social demand, rate of return and manpower balancing; and brings out its relevance to India. The study also attempts an international comparison about planning and financing of education and examines the trend and pattern of growth of Indian education during 1951-1990. Further, it also gives a detailed account of the weaknesses of Indian education system and examines the objectives and features of New Education Policy 1986.
Essays on Economics of Human Resources (Shah 1996) is a collection of papers discussing the relationship between human capital and economic growth; the problem of finance to that of education earnings; linkages and employment opportunities; etc. While examining the basic propositions made by Schultz in the light of Indian experience, the author suggests that the State's role in financing higher educational access of the weaker sections is important. And draws attention to the need for more public resource allocation to education, the inclusion of work culture, the equity considerations and educational developments, especially in countries like India.

In economics of education, education is considered as 'merit good' which needs to be subsidized by the public sector as it provides both private and social returns. But, to what extent this should be done? This is still a moot point. The author (Akhilesh 1997) picks up this thread of debate; provides historical background of education from the standpoint of availability with special reference to finance, policy issues of recognition, affiliation, policy of funding, commercialization, constitutional provisions under articles 21, 19 10(a) and 41, 45 etc. According to him, once education becomes a commodity of sale and purchase, the values, ideals and culture of a nation gradually degenerate. The author has taken the riddles from policy to law and finally ends with justice in the field of education. Although the theme of the work is contemporary, it leaves behind many questions, problems and areas, which require serious research in the years to come.

Tilak (2004) reviews some of the well-known argument for and against public subsidies in education sector. It accounts the recent trends in public expenditure on education in India and the available estimates on the rates of subsidy and cost recovery. It has been shown that the level of subsides in education in India is not particularly high, nor is the rate of cost recovery
particularly low, in comparison with other developed and developing countries. It has also shown that, some of the specific subsidies like the free education, mid-day meal, etc. are fairly progressively distributed.

Studies on economics of higher education and human resource planning are quite scanty in Kerala, except a few to count on fingertips. Some of the available studies in Kerala context pertaining to the topic of the present research are briefly reviewed below.

Pillai and Nair (1962) studied the history and problems of educational finance in Kerala and pointed out that (a) cost of education was excessive in relation to the total revenue of the State, (b) the share of the State finance in the private schools is rising, (c) per student cost to the government is burgeoning. Finally, it has suggested some ways for reducing expenditure on education and finding additional resources to meet rising demand for education. Although it is an earlier attempt in this core area, the study focused only on primary and secondary education in the State.

Nair’s (1981) study on the inter-relationships of school education, demographic variables, employment and emigration with special reference to Kerala, aimed to (a) identify the socio-economic compulsions underlying the progress of education in Kerala; (b) compare the structural aspects of educational systems with that of other states; (c) investigate the influence of educational development on demographic and socio-economic changes; and (d) develop a method for estimating the effective cost of education at the elementary stage. The study is based on the observation that, (a) favorable socio-economic environment is responsible for large scale education development in the state; (b) although educational opportunities are not evenly
distributed, inequalities is lower compared to other states; and (c) the extent of wastage and stagnation are lower than other States.

Ramachandran (1987) analyzed the problems of higher education in India with special reference to Kerala, for the period 1957-75. The objectives of the study were to (a) identify the vital problems in enrollment, expenditure, financing and planning; (b) assess the total cost of higher education; and (c) compare the total cost of higher education by component and sources. The study revealed that (a) there is sporadic growth in enrollment, number of institutions, expenditure, etc. over the period; (b) expenditure growth was higher than the enrollment and institutions; (c) the bulk of the government expenditure was spent on the development and maintenance of Arts and Science Colleges in the State; and (d) salary constitute the largest share in the total cost of education.

On investigating into the problems of higher education such as (1) unplanned and rapid growth, (2) financing, and (3) cost and returns, (1988; Bhaskaran Nair 1989) laid down the following objectives. (a) Examine the financial resource position of Calicut University; (b) to analyze the growth and changing pattern of expenditure; (c) to estimate the unit cost of university education; and (d) to compute the rate of return (private and social) on investment in university education. The important findings are, (1) grants from the State govt. occupy the major share in university revenue (94.41 per cent in 1968-69; 48.8 per cent in 1984-85); (2) next to it, UGC grant formed important source with 3.51 and 5.17 per cent during the period; (3) receipts from internal source was only 0.67 and 10.88 per cent; (4) whereas the receipts from internal source indicated a steady growth, external contribution exhibited wide fluctuations; (5) whereas the receipts increased annually at a compound growth rate of 15.99 per cent, the growth rate of expenditure was 17.18 per
cent during the period; and (6) internal rate of return of university education is positive. On the whole the study gives a useful insight into the analysis of the specific problems confronting higher education sector viz, cost, return, subsidy, grant, etc.

