

ECONOMICS OF HIGHER EDUCATION
Micro Analysis of Private Colleges in Nagaland

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CHAPTER I INTRODUCTION

I. The Emergence of Economics of Education: Economics of Education has emerged as a separate sub-discipline of Economics during late 1950s and 1960s on account of the efforts of a few American economists like Theodore W. Schultz (1959 – 1963), Robert M. Solow (1956, 1957), Edward Dennison (1962) and others. Emergence of economics of education has been responsible for furthering explorations leading to economics of human resource development and utilisation.

Since the latter half of the last century, a large corpus of literature has grown on the relationship between human capital and economic growth. Recent studies in this area deal with many diverse questions such as the concept and formation of human capital, the residual factor in economic growth, manpower forecasting and planning, correlation between education and earnings, estimation of the demand and supply of education, criteria for investment in education, cost-benefit analysis of education, education and equality of opportunity and so on. A number of seminars, discussion groups and conferences have also been organised, with ‘economics of education’ as the central theme by UNESCO, OECD, International Economic Association and other national and international organisations. There has indeed taken place what may be described as ‘the investment revolution in economic thought’.

Economic development of a nation has always been associated with knowledge and, in turn, knowledge with education whether formal or informal. However, at the lower stages of economic development human labour predominates human capital. As a nation moves up along the ladder of higher stages of economic development, human capital gains relative importance over human labour. A thrust on human capital formation formalises education increasingly, and as a result, formal education predominates informal education in the commensurate proportion. Finally, *credentialism* (an officially accepted general practice of reliance on educational certificates issued by state recognised institutions for imparting formal education as the basis of judgment of educational competence of a person) rules the decisions of those who employ labour as well those who seek employment. It goes on and *credentialism* reinforces itself pushing

up the need to further horizontally and vertically differentiated formal education (Collins, 1979).

In spite of all these, the economics of education has remained somewhat amorphous component of the economics of development. The reasons for this amorphousness are manifold. First, the economics of development by itself became a separate branch of economics only after the World War-II largely due to the politico-economic interests of the developed nations in exhorting the nations of the third World to gear up as well as the desire of the latter to foster development by design. In the beginning, physical capital as a major determinant of economic development was in the limelight and in due course, technology became the buzzword. Technology combines physical capital with a specialized knowledge and therefore, economics of education was only a natural offshoot of economics of development. Additionally, education is perhaps a necessary means to make a 'modern man' and inculcate 'modernization ideals' in the people considered as a pre-condition for development (Myrdal, 1972 pp. 33-45). Therefore, economics of development begets economics of education. However, primary and often exclusive importance given to investment in physical capital for development is grossly responsible for rendering economics of education only loosely knit with the economics of development (Myrdal, 1972 pp. 359-361).

Secondly, empirical studies in relationships among economic variables began only after the Great Depression and gained an impetus only after World War-II. It was empirically found that (in developed countries) there was a 'residual' in the capital/output model that could not be fully explained by physical investment. That 'residual' was imputed to education considered as a non-economic factor. However, unwilling to abandon the traditional instrument of capital/output ratio in the development models, economists widened the concept of capital investment to include, besides physical investment, the 'investment in man' or 'human capital formation'.

Thirdly, the said amorphousness is best explained in the words of Myrdal (1972 pp. 360): *"The situation is, indeed, somewhat paradoxical. While most of the planning in South Asia and other under-developed regions, and most of the economic literature on development, is continued to be based on the notion that physical investment is the engine of development, there are today an increasing number of economists who denounce that*

view and who regard development, particularly in underdeveloped countries, as primarily an educational process.”

Fourthly, economics has a tradition to consider consumption and investment as the two distinct and mutually exclusive categories of expenditure. It has always been inconvenient to consider an expenditure that, in an unspecified proportion, could obviously be consumption as well as investment. In case of education and health at least, consumption plans and investment plans are not only mutually interlinked and determined simultaneously, they are often grossly overlapping. Traditional theories are inapt to deal with this situation (Morishima, pp. 124-125). In the traditional theory, investment builds up capital, but human capital built up through expenditure on education (and health) is hard to impute clearly to either consumption or investment. A lack of firm integration between economics of development and economics of education is, at least partly, explained by the said fuzziness that traditional theories are inapt to deal with.

However, it is a ground reality that individuals as well as nations employ a sizeable amount of resources on education whether on account of consumption or that of investment. Higher education acquires a lion's share in that. When we recognise the principal motivation of an individual's demand for education in developing countries as desire for economic improvement by means of access to better-paid jobs and remuneratively attractive professions (Menon, 1997), we must understand the economic processes through which such aspirations are either realised or frustrated. In the same manner, an ever-increasing burden of higher education on the public exchequer must be a matter of concern. It must be evaluated for its effectiveness in promoting welfare as well as efficiency in accelerating the process of economic development through increase in output.

II. Macroeconomics of Higher Education: Among various levels of education, higher education has a pervasive and influential impact on development. Higher education empowers the individual with necessary skills and competence for achieving important personal and social goals and thereby contributing to the social development. It is widely believed that the state of higher education in a country is an index of its future well-being. Higher education is indeed a vital tool for intellectual, cultural and aesthetic

development and a means for achieving wider social aspirations. It also has an increasingly crucial role to play in producing agents of change for moving the country along the development continuum (Dickens, et al., 2006). In recent times the magnitude and pace of changes taking place the world over in economic, political technological and social environments have obviated the need for changes and improvements in the system of higher education. The National policy on education, India (1986) observes that higher education provides people with an opportunity to reflect on the critical social, economic, cultural, moral and spiritual issues facing humanity. It contributes to the National development through the dissemination of specialised knowledge and skills. It envisages, therefore, that the state has the primary responsibility to promote higher education.

Higher education has been the object of much new thought and research all over the world in recent decades. The ever-increasing budgets of higher education and the continued demand for more and more places in higher educational institutions, have accelerated research activities in this field of higher education (Birdsall, 1996). The realisation of the fact that education can accelerate the process of economic development has also accentuated the importance of higher education and a host of economists have started to demand more resource allocation for the development of higher education. Economists in their analysis of education are raising questions such as “how much should a country spend on education and how should expenditure be financed? Is education mainly ‘investment’ or mainly ‘consumption’?”

If the allocation of resources on education entails investment, how large is its yield compared to other forms of investment in people and material equipment? If it is consumption, what are the determinants of the private demand for more/better education? What is the optimum structure of the educational pyramid, that is the number in the different levels and channels of the educational system? What is the optimum mix of formal education within the schools and colleges and informal education outside them? Lastly, what contribution does education make to the overall development of human resources and how far can we accelerate economic growth particularly in low-income countries by controlling the expansion of educational system?”

An ever-increasing demand for higher education sets free a number of forces leading to their ultimate consequences of decline in quality of higher education on the

one hand and emergence of alternative institutions catering to the surplus demand for higher education unmitigated by the institutions run by the government on the other (Deer, 2002). The decline in quality is partly explicable by the ever-widening hiatus between a tardier supply of capital (both human and physical) in comparison with the optimal requirements of capital in the institutions of higher education. However, the gap is covered up due to *credentialism* on the one hand and poor possibilities of controlling moral hazards in providing educational services on the other (Collins, 1979). It is natural that when good ones and bad ones are equally acceptable to the market, the bad ones overtake the good ones. Alternative institutions took a full advantage of this situation (Ghose, 1998). Political forces either fuelled up or failed to arrest the process. The law of cumulative causation worked in a full force and quality took the way to its nadir.

The economics of providing higher educational services was largely ignored for quite some time because such services comprised a relatively small part of the gross national product and used small proportions of the nation's resources. In addition, it was somehow thought that education was above mundane things like economic benefits and costs. The burgeoning enrolments in the institutions of higher education changed all that. Those responsible for decision making with regard to higher education - legislators, administrators, faculties, students and concerned citizens - can no longer ignore the economic consequences of their decisions. The provisions of higher educational services require the use of large quantities of resources, and the resources so used are not available to produce other goods and services (the opportunity cost of providing higher education). Higher educational services represent one of a great many competing uses for resources.

III. Microeconomic Aspects of the Economics of Education: The issues enlisted above mainly relate to those at the systemic level. However, the educational services are provided at a 'micro-level' and educational institutions provide these services. It is needless to stress on the fact that the efficiency of a system at macro-level cannot be achieved without achieving the same at the micro-level. This fact necessitates a study of the educational system at the level of institutions that impart educational services.

A micro-level study of the institutions of higher education would be furthermore important because higher education aims at skill formation (while lower education is

mainly for literacy or making the inputs to higher education). An analysis of operation, efficiency, productivity, structure, pricing, etc. of the institutions of higher learning such as the colleges is, therefore, meaningful.

These issues of operation, efficiency, productivity, structure, pricing, etc. of the institutions of higher learning were never less important. However, in the last two decades, while the government is gradually receding from financing the institutions of higher learning and the private enterprises are coming up to meet the demand for higher education, an in-depth study of these issues has assumed evermore importance. This is so because private institutions must work and charge prices on market principles.

In this milieu, a micro study of the institutions of higher education will be of great importance to analyse their operation, efficiency, productivity, structure, pricing, etc. Logically, an institution of higher education, say a college, acts as a mill in which the parents bring in the raw material (the students) to be shaped for the future benefits. In doing so the college charges necessary fees for the services rendered to the student. Like any producing units in the economy, colleges use resources and technology to turn out something of benefit to individuals and to society. This “something” can probably best be characterised as educational services. To get at what comprises educational services, we can pose the question: Why is one attending a college? There are at least three answers to the question. First, one expects education to improve one’s capacity to produce and to earn income, that is, to augment the quality of one’s labour resources. We call this development of human capital. Second, quite apart from improving the quality of one’s resources, one derives immediate satisfaction from one’s present participation in college process and activities - it is in this respect a direct consumption service. Third, one may expect that in addition to the benefits that accrue to one-self from obtaining education, there will be some benefits to the society as a whole.

IV. Educational Institution as an Economic Organisation: Now, let us consider a college (or any such institution providing higher education services) as an organisation ‘producing’ and ‘supplying’ a particular type of service (higher education here) to the consumers (recipient of educational services), and thus a firm, in economic sense (Borghans and Hans, 2005). One of the basic objectives of the firm is profit maximisation

(although it may have other objectives too). Unlike the government-run colleges that are motivated by socio-political goals, a private college may attempt to maximise its profits in various ways like charging higher admission fees, hostel rent, etc. Other than that, some of the objectives to mention are maximisation of the standard of the college, expansion of the college, mitigating the local socio-political aspirations and needs and lastly providing quality education as well.

In the organisational perspective, a private college may take the form of a “sole proprietorship” in which a single individual is the sole owner of the college. The discretion lies with the owner pertaining to policy-making, decision-making and gets the appropriate reward for that. Second, there is “partnership” where more than one person is involved. Mutual consent and voluntary agreement create them. Although the joint capital is not a norm of partnership, they agree to share the profit. Thirdly, there are “co-operatives” who run the college for the furtherance of their economic interest. Many of these colleges aim at providing maximum services to all the student community and not to make profit. Another form of college may be referred to as “Deficit College”. Both government and private individuals have their shares in the administration of such colleges.

