

**A STUDY OF THE UNIT COST OF
TEACHER EDUCATION PROGRAMME
FOR GRADUATE TEACHERS IN KERALA**

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**THESIS SUBMITTED FOR THE
DEGREE OF DOCTOR OF PHILOSOPHY IN EDUCATION**

**UNIVERSITY OF CALICUT
2003**

Declaration

I, Premakumari. T.K., hereby declare that the thesis entitled " A STUDY OF THE UNIT COST OF TEACHER EDUCATION PROGRAMME FOR GRADUATE TEACHERS IN KERALA" has not been submitted by me for the award of any Degree, Diploma, Title or Recognition before.

Thiruvananthapuram



T. K. PREMA KUMARI,

Certificate

This is to certify that this thesis "A STUDY OF THE UNIT COST OF TEACHER EDUCATION PROGRAMME FOR GRADUATE TEACHERS IN KERALA" submitted for the Ph.D degree by Mrs. Premakumari, T. K. is a record of bonafide study and research carried out by her under my supervision and guidance.



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Acknowledgements

The investigator wishes to place on record her deep sense of gratitude and sincere thanks to Dr. T. K. Mohammed, Former Commissioner for Educational Development and Research, Government of Kerala, for his inspiring guidance, scholarly assistance, and encouragement given during the course of this study.

The investigator is greatly indebted to Dr. P. Kelu, Professor and Head, Department of Education, University of Calicut for giving all help and facilities to carry out the study.

The investigator expresses her heartfelt gratitude to Mr. P.K. Krishnan, Under Secretary, N.C.T.E., Bangalore for his help in making available necessary reference materials for the study.

Last but not the least, the investigator expresses her thanks to her mother, and sons Manulal and Sudheerlal, colleagues, and friends for their valuable help in shaping the thesis in its final form.

Trivandrum

Premakumari. T.K.

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INTRODUCTION

T.K. Prema kumari “A study of the unit cost of teacher education programme for graduate teachers in Kerala” Thesis. Department of Education, University of Calicut, 2003

Chapter - I

INTRODUCTION

- 1.1. Need and significance of the study.
- 1.2. Statement of the problem
- 1.3. Definitions of terms
- 1.4. Objectives of the study
- 1.5. Statement of the hypotheses
- 1.6. Scope and limitations of the study.
- 1.7. Organisation of report

Chapter I

INTRODUCTION

Ever since the attainment of independence the country has made impressive progress in fulfilling its constitutional commitment of providing free and compulsory education to all children up to the age of 14. Educational reformers and researchers planned so many schemes to achieve this goal. Besides this, developing and developed countries have joined hands with us in our effort to provide "education for all". Literacy does not stop with acquiring the three R's; but goes further in developing the innate talents of children. Both qualitative and quantitative aspects of education should get equal stress in all the efforts. One cannot be compromised at the cost of the other. The major focus in education needs to be on the teacher and the taught.

Education is a planned developmental activity. It aims at the development of the learner, which ultimately contributes to the development of the nation. It, of course, is to be the best national

investment. Expenditure incurred in education has been recognised by economists for quite some time as an investment in the form of human capital that helps the development of the productivity of both individuals and society as a whole.

Teachers have to play a crucial role in the process of social transformation. They have to shoulder complex tasks as active participants in national development. In this context the social status of teachers, the material conditions of their life, and the environment of their work have a significant role.

Education is a developmental process. All types of education aim at preparation of the child for a better tomorrow. The educational system has recognised the process of 'becoming'. Realisation of becoming cannot be possible without the vision, i.e., aiming towards a change process. Therefore education has an element of futurism in it.

Alvin Toffler (1974)¹, futurologist cum sociologist, in his 'Learning Tomorrow: The Role of Future in Education', admits that

"all education springs from images of the future. If the image of the future held by society is grossly inaccurate, its education system will betray its youth" - Futuristic education looks for long term perspective planning, and identification of futuristic nature of education technology. Future studies incorporate contribution of all disciplines towards change with regard to social and human development.

Education is empowerment. It is the key to establishing and reinforcing democracy and development, which are sustainable to peace founded upon mutual respect and social justice. Indeed in a world in which creativity and knowledge play an ever-greater role, the right to education is nothing less than the right to participate in the life of modern world. The purpose of education should be firmly based on values. Mass education involving considerable private and public finance requires the evolution of suitable strategies, which could be derived from the economic analysis of the existing system of education.

Education, including formal education, public awareness and training should be recognized as process by which human beings and societies can attain optimum potential. Education is crucial for promoting sustainable development and improving the capacity of the people to address environmental and developmental issues. Both formal and non-formal educations are indispensable for changing people's attitudes so that they have the capacity to assess and address their sustainable development concerns. They are also critical for achieving environmental and ethical awareness, values and attitudes, skills and behaviour consistent with sustainable development and for effective public participation in decision-making. To be effective, environmental and developmental education should deal with the dynamics of both the physical/biological and socio-economic environment and human development, and should be integrated into all disciplines, and should employ formal and non-formal methods and effective means of communication

The role of education in the future society and also in the process of thinking about the future is unquestionable. The first requirement is that the scientific and technological potentialities of a people have to be developed by education. Hence the education of the future has to present human values and develop a sense of self-respect and esteem among pupils by respecting them as individuals of unique abilities.

Adam Smith (1937)² the author of the famous book 'Wealth of Nations' was a moral philosopher as well as an economist. He viewed education as a kind of capital, which embodies acquired knowledge and skills. Education was at the centre of his thinking as it was the basis of good civil government, economic activity and progress. He regarded education as the acquisition of useful abilities by all inhabitants or members of society. Emphasising the importance of education, as a national investment since the days of Adam Smith, education is believed to be a possible contributor to growth, social and economic equality. Voluminous empirical research has quantified the effects of education on income

distribution. Education contributes to increase lifetime earning, influences consumption, savings and investment behavior of individuals and above all, enhances quality of life.

Alfred Marshall (1930)³ further developed the educational ideas of Adam Smith by describing education as national investment. He noted that there were a few practical problems in which the economist has more direct interest than those relating to the principles on which the expense of the education of children should be divided between the state and the parents. He expressed the view that "the most valuable of all capital is that invested in human beings".

Economics of Education is concerned with human welfare. Shariff, Abusaleh (1999)⁴ defined economics as a study of mankind in the ordinary business of life. It examines that part of individual and social action, which is most closely connected with the use of the material requirements of well-being. Education broadens the

mental horizon, enables the individual to enjoy the good things of life and raises his standard of living.

Economics may also be defined as a subject, which deals with unlimited human want and the limited resources available to satisfy them. Lionel Robin made scarcity the central theme of economics. In the educational context, we need huge resources for quantitative expansion and qualitative improvement, but the resources at our disposal are very meagre.

Malthus and Ricardo (1972)⁵ argued that increase in economic well being of masses could be derived from decrease in population or by increasing the capital. Malthus observed the causes, which tend to generate prudential habits. He held that civil liberty is most essential and political liberty is generally necessary. Education can do much under a good government. He foresaw that education would contribute to population control and decrease the labour force and will help to maintain or even raise national income.

According to Walsh (1935)⁶, the expenditure incurred by individuals seeking education for professional career was a capital investment, in response to the same motives that led to investment in conventional capital.

Blaug (1986)⁷ argues that costs incurred by individuals in acquiring more education constitute an investment in their own future earning capacity. He strongly believed that "Investment in Education accelerates economic growth". Education helps to generate an attitude towards developmental programme by giving the masses a capacity for thinking beyond their urgent needs and troubles. The economic property of a country depends not only on the availability of natural resources but also to a large extent, upon the skills of men to convert them to the service of the society.

The National Policy on Education (1986)⁸ has highlighted the point that higher education provides people with an opportunity to reflect on the critical, social, economic, cultural, moral and spiritual issues facing humanity and that it contributes to the national

development. National development is concerned with development of human and material resources. National Policy on Education stated that education is an investment in the present and future.

Education is a tool, which helps an individual to evolve, and diversify into various professions and vocations, to understand the world, to become informed of oneself and one's environment and also imbibe the ethical, moral social, cultural and spiritual values. Education is a major instrument for economic and social development. Investment in education, therefore, leads to the accumulation of human capital, which is key to sustained economic growth and increasing incomes.

Education is an important instrument for living a fuller life as it has a definite effect on human productivity and it constitutes an important form of investment. The pace of development of a country is based upon its ability to develop and utilise the innate capacities of the people. The most important economic resource of a nation is

its manpower, that is, human resources. Human resource development is the process of increasing the knowledge, the skills and capacities of all people in a society. Progress is the result of human effort. Human resource development is a realistic and reliable indicator of modernisation.

Human resource development of a country can be measured from its stock of human capital. Acquired and useful knowledge and skills may be termed as human capital. The human capital approach views human resource development decisions in the nature of investment decisions. The use of the word 'investment' in education implies that there is a return to the society analogous to that of physical investment and that education has, as one of its main tasks, the creation of an efficient working force.

Education as investment

Schultz's (1961)⁹ human investment revolution in economic thought has led to the rediscovery of the investment nature of education and of human capital. Expenditure on education is

regarded as a valuable investment leading to formation of human capital. Investment in education increases skills and labour productivity, apart from inculcating social habits that are also valuable in the labour market, and thereby the lifetime earnings of the educated. The Investment benefit from education has its effects not only for long periods, but also even across distinctive features of economic systems in the growth in human capital. "Without it, there would be only hard manual work and poverty. Both individuals and the society invest considerable amount of resources in education. As such investments are found yielding attractive economic returns, besides social and cultural benefits. The social benefits according to Bhaskaran Nair (1990)¹⁰ include not only economic growth but also reduction of poverty, improvement in income distribution, improvement in health, life expectancy and nutritional status and positive effects on population control. Still in the national accounts of several countries education is treated as a consumption service or a welfare activity. This dichotomy poses serious problems in evolving policies on financing education. If education is regarded as

investment, it becomes an activity on which expenditure needs to be expanded in anticipation of future benefits. On the other hand, if it is regarded as consumption, it becomes an activity on which the individuals as well as the society as a whole should, in general, spend as little as possible. According to Blaug (1968)¹¹, education is both consumption and investment. Financing policies in education in several countries reflect these twin perceptions 'mixed up'. While it is perceived like all other investment sectors in the economy, in the matter of resource allocation, it is often treated as one of the 'unavoidable' consumption activities.

Returns to investment in education:

Recognising the role of education in development and in line with the emergence of the concept of human capital, the Government of India, on the recommendation of the Education Commission (1966), accepted, for the first time the concept of 'investment' in education in its National Policy on Education

- e. The returns to education of weaker sections (e.g.: women, backward castes and rural population) are higher than returns to their respective counterparts (viz., men, non-backward castes and urban population).

Now the economists try to probe into various sources of educational finance, cost effectiveness, directions of development etc. Economics has several branches like rural economics, monetary economics, microeconomics and macroeconomics. Economics of education is one of the youngest branches of economics. Schultz used the term (1960)¹³ while addressing the American Economic Association. The World Year Book on Education approved it by publishing an article.

It is felt that the tools of economists are inappropriate to evaluate a discipline, which is based on external values, and therefore it is said that they should confine themselves to production-oriented activities.

Because of the need for considering the economics of education in the planning organisation and execution of educational programmes, all aspects of education from early childhood education to professional education have to be analysed and examined from the economic point of view.

The success of an educational programme, whatever be its stage, depends to a great extent upon the competency of the teachers who are expected to manage the programme. Hence teacher education, which is meant for the preparation of competent teachers, requires more care. The economic credibility is a theme that warrants immediate attention.

Economics of Education

Expenditure incurred in education has been recognised by the economists for quite some time as an investment in the form of human capital, which helps the development of the productivity of both individuals, and society as a whole¹⁴.

Now economic principles are being applied to economics of education, a prominent branch of study in both education and economics. As such investment in education is being subjected to analytical studies leading to theories helpful in making the investment most profitable.

According to Tilak (1989)¹⁵ planning and management of finance is an activity, which is concerned with judicious and optimal use of the financial resources of an institution which in no way can escape from financial management. In fact the method of receiving, allocating and controlling funds by the head of an institution affects the very efficiency of the Institution.

Financial resource management has become a very crucial aspect of every educational administrator's or manager's normal responsibility, because of the increasing cost of education, in the face of declining resource and inflationary spirals. In the point of view of Coombs and Hallak (1988)¹⁶, increasing demands are now being made on everyone connected with finance to make their financial

transaction precise and clear. Every educational institution should make an education budget, which is a statement of income and expenditure of the institution for a financial year.

According to Pandit (1969)¹⁷ for the efficient management of finances proper financial planning is essential. Ideal budgeting system is therefore very much important. Financial planning involves estimates of output and employment of input accordingly. The success of achieving the targeted output depends upon the allocation of inputs of other resources i.e., Money, Men and Material (M³). The whole process can be called as budgeting. For the successful management of an educational institution an appropriate budgeting system has to be chosen from item budgeting, performance budgeting, PPBS (Planning Programming Budgeting System), or zero base budgeting. Line item budget shows that it focuses attention on specific items. Roger's (1970)¹⁸ Performance budgeting has got an orientation to the past in terms of intention to measure the past performance. The zero base budgeting gives options and best possible description of the cost consequence of each

activity. It provides a practical mechanism for making decisions. It is therefore an improvement over traditional ones.

Cost analysis becomes an instrument of financial communication for institutional systems, continuing experiments, which explore concepts of quality of education, equality of educational opportunities, local state and centre roles in financing education. According to Blaug (1970)¹⁹ the entire budgeting system should be based upon cost technique like normal cost of education, unit cost, effect cost of education, efficiency of education system, cost of education per capita etc.

Importance of Analysis of Cost of Education

Statistics of education is of high importance in educational planning. They are most essential for educational planning in general and planning of the resources in particular. Unit costs are also efficiency indicators. The inverse of unit costs is after all, an index of total factor productivity in the production process. Estimates of costs are essential for estimating resources required for educational sector and various sub sectors. They are also helpful in

understanding whether resources allocated to education reflect optimal level or not, and are optimally allocated between different layers of education. Prakash (1997)²⁰ states that the statistics on costs of education also are themselves indicative of the efficiency of educational system, besides facilitating one to find out the cost effectiveness of the educational system as a whole and of the different levels of the system.

Analysis of costs of education helps in formulating the programmes for attaining equality in educational achievements between different groups of population of different regions. Cost statistics themselves indicate the inequalities both in quantity and quality of education between different groups of population and the regions. Statistics on costs of education are both general and specific purpose tools in that they are used for different purposes, mainly for planning, forecasting, projecting, analysing, and decision-making and policy formulation. Besides, they are also used for making inter group and inter level comparisons in education.

Cost analysis is helpful in several kinds of uses :²¹

- ◆ In estimating requirement of resource of education for proper decision making
- ◆ For proper decision with regard to intersectoral and intrasectoral allocation of resources.
- ◆ For monitoring and improvement utilisation of resources.
- ◆ For Institutional planning and for analytical purposes such as measuring internal and external efficiency of investments in education.

Financing of education has been discussed both by economists and educationists, as the financial resources required for the substance of the system generally come from the public exchequer.

Need and Significance of the Study

In the current economic climate resource for education are becoming scarcer. "There will be increasing pressure from policy makers for cost reduction and increased efficiency" and there is likely to be more resistance to providing extra sources of educational

projects. Cost analysis can be a powerful aid in such a context. The importance of cost analysis in education needs no overemphasis, as it can serve a variety of purposes in educational planning, such as;

- ◆ testing the economic feasibility of expansion plans, proposals or targets.
- ◆ projecting future levels of educational costs.
- ◆ estimating the cost of alternative policies and of educational reforms or innovations.
- ◆ comparing alternative ways of achieving the same objective, in order to select the most efficient or economical way.
- ◆ comparing the profitability of alternative investment projects.
- ◆ Improving the efficiency of resource utilisation.

Kerala State has put in more money for educational industry. Therefore scientific planning of education entails study on the various economic aspects at various levels. According to Salim (1997)²² the national expenditure on higher education has been increasing rapidly during the five-year plan periods. Economists tend to equate modernisation and development with economic growth. They are concerned primarily with such matters as savings

and investment, national income, productivity and balance of payment. Education encompasses all the deliberate inputs provided within the society leading to individual development and social progress. These deliberate inputs would be pertaining to knowledge, awareness, skills, attitudes, values and such other individual attributes, which contribute to group character.

In these circumstances extensive and thorough studies must be undertaken in the areas of Preprimary, Secondary, Higher and Professional education. The secondary stage of education is a pivotal stage in the education of any child because the assimilation, transfer and transmission of our cultural heritage takes place at this stage. Unless proper supervision and guidance from the teachers at this stage is provided, there are possibilities of misguidance taking place. Hence teacher education at this stage assumes importance and studies in teacher education area have significance. The investigator has given special attention to secondary level teacher education programme for graduate teachers because educational efficiency depends upon the quality of the teachers.

From the discussion above it is clearly evident that teacher education has a pivotal role to play in improving the education system of our nation. It is in recognition of this fact that various education commissions both at state and national level have recommended to take steps for the improvement of teacher education. The formation of the National Council for Teacher Education is the latest development towards this direction. But unfortunately in spite of the rigorous steps taken and huge investments made there has not been much improvement in teacher education. Strangely enough new centres of teacher education at the secondary level are springing up every year. Many of them are functioning on self-finance basis. The institutional cost and individual cost in these institutions vary widely. There is no clear-cut idea regarding the actual individual and institutional cost in these institutions. This being the picture at the national level, the teacher education scenario in Kerala is also not much different. In this context many questions spontaneously emerge.

1. Is there any difference in the institutional cost of secondary level teacher education with regarded to a). Government Teacher Education Colleges, b). Private Aided Teacher Education Colleges, c). Private Un-aided Teacher Education Colleges and, d). University Teacher Education Centres?
2. Is there any difference in the individual cost of secondary level teacher education with regarded to a). Government Teacher Education Colleges, b). Private Aided Teacher Education Colleges, c). Private Un-aided Teacher Education Colleges and, d). University Teacher Education Centres?
3. Is there any difference in the recurring cost of secondary level teacher education with regarded to a). Government Teacher Education Colleges, b). Private Aided Teacher Education Colleges, c). Private Un-aided Teacher Education Colleges and, d). University Teacher Education Centres?
4. Is there any difference in the non-recurring cost of secondary level teacher education with regarded to a). Government Teacher

- Education Colleges, b). Private Aided Teacher Education Colleges. c). Private Un-aided Teacher Education Colleges and, d). University Teacher Education Centres?
5. Is there any difference in the unit cost per student of secondary level teacher education with regarded to a). Government Teacher Education Colleges, b). Private Aided Teacher Education Colleges. c). Private Un-aided Teacher Education Colleges and, d). University Teacher Education Centres?
6. What is the individual cost in Government Teacher Education Colleges?
7. What is the institutional cost in Government Teacher Education Colleges?
8. What is the individual cost in Private Aided Teacher Education Colleges?
9. What is the individual cost in Private Un-Aided Teacher Education Colleges?

10. What is the institutional cost in Private Aided Teacher Education Colleges?
11. What is the institutional cost in the Private Un-Aided Teacher Education Teacher Education Colleges?
12. What is the institutional cost in the University Teacher Education Centres?
13. What is the individual cost in University Teacher Education Centres? What are the differences in the institutional cost and individual cost of all graduate teacher education institutions?

These sorts of questions will get reliable answers only through a serious, systematic and scientific investigation. The present work is a humble attempt in this direction.

Title of the study

The present investigation is entitled as *"A Study of the Unit Cost of Teacher Education Programme for Graduate Teachers in Kerala"*.

Definitions of terms used in the study

The terms used in the study are teacher education, unit cost and graduate teacher. The operational definitions of the terms are given below.

1. Teacher Education

All the formal and informal activities and experiences that help to qualify a person to assume the responsibilities of a member of the teaching profession or to discharge his responsibilities as a teacher more effectively.

2. Unit Cost

The term denotes the cost of producing a unit of product or rendering a unit of service. A unit of education can be a student of a class or an educational institution.

3. Graduate Teacher

Graduate teacher is a teacher who possesses a university Degree in any subject (Bachelor or Master) and is qualified to teach secondary school classes after attaining B.Ed. degree/ Secondary level teacher education course.

Objectives of the study.

General objective.

The general objective of the present investigation is to study the unit cost of teacher education programme for graduate teachers in Kerala.

Specific objectives.

The following are the specific objectives of the study.

1.To analyse the institutional cost of teacher education in preparing graduate teachers in Kerala state.

2.To analyse the individual cost of teacher education in preparing graduate teachers in Kerala state.

3.To compare the variation of student cost and institutional cost in different types of institutions meant for preparing graduate teachers in Kerala state.

4.To find out total unit cost per graduate student while receiving teacher training in Kerala state.

5.To offer suggestions for the improvement of Teacher Education on the basis of the conclusions of the study.

Hypotheses

On the basis of the above objectives, the following hypotheses are formulated for the study.

1. There will be difference in the institutional cost of secondary level teacher education among the different types of teacher education institutions. i.e., a) Government Teacher Education Colleges, b) Private Aided Teacher Education Colleges, c) Private Un-aided Teacher Education Colleges, d) And University Teacher Education Centres.

2. There will be difference in the individual cost of secondary level teacher education among the different types of teacher education institutions. i.e., a) Government Teacher Education Colleges, b) Private Aided Teacher Education Colleges, c) Private Un-aided Teacher Education Colleges, d) And University Teacher Education Centres.

3. There will not be difference between the Individual cost of secondary level teacher education in government institutions and private aided institutions.

4. Individual cost of secondary level teacher education in university teacher education centres will be less than that of un-aided private colleges of teacher education.

5. Individual cost of secondary level teacher education in private aided institutions will be less than that of un-aided private institutions.

6. Individual cost of secondary level teacher education in private un-aided teacher educational colleges will be greater than that of private aided teacher education colleges

7. Total cost of secondary level teacher education in Private Aided Teacher Education colleges will be greater than that of government teacher education colleges.

8. Unit cost of secondary level teacher education in government colleges will be higher than that of all other colleges.

9. Unit cost of secondary level teacher education in private un-aided teacher educational colleges will be higher than that of private aided teacher education colleges.

10. Unit cost of secondary level teacher education in private un-aided teacher education colleges will be higher than that of university teacher education centres.

11. Unit cost of secondary level teacher education in university teacher education centres will be lesser than that of private aided teacher education colleges.

Scope

As per the report of the futurologist, Ruhela (2000)²⁴ the economy of our nation is in a precarious condition. This is going to be still worse in the coming years. It will affect the quality of education. We cannot even think of how much it will go down because of lack of funds.

For many years our universities and colleges have not been getting sufficient funds for libraries, laboratories, workshops, seminars and conferences and publication of research works.

In this context the evaluation of economic aspects of teacher education is of high significance because teacher education is an

inevitable programme, which determines the quality of education in a country. Teacher preparation course for the secondary level, generally known as B.Ed course, is a professional course having two major components - theoretical orientation, and practical work including actual school experience. Sound exposure to all these aspects is an essential condition for the preparation of a competent teacher.

For uplifting the quality of Pre-service Teacher Education Programme in the 21st the Century, National Council for Teacher Education has prescribed norms in curricular and co-curricular areas of all institutions. On this time, if serious attention is not paid to cost analysis, it may result in hiatus between the actual resource requirements of the system, and the resources actually provided. When resources become more scarce, the budgets are arbitrarily cut. An elaborate cost analysis helps in making more rational decisions regarding public investment choices in education. If a scientific scheme of distribution is designed on the basis of empirical

evidences, Teacher Education Programmes can be made more systematic and effective.

Limitations

The present Study has been limited to the training of secondary level graduate teachers only. Therefore inservice training programmes for secondary level graduate teachers have not been included in the purview of this study. Besides this study has not covered some closely related dimensions of cost analysis such as cost effectiveness analysis, cost benefit analysis, etc., even though they are important. They, in fact, need more detailed investigation. But due to the limitations these areas had to be restricted. However, in spite of these limitations, it is hoped that the present study will be a very fruitful beginning in the study of the economics of education in the state.

Procedure:

The present study is co-relational in nature and attempts to find out the relation between the different cost calculations at

various institutions. The method employed for the study comes under the category of normative survey method.

Sample:

The data for the study was collected using appropriate tools from a representative sample of 41 institutions out of 74 and 3525 students, belonging to four universities. Stratified random techniques was used for selecting the sample. Some response sheets of the questionnaire were to be discarded, as the responses furnished in them were incomplete and unreliable. Therefore 2925 subjects were included in the sample for the study. The sample was stratified on the basis of Sex, Locale and Type of management.

Tools used.

The following tools and techniques were used:

1. Questionnaire administered to the heads of institutions.
2. Questionnaire administered to student teachers.
3. Questionnaire administered to students under department quota.
4. Structured Interview Schedule for students under management quota.

5. Verification of office records.

The data of the present study were analysed and tabulated so as to arrive at valid and reliable conclusions.

The tabulated data was processed with the guidance of the supervising teacher.

Organization of the report.

The research report is presented in six chapters.

In the first chapter along with a brief introduction the need for the study is established and the title and objectives presented. The definition of the terms, hypotheses, scope and limitations of the study are also given in the first chapter.

In the second chapter an overview of teacher education and its cost in Kerala is presented.

The third chapter is concerned with a thorough review of related literature.

In the fourth chapter the methodology adopted for the present study is narrated.

In the fifth chapter the analysis of data collected from various sources is presented and interpreted.

In the sixth and the final chapter the conclusions arrived at from the data and interpretations are given and on their basis recommendations for the improvement of the education with regard to the specific area are presented.

A few topics for further research are also given at the end of the chapter. The bibliography and tools used are appended.

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AN OVERVIEW OF TEACHER EDUCATION IN KERALA

T.K. Prema kumari “A study of the unit cost of teacher education programme for graduate teachers in Kerala” Thesis. Department of Education, University of Calicut, 2003

Chapter - II

AN OVERVIEW OF TEACHER EDUCATION IN KERALA

2.1. Scenario of Teacher Education

2.2. Expenditure on Teacher Education

2.3. Taxonomy of the Cost of Education

CHAPTER-II

AN OVERVIEW OF TEACHER EDUCATION IN KERALA

Teacher education is the subsystem of the larger system of education in any nation. The scenario of teacher education in the country to a certain extent reflects the nature of its education system. The total outline and the expenditure incurred on it indicates the strength and competence of the teacher education system without which the main system of education cannot be improved.

The present study is a humble attempt to investigate into the aspects of the cost of teacher education in the state of Kerala. Therefore it is essential to present a factual picture of the system in the national context. The first section of this chapter is devoted to presenting the teacher education scenario and discussing certain problems related to it especially from the economic point of view. The second section deals with the now prevalent taxonomy of cost of education, which has been used in this study.

2.1.Scenario of Teacher Education

Teacher education in India has been treading the same road for over one hundred and fifty years. That road has reached a dead end from several points of view. Teachers coming out of the system often find themselves incapable of taking care of “learning how to learn”, value-oriented education, and development of higher mental abilities such as problem solving, critical thinking, analysis and synthesis, etc. that are essential for a learning society.

For meeting the varying learning needs, teacher has to recognise the sovereignty of the learner, which has not been a concern of teachers so far, as the certification of the learning is carried out by external examining bodies through public examinations. Besides recent developments in information and communication technologies require that teachers be information and communication technology literate for using with facility digital learning resources and are able to integrate use of information and communication technology in classroom learning activities. Employment opportunities are now increasingly shifting to the

private schools and even foreign governments are looking for Indian teachers for their schools. Therefore, the question is whether we must still pursue the same practice or design and engineer a new road investing more money.

Sri Aurobindo in his great book *A National System of Education* emphasised that purpose of education is not mastery of subject alone but development and chiselling of mental faculties. Consequent on the explosion of information technology, increasing relevance of education to all domains of the world of work, increasing stress on the themes of unity and integration, international understanding and peace, individual and collective excellence, new demands are being made on the teacher. The role of the teacher as a taskmaster is fading out of the educational scene and he is being increasingly looked upon as a guide and an inspirer. In addition, the teacher is expected to contribute to integrating education with development, be an innovator and inventor of dynamic methods of education, be able to impart value-oriented

education and be a leading agent of change in shaping a learning society.

Role of Teacher

In the changed context, the teacher has to play a major role in implementing the policies and schemes formulated to achieve a breakthrough in the quantitative expansion and qualitative improvement of education, which is highly essential for the national development. The National Policy on Education 1986 called for a substantial improvement of the condition of work of the teacher and the quality of teacher education. This fact should be recognised and teachers with high moral and intellectual capabilities are to be attracted to the profession. No doubt, the quality of education depends upon the teachers. In fact the quality of teachers depends upon the training they receive during their pre-service teacher training periods. In other words the quality of teachers largely depends upon the education programme, selection procedure followed for the admission of the trainees, instructional materials and evaluation of their performance. The best and the only way of

ensuring such quality of education in India is by developing professionalism in teaching.

Teachers should play a constructive role in refreshing the present educational system. Educational institutions should be given necessary encouragement for conducting new experiments in teaching methods, formulation of courses and preparation of textbooks etc.

Objectives of Teacher Education Programmes

In order to plan teacher education curriculum and training strategies, it is necessary to recall the multi-dimensional nature of the teacher's roles and functions:

- Organise learning resources
- Plan effective curriculum transaction strategies
- Conduct interactive classroom teaching
- Evaluate outcomes of learning
- Implement compensatory education programmes
- Cater to special needs of disabled children

- Organise and guide a variety of co-ordination activities
- Train students in problem solving
- Participate in complementary education
- Develop in student's qualities of democratic citizenship and promote environmental consciousness
- Organise and participate in programmes of community service and development

Vision for Teacher Education for a New India

India is the second most populated nation in the world. Recently, its population crossed one billion mark. There are about 300 million children in the school age group. The challenge is to enable them through education for living effectively in a world, which is getting increasingly fragmented between developing and developed countries and is advantageous to those who are literate and are able to cope with life style dominated by advances in science and technology. Therefore, education has to be contextual and at the same time has to have a global perspective as the children would

grow up not only into citizens of this country but at the same time will belong to a global society.

As changes in science and technology are frequent and unpredictable it is not possible to envisage what the nature of occupations will be in the years to come. We, therefore, cannot anticipate today's skills and abilities that children would need for living effectively for their full span of adult life in next decades. The vocational skills learnt for present occupations will get out of date before long. Therefore, the vocational situation that prevailed during most of the 20th century will not hold now. It would now be necessary that the young persons be prepared right from the beginning as life long learners. Children of today when they grow up will have to continually update themselves with the new technologies and the changing nature of occupations. It is in such a context the emphasis of learning at the school level will require a shift from being teacher-centred to learner-centred. The principal task of teachers will be to enable children with the ability of learning how to learn, for which, it would be necessary that teachers

recognise the autonomy of learners and reorganise teaching-learning around using human brain for developing thinking skills rather than using the brain for storing information.

The changed scenario of teaching- learning will entail radical changes in teacher education. The teacher education programmes that are followed throughout the length and breadth of the country have remained static both in form and content for over 100 years. The pedagogy which was introduced in the latter part of the 19th century, relevant to the society then, has continued in its unchanged form not only throughout the 20th century, but even now.

Structure of Educational System

The *Sixth All India Educational Survey* published by National Council of Education and Research Training, New Delhi (1999) has revealed that in 1993 there were 905,900 schools and 4,197,555 teachers.

Education in India generally follows 10+2+3 structure. The 10+2 years form the school stage. The first ten years of schooling is used for giving a common undifferentiated general education. The

national pattern envisages the first five years form the Primary stage, the next three years the Upper Primary stage, which are followed by two years of Secondary stage and two years of Senior Secondary stage. The school stage is followed by the 3-year tertiary stage.

In 1986 a national system of education was adopted for the first ten years of school education. It is based on a national curricular framework. It contains a common core along with components that are flexible. The common core includes the history of India's freedom movement; the constitutional obligations and such other contents as are essential to nurture national identity. These elements cut across subject areas and promote values such as India's common cultural heritage, egalitarianism, democracy, secularism, equality of sexes, protection of environment, removal of social barriers, observation of small family norm and inculcation of scientific temper.

Teacher Education

It has already been mentioned that the total duration of school education as per the national norms is 12 years. It comprises of 8 years of elementary stage, which is preceded by pre-school, and is followed by four years of secondary stage. Training of teachers for these three broad stages of schooling is provided through stage specific pre-service courses. State Boards of School Education are responsible for conducting examinations and certification of Pre-school and Elementary Teacher Education courses. Universities give the Bachelor of Education (B.Ed.) degree for teaching at secondary level.

Teachers' Certification

The Pre-service Teacher Education programmes in India are tied up with common structure of school education. The school structure comprises 8 years of elementary stage followed by 4 years of secondary stage. Courses of teacher education are, therefore, offered stage-wise. Teacher education for the elementary stage is being carried out at about 800 institutions, which offer courses of two-

years duration and are open to candidates who have passed the senior secondary examination at the end of the 12th year of schooling. As the 32-states/union territories have been determining the profile of their elementary education, certificates of teacher education for the elementary stage issued by the State Departments of Education have as many as 28 different names. Some of the names of elementary teacher certificates are BTC (Basic Teaching Certificate), D.Ed (Diploma in Education), TTC (Teachers' Training Certificate), JBT (Junior Basic Training), etc.

Teacher education for the secondary stage is being carried out at about 900 institutions in India. The course commonly called B.Ed. (Bachelor of Education) is generally of one-year duration and is open to graduates. Affiliating universities, which also determine the curriculum, award the B.Ed. degree. As there are more than 200 universities in the country, the course contents of teacher education programmes for the secondary teachers though appear similar are generally different. It should, therefore, only be expected that teacher education programmes in the country have wide diversity.

Teacher Education Institutions in Kerala

There are mainly 2 categories of teacher training institution in kerala. 1) Primary Teacher Training Institutions, which issue certificates called T.T.C. (Teacher Training Certificate). These teachers who are getting trained in these institutions and are qualified for teaching primary classes. The basic qualifications required for admission is high marks in secondary school leaving certificates or a higher secondary pass. 2) Secondary teacher education institutions, which issue Bachelor's degree certificates in education. The students who get high marks in Bachelor's degree / Master's degree are usually admitted to this course. In fact there is a third category of teacher training institutions also, which prepare teachers for teaching languages at primary and secondary schools. These institutions are generally called Language Teacher Training Institutes. The basic qualification required for the course is Bachelor's degree in language or oriental title such as Vidwan, Afzalul ulama (in Arabic), Praveen (in Hindi), Adebe Fazel (in Urdu), etc. In addition to this kerala has Pre-primary Teacher

Training Institutes also for giving training to those who teach the pre-primary children. The basic qualification for admission to this course is high marks in Secondary School Leaving Certificate /a Bachelor's degree.

Secondary Teacher Education

The responsibility for secondary teacher education would continue to rest with colleges of teacher education affiliated to the Universities. At present there are 596 secondary teacher education institutions in India working under different types of management. They organize pre-service education courses for the university graduates to enable them to become secondary school teachers. A centrally sponsored scheme for the improvement of teacher education has been formulated by the Ministry of Human Resource Development (MHRD)⁷. Under this scheme, 250 secondary colleges of education are expected to raise their standards so as to develop them into institutions of excellence with increased inputs. The MHRD is providing financial assistance to meet the additional expenditure. Each college will have a teacher's resource centre for

the in-service and extension programmes in new areas like training in educational technology.

Out of 250 colleges, 50 are being provided with special assistance so that they may develop into Institutes of Advanced Studies in Education (IASE).

Strengthened Colleges of Teacher Education (CTEs)

It is visualized that the Colleges of Education if strengthened, will be in a better position to prepare quality teachers for the secondary and higher secondary stages. These institutions will break the dichotomy, which has so far been prevalent between content and pedagogy. It is hoped that there will be an honest effort to ensure the proper development of the teacher not only with regard to subject specialisation but also orienting his personality so as to make him play the role of facilitator of learning. He will also be equipped with the capability of using educational media support for effective teaching and learning. The colleges will ensure the prospective teachers to have substantial training in simulated conditions to develop various skills.

To achieve the mentioned goals, the Colleges of Teacher Education are expected to have a strong Teacher Resource Centre for in-service and extension programmes for school teachers. Gradually, they are supposed to develop continuing education programmes for every secondary school teacher.

The following are visualised as the functions of the strengthened Colleges of Teacher Education.

1. Organising pre-service teacher education courses for graduates to prepare them as secondary school teachers.
2. Organising pre-service teacher education courses for postgraduates to prepare them as secondary level teachers. As the preparation of teachers for the +2 stage has not received adequate attention so far, this function should be given extra emphasis.
3. Organise in-service teacher education programmes for secondary school teachers.
4. Providing extensions and other support services for school complexes.

5. Conducting experimentation, research and innovation in school education.
6. Providing training and resource support for the new areas of educational concern, e.g., value oriented education, work experience, environmental education, population education, and educational technology, computer literacy, vocationalisation and science education.
7. Providing support to professional bodies in teacher education.
8. Encouraging community participation in teacher preparation programmes.
9. Developing and conducting programmes of community work in teacher education courses.

Institutes of Advanced Study in Education (IASEs)

As regards the Institutes of Advanced Study in Education, it is hoped that after the input of additional assistance these institutes will offer both post-graduate and under graduate programmes at the preservice level and will develop themselves into comprehensive institutions of teacher education offering programmes relevant to

various stages of teacher education. Research, innovations and experimentation on teacher education will be taken up on a priority basis at these centres. Along with the development of content and pedagogy, stress is also laid on developing software for educational purposes²⁰.

They are expected to develop rich programmes of continuing education at the elementary and secondary levels. They should also train personnel for preparation of software for educational technology. They will start different types of courses in areas like management, planning, policymaking, extension and technology. They will undertake an advanced study of the theory of education, and conduct fundamental research in addition to applied research.

In addition to the above functions, the IASEs are expected to perform the following functions also:

1. To conduct courses in elementary teacher education for graduates.
2. Preparation of personnel for DIETs.

3. Preparation of teacher educators at the elementary and secondary level.
4. To conduct in-service education courses for elementary and secondary teacher educators.
5. Organizing pilot programmes in teacher education.
6. Conducting advanced level fundamentals and applied research and experimentation in education, especially of an interdisciplinary nature e.g., sociology of education, educational psychology etc.
7. Preparing research workers.
8. Organising training programmes for preparation of software and use of educational technology.

Academic Staff Colleges for Higher Education

There are three academic staff colleges in Kerala, one at Calicut University and other at Kerala University and other at Mahatma Gandhi University, Kottayam. They are organising a series of in-service courses for college teachers with a focus on several aspects such as philosophical and sociological foundations of

education, methodology of teaching and evaluation at higher education stage, content upgradation, etc.

State Council of Educational Research and Training (SCERT)

The SCERTs or its equivalent bodies of each state / union territory are required to coordinate pre-service and in-service teacher education programme. The State Council of Educational Research and Training (SCERT), Kerala is an autonomous body entrusted with planning, implementation and evaluation of all academic programmes from pre-school to higher secondary levels. The State Institute of Education (SIE), which functioned as part of the Department of General Education was converted to SCERT in 1999, to give a new thrust and direction to school education in the State.

SCERT is concerned with the academic aspects of school education including formulation of curriculum, preparation of textbooks, teacher's handbooks and teacher training. It advises the Government on policy matters relating to school education.

The various departments/ units carry out the academic activities and programmes of SCERT. SCERT plans and co-ordinates all academic projects and programmes in the state.

SCERT (Kerala) functions as a research and dissemination institute at the state level by providing guidance, support and assistance to the State Education Department in its endeavour to improve the quality of elementary and secondary education and teacher education. To achieve this goal, the SCERT conducts research studies, develops information systems, curricular policies, and instructional materials and co-ordinates in-service education for teachers at all levels through the District Institutes of Education and Training (DIETs).

Units of SCERT in Kerala:

1. Curriculum, textbooks and evaluation (DCTE):

DCTE is responsible for preparation and revision of curriculum and textbooks, preparation of handbooks for teachers in eight languages and different school subjects for all classes, refresher

courses, orientation and training programmes for teachers, headmasters, DEOs and DDEs on curriculum-related topics.

2. Teacher Education (Pre-Service and In-service) and Extension

Department of Teacher Education (DTE) aims at integrating the training programmes and research programmes with thrust on quality and gives shapes to the changes to be brought in the training courses. DTE's areas of action are organising teacher-training programmes (both in-service and pre-service) for the TTIs and DIETs, orientation courses for teacher educators in TTIs, preparation of evaluation tools for TTC and revision of the TTC curriculum.

3. Department of Educational Technology (DET)

DET's aims are to develop common vision of Educational Technology and its functioning in the Kerala context with the help of experts from the field of information technology, implement information technology education in schools, using computers as a tool for acquiring and using information and knowledge and development of compact disk software for subjects in high school classes.

4. Department of Health, Physical, Art and Vocational Education.

DHPVE is established with a view to cater to academic quality in non-scholastic areas like art, health and physical education.

5. Department of Non-Formal and Continuing Education.

NFE conducts educational programmes for marginalised and out-of-school populations to draw them into the mainstream of education.

6. Research Documentation and Dissemination.

Research is a significant input to SCERT's training programmes. This unit conducts, sponsors and co-ordinates interdisciplinary research with focus on theory, policy relevance, methods and processes of the educational, curricular and training programmes carried out by SCERT. It is also responsible for the evaluation of the massive teacher training programmes, continuous monitoring and assessment of terminal evaluation and field analysis of textbooks. The unit provides empirical and analytical basis for policy and plan formulation and implementation.

7. State Institute of Educational Management and Training (SIEMAT).

SIEMAT provides management training programmes to educational administrators and carries out major research programmes.

In-service Teacher Education programmes in Kerala

The programme of mass orientation of schoolteachers (PMOST) was one of the 14 centrally sponsored schemes of the Ministry of Human Resource Development to operationalise the recommendation of NPE 1986⁹. This was a 5-year (1986-1990) programme to orient teachers in the contemporary developments and methodologies of education. Training packages in the form of self-learning modular materials is the major mode of communication in the PMOST. The PMOST is gradually being converted to Operation Backboard programme.

DPEP (District Primary Educational Programme).

In-service training is provided to all Primary school teachers as per the District Primary Education Programme guidelines

formulated in April 1993. Since then there have been major developments in the evolution of DPEP as a centrally sponsored scheme. District projects were prepared in 42 districts spread over the seven states of Assam, Haryana, Madhya Pradesh, Karnataka, Maharashtra, Tamil Nadu and Kerala. The planning process in these districts has been intensive and participatory; the process has conflated theory and practice and extensively drawn up organisations like NCERT, NIEPA and Institute of Managements. It would be a truism to say that DPEP planning processes have provided a valuable opportunity to NCERT/NIEPA to field-test many of the pedagogical and management concepts that they have been developing over the years. The studies conducted as a part of the planning process have been of a path breaking nature; and learning levels of over a rigorous sampling and pedagogic design, with a view to identifying area-specific interventions in each of these districts.