Prakash (1988, 1989) has done detailed analysis on problems, causes and consequences of educated unemployment in Kerala. According to him, nearly 65 per cent of the total unemployed persons belonged to the age group of 15 and 25 and concluded that, "unemployment among youth is chronic compared to older people". One major drawback of the study is that the author simply reproduced the data provided by the NSSO, DES Survey, Census and Employment Exchange, without considering the definitional problems pertaining to the concept of educated unemployment. These definitions require reasonable modification in view of the changed labour and employment scenario in the State, as in the rest of the world. Using the NSSO, DES and Census definitions Alphonsa (1994) have shown that the highest proportion of educated unemployment is among professionally and technically educated persons.

Similar studies have shown that (Eapen 1992; Mukherjee & Isaac 1991) 40 to 60 per cent of SSLC Pass outs every year register their names immediately in the Employment Exchanges to improve their seniority. But they will be invariably pursuing higher studies. Thus the study has opened up the discussion on whether all those registered in the employment exchanges are real work seekers? And if not, there is need for systematic modification of the concept of educated unemployment.

Mathew (1991) has done a detailed examination of the sources and uses of funds for private colleges in Kerala for the period 1972-86. The analysis was based on a sample survey among 25 (now it is 186) Arts and
Science colleges. The study observed that (a) among the institutional finance, grants from the government constituted 90 per cent and of which major share was for payment of salary; (b) of the non-intuitional finance, donations are the most important; and (c) the practice of accepting or not accepting donations for appointment and admissions does not lower or raise the quality of education. Finally the study calls for strengthening of the finances in the private sector in the face of mounting resource crunch of the government.

Thomas (1994) has presented his book in 7 chapters. The first three chapters give detailed outlines of the economic structure, pattern of employment growth and educational development in Kerala. Fourth chapter discuss the magnitude/ nature of educated unemployment in the State. An analysis of the vicious circle of educated unemployment and private demand for education within the framework of job competition hypothesis is dealt in chapter five. The sixth chapter is devoted to divulge the determinants of earnings – family background and education. Last chapter summarizes the study. The study observed the following: (1) Regarding the pattern of development there is (a) high incidence of unemployment among the educated and (b) large scale migration from all categories of labour force. (2) Distribution of educational opportunities shows a tilt in favour of forward caste/ high income groups; (3) trends in higher education has shown that the system is in a drift in terms of quantity and quality; (4) retarded growth in employment opportunities coupled with high rate of turnover of the educated had resulted in massive increase in educated unemployment in the state; (5) incidence of unemployment and job search period varies inversely with levels of education implying that job accessibility is positively related to levels of education; (6) when recruitment are based on credentials, education becomes a positional good and acquisition of which serves as an insurance against the
risk of bumping down; (7) the observed positive relationship between education and earnings, ‘a derivative of job accessibility paradigm’ is perhaps the most convincing explanation for private demand for education; (8) white collar aspirations shaped educational aspirations as well; (9) years of education and performance in education or both exerted significant influence in achieving intra-generational mobility and equality. In fact, the study analyses the socio-economic and educational interrelationships in Kerala for period prior to 1980. Now the scenario has almost changed especially after 80’s in connection with globalization and liberalization.

Mathew (1995, 1997) after analyzing the causes and consequences of educated unemployment in Kerala observed that, (1) opening of too many Arts and Science colleges is the most important cause of educated unemployment in the State; (2) the three decades from 1960- 61 to 1990- 91, while enrollment at primary stage increase by 49.8 per cent only, enrollment at secondary stage rose by 352.9 per cent and at University stage by a hefty increase of 836.8 per cent; (3) positive correlation between increase in enrollment in higher education with low fees and heavy subsidization exist; etc. In fact, the study has over estimated the enrollment in higher education with that of elementary and secondary stage, and ascertaining positive correlation between enrollment and subsidization seems quite hypothetical.