To meet the demand for higher education such institutions (colleges) emerge in a large number, each catering only to a small segment of the clientele (consumers of higher education), competing with the others of the likes, devising strategies of its survival and growth, aspiring to command larger and larger segment of the clientele, improving the qualities of its services, meeting the objectives for which it strives, and so on. Thus, in economic sense, a collection of such institutions forms an industry, the industry of higher educational services (Gibbs, 2001).

Such an industry has a market structure (Joshi, 2000). As the producing units, the firms (colleges) in this industry usually fall under the purview of monopolistic competition. Colleges produce more or less closely substitutable products such as instruction to pupil and examinations results. One definite thing about the parents of the student (and the student as well) is that they have a preference to a particular variety of brand of product. These brands are close but not perfect substitutes for each other. In the pricing decision, private colleges follow some norm. There may be no direct

communication between colleges, but an informal understanding is established and a leader emerges. It is not necessary that the leading college is the largest one in the industry. Whether the new price or policies initiated by the leading college is acceptable to the followers depends on its comparative advantage over the incremental cost of production of the colleges as well as the total cost and revenue situation for various activity projections.

Whatever might be the reasons for the observed demand for private colleges and whoever is working in them on whatever terms, the following points qualify the private colleges to be an object of economic analysis:

- (1) It imparts education to a large number of students and thus adds to the augmentation of human capital that has its own role with regard to the economic development of the region and nation as a whole.
- (2) It provides employment to a substantial percentage of the educated population.
- (3) It generates income flow that in turn generates demand for many other services and commodities and further income and employment in turn.
- (4) It helps to materialise entrepreneurial and managerial abilities in many youths and at least indirectly helps to make the “achieving society” in the words of David McClelland (1961).
- (5) It promotes development-movement upward of the whole system-in which education plays a great role.

V. Review of Literature: Now we make an attempt to review the various studies carried out earlier, dealing with the variety of aspects related to Economics of education. Much of the study regarding economics of education, or for that matter, higher education deals mainly with the widely acclaimed objectives concerning welfare and promotion of human capital for fostering development. However, the microeconomics of higher education has largely been neglected. The study of private colleges (as an alternative to government colleges) as an enterprise has scarcely attracted the attention of researchers. Keeping this in mind, we present here what in recent years have appeared as macro-economic studies as well as micro-economic studies on higher education.

V.1. On Policy Issues regarding Higher Education: Leftwich and Sharp (1984) formulate a framework in which to deal with the policy issues regarding higher education. They call for a systematic analysis, which centres around four interrelated questions: (1) what kinds of higher educational services should be provided? (2) How much should be provided? (3) What is the appropriate institutional structure for providing them? (4) Who should pay for them?

Currie and Vidovich (2000) study privatisation and competition policies for Australian Universities. They observe that privatisation encapsulates an ideological shift towards market principles such as competition, commercialisation, deregulation, efficiency and changing forms of accountability. In higher education, the privatisation trend includes the full gamut from the creation of fully private institutions that operate without government financial support, to reforms in largely government-funded institutions operating in more of a quasi-market mode. The study examines privatisation policies and speculates on their origins and their ramifications for universities around the world. In particular, it describes the impact of corporate managerialism (the import of management practices from the private sector) in institutions still largely under the control of governments, and focuses on examples of the particular effects of this ideological shift in three Australian universities. It argues that some traditional academic values should be preserved as important attributes of universities that enable them to operate in the public interest and maintain their role as a critical voice in society.

Hyslop-Margison (2000) studies the market economy discourse on education and suggests that the most serious threat posed to contemporary education is the deleterious impact that market economy policies have on current curriculum theory and development. It explores the market economy discourse on education that emerges internationally from the Organization for Economic Cooperation and Development (OECD), and domestically from private institutions such as the Conference Board of Canada (CBOC) and public ministries such as Industry Canada. These organizations promote the market economy discourse on education by framing discussions on curriculum policy between government and business interests. By referring to the primary sources of the market economy discourse on education, then, this article draws attention to the global economic vision currently shaping Canadian schools and explores its impact

on domestic education policy. Further, it proposes a means whereby those teachers holding a less intractable perspective on education might resist the current market economy siege on schools. Ironically, this approach involves using the critical tools appropriated by the market economy discourse on education in a manner entirely unintended and unforeseen by its supporters.

Garrett (2001) examines the interplay between public and private funding in English higher education. It argues that English higher education has reflected a tension between institutional diversity and a particular 'university ideal'. The absence of serious 'for-profit', private competition contributed to dependency upon the state. As public funding has diminished, the 'university ideal' has given way to the marketplace, with sweeping consequences for the system as a whole.

Gindling and Sun (2002) opine that the significant feature of Taiwan's educational development is the high degree to which the structure of educational expansion, especially in higher education, has been strictly planned by the government. The Ministry of Education controls the number of students who are allowed to attend all institutions of higher education (both private and public). They also presents evidence that this control over the relative supply of workers with higher education, rather than changes in relative demand for these workers, was the more important factor causing changes in the relative wages of Taiwanese workers with higher education between 1978 and 1995. For example, decisions by education planners in the 1980s to increase the number of students enrolled in universities and junior colleges led to a fall in the wages of workers with higher education relative to the wages of workers without higher education.

Chitty (1997) on privatisation and marketization elucidates that the term 'privatisation' is capable of many different interpretations where education is concerned. For many on the far right of the political spectrum, it embraces all those measures designed to work towards a situation where, eventually, all schools will be in private ownership and parents will be supplied with educational vouchers or 'credits' to spend at the schools of their choice. Yet, it can also be broadened to cover all those initiatives that blur the boundaries between the private and state sectors. While privatisation in the purest sense has not so far been achieved, developments since 1979 have created a situation where there is considerable state support for private institutions, where state schools find

themselves increasingly reliant on support from local businesses and where schools are pitted against one another in a cut-throat competition to attract pupils.

It is interesting to note that those who plead for privatization of higher education take it for granted that all the ills of higher education are solely due to the state control and state financing of higher education. They assume that privatization will do away with all the ills. However, matters might be different. Possibly, the malady in higher education is not because who controls it or who finances it, but because there are problems in governance accountable to the soft state (Mishra, 2003-a). In a soft state privatization may at best ease the financial burden of providing higher education on the public exchequer and absolve the state from the concerned responsibilities. Yet, higher education may continue with the current maladies or even beget more serious problems detrimental to the goals of higher education.

V.2. Need for reforming prevalent Policy: The Eighth Five Year Plan Document of India analysing the problems of the enormous quantitative expansion of higher education in India, brings out six important thrust areas to resurrect the existing system of higher education. They are: (1) integrated approach to higher education, (2) excellence in higher education, (3) expansion of higher education in an equitable and cost effective manner and in the process, making the higher education system, finally self-supporting, (4) making the higher education relevant in the context of changing socio-economic scenario, (5) promotion of value education; (6) strengthening the management system in the Universities.

Salmi (1992) looks at the current higher education crisis in developing countries and discusses how problems are analysed and decisions made in the context of higher education reform. He focuses in particular on discrepancies between objectives and achievements in an attempt to highlight the importance of risk analysis in strategic planning for higher education development. He observes that traditional approaches to higher education planning and decision-making have failed to build into their development and reform strategies appropriate mechanisms to evaluate risks and deal with uncertainties. Developing countries have been following three main strategies to minimize the adverse effects of the higher education crisis: the passive risk approach, the positive risk approach, and the diffuse risk approach. Experts have advocated a

contingency planning approach to planning for educational projects sponsored by international donor agencies, taking into account the management requirements for a smooth implementation of innovative projects. In the case of higher education reforms, focusing on management variables is important but not sufficient. An impact assessment approach is needed to reflect the challenging nature of higher education reforms, which, by essence, confront established practices and stakes.

Jallade (1993) sets his study to highlight the contribution of higher education to the restructuring and reform of other sectors of the education and training systems in Central and Eastern Europe. It is organized around the four following key issues: (a) improving the connection between secondary and higher education, (b) developing the teacher training function of higher education, (c) strengthening the contribution of higher education to curriculum development at the secondary and primary levels, and (d) promoting continuing education within higher education. The study finds out that attempts at reforming education systems are under way in most Central and Eastern European countries. New education laws establishing the legal framework to operate these systems have been or are about to be adopted. Innovative thinking is taking place and cooperation with the West has made a significant start. The impact of these efforts is, however, jeopardised by extremely severe budget constraints, often causing cuts in education expenditure. There is inadequate maintenance of buildings, there is a lack of funds for the acquisition of teaching and learning equipment and, above all, there are low salaries for teachers and other staff. Within the education sector, higher education is in direct competition with primary and secondary education for public finance. Under such difficult circumstances, there is no point in proposing a radical overhaul of higher education systems, which would stand little chance of being implemented. Progress will come from steady efforts aimed at restructuring those systems internally, mobilizing existing (but sometimes misused) resources, and providing incentives to influence the behaviour of the various participants - teachers, students, industry, educational administration etc.

Birdsall (1996) discusses problems with the prevalent view that public resources for education in developing countries should be reallocated from higher to lower levels of education. There may be a case for maintaining and even increasing spending on higher

education, as long as public funds can be directed to research and other "public good" functions of institutions of higher education. Current measures of social returns to primary, secondary and higher education do not reflect unmeasured social benefits at each level; since we do not know the relative size of these benefits across levels, we do not know the true ranking of social returns across primary, secondary and higher education. The true social rate of return to certain components of higher education, such as research and postgraduate training in science and technology, and creation of other skills where social returns probably exceed private returns (such as public administration) is probably high, and in some settings, may now be as high or higher than the social rate of return to primary and secondary education. Moreover, achieving and sustaining adequate levels of quality to capture these social returns requires minimal stability in public financing, arguing against major reallocations away from higher education. However, this does not argue for more public spending on all higher education programs. On the contrary; within the envelope of total public spending on higher education, reallocation away from public spending on undergraduate training makes sense, since such training probably has low social compared to private returns, and can be accomplished by greater reliance on private universities and by increasing tuition and other fees in public universities, while ensuring equitable access through loan and scholarship programs.

V.3. Returns from Higher Education: Tilak (1991) have exploded several myths about the superiority of private education compared with public higher education was exaggerated; that graduates from private University do not necessarily receive higher rewards in the labour market in the form of lower unemployment rates, better paid jobs and consequently higher earnings; rather external efficiency of private higher education is not higher than public higher education; private higher institutions do not necessarily provide any sizable relief from financial burden to the governments; the private sector does not respond rightly to the economic needs of the individual and society, if at all it does, it responds to short term needs of the market; very rarely private enterprises have genuine philanthropic motives in opening private Universities, and in general such institutions tend to become profit making institutions; private institutions create

inequalities in education and in society; and private institutions are also not necessarily apolitical.

Tilak (1995) estimated that economic returns – both private and social – on education are high. They are higher or at least comparable to returns on physical capital. Private returns to education are higher than social returns and returns to primary education are higher than returns to other higher levels of education.