In the wake of the experience of the DPEP scheme many of the states have introduced curriculum reforms in pre-service teacher

education for achieving quality in elementary education. Also, there is a palpable concern about the irrelevance of the curriculum of the basic teacher training diploma course that is being followed in the country, particularly when the context of schooling for living effectively in the 21st century has radically changed. The UNESCO document *Learning the Treasure Within* has identified the four pillars of education, *learning to know, learning to do, learning to live together* and *learning to be*. As the world has entered in the information age and is inundated by an unprecedented information explosion, it is being realised that the basic skill to be learnt now is that of learning how to learn, for each person has to develop an attitude of lifelong learning. Many experts in teacher education have given thought for working out strategies for improving the quality of elementary teacher education and for making it contextual.

District Institutes of Education and Training:(DIET)

Mission of DIET:

The main function of DIET is to provide academic and resource support at the grass root level for the success of various

strategies and programmes being undertaken in the areas of elementary and adult education with special reference to universalisation of primary education and functional literacy in the 15-35 age group.

Role of DIET

- 1). Excellence in the Institute's own work.
- 2). Helping elementary and adult education systems in the district in achieving excellence.

Functions of DIET

I). Training

Training and orientation of the following target groups:

- a). Elementary school teachers (pre-service and in-service training).
- b). Headmasters, heads of school complexes and officers of educational departments.
- c). Instructors and supervisors of non-formal and adult education.

d) Members of DBE and village education committee, community leaders etc.

II). Resource support

- a) Extension activities and field interactions.
- b) Provision of service of a resource and learning centre for teachers and instructors.
- c) Development of locally relevant materials, teaching aids, evaluation tools etc.
- d) Serving as an evaluation centre for elementary schools and programmes of non formal education/alternative education.

III). Action research

Research and experimentation to deal with specific problem of the district in achieving the objectives in the areas of elementary and adult education is an important task of DIETs. Training received from SCERT should enable the faculty members to conduct action research to solve problems in teaching and extension work in the districts.

The DIET in each district is the nodal centre for coordinating programmes of teacher education. For achieving the objectives of the DPEP, the DIET took the active participation in all intervention. The DIET takes a major role in the effective implementation of all quality improvement programmes in pre-service and in-service. DIETs are functioning as a resource centre for distance education programme. Each DIET has the following departments.

I. Pre- Service Teacher Education (PSTE)

To serve as a nodal agency for the following:

1. (a). Organising pre-service courses for elementary school teachers and to provide academic input to other branches of the DIET.
2. To conduct in-service programmes connected with different subjects.
3. Maintenance of science laboratory, rooms for art education, physical education etc.
4. To provide inputs into programmes of all other branches of the institute.

5. Promotion of and support to co-curricular activities in areas related to the substantive work.

II. Work Experience (WE)

1. To identify locally relevant work experience area.
- 2 To help the educational authorities to plan the work experience activities in school and Alternative Education Centres.
- 3 To provide work experience related inputs into all programme and activities of the Institute.
- 4 To organise activities for cleanliness, upkeep and development of the institute, campus roads, playground, lawns, gardens etc.
- 5 To organise community service activities and study and visit work centres as part of training etc.
6. To maintain workshop for work experience activities.

III. District Resource Training Unit (DRU):

- (1) To assess educational authorities and co-ordinate programmes for Alternative Education/Non-Formal Education.

- (2) To conduct orientation programmes for instructors and supervisors of Non- Formal Education/ Alternative Education.
- (3) To evaluate and monitor the quality and efficiency of training programme of Non-Formal Education/ Alternative Education.
- (4) To undertake field interaction work vis-à-vis the Alternative Education/Non-Formal Education projects and centres of the district.
- (5) To undertake action research making Non-Formal Education/ Alternative Education more effective in all areas relevant for its collaboration with other DIET.

IV. In-service programmes, field interaction and innovation coordination branch (IFIC).

- (1) To assist additional authorities in planning and co-ordination of in-service education programme for elementary teachers throughout its districts, identify training needs and prepare annual calendar of all programmes to be held in the DIET.
- (2) To serve as the nodal branch for organising:
 - i. All kinds of in-service programmes.

- ii. Orientation programme for resource persons.
- iii. In-service education programmes for teachers in the district.

- (3) To evaluate and monitor the quality and efficiency of in-service programmes held in and outside the DIET.
- (4) To maintain a data base on all persons who undergo training at the institute and to organise follow up programmes.
- (5) To serve as a reference and resource centre for teachers.
- (6) To act as a nodal branch for all action research and field interaction activities.

V. Curriculum Material Development and Evaluation Branch (CMDE)

- 1. To adopt existing items and develop new ideas of curricular unit, teaching learning curricular units, techniques for evaluation, question banks, rating scales, observation schedules etc.
- 2. To undertake testing on a sample basis to assess achievement levels among learners.

3. To help educational authorities and elementary schools NFE/AE Centres implement a system of learner evaluation.
4. To conduct workshops for preparing evaluation tools.
5. To provide Curriculum Material Development and Evaluation related inputs to all other programmes of the DIET.

VI. Educational Technology (ET).

- (1) To develop in collaboration with concerned staff of the DIET and other resource persons, sample effective and low cost teaching aids for various subjects relevant to elementary education and teacher education.
- (2) To maintain audio-video equipments, computers etc.
- (3) To conduct workshops.
- (4) To conduct in-service programmes.
- (5) To provide Education Technology related inputs with all other programmes of the DIET.

VII. Planning and Management (PM):

- (1) To maintain an appropriate database for the district.

- (2) To conduct studies with a view to giving policy advice to educational planners.
- (3) To provide technical assistance to educational mapping, micro-planning formation of school complexes, institutional planning for schools etc.
- (4) To serve as a nodal branch in relation to all programmes of community involvement in basic education.
- (5) To conduct appropriate programmes for headmasters, heads of school complex etc. covering areas like leadership, motivation, educational administration etc.
- (6) To provide planning and management related inputs to all other branches of DIET.

Sarva Shiksha Abhiyan

Sarva Shiksha Abhiyan (SSA) is an Initiative for Universal Elementary Education recently launched by the government. The broad targets of the SSA are that all eligible children will be enrolled in school by 2003; that they will complete five years of schooling by 2007 and

eight years by the 2010. There are many dimensions of the SSA scheme.

But for effective implementation of programmes of teacher education it will be crucial that teacher educators possess professional attributes such as competence and commitment for teaching. The State Governments would have to change their policy of posting secondary school teachers, who generally neither have experience of teaching at the elementary level nor possess professional expertise for teacher education, as teachers in the District Institutes of Education and Training (DIETs) or as faculty in the State Council of Educational Research and Training (SCERT). A separate cadre of teacher educators may have to be created by following the qualifications laid down in the NCTE regulations. For achieving the objectives of the SSA it would be necessary that a network of DIETs, SCERT and IASE be put into place so that these institutions may provide support to each other.

National Council of Educational Research and Training (NCERT)

The National Council of Educational Research and Training (NCERT), established on 1st September 1961, is an autonomous organization registered under the Societies Registration Act 1960.

Role and Functions.

The NCERT functions as an academic adviser to the Ministry of Human Resource Development, Government of India. The main objectives of the NCERT are to assist and advise the Minister of Human Resource Development in implementing policies and major programmes in the field of education, particularly school education. In the formulation and implementation of policies and programmes in school education and teacher-education, the Ministry draws upon the expertise of the NCERT to a considerable extent. The council is fully financed by the Government of India.

Qualitative improvement of school education and teacher education is one of the major concerns of the NCERT. As part of its effort to improve the quality of education, the Council.

1. Conducts, aids, promotes and coordinates researches in all branches of school education:
2. Organises pre-service and in-service training of teachers, mainly at advance level.
3. Organises extension services for institutions, organisations and agencies engaged in educational reconstruction.
4. Develops and experiments with improved educational techniques, practices and innovations.
5. Collects, compiles, processes and disseminates educational information.
6. Assists the State and State-level institutions, organisations and agencies in developing and implementing programmes for qualitative improvement of school education.
7. Collaborates with international organisations like UNESCO, UNICEF, etc. and with national-level educational institutions of other countries.
8. Extends facilities for training and study to educational personnel from other countries, and

9. Serves as the academic secretariat of the National Council for Teacher Education (NCTE), the National Development Group (NGD) for the Asia and the Pacific Programme of Educational Innovation for Development (APEID) and UNESCO.

Programme and activities:

For the realisation of its objectives, the council undertakes the following programmes and activities.

Research:

Being the apex national body for research in school education, the NCERT performs many important functions to organise and support research and to train personnel in educational research.

The different institutes like

- (1) National Institute of Education (NIE)
- (2) Central Institute of Educational Technology (CIET)
- (3) Regional Colleges of Education (RCEs)

These are undertakes programmes of research related to curriculum planning and development, development of instructional materials, child development, educational psychology

and guidance, educational technology, teaching aids, teacher education, educational evaluation, etc.

Besides conducting research itself, the NCERT supports other research programmes by providing financial assistance and academic interaction to individuals and organisations. Assistance is given to scholars for the publication of their Ph.D. theses. The Council also awards Junior and Senior Research Fellowships so that educational problems are investigated and a pool of competent research workers is created. It has a computer terminal for storing, processing and retrieval of data. It also collaborates with international agencies in inter-country research projects.

Development:

Developmental activities in school education constitute an important function of the Council. This function has been further enhanced by the Council's added responsibility for implementing the National Policy on Education (NPE) - 1986. The Council's major developmental activities include the developing and renewal of curricula and instructional materials for various levels of school

education and making them relevant to the changing needs of children and society.

Training:

An important dimension of the Council's activities is the pre-service and in-service training of teachers at various levels—pre-primary, elementary and secondary and also in such areas as vocational education, guidance and counseling and special education. The pre-service teacher education programmes at the Regional Colleges of Education incorporate some innovative features such as integration of content and methodology of teaching, long-term internship of teacher trainees in the actual classroom setting, and participation of the students and the faculties in community work. Stress is also laid on the training of the key personnel of the states and of state-level institutions, and training of teacher educators and in-service teachers.

The teacher and the quality of his teaching have acquired paramount importance in all the countries of the world.

National Council for Teacher Education (NCTE)

With a view to regulating standards of teacher education in the country the parliament passed an act for establishing a statutory body called the National Council for Teacher Education (NCTE). In 1995 the NCTE act passed by the Parliament received concurrence of the states and for the first time in the country regulation of standards of teacher education became mandatory.

The Council is empowered to frame regulations required for carrying out its regulatory functions.

The act entrusted the following functions to the Council:

"It shall be the duty of the Council to take all such steps as it may think fit for ensuring planned and co-ordinated development of teacher education and for the determination and maintenance of standards of teacher education and for the purposes of performing its functions under this Act, the Council may

(a) undertake surveys and studies relating to various aspects of teacher education and publish the results thereof;

- (b) make recommendations to the Central and State Government, Universities, University Grants Commission and recognised institutions in the matter of preparation of suitable plans and programmes in the field of teacher education;
- (c) co-ordinate and monitor teacher education and its development in the country;
- (d) lay down guidelines in respect of minimum qualifications for a person to be employed as a teacher in schools or in recognised institutions;
- (e) lay down norms for any specified category of courses or training in teacher education, including the minimum eligibility criteria for admission thereof, and the method of selection of candidates, duration of the course, course contents and mode of curriculum;
- (f) lay down guidelines for compliance by recognised institutions, for starting new courses or training, and for providing physical and instructional facilities, staffing pattern and staff qualifications;

- (g) lay down standards in respect of examinations leading to teacher education qualifications, criteria for admission to such examinations and schemes of courses or training;
- (h) lay down guidelines regarding tuition fees and other fees chargeable by recognised institutions;
- (i) promote and conduct innovation and research in various areas of teacher education and disseminate the results thereof;
- (j) examine and review periodically the implementation of the norms, guidelines and standards laid down by the Council, and to suitably advise the recognised institutions;
- (k) evolve suitable performance appraisal system, norms and mechanism for enforcing accountability on recognised institutions.
- (l) formulate schemes for various levels of teacher education and identify recognised institutions and set up new institutions for teacher development programmes;
- (m) take all necessary steps to prevent commercialisation of teacher education; and

(n) perform such other functions as may be entrusted to it by the Central Government."

The NCTE act has given to the Council the power to make regulations generally to carry out the provisions of the act. Among other regulations that can be framed by the NCTE are those that are directly connected with the quality of teacher education, the norms and standards, guidelines on recognition of programmes of teacher education etc. These are in respect of:

The minimum qualifications for a person to be employed as a teacher under clause (d);

The special categories of courses on training in teacher education under clause (e);

Starting of new courses or training in teacher education under clause (f);

Standards in respect of examinations leading to teacher education qualifications referred to in the clause (g);

The tuition fees and other fees chargeable by institutions under clause (h);

The schemes for various levels of teacher education, and identification of institutions for offering teacher development programmes under clause (l);

Conditions required for proper conduct of a new course or training and conditions for granting permission.

The Council has framed norms and standards for different teacher education courses including Master of Education (M.Ed.). The act made it mandatory on all institutions that were conducting teacher-training courses prior to 17th August 1995 to apply to the NCTE within six months of the notification of the act for recognition of their course. Also, all institutions that intend to start course/s on teacher education have to apply to the NCTE for recognition of their programme. The norms framed by the council for different teacher education courses have been issued in the form of regulations.

The council performs its regulatory functions through four regional committees. For determining the territorial jurisdictions of the regional committees, the country has been divided into four geographical regions; East, West, North, and South. Teacher

education institutions are required to apply to the concerned Regional Committees under whose jurisdiction they fall. Regional Committees take the help of visiting teams of experts for inspecting institutions on their behalf. Norms and standards for each course framed by the council have fixed the essential physical and instructional infrastructure including the faculty and the supporting staff that an institution must possess for conducting the courses on teacher education. Regulations on norms and standards are used as reference for deciding the grant of recognition to an institution for conducting a course on teacher education. The Act has also provided for an Appeals Committee, which is empowered to examine the appeals of institutions against decisions of the Regional Committees. The NCTE has gained acceptance as a regulatory body largely because of the provision in the ACT that now teachers in schools belonging to the State can be appointed from among only those persons who have undergone teacher training in an NCTE recognised institution.

The Council laid down regulations prescribing specific guidelines for B.Ed. through correspondence with regard to jurisdiction, eligibility criteria, number of seats, tuition fees, entry qualifications, programme components and staff structure etc.

Certain recent developments have added new dimensions to the maintenance of norms and standards in teacher education. The increase in the demand for teacher education and its diversification has led to its commercialisation. The teacher education programmes have become popular due to their 'utility' to both the organisers and the beneficiaries. Throughout the country private agencies have come into teacher education under self-financing scheme. Teacher education, which began initially by payment of stipends to entrant teachers, as thinking then was that a teacher's role was significant to the society, now depends on collection of high fees from students. Instances of charging of donations/capitation fees are also rampant. The entry of private initiatives in teacher education can be attributed to the potential of generating money by running teacher education courses with comparatively small investments compared to

professional courses in engineering and medicine. This seems to have facilitated by the space made available by the State by gradually withdrawing from its responsibility of running institutions both under its direct control as well as aided by it, as per the norms and standards of the NCTE.

The status of teacher education as a professional activity has also come under threat not only because of low rewards attached to it compared to other professions, but more so because of recent policy of state governments on recruitment of teachers.

The NCTE will fix minimum qualifications for teachers in schools. With the efforts of the NCTE alone it may be difficult to ensure quality and standards of teachers. The costs involved in pre-service and in-service teacher education may have been the factor that made the State to find shortcuts such as recruitment of para-teachers and gradual withdrawal from meeting the needs of its institutions. There may be systemic constraints because of the enormity of our problems but the provisions of the NCTE Act will ultimately remain the guiding signposts.

The Council has framed norms and standards for different teacher education courses including for courses of education of teacher educators such as the Master of Education (M.Ed.). Norms and standards for each course framed by the Council have fixed the essential physical and instructional infrastructure including the faculty and the supporting staff that an institution must possess for conducting the courses on teacher education. Regulations on norms and standards are used as reference for deciding the grant of recognition to an institution for conducting a course on teacher education.

The NCTE document - 'Teacher Education Curriculum: A Framework' 1978, provides a set of guidelines for the reorganisation of the teacher education curriculum in the context of the 10+2+3 pattern of education, recommended by the Education Commission. These guidelines called for drastic changes in the traditional approach to teacher education starting from the basic philosophy of teacher education to its objectives, structure, content and methodology.

The major recommendations of the NCTE Curriculum framework¹⁴ were:

- (1) Adoption of task-oriented and performance-based teacher education.
- (2) Relating the curriculum of teacher education to national ideology and problems.
- (3) Providing flexibility for relevance, continuing education and mobility.
- (4) Adoption of inter-disciplinary and integrated approaches and task-oriented teacher education.
- (5) Reform of practice teaching and evaluation.

To accomplish these recommendations, the NCTE Curriculum Framework suggested.

- (1) Reduction of weightage for theory course.
- (2) Introduction of 'working with the community' as an integral part of teacher education.
- (3) The development of a training programme package for core skills, and special skills in the different subjects.

- (4) Provision for Socially Useful Productive Work (SUPW), and health and physical education.
- (5) Orienting practice teaching towards the development of Competencies and skills.
- (6) Adoption of the semester system and encouraging innovative practices, experimentation and research.

Taking a holistic view of teacher education reform, the NCTE Framework also recommended several organisational and administrative reforms like financial assistance for the implementation of the programmes, controlling the growth of sub-standards of teacher training institutions through manpower planning, enforcement of norms for accreditation of institutions and certification of teachers.

Norms of NCTE

NCTE has prescribed certain norms, which must be followed by every teacher education institution. Besides essential teaching

staff, technical support and administrative staff, the institution must have physical infra structure.

The teacher education institution should be located in a noise free atmosphere. It, should be relatively pollution free. There should be good transportation and communication facilities and availability of water and electricity. The land area must provide enough space for institutional building and for future expansion and adequate open space for organising games and sports. Essential requirements for sixty students are as follows

Physical Infrastructure

(Essential Requirement for 60 students)

S.No	Requirements	Number	Area
1.	Classroom	2	60 sqm each
2.	Multipurpose room - Seminar room	1	100 sqmts
3.	Hall	1	125 sqmts
4.	Multipurpose laboratory for computer, Laboratory for Educational Psychology Laboratory for Science Practicals	1	Approximate 100sqmts
5.	Library room with reading facilities for at least 30 students	1	50sqm + including storage space

6.	Work experiment room	1	60sqmts
7.	Principal's room with attached toilet facilities	1	25sqmts
8.	Staff room	1	60sqmts
9.	Office room	1	40sqmts
10	Store room		25sqmts
11	Common room with adequate space for women students		
12	Separate toilets for girls, boys, teachers, and staff.		25sqmts
13	Provision for drinking water facilities in at least two places		
<u>Desirable</u>			
1.	Seminar room	1	100sqm for 50 persons
2.	Laboratory for physical science Natural Science, Psychology and Educational Technology	1 each	75sqm with 15sqm for storage
3.	Small group work room	2	25sqmts
4.	A large multipurpose hall	1	150sqmts
5.	Separate school subject room		30sqm each
6.	Separate room for teachers	1	20sqmts
7.	Canteen if possible on co-operative basis		
	<u>Play Ground</u> <u>Essential</u> Small open space for athletics, badminton, Volleyball, basket ball, throw ball		500sqmts
a.	<u>Desirable</u> Play ground for big outdoor games - football, cricket		1000sqmts

	etc.		
b.	Indoor games room		
	Residential area - Desirable (Provision for quarters) Principal quarters, Staff quarters, Hostel for women, Hostel for men and etc.		

Requirements of Furniture.

Desk, Bench, Chairs, Tables, Dais, Notice board, Bulletin board, Laboratory work table, Reading table, Shelves, Almirahs, Racks, Screen, Storage racks, Librarian filing, cabinet, and Additional furniture in hostel facilities etc.

Education Technology Items

For strengthening the new educational system, Educational technology has taken good part. For attaining quality of education, new techniques can be adopted by means of educational technology. The teacher trainers have to promote the practices of employing effective techniques and strategies.

Desirable: Radio, Television, Video cassette recorder, Audio cassette recorder, Slide cum filmstrip projector, Over head projector,

Arts materials for preparation of charts slides and models etc., materials for transparencies, Amplifier, Loud speaker, Micro phone, Still camera, Video camera, Computer, etc.

Library Books - at least 3,500 books (desirable)

Laboratories for Physical Science, Natural Science, Psychology and Language laboratory with dual system. Besides of all infrastructural facilities the NCTE has prescribed academic inputs curriculum transactions, etc. and laid down conditions for financial resources and expenditure.

New Directions

The National Policy on Education (NPE) 1986 gave paramount importance to teachers status and their training¹³. In fact, the NPE had stressed that the emphasis will be laid on overhauling the system of teacher education.

The teacher-education is now being considered an important part of the educational system and the qualitative improvement of the teacher is its prime aim. Traditionally, the teacher was more or less concerned with passing on the knowledge acquired by the

previous generation to the present students. And, in doing so, he is influenced by the economic, ecological and the cultural conditions of the school. The teacher is considered not only as a transmitter of cultural heritage, he is also expected to invent new horizons of knowledge and introduce it to his students effectively, thus leaving his own imprints on them¹⁴. The quality of a teacher depends on the quality of the teacher education programme, which he has undergone. Thus teacher education and the teacher become two sides of the same coin. Teacher education can be visualised as the 'process' and the teacher as its 'product'. Initiatives for a qualitative improvement of teacher education are linked with several factors such as the quality of students entering the teaching career, the relevance of teacher education curriculum, inputs into the professional preparation of teacher educators quality of in service training programmes, teacher accountability, etc.

2.2.Expenditure on Teacher Education

Committed expenditure on education at all levels has been the responsibility of state governments. The Central government makes provisions for expenditure on education generally for stimulating developments of certain aspects and for centrally sponsored projects and schemes. The percentage of outlay on education to the total public sector outlay declined from 7.2 percent in the First Five-year plan (1951-56) to 2.6 per cent in the Sixth Five-year plan (1980-85). It however again increased to 2.8 percent during the Seventh Five-year Plan (1985-90). Nevertheless, this outlay was quite inadequate to meet the financial needs to education at different levels. The National policy on Education envisaged that from the Eighth Five-year Plan onwards, the outlay on education would exceed 6 percent of the national income. In fact the percentage of outlay on education actually provided in the eighth plan was much below the proposed level.

The development of teacher education should be viewed and understood in the background of the aforesaid circumstances and financial constraints.

The financial allocation for teacher education is included in the departmental plans in the budget provisions for secondary education as well as university education.

Due to the increasing demand of trained teachers, the number of secondary teacher training institutions has also been increasing year after year. In the year 1991-92, there were about 101 elementary teacher-training institutions, 19 secondary teachers training colleges in Kerala with a total enrolment of 6790. According to the statistics assuming that the bulk of teachers, teaching at the middle level have had training from elementary teacher training institutions, the annual demand is very high.

2.3. Taxonomy of Cost of Education

Cost of education is of utmost importance for educational planning. It is most essential for educational planning in general and planning of the resources in particular. Unit costs are also efficiency indicators. The inverse of unit costs is after all, an index of total factor productivity in the production process. Estimates of costs are essential for estimating resources required for educational sector and for various sub_sectors of education. They also help us in understanding whether resources are optimally allocated between different layers of education. The statistics on cost of education also are themselves indicative of the efficiency of educational system, besides facilitating one to find out the cost effectiveness or cost-benefit ratio of the educational system as a whole and of the different levels of the system. Analysis of costs of education helps in formulating the programmes towards equality in educational opportunities, and equality in educational achievements between different groups of population, different regions, etc. Cost statistics

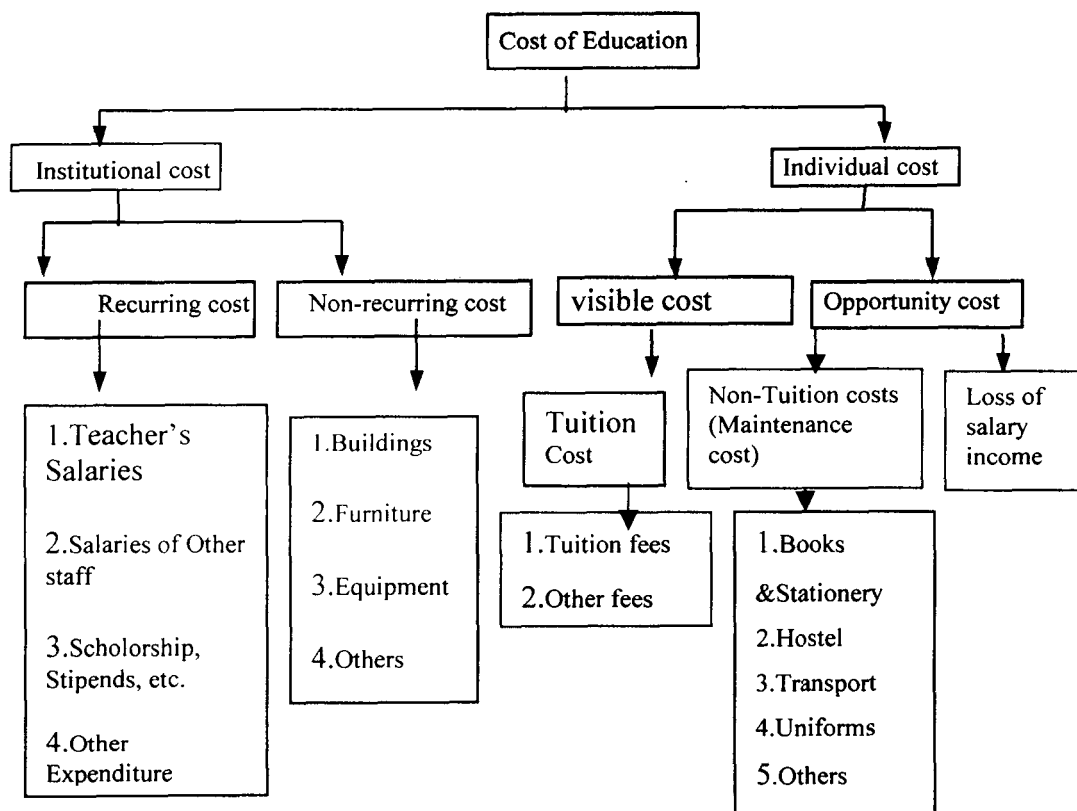
themselves indicate the inequalities both in quantity and quality of education between different groups of population and the regions. Thus, statistics on costs of education are both general and specific purpose tools in that they are used for different purposes, mainly for planning, forecasting, analysing, decision-making and policy formulation. Besides, they are also used for making inter-regional, inter-group and inter-level type comparisons in education.

Thus there are several kinds of uses of cost analysis in educational planning. To summarise, cost analysis is helpful

- (1) in estimating requirement of resources for education,
- (2) for proper decision making with regard to inter-sectoral and intra-sectoral allocation of resources,
- (3) for monitoring and improving of utilisation of resources
- (4) for institutional planning, and
- (5) for analytical purposes, such as to measure internal and external efficiency of investments in education, to measure inequalities in education, etc.

Costs of education in economics are incurred at two domains, Private and Public, which may also be referred to as individual and institutional domains¹⁵ respectively. The prevalent taxonomy of cost as used in education is discussed below with a view to facilitating further discussions, analysis and interpretation of the cost of education and its application to teacher education and for a bird's eye view the same is presented as Chart.

Taxonomy of Cost of Education



(a) Institutional Cost of Education

Cost incurred at institutional level, whether the institution is a government or a private or a private aided is called institutional cost of education⁴ though many a time they are referred to as government or Public costs. The institutional costs of education are generally analysed adopting any one of the following ways of classification.

- Variables and fixed costs of education
- Recurring and non recurring costs of education
- Current and Capital costs of education.

One may expect that but for the terminology the three classification mean the same. In other words, the fixed, non recurring and capital costs mean the same viz. the costs incurred almost once for all and the costs that do not vary along with a change in the input /output in the educational system. On the other hand, the variables, capital or recurring costs refer to the costs that are incurred every year and have direct correspondence with the

inputs or outputs of the system. Viz. the pupil. It may be noted that recurring costs are defined as one that are incurred every year and non-recurring costs are incurred generally once for all. Recurring and non-recurring costs are synonymous with variable and fixed costs respectively.

Fixed costs are defined as those costs that do not change with a change in the number of pupils e.g.: cost on buildings, while variable costs vary with every change in the number of pupils⁵. E.g.: cost on teacher salaries, laboratory materials, scholarships etc. In other terms fixed costs do not change with increase in the number of pupils, but variable costs may follow a different pattern. One cannot rigidly argue that certain cost are fixed and others are variable. Sometimes distinction is made between short run fixed costs and long run fixed costs. For example cost of buildings forms long run fixed costs. While cost on teacher's salaries etc. are referred to as short run fixed cost. The fixed costs include the costs on the following items;

- a) Purchase of land and buildings or costs of construction of buildings.
- b) Purchase of furniture
- c) Purchase of durable equipments, furniture etc.
- d) Costs on other non-recurring items.

With regards to the fixed costs, it is quite difficult to calculate the unit costs per year. Generally in many studies rate of depreciation is calculated⁶.

The recurring costs include:

1. Salaries and allowance of teaching staff
2. Salaries and allowance of non-teaching staff
3. Scholarships, stipend, fee concession
4. Purchase of non-durable or consumable material
5. Costs on maintenance and repairs of building, furniture, and equipments

Many a time capital costs and current costs are synonymously used with fixed costs and variable costs. The distinction between current costs and capital costs is not precise. It can be argued that

goods such as books, which last several years, could be counted as capital equipment, but these are almost always counted as current costs. In practice, the distinction between current and capital goods is often a matter of administrative convenience. Expensive and long lasting items such as buildings are paid for out of a separate budget, but they are a part of capital costs⁷.

From economist's point of view, building costs provide an example for both direct and indirect cost. Direct cost is the capital cost that is paid as price for the purchase of the building. For planning process we take the annual depreciation cost of buildings, taking into consideration the lifetime of the building. This indicates the annual value of the use of the building in general. However, one should take into account the opportunity cost of the investment in the purchase of the buildings. If the money had not been used for this purpose, it would have been used for a different purpose and that can be opportunity cost of the building. The opportunity cost indicates the economic usefulness of the asset. On the whole, the benefits foregone which would have been available to the society in

the absence of educational programmes would be the social opportunity cost of education which might be different from individual opportunity costs. All scarce resources allocated to education involve opportunity costs. Allocation of scarce resources may even have negative consequence for the quality of life locally.

(b) Individual Cost of Education

Individual costs of education are those costs of education incurred by the students or by parent/guardian or by family as a whole. Sometimes they are also referred to as private costs. Individual costs essentially consist of direct costs and indirect costs. Direct costs are those, which are directly visible. They include all money expenditures incurred. They include not only payments to colleges in terms of tuition fee and other fees and charges but also other expenditure incurred on purchase of books, stationery, uniform, hostels, traveling expenses etc.

Individual costs also include indirect costs that are not so directly visible. They are generally referred to as opportunity costs

of foregone earnings. Opportunity costs refer to value of student's time. They refer to earnings that would have been earned had the student chosen not to go for education, but chosen to go to labour market. In the earlier years of debate in economics of education, there was a lot of controversy on the appropriateness of considering opportunity costs of education. It is now well recognised as an important component of total costs of education. Empirically opportunity costs of teacher education are treated as equivalent to the earnings of the works of the age group.

Individual cost of education include (i) fee, (ii) out of pocket costs on education excluding fees, such as the maintenance expenditure, expenditure on books, stationery, transport, uniforms, hostels, etc.; and (iii) the foregone earning, or the opportunity cost that is given up to obtain education.

Though Kerala is a highly literate state, it faces crucial unemployment. Hence the investigator found it difficult to calculate the opportunity cost of teacher education in the present study. It is

generally argued that for planning purpose it is sufficient for the state to know about the institutional or the public costs of education. This is not wholly true. It is equally important for the state to have a clear idea of the individual cost of education and the extent to which individuals will be ready to bear their visible and invisible costs of education. This information is absolutely essential to make proper planning of resource for education in general to formulate policies and to plan public expenditure on scholarships, stipends, free studentship etc. in particular. Ignoring these aspects is too costly and it will result in a wide gap between the expected enrollments and actual enrollments. A substantial part of the problem of non-attendance and the dropouts could be attributed to ignoring the aspects of individual costs including the opportunity costs in resource planning. But many studies on costs of education in developing countries have been confined to institutional cost only. Hence in the teacher education institutions a few seats are reserved for departmental candidates who are employed by the educational

department. So this type of opportunity costs is taken into account in this study.

Social Costs (Total costs) of Education

The sum of individual costs and institutional costs is the total cost of education.

Individual cost = House hold expenditure on education +
Opportunity cost

Institutional cost = Recurring cost + Institutional cost,

Social cost = Individual cost + Institutional cost

Unit Cost of Education

Unit cost of education refers to cost per unit. In practice, units in unit costs of education refers to pupils enrolled. It is also argued that the number of pupils actually attend the institution should be taken as the units. Alternatively a cost of education is calculated per unit of output. i.e., per successful student,. This is also known as 'effective' cost of education. The effective cost of education takes into account the wastage in education. The difference between the

effective costs and what can be called 'normal' costs of education reveals the efficiency of the given level of educational system.

Sometimes it is also suggested that unit costs of education should be calculated per child of the relevant age group population. This may indicate to some extent the efficiency of the educational system, efficiency being measured in terms of the coverage of relevant age-group population by the educational system. In addition, for certain purposes of comparison, costs of education per capita, taking the whole population of the concerned region into account, are also computed.

Time Dimension of Unit Costs

The statistics on costs of education should refer to a time period. Generally unit costs of education are calculated per year. It is reasonable to calculate the unit costs by the duration of a given level / type of education. So in this study investigator tried to calculate the unit cost, per year.

Thus an analysis of teacher education scenario of Kerala reveals that there are different institutions of teacher education

under different types of management. Through there are four Universities namely Kannur University, Calicut University, Mahatma Gandhi University and Kerala University responsible for the evaluation of the students and for the reforms in connection with teacher education, conspicuousness differences exist in the multifarious areas of financing of teacher education. This situation also reinforces the relevants of the present study.

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REVIEW OF RELATED LITERATURE

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Chapter - III

REVIEW OF RELATED LITERATURE

3.1.Studies on Economics of Education.

3.2.Studies on Cost of Education Abroad.

3.3.Studies on Cost of Education in India.

Chapter III

REVIEW OF RELATE LITERATURE

In this chapter the review of the related literature is presented. For the sake of convenience the review is categorised under three sub titles.

- 1.Studies on Economics of Education.
- 2.Studies on Cost of Education abroad.
- 3.Studies on Cost of Education in India.

The area of present investigation seems to be so untrodden that there is no danger of duplication of work already done. But a review of literature is still necessary in order to get a perspective of the area and to know the different ways in which the different components of the present problem or related problems have already been approached by other researchers. Therefore the review has to be done mainly from the point of view of gathering perspectives and knowing the approaches in those segments or subconcepts related to the problem where substantial work has been

done. The review therefore has to be broad and extensive rather than deep and intensive.

The present chapter consists of related studies made by scholars in the field of economics of education. This is conceived as a collection of perceptions of both educationists and economists on the role of education in economic development, importance of human resource development, implication of investment in and returns to education, and cost analysis in education.

In short, the key to the vast storehouse of published literature may open doors to selection of significant problem and development of explanatory hypothesis and provides helpful orientation for definition of problem, background by selection of procedures and collection of data for interpretation of results.

Analysis of literature revealed that, very few studies were conducted in this area. The literature available in this area are summarised and presented under the following heads:

1. Studies on Economics of Education

2. Studies on Cost of Education Conducted in abroad

3. Studies on Cost of Education conducted in India

3.1. STUDIES ON THE ECONOMICS OF EDUCATION

1. Ostheimer (1947)¹ in his comprehensive study on the relationship of student charges to financing of higher education concluded that "although it would be economically advantageous for institutions to raise student charges, the total enrolment would decline. Students most affected would be those with least ability to afford the higher fees and thus the economic barriers to equality of educational opportunity would be that much greater".

2. Abramovita, Moses, (1956)² in his studies on the economic contribution of education followed residual approach and concluded that a large part of the explained residual as a return on investment in skills and related abilities of which a large part was a clear contribution of education.

3. The Year Book of Education (1959)³ records a study made in Washington on the cost of attending colleges. 15000 students of 110 colleges in 41 states formed the sample. It is estimated that during the academic year 1956-57, on the average, the students spent \$1.493

to attend private institution and \$2.046 to attend public institution. Of this, one sixth was for educational costs while five sixths formed the living costs in public institutions while in the private institutions, this ratio was found to be 1/3 : 2/3. Sources of income varied, such as students savings (46%) and family contributions (40%), scholarships (4.8%) and loan (1.5%) etc".

4. Shultz (1961)⁴ calculated a figure for the total annual investment in education in the United States from 1900 to 1956, by adding together the possible earned income foregone by those enrolled in schools, colleges and universities and expenditure for formal education, of all types for high school education, this investment in education increased 135 times from \$81 million in 1900 to \$10.944 million in 1956 and for College and University education, the increase was 100 fold from \$90 million in 1900 to \$9903 million in 1956 all expressed in 1956 figures.

5. Chaudhari, D.P. (ed.) has tried to workout the economics of education, health and welfare, Delhi in (1964)⁶. The survey indicated that 90 percent of the Delhi university graduates were absorbed in

the public sector. It appears that wage determination in the Indian educated labour market is influenced to a considerable extent by factors other than the marginal product of labour.

6. Dutt (1964)⁵ has tried to work out the unit cost of education of Hariyana colleges in 1965-66 and found that : a) Unit cost of education in terms of per student cost of Hariyana College was Rs.311-337 b) The unit cost of education was highest in the case of state colleges i.e., Rs.403-424. c) Private women's colleges had the lowest unit cost i.e., Rs.252-268. Laboratory based courses are more expensive than classroom based courses.

7. Nalla Gounden (1965)⁷ calculated stock of human capital for two points of time by multiplying the working population (corrected for mortality and migration classified by age, sex and education with respective unit cost of education). His estimates of net human capital formation for the decade 1950-51 to 1960-61 was Rs.2,378 crores.

8. Nalla Gounden (1967)⁸ revealed the fact that the cost of primary education was financed more by the public than by students. In addition it is worth to be mentioned that both the cost

and productivity of education received from better schools and colleges would be higher than those of education from poor ones.

9. After reviewing both the progress of education and economic growth in Punjab, Singh (1972)⁹ provided macro level estimates of the public educational expenditure classified by source. He outlined the criteria for allocating the outlay on education in terms of allocation according to consumer references. Equalisation of opportunity and maximisation of growth, this study concluded that the mobilisation of resources fell short on the need in this sector.

10. Sharma (1973)¹⁰ conducted a study on the "Economics of Education with special reference to Educational Development of Madhya Pradesh." The study examined the development of education in Madhya Pradesh during the different five-year plan periods with a view to estimate the proportion of achievement in respect of the expenditure, and revealed the regional inequalities of education in the state.

11. Datta's (1974)¹¹ study was on the "Economics of Education in West Bengal Colleges "with special reference to size, technique and

location, the data on college environment were collected on the basis of the number of students enrolled, flow area – student ration, book-student ratio, student- teacher ratio, institutional cost per student and the age of the colleges. The quality of student inputs was found to closely determine the quality of student output. No significant influence was not at on the factors of the college environment on the student output. Costs were however found to have declined with the increase in the size of the colleges.

12. Ginsberg (1975)¹² found out the relation between three distinct areas of education work and manpower policy and warned that instead of spending enormously for better social benefit, emphasis should be given to appropriate frame work for analysing human resources. He has placed utmost importance in setting up realistic goals for our education and insist on accountability.

13. A study by Nanjudappa (1976)¹³ reveals that there was a growing gap between the cost of higher education and the fees charged and also there is a severe maladjustment between output of the University and the needs of the economy.

14. A study of 20 low income countries conducted for the World Bank (1978)¹⁴ examined the relationship between levels of education and production efficiency found that other things being equal farm productivity increased on an average by 6-9 percent, if the farmer had four years of schooling. Again, literacy does increase his productive efficiency and would help him to modernise his environments.

Education develops the human resources by increasing the productive capacity of individuals. If the productive capacity is not enhanced by education, the education imparted is to be considered a waste and the human resources under developed. This necessitates a close examination of the impact of education on productivity and human resource development.

15. The purpose of the investigation by Mathew and Gopinathan Nair (1979)¹⁵ was to understand the phenomena of the rising demand for higher education in Kerala by studying the 'Evening Colleges' which were started in Kerala in 1965-66. Major findings of the study were: 1) The proportion of employed students was 58.6%,

2) Occupation distribution of students showed high clustering for teachers, clerks and typists 86%, 3) However lower class occupations like agricultural and industrial workers were also represented 9%, 4) Age range of sample was between 23-40, 5) Income of employed students was average, 6) Major sources of finance for employed students was own income, 7) The main reasons for discontinuance were financial difficulties. ,

16. In a study Tilak (1980)¹⁶ discovered that (1) those with higher levels of education earn more at every stage than those with less education. (2) the differentials grow larger and larger as one moves up the educational ladder and also with every advance of age. (3) there could be large social returns to investment in the education of women provided effective measures to improve their participation in the labour force and to reduce wastage in their education are adopted.

17. Jaleel (1980)¹⁷ has made a simple correlation approach to assess the economic contribution of education. Enrolment of students at the secondary stage as the educational index of percapita

income of Kerala during the same period as index of the level of economic growth enrolment statistics collected from the office of Director of Public Instruction, Kerala from 1973-74 to 78-79 and the percapita income estimated by the Bureau of Economics and Statistics of Kerala were data used for the study. The correlation between enrolment and the percapita income was found to be significant for the indices under study. It was observed that for increase in per capita income, enrolment in educational institution should be increased.

18. In another study Jaleel (1980)¹⁸ found out that education contributes to economic growth by creating a favourable attitude to family planning, in a study using simple co-relation approach the taking enrolment of students at the secondary stage, as the educational index and per capita income of Kerala. During the same period as index of economic growth the co-relation between enrolment and per capita income was found to be significant for the indices under study.