The introductory chapter followed by a brief review of literature on educational cost analysis by Salim (1997) is focusing only on the cost side of higher education in Kerala. Third chapter narrates the concepts and methods of education cost, while fourth and fifth chapters analyse the institutional cost of higher education. Sixth chapter gives a discussion on private cost of higher education where the demand function is constructed taking cost as proxy for demand variable. Chapter 7 deals with ever-debatable issue, i.e., social cost
and role of subsidies, and the last chapter gives the summary. The study observed that, (1) there is an unprecedented growth of higher education in the state and that has led to ever-increasing resource drain from the public and private funds; (2) it is hard for the resource crunch Kerala to allocate more to higher education, (3) capital cost per student in Engineering education was more than two and a half times to that of general education; (4) despite rapid rise in enrollment during 1976–90, the annual unit recurring cost in both streams of education had declined only marginally; (5) salary remained the major component in pushing up the recurring cost; (6) the burden of govt. for educating a degree student is less than that of a PG student; (7) total private cost of engineering education was higher than the general education, of which an average 55 per cent were on ‘incidental cost’; (8) higher education facilities are mostly appropriated by high income group; (9) major factor influencing higher education is household income; (10) government spent more to educate an engineering student (4/5\textsuperscript{th} share) than general category student (1/2 share); (11) under the present system of subsidy all students are treated equally, regardless of his/her capacity to pay. Though the study is an earlier attempt in this direction in Kerala, most of the conclusions might have been drawn without taking care of the benefits of higher education (both social and private). Many of the observations themselves will explain the reasons for that. Hence, the conclusions seem hypothetical or peril. Any recommendation to cost reduction must be done after investigating into the benefit side and demand side, even if one gives up the ideology or ethics or philanthropy or social responsibility, etc.

Kannan (1998) examined the role of labour unions, State, and capital, and observed that distributive issues have been so central to economic development in Kerala. The State has less degree of freedom, as it is critically dependent on Central Government for finance. Organized labour, because of
its political clout seen to exercise a hegemonic role and much of the energy of the state was directed at mediating disputes. Thus the three dilemmas in linking social development with economic growth in the 1960’s and 70’s are (1) “Halting technological changes due to the excessive pressure of labour unions; technological halt opted by State Govt.; and option of employers to migrate outside Kerala. (2) Demographic transition has resulted in a mismatch between labour supply and demand. (3) Despite the emergence of Kerala as an investment friendly place and decline in labour problems, the State has failed to attract new investment. Finally he opined that, without resolving these dilemmas, the problem of low per capita income and persistent high unemployment would continue. Though the study came up in 1998, the data and the economic context was of the 60’s and the 70’s. The term capital was used as a corollary of Marxian ideology. This is too narrow to explain the term capital for development. Volume of labour was identified taking into account only the population growth without making any scientific calculation of educated, professional, skilled, unskilled, able to and willing to work, etc. Despite these, the study is remarkable as it provides an understanding on socio-economic relations of the State.

The Ashok Mitra Committee Report (1999) reads, “the higher education system in Kerala has extensive reach with around 10 per cent of those who enter primary school enrolling for degree course of various kinds. Besides, a number of students appear as private candidates. On a rough estimate, the total number of students entering the higher education every year is around 100000, which accounts for about 15 per cent of the relevant age group”. Contradicting this, Tilak has shown that in Kerala the enrollments hardly form 3.7 per cent of the relevant age group of population. Apart from the controversy, the real question is whether higher education is at higher scale with less than 15 per cent enrollment in the state.
Tilak (2001) has attempted to find out the relationship between higher education and development in Kerala using three variables viz; (a) percentage of population with higher education; (b) poverty; and (c) SDP/P for different years, and concludes that higher education is positively correlated to economic growth and inversely to poverty. Based on the data supplied by Employment Exchanges the study argues that educated unemployment is a serious problem in Kerala and higher education is viewed as the main source. The study also observed that, “over supply of arts and science graduates, heavy subsidization of education, preference for white-collar jobs, preference for public sector jobs, etc. are the most important factors for growth in educated unemployment”.

In fact, studies on several aspects of economics of education in Kerala and to that extent economics of HRD in the State are quite scanty. For instance, despite there being high literacy rate Kerala has the highest rate of unemployment in the Country and it is too much among educated persons. Since education market and labour market has a close link, imbalance in one will affect the other. How to ensure maximum benefit in a resource crunch State where most of its educational provision is on subsidized basis? It is criticized that the cost of education in Self-financing colleges for poor will be unaffordable. In short, certain issues coming up in this context are: Is there any mismatch between the demand for and the supply of higher education? What is the position of them in terms of costs and benefits? Is the cost of education incurred is unaffordable to Govt? Does the Govt. take any positive step for solving this or does aggravate by reducing social costs involved in it? The studies conducted in this area so far have not looked into these problems rigorously. The present study is an attempt to look into these important areas for suggesting the need for improving the higher education sector.