Menon (1997) estimates perceived rates of return to higher education in Cyprus and use them in logistic regression analysis in order to study the effect of economic considerations on the decision of secondary school pupils to pursue higher education. Unlike earlier studies, the data used in the computation of these rates are based wholly on the pupils' subjective estimates. The results are supportive of human capital theory: The mean rate of return to higher education estimated by higher education candidates is considerably higher than that perceived by labour market entrants. Logistic regression analysis shows the perceived rate of return to higher education, as estimated by both the elaborate and the short-cut methods, to have a significant effect on the pupils' educational intentions.

In estimating the rate of (private) return from higher education one often ignores the individuals who remain un-employed with the credentials. This bias may over-estimate the rate of private return at the macro-level.

V.4. The Quality Issue in Higher Education: Burkhalter (1996) looks at how the institutions of higher education will achieve quality within the new economy. Why has the concern for quality in higher education emerged as a public agenda throughout the world? More importantly, how can educational leaders achieve quality within the demands of the new economy? A quick review of professional organizations' and society's conference themes over the past decade on total quality management, quality education, continuous quality improvement, continuous programme improvement and assessment provides clear indicators that the worth and merit of higher education are being questioned. Few topics elicit greater alarm in higher education than productivity and quality, and rarely is productivity linked with quality. Currently, educators are experiencing the reality and pain of restructuring higher education, as they have known it. These educational leaders are concerned and are searching for answers, which will allow

proactive leaders to shape this change process while protecting academic freedom in teaching, outreach and research. Regardless of how proactive or reactive academicians decide to be in this restructuring process, one overarching belief is held in high regard: institutions of higher education must graduate individuals prepared for their respective careers and roles within the new global economy. The fundamental message in this article is for the leadership and faculty to commit to the collective responsibility of achieving a new kind of quality in higher education as measured by those who purchase the university's services and, most importantly, those who employ their graduates.

Kempner and Taylor (1998) on an alternative assessment to higher education outcomes, propose higher education and community colleges in particular, be evaluated not solely on their functional merits, but on their value in promoting, what John Dewey (1966) called an "active citizenry." Rather than considering only how well higher education meets the needs of democratic capitalism, they investigate alternative methods of assessing the contribution of higher education to the development of active citizens. In the exploration they consider how higher education preparation differs based on an individual's gender, race, class, academic program and the postsecondary institution attended. They explore alternative concepts of assessment in higher education not as proof and have discovered the method for assessing outcomes of higher education, but, rather, as an alternative approach to understanding the potential outcomes of higher education at its different institutional levels. One special significance of the study is the finding that although students who attend a community college, for example, may not be as successful economically as university students; attendance at a community college is associated with an increased sense of self-empowerment. When considering community colleges having a higher proportion of students who are typically marginalized by postsecondary institutions, the community college does appear to offer opportunities for students that are not measured only in economic terms.

Van Damme (2001) looks at the quality issue in the internationalisation of higher education. Although the quality issue has become a central preoccupation in other domains of higher education, current internationalisation policies and practices in higher education have developed without much concern for quality assurance. The central thesis of this study is that we have come to a point in the development of higher education

where internationalisation policies and practices face the limits of their development unless the quality challenge is addressed in all its consequences. The study first provides an overview of contemporary forms of and recent developments in internationalisation in higher education. From more or less 'traditional' forms such as student and teaching staff mobility, internationalisation policies and practices nowadays move into activities such as exporting higher education via branch campuses and institutional co-operation, developing transnational university networks and virtual delivery of higher education, and the harmonisation of higher education systems. In these recent developments, several issues and challenges arise, which in one kind or another have direct links to the quality challenge. The quality of internationalisation policies and practices itself is an important problem, but of more importance are the issues of the recognition of foreign diplomas and degrees and the recognition of credits and credit-transfer. This study takes a critical stance towards for example the ECTS, which tries to solve these issues without much concern for quality. The way out lies in an integration of internationalisation policies and general quality assurance practices at institutional and policy levels.

Parikh (2002) on Education Policy, Goals, Actions and Reforms suggests that the number of institutions of quality for higher education should increase so that all those capable of becoming high-quality professionals have the opportunity to do so.

Bhushan (2004), opines that the private institutions managed by the trust/society be allowed to exploit the market for education under the regulation and control by the government whereas the autonomy of institutions in admission policy, staff recruitment policy and the teaching-learning process should be provided under the guidelines issued by the government. The government should regulate the quality dimensions of the programmes by making the recognition and accreditation of institutions and programmes mandatory for all private education providers.

V.5. Financing of Higher Education: Misra (1964) has analysed the problems associated with financing education in India. He has derived the following policy implications based on his main findings: (a) the state governments should adopt decentralized planning and coordinate different educational programmes; (b) the universities shall raise more funds from fees and endowments; (c) the state governments

should periodically revise their grant-in-aid rules keeping in view the new challenges and problems; (d) appropriate policy measures should be taken to avoid wastage in educational expenditures.

Auten and Gabriel (1986) have tried to bring out the effects of tax concessions and exemptions under U.S. tax laws on higher education. Nearly a century ago that is before the establishment of land grant colleges and state universities the philanthropic general public was the leading donors to the growth of higher education in the U.S.A. It was stated that private support for higher education equal to 6.2% of expenditure of institutions concerned for the fiscal year 1983-84. Such donations comprised gifts and grants from individuals, foundations, business and religious organizations. They have convincingly argued with the support of data that (1) any passive reaction on the part of the institutions of higher education could lead to a decline in voluntary donations and contributions; (2) although individual contributions are “relatively a small source of income for higher education, it is often the margin needed to employ top-notch faculty and provide quality education. Perhaps more importantly, private support is the necessary ingredient to assure flexibility and diversity in scholarly pursuit and institutional management. The possible effects of tax reforms on giving to higher education are therefore a matter of public policy and concern.

Coughlin and Erikson (1986) have analysed the determinants of state aid and voluntary support to higher education in U.S. society in terms of an desegregated approach. They found that institutional quality, state-wide demand for higher education, legislative concern for equity and institutional effort, success in inter-collegiate athletics as important determinants of state aid. Whereas, they found that that voluntary support tend to vary among various categories of support, with institutional quality and size, public relations efforts, and success in inter-collegiate athletics. They have used regression equations to analyse their data.

Heggade (1993) in his study of Economics of Education A study of Indian experience among other things, has examined the problems of financing education in general and higher education in particular. Some of the important findings of his study are: (1) even after four decades of planning, India could not achieve the goal of universalisation of education owing to financial, structural and organizational constraints;

(2) in absolute terms, the total allocation for educational development has increased but in real and in relative terms, it has decreased through the successive Five Year Plans. This is really a distressing trend. It has to be reversed immediately; otherwise neither the universalisation of education nor the further expansion of educational output to meet the growing requirements of the expanding economy will be possible; (3) a highly confusing and complex pattern on internal financing of education has emerged since independence in India. On the one hand fees have retained extremely low in the case of general education whereas donations and capitation fees have become rampant in the Private English medium schools and Private technical, engineering and medical education institutions. These are the two extremes of an unsound and irrational system of internal financing of education in India. Therefore, it is necessary to end this highly distressing situation by rationalizing the educational fee structures at all levels and fixing a ceiling on educational donations and capitation fees payable by the parents of prospective students; (4) our educational institutions are dependent on external financial resources, mainly on the grants-in-aid received from the state Governments. Only the private technical, engineering and medical colleges receiving large sums of money as donations and capitation fees are able to generate financial resources from internal sources; (5) a periodic study of the financial and administration of the universities and the UGC and the relationship between higher educational institutions and government is also necessary.

Duggan (1997) on the role of international organisations in the financing of higher education in Cambodia found out that during the 1960s, when Cambodia dedicated 20% of its annual budget to education, a higher education system was put in place for the first time in Cambodia's 2000-year history. High quality universities were built in Phnom Penh and in a number of Cambodia's wealthier provinces. In the early 1970s, Cambodia entered a long period of civil war. All universities except the University of Phnom Penh were levelled during these wars and because of the Khmer Rouge Regime, the entire education system was dismantled. The Vietnamese occupation of Cambodia in 1979 saw an immediate restoration of the education system except higher education. It has only been over the last few years that the higher education system has received meaningful support. Although the higher education system requires significant local and international financial assistance, the system remains heavily under funded and unresponsive to

alterations in the labour market. Further, he examines provisions for higher education and discusses the issues, gaps and constraints facing the system in the lead up to the year 2000. It notes that despite heavy student and social demand for higher education, international financiers have not been enthusiastic about restoring the system. This omission is not consistent with developments in higher education throughout the region.

Humphreys (2000) found out that spending on higher education constitutes an important and increasing portion of state government spending and a major source of operating funds at public institutions of higher education. Anecdotal evidence suggests that state appropriations are subject to cyclical variation. An analysis of state appropriations to higher education, enrolment in two- and four-year public colleges and universities, and state-specific measures of the business cycle for all 50 states over the period 1969-1994 shows that state appropriations to higher education are highly sensitive to changes in the business cycle. A 1% change in real per capita income was, on average, associated with a 1.39% change in real state appropriations per full-time equivalent student enrolled. This implied decline in state government funding, coupled with the increase in enrolment in higher education during recessions suggest that public institutions of higher education may experience fiscal stress during economic downturns. These results also suggest that state legislators and education policymakers should reconsider their higher education funding policies during recessions in order to allow public colleges and universities to provide dislocated workers with access to quality education and training during these periods.

Berger and Kostal (2002) on financial resources, regulation and enrolment in US public higher education find that while total financial resources for higher education have been rising, there has been a significant shift in the share of resources coming from tuition and fees and a decline in the share coming from state appropriations. They seek to understand the enrolment consequences of this shift and to explore policy options using the results of a two-stage least-squares model of the demand for and supply of enrolment in public higher education. They estimate the model using 1990-95 data for the 48 continental US states. Tuition, average wage levels, and average education levels significantly affect enrolment demand, while state appropriations, other revenue, number of institutions, and the level of regulation significantly affect enrolment supply. Our

simulations of policy options illustrate the difficulty of maintaining enrolment levels in the face of tuition increases. If tuition continues to rise, states are faced with reducing supply through lower state appropriations, or attempting to maintain current supply by increasing the amount of regulation in higher education.

Mishra (2003-a) analyses the issues in self-financing of higher education in India and opines that unless structural changes in educational institutions and curricula are introduced so as to make them meaningfully productive and productivity-oriented, attempts to reliance on self-financing methods would only be disastrous.

V.6. Miscellaneous: Teichler (1996) argues that research on higher education is an object-focussed area based on a broad range of disciplines. The institutional base is often shaky and diverse. Various characteristics, notably the blurred distinction between the scholar and the reflective practitioner, contribute to considerable tensions, though research on higher education enjoys substantial public attention.

Interest in comparative research on higher education grew in recent years and was reinforced by the community of higher education researchers in Europe. As it can be conceptually and methodologically demanding and fruitful, the growing interest could serve as a stimulus for enhancing a common identity and a growing quality. However, few comparative research designs represent the ideal type of setting a research agenda of clearly defined hypotheses to be tested, and if they do so, the study mostly turns out to be too simplistic due to disregard of the complex context. Rather, most comparative projects are exploratory and most productive in providing unexpected insight.

In addition, comparative research faces many problems of a practical nature. Costly research seems to be granted sufficient funds only if it addresses issues of current political concern. Language barriers and limits of field knowledge often lead to a poor provision of information. International collaborative research teams tend to be vulnerable due to, among others, a heterogeneity of schools of thoughts, spiralling costs and different work styles.