19. Bhaskaran Nair (1990)¹⁹ classified the problems in the field of higher education in India under the following heads:

- (1) Problems of unplanned and rapid growth
- (2) Problems related to finances of higher education
- (3) Problems connected with costs and returns of higher education.

20. Johnson (1990)²⁰ made an indepth study about the Mozambican State and Education and commented that "In a period of crisis in the economy the state will be tempted both to save on education and to increase the systems productivity by putting more people through the higher levels with better results on academic examinations" Education system performed as an avenue for collective consumption and political participation and as a provider of popular legitimacy for the state through investing in mass basic education.

21. A recent analysis of UNESCO data (1991)²¹ on public expenditure on education in 90 countries shows the overall share of teachers enrolment in total public current expenditure on education

to be around two thirds. These additional enrolments and rising salaries have tended to drive up the share of GNP developed to education, especially in the developing countries.

22. The expenditure pattern of students depends to a great extent on parental income, which in turn is determined by their occupation. A pilot study on the expenditure pattern of college students (1992)²² by UNESCO, reveals that the salary income from government employment is the main source of income. It is 51.80% student's households.

3.2. STUDIES ON COST OF EDUCATION ABROAD

1. Edding (1958) in his study of 18 countries with cross-sectional data found the coefficient of correlation between percapita educational expenditures and percapita income (Net National Product at Factor Cost) to be 0.992 in 1954 and 0.984 in 1950. In their study of 95 countries for 1960, Blot and Debeauvais (1965) found the correlation.

2. Shoups (1959) study gave rather extreme results particularly at the primary level, where, using illiterate agricultural workers as

the base group, the rate of return was estimated at 130 per cent. When the earnings of the illiterate urban workers were used as the control group, the rate dropped to 82 per cent, which is still a very high figure by any standard. The rate of return for secondary education was equal to 17 per cent and the rate for university graduate was 23 per cent.

3. Becker (1960)² in a study, using the U.S. Census data, estimated private rate of return on college education for unemployment, mortality and ability made on the estimated rates of return. The author also computed the corresponding social rates of return. He compared these estimates with the rates of return on physical capital and concluded that in terms of direct economic benefits there was no evidence of under-investment in college education. The private rates of return, according to the study, were 12.5 per cent in 1940 and 10 per cent in 1950 and the social rates of return were 9 per cent each in these years. In another study on returns to education of college graduates, Becker (1964) found that the private rate of return was 14.5 per cent in 1939, a little more than

13 per cent in 1949, 12.4 per cent in 1956 and around 15.0 per cent in 1958 and 1961. These estimates were not adjusted for ability differences.

4. Harberger and Selowsky (1960)⁴ estimated social rates of return in Chile in 1959, using case studies for estimating income of the labour force by years of schooling and the costs of education. The rates were found to be 25 per cent for the primary level, 16.9 per cent for the secondary level and 12.2 per cent for university level. Blaug (1967) in his study with the help of sample of about 2,800 male employees in five large firms, estimated both private and social rates of return in respect of different educational qualifications above school-leaving age. The private rate of return for the ordinary university degree was found to be 8.5 per cent while the social rate of return was 6-per cent.

5. The study made by Henderson-Stewart (1965)⁵ was based on the random sample of 6500 male heads of households aged 20 and above in Great Britain. In the study an alpha coefficient of 0.6 was applied on the earnings streams pertaining to 1964. The study found

that the private and social rates of return to three years of secondary education were 13 percent and 12.5 per cent respectively. However, for the three years of higher education the private rate of return was 14 per cent and social rate of return was 6.5 percent.

6. In his study on the returns on education in Israel, Klinov-Malul (1966)⁶ relied on the family savings survey of 3,0000 urban families in 1957-58. The study estimated the private rates as 27 percent for primary, 6.9 per cent for secondary and 8 per cent of university education. The corresponding social rates were 16.5 per cent, 6.9 per cent and 6.6 per cent respectively.

7. Using the earnings data of micro census survey consisting of 200,000 people in Germany conducted in 1964, Schmidt and Baugarter (1967)⁷ estimated unadjusted rate of return for male university graduates at 4.6 percent and that for female graduates at 6 per cent. Higher rate of return at 7.9 per cent was recorded for female graduates from vocational colleges. Hanoch (1967) computed expected age earning profiles by years of schooling and found that four years of schooling at high school level, yielded a rate of return

of 16.1 per cent and that the extra four years of college education gave a profitability estimated at 9.6 per cent.

8. In a study based on the data from the Central Bureau of Statistics on the earnings of employees in industry and Government service of Netherlands, De Wolf and Ruiter (1968)⁸ estimated private rate of return on higher education in Netherlands at 10.4 per cent and the social rate based on a sample of 10,715 males and females working in urban areas in Bogota during the periods 1963-66. Whereas the completely unadjusted rates of returns to the three educational cycles were 40 per cent, 24 per cent and 8 percent for primary, secondary and university education respectively, the adjustment made of participation of labour force reduced these rates to 33 percent, 21 percent and 6 percent respectively. When adjustment for unemployment factors was made the rate of return for primary education was further reduced to 28 percent. However, this adjustment did not alter the rates of the other two categories, namely secondary and university education. The results of the study

led him to conclude, "Today rates of returns are rather insensitive to different patterns of expansion of the education system."

9. The study on returns to education in New Zealand by Ogilvy (1968)⁹ was based on the starting salaries of employees in various state and quasi-state enterprises. He assumed that the salaries would increase at 11 per cent per year over the working life of the individual. In this study an alpha coefficient 0.5 was used throughout. The private rates of return were 20 per cent for secondary schooling and 14.7 per cent for a university degree. The social rates for secondary education and university degree. The social rates for secondary education and university education were 19.4 per cent and 13.2 per cent respectively.

10. Selowsky (1968)¹⁰ computed a variety of social rates of return on the basis of various assumptions. His study revealed that unemployment and the adjustment of coefficients ranged from around 0.30 for primary, 0.60 for secondary and 0.80 for university. The private rates were found to be 32.7 percent, 30 percent and 27.4 percent for primary, secondary and university levels of education

respectively. The social rates were estimated as 21.7 percent, 19.2 percent and 8.8 percent respectively for the respective levels.

11. Using earnings data of Government employees, teachers, insurance employees and members of professional organisations such as engineers and agriculturists of Norway, Arrested (1969)¹¹ estimated several rates of returns for senior secondary and university education. The private and social rates of return to university education over secondary education were found to be 7.7 per cent and 7.5 per cent respectively.

12. Thias and Carnoy (1969)¹² calculated rates of return on education in Kenya using a special survey of data. In their study, they attempted to separate the benefits of additional schooling from other socio-economic factors and ability and also to project the rates of return. In the study, regression analysis was used to relate the earning differentials to educational variables (age, tribe, parent's literacy and father's occupation). In the estimation, adjustments were made for taxation, mortality and return at 5.5 per cent. At the level of secondary education these rates were found to be 8.5 per

cent and 5.2 per cent respectively. Using a rather small sample of the urban labour force comprising 684 men and 316 women over 10 years in Bogota in 1965, Schultz (1968) estimated rates of return. According to this study, the private rate of return on the basis of adjusted earnings were 18.4 per cent for primary schooling, 34.4 per cent for secondary schooling and 4.4 per cent for university education. The social rates of return were 15.3 per cent, 26.5 per cent and 2.9 per cent respectively.

13. Psacharopoulous (1969)¹³ estimated private and social rates of return to investment in education. His study was based on the reports of the 1960 census and starting salary offers to the graduates of the University of Hawaii. The study found that the private rate of return for elementary education had an infinite value, while it was 5.1 per cent for high school and 11 per cent for college. The social rates were 24.1 per cent, 4.4 per cent and 9.2 per cent respectively for the above three levels of education. The private rates for a Master's Degree and Doctorate Degree were estimated as 6.7 per cent and 12 per cent respectively in 1965.

14. Based on a sample survey data from firms employing ten and more persons, Bowman (1970)¹⁴ estimated rates of return to investment in education in Japan for 1959, 1961 and 1966. The rates were unadjusted for growth, ability or other factors. The study made various profitability estimates. He concentrated on the private rates for upper secondary, which were found to be 8 per cent in 1954, 7 per cent in 1961 and 5 per cent in 1966. For four years of university education the rates were found to be 19 per cent, 10 per cent and 13 per cent in the respective years.

15. Castro (1970)¹⁵ conducted a study, *Investment in Education in Brazil - A study of two Industrial Communities*. He produced social rate of return estimates for below Morisante and Itabirito, based on a combination or assumptions about costs and length of study. His basic rates for Itabirito were 21% for elementary 10% for the Teacher Training College and 14% for the University.

16. In another study Carnoy (1970)¹⁶ on a cross sectional sample wage earners collected data on the wage or salary of the employees, the number of completed years of schooling, age, father's

occupation, the type of industry in which employed and the city of residence. The results of the regression showed that when schooling alone was used as an explanatory variable.

17. Hewalt (1970)¹⁷ calculated private and social rates of return for 1962. His study was based on a survey of 1,200 male and female employees of Brazil in urban and rural areas. Assuming zero direct costs of schooling, the private rates were estimated as 11.3 per cent for primary, 22.2 per cent for the first cycle of secondary, 20.5 per cent for the second cycle secondary and 38.1 per cent for higher education. The social rates were 10.7 per cent, 17.3 per cent, 17 percent and 14.5 per cent respectively for the above categories.

18. Maglen and Layard (1970)¹⁸ on the basis of age earning profiles of employees in the Electrical Engineering Industry in 1966, estimated the private returns to a first degree, a master's degree and a doctorate, as 12 per cent, 10.5 per cent and 12.9 per cent respectively. The corresponding social rates were 8.1 per cent, 5.7 percent and 7.4 per cent. In a study of the returns to education in Malaysia, using the data obtained from a socio-economic survey of

30,000 households in 1967-68, Hoerr (1970) estimated both private and social rates of returns for six levels of education. Adjustments of an alpha coefficient of 0.60, labour force participation rate and unemployment factor were made to the earnings data. The study found private rates as 12.9 per cent, 15.6 to 21.1 per cent and 11.4 per cent for primary, secondary and university education respectively. The social rates computed were 8.2 per cent, 12.8 per cent to 15.6 per cent and 5.8 per cent respectively for the above categories.

19. Relying on the Census data of 1970 of Puerto Rico, Carnoy (1970)¹⁹ found that private rates of returns adjusted for labour force participation for males were over 100 per cent for primary, 26.4 per cent for secondary and 23 per cent for higher education. The social rates estimated were 19.8 per cent, 20.1 per cent and 11.9 per cent respectively for primary, secondary and higher levels of education. Using a 1968 earnings sample of 2,500 people with post secondary educational qualifications, Morris and Ziderman (1971) have provided the profitability evidence of investment in education in Great Britain. Social rates for both full-time formal education up to

the doctorate level and qualifications based on part-time education were calculated. The study found that while a first degree earned an unadjusted return of 10.8 per cent and a doctorate earned 1.6 per cent, the highest part-time qualification resulted in a return of over 20 per cent.

20. Sleby Smith (1970)²⁰ calculated benefit cost ration for courses in technical colleges for 1964-65. His sample was men who were almost exclusively employed by large private companies. The foregone earnings of the control group were based on earnings in agriculture, increased by reference to the average weekly earning of manual workers in manufacturing. The earning differentials were standardised for mortality, unemployment and geographical region. Alpha co-efficient of 0.5, 0.65 and 0.8 were used and various growth factors were adopted.

21. Blaug (1971)²¹ estimated rate of return to investment in education in Thailand. He used sample survey data collected from 5,000 males and females in the Greater Bangkok area in 1970. Earnings were standardised apart from the usual age, sex and years

of schooling variables for the education and occupation of parents, ethnic origin, urban and rural, private and public school, vocational or academic school, hours of work, sector of employment, size of firm and occupation. According to Blaug, the degree of standardisation corresponded approximately to a coefficient of 0.55. The estimated adjusted private rate of return was 24 per cent and social rate 22 per cent for lower primary. These were 16 per cent and 10 per cent for higher secondary. For university education they were 11 per cent and 7 per cent respectively.

22. In the study of Dougherty (1971)²² the same wage data sources of Solewsky were made use of for estimating social rates of return for 1969. They were 21.1 per cent, 20.7 per cent and 7.4 per cent for primary education, secondary education and higher education respectively. With the help of alternative expansion paths of the educational system, Dougherty also computed rates of returns referring to the future. One of his conclusions was that "if higher education continues its present expansion in Columbia, the social

rate of return to that level of education will virtually be zero by 1985".

23. Bottomley (1972)²³ found in his study, 'Studies in Institutional Management in Higher Education', of Bradford University that increase in the class size reduced the cost per student. It was also seen that laboratory based courses are more expensive than class room based courses capital and maintenance costs vary between 27% and 49% the total cost per Laboratory based courses and between 31% ad 39% for class room based courses. Teaching costs vary Between 43% to 55% of total costs for laboratory based and 22% to 35% for classroom based courses.

24. James Maynerd (1982)²⁴ in his study 'Some Micro Economics of Higher Education found differences in per student cost due to the size of institutions. His important findings were:

- a. Long run cost functions of institutions of higher learning was traditionally 'U' shaped.
- b. Parabola was supervisor to a linear function for explaining variations in per student costs in institutions of higher learning.

- c. The size of the institutions was a dominant variable in explaining variations in cost per student among similar students.
25. Shortlidge (1973)²⁵ applied the cost benefit technique in the evaluation of agricultural education and estimated private and social rates of return. Limitation of the study is that capital cost and rent of buildings in the absence of depreciation value were not taken into account in the institutional cost.
26. Study on 'A limited cost analysis of technical training in two year degree programmes 1977 to 1980' was conducted by Knapke Thomas Adloph,(1982)²⁶ This study investigated the differences in cost per graduate, cost per full time educational student, graduates and job placement between/among Ohio technical colleges, Community Colleges and branch campuses offering 2 year technical business and technical engineering programmes.

The findings indicated that branch campuses had the highest ratio of graduates to freshmen for the two-year business degree. Over the years of the study, encompassing entrants from 1975-78

and graduates from 1977 to 1980 with 34% completing that degree 60% completed the engineering degree at branch campuses.

The difference in cost per Ohio student for the 3 types of campuses ranged from an average \$1,640 (branch campuses) to \$2,014 for technical colleges for technical business programmes. For technical engineering programmes, the average costs per student over 3 years ranges from \$2961 for technical colleges to \$3297 for the branch campuses.

27. Perz-Richardez Alenjandrow's (1982)²⁷ study is concerned with critical review of education cost benefit analysis with determining the marginal and average private and social rates of return to schooling in Mexico.

The benefits of schooling were measured by the observed earning differentials of wage recipients of a given age but with different years of schooling completed. This data as education, age and earnings was obtained from cross sectional sample form. Cost estimates were based on 1967-1977 school year data.

Findings of the study include the following:

- a). Earnings were highly correlated with schooling, at every age the highly schooled earn more than workers with less schooling.
- b). With regard to educational costs social cost is much greater than private cost.
- c). The private rate of return range from 485 for elementary education 10 to 19 for higher education and social rates form .246 to .142 for the same levels.
- d). This study rate does not pretend to give a definite answer to the problem of the relative merits of the Mexican educational Investment.

3.3. STUDIES CONDUCTED IN INDIA

1. Study on 'Parental cost in the education of children in Government Arts and Science Colleges for the three year degree', was conducted by Krishna Pillai (1965)¹. This study considered the problem of educational cost in general.

2. Study on 'Parental Cost in the Education of Children in the Engineering colleges' was conducted by Prasada Chandran (1965)². Five engineering colleges in Kerala State were selected as the sample and questionnaire and interview techniques were used as the tools.

It was found that the average annual parental cost of the Engineering Course was Rs.1473.00 for pre-engineering courses, Rs.2000.00 for first year of the degree course Rs.1778.00 for the second year Rs.1965.00 for the third year and Rs.2194.00 for the fourth year. An average annual cost worked out to Rs.1882.86.

3. A similar study on 'Parental Cost in the Education of High School Children' was made by Ramachandran Nair (1965)³. His study revealed that the outlay for an average child in a secondary school for the three years of education was rupees 2436/-. The cost per child per year was Rs.812/- The average cost for standards X was 128 percent above the average cost for standard IX. In addition his study revealed that there are wide variations in the cost depending upon the location, and the type of school. According to him the average figure for the rural schools stands at Rs.2102/-

while the same for the urban school was Rs.2368/- the difference may be because of the variation of cost of living in cities and in rural areas. He concluded that the parental cost in the urban area was 12.2% above the parental cost in rural areas.

Difference of parental cost was, seen for the different type of schools like those for boy's schools; girls school, mixed schools and residential schools. The average parental cost for the three years in an average boys school was Rs.2331/- girls school was Rs.2543/- and mixed school Rs.2438/-

4. Panchamukhi (1965)⁴ estimated the maintenance cost of higher education of the Bombay University. The study excluded capital cost and opportunity cost of education. Some of the significant findings were:

1. Expenditure per student on academic and general administration was Rs.18.26; library per reader was Rs.71.52 in 1963-64.
2. Recurring expenditure on science and technical education was higher than that in arts and social sciences and

instructional expenditure as percentage of total recurring expenditure was generally low (about 30 percent) for law, commerce and arts under-graduate education, and it was 40 to 50 percent for medicine, technical and science subjects.

5. Amin and Pathak (1967)⁵ estimated the per student annual cost of education in 1964-65 in certain faculties of Sardar Patel University. The cost included the total amount of direct and indirect expenditure incurred by the individuals and institution. The maintenance cost, which forms a part of individual's cost, is calculated by taking only the additional cost of maintenance, which a student had to incur on his joining the college. The study did not attempt to estimate the unit cost for the entire course in different faculties.

6. Harbhajan Singh (1967)⁶ made an analysis of some aspects of higher secondary school costs and their relationship to quality of Education.

The study concluded that the unit-pupil cost was sufficiently uniform in different schools and sufficiently stable within a school over a given period. It was also found that there is no correlation between the unit pupil costs and quality of education as revealed by scholastic achievement in school final examinations.

7. Kamat (1968)⁷ attempted to estimate the recurring annual institutional expenditure per student at the under graduate and post-graduate courses in the University of Poona. The study has revealed that the per student costs for the four year period covering the pre-degree and the three year degree courses in commerce, arts and science were approximately Rs.1,200/-, Rs.1,500/- and Rs.1,800/- respectively. The higher costs for the science courses are, of course, due to the cost of laboratories and equipments. The per student annual cost of post-graduate instruction in the University Departments is four or five times as high as that of founder-graduate courses in the colleges. The costs of technical education such as medicine and engineering at the under graduate level are again four

or five times as high as those of general education in arts and sciences.

8. A study on 'Costs of Education in India' during the period 1951-1961 was conducted by Mathur (1968)⁸. The main aims of the study were to find out the growth and variations in educational expenditure during 1951-1961. The education expenditure in India rose from Rs.114 millions to Rs.3444 millions during the decade 1951-61 giving an average rate of growth of 11.7% per annum. The expenditure per pupil increased from Rs.44.2 to Rs.71.8.

9. Pandit, H. N. (1970)⁹ studied the effectiveness and financing of investment in Indian Education, during the first Three Five Year Plans (1951-1966). The study revealed, among other things, that adjustments due to wastage led to an increase in social unit cost of different level of education from 19.6 to 38.4 per cent, the secondary and higher secondary stages of education appeared decidedly unprofitable, there were poor returns for vocational skills developed through formal education, social and private rates of return diminished with an increase in the level of education, the returns of

middle education were the highest followed by primary education and those for the higher education were the least, within the higher education, professional and technical education had an edge over the general education in science and arts, and higher education had reached a stage when both students and society did not find it a profitable area to invest.

10. Dutt, N., (1971)¹⁰ A Study in Unit Cost at Primary Education Stage in Hariyana, The major aim was to estimate the unit cost of education at primary stage in Hariyana. The data pertained to institutional cost (A) –capital cost on land, building, boundary wall, well or hand-pump, residential quarters for teachers and other personnel institutional cost; (B) – equipment cost, cost of library books, playing material, audio-visual aids, black boards. Patri, talkies, etc; institutional cost;(C) – non –divisible recurring cost on pension, allowances, etc., electricity charges, part time servant charges, repairs, postage, stationary examinations, social functions furniture, etc institutional cost;(D) –divisible recurring cost on scholar ships, free ship, etc. Expenditure incurred on pay and

allowances of the staff was the next expenditure head. Student cost on tuition fee, funds, textbooks, stationary etc. and mid-day meal formed a separate category of expenditure. Opportunity cost or income forgone by students while they studied was calculated as equivalent to the amount they would have earned had they not attended school.

The main findings were; 1. The capital cost came to Rs.365.00 per school per year or Rs.2.20 per student per year. 2. The equipment cost came to Rs.97.00 per school per year or Rs.0.60 per student per year. 3. The non-divisible recurring cost was Rs.13,971.00 per school per year or Rs.84.15 per student per year. 4. The divisible recurring cost was Rs.48.00 per school per year or Rs.0.30 per student per year. 5. The student cost was Rs.16.10 per student per year. 6. The opportunity cost was Rs.140.60 per student per year. 7. Other cost (expenditure on dresses, shoes, etc) was Rs.11.00 per student per year. 8. The total visible expenditure per student per year was approximately Rs.225. The invisible

expenditure was Rs.21 per year per student. 9. The total of visible and invisible expenditure per student per year was 276.

11. Kusum prem (1971)¹¹ conducted a study on unit cost of M.Ed. Training in Punjab University (1963-64 to 68-69). It was found the unit cost of M.Ed is substantial. The suggestion was that a few properly staffed centres might be maintained in the country for that level of education. In cost considerations the age of the institution was an important factor and therefore should not be over looked. The current cost should be brought down to constant prices.

12. Philip. H Coombs and Jacques Hallack (1972)¹² took up a study on 'Managing Educational Costs', at the international level for some of the developed and developing nations.

The objective of the study was to have cost analysis for assessing the feasibility of educational projects and to know the cost and consequences of introduction of educational reforms. They also carried out case studies in some countries. Some of the important findings are:

- a) Educational costs vary not only from one country to another but within the same country from one mode/system to another.
- b) A unit cost of education shows a rising trend in the long run in the formal system of education.

Economics of scale are an important factor in improving efficiency.

Raising the enrollment to the optimum size can reduce cost per unit.

This can be accelerated with advantage in the case of distance education.

13. Samuel Paul (1972)¹³ in his cost benefit study of the two-year post-graduate programme of the Indian Institute of Management found a positive social net present value. He made 32 estimates of social net present values based on alternative assumptions regarding rate of discount, alpha coefficient, foreign exchange and elasticity of demand for management education.

14. Misra. A; (1973)¹⁴ made a study of the causes that were responsible for changes in the pattern of financing of education in India over a period of time. In his work on grants-in-aid in education, he has discussed five characteristic principles of grant-in-

aid, viz-adequacy, flexibility, stability, simplicity and security. Study was conducted on different countries and different states in India. His important findings were

- ◆ There was no uniform policy of grants in and followed through out the country.
- ◆ The concession in income tax on donation to educational institution may bring more funds to education.

Private enterprise in education (privately managed institution) emerged as commercial enterprise.

15. Azad, J.L., (1974)¹⁵ studied the financing of higher education in India by analysing the pattern of higher education finance-aggregate as well as institutional - so as to identify the pattern and procedure of financing higher education adopted by the central and state governments. It found that the annual rate of growth of expenditure over the years under study (at constant prices) was the highest (twelve percent) in the case of higher education as compared to 9.1 per cent in the case of overall education and 3.4 per cent in the

case of national income and of the educational expenditure as a whole, the expenditure on higher education indicated a much higher rate of growth.

16. Nigam (1974)¹⁶ studied the finance of the University of Rajasthan. The major objectives of the study were: (1). To find out the sources of income of the University of Rajasthan: (ii) to study the relative importance of these sources of income, (iii) to examine the steadiness and adequacy of the income; and (iv) to ascertain whether the university was subjected to financial stress that affected its operational efficiency and independence. A period of eleven years from 1960-61 to 1970-71 was selected for the study of finances. The data were collected from published annual budgets of the university, annual reports of the university, minutes of the meetings of the various bodies of the university published from time to time and university handbooks and notifications. The financial position of the university was analysed in the context of autonomy, adequacy and flexibility. On the basis of the findings, it was opined that (a) a state level body in the pattern of UGC would help in setting the

financial issues better, (b) within the university, selective allocation of funds to different departments would promote better settlement, and (c) the per capita material and educational facilities should be stabilised.

17. Panchamukhi.P.R.(1974)¹⁷ in "*A measurement of the Effects of public Expenditure with special reference to Public Education and Health Expenditure in India*" has estimated the resource costs and the opportunity costs of education and pointed out that the government should bear a larger proportion of these costs.

He found a close relationship between human capital (education and health) and output and labour productivity during the year.

18. Another study on 'the Cost of Education in Basic and non Basic Schools of Delhi' was made by Shukal (1974)¹⁸. The main objectives of the study were: a) to analysis the actual cost involved in running basic and non-basic schools. b) To identify the various factors contributing to the cost. c) To determine the relative

importance of these factors. d) To find out which of the school system was more costly. Findings of the study were the following:

a) as compared to traditional primary schools the unit cost of education was slightly higher in Junior Basic Schools. The main reason for this disparity is the difference in the teacher-pupil ratio.

b) the salary cost of teachers accounted for about 80 to 90 percent of the total capital cost. c) The average per capita cost estimated to be Rs.68.00 and less than half a rupee out of the total was spent for craftwork. Out of this little expenditure also about Rs.26.00 per annum was recovered in the form of final craft production.

19. In a different study Azad, J.L., (1975)¹⁹ analysed the patterns, the procedures and the policies of financing of the institutions of higher education in India, and assessed the adequacy or otherwise of the system of financial administration with a view to identifying its bottlenecks. He also examined certain basic issues of financial policy like purposes of central and state grants, fee policy, mechanism of student aid programme, respective responsibilities of the central and the state government etc.

20. Bose. B.K. Banerjee. P.K. Mukherjee S.P. (1975)²⁰ estimated the cost of elementary education in West Bengal. They determined the component and differentials of the unit cost of elementary education.

The study revealed that the average recurring cost per student on non-teacher items was not much and had not shown any remarkable increase over the years. The average total recurring expenditure per student in an elementary school in West Bengal was Rs.57.08 and Rs.51.75 among the schools in Calcutta and in the remaining schools, during 1969-70. It rose to Rs.62.07 and Rs.59.92, respectively during 1972-73. The investment on elementary education in West Bengal was unsatisfactory. More investment was a dire necessity.

21. Thatte, Y.V (1977)²¹ made a clear distinction in the study of 'cost of secondary education in Maharashtra'. He compared to analyse institutional expenditure on secondary schools and differences in per pupil cost in the three constituent regions of the state. viz. Western Maharashtra Vidarbha and Marathawada.

22. A theoretical basis for estimating comprehensive cost of education was provided by Chalm (1978)²². The study was to find out the cost per student, per year for education in the Arts, Commerce and Science Colleges. Average cost per student in single faculty science college was the maximum and that in the single faculty commerce college was the minimum.

Increase in the average cost per student from 1973-74 to 1977-78 had been about 2 times in all categories of colleges except single faculty commerce colleges.

Expenditure on staff emoluments and essential expenditure was 75% of the total cost during the previous five years.

Average cost per student in a college with strength of less than 2000 was Rs.1009.21 in 1973-74 and Rs.2169.66 in 1977-78. For a college with student strength of more than 2000 it was Rs.458.40 in 1973-74 and Rs.791.64 during 1977-78.

During 1973-74, the per student cost in a college with arts, science and commerce faculties was Rs.486.35 and the same in 1977-78 was Rs.445.58.

23. Ramanujan, M.S. (1978)²³ et al studied to attempt a comparative analysis of the 'Pattern of expenditure and per student cost of degree and diploma course in Engineering and technology in India. The objectives of the study was to attempt a comparative analysis of the patterns of recurring expenditure at two different points of time and to analyse the determinates of the patterns of per student expenditure. Important findings were:

a). Expenditure on training constituted a major portion of the total expenditure of all engineering colleges. This was followed by expenditure on supporting services and that on welfare services. Salaries and allowance of all categories of staff accounted for nearly 65% of the total expenditure.

b). Per student expenditure was observed to be varying widely among all colleges. In 1968-99, per student expenditure ranged between Rs.691 and Rs.4048 14.

24. Gugate S.B. (1979)²⁴ studied 'the unit cost of higher education for Arts, Science and Commerce colleges in Maharashtra. The study

was to find out the cost per student, per year for education in the Arts, Commerce and Science Colleges. It was found that average cost per student in single faculty science college was the maximum and that in the single faculty commerce college was the minimum.

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During 1973-74, the per student cost in a college with arts, science and commerce faculties was Rs.486.35 and the same in 1977-78 was Rs.145.58.

25. Shah. A.B. and Inamdar C.S. (1980)²⁵ conducted a study of the unit cost of post graduate education in the University of Poona.

The study sought to determine in an approximate manner, the unit cost of higher education at the postgraduate level. His findings show that the income and expenditure of the University had steadily gone up from its inception in 1948-49 to 1977-78. Since 1974-75 the University had a deficit budget. The accumulated deficit exceeded Rs.10 million in 1979-1980. Cost per student at post graduate level incurred by the University exclusive of the expenditure on general administration and common facilities, had grown by nearly 50% from Rs.2369 in 1973-74 to Rs.3462 in 1977-78.

26. Somaiah. M (1980)²⁶ in a study 'Effective cost of Education in Karnataka', attempted to calculate and compare the effective cost incurred at the elementary stage for five consecutive academic years in Karnataka.

The effective cost was defined as the number of years spent per pupil for completing a given number of classes of schooling. He proved that the effective cost of girls' education was higher than that

of the boys' which could be remedied by increasing incentive to encourage girls to remain in school and making curricular programmes more relevant to the needs of girls, both urban and rural. It was found that there was a tremendous decrease in the effective cost within the period under study, which could be attributed to the various incentive programmes of the state.

27. Ramachandran (1981)²⁷ conducted 'a study of some problems of Higher Education in Kerala' with special reference to the financing of education.

The objectives were:

- a). To identify vital problem areas in higher education such as enrolment, expenditure financing and planning.
- b). To assess the total costs in higher education classified under relevant institutional categories.
- c). To compare costs for different aspects of higher amenities.
- d). To compare investment of different agencies in higher education like State Govt. the U.G.C. etc.

The major findings of the study were:

- a. More than 82% Arts and Sciences colleges in the State were under private management
- b. The average annual rate of growth of enrolment for general education courses was about 11.8% during the period under study.
- c. The expenditure on University education showed phenomenal increase when the total expenditure increased by 11.7 times the amount spent in 1957-58 the share of higher education increased by 28.61 times over the 1957-58 amount.

The bulk of public expenditure on higher education was spent for the development of Arts and Science colleges in Kerala. Rs.1262.93 lakhs was the direct expenditure on Arts & Science Colleges in Kerala. Rs.1262.93 lakhs was the direct expenditure on Arts and Science colleges during 1975-76 & constituted 80.5% of the total expenditure on higher education during that year.

28. Garg. V.P. (1981)²⁸ constructed 'Cost Analysis of the University of Punjab'. It's aim was to expose cost analysis of the

economic and educational processes of internal organisation of the Punjab University. Important finding was that the level and composition of the University expenditure during these years showed an upward trend with recurrent expenditure increasing by 10.04% and capital expenditure by 1.77% per year. The University expenditure was mainly affected by inflation displacement and development.

29. George P.P (1982)²⁹ made a comprehensive study in "Economics of Higher Education in Tamil Nadu". The objectives of the study were to evaluate economic factors that influenced higher education, to find out the impact of economic factors on the choice of various courses by the students and to determine the private and social cost of acquiring higher education.

The major findings were:

- a). There was no correlation between the cost per pupil and the enrolment at primary and university general education stages.
- b). There had been an increase in government share of total expenditure on education at all stages except at the primary stage.

- c). Females, SC/ST were still lagging behind at every stage of education as shown by the co-efficient of equality.
- d). Considering the combined annual total expenditure of the day scholars and hostel residents, the private expenditure on professional education exceeded that of general education by 72% and 49% respectively.
- e). The urban-based families benefited most from higher education.

30. Gupta (1982)³⁰ presented 'A study of private costs of schooling girls at the elementary stage'. Main objectives of the study were to find out the nature and details of the private costs of schooling girls at the elementary stage, to find out overall private costs of schooling girls at the elementary stage and to compare the cost incurred in classes V or VIII in schools under different management.

Findings of the study were:

- a). Girls studying in Std. I to VIII under different managements was required to pay different amounts of fees and funds annually.

The average cost per pupil in standards I to VIII ranged between Rs.19.19 and Rs.33.29.

b). Total costs of books and supplementary reading materials per pupil in different standards also were different from school to school. eg. In standard I minimum cost per student was Rs.1.30 to the maximum Rs.15.50. For standard VIII the corresponding figure were Rs.17.70 and Rs, 27.25 respectively. Average cost per pupil taking all the rations and all the students together was Rs.22.87.

31. A study of private cost on school education in a socio-cultural perspective of an agricultural village was conducted by Xaviour (1983)³¹. The investigator selected a sample of 150 heads of household who were sending their children to schools. The method adopted was case study and the tools used were questionnaire, observation and interview technique. The major objectives were

- 1) To study the proportion of income spent on education by the people of the village

- 2) To compare the costs incurred by different income groups in the education of their wards.
- 3) To know the difference in costs incurred by different education groups on the education of their wards.
- 4) To compare the cost incurred by the heads of the household on the education of their wards.
- 5) To study the causes of educational backwardness of the village and
- 6) To suggest measures for the improvement of education in the village.

The major findings of the study were average annual private cost of the attentive families for a lower primary student is found Rs.123.67 for upper primary students non-attentive families were spending Rs.255.67

32. Agnez Rodriguez (1984)³² conducted a study on the opportunity cost of school education in a coastal area in the existing socio-cultural and development perspective. Main objective of the

study were; a) to find out the factors leading to the opportunity cost of education as revealed through sources of construction of houses. b) To estimate the opportunity cost of education of children in that coastal area.

The study revealed the following facts:

- a). Opportunity cost of education for children studying in classes I - IV was Rs.148.44, Rs.241.12 for children studying in standards V - VII and Rs.384.00 for children studying in classes VIII - X in a year.
- b). Education had no significant influence on the earnings of the peoples.

33. Yadav, R.S., (1985)³³ made "A critical study of financing of Secondary Education in Hariyana, PhD. Edu., Kur.U.", the objectives of the study were (i) to study the policies, patterns, procedures and quantum of financing of secondary education, (ii) to study the priority accorded to secondary education vis-à-vis other sectors in the five year plans, (iii) to examine sources of income and items of expenditure in secondary schools of Hariyana, and (iv) to make

suggestions for stream lining the patterns, procedures and policies of financing of secondary schools of Hariyana.

The expenditure on total general education and secondary education increased faster than the state's net domestic product. The expenditure on secondary education in terms of state's net domestic product indicated far more accelerated progress than on education as a whole. There had been wide variations in the per capita and per student (direct) expenditure on total education and secondary education in Hariyana. The districts, which were spending more per capita on general education, were also spending more on secondary education. But the district, which had higher cost on overall education, did not have the same position in respect of secondary education. The ratio between recurring and non-recurring expenditure at secondary stage in 1966-67 was 88:12, by 1979-80 the total touched 98:2.12. The proportion of expenditure on staff salaries and other items indicated that the state government had been providing increasingly higher outlays for teachers and other staff salaries in comparison with allotments for educational infrastructure

like buildings equipment and libraries. The expenditure on scholarships and stipends had increased in absolute terms, but as a percentage to total recurring expenditure it had declined. An analysis of the component of non-recurring expenditure had revealed that the expenditure on building had increased whereas that on equipment and libraries had been gradually declining. The developmental expenditure on education as well as secondary education had always exceeded the outlays provided in the plans, except during the period of interregnum.

34. Dandavate, P., (1986)³⁴ has made a study on the "Cost of primary Education in Greater Bombay, 1960-80, at School Level, PhD. Edu., Bom.U.". The objectives of the study were (i) to observe the cost of primary education in the case of private schools as well as municipal schools established prior to and after 1960-61 till 1980, (ii) to study the trend of total expenditure, i.e. cost of primary education during 1960-80, and (iii) to study whether the period of establishment had any bearing on the total expenditure per pupil.

The main findings of the study were: 1) Staff salaries per pupil dominated the unit cost in all types of schools. 2) Teacher's salaries per pupil dominated the unit cost. 3) Among aided and unaided schools, the proportion of school maintenance expenditure per pupil to unit cost had come down, while in the case of municipal schools it had increased over the period under study. 4) The proportion of unit cost on auxiliary facilities was less than one percent. 5) In the case of aided and unaided schools it was spent on medical help only, whereas in the case of municipal schools expenditure on this head was incurred on books, medical help, school feeding, etc. 6) At constant prices, teacher's salary per pupil as well as unit cost increased in all the schools over the period of 20 years under study. 7) Maintenance expenditure influenced the unit cost to a large extent. 8) The proportion of expenditure on fees per child to total expenditure per child was highest among all components in all schools. 9) The cost of education on the part of parents of private schools was higher than that of municipal schools because of no fees, no transport charges, less expenditure on books in municipal schools. 10) Children

studying either in private or in municipal schools did not forego their learning significantly. 11) The size of the school, teacher's salaries per pupil and maintenance expenditure acted as major determinants of primary school costs.

35. Harikumar (1986)³⁵ conducted a study on the cost benefit analysis of mathematics education in the University of Kerala. The sample consisted of 251 teachers and students. The method adopted was normative survey

The main objectives of the study were:

- a. To estimate the Private cost of mathematics education in Kerala at B.Sc, B.Ed, M.Sc and M.Ed. levels.
- b. To trace the patterns of earning of mathematics teachers at various levels - by constructing Age, Education, Earning profiles.
- c. To study the pattern of the waiting period of mathematics teachers in Kerala.
- d. To estimate the private rate of return from mathematics education in Kerala.

The study revealed that the private rate of return to mathematics at B.Sc., B.Sc. B.Ed. and M.Sc. levels were 10.20, 17.17 and 38.6 respectively. There is positive correlation between age, education and earnings, the average period of waiting for the Mathematics teachers at the B.Sc B.Ed and M.Sc levels are two years, three years and four years respectively.

36. Jayasree (1986)³⁶ tried to estimate the unit cost of Vocational Higher Secondary Education in Kerala. She established that national educational expenditure has been increasing rapidly during the three decades. Resources being scarce the educational planner must allocate the existing resources with general area. Higher secondary was a terminal stage in the education of a student. While introducing the Vocational Higher Secondary Education in the State of Kerala Government tried to minimise the expenditure on staff and buildings, avoid duplication of infrastructural facilities and utilise the space capacity of the various industrial and other establishments.

37. Mathew (1987)³⁷ conducted a study on the cost analysis of education in rural area. The major objectives of the study were:

To estimate the private cost of education in the area

To study the pattern of waiting period of the earning member of the area according to the level of education

The major findings of the study were the average annual private cost of a first standard student is Rs.753.91, third standard student is 511.28, fifth standard student is Rs.837.50, sixth standard student is Rs.922.76, tenth standard student is Rs.1058.58 and pre degree student is Rs.1880.19.

38. A study was conducted by K.M. Simon (1988)³⁸ 'on the costs of distance education learners'. This study was designed with the objectives, a) to find out various types of private costs involved in distance and conventional systems of education, private costs in relation to certain factors like sex, age, socio-economic status etc. b) To find out whether or not distance education is less expensive than the conventional education in terms of private costs. Important findings were a) different kinds of fees identified as different types

of private cost in the conventional system. b) Expenses for transportation, uniform, personal matters, extra curricular activities, social activities, excursion and practice teaching are also identified as different kinds of private costs in the conventional systems. The conventional students have a high private cost than the distance learners.

39. Premakumari (1989)³⁹ conducted '*A study on the unit cost of Teacher Education in Madurai Kamaraj University.*

Main objectives of the study were:

a) To study the unit cost of teacher education in Madurai Kamaraj University. b) To study the influence of certain factors like, sex, age, caste, profession of parents, income of parent, and locality on the unity cost. c) To find out the influence of students' economic background on their expenditure for education.

Important findings were the following:

1) In recurring cost, teaching staff's salary was the highest item. 2) Unit cost of rural area was greater than urban area. 3) Non-recurring cost was higher in urban area than in rural area. 4) In private cost,

collateral cost was higher both in urban and rural Areas. 5) Unit cost of girls' education was high in rural and urban area. 6) In rural area girl's unit cost was higher than boys. 7) In urban area 'other groups' category of professions boys and girls unit cost was higher than professionals and other employment group. 8) Unit cost of rural college was lower than urban colleges. 9) In urban area scheduled boys and girls have high unit cost. 10) In rural and urban area children of the parents of the high-income group have a higher unit cost.

40. Philip (1992)⁴⁰ conducted A Study on the cost analysis in higher education in the state of Kerala.

The major objectives of the study were:

1) To identify the trends in expenditure in higher education. 2) To trace the state investment in education and per capita expenditure on education. 3) To find out the source of expenditure for higher education in Kerala. 4) To identify the determinants of costs both internal and external.

The major findings of his study were:

The major trend in the expenditure was that the percent of total plan expenditure was been gradually declining during each successive plan period. At the same time, the total expenditure on education has more than doubled. The percapita expenditure on education has increased in almost all states of the Indian union. The government largely financed the educational activities.

41. Abusaleh Shariff and P.K. Ghosh, (2000)⁴¹ have conducted a study on "Public Expenditure on Elementary Education: A case of Indian States." Major findings were: annual average growth in expenditure on total education was 10.2 per cent. From 1982-91 after this period it has declined and was 3.4 per cent during the period 90-91 to 95-96 this trend is more and similar for all levels of education. Total education budget has declined. The share of education in the government budget of most states has also declined significantly. Investment in education has been seriously affected which has had an impact on the quantity and quality of education. State wise

figures reveal that per pupil expenditure on education, especially by the less developed states has also declined.

42. G. G. Naidu and Vibha Joshi, (2000)⁴² have made study on "The Economics of Wastage rates in Primary Education". According to the study the population in age group of 6-11 are not going to school completely for various socio economic geographic reasons. Although, there are attempts to provide minimum education to this children through formal or non-formal education, it will be Herculean task on the part of the government to provide education facilities for all this children's due to ever increasing population. Nature of investment required in establishing new education institutions and appointment of teaching and non-teaching staff and other maintenance expenditures will be voluminous. Reducing dropout rates and eliminating repetition may help to some extent in avoiding wasteful expenditure.