Further comparative studies on higher education are most fruitful in destroying conceptual reasoning based on narrow experience; they are a gold mine for the early stages of conceptual restructuring. They are indispensable for understanding a reality shaped by common international trends, reforms based on comparative observation,

growing trans-national activities and partial supra-national integration in higher education. Comparative projects can be regarded as theoretically and methodologically most promising if they are based on a semi-structured research design, whereby the strengths of various conceptual approaches in explaining the phenomena are analysed and the researchers systematically deal with the fact that the project is likely to generate surprising information requiring to restructure the initial conceptual framework.

Rana (1996) has raised the issues of numbers, quality (of research students, teachers, management), greater vocalization of higher education (leading to depletion of scholars) etc. According to him, “the guilty among teachers need to be punished while it is equally important to reward the good teachers. It is time to overhaul the teaching standards of our country”.

Ghose (1998) in his article ‘Degree for sale’ has cited cases after cases of fake degrees offered by fake universities all for a ‘price’. The Director of an institute tells his clients, “I will give you a question paper; I will give you the answer. All you have to do is copy them. You will then get a masters from..... University”. Even all this he does to circumvent the law because the degree will then not be fake, it will only be an unrecognized degree. A group of college students in Chennai said, “ I need a degree. How else am I to prove that I am educated?” It would appear that our society believes that education is degree and degree is education. But a Degree at what price?

Gayle et al (2002) attempt to present an example of the kind of detailed research necessary to identify factors associated with low rates of participation in higher education by some groups of young people. A number of studies have suggested that in addition to educational attainment, issues such as social class, gender and parental education also influence a young person's likelihood of entering higher education. They undertake exploratory analysis of a series of nationally representative data and through statistical modelling, then identify factors that influence a young person's chances of entry into higher education and participating on a degree level course. Through sample enumeration, an innovative statistical methodology, we were then able to quantify) the substantive effects of these factors. They found that net of educational attainment a number of factors (e.g. gender and social background variables) influence the likelihood of a young person entering higher education and participating on a degree level course. In

addition, the study highlights the interwoven effects of parental education and schooling and we discuss the complex nature of the effects of ethnicity.

Marginson and Rhodes (2002) offer an overarching analytical heuristic that takes us beyond current research, anchored in conceptions of national states, markets, and systems of higher education institutions. They seek to shape comparative higher education research with regard to globalisation in much the same way that Clark's (1983) "triangle" heuristic has framed comparative higher education research in the study of national policies and higher education systems. Our "glonacal agency heuristic" points to three intersecting planes of existence, emphasizing the simultaneous significance of global, national, and local dimensions and forces. It combines the meaning of "agency" as an established organization with its meaning as individual or collective action. The study critiques the prevailing framework in cross-national higher education research, addressing the liberal theory that underpins this framework, the ways scholars address the rise of neo-liberal policies internationally, conceptual shortcomings of this work, and emergent discourse about "academic capitalism". They then discuss globalisation and our heuristic. Finally, they provide examples of how states, markets, and institutions can be reconceptualized in terms of global, national, regional, and local agencies and agency.

Brint (2002) looking at the data on higher education in the United States brought out that data resources for the study of higher education are generally very good. This is particularly true for studies of students, faculty, institutional quality, and financial resources. He provides a catalogue of existing data resources, including comments about limitations in the quality of some data sources. They also discuss data resources needs for the future. These needs will focus on key changes in higher education: the rise of for-profit enterprises and private resources, new markets for postsecondary education, new instructional technologies, and changing social partnership activities. The study concludes by describing a number of studies that could be conducted using data on higher education to address issues high on the agenda of students of the non-profit sector.

Strydom and Fourie (1999) provide a historical overview of the development of higher education research in South Africa by focusing on achievements and conditions, and present and future challenges. An attempt is made to point out the changes in both the context and paradigm of higher education research. They illustrate how research foci

and methods were shaped by the political agenda of the 'old' South Africa, and highlight the issues which higher education currently and in the future will have to address as part of the transformation process of not only higher education, but of South African society as a whole.

V.7. Micro-economic studies: Verry (1987) has analysed the different types of educational cost of functions and also dealt with issues of research methodology to be followed in estimating educational costs like choice of unit of analysis, choice and measurement of variables, choice of functional form and interpretation of estimated function etc. He also examined the relevance of using alternative concepts like private and social opportunity costs, total, average and marginal costs, joint costs in analyzing the educational production functions.

Kipgen (1988) is a pioneering work on assessing costs, revenue and profits (loss) incurred by privately run schools in the township of Shillong, Meghalaya. The author finds that most of private schools in Shillong paid a meagre salary to teachers, charged handsome fees and earned huge profits. It was also found that these schools run in a market that is close to monopolistic competition. Although this work is related to the 'private school industry' (and not higher education that we are dealing with at present), it has several methodological contributions to make that might be relevant to study the micro-economics of higher education.

Eisemon (1992) on private initiatives in higher education in Kenya opine that Africa's higher education crisis has prompted the growth of private institutions. Enrolments are very low and in most African countries does not account for a significant proportion university enrolments. The largest number of private institution is in Kenya, which is the subject of a case study. Private institutions provide professional training in fields of employment opportunity but also offer an education that emphasizes character-building functions of higher studies. Private higher education is expensive to provide and costly to and Many private institutions are caught in a dilemma. They cannot achieve significant efficiencies by reducing instructional costs without damage to the quality of their programs, and they are reluctant to raise tuition and accommodation charges because of the distorting effects on student recruitment. As long as public higher education is provided at low or no cost and private higher education is entirely self-

supporting, the private sector will have a peripheral role in higher education in Kenya and other African countries.

Saunders et al (1997) attempt to discover the attitudes and opinions of students both to the process of recording achievement whilst at school and the usefulness of the summative document, particularly in application to higher education. It also aims to determine students' expectations about how higher education will build on and further develop their records of achievement, and to identify any plans students may have to update the document. Questionnaire surveys were undertaken at the University of Glamorgan; University of Wales, Aberystwyth; University of Wales Institute, Cardiff; and Swansea Institute of Higher Education. The study identifies an overall positive response to recording achievement in school, but only a limited use of the document whilst planning for and applying to higher education. Students were generally keen to update their records of achievement (RoAs) at college or university, and were most likely to use them in the future when applying for jobs or further courses. Implications for further research are highlighted and a number of action points for schools and higher education are outlined. An example of one way in which higher education may build on the NRA started at school is offered.

Basch (1997) on 'private colleges' pricing experience in the early 1990s observes that during the early 1990s, percentage increases in private colleges' "sticker prices" continued to outpace increases in the economy-wide inflation rate, input prices, and income growth; but after netting out the effect of rapidly increasing college-funded grants, the positive differentials appear to have decreased relative to the 1980s. Perhaps as important as the overall picture, substantial dispersion exists among private colleges in the actual net prices received by the colleges from full-time freshmen. While total revenue net of college-funded grants increased at healthy rates taken together, a substantial subset of colleges experienced declines or subdued growth in net revenue. Shortfalls in the growth of net revenue were especially concentrated among colleges with less stringent admissions selectivity. The broad dispersion of college experiences supports the view that, in the context of national estimates of student responsiveness to price and aid changes, college decision makers consider their own college's special characteristics and local conditions in making price and aid decisions.

Basch (1999) looks at the changes in the endowment spending of private colleges in the early 1990s. He observed that from 1989 to 1995, the market value of private colleges' endowments grew sharply. However, the growth in endowment support for current operations lagged this growth in market value. For private colleges as a whole, the decline in the actual endowment-spending rate appears to have brought it roughly in line with the optimal rate.

Bates and Santerre (2000) examine and explain private four-year college closures and mergers in the United States using time series data at the national level for the period 1960 to 1994. The data imply that, except during the 1970s, private colleges were much less likely to close than businesses in general. Furthermore, the data indicate that private college mergers occur more often than casual empiricism suggests. Multiple regression analysis of the exit and merger decision reveals that private college closures and mergers are more likely when the real tuition rate declines and real faculty salaries rise at private colleges. Both the closure and merger rates are found to be highly responsive with respect to changes in private tuition and faculty salaries. The empirical results further indicate that religiously affiliated colleges are less likely to close and merge than secular institutions and that a larger student pool leads to less closing and merging of private four-year colleges.

Joshi (2000) observes that today with large number of private institutions both university affiliated and independent, the monopolistic characteristic is widely visible, an outcome of parsimonious attitude of the state. There are two characteristics of this market: first, Firms compete by selling differentiated products, which are highly substitutable for one another but not perfect substitutes (In other words, the cross-price elasticity of demand are large but not infinite) and secondly, there is free entry and exit - it is relatively easy for new firms to enter the market with their own brand of the products (course design) and for existing firms to leave if their products/courses becomes unprofitable. The growth of these institutions seems to be more bent towards professional courses. He takes into consideration the management courses as an example for analysis primarily because the increasing competition within these institutions has incepted the concept of product differentiation. The recognition of product differentiation has led to the development of rational for the selling expenses incurred by the institution with

advertisement and other selling activities seeking to accentuate the difference between its courses and the courses of other institutions. It is so in the line of the assumption of Chamberlin that advertising in general will shift the demand and will make it less elastic by strengthening the preferences of the consumers for the advertised course. The selling-costs curve will be U-shaped, that is, there will be economies and diseconomies of advertising as output changes.

Morey (2001) examines the recent growth of for-profit higher education in the United States with a special emphasis on teacher education. Recent increased interest in for-profit education accompanied by the availability of venture capital has focused discussion and debate on this growing segment of American education. Supporters of for-profit education point to the benefits that accrue from competition in a free market scenario, most importantly, the improvement of education and potential reduction in costs. Educators argue that public schools and universities play a critical role in a democratic society by providing education for citizenship and access to opportunity-functions rarely addressed by for-profit firms. At the higher education level, for-profit universities are beginning to offer teacher education programs specifically designed to meet state requirements only.

Thompson and Zumeta (2001) bring out the relationship between key state policy variables - (1) relative (private-public) tuition prices, (2) state student-aid funding, and (3) public institution density - and the competitive position of private colleges and universities is examined. Elite private schools are found to be nearly impervious to state policy. Large and moderately selective private institutions are adversely affected by public institution density and low public prices. Such prices divert students who would otherwise prefer these private institutions to similar public schools. State student aid funding most affects the enrolment market shares of the small, low-selectivity private colleges enrolling the greatest proportions of minority and modest-income students. The findings suggest state policies in this era of strong demand for higher education and constrained public sector capacity should use price signals (student aid and public institution pricing) to encourage students to consider seriously whether private higher education might serve their needs as well as or better than public institutions.

Gibbs (2001) on higher education as a market considers notions of the market in UK higher education. It is argued that the economic market commodities higher education as the accreditations earned at higher education institutions. He suggests that, if this is the consequence of the market, then the notion is inadequate to represent the achievements of higher-level learners. In its place, the author conceives of a mechanism that is built on higher education being a conversation by respectful and involved colleagues, who seek to develop educational relationships rather than transactional deals between traders.

Perna (2002) draws upon the final report of the National Commission on the Cost of Higher Education to explore (a) the cost of higher education at selective private colleges and universities, (b) public concern about the rising costs of higher education, and (c) the shift in financial aid policy from access to affordability. It also discusses implications for selective private institutions, the broader goals of access and choice, and higher education professionals.

Mishra and Rio (2003) studied the micro-economics of 30 private schools in Kohima, Nagaland. It is an abridged and somewhat preliminary version of the contents of Rio (2004). Rio found that the private schools in Kohima make up an industry and operate under monopolistic competition to oligopoly. He used the marginal analysis as well as the kinked demand curve method to analyse output (no. of students) and price (fees charged) determination. Using cluster analysis, Rio showed how these schools form groups around a few leader firms (schools) and fix prices (fees). These findings, albeit concerned with the case of lower (school) education, corroborate Joshi (2000) on higher education. Rio also found that teachers in these schools receive salaries that hardly go above the subsistence wages; the share of wages in the total revenue is about 41 percent, the overall profits (at the industry level) are as high as 42 percent of the revenue, while the share of capital is only 16 percent or so. Thus, the private schooling industry is grossly labour intensive. Although Rio's work is related to the microeconomics of school education, it has methodological contents that may be used to study the microeconomics of higher education as well.

VI. Aims and Objectives: Higher education in many developing countries is in crisis. It is now often argued that the higher education policies from the early 1960s onwards have created unexpected and adverse effects and that new strategy and policies regarding higher education are needed to solve the present higher education crisis. In many countries, the structure and funding basis are undergoing tremendous changes in recent years. Methods for administering and directing higher education are being transformed and colleges and university are being asked to engage in new tasks and assume new responsibilities.

During the last four decades, the enrolment in the higher education system of the developing countries have skyrocketed while funding stagnated. Between 1950 and the early 1990s, the enrolments in the higher education systems of developing countries were multiplied by 6 in Africa, by 5 in Asia and by more than 10 in Latin America.

In India, there has been a tremendous increase in the number and spatial spread of higher educational institutions. The number of colleges, which stood at 695 in 1950-51, has gone up to 14,600 in 2003. The enrolment of student in the colleges has increased from 1.75 lakhs to over 89 lakhs during the same period. This expansion in enrolments could not possibly be viable if private colleges would not have emerged.

The state of Nagaland has experienced this tremendous growth of private colleges, although such an observation is not particular to Nagaland only. In fact, in the last one-decade or two, many states in India have experienced the flourishing of private colleges. Those who know these colleges rather closely may have a mixed type of feelings about the standard of these colleges.

One may agree on considering any of these private colleges an enterprise, like any other enterprise mainly undertaken to earn income and profit. They employ teacher at a low salary, charge substantial amount as admission and tuition fees, and often provide residential facilities to enhance profits, remain unmindful in providing enough facilities to students and so on. A scrutiny of facts may subscribe to these feelings in some towns, but in some other, the situation may be different. Nothing therefore, may hastily be generalised.

In this perspective, it would be of outmost importance to study the development of private college industry in Nagaland. Private Colleges may be studied in terms of their

size, location and organisation pattern. The focus of our study will be on the interplay of teachers, patrons, technology and finance towards the development of privately run college and their optimal functioning. Our study will attempt at the following:

- (1) Analysis of the structure of the privately run colleges.
- (2) The employment opportunities (part time or full time) created by these colleges.
- (3) Amount of income generated by these colleges in the town.
- (4) The obstacles faced by these colleges in terms of finance and new techniques with the exigencies of time.
- (5) The efficiency and productivity of these colleges.
- (6) The pricing policy of these colleges.
- (7) Observations on a few specific problems for future research through this study/findings.

VII. Hypotheses: This study formulates and would make an attempt to test the following hypotheses:

- (1) Consumers of Educational services have a revealed preference for private college (Vis-à-Vis Government College).
- (2) Private colleges run in a monopolistic competition/oligopolistic market.
- (3) Pricing and the product policy in the private college industry are made in an atmosphere of moral hazards.
- (4) Pricing in the private college industry is not competitive.
- (5) Profits make a substantial portion of the proceeds (income) of the private colleges.
- (6) Private college industry generates a number of benefits (employment, income, better opportunity to government services, etc).

VIII. Methodology: The present study is mainly empirical taking into consideration the historical development of the private colleges (offering general education) in Nagaland.

Presently, Nagaland has 28 private and 8 Govt. colleges. This study is *mainly* based on the primary data collected from 24 (reporting) private colleges. Of the 28 private colleges, three colleges did not agree to part with any of their information while one gave only incomplete information. On 24 reporting colleges, the primary data are based on field observation and set of questionnaires and personal interviews with the head of the institutions. For the purpose of comparison, data were also collected from the government colleges.

The data pertain to the following aspects of the colleges: (1) Name and year of establishment (2) Patron (3) Status of affiliation (4) Location and distance from the main town (5) Streams (Arts, commerce & science) (6) Residential and allied facilities (7) Vocational and Computer course (8) Extra curricular activities (9) Enrolment of students and students from outside in different classes (10) Academic performance (11) Particulars of Teaching and Non-Teaching staff and their salary (12) Physical assets including Library (13) Fee structure (14) Resources generated other than fees (15) Sources of income and items of Expenditures (16) Problems and suggestions perceived by the College.

For the secondary data source, the collection of information is based on the review of relevant literature, journals, research and survey conducted by various organisations, viz. the census report, statistical Handbook of Nagaland, Directorate of Higher & Technical and School Education, Nagaland University and University Grant Commission publications.

Data have been tabulated, processed and analysed systematically by applying appropriate statistical tools and diagrams. Among the statistical methods, regression analysis, principal components analysis, etc. have mainly been used.

IX. Area of the Study: Nagaland is situated in the North-eastern Corner of India. It was carved out in 1957 from the Naga Hill district of Assam and Unadministered areas of Tuensang, part of the then North-Eastern Frontier Agency (NEFA). Subsequently on 1st December 1963 it was created as the sixteenth state of the Indian union with the capital at Kohima. It lies between 25°60 and 27°40 Latitude north of equator and between the longitudinal lines 93°20 E and 95°15 E having an area of 16,579 sq. km. It is bounded by

Assam in the North and West, by Burma and Arunachal Pradesh in the East and Manipur in the South and runs more or less parallel to the left bank of the Brahmaputra. The altitude varies between 194 meters and 3048 meters. The state is divided into 11 districts, namely Kohima, Dimapur, Mokokchung, Phek, Zunheboto, Tuensang, Wokha, Mon, Longleng, Kiphiri and Peren.

The present study covers all the eleven districts of Nagaland. As mentioned earlier there are 36 Colleges imparting general education of which 28 are private colleges. In Kohima district there are 9 private colleges, Dimapur district there are 11 private Colleges, Mokokchung district there are 2 private colleges, Wokha, Tuensang, Phek, Kiphiri, Peren and Longleng districts have 1 college each.

X. Organisation of the Study: The study is organised into six chapters. A brief introduction of higher education both at macro and micro level has been discussed in the first chapter. It also includes literature review, area of the study, aims and objectives, hypothesis, method of the study and plan of the study. The second chapter looks into the growth, a brief description of the responded colleges and patrons of private colleges in Nagaland. A brief study of the growth of Government Colleges and enrolment of students are also discussed in this chapter. The third chapter deals with the salient features, characteristics, infrastructure and composition of the private colleges. The fourth chapter analyses the economic evaluation of the private Colleges. The fifth chapter delves on the pricing and product policy of the private colleges. The production function of the colleges are also analysed in this chapter. A summary of findings and policy implications constitute the sixth chapter. This chapter also looks into the problems and obstacles faced by the colleges.

CHAPTER II

PRIVATE COLLEGES IN NAGALAND

I. Introduction: Parents, rich or poor, rural or urban, educated or illiterate, all are consumed by a desire, stronger than ever before, to see their children avail of education and almost as if by consequence, therefore, access better lifestyles. It's an attitudinal change among parents. A refrain earlier - "What good is education"- is a rare response today. For the belief that education is benign, that it is an essential ingredient for one's well being and most certainly for one's upward mobility in the modern world seems to have permeated Nagaland's collective consciousness.

II. Growth of Private Colleges in Nagaland: The growth of higher education in India, in the last five decades presents a very impressive picture. India has the credit of running the second largest educational system and having the third largest pool of skilled manpower. There has been commendable quantitative expansion in terms of students' enrollment, teachers, colleges and universities. The number of university level institutions has increased from 18 in 1947 to 307 in the year 2004. The enrollment of students has increased from 2,28,804 in 1947 to 94,63,821 in 2002-2003. Faculty wise student enrollment for the year 2001-2002 shows that the strength of students is largest (42.7%) in Arts including Oriental learning, in commerce including Management emphasis is 20.7% and in Science it is only 19.7% (UGC Annual Report 2000-2001). The number of colleges has increased from 591 in 1947 to 14,609 (University colleges and affiliated colleges) in 2002-2003 (Universities Handbook-2003) Such a rapid expansion is unprecedented in the world and due to such commendable quantitative expansion in terms of institutions, enrollment and teachers, Indian higher education system is rated as the second largest after the USA in the world.

The state of Nagaland has also experienced the tremendous growth of colleges. The first college was privately set up in 1959, which is now run by the government. Since then, the number of colleges has gone up to 60 (including general education, technical, professional and theological institutions) in 1999-2000. The enrolment of student in the colleges has gone up to 19, 887 in 1999-2000. It is interesting to note that in Nagaland there are 42 colleges run privately of which 28 colleges impart general education. Such

an observation is not particular to Nagaland only. In fact, in the last one-decade or two, many states in India have experienced the flourishing of private colleges. Those who know these colleges rather closely may have a mixed type of feelings about the standard of these colleges.

In other parts of India, colleges might have come into being only by the munificence of millionaires. But here in Nagaland, the co-operative endeavors of the people in the Naga villages, the workers and traders and the sympathy of the Administration at Kohima, made it possible for the college to be established from mere scratch, in the heart of an area hitherto deemed backward and inaccessible by the rest of India. For example, looking into the history of establishment of the first college in Nagaland, we learn that there had been an intensive propaganda by the Naga intelligentsia in the villages of Mokokchung District, for the establishment of a college at Mokokchung, in view of the fact that the majority of the Matriculates were being forced, for lack of means, to give up higher studies which, at considerable cost, could only be had outside Nagaland. A strong feeling dawned in the minds of certain far-sighted local gentlemen of the need for a college for accommodating matriculation passed students who would otherwise had to go seeking admission in colleges outside Naga hills in places like Shillong or Guwahati or Calcutta and many students could not afford this. With that end in view several public meetings were convened and at last the Ao public agreed to join hands in establishing and maintaining a college.