43. C.B., Padmanabhan,(2000)⁴³ has made a study on "Financing and Costing for Effective Primary Education through Human development-with special reference to Tamil Nadu". The Major

Findings were: firstly the planning of education at the micro level should be linked with appropriate programs of poverty removal and particularly with social or human development through the provision of minimum needs which include effective Universalisation of primary education, adult education or non formal education, primary health facilities portable drinking water, public distribution of food grains and housing all of which contribute to poverty removal. Secondly, to put it differently all the antipoverty programs must be properly targeted and their implementation including monitoring should be with the newly constituted local bodies as recently announced. But there should also be in all the programmes an education and training-primary education or non-formal education. Thirdly, the approach itself is over determined. As has been rightly observed ' In the final analysis one cannot escape the conclusion that the centres antipoverty portfolio is riddled with much needless confusion and complexity in its conceptualisation, design and administration. Basically this is due

to the use of a limited set of instruments for promoting many objectives, which are not properly integrated.

44. Malathy Duraisamy and P. Duraisamy,(2000)⁴⁴ have conducted a study on the “Cost , Wastage and Effectiveness of Primary Schooling in Tamil Nadu”. The recurring institutional and direct private costs are computed and compared across the schools of three types of management-public, private aided and private unaided. For all schools, the annual recurrent institutional cost is about Rs.1000/- per student and it is Rs.1025/- in a government school. The unit cost is highest in the private aided schools, which is about 54 per cent more than the cost in government schools and over five times that of unaided schools.

An interesting finding is that primary education in government schools is not free and households do incur some expenditures on books, uniforms etc. The average household expenditure per child works out to be about Rs.71 per year in a government school. The direct cost of schooling is 7 times more if a child attends private unaided schools instead of government run

schools. The issue of wastage in primary education is addressed using indicators like dropout, progress through schools and probability of completing primary schooling.

45. J. L. Azad (2001)⁴⁵ conducted a study on "Financing of Secondary Education in India". The main objectives were:

- to examine the context of overall financing of education .
- to findout the behaivour of educational finance with particular reference to secondary education.
- to find out the problem of educational finance and mobilizing resources for education.

The analysis has brought to focus the following points:

1. Considered sector wise, there has been marked increase in the expenditure on elementary education as percentage of GNP. All other sectors have declained. Secondary education has been subjected to very large fluctuations in this respect.
2. The bulk of expenditure under the Central and State government is on revenue account. The share capital

expenditure, which is equally essential for the balanced development of education, is only marginal.

3. The expenditure for education under the five-year plans has declined considerably as proportion of the total plan outlays.
4. There have been wide fluctuations in the intra sectoral priorities as observed from the percentage of expenditure allotted to various sectors in the plans. After continuous downslide of upto the seventh plan the emphasis has shifted to elementary education. This has resulted in the virtual de-emphasising of secondary, university and technical education, at least in terms of allotment of plan resources. A similar position emerges, when considered in terms of plan and non-plan expenditure for selected years.
5. The bulk of expenditure on secondary education under the Central government is on the maintenance and development of Central schools and Navodaya

vidyalayas. There is very little expenditure on other schemes of qualitative improvement of secondary education.

6. State governments are also spending about 90% of their budgets on the maintenance of schools. Other schemes like scholarships, teacher education, textbooks do not seem to constitute priority areas.
7. The classification of states in terms of expenditure on school education to total expenditure on education also reveals dwindling priority accorded to secondary education.
8. Inflammatory pressures have brought about considerable erosion in the real investment in education. What meets the eye is not the real investment in education.

Education is continuous, life long process and its distribution in different stages is intended to correspond to the various stages of the physical, mental and psychological development of the students.

Education cannot, and should not be segmentalised in terms of high and low priority areas. All stages of education are integrally inter-related and have to develop unison. Therefore, provision of adequate funding for the various stages of education is the sine-qua-non of the balanced development of this important sector of human development.

46. Furqan Qamar, Mohammad Zahid (2001)⁴⁶ conducted a study on "Financing of Secondary Education in India - Cost, Equity, Quality and Resource Use Efficiency." Estimates of cost particularly the unit cost, and a cross sectional comparisons of the same are essential for developing an understanding as to whether the resources available with educational institutions are being utilised efficiently. Besides being of assistance in developing some macro level estimates of resources required given a desired level of educational activities, data on institutional cost of education are of immense assistance in access in the cost effectiveness of the system as such. Even the simple term, the unit cost itself may be regarded as an index of efficiency. The government and government aided

schools receive liberal financial support from the public exchequer and are, therefore, seldom cost conscious but what happens to the private un-aided school which invariably are claimed to be running on no profit- no loss basis. Are they able break even? Do they make a profit?, These and many more questions can be answered by attempting an analysis of institutional unit cost.

Major findings are 1) The unit institutional cost of school education significantly varies from state to state. Per student recurring expenditure is substantially higher for all types of schools in Tamil Nadu than in Delhi. The evidence is likely to be supported by the national level data on public funding for secondary education. 2) With in a state per student institutional cost of secondary education significantly varies across different types of schools in such a manner that the government schools spends significantly higher sum than the government aided schools. Private schools spend least amount. 3) Analysis of per student institutional cost of different categories of schools in Delhi shows high value of standard deviations within the category. This is likely to be seen

among other states of the country as well. 4) An analysis of course structure and its composition commands all the various types of inputs that are used in the production process. Educational institutions and secondary education is no exception, the composition of the structure of the institutional costs is reported to differ substantially across different types of different states. The most of the private schools are registered, as not for profit ordinary agencies and have often claimed that their high cost of education is all account of higher educational input. This argument is not substantiated by the data. While this schools charge exorbitant amount of its and other charges, they spend even less than what the pauperised government and government-aided schools spend on the resource inputs. 5) Most of the private schools were concentrated in largely comprise locality inhabited by affluent sections of the society, it seems they flourish mainly in the socio-economic areas, which have capacity to afford high cost of education. This is corroborated by the data of the socio-economic status of the students going to the different types of schools. 6) Total

expenditure on education of a single child is the cheapest followed by the government schools. However the difference between the private aided and the government school is not significant. 7) Education efficiency cannot be achieved without high expenditure. There have also been evidences that the top expenditure schools are those that average highest in terms of educational achievements. Many parameters of quality of education have been found to bare strong positive relationship with the expenditure on education. 8) The quality of teachers as measured in terms of their qualification, dedication, commitment, etc. does play an important role in the academic achievements of the students.

Chapter – III

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METHODOLOGY

T.K. Prema kumari “A study of the unit cost of teacher education programme for graduate teachers in Kerala” Thesis. Department of Education, University of Calicut, 2003

Chapter - IV

METHODOLOGY

4.1. Methods Adopted

4.2. Tools & Techniques Employed

4.3. Description of Tools

4.4. Sample Selected for the Study.

CHAPTER IV

METHODOLOGY

In this chapter the methodology adopted for the present study is presented.

Method Adopted

As the problem of the present study involves the collection of data with regard to different types of cost of teacher education, such as institutional cost, individual cost, etc., the normative survey method was found to be the most suitable and appropriate method of investigation. It helps to ascertain the normal and typical conditions of the area of study, i.e., teacher education, prevailing at the time of this investigation. Therefore the present study is an educational survey related to the subfield, economics of teacher education. It collects, analyses, interprets, classifies and evaluates, data collected from the respondents in the area of teacher education by means of appropriate tools and techniques.

Selection of the Sample for the Study

Though education is a larger field, in the state of Kerala, teacher education, especially secondary level teacher education, is a smaller subfield of it, with the result that the total population which can be selected for the study is relatively smaller. However teacher education is a crucial area for an educational investigation as the quality of education, to a large extent is directly related to the quality of teacher education.

At the time of investigation there were 74 institutions providing teacher education at graduate level. Among them 4 are Government Teacher Education Colleges, 17 are Private Aided Teacher Education Colleges, 24 are Private Un-aided Teacher Education Colleges and 29 are University Teacher Education Centres. Their distribution is presented as Table IV. (1)

Table IV. (1)

Teacher education institutions in Kerala:

Name of University	Type of Management				
	Government Teacher Education Colleges	Private Aided Teacher Education Colleges	Private Un-Aided Teacher Education Colleges	University Teacher Education Centres	Total
Calicut University	2	2	9	6	19
Kannur University	1	2	0	3	6
Kerala University	1	6	6	10	23
M.G. University	0	7	9	10	26
Total	4	17	24	29	74

The Table IV. (1) reveals that there are 74 teacher training institutions imparting teacher education at graduate level. 29 of them are university teacher education centers, 24 are private un-aided teacher education colleges, 17 are private aided teacher education colleges, and 4 are government teacher education colleges to which the total population belongs.

Institutions selected for the study

Among the 74 teacher education institutions only 4 are Government Teacher Education Colleges and since they are located in different districts of the state the investigator selected all these 4 colleges as sample. From the 17 Private Aided Teacher Education Colleges 9 Teacher Education Colleges, and from the 24 Private Un-aided Teacher Education Colleges 13 Teacher Education Colleges, and from among 29 University Teacher Education Centres 15 were selected as sample for this study. Thus 41 from a total of 74 teacher education institutions were selected for the study.

The university wise distribution of the institutions selected for the study is presented as Table IV. (2)

Table IV. (2)

University wise distribution of institutions selected for the study:

Name of University	Type of Management				Total
	Government Teacher Education Colleges	Private Aided Teacher Education Colleges	Private Un-Aided Teacher Education Colleges	University Teacher Education Centres	
Calicut University	2	2	5	3	12
Kannur University	1	1	0	2	4
Kerala University	1	3	3	5	12
M.G. University	0	3	5	5	13
Total	4	9	13	15	41

The Table IV. (2) reveals that of the 41 institutions selected for the study 4 belong to Kannur University and 12 to Calicut University, 12 Kerala University and 13 to Mahatma Gandhi University.

The name of the institutions from which the sample was drawn are provided in Table IV. (3)

Table IV. (3)

Name of the institutions from which sample was drawn:

Management	Name of University	Name of Colleges
Government	Calicut University	Government College of Teacher Education, Kozhikode.
		Institute of Advanced Studies in Education, Thrissur.
	Kannur University	Government college of Teacher Education, Thalassery.
	Kerala University	Government college of Teacher education, Trivandrum.
Private Aided	Calicut University	Farook Training College, Kozhikode.
		N.S.S.TrainingCollege, Ottapalam. Palakad
	Kannur University	Keyi Sahib Training College, Kannur.
	Kerala University	N.S.S. Training College, Pandlam, Pathanamthitta.
		Sree Narayana Training College, Nedunganda, Varkala.
		Peet Memorial Training College, Mavelikara.
	M.G. University	Mount Carmel Training College, Kottayam
		Titus II Teacher Training College, Thiruvalla.
		ST.Josephs' Training College for Women, Eranakulam.
Private Un-Aided	Calicut University	Dr.Palpu Memorial SNDP Yogam College of Education, kodungallure Thrissur.
		M.C.T. Training College, Melmuri, Malapuram.
		Meppayur Salafi Training College, Meppayur, Kozhikode.
		Holly Family Training College for Women, Koduvayoor, Palakad.
		Jamia Nadwia training College, Edavanna, Malapuram.
	Kerala	CSI College of Education, Parassala.

	University	
		National Training College of Women, Nedumangad. ✓
		National Training College, Pravachambalam, Trivandrum.
	M.G. University	Marthoma Training College, Ranni, Pathanamthitta.
		Avila College of Education, Edacochi, Eranakulam
		SNDP Training College, Adimali, Idukki
		Mangalam College of Education, Ettumannor, Vettimukal, Kottayam.
		Mar Severios Memorial Training College, Chengaroor. Pathanamthitta.
University Teacher Education Centres	Calicut University	Teacher Education Centre, Vada kara.
		Government Higher Secondary School Compus, Kaniyambatta, Wayanad.
		Teacher Education Centre, Palakad.
	Kannur University	University Teacher Education Centre, Chowa, Kannur.
		University Teacher Education Centre, Nellikunnu, Kasargode.
	Kerala University	Kerala University Teacher Education Centre Thrivananthapuram, Government Medical College H.S. Campus, Trivandrum
		Kerala University centre of Teacher Education, Kazhakkuttom Government UP School Campus, Kaniyapuram, Trivandrum.
		Kerala University Teacher Education Centre Olathanni, Victory High School Campus Olathanni, Neyyattinkara. Trivandrum.
		Kerala University Teacher Education Centre, Anchal, Government High School Campus Anchal west, Anchal.
		Kerala University Teacher Education Centre, Kollam, Government Boys High School Campus, Kollam.
	M.G. University	Nedumkandam Panchayat Upper Primary School. Nedumkandam
		Pathanamthitta Vocational Higher Secondary School, Elanthoor.
		Moovattupuzha Government Model High School,

		Moovattupuzha.
		Kanjirapally Government High School, Petta, Kanjirapally.
		Kottayam Government High School, Kudamaloor, Kottayam.

While selecting the institutions due consideration was given to the locale and type of management of the institutions. After including all the government training college due representation was given to Government Teacher Education Colleges, Private Aided Teacher Education Colleges, Private Un-aided Teacher Education Colleges and University Teacher Education Centres. Of the 41 institutions selected 19 belong to urban area and 22 belong to rural area.

Students selected for the study

While taking the sample, special care was taken to represent all the characteristics of the total student strength so that the conclusion drawn from the study could be generalised and made generally applicable to the whole area of secondary level teacher education in the state.

Nature of admission.

In teacher education institutions students are admitted under 4 different quotas.

- i. Admission to the open quota,
- ii. Admission by reservation for department candidates
- iii. Admission by reservation for special focused group
- iv. Admission to the management quota by adopting management criteria.

The distribution of the students selected on the basis of admission is presented in Table IV. (4)

Table IV. (4)

The distribution of the students selected on the basis of admission

S. No.	Nature of admission	Number of students
1	Open quota	2675
2	Reservation for department candidates	50
3	Reservation for special focused group	500
4	Financing capitation fee/Management quota	300
	Total	3525

Table IV. (4) Shows that of the 3525 students selected for the study 2675 belong to open quota, 50 belong to department quota, 500 belong to reservation for special group, and 300 belong to management quota.

The 3525 students initially selected as sample for the study were admitted under different quota in the 41 colleges.

These 3525 students belong to 4 universities viz. Calicut University, Kannur University, Kerala University and Mahatma Gandhi University. They belong to Government Teacher Education Colleges, Private Aided Teacher Education Colleges, Private Un-aided Teacher Education Colleges and University Teacher Education Centres. At the time of conducting this study though questionnaires were distributed to all the 3525 students initially included in the sample the investigator could get back only 3141 questionnaires filled up. Among them 2925 were selected for the analysis as others were found to be incomplete with regard to entries. Thus actually

2925 students were selected as sample of the study. Their university wise and management wise distribution is presented in Table IV. (5)

Table IV. (5).

University wise distribution of samples selected for the study:

Name of University	Type of Management												
	Government Teacher Education Colleges			Private Aided Teacher Education Colleges			Private Un-aided Teacher Education Colleges			University Teacher Education Centres			Total
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	
Calicut University	50	100	150	60	115	175	75	125	200	60	90	150	675
Kannur University	20	30	50	40	85	125	0	0	0	35	40	75	350
Kerala University	50	100	150	70	130	200	50	200	250	175	300	475	1075
M.G. University	0	0	0	40	135	175	70	380	450	100	200	300	925
Total	120	230	350	210	465	675	195	705	900	370	630	1000	2925

The Table IV. (5) Reveals that the sample selected from the Calicut University, Kannur University, Kerala University and Mahatma Gandhi University are 675, 350, 1075, and 925 respectively.

When the sample is considered management wise of the institutions there are 350 students belong to Government Teacher Education Colleges, 675 to private Aided Teacher Education Colleges, 900 to Private Un-aided Teacher Education Colleges, and 1000 to the University Teacher Education Centres.

Nature of Admission of the sample selected for the study

The nature of admission of the sample selected for the study is presented as Table IV. (6)

Table IV. (6)

Admission wise distribution of samples finally selected for the study:

Category of Selection Samples	Name of Category				Total
	Government teacher education Colleges	Private Aided Teacher Education colleges	Private Un-aided Teacher Education colleges	University Teacher Education Centres	
Open Quota	200	150	150	1200	2675
Management Quota	-	320	600	-	200
Department Quota	50	-	-	-	50
Total	350	675	900	1000	2925

The Table IV. (6) Shows that of the 2925 students selected for the study 2675 belong to open quota 200 to management quota and 50 to department quota.

Dayscholars / Hostelinmates selected as sample for the study

Both dayscholars and hostelinmates were included in the study. Their distribution is presented in Table IV. (7)

Table IV. (7)

Dayscholars / Hostelinmates selected as sample for the study

Category of Selection Samples	Name of Category				Total
	Government Teacher Education Colleges	Private Aided Teacher Education colleges	Private Un-aided Teacher Education colleges	University Teacher Education Centres	
Day scholar	200	345	600	1100	2245
Hostelinmates	110	200	175	195	680
Total	310	545	775	1295	2925

The Table IV. (7) shows that 680 students are hostelinmates and 2245 of the sample are dayscholars.

Components of institutional and individual cost

In this study the data had to be collected with regard to the institutional cost and individual cost for the sake of finding out the unit cost of teacher education.

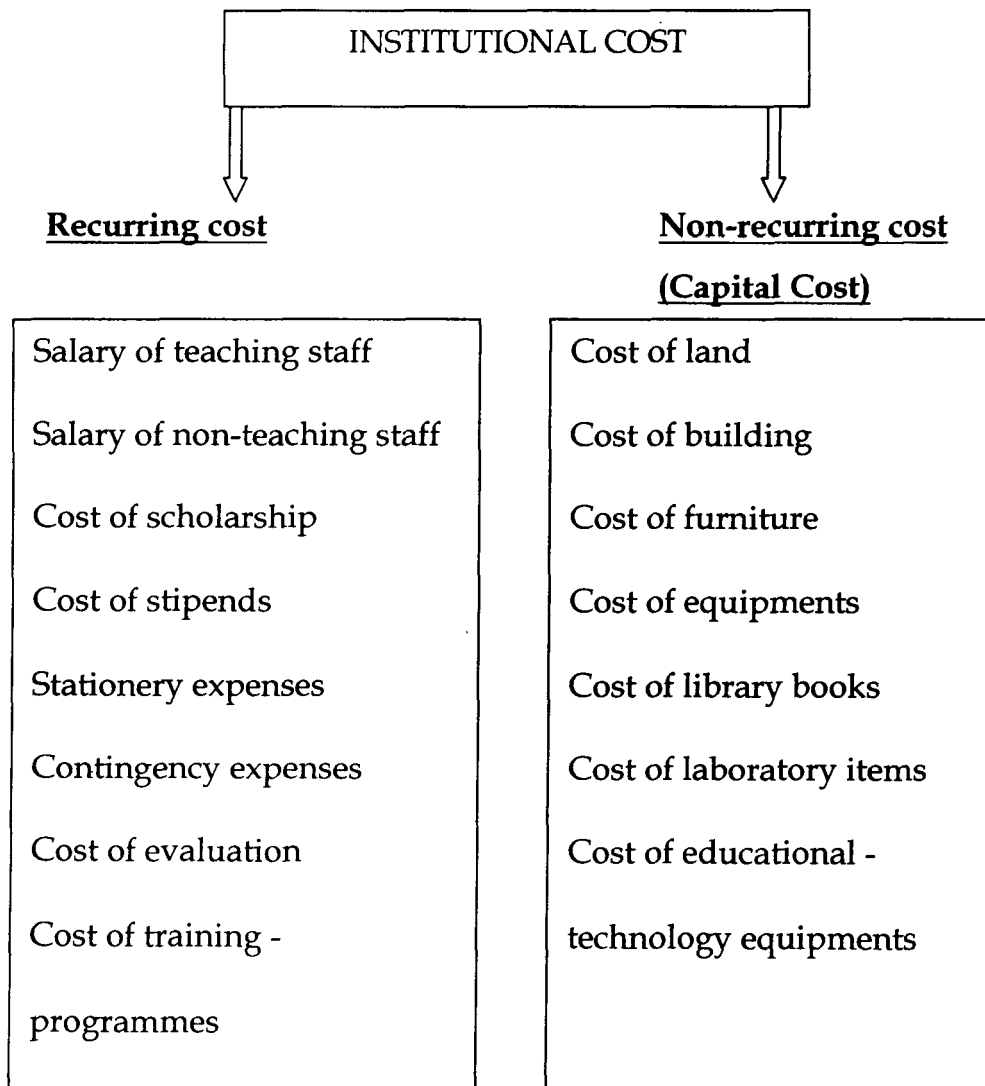
Institutional cost

Institutional cost includes both recurring and non-recurring cost. Recurring cost include salary of teaching staff and non-teaching staff, cost of scholarships, cost of stipends, cost of stationary and cost of other contingencies and evaluation cost, cost of training programme and meetings etc.

Under non-recurring cost (capital cost) will come cost of land, cost of building, cost of furniture, cost of equipments, cost of library books, cost of laboratory items, cost of educational technology equipments, etc.

The different components of the institutional cost are presented in Chart 4.1.

Chart 4.1. The different equipments of institutional cost.

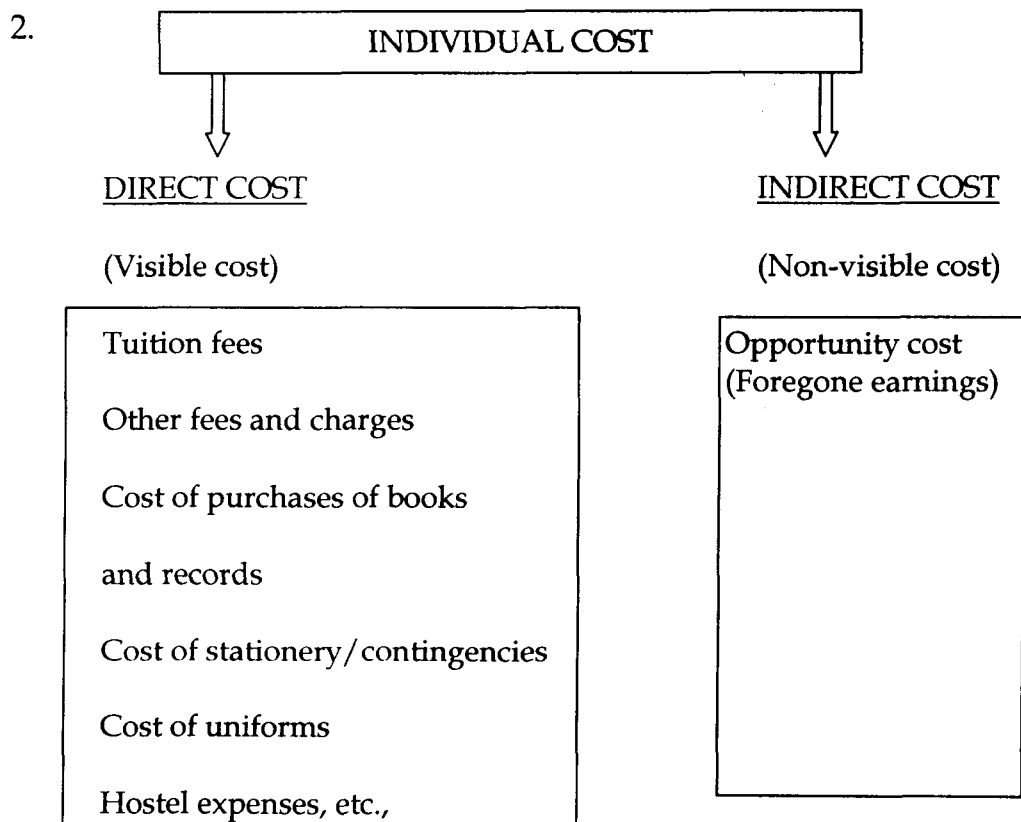


Individual cost

Individual cost includes both direct (visible cost) and indirect cost (non-visible cost). Under direct cost tuition fees, other fees and charges, cost of purchases of books and records, cost of stationery and contingencies, cost of uniforms and hostel expenses are included.

Under indirect cost (non-visible cost) opportunity cost (forgone earnings) is the main component. The different components of the individual cost are presented as Chart 4.2.

Chart 4.2. The different components of individual cost



Tools

With a view to collecting the required data from the sample the following tools were used:

a. Questionnaire

1. Questionnaire administered to the Heads of Teacher Education Colleges.

2. Questionnaire administered to the Student Teachers of Teacher Education Colleges.

3. Questionnaire administered to the Departmental Candidates.

b. Structured interview schedule for management quota

This was used especially to ascertain the expenses of candidates admitted under management quota in the private aided and un-aided colleges of teacher education. The interview schedule used for the purpose is appended as number 4.

c. Verification of Official Records

Official Records available in the institutions of teacher education were scrutinized to find out the details of institutional costs and student costs.

Preparing the tools

a. Preparation of Questionnaires

As mentioned in the foregoing paragraph, three types of questionnaires were developed and used for the purpose of present study by the investigator.

1. Questionnaire administered to the heads of Teacher Education Institutions was developed by the investigator with a view to collecting relevant data.

The investigator prepared the items in the questionnaire so as to get objective responses from the heads of the institutions. Special care was taken to make each item objective and closed, so that very clear objective response was ensured.

The draft of the questionnaire thus made was subjected to the scrutiny of the experts especially the research guide, and some professors and readers in economics and education with a view to ensuring the validity and comprehensiveness of the items included. In the questionnaire to the heads of institutions questions were mainly asked regarding institutional cost. They included general information, details of non-recurring and recurring cost and assessment of area of building and land. A few questions from the area of individual cost were also included just to cross check the information provided by the students.

The distribution of the questions in the questionnaire is represented in Table IV. (8)

Table IV. (8)

Details of the questionnaire for the heads of institutions

Number of Questions	Details of Data Collected
1-9	General Information
10-15	Details of Recurring Cost
16(a-z)	Non-Recurring cost (comparing with NCTE requirement)
17(a-d)	Assessment of Area of Building and Land
18-22	Non-Recurring Cost
23-25	Recurring Cost
26 (a-h)	Individual Cost

In the introduction letter of the questionnaire for the head of institutions, it was ensured that their names be kept confidential and the details divulged will be used only for research purpose. A copy of the questionnaire to the heads of institution is provided in Appendix -I.

2. Questionnaire administered to the student teachers admitted under open quota.

The investigator on the basis of the data listed to be gathered from the sample developed this questionnaire. Each item of the questionnaire was written in a precise and lucid language so as to get clear responses with regard to the required data on the cost, category wise. Special care was taken to ensure that the items were close ended in nature.

The draft of the questionnaire thus prepared was shown to the experts including the research guide and professors and readers in economics and education. Besides, this questionnaire was tried out by administering it to a few student teachers of 5 Colleges with a view to ensuring its validity. The ambiguous items noted during the tryout were re-worded or re-structured and thus ensured their clarity.

The different items covered in the questionnaire are presented in Table IV.(9)

Table IV. (9)

The Details of Questionnaire for students admitted under open quota and Reservation Quota:-

Number of Questions	Details of Data Called for
1-14	General Information
15(a-c)	Initial Cost
16(a-c)	Institutional Cost
17(a-g)	Collateral Cost
18(a-b)	Cost of Boarding and Lodging
19(a-c)	Personal Cost
20(a-c)	Details of Fee
21(a-c)	Scholarships

A copy of the questionnaire to the student teachers in open quota/management quota is provided as appendix-II

3. Questionnaire administered to the student teachers admitted under department quota.

Investigator administered questionnaire to department candidates, with a view to collecting details of their forgone earnings (opportunity cost) and individual cost. Two types of questionnaires were distributed.

A. The same questionnaire administered to open quota student for collecting the details of individual cost.

B. A specially designed questionnaire to collect the details of individual cost and the opportunity cost.

The details of different items covered in the questionnaire are presented in Table IV. (10) A & B

Table IV. (10) A & B

The Details of questionnaires for students admitted under department quota

A.

Number of Questions	Details of Data Called for
1-14	General Information
15(a-c)	Initial Cost
16(a-c)	Institutional Cost
17(a-g)	Collateral Cost
18(a-b)	Cost of Boarding and Lodging
19(a-c)	Personal Cost
20(a-c)	Details of Fee
21(a-c)	Scholarships

B.

Number of Questions	Details of Data Collected
1-9	General Information
10-15	Opportunity Cost
11-12	Concessional Details
13-14	Recurring Cost

The Table IV. (10) A shows that the details of individual cost of department candidates and Table IV. (10) B shows that the details of forgone earnings (opportunity cost)

Questionnaires for the student teachers under department quota is given in appendix -III

Interview schedule for teacher students

Since students admitted under management quota have to give capitation fees and since they are generally hesitant to divulge the information in writing, a structured interview schedule for the purpose of interviewing candidates admitted under management quota was developed by the investigator.

The structured interview schedule was prepared after consulting the experts in the field. This is given in appendix IV

Details regarding the areas covered in the interview schedule is provided in Table IV. (11)

Table IV. (11)

Details of the structured interview schedules:

Number of Question	Details of Data Collection through Interview
1-4	General Information
5-7	Details of Personal Cost

The investigator herself interviewed the student teachers using structured interview schedule selecting representatives from the sample with a view to getting additional data or getting necessary clarifications for the data already gathered through the questionnaire. Therefore the interview was used as a technique for gathering additional or supplementary data. However special care was taken to select the questions and to make the interview clear, precise and objective. Therefore the investigator had made special preparation for the interview by noting down the questions to be asked.

Administration of tools

a. Questionnaires

Questionnaires had to be administered to the heads of institutions and student teachers. For this purpose as far as possible the investigator herself, and only in a few cases her representatives visited the institutions after taking the permission from the authorities. This was mainly intended for the establishment of a rapport with the heads and students, and also appraise them of the significance of the study and the need for their active co-operation. Prior to the administration of the questionnaires they were guaranteed that whatever information they provided would be kept secret and would be used only for the purpose of this investigation. In the covering letter of the questionnaire also this was emphatically presented. This has helped in getting valid information from the respondents. The investigator had to spend one or two days in each institution for the administration of the questionnaire. Her personal interaction with the respondents had helped very much in getting back a sizable number of questionnaires duly filled up. The

questionnaires were collected and scrutinized and those which were incomplete were rejected. The selected questionnaires were stored for analysis.

b. Structured interview schedule

In addition to the questionnaire generally administered to student teachers, a few students admitted under management quota in private aided teacher education colleges and private un-aided teacher education colleges, were interviewed using the interview schedule. This was done after establishing a very good rapport with the students and developing in them the confidence that the information they provided would be kept secret. When the students were responding to each question, the investigator or her representative recorded their responses.

The data so collected were stored for analysis and for cross checking.

Verification of Official Records

The official records mentioned in the teacher education colleges were verified with a view to ascertaining the accuracy of the

data gathered and acquiring additional data if necessary, or supplementing the already acquired data. For this the co-operation and rapport of the administrative staff of the colleges was enlisted with the help of the principal. The following documents were examined:

- a. Admission register
- b. Attendance registers of the staff and Students
- c. Stock registers of:
 - Physical Infrastructure
 - Furniture
 - Laboratory Goods
 - Library Items.
 - Technology items
 - Grand-in-aid details
 - Endowments
 - Fees
- d. Budget Details.

Procedure Adopted For Tabulation

1. Institutional cost calculation:

For getting data for calculation of institutional cost – details of non-recurring cost, recurring cost, and individual cost were collected separately and calculated specific area wise.

Calculation of the non-recurring cost- cost of land, cost of buildings, cost of furniture, cost of maintenance, cost of library, cost of laboratory, and educational technology, etc. were calculated independently.

Techniques adopted

a. Land cost /capital cost was calculated after finding the market value. It comes to a huge amount for the usage of land per year, which is treated as rental value. Rental value is equal to the amount of the interest rate. Unit cost of the institution is calculated by dividing total amount by the number of institutions.

b. Building cost: it is calculated with the implementation of depreciation norm. Depreciation depends upon the life span of the

durable assets. Interest is calculated and treated as annual rental value.

c. Maintenance cost: proper maintenance is most urgent for building. Average cost is calculated for the same.

d. Furniture cost: it is also being calculated as depreciation norm. Interest is treated as annual rental value.

e. Library cost: cost of library books is calculated as per the stock register available in the institutions. However the norm that books acquired before 20 years were to be written off was adopted. Interest is treated as annual rental value.

f. Laboratory cost: it is calculated in two ways. The actual cost of laboratory equipments and materials was found as they have been purchased every year, and the rental value was also found. Hence the amount of rental value and actual cost of materials put together is the cost of laboratory items.

g. Material cost: materials are necessary in various subjects for programmes. So, material cost is calculated as per the norm of interest and treated as rental value.

h. Educational Technology cost; Investments are more in this category even though, it is a rental system.

For calculation of Recurring cost: recurring cost is visible - salary, scholarships, stipends, contingency and other expenses like evaluation, training programmes and meetings, etc. salary cost and scholarships, stipends, other expenses, etc. is calculated separately.

Calculation of Individual Cost

Individual costs of education are those costs of education incurred by the students or by their parents/guardians, or by families as a whole. Sometimes they are also referred to as private cost. Individual cost is more meaningful. Individual costs are essentially consist of direct cost and indirect cost. Direct costs are those that are directly visible. They include all money expenditures incurred. They include not only payments to colleges in term of tuition fees and other fees and charges but also other expenditure incurred on. e.g.: purchase of books and records, stationery, uniform, hostels etc.

Individual cost of education include:

- a) Fees
- b) Out of pocket costs on education excluding fees, such as the maintenance expenditure on books, stationary, transport, uniform, hostel etc and
- c) The foregone earning, or the opportunity cost, which is the real cost that is given up to obtain education.

Personal finance and its implication on cost analysis

Individuals and families have indulged in many ways of income arising and income using activities. The items involved in taking rational decisions on matters relating to income getting and income using have led to the emergence of a new branch of finance namely personal finance. It can be defined as the science of earning spending, saving and investing of money and protecting the wealth of the family with a view to generating adequate return to achieve financial security and thereby to ensure welfare and happiness of the family or individual.

Details of individual cost

The cost of food / accommodation of dayscholars were ignored and not calculated because even otherwise the family has to bear their expenses in this regard. The cost of hostelinmates related to pre-service teacher training were calculated because they are residing at the hostel only for the completion of the course.

Category wise analysis for the calculation of the cost.

Initial cost - before admission:

- Cost of application form,
- Postal charge,
- Traveling expenses,
- Other expenses etc. and
- Related with interview.

Fees

- Tuition fee and
- Non-tuition fees

Collateral cost - (After admission)

- Notebooks,
- Textbooks,
- Records,

- Files,
- Materials related with practical works,
- Papers,
- Study tour,
- Practice teaching materials and
- Practical examination works.

Personal Cost

Additional expenditure for daily life:

- Soap,
- Linen,
- Medicine,
- Article of toilet and entertainment light refreshment and
- Unseen expenditure.

Transport Cost

This includes bus/train concession ticket, auto charge, two wheeler / four wheeler expenses for daily expenses in addition to the transport expenses for hostelinmates to and from the residence in vacation. In the time of practice teaching additional travelling expenses may be required.

Opportunity cost for department candidate

The department candidates also have all the above-mentioned expenditure. In addition to this they have to lose their salary as forgone earnings. They can get only subsistence allowance @ Rs.250/-

Calculation of the Cost

For the present study costs were calculated by adopting the method explained below in the light of taxonomy of cost prevalent in the economics of education. Analysis was done by using descriptive statistical technique.

Different type of cost such as Institutional cost and Individual cost were calculated adopting the following procedures.

First the data gathered by means of tools and techniques were tabulated group wise and institution wise:

- a). Government Teacher Education Colleges, b). Private Aided Teacher Education Colleges, c). Private Un-aided Teacher Education Colleges, d). And University Teacher Education Centres.

For finding institutional cost recurring cost and non-recurring cost were individually calculated and consolidated.

The total expenditure incurred by students/parents was collected for finding the individual cost. All entries were scrutinized category wise and consolidated and average calculated.

Calculation of Unit Cost of Institution

The unit cost of institutions is calculated by dividing the total expenditure by the total number of institutions.

Calculation of the unit cost is done in the following manner:

Unit cost = Total cost (Individual Cost + Institutional Cost) is divided by number of students.

The details of analysis are presented in Chapter No. V

ANALYSIS AND INTERPRETATION OF DATA

T.K. Prema kumari “A study of the unit cost of teacher education programme for graduate teachers in Kerala” Thesis. Department of Education, University of Calicut, 2003

Chapter – V

ANALYSIS AND INTERPRETATION OF DATA

CHAPTER V

ANALYSIS AND INTERPRETATION OF DATA

The present study has analysed the cost of Teacher education in Kerala. It includes the non-recurring cost/capital cost, recurring costs and individual cost of 41 secondary teacher training institutions involving a group of 2925 student teachers, which constitute the sample for the study. Questionnaires were used to collect data on the various aspects of the cost of students and institutions of teacher education. For the calculation of the total cost/social cost the sum of individual cost and institutional cost were used. For finding the total cost, different categories of teacher trainees as shown below were taken into account.

Government Teacher Education colleges	Private Aided Teacher Education colleges	Private Un-aided Teacher Education Colleges	University Teacher Education Centres
<u>Merit quota</u> Hostelinmates Dayscholars	<u>Merit quota</u> Hostelinmates Dayscholars	<u>Merit quota</u> Hostelinmates Dayscholars	<u>Merit quota</u> Hostelinmates Dayscholars
<u>Department quota</u> Hostelinmates Dayscholars	<u>Management quota</u> Hostelinmates Dayscholars	<u>Management quota</u> Hostelinmates Dayscholars	

Totalcost

The sum of Institutional cost and Individual cost gives the total cost of education.

Institutional cost

Institutional costs were calculated taking the non-recurring costs and recurring costs together.

In non-recurring cost the following costs are included:

Capital cost/land cost, buildings cost, equipment cost, material cost, library cost, laboratory cost and educational technology cost.

Under the recurring costs the following subheads were included: Salaries of teaching and non-teaching staff, scholarships, stipends, substantial allowances for students, and other contingency expenditure.

For the sake of analysis each objective of the study was taken serially and the relevant data collected from records, teachers and students were consolidated for the presentation of the data. So, collected data is presented under separate sub-titles.

The first objective of the study is concerned with the analysis of the institutional cost of the teacher education in preparing graduate teachers in kerala state.

Since institutional cost includes both non-recurring and recurring expenditure, they are analysed separately.

1. Non-recurring cost: Data to get non-recurring cost was collected from records and documents maintained in the institution selected for the study. Stock registers were the main source of data for this purpose. The data yielded and unit cost calculated on their basis is presented.

The Non-recurring cost of different teacher education institutions is presented in Table V. (1)

Table V. (1)

Details of the Non-recurring Cost

S.No	Item	Type of Management							
		Government Teacher Education Colleges	%	Private Aided Teacher Education Colleges	%	Private Un-aided Teacher Education Colleges	%	University Teacher Education Centres	%
1.	Land Cost	1260000	48.8	1575000	42.0	1365000	31.4	656250	31.5
2.	Building Cost	560000	21.7	1008000	26.9	1137500	26.2	525000	25.2
3.	Maintenance Cost	80000	3.1	112500	3.0	162500	3.7	112500	5.6
4.	Furniture cost	577721	22.3	860133	22.9	1410500	32.4	586685	28.2
5.	Library Cost	45534	1.7	70875	1.9	73938	1.7	52500	2.5
6.	Laboratory Cost	22475	0.9	45828	1.2	70200	1.6	40313	1.9
7.	Material cost	17150	0.7	35438	0.9	56875	1.3	48563	2.3
8.	Educational Technology cost	20861	0.8	42033	1.2	73007	1.7	59144	2.8
	Total Cost	2583741	100	3749807	100	4349520	100	2080955	100
	Unit Cost For Institution	645935		416645		334578		138730	

Analysis of Non Recurring cost given in Table V. (1) Shows
Rs.2583741/- for Government Teacher Education Colleges,
Rs.3749807/- for Private Aided Teacher Education Colleges,
Rs.4349520/- for Private Un-aided Teacher Education Colleges, and
Rs.2080955/- for University Teacher Education Centres.

With regard to the unit cost, Government Teacher Education Colleges stand first (Rs.645935/-) followed by Private Aided Teacher Education Colleges (Rs.416645/-) Private Un-aided Teacher Education Colleges (Rs.334578/-) and University Teacher Education Centres (Rs.138730/-).

The Pie diagram numbered as Figure 5.1 will give a glimpse of the distribution of non-recurring cost.

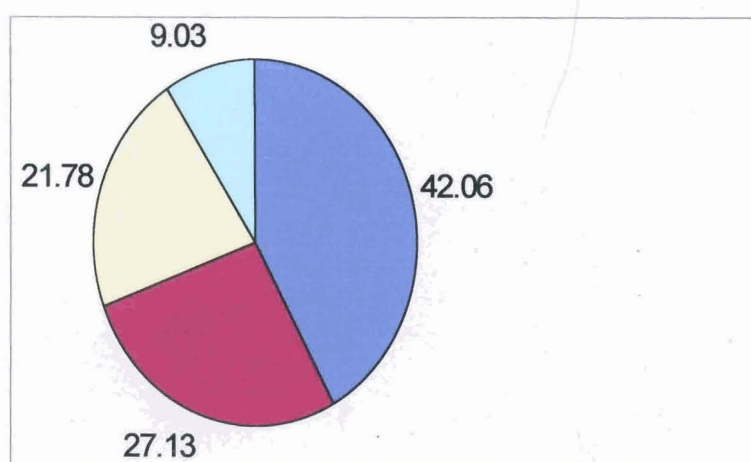


Figure 5-1 Details of the non-recurring cost.

Category of Institutions	Percentage
Government Teacher Education Colleges	- 42.06
Private Aided Teacher Education Colleges	- 27.13
Private Un-aided Teacher Education Colleges	- 21.78
University Teacher Education Centres	- 9.03

Non-recurring Cost (Capital Cost)

To help to get a more deep understanding different items presented as non-recurring in the previous table are taken separately and presented.

1.Land cost

Details regarding the land cost collected from the institutions are presented as table V. (2). This table will give in details specification regarding the calculation of the land cost.

Land Value

The land value of different teacher education centres is presented in Table V. (2)

Table V. (2)

The details regarding the Land Value as Per Government Norms.

Sl.No	Capital cost	Category of Institutions			
		Government Teacher Education Colleges	Private Aided Teacher Education Colleges	Private Un-aided Teacher Education Colleges	University Teacher Education Centres
1.	Market Value of the land	18000000	22500000	19500000	9375000
2.	Interest	1260000	1575000	1365000	656250
3.	Annual rent	1260000	1575000	1365000	656250
	Unit cost of Institution	315000	175000	105000	43750

Analysis of data of land value as per Table V. (2) reveals that with regard to the government training colleges, Private Aided Teacher Education Colleges, Private Un-aided Teacher Education Colleges and University Teacher Education Centres it is Rs.315000/-, Rs.175000/-, Rs.105000/- and Rs.43750/- respectively.

Interest collected is treated as annual rental value. Hence the same pattern of the distribution is noted with regard to the annual rent.

The bar diagram given as Figure 5.2 will help to make an easy comparison of the land cost.

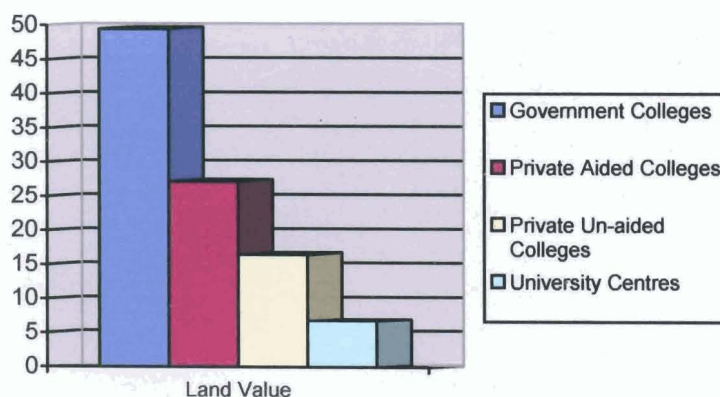


Figure 5-2 Details of land value

Category of Institutions	percentage
Government Teacher Education Colleges	- 49.5
Private Aided Teacher Education Colleges	- 27.2
Private Un-Aided Teacher Education Colleges	- 16.5
University Teacher Education Centres	- 6.8

Physical Infrastructure

The government teacher education colleges were established before 1950. As per the Public Works Department norms each building should be assigned the depreciation at the rate of 10% for 20 years, and for over 20 years 20% rate to assess the market value. As per the rate of Reserve Bank of India 7% is treated as interest at market value. The interest rate is calculated as rental value of the facilities. Same norms were adopted in the calculation of building value of the private aided teacher education colleges.

Since the private un-aided teacher education colleges were started only after 1994, there is no depreciation value as per public works department norms. So the investigator has calculated the interest for rental aspect.

University Teacher Education Centres have procured the uneconomic schools, which have more facilities, furniture, buildings etc. In addition to this, they have procured equipments for the effective utilization of the college. So the Investigator has calculated the interest alone as rental value.

Building cost

The building cost of different teacher education institutions is presented in Table V. (3).

Table V. (3)

Building cost of different teacher education institutions as per the Government norm

S.No	Capital cost	Category of Institution			
		Government Teacher Education Colleges	Private Aided Teacher Education Colleges	Private Un-aided Teacher Education Colleges	University Teacher Education Centre
1.	Approximate value of total building	1000000	1800000	1625000	937500
2.	Depreciation 20%	200000	360000	-	187500
3.	Value of building	800000	1440000	1625000	750000
4.	Interest	560000	1008000	1137500	525000
5.	Annual rent	560000	1008000	1137500	525000
	Unit cost of Institution	140000	112000	87500	35000

Table V. (3) shows that with regard to the interest, Government Teacher Education Colleges top with Rs.560000/-. They

are followed by Private Aided Teacher Education Colleges with Rs.1008000/-, Private Un-aided Teacher Education Colleges with Rs.137500/- and University Teacher Education Centres with Rs.525000/-.

Annual rental value is entered on the basis of interest calculated as per the type of management.

Unit cost of the Government Teacher Education Colleges is Rs.140000/-. With regard to Private Aided Teacher Education Colleges it is Rs.112000/-. Private Un-aided Teacher Education Colleges it is Rs.87500/-and for University Teacher Education Centres it is Rs.35000/-.

The bar diagram given as Figure 5.3 will help to make an easy comparison of the building cost.

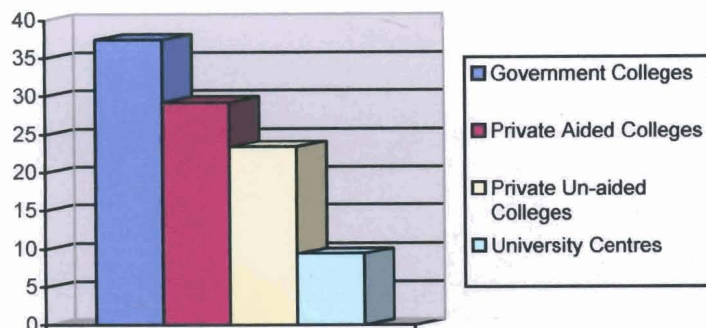


Figure 5-3 Building cost of different teacher education institutions as per the government norm

Category of Institutions	Percentage
Government Teacher Education Colleges	- 37.38
Private aided Teacher Education Colleges	- 29.19
Private Un-aided Teacher Education Colleges	- 23.36
University Teacher Education Centres	- 9.35

Maintenance Cost

The details regarding the maintenance cost with regard to different teacher education institutions is presented in Table V. (4)

Table V. (4)

The details regarding the maintenance cost with regard to teacher education institution

S.No.	Item	Category of Institution			
		Government Teacher Education Colleges	Private Aided Teacher Education Colleges	Private Un-aided Teacher Education Colleges	University Teacher Education Centres
1.	Maintenance of the institution	80000	112500	162500	112500
	Unit cost of Institution	20000	12500	12500	7500

Analysis of data Table V. (4) reveals that the unit cost of maintenance cost recorded in Government Teacher Education Colleges is Rs.20000/-. They are followed by Private Aided Teacher Education Colleges with Rs.12500/-, Private Un-aided Teacher Education Colleges with Rs.12500/- and University Teacher Education Centres with Rs.7500/-.

The bar diagram given as Figure 5.4 will help to make an easy comparison of the maintenance costs.

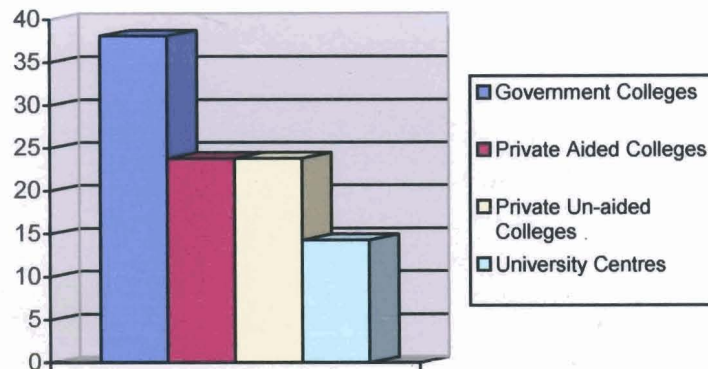


Figure 5-4 The details regarding the maintenance cost with regard to teacher education institution

Category of Institutions	Percentage
Government Teacher Education Colleges	- 38.09
Private Aided Teacher Education Colleges	- 23.81
Private Un-Aided Teacher Education Colleges	- 23.81
University Teacher Education Centres	- 14.29

Furniture Cost

The details regarding furniture cost is presented in Table V. (5)

Table V. (5)

Details of the furniture cost

S.No	Items	Category of Institution			
		Government Teacher Education Colleges	Private Aided Teacher Education Colleges	Private Un-aided Teacher Education Colleges	University Teacher Education Centres
1.	Furniture Cost	8253150	12287624	20150000	8381250
2.	Interest	577721	860133	1410500	586685
3.	Rent	577721	860133	1410500	586685
Unit cost of Institution		144430	95570	108500	39112

Data in Table V. (5) reveals that the unit cost of the furniture recorded in Government Teacher Education Colleges is Rs.144430/-. It is followed by Private Aided Teacher Education Colleges (Rs.95570/-), Private Un-aided Teacher Education Colleges (Rs.108500/-) and University Teacher Education Centre (Rs.39112/-).

The bar diagram gives as Figure 5.5 will help to make an easy comparison of the furniture cost.

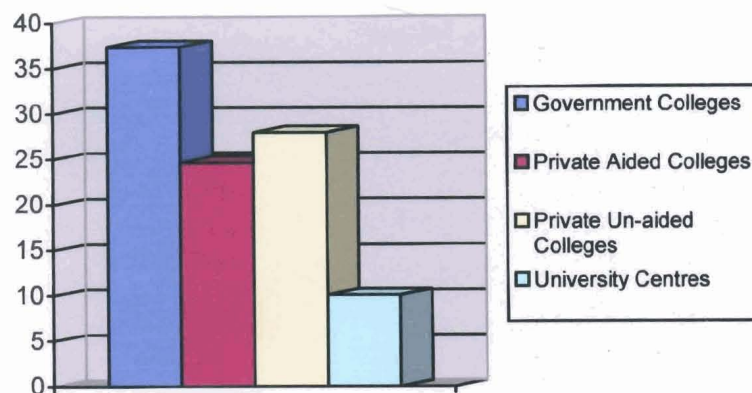


Figure 5-5 Details of the furniture cost

Category of Institutions	Percentage
Government Teacher Education Colleges	- 37.28
Private Aided Teacher Education Colleges	- 24.67
Private Un-Aided Teacher Education Colleges	- 27.95
University Teacher Education Centres	- 10.1

Library Books

As per the norms of depreciation adopted the books can be written off after 20 years utilization. Hence the cost of the stock only after 1980 was considered.

The details regarding the cost of library books is presented in Table V. (6).

Table V. (6)

Details regarding the cost of library books

S.No	Item	Category of Institution			
		Government Teacher Education Colleges	Private Aided Teacher Education Colleges	Private Un-aided Teacher Education Colleges	University Teacher Education Centre
1.	Cost of Library books	650500	1012500	1056250	750000
2.	Interest	45534	70875	73938	52500
3.	Rent	45534	70875	73938	52500
4.	Unit cost of Institution	11384	7875	5688	3500

Data as shown in Table V. (6) reveals that unit cost of the Library as recorded in Government Teacher Education College is Rs.11384/-, Private Aided Teacher Education College is Rs.7875/-, Private Un-aided Teacher Education College is Rs.5688/- and the University Teacher Education Centre is Rs.3500/-.

Interests calculated are treated as annual rental value. Hence the same pattern of the distribution is noted with regard to the annual rent.

The bar diagram given as Figure 5.6 will help to make an easy comparison for the cost of Library books,

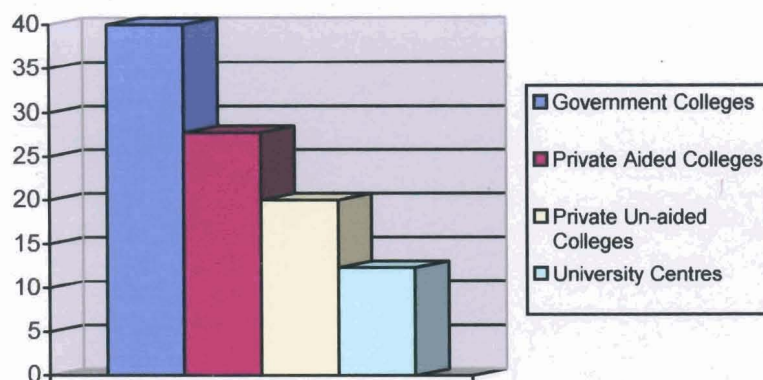


Figure 5-6 Details regarding the cost of library books

Category of Institutions	Percentage
Government Teacher Education Colleges	- 40
Private Aided Teacher Education Colleges	- 27.7
Private Un-Aided Teacher Education Colleges	- 20
University Teacher Education Centres	- 12.3

Laboratory Cost

The details regarding laboratory cost is presented in Table V.(7)

Table V. (7)

Details of the cost of laboratory items

S.No	Item	Category of Institution			
		Government Teacher Education Colleges	Private Aided Teacher Education Colleges	Private Un-aided Teacher Education Colleges	University Teacher Education Centres
1.	Laboratory equipment cost	292500	590400	910000	468750
2.	Interest	20475	41328	63700	32813
3.	Laboratory material cost	2000	4500	6500	7500
4.	Total cost	22475	45828	70200	40313
Unit cost of Institution		5619	5092	5400	2688

Data shown in Table V. (7) reveals that the unit cost of laboratory cost of the Government Training College, Private Aided Teacher Education Colleges, Unaided Teacher Education Colleges and University Teacher Education Centres is Rs.5619/-, Rs.5092/-, Rs.5400/- and Rs.2688/- respectively.

The bar diagram given, as figure 5.7 will help to make an easy comparison of the laboratory costs.

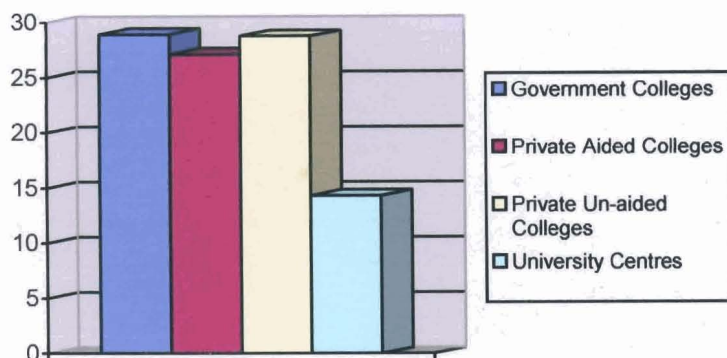


Figure 5-7 Details of the cost of laboratory items

Category of Institutions	Percentages
Government Teacher Education Colleges	- 28.89
Private Aided Teacher Education Colleges	- 27.09
Private Un-Aided Teacher Education Colleges	- 28.72
University Teacher Education Centres	- 14.30

Material cost

Material cost related to Mathematics, History, Geography, Audio Visual Equipments, Work experience Art, Physical Education etc. are given in Table No V. (8)

Table V. (8)

The cost of materials of various items

S.No	Item	Category of Institutions			
		Government Teacher Education Colleges	Private Aided Teacher Education Colleges	Private Un- aided Teacher Education Colleges	University Teacher Education Centres
1.	Material cost	245000	506250	812500	693750
2.	Interest	17150	35438	56875	48563
3.	Annual rent	17150	35438	56875	48563
	Unit cost of Institution	4288	3938	4375	3238

Analysis of data Table V. (8) revealed that unit cost of the material cost with regard to the Government Teacher Education Colleges, Private Aided Teacher Education Colleges, Private Un-aided Teacher Education Colleges and University Teacher Education Centres is Rs.4288/-, Rs.3938/-, Rs.4375/-, and Rs.3238/- respectively. Interests are treated as rental value.

The bar diagram given as Figure 5.8. will help to make an easy comparison of the cost of materials.

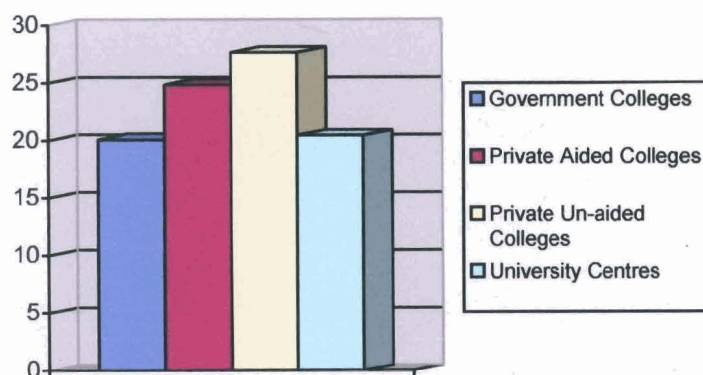


Figure 5-8 The cost of materials of various items.

Category of Institutions	Percentages
Government Teacher Education Colleges	- 20.08
Private Aided Teacher Education Colleges	- 24.86
Private Un-Aided Teacher Education Colleges	- 27.62
University Teacher Education Centres	- 20.44

Educational Technology Cost

The details regarding the cost of equipment in educational technology is presented in Table V. (9)

Table V. (9)

Details regarding the cost of equipment in educational technology

S.No	Item	Category of Institution			
		Government Teacher Education Colleges	Private Aided Teacher Education Colleges	Private Un-aided Teacher Education Colleges	University Teacher Education Centres
1.	Equipments related educational technology	298025	600469	1042958	844913
2.	Interest	20861	42033	73007	59144
3.	Rent	20861	42033	73007	59144
Unit cost of Institution		5215	4670	5616	3943

Data in Table V. (9) reveals that the unit cost of equipment in educational technology with regard to the Government Teacher Education Colleges, Private Aided Teacher Education Colleges, Private Un-aided Teacher Education Colleges and University Teacher Education Centres is Rs.5215/-, Rs.4670/-, Rs.5616/-, and Rs.3943/- respectively.

The bar diagram given, as Figure 5.9 will help to make an easy comparison of the cost of equipments in educational technology.

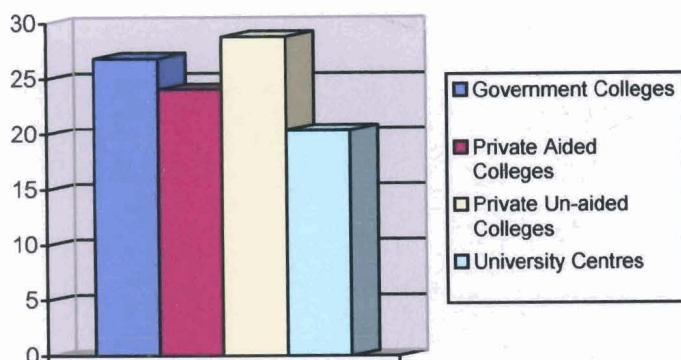


Figure 5-9 Details regarding the cost of equipment in educational technology

Category of Institutions	Percentage
Government Teacher Education Colleges	- 26.82
Private Aided Teacher Education Colleges	- 24.02
Private Un-aided Teacher Education Colleges	- 28.8
University Teacher Education Centres	- 20.28

The recurring cost:

The recurring cost includes the salary cost and the cost of scholarships, cost of stipends, cost of subsistence allowance, and other contingencies, etc. Data in this regard were collected using

questionnaire administered to the heads of institutions and scrutiny of salary register and acquittance roll.

The cost of recurring expenditure in different institutions is given in table V. (10)

Table V. (10)

The cost of recurring expenditure in different institutions

Sl. No	Item	Category of Institutions			
		Government Teacher Education Colleges	Private Aided Teacher Education Colleges	Private Un-aided Teacher Education Colleges	University Teacher Education Centres
1.	Salary cost	15318312 (92.2 %)	29020599 (96.1 %)	37804455 (98.6 %)	6337800 (91.5 %)
	Unit cost of Salary	3829578	3224511	2908035	422520
2.	Scholarship, Stipend, Substantive allowance, Other contingency etc.	1290000 (7.8 %)	1177499 (3.9 %)	548186 (1.4%)	587500 (8.5 %)
	Unit cost of Scholarship, Stipend, substantive allowance, others contingency etc.	322500	130833	42169	39167
3.	Total	16608312 (100 %)	30198098 (100 %)	38352641 (100 %)	6925300 (100%)
	Unit cost of recurring cost of Institution	4152078	3355344	2950203	461687

Data in Table V. (10) reveals that the unit cost of salary recorded in Government Teacher Education Colleges is Rs.382957/-.

This is followed by Private Aided Teacher Education Colleges with Rs.3224511/-, Private Un-aided Teacher Education Colleges with Rs.2908035/- and University Teacher Education Centres with Rs.461687/-.

Analysis of data revealed that the unit cost of related Stipend, Substantial allowances, Scholarship and other expenses etc., recorded in Government Teacher Education Colleges is Rs.322500/-, Private Aided Teacher Education Colleges is Rs.130833/- Private Un-aided Teacher Education Colleges is Rs.42169/- and University Teacher Education Centres is Rs.39167/-

Analysis of data revealed that the total cost related to recurring cost recorded in government colleges is Rs.16608312/-. Private Teacher Education Colleges is Rs.30198098/-. Private Un-aided Teacher Education Colleges is Rs.38352641/- and University Teacher Education Centres is Rs.6925300/-.

With regard to unit cost of the recurring cost Government Teacher Education Colleges stand first With Rs.4152078/-. This is followed by Private Aided Teacher Education Colleges

(Rs.3355344/-) Private Un-aided Teacher Education Colleges (Rs.2950203) and University Teacher Education Centres (Rs.461687/-).

The bar diagram given as Figure 5.10, 5.11 and 5.12 will help to make an easy comparison of the recurring cost of institutions

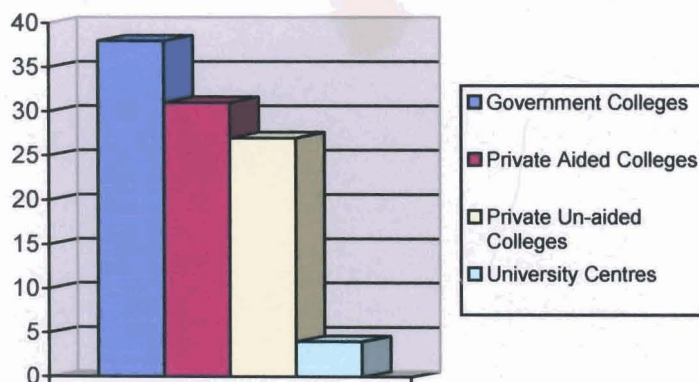


Figure 5-10 The cost of recurring expenditure in different institutions.

Category of Institutions	percentage
Government Teacher Education Colleges	- 38
Private Aided Teacher Education Colleges	- 31
Private Un-aided Teacher Education Colleges	- 27
University Teacher Education Centres	- 4

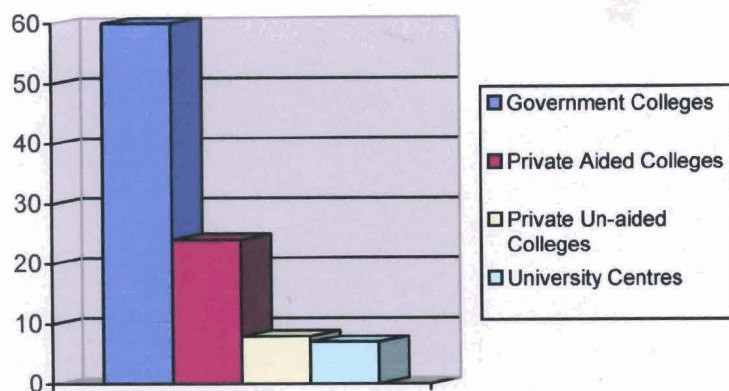


Figure 5-11 The scholarships, subsistence allowance and other expenses etc.,

Category of institutions	percentage
Government Teacher Education Colleges	- 60
Private Aided Teacher Education Colleges	- 24
Private Un-aided Teacher Education Colleges	- 8
University Teacher Education Centres	- 7

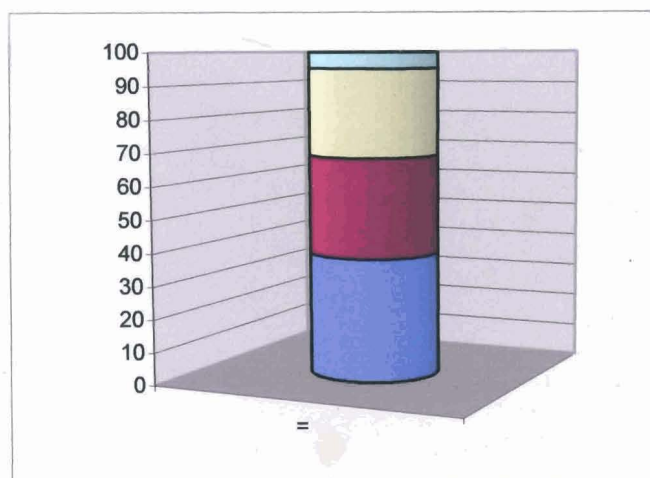


Figure 5-12 The unit cost of recurring cost of institution

Category of Institutions	percentage
Government Teacher Education Colleges	- 37.7
Private Aided Teacher Education Colleges	- 30.5
Private Un-aided Teacher Education Colleges	- 26.8
University Teacher Education Centres	- 5.0

Institutional Cost

Institutional costs include both non-recurring and recurring expenditure. Therefore for calculating the institutional cost both non-recurring and recurring expenditures were consolidated and it presented is Table V. (11)

Table V. (11)

Details of unit cost of institutional cost

S.No	Item	Category of Institutions			
		Government Teacher Education Colleges	Private Aided Teacher Education Colleges	Private Un-aided Teacher Education Colleges	University Teacher Education Centres
1.	Recurring cost	16608312	30198098	38352641	6925300
2.	Non recurring cost	2583741	3749807	4349520	2080955
3.	Total	19192053	33947905	42702161	9006255
Unit cost of Institution		4798013	3771989	3284782	600417

Data given in Table V. (11) reveals that unit cost of the institutions with regard to the Government Teacher Education Colleges, Private Aided Teacher Education Colleges, Private Un-aided Teacher Education Colleges and University Teacher Education Centres is Rs.4798013, Rs.3771989/-, Rs.3284782/- and Rs.600417 respectively.

As far as Institutional cost is concerned Government Teacher Education colleges stand first. It is the least in University Teacher Education Centres.

The bar diagram given as Figure 5.13 will help to make an easy comparison of the institutional cost.

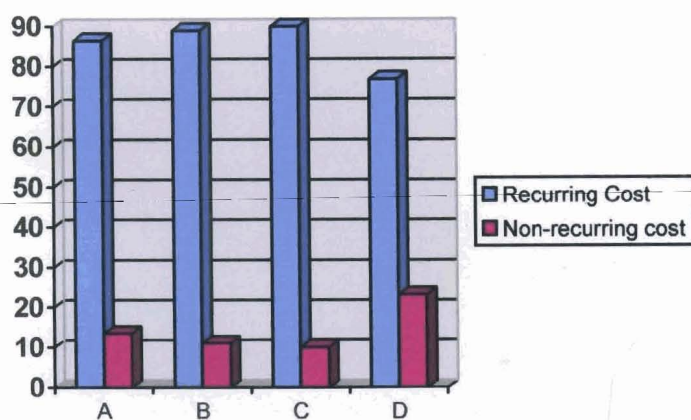


Figure 5-13 Details of unit cost of institutional cost

Recurring Cost:

Category of Institutions	Percentages
A-Government Teacher Education Colleges	- 86.5
B-Private Aided Teacher Education Colleges	- 89
C-Private Un-aided Teacher Education Colleges	- 90
D-University Teacher Education Centres	- 76.9

Non-recurring cost:

A-Government Teacher Education Colleges	- 13.5
B-Private Aided Teacher Education Colleges	- 11
C-Private Un-aided Teacher Education Colleges	- 10
D-University Teacher Education Centres	- 23.1

Table V. (12)
Cost per individual in institutional cost

S.No	Item	Category of Institutions			
		Government Teacher Education Colleges	Private Aided Teacher Education Colleges	Private Un-aided Teacher Education Colleges	University Teacher Education Centres
1.	Recurring cost	16608312	30198098	38352641	6925300
2.	Non recurring cost	2583741	3749807	4349520	2080955
3.	Total	19192053	33947905	42702161	9006255
Cost per Individual in Institutional cost		54834	50293	47447	9006

Data in Table V. (12) reveals that the unit cost of the individual in institutional cost.

Cost per individual in institutional cost with regard to the Government Teacher Education Colleges, Private Aided Teacher Education Colleges; Private Un-aided Teacher Education Colleges and University Teacher Education Centres is Rs.54834/-, Rs.50293/-, Rs.47447/- and Rs.9006 respectively.

The bar diagram given as Figure 5.14 will help to make an easy comparison of the institutional cost.

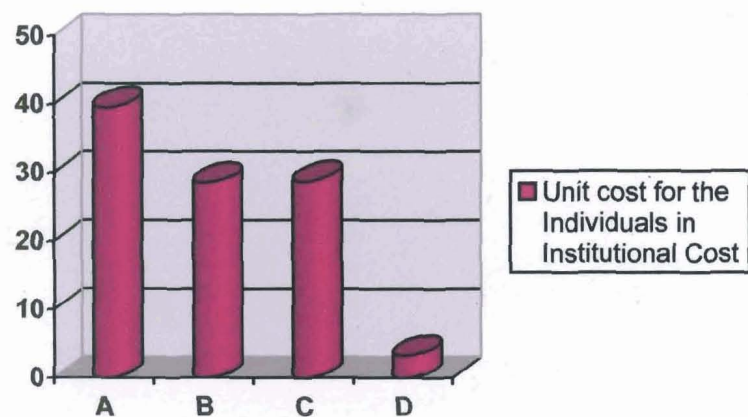


Figure 5-14 Cost per individual in institutional cost

Category of Institutions	Percentage
A-Government Teacher Education Colleges	- 33.9
B-Private Aided Teacher Education Colleges	- 31.1
C-Private Un-aided Teacher Education Colleges	- 39.4
D-University Teacher Education Centres	- 5.6

Discussion:

Analysis of the non-recurring cost has revealed interesting results. As expected a lion's share of the cost is set apart in all the types of teacher education institutions towards land, building and maintenance cost. This along with the furniture cost comes to about

95% of the non-recurring cost in Government Teacher Education College and more than 90% in other types of institutions.

Institutional cost of the Government Teacher Education Colleges has striking comparison with other types of institutions. This may be because the four Government Teacher Education Colleges are in the hearts of the cities where the land value is very high. The Private Aided and Private Un-aided Teacher Education Colleges situated are in suburban areas where land value is comparatively less. Further, the government buildings generally were constructed during much earlier periods and are maintained regularly by the Public Work Department. Consequent on raising the government teacher education institutions to college of teacher education and Institute of Advanced Studies on Education, financial support of the University Grants Commission was also made available for the constructions of new buildings, procurement of books and general improvements of infrastructural facilities. All these might have caused in the enhancement of nonrecurring cost of government teacher education institutions. A sizable number of

library books in government teacher education institutions were bought before 20 years ago. As per rules they have to be written off and hence were not considered for the present study. The teacher education centres have the least institutional cost because they are run in buildings allotted free of cost either by government or by private agencies. But with regard to the other infrastructural facilities like library, laboratory, etc. teacher education centres come to the lowest level when compared to others. The universities, which manage these centres, may not be allotting enough funds for the improvement of such facilities. Again it is depressing that the students of these centres do not have access to the university library, university departmental library or other facilities usually in abundance in the different departments of the universities.

Though building, furniture etc., provide better facility to the students, library, laboratory, educational technology, etc, are also highly important. But in government teacher education colleges, private aided teacher education colleges, private un-aided teacher education colleges and university teacher education centres. The

investment for library is 1.7%, 1.9%, 1.7%, and 2% of the total investment respectively. In the case of laboratory in these colleges it is only 0.9%, 1.2%, 1.6%, 1.2% respectively. Even in a developing area like Education Technology the investment in these institutions is 0.8%, 1.2%, 1.7%, 2.8% respectively.

This may be because the teacher education institutional management is not well aware of the significance of these items for a successful teacher education programme. It is high time that steps are taken for giving additional weightage to library, laboratory, education technology, etc. in teacher education institutions.

Among the recurring cost, expenditure towards salary comes first. This is in full agreement of the comparative study conducted by "P. Duraisamy and Malathy Duraisamy", (2000) in Delhi and Tamil Nadu respectively. In Kerala situation the salary expenditure vary strikingly in government teacher education colleges and university teacher education centres, the former having about 6 times more than the later. Whether the low-cost of salary has

reflection on the staff selection procedure and the quality of teaching staff available has yet to be studied.

Only departmental candidates of government teacher education colleges, bear the individual cost on their own. With regard to other candidates the expenses are believed to be made by the parents

The unit cost of individuals, within the institutional cost was calculated with regard to government colleges and are found to have about 10 times more than that of the teacher education centres inspite of the stipulation of National Council for Teacher Education. It is a matter of serious concern.

Second objective of the study is related to the analysis of the individual cost of teacher education in preparing graduate teachers in Kerala state.

Data for this were collected using questionnaire to these students and perusal of records and registers are kept in the institutions.

Individual Costs

Under the individual costs, - Visible cost / Private cost and Opportunity costs, are included. Visible costs have two branches - Tuition cost and maintenance (non tuition) cost. Under the tuition cost - Tuition fees and other fees etc. are included. Under the non-tuition cost / Maintenance cost - Books & stationery, Hostel fee, Transport cost, Uniforms and other expenditure, etc. are included.

Individual costs were calculated considering that the individual cost essentially consists of direct cost and direct cost of education incurred by the students or their parents for the sake of the particular course of the education. It consists of:

1. Initial Cost- Cost of application form, expenditure related interview, etc.
2. Fees - Tuition and other fees.
3. Collateral Cost- Expenditure related with the course. Books, records, paper, pen, pencil, teaching learning material articles, study tour, excursion, etc.
4. Personal Cost - Expenditure incurred by personal matter- linen, medicine, other expenses, etc.

5. Transport Cost - Travel expenditure in related with the course
6. Opportunity cost - loss of income (foregone earnings)

Since the teacher trainees belongs to open quota, management quota and department quota and further they have to be classified as dayscholars and hostelinmates, the unit cost of each subgroup is calculated and presented separately.

Individual cost of open quota candidates (dayscholars)

Table V.13 presents the individual cost of open quota candidates (dayscholars)

Table V. (13)

Individual cost of open quota candidates (Dayscholars)

S.No.	Item	Category of Institutions			
		Government Teacher Education Colleges	Private Aided Teacher Education Colleges	Private Un-aided Teacher Education Colleges	University Teacher Education Centres
1.	Initial cost	250	250	300	300
2.	Fees	1000	1000	12500	10250
3.	Collateral cost	4750	5750	10000	7500
4.	Personal cost	3200	3200	3000	2400
5.	Transport cost	3200	3200	3200	3200
Total Cost		12400	13400	29000	23650

Data given in Table V. (13) reveals that individual cost recorded for an individual at Government Teacher Education Colleges is Rs.12400/- Private Aided Teacher Education Colleges is Rs.13400/- Private Un-aided Teacher Education Colleges is Rs.29000/- University Teacher Education Centres is Rs.23650/-

For the quick view of the idea a bar diagram Figure 5.15 has been included.

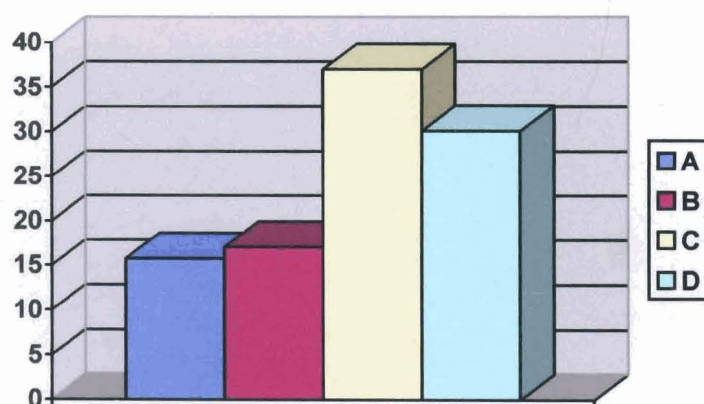


Figure-5. 15 Individual cost of open quota candidates (Dayscholars)

Category of Institution	Percentage
A- Government Teacher Education Colleges	- 15.8
B-Private Aided Teacher Education Colleges	- 17.1
C- Private Un-aided Teacher Education Colleges	- 37
D-University Teacher Education Centres	- 30.1

Individual cost of open quota candidates (Hostelinmates)

Table V. (14) presents the individual cost with regard to open quota (hostelinmates)

Table V. (14)

Individual cost of open quota candidates (Hostelinmates)

S.No	Item	Category of Institutions			
		Government Teacher Education Colleges	Private Aided Teacher Education Colleges	Private Un-aided Teacher Education Colleges	University Teacher Education Centres
1.	Initial cost	250	250	300	300
2.	Fees	1000	1000	12500	10250
3.	Collateral cost	4750	5750	10000	7500
4.	Personal cost	3200	3200	3000	2400
5.	Transport cost	2000	2000	2000	2000
6.	Boarding & Lodging	9600	9600	9600	9600
Total Cost		20800	21800	37400	32050

Data in table V. 14 Reveals that Individual cost of the Government Teacher Education Colleges, Private Aided Teacher Education Colleges, Private Un-aided Teacher Education Colleges and University Teacher Education Centres is Rs.20,800/-, Rs.21, 800/-, Rs.37, 400/- and Rs.32, 050/- respectively.

For the quick view of the idea a bar diagram Figure 5.16 is included.

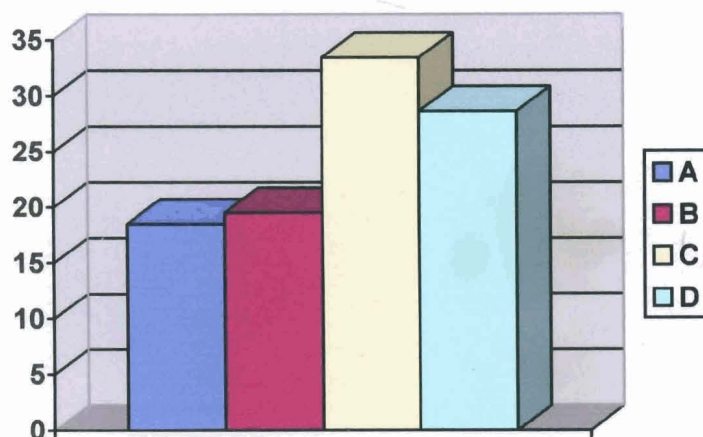


Figure-5. 16 Individual cost of open quota candidates (Hostelinmates)

Category of Institution	Percentage
A- Government Teacher Education Colleges	- 18.5
B-Private Aided Teacher Education Colleges	- 19.5
C- Private Un-aided Teacher Education Colleges	- 33.4
D-University Teacher Education Centres	- 28.6

Open quota

In government teacher education college, private teacher education college, private un-aided teacher education college and university teacher education centres open quota seat for admission

is 44%, 55%, 50% and 55% respectively. The selection of quota is on the basis of marks obtained by the candidates belonging to different reserved communities and other specified quotas. For the sake of the calculation of reservation quota is also clubbed with open quota

Management quota

In Private Aided Teacher Education Colleges and Private Un-Aided Teacher Education College's management quota is available for admission. It come to 20 percent in minority run private aided colleges and 15 percent in majority run private aided colleges and 50 percent in un-aided training colleges irrespective of the majority or minority community management.

For the admission under the management quota capitation fee is collected by management at different rate. But no receipt is issued for the same. The students who were identified as management candidates were reluctant to put it in writing how much capitation fees was paid. Students admitted under management quota at the time of interview revealed very privately the amount they have paid

as capitation fees (which were considered donations to the society running the colleges).

The Details of capitation fee remitted for the management admissions are presented as Table No.V. (15).

Table V. (15)

Details of capitation fee remitted for the management quota admission

Details of capitation fees	Private aided teacher education colleges	Private un-aided teacher education colleges	Total
Upto 30000	Nil	Nil	
30001-40000	2	8	10
40001 - 50000	90	90	180
50001 - 60000	5	5	10
More than 60001	Nil	Nil	
Total	97	103	200

Though in table five ranges are given the students have reported to have remitted the maximum amount in each range. For example in the range Rs.30001 to Rs.40000/- all the students have actually remitted Rs.40000/- each. Like wise in the range of Rs.40001/- to Rs.50000/- all the 180-student have remitted Rs.50000/- each. In the range of Rs.50001/- to Rs.60000 /- all the ten

students have actually remitted Rs.60000/-. Hence the average capitation fee comes to Rs.50000/- per student under management quota.

Individual cost of candidates under management quota (dayscholars) is presented in Table No V. (16)

Table V. (16)

Individual cost of candidates under management quota (Dayscholars)

Sl.No.	Item	Category of Institutions	
		Private Aided Teacher Education Colleges	Private Un-aided Teacher Education Colleges
2.	Fees	1000	12500
3.	Collateral cost	5750	10000
4.	Personal cost	3200	3000
5.	Transport cost	3200	3200
6.	Capitation fees	50000	50000
Total Cost		63400	79000

Data in Table V. (16) reveals the individual cost recorded in Private Aided Teacher Education Colleges Rs.63400/- and Private Un-aided Teacher Education Colleges Rs.79000/-.

For the quick view of the idea a bar diagram Figure 5.17 is included.

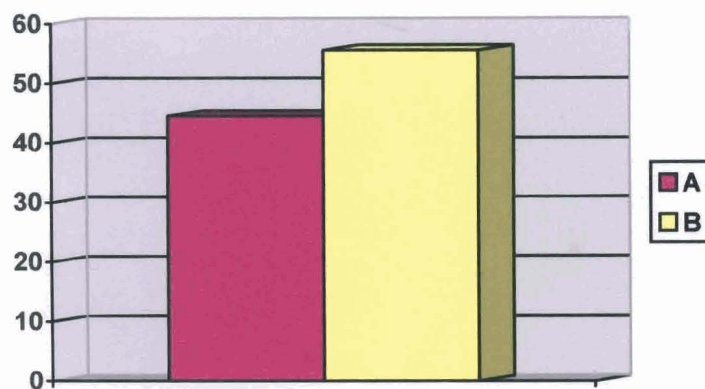


Figure 5.17 Individual cost of candidates under management quota (Dayscholars)

Category	Percentage
A-Private Aided Teacher Education Colleges	44.5
B-Private Un-aided Teacher Education colleges	55.5

Individual cost of candidates under management quota (hostelinmates) is presented is Table V. (17)

Table V. (17)

Individual cost of management quota candidates (Hostelinmates)

S.No.	Item	Category of Institutions	
		Private Aided Teacher Education Colleges	Private Un-aided Teacher Education Colleges
1.	Initial cost	300	300
2.	Fees	1000	12500
3.	Collateral cost	5750	10000
4.	Personal cost	3200	3000
5.	Transport cost	1500	2000
6.	Management capitation fees	50000	50000
7.	Boarding & lodging	9600	9600
	Total	71350	87400

Data of the individual costs for hostelinmates under Management quota is Rs.71350/- in Private Aided Teacher Education Colleges and Rs.87400/- in Private Un-aided Teacher Education Colleges.