The offshoot was that the Naga people of Mokokchung district formed a college Steering Committee, with Mr *Chiten Jamir* as president and Mr *Chubatoshi Jamir* as secretary. This college steering committee was set up to find ways and means to finance the proposed college and to maintain its policy that was to satisfy the educational needs and aspiration of the Naga people. Soon an amount of Rs. 30,000 (approx) was collected to start the college and in view of the fact that in the initial stage a steady income to meet the running expenses of the college, should be assured. The village folk of Mokokchung District gave an undertaking to contribute annual subscriptions until the Government would see its way to take over the college. And so the first college in Nagaland came into being, formally, on 8th September 1959. To honour and express the high regard that the Naga people had for the sympathetic understanding and kindly attitude towards them, of

late Sir *Saiyid Fazl Ali* the then Governor of Assam and the North eastern area of India, the college steering Committee named the College as Fazl Ali College. It was a great venture of the common people of Nagaland (at the time called Naga Hills Tuensang Area) and indicated the competitive and enterprising spirit and strong urge for educational progress among the people of Nagaland. The college started with 43 students with three teachers (including the Principal) for the five subjects that were offered, viz, English (General) Alternative English in lieu of recognized vernacular, Civics, History and Commercial Geography. For almost three years the college was run privately and on 1st March 1962, the Government took over the college.

The state of Nagaland experienced a steady growth of Private colleges till the 1980's. It was during the 1990's that the state experienced a rapid growth of private Colleges. During a short span of 7 years 19 Private colleges were set up in Nagaland. Till the year 2003 there were 28 private colleges as compared to only 8 Government colleges.

The tables below present the status of Government and Private Higher secondary schools and colleges offering formal education in Nagaland. Till the year 2003 there were 73 institutions, which provided Higher education, 37 of which are higher secondary schools and 36 are colleges. Out of the 37 higher Secondary schools 28 are privately owned and 9 are Government Schools. And of the 36 colleges 28 are privately owned and 8 are government colleges.

Table 2.1. (i) Present status of Higher Secondary Schools and Colleges in Nagaland

Year of Estd.	HSS		Colleges		Total	Year of Estd.	HSS		Colleges		Total
	G	P	G	P			G	P	G	P	
1959	0	0	1	0	1	1992	0	0	0	5	5
1961	0	0	1	0	1	1993	4	0	0	2	6
1966	0	0	1	0	1	1994	0	1	0	3	4
1967	0	0	0	1	1	1995	0	4	0	0	4
1973	0	0	1	0	1	1996	0	1	0	4	5
1974	0	0	1	1	2	1997	0	2	0	2	4
1980	0	0	1	0	1	1998	0	3	0	0	3
1981	0	0	1	0	1	1999	0	1	0	0	1
1982	0	0	0	3	3	2000	0	5	0	0	5
1983	0	0	1	0	1	2001	0	2	0	0	2
1984	0	0	0	1	1	2002	5	5	0	0	10
1985	0	0	0	2	2	2003	0	4	0	0	4
1987	0	0	0	1	1	Total	9	28	8	28	73
1991	0	0	0	3	3						

HSS-Higher Secondary School; G-government; P-private

Source: NBSE and Nagaland University

Table 2.1. (ii) Growth of number of students in the private Colleges in Nagaland. (1999-2004)

code	Name of the college	Year of Estd.	Total Number of students. (1999-2004)					Growth	
			1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	Student per year	Annual Average rate
1	Alder	1992	1002	1032	760	841	1003	+0.25	+0.02
2	Baptist	1982	826	752	863	1070	1115	+72.25	+6.99
3	Oriental	1996	223	154.	315	316	406	+45.75	+16.41
4	Mountain	1991	259	242	249	135	78	-45.25	-13.98
5	Mount	1992	489	523	540	616	618	+32.25	+5.28
6	Kohima	1967	1503	1458	1340	2105	2201	+174.5	+9.29
7	Modern	1997	214	167	178	436	471	+64.25	+24.02
8	Japfü	1996	411	444	383	441	522	+27.75	+5.40
9	St Joseph's	1985	1494	1580	1651	1676	1676	+45.5	+2.44
10	Kilenkaba	1994	246	236	234	261	246	0	0
11	City	1992	NR	NR	NR	NR	NR	NR	NR
12	S.D. Jain	1993	787	834	1016	985	1088	+75.25	+7.65
13	Pranaba..	1991	489	558	705	678	680	+47.75	+7.81
14	Eastern	1992	887	438	443	315	517	-92.5	-8.34
15	Tetso	1994	281	248	258	334	433	+38	+10.82
16	Patkai	1974	1285	1133	1305	1374	1594	+77.25	+4.81
17	Salesian	1982	143	136	154	163	157	+3.5	+1.96
18	Public	1985	605	734	822	749	747	35.5	+4.69
19	Salt	1991	1502	1543	1660	1133	1418	-21	-1.12
20	Sakus	1994	417	464	484	553	710	+73.25	+14.05
21	Loyem	1993	NR	NR	NR	NR	NR	NR	NR
22	Peren	1987	100	142	129	134	133	+8.25	+6.60
23	Yingli	1992	72	68	58	129	108	+9	+10.00
24	Tuli	1996	46	65	56	41	62	+4	+6.96
25	Peoples	1984	427	374	341	428	424	-0.75	-0.14
26	Bailey	1996	222	232	175	212	209	-3.25	-1.17
27	Zisaji	1997	NR	NR	NR	NR	NR	NR	NR
28	Pfutsero	1982	74	126	132	138	160	+21.5	+23.24
Total			14004	13683	14251	15263	16776	+693	+3.96

Table 2.1. (iii) Growth of number of students in Government Colleges in Nagaland. (1999-2004)

code	Name of The College	Year of Estd.	Total Number of students. (1999-2004)					Growth	
			1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	Student per year	Annual Average rate
1	Fazl Ali	1959	975	883	810	525	527	-112	-9.19
2	Kohima Sc	1961	923	974	1000	1065	1240	+79.25	+6.87
3	Dimapur	1973	271	205	258	234	420	+37.25	+10.99
4	Sao Chang	1966	1105	1218	750	695	678	-106.75	-7.73
5	Phek	1980	133	134	167	149	213	+20	+12.03
6	Wankhao	1983	129	124	129	130	126	-0.75	-0.47
7	Mt. Tiya	1981	86	133	118	94	126	+10	+9.30
8	Zunheboto	1974	257	465	108	286	213	-11	-3.43
Total			3879	4136	3340	3178	3543	-84	-1.73

Table 2.1. (iv) Growth of Government Colleges and enrollment.

Year of establishment	No. Of Colleges	No. Of students in the session 2003-2004 (Cumulative)			Cumulative percentage		
		Boys	Girls	Total	Boys	Girls	Total
1959	1	263	264	527	12.43	18.50	14.87
1961	2	983	784	1767	46.46	54.94	49.87
1966	3	1476	969	2445	69.75	67.90	69.01
1973	4	1729	1136	2865	81.71	79.61	80.86
1974	5	1829	1249	3078	86.44	87.53	86.88
1980	6	1954	1337	3291	92.34	93.69	92.89
1981	7	2032	1385	3417	96.03	97.06	96.44
1983	8	2116	1427	3543	100	100	100

Table 2.1. (v) Growth of Private Colleges and enrollment.

Year of establishment	No. Of Colleges	No. Of students in the session 2003-2004 (Cumulative)			Cumulative percentage		
		Boys	Girls	Total	Boys	Girls	Total
1967	1	1205	996	2201	13.17	13.06	13.12
1970	1	1205	996	2201	13.17	13.06	13.12
1973	1	1205	996	2201	13.17	13.06	13.12
1976	2	2112	1683	3795	23.08	22.07	22.62
1979	2	2112	1683	3795	23.08	22.07	22.62
1982	5	2931	2296	5227	32.03	30.11	31.16
1985	8	4799	3275	8074	52.45	42.95	48.13
1988	9	4884	3323	8207	53.38	43.57	48.92
1991	12	5775	4608	10383	63.11	60.42	61.89
1994	22 (20)	8113	7006	15119	88.67	91.87	90.12
1997	28 (25)	9150	7626	16776	100	100	100
() -responded colleges							

Tables 2.1 (ii) and (iii) show the growth rates of students. Growth of students in private and government colleges gives a contrary result. In case of the private colleges we find a positive growth of 693 students per year whereas for the government colleges there is a negative growth of 84 students per year. As for the average annual rate we have a positive growth rate of 3.96 for private colleges and a negative growth of 1.73 for government colleges. The average enrollment in government colleges during this period is 442.87 and 671.04 in private colleges.

Tables 2.1 (iv) and (v) show the growth of colleges and the enrollment. One important feature of the private colleges as compared to government colleges is that most of the private colleges were established only after 1990. From the two tables it can be seen that the last government college was set up in 1983. At that time there were only 5 private colleges. The state experienced a high growth of private colleges in the 1990's. From 1991 till 1997 within a span of 7 years 21 private colleges were established with an increase of 51.57% in enrollment of students. The older colleges are better established and enroll larger number of students. The oldest 9 colleges enroll 48.92% of the total number of students in the private colleges, while the youngest 16 enroll 51.08% of the total students.

The Nagaland University, a long standing need of the Naga people and established by an Act of Parliament, came into being in September, 1994 with erstwhile Nagaland Campus, Kohima, and the School of Agricultural Sciences and Rural Development, Medziphema, both inherited from the North-Eastern Hill University. As per the University Act, the Headquarters of the University is at Lumami under Zunheboto District.

As on 2003, the University has 25 Post Graduate Departments with nearly 900 students including PhD scholars. As the University is an affiliating University there are more than 20,000 students in 42 colleges affiliated to it from different parts of the State. Though these Colleges are scattered through out the State covering rural, urban and hilly terrains, the University has been coordinating and monitoring the quality education in the colleges.

III. A Brief Description of the Private Colleges in Nagaland: A brief description of all the private colleges in Nagaland is dealt with below. This will enable us to have a better knowledge of their genesis, locations, status and compositions of the colleges. College code number, which has been designated, will be used accordingly in the study.

College No. 1: *Alder College. Status: Higher Secondary (Arts) and Three-Year Degree Course (Gen & Maj) Arts.* Alder College, Sephüzou, Kohima was established in 1992 and is temporarily affiliated to Nagaland University upto degree level (Arts). The college

offers major in English, History, Political Science, Economics, Sociology and Education. It has a well-equipped library with 2500 books, a canteen and a separate auditorium. The college provides facilities for indoor games. During the academic session 2003-2004, 1003 students were enrolled in the college. There are 19 lecturers and 10 Non-Teaching staff. The College has 13 classrooms and 8 office rooms and 1 lecturer's room.

College No. 2: Baptist College. Status: Higher Secondary (Arts & Commerce) and Three-Year Degree Course (Gen & Maj) Arts and Commerce. Baptist College, a development from the Christian Education Department of the Angami Baptist Church council was established in 1982 and is situated in Mission compound, Kohima. The missionaries from the American Baptist Foreign Mission Society, while they declared the Gospel, also left a legacy of formal education. This college is the result of that continuing process. It is situated at Mission Compound with an area of 3 acres. The college offers Arts and Commerce with major in English, History, Political Science, Sociology and Commerce. It is affiliated permanently to Nagaland University upto degree level (Arts and Commerce). The college also offers 'The Association for Theological Education by extension' (TAFTEE). The college aims at the development of the student to help them become mature, spiritually oriented man of character; to continually strive for excellence in study and other fields of human development; to be righteous and unselfish in the service of their fellowman; to discourage the practice and involvement in social evils. The college library is equipped with 3500 books. The college has also started NSS programme. During the session 2003-2004, 1115 students were enrolled in the college. The college provides 2 quarters for the college staff. There is 22 Teaching staff with 3 Ph.D and 2 M.Phil. The non- teaching staff comprises of 6 staff. The college has 15 classrooms, 2 lecturer's room and 1 each for the principal, vice-principal, ministerial staff, students, Dean and Chaplin.