For the quick view of the idea a bar diagram Figure 5.18 is included

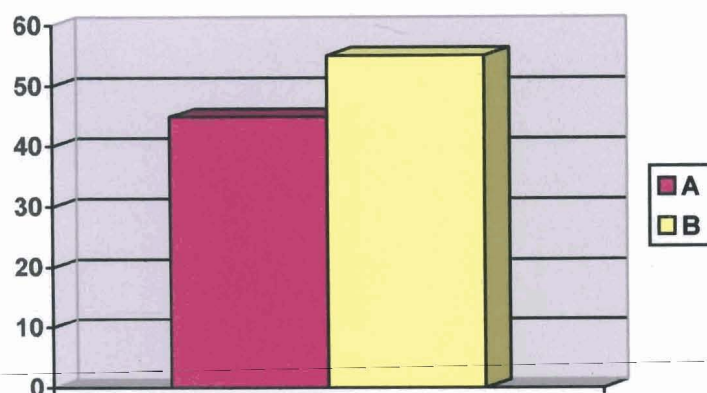


Figure 5.18 Individual cost of management quota candidates
(Hostelinmates)

Category	Percentage
A-Private Aided Teacher Education Colleges	44.9
B-Private Un-aided Teacher Education Colleges	55.1

Department Candidates

Untrained leave reserve graduate teachers in departmental high school, un trained language teachers in department and aided high schools and upper primary schools, graduate teachers in primary in departmental and aided schools, specialist craft teachers with graduation and clerks in offices and other institutions under the Directorate of Public Instructions are selected for the B.Ed course. In the department quota there are 40 seats in government

training colleges Trivandrum and 24 seats in each training college in Trissur, Calicut and Thalesery. The selection is made according to seniority. They are given subsistence allowances at the rate of Rs.250/- per month. Those trainers who belong to scheduled caste and scheduled tribe communities and recruited under special recruitment programme are eligible for the minimum of the scale of pay and usual allowances attached to the post for which they were recruited during the period of training.

Details regard in the cost of departmental candidates (Dayscholars and Hostelinmates) is presented in Table V. (18)

Table V. (18)

Individual cost of departmental candidate (Dayscholars & Hostelinmates)

Sl.No	Item	Government Teacher Education College	
		Dayscholars	Hostlers
1.	Initial cost	200	200
2.	Fees	1000	1000
3.	Collateral cost	4750	4750
4.	Personal cost	4800	4800
5.	Transport cost	3800	3000
6.	Boarding & lodging	-	9800
7.	Opportunity cost	67500	67500
	Total	82050	91050

Data in Table V. (18) reveals that the individual cost incurred by the departmental candidates who are dayscholars is Rs.82050/- and hostelinmates is Rs.91050./-

The bar diagram given as Figure 5.19 will help to make an easy comparison of the cost of departmental candidates.

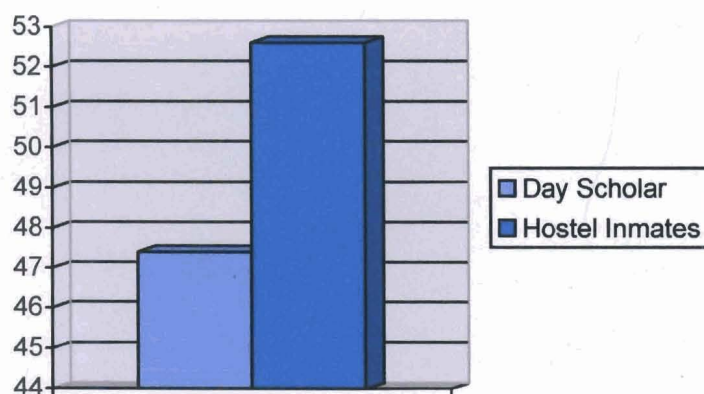


Figure 5.19 Individual cost of departmental candidate (Dayscholars & Hostelinmates)

Category	Percentage
Day Scholar	- 47.4
Hostelinmates	- 52.6

Discussion

The individual cost of candidates comprises initial cost fees, collateral cost, personal cost and transport cost. The individual cost of open quota candidates who are dayscholars shows wide difference with regard to the types of management whereas in government teacher education colleges it comes to only Rs.12400/- in private un-aided teacher education colleges it is as high as Rs.29300/-. In the university teacher education centres also the amount is comparatively higher (Rs.23650/-). But there is not much difference between government teacher education colleges and government private teacher education colleges. This disparity is mainly due to the diversity in fee structure whereas in government teacher education colleges and private aided teacher education colleges it is just Rs.1000/- each. In private un-aided teacher education colleges and the university teacher education centres, it is Rs.12500/- and Rs.10250/- respectively. There is notable difference in collateral cost also. There is no convincing explanation for this disparity, since all these institutions transact the same curriculum.

In the case of hostelinmates under open quota also, individual cost of private unaided teacher education colleges and university teacher education centres top the list. But there is no disparity as far as the boarding and lodging charges are concerned.

Candidate selected under management quota, had to remit a good sum by way of capitation fees. Though reluctant to put in writing in response to the items in the questionnaire at the time of interview they divulged the information correctly. Usually such candidates have to pay Rs.40000/- to Rs.60000/- depending on the colleges, but most of them have paid Rs.50000/- by way of capitation fee to the management. When this is added to the total cost the gulf between the cost of the management candidates and the non-management candidates widens. It jumps from Rs.20800/- to Rs.79000/-. The management candidates do not receive any additional benefit inspite of this huge investment. Further in most of the cases the managements are found not investing the amount so collected for improving the building or infrastructural facilities of the institutions. It is high time that some legislation is brought out

to stop the collection the capitation fee and also to make the managements to improve the facilities of colleges. There may be private teacher education institution which do not take capitation fees for admission under management quota but about 200 students in the sample selected for the study are found to have donated a considerable amount as capitation fees the average amount being Rs.50000/-. Many of the candidates are donating such a huge amount in the hope that they will find a job after the teacher training. The real position in this regard can be brought to the limelight only after a detailed further study in this area.

There is personal difference of less than Rs.10000/- between dayscholars and hostelinmates. Teacher education being a course demanding a lot of continuous interaction between the teachers and the students, at present there are no subsidised hostels attached to teacher education institutions and hence all the charges are to be borne by the candidates.

The departmental candidates are selected from the teaching and non-teaching staff of the directorate of public instruction on the basis of their service. But unfortunately the members of the non-teaching staff after training continue to be in the service in non-teaching section and are not transferred/promoted to the teaching category. Further such candidates are provided a meager lump sum amount of Rs.250/- only. They are forced to sacrifice their whole salary for the period. The loss of amount to them per individual is Rs.67500/- and they are not benefited by this sacrifice.

The third objective of the study is related to comparing the variation of student cost and institution cost in different types of institutions meant for preparing graduate teachers in Kerala state. The unit cost was calculated from the recurring and non-recurring cost (institutional cost and individual cost).

Since the teacher trainees belong to open quota, management quota and department quota and they have been classified as

dayscholars and hostelinmates, the unit cost of each sub group is calculated and presented separately.

Unit cost of the graduate teacher education programme in Kerala state.

a. Individual total cost of open quota candidates

Since open quota candidates are both dayscholars and hostelinmates, the data collected in this regard are presented separately.

Unit cost of the graduate teacher education programme in Kerala state (open quota dayscholars)

Table V. (19) presents the unit cost of the graduate teacher education programme in Kerala state (open quota, dayscholars).

Table V. (19)

Unit cost of the graduate teacher education programme in
Kerala state.

a. Open quota (Dayscholars)

Category	Category of institutions			
	Government Teacher Education Colleges	Private Aided Teacher Education Colleges	Private Un- aided Teacher Education Colleges	University Teacher Education Centres
Unit cost of Individuals related with institutional cost	54834 (81.6%)	50293 (79%)	47447 (62.1%)	9006 (27.6%)
Unit cost of Individual cost	12400 (18.4%)	13400 (21%)	29000 (37.9%)	23600 (72.4%)
Total cost	67234 (100)	63693 (100)	76447 (100)	32606 (100)

Data as shown in Table V. (19) reveal the unit cost of the dayscholars under merit quota with regard to institutional and individual cost.

Unit cost of the subject with regard to the Government Training Colleges, Private Aided Training Colleges, Private Un-aided Teacher Education Colleges and University Teacher Education Centres is Rs.54384/-, Rs.50293/- Rs.49447/- Rs.9006/- respectively.

Unit cost of Individual cost of the subjects with regard to the Government Teacher Education Colleges, Private Aided Teacher

Education Colleges, Private Un-aided Teacher Education Colleges and University Teacher Education Centres is Rs.12400/-, Rs.13400/-, Rs.29000/- and Rs.23600/- respectively.

As we proceed from government teacher education colleges to university teacher education centres the decrease almost doubles up in the case of institutional cost, and increases in the same proportion in the case of individual cost.

Total cost of the subject in connection with Teacher education cost - is Rs.67234/- in Government Teacher Education Colleges Rs.63693/- in Private Aided Teacher Education Colleges Rs.76447/- in Private Un-aided Teacher Education Colleges and it is Rs.32606/- in University Teacher Education Centres.

For the quick view of idea a bar diagram Figure 5.20 is included.

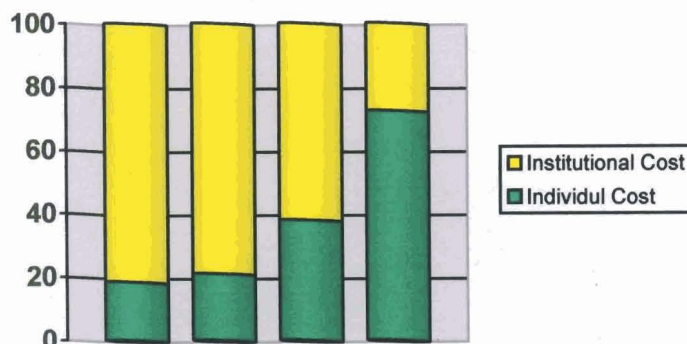


Figure-5.20 Unit cost of the graduate teacher education programme in Kerala state open quota (Dayscholars).

Individual Cost:

Category of Institutions	Percentage
A-Government Teacher Education Colleges	- 18.4
B-Private Aided Teacher Education Colleges	- 21
C-Private Un-aided Teacher Education Colleges	- 37.1
D-University Teacher Education Centres	- 72.4

Institutional:

Category of Institutions	Percentage
A-Government Teacher Education Colleges	- 81.6
B-Private Aided Teacher Education Colleges	- 79
C-private Un-aided Teacher Education Colleges	- 62.1
D-University Teacher Education Centres	- 27.6

Unit cost of the graduate teacher education programme in Kerala state open quota (hostelinmates).

Table V. (20) present the unit cost of the graduate teacher education programme in Kerala state open quota (hostelinmates).

Table V. (20)

Unit cost of the graduate teacher education programme in Kerala state.

b. Open quota (Hostelinmates)

Category	Category of institutions			
	Government Teacher Education Colleges	Private Aided Teacher Education Colleges	Private Un-aided Teacher Education Colleges	University Teacher Education Centres
Unit cost of Individuals related with institutional cost	54834 (72.5%)	50293 (69.8%)	47447 (55.9%)	9006 (21.9%)
Unit cost of Individual cost	20800 (27.5%)	21800 (30.2%)	37400 (44.7%)	32050 (78.1%)
Total cost	75634 (100)	72093 (100)	84847 (100)	41056 (100)

Data given in Table V. (20) reveals the unit cost of subject with regard to the institutional and individual cost of hostelinmates admitted in merit quota to the Government Teacher Education Colleges, Private Aided Teacher Education Colleges, Private Un-aided Teacher Education Colleges and University Teacher Education

Centres is Rs.54834/-, Rs.50292/-, Rs.47447/- and Rs.9006/- respectively.

Unit cost of the individual cost of the students with regard to the Government Teacher Education Colleges, Private Aided Teacher Education Colleges, Private Un-aided Teacher Education Colleges and University Teacher Education Centres is Rs.20800/-, Rs.21800/-, Rs.37400/- and Rs.32050/- respectively.

Total cost of the subjects incurred for the teacher education programme is Rs.75634/-, Rs.72093/-, Rs.84847/- and Rs.41056/- in Government Teacher Education Colleges, Private Aided Teacher Education Colleges, Private Un-aided Teacher Education Colleges and University Teacher Education Centres respectively.

A bar diagram given Figure 5.21 will help to make an easy comparison of the cost of graduate teacher education programme open quota (hostelinmates)

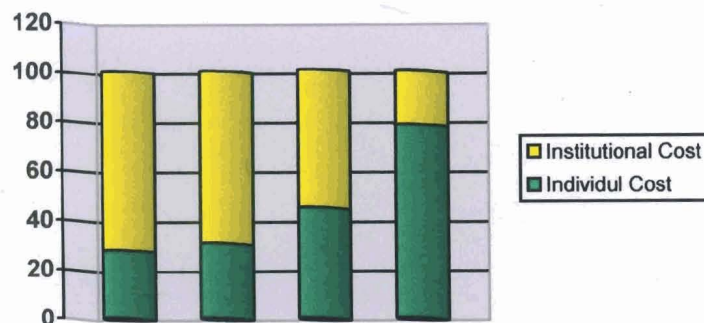


Figure-5.21 Unit cost of the graduate teacher education programme in Kerala state Open quota (Hostelinmates)

Institutional:

Category of Institutions	Percentage
A-Government Teacher Education Colleges	- 72.5
B-Private Aided Teacher Education Colleges	- 69.8
C-Private Un-aided Teacher Education Colleges	- 55.9
D-University Teacher Education Centres	- 21.9

Individual Cost:

A-Government Teacher Education Colleges	- 27.5
B-Private Aided Teacher Education Colleges	- 30.2
C-Private Un-aided Teacher Education Colleges	- 44.7
D-University Teacher Education Centres	- 78.1

There is a fixed percentage of seats available under management quota both at private aided teacher education colleges and private un-aided teacher education colleges. The students

admitted under this quota are either dayscholars or hostelinmates.

Therefore the data is presented separately.

Unit cost of the graduate teacher education programme of dayscholars under management quota.

Table V. (21) presents unit cost of the graduate teacher education programme of dayscholars under management quota.

Table V. (21)

Unit cost of the graduate teacher education programme of dayscholars admitted under management quota

Category	Category of institutions	
	Private Aided Teacher Education Colleges	Private Un-aided Teacher Education Colleges
Unit cost of individuals related with institutional cost	50293 (44.2%)	47447 (37.5%)
Unit cost of Individual cost	63400 (55.8%)	79000 (62.5%)
Total cost	113693 (100)	126447 (100)

Data as shown in Table V. (21) reveals that the unit cost of the subjects with regard to institutional cost in the Private Aided Teacher Education Colleges and Private Un-aided Teacher Education Colleges is Rs.50293/- and Rs.47447/- respectively.

Unit cost of individual cost is Rs.63400/- and Rs.79000/- respectively in Private Aided Teacher Education Colleges and Private Un-aided Teacher Education Colleges.

Total cost of the subjects in connection with the study of Teacher Education Programme is Rs.113693/- and Rs.126447/- respectively in Private Aided Teacher Education Colleges and Private Un-aided Teacher Education Colleges.

The bar diagram given as Figure 5.22 will help to make an easy comparison of the cost of dayscholars under management quota.

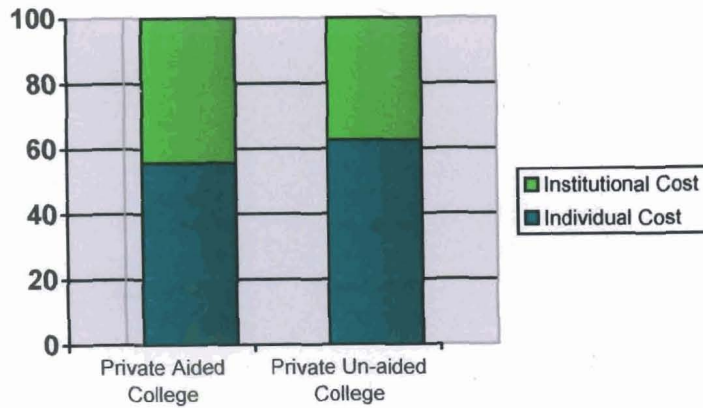


Figure-5.22 Unit cost of the graduate teacher education programme of dayscholars admitted under management quota.

Category of Institutions	Percentage
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Private Aided Teacher Education colleges

Institutional cost:	44.2
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Individual cost:	55.8
------------------	------

Private Un-aided Teacher Education Colleges

Institutional cost:	37.5
---------------------	------

Individual cost:	62.5
------------------	------

Unit cost of the graduate teacher education programme of hostelinmates under management quota.

Table V. (22) presents unit cost of the graduate teacher education programme of hostelinmates under management quota.

Table V. (22)

Unit cost of graduate teacher education programme of hostelinmates under management quota

Category	Category of institutions	
	Private Aided Teacher Education Colleges	Private Un-aided Teacher Education Colleges
Unit cost of Individuals related with institutional cost	50293 (41.3%)	47447 (35.2%)
Unit cost of Individual cost	71350 (58.7%)	87400 (64.8%)
Total cost	121643 (100)	134847 (100)

Data given in Table V. (22) reveals the unit cost of the subjects in connection with institutional cost in the Private Aided Teacher Education Colleges and Private Un-aided Teacher Education Colleges is Rs.50293/- and Rs.47447/- respectively.

Unit cost of individual cost is Rs.71350/- and Rs.87400/- respectively in Private Aided Teacher Education Colleges and Private Un-aided Teacher Education Colleges.

Total cost of the subject in connection with Teacher Education Programme is Rs.121643/- and Rs.134847/- respectively in Private Aided Teacher Education Colleges and Private Un-aided Teacher Education Colleges.

The bar diagram given as Figure 5.23 will help to make an easy comparison of cost of hostelinmates under management quota.

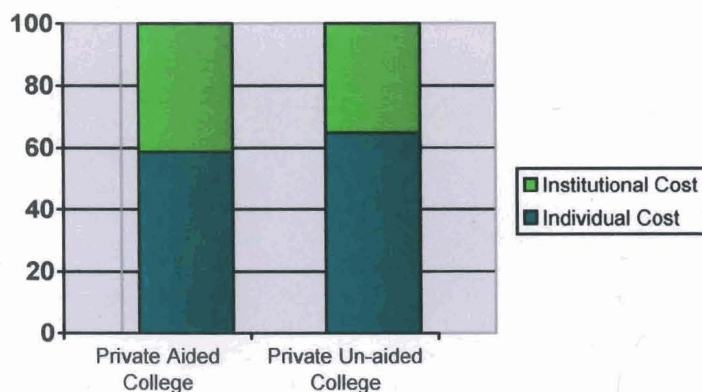


Figure-5.23 Unit cost of graduate teacher education programme of hostelinmates under management quota .

Category of Institutions	Percentage
<u>Private Aided Teacher Education colleges</u>	
Institutional cost:	41.3
Individual cost:	58.7
<u>Private Un-aided Teacher Education Colleges</u>	
Institutional cost:	35.2
Individual cost:	64.8

The candidate admitted under departmental quota may be dayscholars or hostelinmates. Hence the data in this regarded are presented separately.

Unit cost of the graduate teacher education programme of dayscholars under department quota.

Table V. (23) presents unit cost of the graduate teacher education programme of dayscholars under department quota.

Table V. (23)

Unit cost of the graduate teacher education programme of dayscholars under department quota.

Category	Category of institutions
	Government Teacher Education Colleges
Unit cost of Individuals related with institutional cost	54834 (40%)
Unit cost of Individuals related with individual cost	82050 (60%)
Total cost	136884 (100)

The details regarding the unit cost of the Graduate Teacher Education Programme (Department quota) in Kerala State shown in Table V. (23) reveals that the unit cost of the departmental candidates in connection with Institutional cost is Rs.54834/- and individual cost is Rs.82050/-. Unit cost of the day scholar is Rs.136884/-.

Unit cost of the graduate teacher education programme of hostel inmates under department quota.

Table V. (24) presents unit cost of the graduate teacher education programme of hostel inmates under department quota.

Table V. (24)

Unit cost of the graduate teacher education programme of hostel inmates under department quota.

Category	Category of institutions
	Government Teacher Education Colleges
Unit cost of Individuals related with institutional cost	54834 (37.6%)
Unit cost of individuals related with Individual cost	91050 (62.4%)
Total cost	145884 (100)

Data of the details regarding the unit cost of the hostel inmates admitted to departmental quota for Graduate Teacher Education Programme in Table V. (24) reveals that the unit cost of the subjects with regard to Institutional cost of the Department candidate is Rs.54834/- and Individual cost is Rs.91050/-. The unit cost of the hostel inmates is Rs.145884/-

The bar diagram given as Figure 5.24 will help to make an easy comparison of the cost of dayscholars and hostelinmates under department quota.

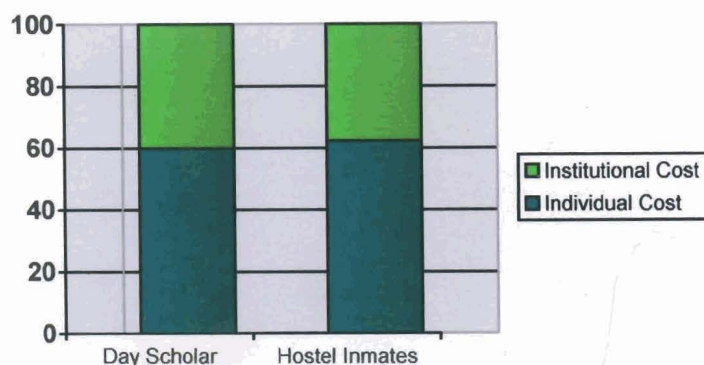


Figure-5.24 Unit cost of the graduate teacher education Programme of dayscholars and hostelinmates under department quota.

Day Scholar:

Institutional Cost	-	40
Individual Cost	-	60

Hostelinmates:

Institutional cost	-	37.6
Individual cost	-	62.4

Discussion

The unit cost for graduate teacher education programme in Kerala (open quota) was calculated on the basis of the institutional and individual costs. The results of calculation and analysis have revealed strange relationship between different types of institutions.

In Government teacher education colleges and private aided teacher education colleges institutional cost is found to be higher and individual cost is comparatively lower in the case of private unaided teacher education colleges. But institutional cost and individual cost are almost the same. In the case of university teacher education centres the institutional cost is lower when compared to the individual cost. A linear study of the Table V. (19) also reveals interesting observations. Though there is no numerical or geometrical relationship between the different types of institutions the increase in percentage maintains some proportion. In the case of institutional cost it decreases from 81.6 percent to 79 percent, and 62.1 percent, and 27.6 percent from Government Teacher Education Colleges to University Teacher Education Centres. In the case of unit cost the increase assumes the same proportion.

The disparity in individual unit cost with respect to institutional cost and individual cost should be a matter of further study. The comparison between these two areas in Government Teacher Education Colleges and University Teacher Education

Centres is enough to bewilder any financial planner or educational expert. In the case of open quota as far as hostelinmates are concerned the disparity is higher with regard to teacher education centres. This may be because the University Teacher Education Centres are run in rent free buildings and the costs of maintenance of their infrastructural facilities are the minimum.

Fee and collateral costs differ to some extent in Private Aided Teacher Education Colleges and Private Un-aided Teacher Education Colleges. In Private Aided Teacher Education Colleges fees are collected at the rate of Rs.1000/-. But Private Un-aided Teacher Education Colleges fees are Rs.12500/-. The rates collected under fees items may be one of the reasons for this difference Table V. (16) indicates that the diversity in collateral cost is also added reason that there is not much difference between the institutional cost and individual cost of hostelinmates admitted under management quota. But this evidence has to be compared with the expenditure borne by candidates admitted under open quota in Government Teacher Training Colleges. Whereas it is just

Rs.75634/- in the case of candidates admitted under open quota in Government Teacher Education Colleges. It comes to Rs.121643/- and Rs.134847/- in the case of Private Aided Teacher Education Colleges and Private Un-aided Teacher Education Colleges respectively. The difference in collateral cost and the capitation fees may be responsible for this difference.

The fourth objective of the study is related to comparing total unit cost per student in preparing graduate teachers in Kerala state. The unit cost is derived from the expenses under different types of institutional cost and different types of individual cost admitted under different quota. Further the student teachers were classified as dayscholars and hostelinmates and the unit cost is calculated accordingly.

Data available in this regard is presented in Table V. (25)

Table V. (25)

Unit cost of graduate student undergoing secondary teacher education in Kerala state.

Category	Open quota		Management quota		Department quota	
	Dayscho lars	Hosteli nmates	Dayscho lars	Hostelin mates	Dayscho lars	Hostelin mates
Government Teacher Education Colleges	67234	75634	-	-	136884	145884
Private Aided Teacher Education Colleges	63693	72093	113693	121643	-	-
Private Un-aided Teacher Education Colleges	76447	84847	126447	134847	-	-
University Teacher Education Centres	32606	41056	-	-	-	-

A vertical and horizontal study of the table reveals the enormous disparity with regard to unit cost. Looking horizontally students admitted under open quota in Government Teacher Education Colleges bear the cost of Rs.75634/-, the departmental candidates have to bear Rs.145884/-, while students admitted under open quota in the Private Aided Teacher Education Colleges bear Rs.72093/-. Those under management quota has to spend Rs.121643/- and students admitted to Private Un-aided Teacher Education Colleges have to spend Rs.84847/- whereas those

admitted in these institutions under management quota has to spend Rs.134847/-. Looking vertically students in University Teacher Education Centres have to spend Rs.32606/- to 41056/-. Even in Government Teacher Education Colleges the alarming unit cost is more than Rs.145000/- prevails.

Discussion

The unit cost borne by graduate students while receiving teacher training in this stage shows wide disparities. Even in Government Teacher Education Colleges while students admitted under open quota have to spend around Rs.75000/- or less. The department candidates have to bear more than Rs.145000/- this is because the department candidates have to sacrifice their salary throughout the period they are under going the course. The striking difference in the unit cost of students admitted in the same institutions even though under different quota cannot but be considered as a serious anomaly. In fact with regard to Government Teacher Education Colleges this difference can be minimized only by providing the department candidates full salary throughout the

course. In Private Aided Teacher Education Colleges also there is striking difference in the unit cost of open quota students and management quota students. Whereas in the case of open quota students it is just around Rs.72000/- it shoots up to almost Rs.121000/- in the case of management quota students. This difference is mainly due to the capitation fees collected by the management. The collateral cost also contribute to this disparity when compared to Government Teacher Education Institutions. In Private Un-aided Teacher Education Colleges students admitted under open quota have to spend around Rs.85000/- whereas those under management quota have to bear around Rs.134000/-. This difference between Private Aided and Private Un-aided Colleges is mainly due to the difference in fees structure. Further the collateral cost also has some role to play in this regard. Strikingly the least expense for the graduate teacher education is in the University Teacher Education Centres, the amount to be spent being just around to a maximum of Rs.41000/-. This is mainly because the institutional cost in such centres is much less. As to whether the

poor institutional costs affects the quality of teacher education
should be a matter of serious investigation.

Chapter – V

ANALYSIS AND INTERPRETATION OF DATA

CHAPTER V

ANALYSIS AND INTERPRETATION OF DATA

The present study has analysed the cost of Teacher education in Kerala. It includes the non-recurring cost/capital cost, recurring costs and individual cost of 41 secondary teacher training institutions involving a group of 2925 student teachers, which constitute the sample for the study. Questionnaires were used to collect data on the various aspects of the cost of students and institutions of teacher education. For the calculation of the total cost/social cost the sum of individual cost and institutional cost were used. For finding the total cost, different categories of teacher trainees as shown below were taken into account.

Government Teacher Education colleges	Private Aided Teacher Education colleges	Private Un-aided Teacher Education Colleges	University Teacher Education Centres
<u>Merit quota</u> Hostelinmates Dayscholars	<u>Merit quota</u> Hostelinmates Dayscholars	<u>Merit quota</u> Hostelinmates Dayscholars	<u>Merit quota</u> Hostelinmates Dayscholars
<u>Department quota</u> Hostelinmates Dayscholars	<u>Management quota</u> Hostelinmates Dayscholars	<u>Management quota</u> Hostelinmates Dayscholars	

Totalcost

The sum of Institutional cost and Individual cost gives the total cost of education.

Institutional cost

Institutional costs were calculated taking the non-recurring costs and recurring costs together.

In non-recurring cost the following costs are included:

Capital cost/land cost, buildings cost, equipment cost, material cost, library cost, laboratory cost and educational technology cost.

Under the recurring costs the following subheads were included: Salaries of teaching and non-teaching staff, scholarships, stipends, substantial allowances for students, and other contingency expenditure.

For the sake of analysis each objective of the study was taken serially and the relevant data collected from records, teachers and students were consolidated for the presentation of the data. So, collected data is presented under separate sub-titles.

The first objective of the study is concerned with the analysis of the institutional cost of the teacher education in preparing graduate teachers in kerala state.

Since institutional cost includes both non-recurring and recurring expenditure, they are analysed separately.

1. Non-recurring cost: Data to get non-recurring cost was collected from records and documents maintained in the institution selected for the study. Stock registers were the main source of data for this purpose. The data yielded and unit cost calculated on their basis is presented.

The Non-recurring cost of different teacher education institutions is presented in Table V. (1)

Table V. (1)

Details of the Non-recurring Cost

S.No	Item	Type of Management							
		Government Teacher Education Colleges	%	Private Aided Teacher Education Colleges	%	Private Un-aided Teacher Education Colleges	%	University Teacher Education Centres	%
1.	Land Cost	1260000	48.8	1575000	42.0	1365000	31.4	656250	31.5
2.	Building Cost	560000	21.7	1008000	26.9	1137500	26.2	525000	25.2
3.	Maintenance Cost	80000	3.1	112500	3.0	162500	3.7	112500	5.6
4.	Furniture cost	577721	22.3	860133	22.9	1410500	32.4	586685	28.2
5.	Library Cost	45534	1.7	70875	1.9	73938	1.7	52500	2.5
6.	Laboratory Cost	22475	0.9	45828	1.2	70200	1.6	40313	1.9
7.	Material cost	17150	0.7	35438	0.9	56875	1.3	48563	2.3
8.	Educational Technology cost	20861	0.8	42033	1.2	73007	1.7	59144	2.8
	Total Cost	2583741	100	3749807	100	4349520	100	2080955	100
	Unit Cost For Institution	645935		416645		334578		138730	

Analysis of Non Recurring cost given in Table V. (1) Shows
Rs.2583741/- for Government Teacher Education Colleges,
Rs.3749807/- for Private Aided Teacher Education Colleges,
Rs.4349520/- for Private Un-aided Teacher Education Colleges, and
Rs.2080955/- for University Teacher Education Centres.

With regard to the unit cost, Government Teacher Education Colleges stand first (Rs.645935/-) followed by Private Aided Teacher Education Colleges (Rs.416645/-) Private Un-aided Teacher Education Colleges (Rs.334578/-) and University Teacher Education Centres (Rs.138730/-).

The Pie diagram numbered as Figure 5.1 will give a glimpse of the distribution of non-recurring cost.

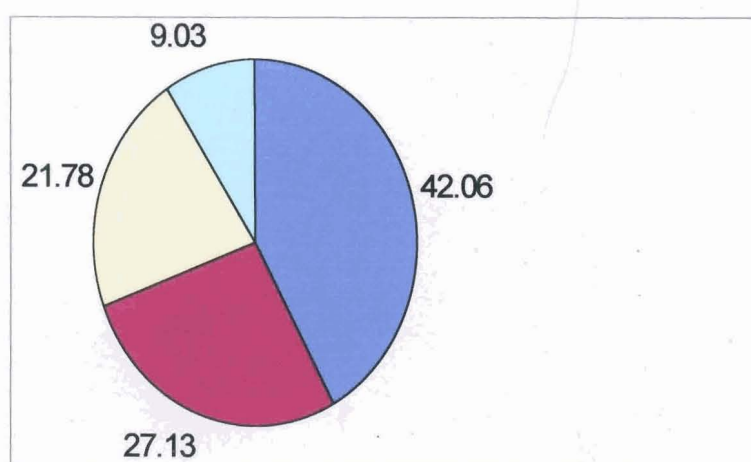


Figure 5-1 Details of the non-recurring cost.

Category of Institutions	Percentage
Government Teacher Education Colleges	- 42.06
Private Aided Teacher Education Colleges	- 27.13
Private Un-aided Teacher Education Colleges	- 21.78
University Teacher Education Centres	- 9.03

Non-recurring Cost (Capital Cost)

To help to get a more deep understanding different items presented as non-recurring in the previous table are taken separately and presented.

1.Land cost

Details regarding the land cost collected from the institutions are presented as table V. (2). This table will give in details specification regarding the calculation of the land cost.

Land Value

The land value of different teacher education centres is presented in Table V. (2)

Table V. (2)

The details regarding the Land Value as Per Government Norms.

Sl.No	Capital cost	Category of Institutions			
		Government Teacher Education Colleges	Private Aided Teacher Education Colleges	Private Un-aided Teacher Education Colleges	University Teacher Education Centres
1.	Market Value of the land	18000000	22500000	19500000	9375000
2.	Interest	1260000	1575000	1365000	656250
3.	Annual rent	1260000	1575000	1365000	656250
	Unit cost of Institution	315000	175000	105000	43750

Analysis of data of land value as per Table V. (2) reveals that with regard to the government training colleges, Private Aided Teacher Education Colleges, Private Un-aided Teacher Education Colleges and University Teacher Education Centres it is Rs.315000/-, Rs.175000/-, Rs.105000/- and Rs.43750/- respectively.

Interest collected is treated as annual rental value. Hence the same pattern of the distribution is noted with regard to the annual rent.

The bar diagram given as Figure 5.2 will help to make an easy comparison of the land cost.

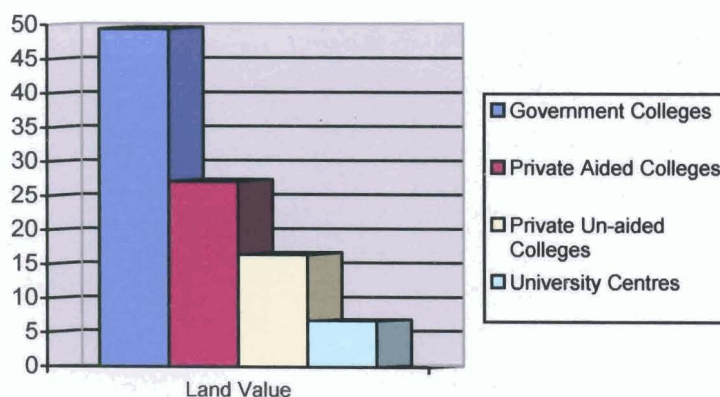


Figure 5-2 Details of land value

Category of Institutions	percentage
Government Teacher Education Colleges	- 49.5
Private Aided Teacher Education Colleges	- 27.2
Private Un-Aided Teacher Education Colleges	- 16.5
University Teacher Education Centres	- 6.8

Physical Infrastructure

The government teacher education colleges were established before 1950. As per the Public Works Department norms each building should be assigned the depreciation at the rate of 10% for 20years, and for over 20 years 20% rate to assess the market value. As per the rate of Reserve Bank of India 7% is treated as interest at market value. The interest rate is calculated as rental value of the facilities. Same norms were adopted in the calculation of building value of the private aided teacher education colleges.

Since the private un-aided teacher education colleges were started only after 1994, there is no depreciation value as per public works department norms. So the investigator has calculated the interest for rental aspect.

University Teacher Education Centres have procured the uneconomic schools, which have more facilities, furniture, buildings etc. In addition to this, they have procured equipments for the effective utilization of the college. So the Investigator has calculated the interest alone as rental value.

Building cost

The building cost of different teacher education institutions is presented in Table V. (3).

Table V. (3)

Building cost of different teacher education institutions as per the Government norm

S.No	Capital cost	Category of Institution			
		Government Teacher Education Colleges	Private Aided Teacher Education Colleges	Private Un-aided Teacher Education Colleges	University Teacher Education Centre
1.	Approximate value of total building	1000000	1800000	1625000	937500
2.	Depreciation 20%	200000	360000	-	187500
3.	Value of building	800000	1440000	1625000	750000
4.	Interest	560000	1008000	1137500	525000
5.	Annual rent	560000	1008000	1137500	525000
	Unit cost of Institution	140000	112000	87500	35000

Table V. (3) shows that with regard to the interest, Government Teacher Education Colleges top with Rs.560000/-. They

are followed by Private Aided Teacher Education Colleges with Rs.1008000/-, Private Un-aided Teacher Education Colleges with Rs.137500/- and University Teacher Education Centres with Rs.525000/-.

Annual rental value is entered on the basis of interest calculated as per the type of management.

Unit cost of the Government Teacher Education Colleges is Rs.140000/-. With regard to Private Aided Teacher Education Colleges it is Rs.112000/-. Private Un-aided Teacher Education Colleges it is Rs.87500/-and for University Teacher Education Centres it is Rs.35000/-.

The bar diagram given as Figure 5.3 will help to make an easy comparison of the building cost.

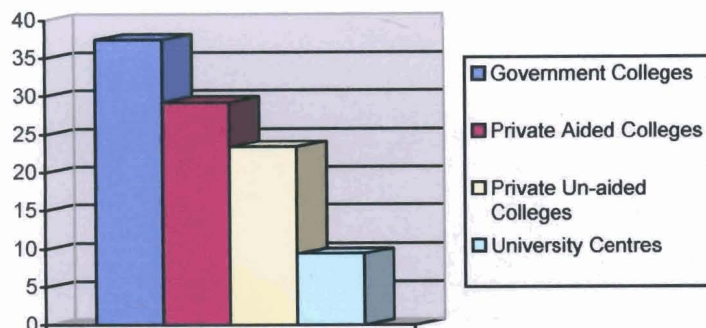


Figure 5-3 Building cost of different teacher education institutions as per the government norm

Category of Institutions	Percentage
Government Teacher Education Colleges	- 37.38
Private aided Teacher Education Colleges	- 29.19
Private Un-aided Teacher Education Colleges	- 23.36
University Teacher Education Centres	- 9.35

Maintenance Cost

The details regarding the maintenance cost with regard to different teacher education institutions is presented in Table V. (4)

Table V. (4)

The details regarding the maintenance cost with regard to teacher education institution

S.No.	Item	Category of Institution			
		Government Teacher Education Colleges	Private Aided Teacher Education Colleges	Private Un-aided Teacher Education Colleges	University Teacher Education Centres
1.	Maintenance of the institution	80000	112500	162500	112500
	Unit cost of Institution	20000	12500	12500	7500

Analysis of data Table V. (4) reveals that the unit cost of maintenance cost recorded in Government Teacher Education Colleges is Rs.20000/-. They are followed by Private Aided Teacher Education Colleges with Rs.12500/-, Private Un-aided Teacher Education Colleges with Rs.12500/- and University Teacher Education Centres with Rs.7500/-.

The bar diagram given as Figure 5.4 will help to make an easy comparison of the maintenance costs.

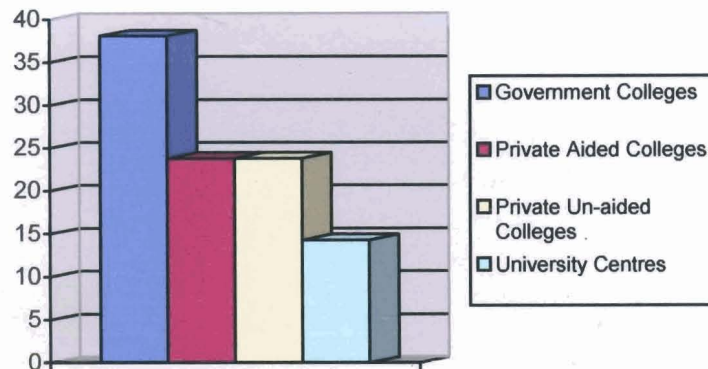


Figure 5-4 The details regarding the maintenance cost with regard to teacher education institution

Category of Institutions		Percentage
Government Teacher Education Colleges	-	38.09
Private Aided Teacher Education Colleges	-	23.81
Private Un-Aided Teacher Education Colleges	-	23.81
University Teacher Education Centres	-	14.29

Furniture Cost

The details regarding furniture cost is presented in Table V. (5)

Table V. (5)

Details of the furniture cost

S.No	Items	Category of Institution			
		Government Teacher Education Colleges	Private Aided Teacher Education Colleges	Private Un-aided Teacher Education Colleges	University Teacher Education Centres
1.	Furniture Cost	8253150	12287624	20150000	8381250
2.	Interest	577721	860133	1410500	586685
3.	Rent	577721	860133	1410500	586685
Unit cost of Institution		144430	95570	108500	39112

Data in Table V. (5) reveals that the unit cost of the furniture recorded in Government Teacher Education Colleges is Rs.144430/-. It is followed by Private Aided Teacher Education Colleges (Rs.95570/-), Private Un-aided Teacher Education Colleges (Rs.108500/-) and University Teacher Education Centre (Rs.39112/-).

The bar diagram gives as Figure 5.5 will help to make an easy comparison of the furniture cost.

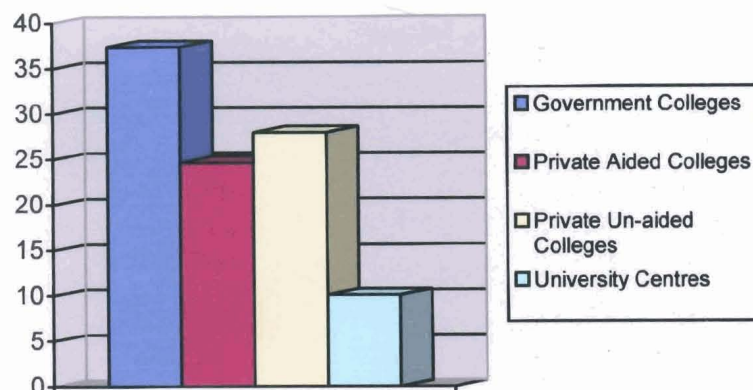


Figure 5-5 Details of the furniture cost

Category of Institutions	Percentage
Government Teacher Education Colleges	- 37.28
Private Aided Teacher Education Colleges	- 24.67
Private Un-Aided Teacher Education Colleges	- 27.95
University Teacher Education Centres	- 10.1

Library Books

As per the norms of depreciation adopted the books can be written off after 20 years utilization. Hence the cost of the stock only after 1980 was considered.

The details regarding the cost of library books is presented in Table V. (6).