College No. 3: Oriental College. Status: Higher Secondary (Arts & Commerce) and Three-Year Degree Course (Gen & Maj) Arts and Commerce. Oriental college, Kohima, was established in 1996 and is situated 4 Kms away from the town with an area of 1.5 Acres. It is temporarily affiliated to Nagaland University upto degree level (Arts and Commerce). The college offers major in Commerce, Economics, History and Political Science. The library is well equipped with 1250 books. The college has its own canteen

and also provides bus for transportation to and from the college. The college also provides Hostel accommodations and quarters for the staff. Sports facilities both indoor and outdoor are provided. During 2003-2004, there were 406 students. The college has 11 classrooms and 1 room each for the lecturers, principal and the non-teaching staff. There are 17 lecturers with 2 Ph.D, and 2 M.Phil. The college also employs five Non-Teaching staff.

College No. 4: *Mountain View College. Status: Higher Secondary (Arts) and Three-Year Degree Course (Gen & Maj) Arts.* Mountain View Christian College, Keyake, Kohima, was established in 1991, some 6 Kms away from the town. The college area is around 500 sq feet. It is temporarily affiliated to Nagaland University upto degree level (Arts). The college offers major in English, Political Science and Economics. The college provides hostel accommodations and 3 quarters for the staff. During the session 2003-2004, 78 students were enrolled in the college. The college has 11 lecturers and 4 Non-Teaching staff. The college has 8 classrooms and 3 office rooms. It has a library with 2000 books a separate auditorium and provides sports facilities like football, Volleyball, Badminton etc. The college also has its own bus.

College No. 5: *Mount Olive College. Status: Higher Secondary (Arts) and Three -Year Degree Course (Gen& Maj) Arts.* Mount Olive College, Daklane, Kohima, was established in 1992, by Sema Baptist Church, Kohima. The total campus area is 5 Acres. The college offers only Arts and is temporarily affiliated to Nagaland University upto degree level. The college offers major in English, Political Science and History. During the session 2003-2004, 618 students were enrolled in the college. The college has its own canteen. The college also offers computer course. There are 15 lecturers including the computer teacher, of which 2 are with Ph.D. The non-teaching staff comprises of the Principal and 4 other subordinate staff. The college has 5 classrooms, 2 office rooms and 1 each for the Principal and the lecturers.

College No. 6: Kohima Arts College. *Status: Higher secondary (Arts) and Three-Year Degree Course (Gen & Maj) Arts.* In 1967 four large hearted persons like Dr Neilhouzhu Kire, Dr Satuo Sekhose, Mr Vibelie Solo and Mr Vilalhoulie Belho felt the need for a college offering studies in the Humanities in the capital and through their pioneering and vigorous efforts the present Kohima College was set up with 127 students on it's roll. It is

situated right at the center of the town with an area of 33,657 square feet. It is permanently affiliated to Nagaland University upto degree level and it is the only deficit college in Nagaland. The college offers major in English, Political Science, History, Education, Economics and Tenyidie. The college provides 7 Quarters to the staff. The college library is well equipped with over 10,000 books. It has its own canteen, a separate auditorium and conducts annual sports meet. The college also offers computer course, NCC and NSS to the students. During the session 2003-2004 2201 students were enrolled in the college. There are 34 lecturers and 15 non-teaching staff. It has 17 classrooms, 3 office rooms, 2 students room, 1 lecturer's room and the principal's room.

College No. 7: Modern College. Status: Higher Secondary (Arts & Com) and Three-Year Degree Course (Gen & Maj) Arts & Commerce. Modern college, Kohima, was established in 1997 and is located on the National Highway No.39 (Kohima-Imphal road) a few kilometers away from the main town. The college is managed by a governing body consisting of educationists, administrators and business houses with adequate managerial expertise, financial resources and a deep sense of commitment to the cause of education. The college provides Arts and Commerce with special emphasis on moral and ethical instruction, as well as physical education, nurturing character building, tolerance and co-operation. Maximum opportunities are provided in the college to encourage initiative, self-reliance and leadership qualities. Special effort is made to identify and develop any special ability and talent that the students have. The students are offered career information, Counselling and guidance based on scientifically structured aptitude tests. The college offers Arts and Commerce and major in English, History, Political science and Education. It is temporarily affiliated to Nagaland University upto P.U. level (Arts and Commerce). The college offers major in English, History, Political Science and Education. It has a well-equipped library with 2300 books. Students are also offered to join NCC. The college also provides hostel accommodations. During the academic session 2003-2004, 471 students were enrolled. The college has 14 classrooms, 5 administrative rooms including the principal's room, 1 for the Lecturers and 1 for the students as study room. There are 19 lecturers with 1 M.Phil. and 5 non-teaching staff.

College No. 8: *Japfü Christian College. Status: Higher Secondary (Arts) and Three-Year Degree Course (Gen & Maj) Arts.* Japfu Christian College (JCC) Kigwema, under Kohima District was established in 1996, and is situated at Kigwema, with an area of 3.40 hectares, 12 Kms south of Kohima and is sponsored by Japfuphiki Baptist Church Council (JBCC). JCC has been established with a view to provide quality education to the students besides aiming at their all-round development. It is an institution for higher learning aspiring for three-dimensional excellences- *Academic, Spiritual and Physical*. It is temporarily affiliated to Nagaland University upto B.A level. The college offers Major in History, Political Science and Sociology. The college provides Hostel accommodations and 20 quarters for staff. The college also provide computer course for three months. The college library is well equipped with 15000 books. It also has a separate auditorium. Sport facilities both indoor and outdoor are provided. During the academic session 2003-2004 522 students were enrolled in the college. The teaching staff comprises of 21 of which 1 is with P.hD and 2 M.Phil. There is 5 non-Teaching staff. The college has 12 classrooms, 3 office rooms, 1 lecturer's room and the principal's room.

College No. 9: *St. Joseph's College. Status: Higher Secondary (arts & Com) Three-Year Degree Course (Gen & Maj) Arts and Commerce.* Saint Joseph's College, Jakhama, Kohima was established in 1985, with an area of 18 acres and is permanently affiliated to Nagaland University upto degree level (Arts and Commerce). The Catholic Church sponsors the College. The College offers Arts with major in History, Political Science, Economics, Sociology and Commerce with Major. It has good hostel accommodations for both Boys and Girls, with total seats of 300. It also provides 9 staff quarters. The College also offers computer course for higher secondary students. It has its own field for football, Volleyball and other outdoor activities. It has a separate auditorium with seating capacity of 500. The College also provides the students to participate in NSS and NCC Programmes. During the Academic session 2003-2004, there were 1676 students. The College has 32 lecturers and 15 Non-Teaching staff. It has 21 classrooms, 2 office rooms and the principal's room.

College No. 10: *Kilenkaba Memorial College. Status: Higher Secondary (Arts & Science) and Three-Year Degree Course (Gen & Maj) Arts and Science.* Kilenkaba Memorial College (KMC), Lingrijan, Dimapur, is a full-fledged college affiliated

temporarily to Nagaland University, which was established in 1994. It has an area of 500 square feet. The college was established in the sweet memory of late *Kilenkaba*, son of *Asaksoba* of Nokpu village, Mokokchung. The proprietor of the college is the son of late Kilenkaba. Further the college was taken over by the Association of Tribals Welfare Development for better functioning of its management. A governing body looks after the management of the college. The college area is around 500 sq. feet and is situated at Lingrijan Bosti, Dimapur, 2 Kms from the Railway station. The college offers Arts and Science upto B.A and B.Sc. and major in Botany, Zoology, English and Political Science and is permanently affiliated to Nagaland University upto degree level (Arts and Science). The college has 15 classrooms 5 administrative rooms including the principal's room and 1 lecturer's room. The total number of students enrolled during 2003-2004 was 246. The total number of teaching staff is 20 of which 8 are in Arts and 12 in Science. The Non-teaching staff comprises of the principal and 7 other ministerial staff.

College No: 11. *City College of Arts and Commerce. Status: Higher Secondary (Arts & Com) and Three-Year Degree Course (Gen & Maj) Arts and Commerce.* City College of Arts and Commerce, DOUNGEL Colony, Dimapur, was established in 1992 and is temporarily affiliated with Nagaland University upto degree level (Arts and Commerce). The college offers major in Commerce. There are 14 lecturers and 5 Non-Teaching staff in the college. These are the only information that was furnished by the college.

College No: 12. *S.D. Jain Girls College. Status: Higher secondary (Arts & Com) Three-Year degree course (Gen & Maj) Arts and Commerce.* S.D. Jain Girls College, Dimapur, established in 1993 is managed by and sponsored by Shri Digamber Jain Samaj, Dimapur, a minority socio-religious organization with a view to fostering higher education amongst the girls and as a token of the societies care of them. Shri Digamber Jain Samaj, Dimapur has already been sponsoring S.D. Jain High School, which is one of the well-reputed schools in the state since 1947. The college is located at Jain Temple road annexed to S.D. Jain High school, conveniently located in the heart of the town; the college proposes to be an institution of excellence imparting best education to the young minds. The college offers Arts and commerce and is temporarily affiliated with Nagaland University upto degree level (Arts and Commerce). The college has 18 classrooms, 4 administrative rooms and 1 lecturer's room. It is one of the few colleges

that offers computer course. The courses offered are C++, Data representation and computer organization. The college offers major in English and Economics. The total number of students enrolled during the session 2003-2004 was 1088. The College has 21 lecturers including the computer teacher. The administrative staff comprises of the principal the vice-principal and 8 subordinate staff. There are 18 Classrooms, 1 for the Principal and 3 for the administrative staff, 1 for the lecturers.

College No. 13: Pranabananda Women's College. Status: Higher Secondary (Arts) and Three-Year Degree Course (Gen & Maj) Arts. Pranabananda Women's college, Lhomithi Colony, Dimapur, was established in 1991, and is sponsored by Bharat Sevashram Sangha (H.Q. Kolkata), which is a spiritual brotherhood of monks and selfless workers devoted to the service of humanity. It is purely a philanthropic and charitable organization with non-secretarian, non-communal and non-political character and outlook. Dimapur Branch Bharat Sevashram Sangha manages the college. The college is guided by the philosophy that there is a potentiality latent in each individual, which harnessed, makes the person a worthy member of the society. Women can act as an active partner of social reconstruction, national rejuvenation and welfare of mankind if they are given the opportunity of improvement of their faculties. With this objects in view of the college, at present a non-residential, imparts education in Arts subjects at the college level to women in general and such women in particular who could not procure Post Matric studies earlier for want of adequate facilities. The college gives special importance in participation of the students in various activities, social and spiritual orientation viz. joining and arranging relief activities for the people in distress, organizing seminars on literary, cultural and religious issues etc., extra curricular activities enriching the outlook of the students about social life are also given adequate place while working out the daily programme of the college. The college area is around 3 bigas and is situated in Lhomithi colony. It offers Arts and is temporarily associated with Nagaland University upto degree level (Arts). The college offers major in English, Education and History. It has a well equipped library with more than 1128 volumes of books and journals. The total number of students enrolled during 2003-2004 was 680. The college has 16 Lecturers and 8 non-teaching staff. It has 15 Classrooms and 1 each for the Principal, Lecturers,

Students and the administrative staff. The college has a canteen, Volleyball and Badminton court and other indoor games facilities.