Table V. (6)

Details regarding the cost of library books

S.No	Item	Category of Institution			
		Government Teacher Education Colleges	Private Aided Teacher Education Colleges	Private Un-aided Teacher Education Colleges	University Teacher Education Centre
1.	Cost of Library books	650500	1012500	1056250	750000
2.	Interest	45534	70875	73938	52500
3.	Rent	45534	70875	73938	52500
4.	Unit cost of Institution	11384	7875	5688	3500

Data as shown in Table V. (6) reveals that unit cost of the Library as recorded in Government Teacher Education College is Rs.11384/-, Private Aided Teacher Education College is Rs.7875/-, Private Un-aided Teacher Education College is Rs.5688/- and the University Teacher Education Centre is Rs.3500/-.

Interests calculated are treated as annual rental value. Hence the same pattern of the distribution is noted with regard to the annual rent.

The bar diagram given as Figure 5.6 will help to make an easy comparison for the cost of Library books,

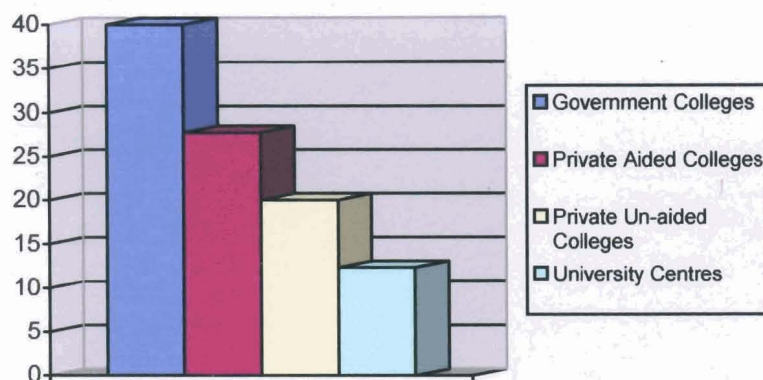


Figure 5-6 Details regarding the cost of library books

Category of Institutions	Percentage
Government Teacher Education Colleges	- 40
Private Aided Teacher Education Colleges	- 27.7
Private Un-Aided Teacher Education Colleges	- 20
University Teacher Education Centres	- 12.3

Laboratory Cost

The details regarding laboratory cost is presented in Table V.(7)

Table V. (7)

Details of the cost of laboratory items

S.No	Item	Category of Institution			
		Government Teacher Education Colleges	Private Aided Teacher Education Colleges	Private Un-aided Teacher Education Colleges	University Teacher Education Centres
1.	Laboratory equipment cost	292500	590400	910000	468750
2.	Interest	20475	41328	63700	32813
3.	Laboratory material cost	2000	4500	6500	7500
4.	Total cost	22475	45828	70200	40313
Unit cost of Institution		5619	5092	5400	2688

Data shown in Table V. (7) reveals that the unit cost of laboratory cost of the Government Training College, Private Aided Teacher Education Colleges, Unaided Teacher Education Colleges and University Teacher Education Centres is Rs.5619/-, Rs.5092/-, Rs.5400/- and Rs.2688/- respectively.

The bar diagram given, as figure 5.7 will help to make an easy comparison of the laboratory costs.

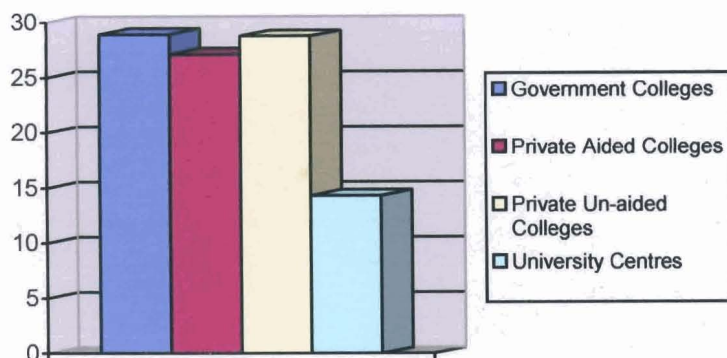


Figure 5-7 Details of the cost of laboratory items

Category of Institutions	Percentages
Government Teacher Education Colleges	- 28.89
Private Aided Teacher Education Colleges	- 27.09
Private Un-Aided Teacher Education Colleges	- 28.72
University Teacher Education Centres	- 14.30

Material cost

Material cost related to Mathematics, History, Geography, Audio Visual Equipments, Work experience Art, Physical Education etc. are given in Table No V. (8)

Table V. (8)

The cost of materials of various items

S.No	Item	Category of Institutions			
		Government Teacher Education Colleges	Private Aided Teacher Education Colleges	Private Un-aided Teacher Education Colleges	University Teacher Education Centres
1.	Material cost	245000	506250	812500	693750
2.	Interest	17150	35438	56875	48563
3.	Annual rent	17150	35438	56875	48563
	Unit cost of Institution	4288	3938	4375	3238

Analysis of data Table V. (8) revealed that unit cost of the material cost with regard to the Government Teacher Education Colleges, Private Aided Teacher Education Colleges, Private Un-aided Teacher Education Colleges and University Teacher Education Centres is Rs.4288/-, Rs.3938/-, Rs.4375/-, and Rs.3238/- respectively. Interests are treated as rental value.

The bar diagram given as Figure 5.8. will help to make an easy comparison of the cost of materials.

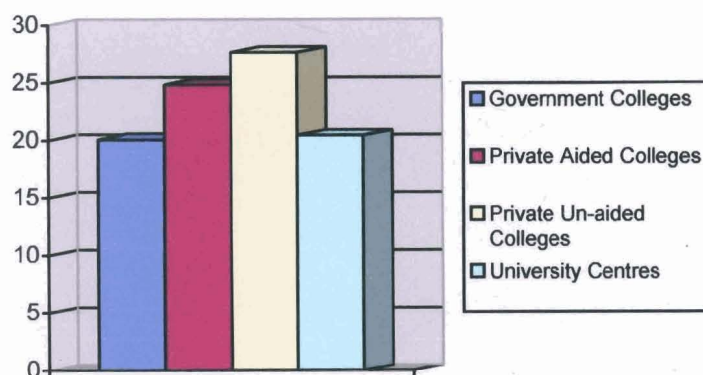


Figure 5-8 The cost of materials of various items.

Category of Institutions	Percentages
Government Teacher Education Colleges	- 20.08
Private Aided Teacher Education Colleges	- 24.86
Private Un-Aided Teacher Education Colleges	- 27.62
University Teacher Education Centres	- 20.44

Educational Technology Cost

The details regarding the cost of equipment in educational technology is presented in Table V. (9)

Table V. (9)

Details regarding the cost of equipment in educational technology

S.No	Item	Category of Institution			
		Government Teacher Education Colleges	Private Aided Teacher Education Colleges	Private Un-aided Teacher Education Colleges	University Teacher Education Centres
1.	Equipments related educational technology	298025	600469	1042958	844913
2.	Interest	20861	42033	73007	59144
3.	Rent	20861	42033	73007	59144
Unit cost of Institution		5215	4670	5616	3943

Data in Table V. (9) reveals that the unit cost of equipment in educational technology with regard to the Government Teacher Education Colleges, Private Aided Teacher Education Colleges, Private Un-aided Teacher Education Colleges and University Teacher Education Centres is Rs.5215/-, Rs.4670/-, Rs.5616/-, and Rs.3943/- respectively.

The bar diagram given, as Figure 5.9 will help to make an easy comparison of the cost of equipments in educational technology.

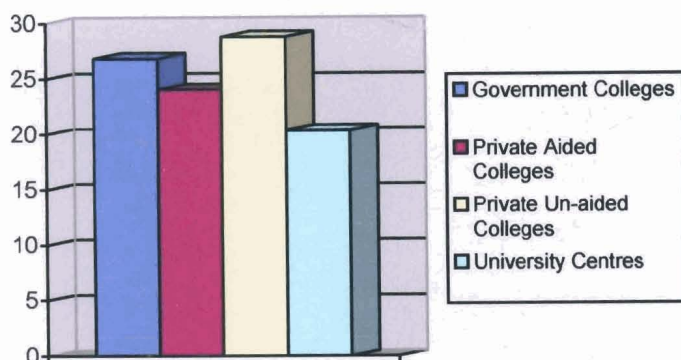


Figure 5-9 Details regarding the cost of equipment in educational technology

Category of Institutions	Percentage
Government Teacher Education Colleges	- 26.82
Private Aided Teacher Education Colleges	- 24.02
Private Un-aided Teacher Education Colleges	- 28.8
University Teacher Education Centres	- 20.28

The recurring cost:

The recurring cost includes the salary cost and the cost of scholarships, cost of stipends, cost of subsistence allowance, and other contingencies, etc. Data in this regard were collected using

questionnaire administered to the heads of institutions and scrutiny of salary register and acquittance roll.

The cost of recurring expenditure in different institutions is given in table V. (10)

Table V. (10)

The cost of recurring expenditure in different institutions

Sl. No	Item	Category of Institutions			
		Government Teacher Education Colleges	Private Aided Teacher Education Colleges	Private Un-aided Teacher Education Colleges	University Teacher Education Centres
1.	Salary cost	15318312 (92.2 %)	29020599 (96.1 %)	37804455 (98.6 %)	6337800 (91.5 %)
	Unit cost of Salary	3829578	3224511	2908035	422520
2.	Scholarship, Stipend, Substantive allowance, Other contingency etc.	1290000 (7.8 %)	1177499 (3.9 %)	548186 (1.4%)	587500 (8.5 %)
	Unit cost of Scholarship, Stipend, substantive allowance, others contingency etc.	322500	130833	42169	39167
3.	Total	16608312 (100 %)	30198098 (100 %)	38352641 (100 %)	6925300 (100%)
	Unit cost of recurring cost of Institution	4152078	3355344	2950203	461687

Data in Table V. (10) reveals that the unit cost of salary recorded in Government Teacher Education Colleges is Rs.382957/-.

This is followed by Private Aided Teacher Education Colleges with Rs.3224511/-, Private Un-aided Teacher Education Colleges with Rs.2908035/- and University Teacher Education Centres with Rs.461687/-.

Analysis of data revealed that the unit cost of related Stipend, Substantial allowances, Scholarship and other expenses etc., recorded in Government Teacher Education Colleges is Rs.322500/-, Private Aided Teacher Education Colleges is Rs.130833/- Private Un-aided Teacher Education Colleges is Rs.42169/- and University Teacher Education Centres is Rs.39167/-

Analysis of data revealed that the total cost related to recurring cost recorded in government colleges is Rs.16608312/-. Private Teacher Education Colleges is Rs.30198098/-. Private Un-aided Teacher Education Colleges is Rs.38352641/- and University Teacher Education Centres is Rs.6925300/-.

With regard to unit cost of the recurring cost Government Teacher Education Colleges stand first With Rs.4152078/-. This is followed by Private Aided Teacher Education Colleges

(Rs.3355344/-) Private Un-aided Teacher Education Colleges (Rs.2950203) and University Teacher Education Centres (Rs.461687/-).

The bar diagram given as Figure 5.10, 5.11 and 5.12 will help to make an easy comparison of the recurring cost of institutions

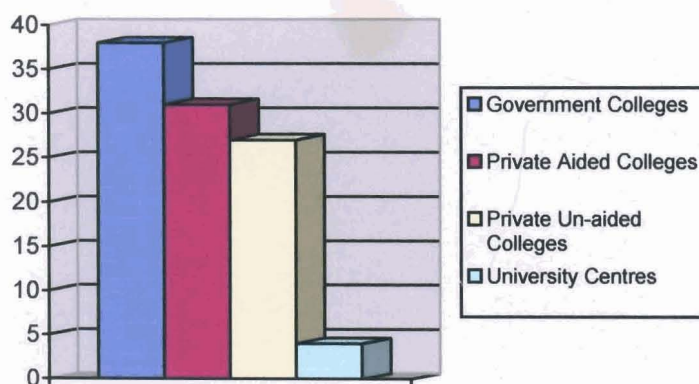


Figure 5-10 The cost of recurring expenditure in different institutions.

Category of Institutions	percentage
Government Teacher Education Colleges	- 38
Private Aided Teacher Education Colleges	- 31
Private Un-aided Teacher Education Colleges	- 27
University Teacher Education Centres	- 4

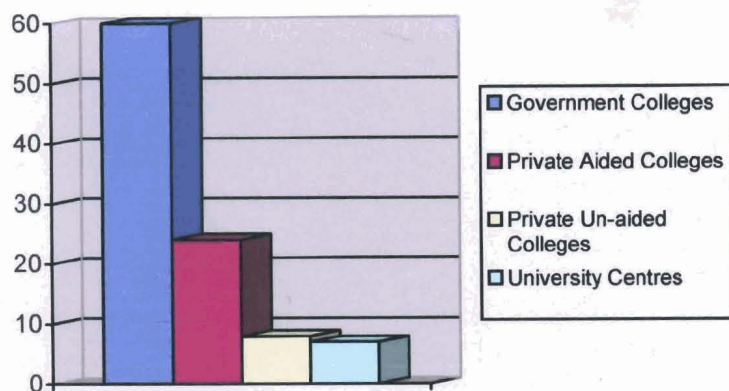


Figure 5-11 The scholarships, subsistence allowance and other expenses etc.,

Category of institutions	percentage
Government Teacher Education Colleges	- 60
Private Aided Teacher Education Colleges	- 24
Private Un-aided Teacher Education Colleges	- 8
University Teacher Education Centres	- 7

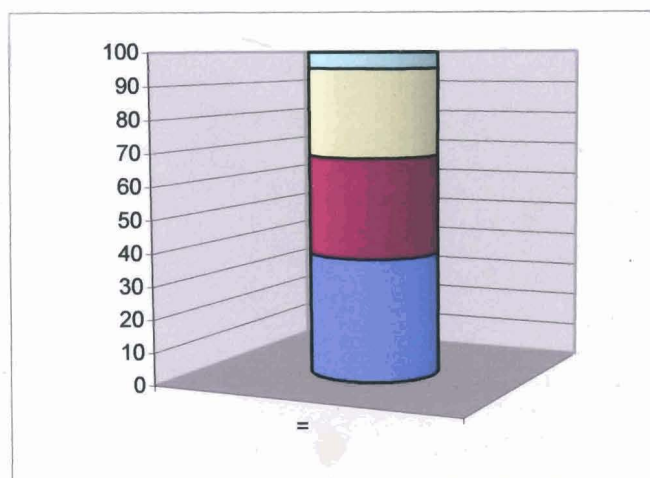


Figure 5-12 The unit cost of recurring cost of institution

Category of Institutions	percentage
Government Teacher Education Colleges	- 37.7
Private Aided Teacher Education Colleges	- 30.5
Private Un-aided Teacher Education Colleges	- 26.8
University Teacher Education Centres	- 5.0

Institutional Cost

Institutional costs include both non-recurring and recurring expenditure. Therefore for calculating the institutional cost both non-recurring and recurring expenditures were consolidated and it presented is Table V. (11)

Table V. (11)

Details of unit cost of institutional cost

S.No	Item	Category of Institutions			
		Government Teacher Education Colleges	Private Aided Teacher Education Colleges	Private Un-aided Teacher Education Colleges	University Teacher Education Centres
1.	Recurring cost	16608312	30198098	38352641	6925300
2.	Non recurring cost	2583741	3749807	4349520	2080955
3.	Total	19192053	33947905	42702161	9006255
Unit cost of Institution		4798013	3771989	3284782	600417

Data given in Table V. (11) reveals that unit cost of the institutions with regard to the Government Teacher Education Colleges, Private Aided Teacher Education Colleges, Private Un-aided Teacher Education Colleges and University Teacher Education Centres is Rs.4798013, Rs.3771989/-, Rs.3284782/- and Rs.600417 respectively.

As far as Institutional cost is concerned Government Teacher Education colleges stand first. It is the least in University Teacher Education Centres.

The bar diagram given as Figure 5.13 will help to make an easy comparison of the institutional cost.

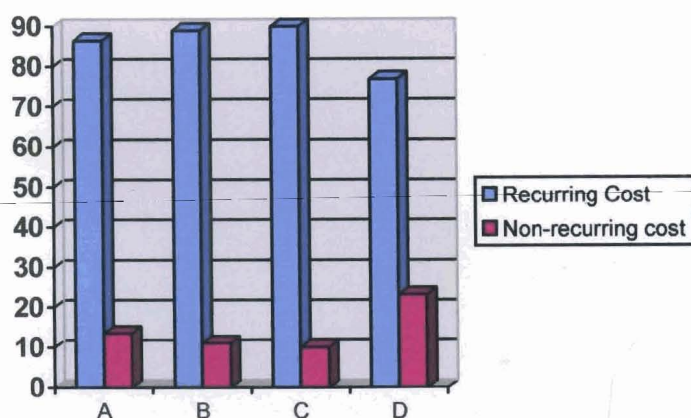


Figure 5-13 Details of unit cost of institutional cost

Recurring Cost:

Category of Institutions	Percentages
A-Government Teacher Education Colleges	- 86.5
B-Private Aided Teacher Education Colleges	- 89
C-Private Un-aided Teacher Education Colleges	- 90
D-University Teacher Education Centres	- 76.9

Non-recurring cost:

A-Government Teacher Education Colleges	- 13.5
B-Private Aided Teacher Education Colleges	- 11
C-Private Un-aided Teacher Education Colleges	- 10
D-University Teacher Education Centres	- 23.1

Table V. (12)
Cost per individual in institutional cost

S.No	Item	Category of Institutions			
		Government Teacher Education Colleges	Private Aided Teacher Education Colleges	Private Un-aided Teacher Education Colleges	University Teacher Education Centres
1.	Recurring cost	16608312	30198098	38352641	6925300
2.	Non recurring cost	2583741	3749807	4349520	2080955
3.	Total	19192053	33947905	42702161	9006255
Cost per Individual in Institutional cost		54834	50293	47447	9006

Data in Table V. (12) reveals that the unit cost of the individual in institutional cost.

Cost per individual in institutional cost with regard to the Government Teacher Education Colleges, Private Aided Teacher Education Colleges; Private Un-aided Teacher Education Colleges and University Teacher Education Centres is Rs.54834/-, Rs.50293/-, Rs.47447/- and Rs.9006 respectively.

The bar diagram given as Figure 5.14 will help to make an easy comparison of the institutional cost.

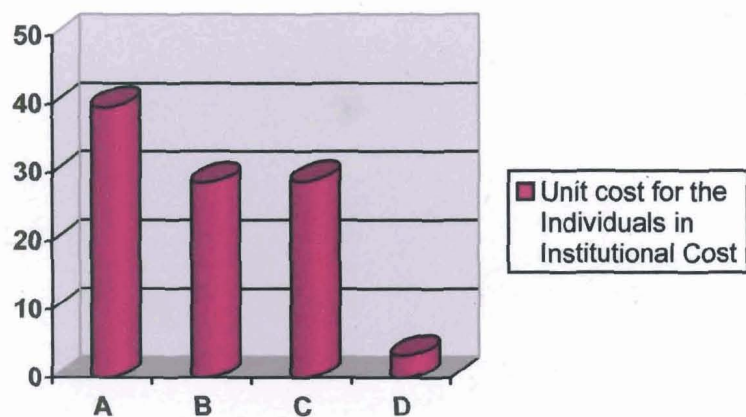


Figure 5-14 Cost per individual in institutional cost

Category of Institutions	Percentage
A-Government Teacher Education Colleges	- 33.9
B-Private Aided Teacher Education Colleges	- 31.1
C-Private Un-aided Teacher Education Colleges	- 39.4
D-University Teacher Education Centres	- 5.6

Discussion:

Analysis of the non-recurring cost has revealed interesting results. As expected a lion's share of the cost is set apart in all the types of teacher education institutions towards land, building and maintenance cost. This along with the furniture cost comes to about

95% of the non-recurring cost in Government Teacher Education College and more than 90% in other types of institutions.

Institutional cost of the Government Teacher Education Colleges has striking comparison with other types of institutions. This may be because the four Government Teacher Education Colleges are in the hearts of the cities where the land value is very high. The Private Aided and Private Un-aided Teacher Education Colleges situated are in suburban areas where land value is comparatively less. Further, the government buildings generally were constructed during much earlier periods and are maintained regularly by the Public Work Department. Consequent on raising the government teacher education institutions to college of teacher education and Institute of Advanced Studies on Education, financial support of the University Grants Commission was also made available for the constructions of new buildings, procurement of books and general improvements of infrastructural facilities. All these might have caused in the enhancement of nonrecurring cost of government teacher education institutions. A sizable number of

library books in government teacher education institutions were bought before 20 years ago. As per rules they have to be written off and hence were not considered for the present study. The teacher education centres have the least institutional cost because they are run in buildings allotted free of cost either by government or by private agencies. But with regard to the other infrastructural facilities like library, laboratory, etc. teacher education centres come to the lowest level when compared to others. The universities, which manage these centres, may not be allotting enough funds for the improvement of such facilities. Again it is depressing that the students of these centres do not have access to the university library, university departmental library or other facilities usually in abundance in the different departments of the universities.

Though building, furniture etc., provide better facility to the students, library, laboratory, educational technology, etc, are also highly important. But in government teacher education colleges, private aided teacher education colleges, private un-aided teacher education colleges and university teacher education centres. The

investment for library is 1.7%, 1.9%, 1.7%, and 2% of the total investment respectively. In the case of laboratory in these colleges it is only 0.9%, 1.2%, 1.6%, 1.2% respectively. Even in a developing area like Education Technology the investment in these institutions is 0.8%, 1.2%, 1.7%, 2.8% respectively.

This may be because the teacher education institutional management is not well aware of the significance of these items for a successful teacher education programme. It is high time that steps are taken for giving additional weightage to library, laboratory, education technology, etc. in teacher education institutions.

Among the recurring cost, expenditure towards salary comes first. This is in full agreement of the comparative study conducted by "P. Duraisamy and Malathy Duraisamy", (2000) in Delhi and Tamil Nadu respectively. In Kerala situation the salary expenditure vary strikingly in government teacher education colleges and university teacher education centres, the former having about 6 times more than the later. Whether the low-cost of salary has

reflection on the staff selection procedure and the quality of teaching staff available has yet to be studied.

Only departmental candidates of government teacher education colleges, bear the individual cost on their own. With regard to other candidates the expenses are believed to be made by the parents

The unit cost of individuals, within the institutional cost was calculated with regard to government colleges and are found to have about 10 times more than that of the teacher education centres inspite of the stipulation of National Council for Teacher Education. It is a matter of serious concern.

Second objective of the study is related to the analysis of the individual cost of teacher education in preparing graduate teachers in Kerala state.

Data for this were collected using questionnaire to these students and perusal of records and registers are kept in the institutions.

Individual Costs

Under the individual costs, - Visible cost / Private cost and Opportunity costs, are included. Visible costs have two branches - Tuition cost and maintenance (non tuition) cost. Under the tuition cost - Tuition fees and other fees etc. are included. Under the non-tuition cost / Maintenance cost - Books & stationery, Hostel fee, Transport cost, Uniforms and other expenditure, etc. are included.

Individual costs were calculated considering that the individual cost essentially consists of direct cost and direct cost of education incurred by the students or their parents for the sake of the particular course of the education. It consists of:

1. Initial Cost- Cost of application form, expenditure related interview, etc.
2. Fees - Tuition and other fees.
3. Collateral Cost- Expenditure related with the course. Books, records, paper, pen, pencil, teaching learning material articles, study tour, excursion, etc.
4. Personal Cost - Expenditure incurred by personal matter- linen, medicine, other expenses, etc.

5. Transport Cost - Travel expenditure in related with the course
6. Opportunity cost - loss of income (foregone earnings)

Since the teacher trainees belongs to open quota, management quota and department quota and further they have to be classified as dayscholars and hostelinmates, the unit cost of each subgroup is calculated and presented separately.

Individual cost of open quota candidates (dayscholars)

Table V.13 presents the individual cost of open quota candidates (dayscholars)

Table V. (13)

Individual cost of open quota candidates (Dayscholars)

S.No.	Item	Category of Institutions			
		Government Teacher Education Colleges	Private Aided Teacher Education Colleges	Private Un-aided Teacher Education Colleges	University Teacher Education Centres
1.	Initial cost	250	250	300	300
2.	Fees	1000	1000	12500	10250
3.	Collateral cost	4750	5750	10000	7500
4.	Personal cost	3200	3200	3000	2400
5.	Transport cost	3200	3200	3200	3200
Total Cost		12400	13400	29000	23650

Data given in Table V. (13) reveals that individual cost recorded for an individual at Government Teacher Education Colleges is Rs.12400/- Private Aided Teacher Education Colleges is Rs.13400/- Private Un-aided Teacher Education Colleges is Rs.29000/- University Teacher Education Centres is Rs.23650/-

For the quick view of the idea a bar diagram Figure 5.15 has been included.

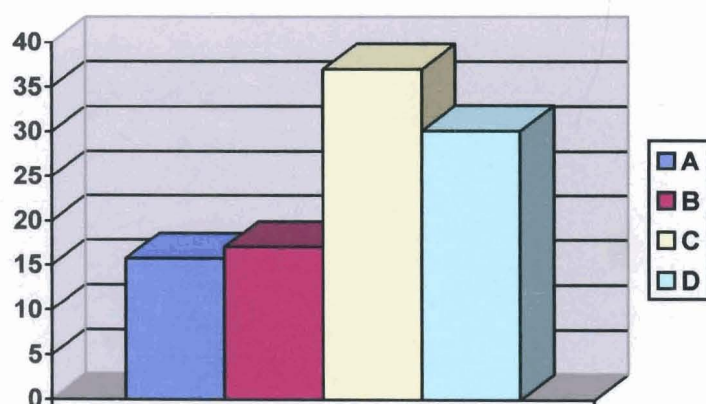


Figure-5. 15 Individual cost of open quota candidates (Dayscholars)

Category of Institution	Percentage
A- Government Teacher Education Colleges	- 15.8
B-Private Aided Teacher Education Colleges	- 17.1
C- Private Un-aided Teacher Education Colleges	- 37
D-University Teacher Education Centres	- 30.1

Individual cost of open quota candidates (Hostelinmates)

Table V. (14) presents the individual cost with regard to open quota (hostelinmates)

Table V. (14)

Individual cost of open quota candidates (Hostelinmates)

S.No	Item	Category of Institutions			
		Government Teacher Education Colleges	Private Aided Teacher Education Colleges	Private Un-aided Teacher Education Colleges	University Teacher Education Centres
1.	Initial cost	250	250	300	300
2.	Fees	1000	1000	12500	10250
3.	Collateral cost	4750	5750	10000	7500
4.	Personal cost	3200	3200	3000	2400
5.	Transport cost	2000	2000	2000	2000
6.	Boarding & Lodging	9600	9600	9600	9600
Total Cost		20800	21800	37400	32050

Data in table V. 14 Reveals that Individual cost of the Government Teacher Education Colleges, Private Aided Teacher Education Colleges, Private Un-aided Teacher Education Colleges and University Teacher Education Centres is Rs.20,800/-, Rs.21, 800/-, Rs.37, 400/- and Rs.32, 050/- respectively.

For the quick view of the idea a bar diagram Figure 5.16 is included.

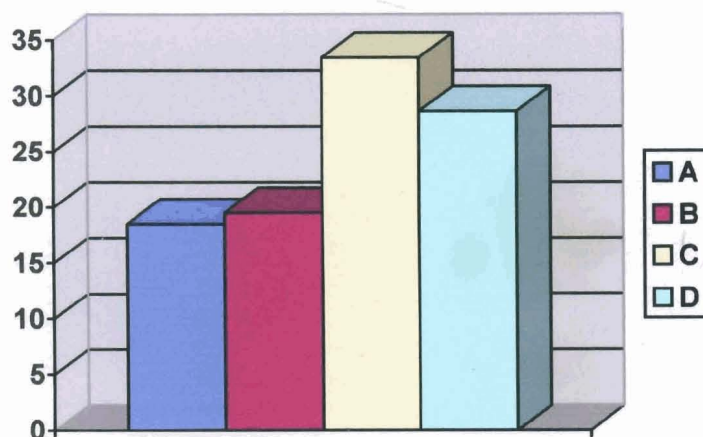


Figure-5. 16 Individual cost of open quota candidates (Hostelinmates)

Category of Institution	Percentage
A- Government Teacher Education Colleges	- 18.5
B-Private Aided Teacher Education Colleges	- 19.5
C- Private Un-aided Teacher Education Colleges	- 33.4
D-University Teacher Education Centres	- 28.6

Open quota

In government teacher education college, private teacher education college, private un-aided teacher education college and university teacher education centres open quota seat for admission

is 44%, 55%, 50% and 55% respectively. The selection of quota is on the basis of marks obtained by the candidates belonging to different reserved communities and other specified quotas. For the sake of the calculation of reservation quota is also clubbed with open quota

Management quota

In Private Aided Teacher Education Colleges and Private Un-Aided Teacher Education College's management quota is available for admission. It come to 20 percent in minority run private aided colleges and 15 percent in majority run private aided colleges and 50 percent in un-aided training colleges irrespective of the majority or minority community management.

For the admission under the management quota capitation fee is collected by management at different rate. But no receipt is issued for the same. The students who were identified as management candidates were reluctant to put it in writing how much capitation fees was paid. Students admitted under management quota at the time of interview revealed very privately the amount they have paid

as capitation fees (which were considered donations to the society running the colleges).

The Details of capitation fee remitted for the management admissions are presented as Table No.V. (15).

Table V. (15)

Details of capitation fee remitted for the management quota admission

Details of capitation fees	Private aided teacher education colleges	Private un-aided teacher education colleges	Total
Upto 30000	Nil	Nil	
30001-40000	2	8	10
40001 - 50000	90	90	180
50001 - 60000	5	5	10
More than 60001	Nil	Nil	
Total	97	103	200

Though in table five ranges are given the students have reported to have remitted the maximum amount in each range. For example in the range Rs.30001 to Rs.40000/- all the students have actually remitted Rs.40000/- each. Like wise in the range of Rs.40001/- to Rs.50000/- all the 180-student have remitted Rs.50000/- each. In the range of Rs.50001/- to Rs.60000 /- all the ten

students have actually remitted Rs.60000/-. Hence the average capitation fee comes to Rs.50000/- per student under management quota.

Individual cost of candidates under management quota (dayscholars) is presented in Table No V. (16)

Table V. (16)

Individual cost of candidates under management quota (Dayscholars)

Sl.No.	Item	Category of Institutions	
		Private Aided Teacher Education Colleges	Private Un-aided Teacher Education Colleges
2.	Fees	1000	12500
3.	Collateral cost	5750	10000
4.	Personal cost	3200	3000
5.	Transport cost	3200	3200
6.	Capitation fees	50000	50000
Total Cost		63400	79000

Data in Table V. (16) reveals the individual cost recorded in Private Aided Teacher Education Colleges Rs.63400/- and Private Un-aided Teacher Education Colleges Rs.79000/-.

For the quick view of the idea a bar diagram Figure 5.17 is included.

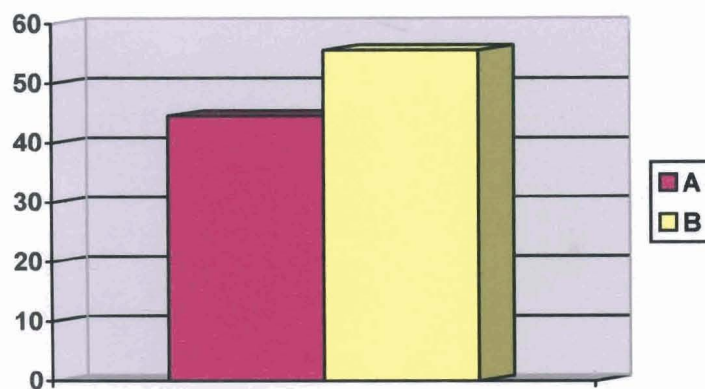


Figure 5.17 Individual cost of candidates under management quota (Dayscholars)

Category	Percentage
A-Private Aided Teacher Education Colleges	44.5
B-Private Un-aided Teacher Education colleges	55.5

Individual cost of candidates under management quota (hostelinmates) is presented is Table V. (17)

Table V. (17)

Individual cost of management quota candidates (Hostelinmates)

S.No.	Item	Category of Institutions	
		Private Aided Teacher Education Colleges	Private Un-aided Teacher Education Colleges
1.	Initial cost	300	300
2.	Fees	1000	12500
3.	Collateral cost	5750	10000
4.	Personal cost	3200	3000
5.	Transport cost	1500	2000
6.	Management capitation fees	50000	50000
7.	Boarding & lodging	9600	9600
	Total	71350	87400

Data of the individual costs for hostelinmates under Management quota is Rs.71350/- in Private Aided Teacher Education Colleges and Rs.87400/- in Private Un-aided Teacher Education Colleges.

For the quick view of the idea a bar diagram Figure 5.18 is included

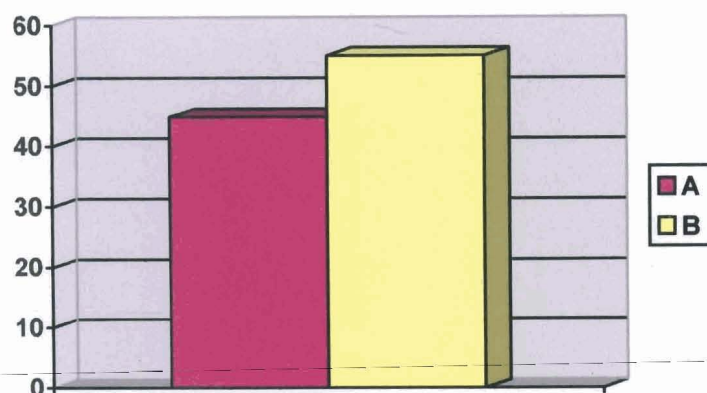


Figure 5.18 Individual cost of management quota candidates
(Hostelinmates)

Category	Percentage
A-Private Aided Teacher Education Colleges	44.9
B-Private Un-aided Teacher Education Colleges	55.1

Department Candidates

Untrained leave reserve graduate teachers in departmental high school, un trained language teachers in department and aided high schools and upper primary schools, graduate teachers in primary in departmental and aided schools, specialist craft teachers with graduation and clerks in offices and other institutions under the Directorate of Public Instructions are selected for the B.Ed course. In the department quota there are 40 seats in government

training colleges Trivandrum and 24 seats in each training college in Trissur, Calicut and Thalesery. The selection is made according to seniority. They are given subsistence allowances at the rate of Rs.250/- per month. Those trainers who belong to scheduled caste and scheduled tribe communities and recruited under special recruitment programme are eligible for the minimum of the scale of pay and usual allowances attached to the post for which they were recruited during the period of training.

Details regard in the cost of departmental candidates (Dayscholars and Hostelinmates) is presented in Table V. (18)

Table V. (18)

Individual cost of departmental candidate (Dayscholars & Hostelinmates)

Sl.No	Item	Government Teacher Education College	
		Dayscholars	Hostlers
1.	Initial cost	200	200
2.	Fees	1000	1000
3.	Collateral cost	4750	4750
4.	Personal cost	4800	4800
5.	Transport cost	3800	3000
6.	Boarding & lodging	-	9800
7.	Opportunity cost	67500	67500
	Total	82050	91050

Data in Table V. (18) reveals that the individual cost incurred by the departmental candidates who are dayscholars is Rs.82050/- and hostelinmates is Rs.91050./-

The bar diagram given as Figure 5.19 will help to make an easy comparison of the cost of departmental candidates.

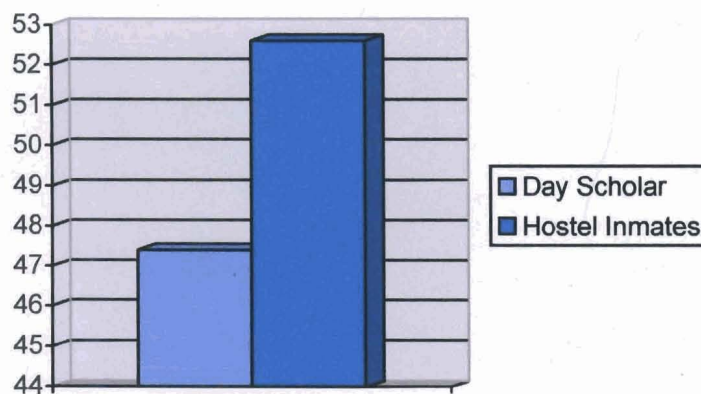


Figure 5.19 Individual cost of departmental candidate (Dayscholars & Hostelinmates)

Category	Percentage
Day Scholar	- 47.4
Hostelinmates	- 52.6

Discussion

The individual cost of candidates comprises initial cost fees, collateral cost, personal cost and transport cost. The individual cost of open quota candidates who are dayscholars shows wide difference with regard to the types of management whereas in government teacher education colleges it comes to only Rs.12400/- in private un-aided teacher education colleges it is as high as Rs.29300/-. In the university teacher education centres also the amount is comparatively higher (Rs.23650/-). But there is not much difference between government teacher education colleges and government private teacher education colleges. This disparity is mainly due to the diversity in fee structure whereas in government teacher education colleges and private aided teacher education colleges it is just Rs.1000/- each. In private un-aided teacher education colleges and the university teacher education centres, it is Rs.12500/- and Rs.10250/- respectively. There is notable difference in collateral cost also. There is no convincing explanation for this disparity, since all these institutions transact the same curriculum.

In the case of hostelinmates under open quota also, individual cost of private unaided teacher education colleges and university teacher education centres top the list. But there is no disparity as far as the boarding and lodging charges are concerned.

Candidate selected under management quota, had to remit a good sum by way of capitation fees. Though reluctant to put in writing in response to the items in the questionnaire at the time of interview they divulged the information correctly. Usually such candidates have to pay Rs.40000/- to Rs.60000/- depending on the colleges, but most of them have paid Rs.50000/- by way of capitation fee to the management. When this is added to the total cost the gulf between the cost of the management candidates and the non-management candidates widens. It jumps from Rs.20800/- to Rs.79000/-. The management candidates do not receive any additional benefit inspite of this huge investment. Further in most of the cases the managements are found not investing the amount so collected for improving the building or infrastructural facilities of the institutions. It is high time that some legislation is brought out

to stop the collection the capitation fee and also to make the managements to improve the facilities of colleges. There may be private teacher education institution which do not take capitation fees for admission under management quota but about 200 students in the sample selected for the study are found to have donated a considerable amount as capitation fees the average amount being Rs.50000/-. Many of the candidates are donating such a huge amount in the hope that they will find a job after the teacher training. The real position in this regard can be brought to the limelight only after a detailed further study in this area.

There is personal difference of less than Rs.10000/- between dayscholars and hostelinmates. Teacher education being a course demanding a lot of continuous interaction between the teachers and the students, at present there are no subsidised hostels attached to teacher education institutions and hence all the charges are to be borne by the candidates.

The departmental candidates are selected from the teaching and non-teaching staff of the directorate of public instruction on the basis of their service. But unfortunately the members of the non-teaching staff after training continue to be in the service in non-teaching section and are not transferred/promoted to the teaching category. Further such candidates are provided a meager lump sum amount of Rs.250/- only. They are forced to sacrifice their whole salary for the period. The loss of amount to them per individual is Rs.67500/- and they are not benefited by this sacrifice.

The third objective of the study is related to comparing the variation of student cost and institution cost in different types of institutions meant for preparing graduate teachers in Kerala state. The unit cost was calculated from the recurring and non-recurring cost (institutional cost and individual cost).

Since the teacher trainees belong to open quota, management quota and department quota and they have been classified as

dayscholars and hostelinmates, the unit cost of each sub group is calculated and presented separately.

Unit cost of the graduate teacher education programme in Kerala state.

a. Individual total cost of open quota candidates

Since open quota candidates are both dayscholars and hostelinmates, the data collected in this regard are presented separately.

Unit cost of the graduate teacher education programme in Kerala state (open quota dayscholars)

Table V. (19) presents the unit cost of the graduate teacher education programme in Kerala state (open quota, dayscholars).

Table V. (19)

Unit cost of the graduate teacher education programme in
Kerala state.

a. Open quota (Dayscholars)

Category	Category of institutions			
	Government Teacher Education Colleges	Private Aided Teacher Education Colleges	Private Un- aided Teacher Education Colleges	University Teacher Education Centres
Unit cost of Individuals related with institutional cost	54834 (81.6%)	50293 (79%)	47447 (62.1%)	9006 (27.6%)
Unit cost of Individual cost	12400 (18.4%)	13400 (21%)	29000 (37.9%)	23600 (72.4%)
Total cost	67234 (100)	63693 (100)	76447 (100)	32606 (100)

Data as shown in Table V. (19) reveal the unit cost of the dayscholars under merit quota with regard to institutional and individual cost.

Unit cost of the subject with regard to the Government Training Colleges, Private Aided Training Colleges, Private Un-aided Teacher Education Colleges and University Teacher Education Centres is Rs.54384/-, Rs.50293/- Rs.49447/- Rs.9006/- respectively.

Unit cost of Individual cost of the subjects with regard to the Government Teacher Education Colleges, Private Aided Teacher

Education Colleges, Private Un-aided Teacher Education Colleges and University Teacher Education Centres is Rs.12400/-, Rs.13400/-, Rs.29000/- and Rs.23600/- respectively.

As we proceed from government teacher education colleges to university teacher education centres the decrease almost doubles up in the case of institutional cost, and increases in the same proportion in the case of individual cost.

Total cost of the subject in connection with Teacher education cost - is Rs.67234/- in Government Teacher Education Colleges Rs.63693/- in Private Aided Teacher Education Colleges Rs.76447/- in Private Un-aided Teacher Education Colleges and it is Rs.32606/- in University Teacher Education Centres.

For the quick view of idea a bar diagram Figure 5.20 is included.

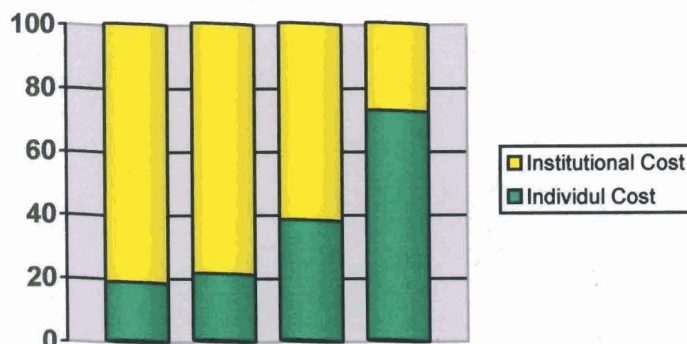


Figure-5.20 Unit cost of the graduate teacher education programme in Kerala state open quota (Dayscholars).

Individual Cost:

Category of Institutions	Percentage
A-Government Teacher Education Colleges	- 18.4
B-Private Aided Teacher Education Colleges	- 21
C-Private Un-aided Teacher Education Colleges	- 37.1
D-University Teacher Education Centres	- 72.4

Institutional:

Category of Institutions	Percentage
A-Government Teacher Education Colleges	- 81.6
B-Private Aided Teacher Education Colleges	- 79
C-private Un-aided Teacher Education Colleges	- 62.1
D-University Teacher Education Centres	- 27.6

Unit cost of the graduate teacher education programme in Kerala state open quota (hostelinmates).

Table V. (20) present the unit cost of the graduate teacher education programme in Kerala state open quota (hostelinmates).

Table V. (20)

Unit cost of the graduate teacher education programme in Kerala state.

b. Open quota (Hostelinmates)

Category	Category of institutions			
	Government Teacher Education Colleges	Private Aided Teacher Education Colleges	Private Un-aided Teacher Education Colleges	University Teacher Education Centres
Unit cost of Individuals related with institutional cost	54834 (72.5%)	50293 (69.8%)	47447 (55.9%)	9006 (21.9%)
Unit cost of Individual cost	20800 (27.5%)	21800 (30.2%)	37400 (44.7%)	32050 (78.1%)
Total cost	75634 (100)	72093 (100)	84847 (100)	41056 (100)

Data given in Table V. (20) reveals the unit cost of subject with regard to the institutional and individual cost of hostelinmates admitted in merit quota to the Government Teacher Education Colleges, Private Aided Teacher Education Colleges, Private Un-aided Teacher Education Colleges and University Teacher Education

Centres is Rs.54834/-, Rs.50292/-, Rs.47447/- and Rs.9006/- respectively.

Unit cost of the individual cost of the students with regard to the Government Teacher Education Colleges, Private Aided Teacher Education Colleges, Private Un-aided Teacher Education Colleges and University Teacher Education Centres is Rs.20800/-, Rs.21800/-, Rs.37400/- and Rs.32050/- respectively.

Total cost of the subjects incurred for the teacher education programme is Rs.75634/-, Rs.72093/-, Rs.84847/- and Rs.41056/- in Government Teacher Education Colleges, Private Aided Teacher Education Colleges, Private Un-aided Teacher Education Colleges and University Teacher Education Centres respectively.

A bar diagram given Figure 5.21 will help to make an easy comparison of the cost of graduate teacher education programme open quota (hostelinmates)

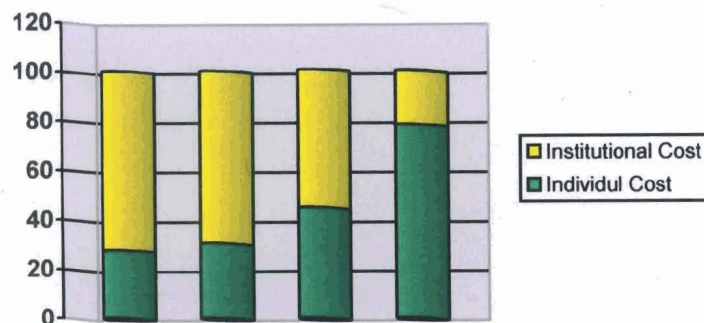


Figure-5.21 Unit cost of the graduate teacher education programme in Kerala state Open quota (Hostelinmates)

Institutional:

Category of Institutions	Percentage
A-Government Teacher Education Colleges	- 72.5
B-Private Aided Teacher Education Colleges	- 69.8
C-Private Un-aided Teacher Education Colleges	- 55.9
D-University Teacher Education Centres	- 21.9

Individual Cost:

A-Government Teacher Education Colleges	- 27.5
B-Private Aided Teacher Education Colleges	- 30.2
C-Private Un-aided Teacher Education Colleges	- 44.7
D-University Teacher Education Centres	- 78.1

There is a fixed percentage of seats available under management quota both at private aided teacher education colleges and private un-aided teacher education colleges. The students

admitted under this quota are either dayscholars or hostelinmates.

Therefore the data is presented separately.

Unit cost of the graduate teacher education programme of dayscholars under management quota.

Table V. (21) presents unit cost of the graduate teacher education programme of dayscholars under management quota.

Table V. (21)

Unit cost of the graduate teacher education programme of dayscholars admitted under management quota

Category	Category of institutions	
	Private Aided Teacher Education Colleges	Private Un-aided Teacher Education Colleges
Unit cost of individuals related with institutional cost	50293 (44.2%)	47447 (37.5%)
Unit cost of Individual cost	63400 (55.8%)	79000 (62.5%)
Total cost	113693 (100)	126447 (100)

Data as shown in Table V. (21) reveals that the unit cost of the subjects with regard to institutional cost in the Private Aided Teacher Education Colleges and Private Un-aided Teacher Education Colleges is Rs.50293/- and Rs.47447/- respectively.

Unit cost of individual cost is Rs.63400/- and Rs.79000/- respectively in Private Aided Teacher Education Colleges and Private Un-aided Teacher Education Colleges.

Total cost of the subjects in connection with the study of Teacher Education Programme is Rs.113693/- and Rs.126447/- respectively in Private Aided Teacher Education Colleges and Private Un-aided Teacher Education Colleges.

The bar diagram given as Figure 5.22 will help to make an easy comparison of the cost of dayscholars under management quota.

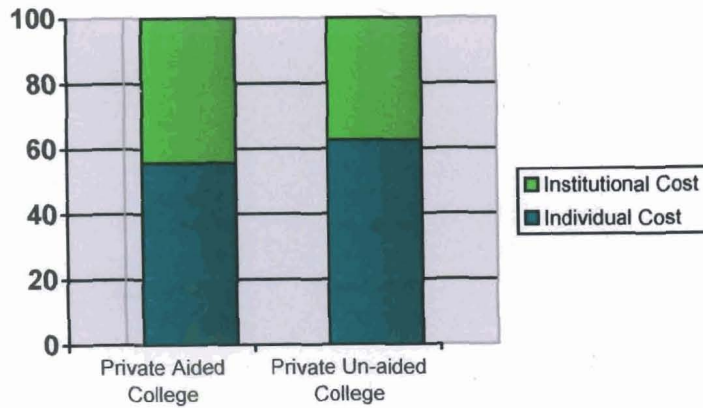


Figure-5.22 Unit cost of the graduate teacher education programme of dayscholars admitted under management quota.

Category of Institutions	Percentage
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Private Aided Teacher Education colleges

Institutional cost:	44.2
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Individual cost:	55.8
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Private Un-aided Teacher Education Colleges

Institutional cost:	37.5
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Individual cost:	62.5
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Unit cost of the graduate teacher education programme of hostelinmates under management quota.

Table V. (22) presents unit cost of the graduate teacher education programme of hostelinmates under management quota.

Table V. (22)

Unit cost of graduate teacher education programme of hostelinmates under management quota

Category	Category of institutions	
	Private Aided Teacher Education Colleges	Private Un-aided Teacher Education Colleges
Unit cost of Individuals related with institutional cost	50293 (41.3%)	47447 (35.2%)
Unit cost of Individual cost	71350 (58.7%)	87400 (64.8%)
Total cost	121643 (100)	134847 (100)

Data given in Table V. (22) reveals the unit cost of the subjects in connection with institutional cost in the Private Aided Teacher Education Colleges and Private Un-aided Teacher Education Colleges is Rs.50293/- and Rs.47447/- respectively.

Unit cost of individual cost is Rs.71350/- and Rs.87400/- respectively in Private Aided Teacher Education Colleges and Private Un-aided Teacher Education Colleges.

Total cost of the subject in connection with Teacher Education Programme is Rs.121643/- and Rs.134847/- respectively in Private Aided Teacher Education Colleges and Private Un-aided Teacher Education Colleges.

The bar diagram given as Figure 5.23 will help to make an easy comparison of cost of hostelinmates under management quota.

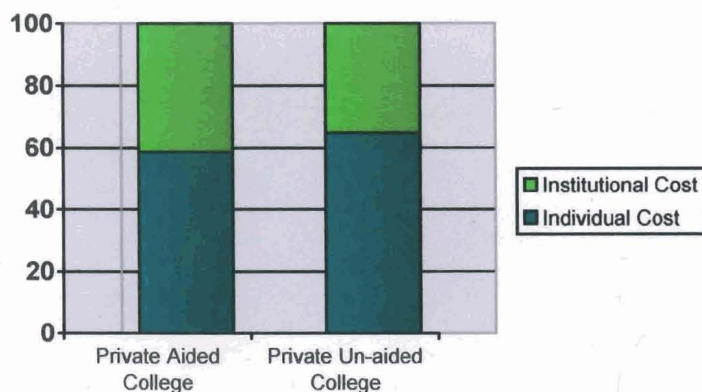


Figure-5.23 Unit cost of graduate teacher education programme of hostelinmates under management quota .

Category of Institutions	Percentage
<u>Private Aided Teacher Education colleges</u>	
Institutional cost:	41.3
Individual cost:	58.7
<u>Private Un-aided Teacher Education Colleges</u>	
Institutional cost:	35.2
Individual cost:	64.8

The candidate admitted under departmental quota may be dayscholars or hostelinmates. Hence the data in this regarded are presented separately.

Unit cost of the graduate teacher education programme of dayscholars under department quota.

Table V. (23) presents unit cost of the graduate teacher education programme of dayscholars under department quota.

Table V. (23)

Unit cost of the graduate teacher education programme of dayscholars under department quota.

Category	Category of institutions
	Government Teacher Education Colleges
Unit cost of Individuals related with institutional cost	54834 (40%)
Unit cost of Individuals related with individual cost	82050 (60%)
Total cost	136884 (100)

The details regarding the unit cost of the Graduate Teacher Education Programme (Department quota) in Kerala State shown in Table V. (23) reveals that the unit cost of the departmental candidates in connection with Institutional cost is Rs.54834/- and individual cost is Rs.82050/-. Unit cost of the day scholar is Rs.136884/-.

Unit cost of the graduate teacher education programme of hostel inmates under department quota.

Table V. (24) presents unit cost of the graduate teacher education programme of hostel inmates under department quota.

Table V. (24)

Unit cost of the graduate teacher education programme of hostel inmates under department quota.

Category	Category of institutions
	Government Teacher Education Colleges
Unit cost of Individuals related with institutional cost	54834 (37.6%)
Unit cost of individuals related with Individual cost	91050 (62.4%)
Total cost	145884 (100)

Data of the details regarding the unit cost of the hostel inmates admitted to departmental quota for Graduate Teacher Education Programme in Table V. (24) reveals that the unit cost of the subjects with regard to Institutional cost of the Department candidate is Rs.54834/- and Individual cost is Rs.91050/-. The unit cost of the hostel inmates is Rs.145884/-

The bar diagram given as Figure 5.24 will help to make an easy comparison of the cost of dayscholars and hostelinmates under department quota.

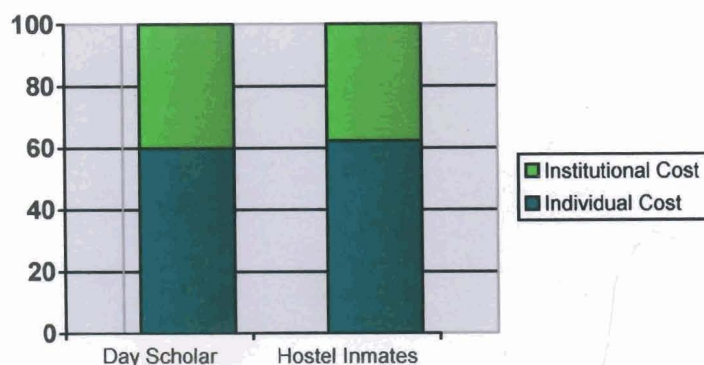


Figure-5.24 Unit cost of the graduate teacher education Programme of dayscholars and hostelinmates under department quota.

Day Scholar:

Institutional Cost	-	40
Individual Cost	-	60

Hostelinmates:

Institutional cost	-	37.6
Individual cost	-	62.4

Discussion

The unit cost for graduate teacher education programme in Kerala (open quota) was calculated on the basis of the institutional and individual costs. The results of calculation and analysis have revealed strange relationship between different types of institutions.

In Government teacher education colleges and private aided teacher education colleges institutional cost is found to be higher and individual cost is comparatively lower in the case of private unaided teacher education colleges. But institutional cost and individual cost are almost the same. In the case of university teacher education centres the institutional cost is lower when compared to the individual cost. A linear study of the Table V. (19) also reveals interesting observations. Though there is no numerical or geometrical relationship between the different types of institutions the increase in percentage maintains some proportion. In the case of institutional cost it decreases from 81.6 percent to 79 percent, and 62.1 percent, and 27.6 percent from Government Teacher Education Colleges to University Teacher Education Centres. In the case of unit cost the increase assumes the same proportion.

The disparity in individual unit cost with respect to institutional cost and individual cost should be a matter of further study. The comparison between these two areas in Government Teacher Education Colleges and University Teacher Education

Centres is enough to bewilder any financial planner or educational expert. In the case of open quota as far as hostelinmates are concerned the disparity is higher with regard to teacher education centres. This may be because the University Teacher Education Centres are run in rent free buildings and the costs of maintenance of their infrastructural facilities are the minimum.

Fee and collateral costs differ to some extent in Private Aided Teacher Education Colleges and Private Un-aided Teacher Education Colleges. In Private Aided Teacher Education Colleges fees are collected at the rate of Rs.1000/-. But Private Un-aided Teacher Education Colleges fees are Rs.12500/-. The rates collected under fees items may be one of the reasons for this difference Table V. (16) indicates that the diversity in collateral cost is also added reason that there is not much difference between the institutional cost and individual cost of hostelinmates admitted under management quota. But this evidence has to be compared with the expenditure borne by candidates admitted under open quota in Government Teacher Training Colleges. Whereas it is just

Rs.75634/- in the case of candidates admitted under open quota in Government Teacher Education Colleges. It comes to Rs.121643/- and Rs.134847/- in the case of Private Aided Teacher Education Colleges and Private Un-aided Teacher Education Colleges respectively. The difference in collateral cost and the capitation fees may be responsible for this difference.

The fourth objective of the study is related to comparing total unit cost per student in preparing graduate teachers in Kerala state. The unit cost is derived from the expenses under different types of institutional cost and different types of individual cost admitted under different quota. Further the student teachers were classified as dayscholars and hostelinmates and the unit cost is calculated accordingly.

Data available in this regard is presented in Table V. (25)

Table V. (25)

Unit cost of graduate student undergoing secondary teacher education in Kerala state.

Category	Open quota		Management quota		Department quota	
	Dayscho lars	Hosteli nmates	Dayscho lars	Hostelin mates	Dayscho lars	Hostelin mates
Government Teacher Education Colleges	67234	75634	-	-	136884	145884
Private Aided Teacher Education Colleges	63693	72093	113693	121643	-	-
Private Un-aided Teacher Education Colleges	76447	84847	126447	134847	-	-
University Teacher Education Centres	32606	41056	-	-	-	-

A vertical and horizontal study of the table reveals the enormous disparity with regard to unit cost. Looking horizontally students admitted under open quota in Government Teacher Education Colleges bear the cost of Rs.75634/-, the departmental candidates have to bear Rs.145884/-, while students admitted under open quota in the Private Aided Teacher Education Colleges bear Rs.72093/-. Those under management quota has to spend Rs.121643/- and students admitted to Private Un-aided Teacher Education Colleges have to spend Rs.84847/- whereas those

admitted in these institutions under management quota has to spend Rs.134847/-. Looking vertically students in University Teacher Education Centres have to spend Rs.32606/- to 41056/-. Even in Government Teacher Education Colleges the alarming unit cost is more than Rs.145000/- prevails.

Discussion

The unit cost borne by graduate students while receiving teacher training in this stage shows wide disparities. Even in Government Teacher Education Colleges while students admitted under open quota have to spend around Rs.75000/- or less. The department candidates have to bear more than Rs.145000/- this is because the department candidates have to sacrifice their salary throughout the period they are under going the course. The striking difference in the unit cost of students admitted in the same institutions even though under different quota cannot but be considered as a serious anomaly. In fact with regard to Government Teacher Education Colleges this difference can be minimized only by providing the department candidates full salary throughout the

course. In Private Aided Teacher Education Colleges also there is striking difference in the unit cost of open quota students and management quota students. Whereas in the case of open quota students it is just around Rs.72000/- it shoots up to almost Rs.121000/- in the case of management quota students. This difference is mainly due to the capitation fees collected by the management. The collateral cost also contribute to this disparity when compared to Government Teacher Education Institutions. In Private Un-aided Teacher Education Colleges students admitted under open quota have to spend around Rs.85000/- whereas those under management quota have to bear around Rs.134000/-. This difference between Private Aided and Private Un-aided Colleges is mainly due to the difference in fees structure. Further the collateral cost also has some role to play in this regard. Strikingly the least expense for the graduate teacher education is in the University Teacher Education Centres, the amount to be spent being just around to a maximum of Rs.41000/-. This is mainly because the institutional cost in such centres is much less. As to whether the

poor institutional costs affects the quality of teacher education
should be a matter of serious investigation.

CONCLUSIONS AND RECOMENDATIONS

T.K. Prema kumari “A study of the unit cost of teacher education programme for graduate teachers in Kerala” Thesis. Department of Education, University of Calicut, 2003

Chapter VI

CONCLUSIONS AND RECOMENDATIONS

Chapter VI

CONCLUSIONS AND RECOMENDATIONS

This chapter is meant for presenting the conclusions of the study and also on their basis a few recommendations which the investigator thinks, if put into practice, will cater to the improvement of teacher education programme in Kerala.

The purpose of the study was to investigate the unit cost of secondary level teacher education programme in Kerala. In this chapter a retrospect of the study is presented which is followed by a brief description of the major findings, tenability of the hypotheses and conclusions of the study. The recommendations are followed by suggestions.

6.1.Study in Retrospect

The present investigation aimed to study the unit cost of secondary grade teacher education programme in Kerala state.

6.2.Title of the study

The study under investigation is entitled "*A Study of the Unit Cost of Teacher Education Programme for Graduate Teachers in Kerala*".

6.3.Objectives of the study are

General objective.

The general objective of the present investigation is to study the unit cost of teacher education programme for graduate teachers in Kerala.

6.3.1.Specific objectives.

The following are the specific objectives of the study.

1.To analyse the institutional cost of teacher education in preparing graduate teachers in Kerala state.

2.To analyse the individual cost of teacher education in preparing graduate teachers in Kerala state.

3.To compare the variation of student cost and institutional cost in different types of institutions meant for preparing graduate teachers in Kerala state.

4.To find out total unit cost per graduate student while receiving teacher training in Kerala state.

5.To offer suggestions for the improvement of Teacher Education on the basis of the conclusions of the study.

6.4.Hypotheses

The following hypotheses were framed for the study:

1. There will be difference in the institutional cost of secondary level teacher education among the different types of teacher education institutions. a) Government Teacher Education colleges, b) Private Aided Teacher Education colleges, c) Private Un-aided Teacher Education colleges, d) And University Teacher Education Centres.

2. There will be difference in the individual cost of secondary level teacher education among the different types of teacher education institutions. a) Government Teacher Education colleges, b) Private Aided Teacher Education colleges, c) Private Un-aided Teacher Education colleges, d) And University Teacher Education Centres.

3. There will not be difference between the individual cost of secondary level teacher education in government institutions and private aided institutions.

4. Individual cost of secondary level teacher education in university teacher education centres will be less than that of un-aided private colleges of teacher education.

5. Individual cost of secondary level teacher education in private aided institutions will be less than that of un-aided private institutions.

6. Individual cost of secondary level teacher education in private un-aided teacher education colleges will be greater than that of private aided teacher education colleges.

7. Total cost of secondary level teacher education in private aided teacher education colleges will be greater than that of government teacher education colleges.

8. Unit cost of secondary level teacher education in government colleges will be higher than that of all other teacher education institutions.

9. Unit cost of secondary level teacher education in private un-aided teacher education colleges will be higher than that of private aided teacher education colleges.

10. Unit cost of secondary level teacher education in private un-aided teacher education colleges will be higher than that of university teacher education centres.

11. Unit cost of secondary level teacher education in university teacher education centres will be less than that of private aided teacher education colleges.

6.5. Methodology in brief

Methodology adopted for the study was normative survey method. A sample of 2925 subjects drawn from 41 teacher education colleges were selected giving due representation to the prominent characteristic features of the population.

6.6. Sample

The sample for the study consisting of 2925 teacher trainees was drawn from 41 institutions belonging to different categories.

1. Government Teacher Education Colleges	-	4
2. Private Aided Teacher education Colleges	-	9
3. Private Un-aided Teacher Education Colleges-		13
4. University Teacher Education Centres	-	15

6.7.Tools and techniques

The following tools and techniques were used:

1.Questionnaire administered to the Heads of Teacher Education Colleges.

2.Questionnaire administered to the Student Teachers of Teacher Education Colleges.

3.Questionnaire administered to the Departmental Candidates.

4.Structured Interview of students selected under management quota.

5. Verification of office records.

6.8.Major Findings

As a result of the analysis of data gathered the following findings were arrived at:

1. There is difference in institutional cost among the four categories of institutions such as Government Teacher Education Colleges, Private Aided Teacher Education Colleges, Private Un-aided Teacher Education Colleges and University Teacher Education Centres.

2. Institutional cost in Government Teacher Education Colleges is higher than that of all other types of colleges. It is 6.2 times greater than University Teacher Education Centres, 1.2 times greater than Private Un-aided Teacher Education Colleges and 1.1 times greater than Private Aided Teacher Education Colleges.

3. Unit cost of the institutional cost of hostelinmates in Government Teacher Education Colleges is Rs.54834/- and the individual cost is Rs.20800/-. Institutional cost is found to be 2.6 times greater than Individual cost.

4. There is difference in individual cost among the four categories of institutions. Private Aided Teacher Education colleges stand high in individual cost. It is more than that of Government Teacher Education Colleges. In Private Aided Teacher Education Colleges the individual cost for open quota students is Rs.13400/- and it is Rs.12400/- in Government Teacher Education Colleges.

5. In Private Aided Teacher Education Colleges individual cost of hostelinmates is Rs.21800/- and institutional cost is Rs.50293/-. The unit cost of the dayscholars admitted under merit

quota in Private Teacher Education Colleges is Rs.63693/-. Out of this individual cost is Rs.13400/- and Institutional cost is found to be Rs.50293/- Institutional cost is 3.8 times greater than Individual cost.

6. Individual cost for departmental candidates stands higher than that of the students of all other categories. Their opportunity cost stands higher than that of other categories of students.

7. There is difference between the individual cost of Government Teacher Education Colleges and Private Aided Teacher Education Colleges.

8. Individual cost of secondary level teacher education in University Teacher Education Centres is less than that of Private Un-aided Teacher Education Colleges.

9. Individual cost of secondary level teacher education in Private Aided Teacher Education Colleges is less than that of Private Un-aided Teacher Education Colleges.

10. Individual cost of Private Un-aided Teacher Education Colleges is greater than that of Private Aided Teacher Education Colleges.

11. Total cost of secondary level teacher education in Private Aided Teacher Education Colleges is greater than that of Government Teacher Education Colleges.

12. In Private Un-aided Teacher Education Colleges total cost of Dayscholars admitted under management quota is Rs.126447/-. Out of this institutional cost is Rs.47447/- and individual cost is Rs.79000/-. Institutional cost is found to be 2.7 times less than individual cost.

13. In Private Un-aided Teacher Education Colleges total cost of hostelinmates admitted under management quota is Rs.134847/-. Out of this institutional cost is Rs.47447/- and individual cost is Rs.87400/-. Institutional cost is found to be 1.8 times less than individual cost.

14. The total cost of the dayscholars in University Teacher Education Centres is Rs.32606/-. Out of this institutional cost is Rs.9006/- and individual cost is Rs.23600/-. It is found to be 3.6 times greater than institutional cost.

15. The unit cost of hostelinmates in University Teacher Education Centres is Rs.41056/-. Out of this institutional cost is Rs.9006/- and the individual cost is Rs.32050/-. Individual cost is found to be 4.6 times greater than institutional cost.

16. The unit cost of secondary level teacher education in Government Teacher Education Colleges is higher than that of all other Teacher Training Institutions.

17. The unit cost of secondary level teacher education in Private Un-aided Teacher Education Colleges is higher than that of Private Aided Teacher Education Colleges.

18. The unit cost of secondary level teacher education in Private Un-aided Teacher Education Colleges is higher than that of University Teacher Education Centres.

19. The unit cost of secondary level teacher education in University Teacher Education Centres is less than that of Private Aided Teacher Education Colleges.

6.9.Tenability of hypotheses

The hypotheses framed as a part of the present investigation as stated in chapter I and at the beginning of this chapter have been verified in the light of the analysis of data and the findings arrived at.

1. The first hypothesis that there will be difference in the institutional cost among the four categories of institutions i.e., Government Teacher Education Colleges, Private Teacher Education Colleges, Private Un-Aided Teacher Education Colleges and University Teacher Education Centres is retained as it has been found that there exists differences as shown in Table V.12.
2. The second hypothesis that there will be difference in the individual cost of secondary teacher education among the four categories of institutions i.e. Government Teacher Education Colleges, Private Aided Teacher Education Colleges, Private Un-Aided Teacher Education Colleges and University Teacher Education Centres has been proved correct

as differences exist as shown in Table V.13; V.14; V.16; V.17 and V.18. Therefore the hypothesis is retained.

3. The third hypothesis that there will not be difference between the individual cost of Government Teacher Education Colleges and Private Aided Teacher Education Colleges is rejected since it was observed that the difference between there exists and is Rs.1000/-. This hypothesis has been found invalid.
4. The fourth hypothesis that the individual cost of secondary level teacher education in University Teacher Education Centres will be less than that of Private Un-Aided Teacher Education Colleges stands retained on the basis of the findings of the study as shown in Table V. (13) and V. (14).
5. The fifth hypothesis that individual cost of secondary level teacher education in Private Aided Teacher Education Colleges will be less than that of Private Un-Aided Teacher Education Colleges stands substantiated on the basis of the findings of the study as shown in V. (13) and V. (14).

6. The sixth hypothesis that individual cost of secondary level teacher education in Private Un-Aided Teacher Education Colleges will be greater than that of the Private Aided Teacher Education Colleges is also retained on the basis of the findings of the study as shown in Table V. (14), V. (16), and V. (17).
7. The seventh hypothesis that the total cost of secondary level teacher education in Private Aided Teacher Education Colleges will be greater than that of Government Teacher Education Colleges is found not tenable as is evident from Table V. (19) and V. (20).
8. The eighth hypothesis that the unit cost of secondary level teacher education in Government Teacher Education Colleges will be higher than that of all other colleges is substantiated and hence retained. [Vide Table V. (25)].
9. The ninth hypothesis that the unit cost of secondary level teacher education in Private Un-Aided Teacher Education Colleges will be higher than that of Private Aided Teacher

Education Colleges is retained in the light of the findings of the study as shown in Table V. (20) and V. (21).

10. The tenth hypothesis that the unit cost of secondary level teacher education in Private Un-Aided Teacher Education Colleges will be higher than that of University Teacher Education Centres is kept up in the light of the findings of the study as shown in Table V. (19), V. (20), V. (21), and V. (22).
11. The eleventh hypothesis that the unit cost of secondary level teacher education in University Teacher Education Centres will be less than that of Private Aided Teacher Education Colleges is retained, as the data collected was able to substantiate it as evident from Table V. (19), V. (20), and V. (25).

6.10. Conclusions

The following are the main conclusions arrived at on the basis of the study.

1. Major share of Non-recurring cost, borne by teacher education institutions goes to investment in land, buildings and furniture.

Facilities such as library, laboratory, educational technology etc are found rather neglected.

2. The Non-recurring cost of teacher education institutions run by Universities is lower when compared to other types of institutions. This is because of the poor library and laboratory facilities available in University Centres.
3. There is striking disparity in the salary cost in different types of teacher education institutions. The staff salary dominates the unit cost in all types of teacher education institutions.
4. There is notable difference in the individual cost of open quota candidates (dayscholars) admitted to different types of institutions. This is mainly due to the disparity in the fees structure and collateral cost.
5. Difference exists in the individual cost of open quota candidates (hostelinmates). But the difference is not due to the difference in boarding and lodging expenses.

6. Students admitted under management quota have to remit a sizeable amount at the average rate of Rs 50,000/- as capitation fee.
7. The unit cost of open quota candidates belonging to both hostelinmates and day scholar's category does not vary much on the basis of the types of management. But there is an additional amount of Rs 9.600/- towards boarding and lodging charges to be borne additionally by hostelinmates.
8. Unit cost of the selected candidates under management quota is very high. This is because of the capitation fees to be remitted to the management.
9. The opportunity cost borne by the departmental candidates is very high. On many occasions the department is not benefited by selecting them for the course because many candidates from the non-teaching cadre are also selected.
10. There is notable disparity in the cost of the graduate teacher education programme (open quota) with respect to institutional cost and individual cost. It may be due to some flop in the

planning of educational finance. Further investigations are necessary to find out the cause of this disparity.

11. It is observed that there is wide disparity in the individual cost and institutional cost in different types of teacher education institutions. It may be due to some flop in the planning of educational finance. This warrants further investigations.
12. There is no difference in the unit cost of the candidates admitted under management quota in private aided teacher education colleges and private unaided teacher education colleges.
13. Even among aided and unaided teacher education institutions there is difference with regard to unit cost borne by dayscholars admitted to these colleges under management quota.
14. Among aided and unaided teacher education institutions there is difference with regard to unit cost borne by hostel inmates admitted under management quota.
15. There is difference in the unit cost of the departmental candidates admitted in teacher education institutions. Whereas the individual cost comes to about 70%, the institutional cost is

only 30%. This has to be considered as an anomaly into which further investigation is necessary.

16. Among different graduate teacher education institutions and even in the same institution wide disparity exists with regard to total unit cost per student. This is mainly because of the financial involvement of the students admitted under different quota and also because of the different institutional costs.

6.11. Recommendations

1. Since it has been observed that a lion's share of the non-recurring institutional cost is set apart for land, building, furniture etc. at the cost of library, laboratory, educational technology etc., it is recommended that the universities, departments of Teacher Education, and other bodies have to take initiative in allotting more funds for library, laboratory, educational technology etc every year.

2. Students of the university centres of teacher education may be given free access to university library, the library of the department of education and also to the science and technology laboratories of the universities.

3. Since the institutional cost of Government Colleges of teacher education gets enhanced because they are situated at the heart of the cities wherein land value etc. are very high, future Government Teacher Education Colleges may preferably be started in rural or suburban areas so as to reduce the institutional cost.

4. It is observed that there is striking disparity in the salary structure of the different types of teacher education institutions. Hence it is recommended that the Government, the Universities and National Council for Teacher Education may take urgent measures to minimize this disparity.

5. Reports are not available as to whether the disparity in salary structure has any effect on the quality of teacher educators selected. A commission may be appointed by the authorities to evaluate the teacher selection programme and the quality of teacher education transacted in different institutions.

6. Individual cost is found to vary considerably in institutions under different types of managements. The Government, the Universities and the National Council for teacher education will

have to take immediate steps to regularize the fees and wipe out the anomalies. In case fees have to be raised low income groups may be provided with enough opportunities to avail of educational loans etc.

7. It is observed that there is wide disparity in individual cost and institutional cost in different types of teacher education institutions. As it may be due to some flop in the planning of educational finance steps may be taken at educational planning level to minimize this anomaly.

8. The difference in collateral costs is found to be one of the reasons for the disparity in individual cost. Therefore initiative has to be taken by the concerned to regularize the collateral cost in the teacher education institutions under different types of management.

9. The system of collecting of capitation fees boosts up the unit cost of teacher education at least to a section of candidates considerably. Hence the authorities concerned should take immediate steps to suspend the capitation fee system in colleges of teacher education.

10. The boarding and lodging expenses of teacher training candidates comes to only less than Rs 10,000 /-. The Government and educational authorities should consider seriously making B.Ed course purely residential in nature taking into consideration the quality improvement such steps can bring about. The Government should also think in terms of starting subsidized hostels attached to teacher training institutions.

11. The selection of department candidates should be from the teaching staff of the Directorate of Public Instruction only. Anyhow if the members of the non-teaching staff are selected they may be transferred to the teaching section, so that the department gets benefits from their training.

12. Full salary of the departmental candidates should be protected and given as stipend, so that their opportunity cost can be minimized.

13. The disparity with regard to the unit of institutional cost and individual cost is most conspicuous in the case of University

Teacher Education Centres. The universities may be given strict directives to wipe out this anomaly.

14. The individual cost of department candidates of Teacher Education has to be considered seriously by the Directorate of Public Instruction and the Department of Education in general with a view to minimising their individual cost.

15. Since wide disparity has been observed in the unit cost borne by students in the same institutions as well as in different institutions, the Government and other concerned authorities especially the educational planners, should take steps to re-structure the admission procedures etc. in the field of Teacher Education so as to wipe out the difference now existing with regard to percapita unit cost.

6.12.Suggetions For Further Research

While engaged in the present investigation the investigator came across a few areas, which she thought, if investigated further, will provide a better view of financing in teacher education and unit cost involvement.

1. The relation ship between institutional cost and the quality of Teacher Education programme in different types of institutions can be investigated.
2. An investigation to identify whether any anomaly exists in the relationship between the investments in Teacher Education both institutional and individual and their returns can be carried out.
3. A study to investigate into whether the staff salary and the staff selection procedures affect the quality of the Teacher Education can be made.
4. A study to identify the reason for the enormous difference in the collateral cost in different types of institutions though a uniform curriculum is being transacted is suggested.
5. A follow up study to find out how many of the departmental candidates enter the teaching profession after their secondary teacher training can be conducted.
6. An investigation to offer suggestions to enhance the institutional cost of the University Teacher Education Centres

so as to bring it at par with other quality Teacher Education Institutions is also suggested.

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APPENDICES

Appendix- I**Institutional Cost:****Heads of Institution**

The facts collected through the questionnaire are meant to be used for preparing a thesis. These facts will not be used for any other purposes. The details, which you write in this questionnaire, will be kept confidential.

With regards.

T.K. PREMA KUMARI.

e) Any other

Category						
No						
Qualification						
Scale of Pay						
Salary						

12. Physical Infrastructure

	No	Area
a. Class Room	: <input type="text"/>	<input type="text"/>
b. Seminar Hall	: <input type="text"/>	<input type="text"/>
c. Multi Purpose Room	: <input type="text"/>	<input type="text"/>
d. Work experience Room:	<input type="text"/>	<input type="text"/>
e. Technology Room	: <input type="text"/>	<input type="text"/>
f. Library Room	: <input type="text"/>	<input type="text"/>
g. Reading Room	: <input type="text"/>	<input type="text"/>
h. Phy. Science Lab	: <input type="text"/>	<input type="text"/>
i. Natural Science Lab	: <input type="text"/>	<input type="text"/>
j. Psychology Lab	: <input type="text"/>	<input type="text"/>

k. Language Lab	:	<input type="text"/>	<input type="text"/>
l. Principal Room	:	<input type="text"/>	<input type="text"/>
m. Staff Room	:	<input type="text"/>	<input type="text"/>
n. Office Room	:	<input type="text"/>	<input type="text"/>
o. Store Room	:	<input type="text"/>	<input type="text"/>
p. Adl. Room for women:		<input type="text"/>	<input type="text"/>
q. Toilet	:	<input type="text"/>	<input type="text"/>
r. Attached toilet	:	<input type="text"/>	<input type="text"/>
s. Separate toilet	:	<input type="text"/>	<input type="text"/>
t. Canteen	:	<input type="text"/>	<input type="text"/>
u. Co-operative Society	:	<input type="text"/>	<input type="text"/>
v. Principals Quarter	:	<input type="text"/>	<input type="text"/>
w. Staff Quarters	:	<input type="text"/>	<input type="text"/>
x. Hostel for women	:	<input type="text"/>	<input type="text"/>
y. Hostel for men	:	<input type="text"/>	<input type="text"/>
z. Total land area of the college:			<input type="text"/>
13. Approximate land value	:		<input type="text"/>

14. Approximate area of total buildings :
15. Approximate no. of old building (20 yrs duration):
16. New building (after 1986) :
17. Approximate modification expenditure (After 1994) :
18. Maintenance Expenditure (Per year) :
19. Telephone / Fax expenditure cost (Per year) :
20. Miscellaneous Expenditure (Per Year) :
21. Contingency (Per Year) :

22. Furniture cost (As per Stock Register)

	No	Expected Price
Desks		
Bench		
Chairs		
Tables		
Dias		
Notice Board		
Laboratory work table		
Bulletin Board		
Reading table		
Shelves		
Almairah		
Racks		
Screen		
Storage racks		
Librarian filing cabinet		
Any other Furniture		
Total cost		

23. Books

	Stock before 1994	After 1994	Expected cost
Text Books			
Reference Books			
Professional journals			
Yearly purchasing books journals			
Contingency for other library item			

24. Laboratory cost (Per year)

Item	Material Cost	Yearly additional Expenditure
Physical Science Lab		
Natural Science Lab		
Psychology Lab		
Language Lab		
Mathematics Room		
Geography Room		
History Room		
Audio Visual Room		
Work experience room		
Art Room		
Physical Edn. Room		
Total cost		

25. Educational Technology

Item	No	Working condition	Cost
Radio			
Television			
Audio Cassettes reader			
Shade cum film strip projector			
Over head projector			
Arts materials for preparation of charts and slides			
Materials for transparencies			
VCR			
Amplifier			
Loud speaker			
Microphones			
Blank Audio vedio cassette			
Still camera			
Video camera			
Computer PC			
Any other			
Actual Cost			

B. Expenditure related to College functions

1. Programmes	Expenditure by college	Expenditure by students (unit cost)
Termly Evaluation		
Public Examination		
Practical Examination		
Teaching Practice (TA/DA etc.)		
Excursion		
Annual celebrations		
Other Celebration		
Alumni association function		
PTA Meeting		
Other meeting / function		

2. Pattern of income

a. Foreign aid

Rupees : Material :

b. Donation

Rupees : Material :

c. UGC grant

Rupees : Material :

d. State grant

Rupees : Material :

- Books :
- e. Endowments (deposits)
Rupees :
- Bank interest (PA) :
- f. Land income :
- g. Any other income :
4. Tuition fee :
- a. Special fee :
- b. Examination fee :
- c. Miscellaneous fee :
- d. Any other :
5. Scholarship cost :
- a. National loan scholarship:

6. Salary structure

	Teaching staff	Non teaching staff	Other
UGC norm			
Central norm			
State norm			
Other norm			

7. Working Days	96-97	97-98	98-99	99-2000	2000-2001
Practice Teaching days					

Appendix -II**Individual Cost :****Students**

The facts collected through the questionnaire are meant to be used for preparing a thesis. These facts will not be used for any other purposes. The details, which you write in this questionnaire, will be kept confidential.

With regards.

T.K. PREMA KUMARI.

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A. Personal Data:

1. Name of the Student :
2. Name of the Institution:
3. Locality :
4. Home address with
post office :
5. Sex :
6. Age & Date of Birth :
7. Caste & Community :
8. Do you belong to
SC/ST/OBC/OEC :
9. You are selected in : Open Merit Quota/Department Quota/
Management Quota/ Any other Quota.
a. Your Reservation
quota in :Special focus groups/PhysicalHandicappe
/Military/Sports and any other.
10. Where do you reside : Home/Hostel
- 11.If a day scholar do you come: by Bus/by Train/on Pedestal/
Any Other

B. Cost of Education

12. Initial Cost :
- a. Cost of application form :
 - b. Postal Charge :
 - c. Traveling and Consumable Cost:
(at the time of Interview)
 - d. Other cost :
13. Institutional Cost :
- (at the time of Admission)
- 1. a. Tuition fee :
 - b. Special fee :
 - c. Library fee :
 - d. Games fee :
 - e. Audio Visual fee :
 - f. Arts and Craft fee :
 - g. Laboratory fee :
 - h. Teaching Practice fee :
2. Miscellaneous fee :
- a. Entrance fee :

- b. Caution Deposit :
- c. Examination fee :
- d. Recognition fee :
- e. Matriculation fee :
- f. Any other fee :

1. Other Items:

- a. College calendar :
- b. Identity card :
- c. College Magazine :
- d. College Association :
- e. Campus Amenity :
- f. Medical Check up :

14. Collateral Costs : (After Admission)

- a. Note Books :
- b. Text Books :
- c. Records :
- d. Stationeries and other Contingency :

- e. Materials for Preparing Teaching Learning Materials :
(Actual Class Room)
- f. Materials for Preparing Teaching Learning Materials :
(Teaching Practice)
- g. Field Trips :
- h. Study Tour :
- i. Any other :

15. Cost for Boarding and Lodging (per month)

- a. Days Scholar (Expenses related with)
 - 1. Travelling :
 - 2. Contingency :
- b. Hostel inmates
 - i. Consumable Charge :
 - ii. Lodging Charge :
 - iii. Travelling Expenses :
- c. Personal Cost
 - 1. Washing and Landry Charge:

- 2. Medicines :
- 3. Linen :
- 4. Articles of Toilet :
- 5. Entertainment :
- 6. Culture Relativities :
- 7. Literary Works :
- 8. Sports and Games :
- 9. Any other :

16. Expenditure Related with College Election:

- 17. Do you enjoy fee concession :
 - a. If yes State the amount :
- 18. Are you recipient on educational Loan :
 - a. If yes State the amount :
- 19. Are you recipient in any Scholarship :
 - a. If yes state the amount :

Appendix- III**Individual Costs:****Department Candidates Only**

The facts collected through the questionnaire are meant to be used for preparing a thesis. These facts will not be used for any other purposes. The details, which you write in this questionnaire, will be kept confidential.

With regards.

T.K. PREMA KUMARI.

1. Name of Student :
2. Name of Institution :
3. Home Address :
4. Optional Subjects :
5. Are you Employee :
6. If yes which Department :
7. Category Post :
8. Management of Parent Institution : Government/Management
9. Duration of Service :
10. Total Salary you have Received :
11. Do you Belong to the Concessional Group :
12. If yes Identity which type of Concession to Accepted :
13. Allowance from College :
14. Any other Supporting aids from College :
15. Loss of net Salary Income :

Appendix IV**Interview Schedule**

- 1.Name of College :
- 2.Optional subject :
- 3.Age :
- 4.Mode of Admission : Management / Merit / Others
- 5.What was the nature
of donation : Cash/Materials
- 6.How much was donated? :
- 7.Quantity of Materials :