College No. 14: *Eastern Christian College. Status: Higher Secondary (Arts) and Three-Year Degree Course (Gen & Maj) Arts.* Eastern Christian college, Pudampukhri, Dimapur was established in 1992, and is situated in Pudampukhri, Dimapur, about 2 Kms from the Railway station with an area of 5 Acres. It is permanently affiliated to Nagaland University upto degree level (Arts). The college provides limited hostels for both boys and girls and also limited quarters for the lecturers and staff. The college has an auditorium with a seating capacity of 200, a well equipped central library with 3200 volumes of books, a canteen and sports facilities like Badminton, Volleyball, Table Tennis etc. The college offers major in English and Political science. The total enrollment of students during 2003-2004 was 517. The college also offers Basic computer course for one year. It has 9 Classrooms, 1 Lecturers room, 1 Principals room and 2 for the administrative staff. The college has altogether 10 teaching staff and 7 non-teaching staff.

College No. 15: *Tetso College. Status: Higher secondary Arts and Three-Year Degree Course (Gen & Maj) Arts.* Tetso College, Dimapur was established in 1994 some 10 Kms away from Dimapur town. The Council of Rengma Baptist Churches sponsors the college. It has an area of 6 Acres providing 160 hostels seats and 5 quarters for students and staff respectively. The college is temporarily affiliated to Nagaland University upto B.A. level. The college offers only Arts with Major in Political Science and History. It also offers computer course (CCB & COA). It has a well-equipped library with 500 books, a canteen with accommodation of 20 students, sports facilities like Volleyball, Football, Badminton etc. and a separate auditorium. During the session 2003-2004, 433 students were enrolled. The college has 13 lecturers with one with Ph.D. There are also 2 male teachers for computer course with PGDCA. The non-teaching comprises of 8 staff. It has 5 classrooms, 2 office rooms and 1 each for the lecturers and the principal.

College No. 16: *Patkai Christian College. Status: Higher secondary (Arts & Science) and Three-Year Degree Course (Gen & Maj) Arts and Science.* Patkai Christian College (PCC), Seithekiema, Dimapur, was born out of the prayers of Christians in Nagaland and Manipur, and overseas. Patkai, of which the Nagaland Baptist Church Council and Manipur Church Convention are major sponsors, was started in August 1974 with twenty

students. It is situated in Seithekema, some 15 Kms away from Dimapur Town. It has an area of 1000 acres and provides more than 90% of the students and staff with hostels and quarters. The college is affiliated to Nagaland University upto degree level (Arts and Science). The college offers major in English, Economics, Political Science, History, Education, Philosophy, Botany, Chemistry, Physics and Zoology. The college provides hostel accommodations and quarters to the staff. The college has a well-equipped library with 16,071 volumes of books, a guest house, a bus, a separate auditorium, an indoor stadium and also a separate field for football, Basketball and other outdoor sports activities. The college also gives the opportunity to the students to join NCC and NSS. The college also offers certificate course in computer. PCC is the only private college in Nagaland to have a separate health center and is looked after by a doctor and two other subordinate staff. During the academic session 2003-2004, 1594 students were enrolled. There are 50 lecturers, 31 in Arts and 19 in Science with 9 Ph.D and 1 M.Phil. The Non-Teaching comprises of 48 staff. The college has also 1 computer teacher with MCA. The college has 22 classrooms, 14 office room and 6 block science laboratory complex.

College No. 17: *Salesian College of Higher Education. Status: Three-Year Degree Course (Gen & Maj) Arts.* Salesian College of Higher education, Dimapur, was established in 1982 and is sponsored by the Catholic mission. It has an area of 10 acres. The college offers only B.A and is temporarily affiliated to Nagaland University. The college offers major in Philosophy, English and History. The college has also started B.Ed from 2003. The college provides hostels and quarters to 6 staff. Diploma in Computer is also offered. The college library is equipped with 30,000 books. It has a guest house, a separate auditorium and provides sports facilities. During the session 2003-2004, 157 students were enrolled. The college has 9 lecturers and 1 computer instructor. The Non-Teaching staff comprises of 3 staff. The college has 2 classrooms and 1 each for the office staff and the lecturers.

College No. 18: *Public College of Commerce. Status: Higher Secondary Commerce and Three-Year Degree Course (Gen & Maj) Commerce.* Public College of Commerce, Dimapur, was established in 1985 with an area of 11400 square feet. It is ideally situated right at the heart of the town. The college has a governing body, which has a supreme voice in looking into the academic as well as Cultural and discipline factors. The

Chairman of the governing body is the Deputy Commissioner of Dimapur and the additional Deputy Commissioner as the Vice Chairman. The principal is the secretary of the college. Other members constituting are the distinguished social figures of Dimapur and representative of Nagaland University. The college is temporarily affiliated to Nagaland University upto degree level (Commerce). The college provides two quarters for Non-Teaching staff. The college has a well equipped library with 2500 books. Students are offered computer course (Basic) and also to participate in NSS programme. During the session 2003-2004, 747 students were enrolled in the college. The staff comprises of 11 lecturers and 9 Non-Teaching staff. The college has 7 classrooms, 3 rooms for the office staff, 1 for the lecturers and the principals room.

College No. 19: *Salt Christian College. Status: Higher Secondary Arts and Three-Year Degree Course (Gen & Maj) Arts.* Salt Christian College, East police Colony, Dimapur, was established in 1991 and is temporarily affiliated to Nagaland University upto degree level (Arts). From 1995 the College started B.Ed. course. It has an area of about 9 bigas. The college offers major in English, Political Science, History, Economics and Education. The college provides hostel accommodations and 3 quarters for the staff. It also offers computer course. The College library is well equipped with 8000 books. It has its own canteen a separate auditorium and conducts sports activities annually. The college also offers NSS programme. During the session 2003-2004, 1218 students were enrolled in the college. The teaching staff comprises of 20 lecturers and 10 Non-Teaching staff. The college has 13 classrooms, 3 rooms for the office staff, 1 lecturers room and the principals room.

College No. 20: *Sakus Mission College. Status: Higher secondary Arts and Three-Year Degree Course (Gen & Maj) Arts.* Sakus Mission College, Dimapur, was established in 1994, and is located at an ideal place in the heart of Dimapur town on the main roadside of Deputy Commissioner Office. The prioritized aim from its perspective view of the mission of the college is to impart comprehensive value education under the laid down syllabi of the University and to develop the dormant capabilities of the student community for the overall development of the students personality beyond the academic area, and the involvement of each and every student in the ecumenical mission. To bring about an overall development of the student the college encourages the students to

organize social work, literary and sports activities. The college conducts daily chapel service on all working days. It is temporarily affiliated to Nagaland University upto degree level (Arts). The college offers major in English, History, Political Science, Education and Sociology. During the session 2003-2004, 710 students were enrolled. The college provides hostel accommodations and 4 quarters for staff. The college has its own canteen have sports facilities and also NSS. The college library is equipped with 1350 books and also subscribes 9 journals. It has 22 lecturers and 11 non-Teaching staff. The college has 10 classrooms and 1 each for the principal, vice-principal, administrator and the ministerial staff.

College No. 21: *Loyem Memorial College. Status: Higher secondary Arts and Three-Year Degree Course. (Gen & Maj) Arts.* Loyem Memorial College, Tuensang was established in 1993 in commemoration of Lt. Loyem Chang who had a deep concern for the upcoming generation aspiring for the pursuit of higher knowledge. The College was born at a time when the students desiring for higher education were terribly in need of such an institution in Tuensang town. The College is temporarily affiliated to Nagaland University upto Degree level. The college did not respond to the questionnaire.

College No. 22: *Peren College. Status: Higher Secondary Arts and Three-Year Degree Course (Gen & Maj) Arts.* Peren College, Peren, was established in 1987 with a total area of 26 acres. It was born out of the great need felt by the people of Peren for facility of higher education within easy reach to all the sections of the people. The college is under the management of the Peren College Governing body, which comprises of responsible persons of the District. The governing body controls the finance, make general policies, sanction and approve appointments and conformation of Staff members. Within the Governing body exists the Peren College Management Committee, which acts as the Cabinet or the active wing of the Governing body. The college is temporarily affiliated to Nagaland University upto degree level and offers major in English, History and Political Science. The college has a library with 436 books. It also has facilities for sports both indoor and outdoor. During the session 2003-2004 133 students were enrolled. There are 12 lecturers and 3 Non-Teaching staff. The college has 7 classrooms and 1 each for the office staff and lecturers and the principal.

College No. 23: *Yingli College. Status: Higher Secondary Arts and Three-Year Degree Course (Gen & Maj) Arts.* Yingli College, Longleng, was established in 1992. It is run by the Phom community of Trustee under the guidance of a governing body by the name “ASSOCIATION OF PHOM GRADUATES AND OFFICERS”. It is affiliated temporarily to Nagaland University upto degree level. The permanent campus has an area of 60 acres. The college offers major in Political science. The college provides 3 quarters for the college staff. It has a separate auditorium, football field and other outdoor sports facilities. The college also offers NSS programme. During the academic session 2003-2004 108 students were enrolled in the college. The college has 9 lecturers and 1 on contract and the Non-Teaching staff comprises of 5 staff including the principal. The college has 6 classrooms and 5 office rooms.

College No. 24: *Tuli College. Status: Higher Secondary Arts and Three-Year Course (Gen & Maj) Arts.* Tuli College, Mokokchung, was established in 1996 and is temporarily affiliated to Nagaland University upto degree level. The College was established by Merangkong employees association, with the sole motive of providing higher quality education on this part of the state. During the session 2003-2004 62 students were enrolled in the College. The College has 7 lecturers and 2 non-Teaching staff. The College library is equipped with 550 books. It has a separate auditorium and provides sports facilities both indoor and outdoor. The college has 5 classrooms, 1 each for office staff, lecturers and the principal.

College No. 25: *Peoples College. Status: Higher Secondary Arts and Three-Year Degree Course (Gen & Maj) Arts.* People’s college, Mokokchung, was established in 1984 and its working has been under the care of the Governing Body headed by the Deputy Commissioner, Mokokchung. It was only in 2003 that the college was taken over by the Sons of Late Shri N.I. Jamir. The college area is around 250x300 square feet and is situated in the heart of the town as such there is not much problem for transportation and communication for both staff and students. The college is temporarily affiliated to Nagaland University upto B.A. level. The college offers major in English, History, Political Science, Education and Economics. The college has a central library with 5604 textual documents and journals. The total number of students enrolled in the academic year 2003-2004 was 424. The college has 16 teaching lecturers and 7 Non-Teaching staff.

The College has 10 rooms, of which 5 are classrooms, one each for the Principal, Vice-Principal, one for the Lecturers, one for the students and one for the non teaching staff.

College No. 26: *Bailey Baptist College. Status: Higher Secondary Arts and Three-Year Degree Course (Gen & Maj) Arts.* Bailey Baptist College, Wokha, was established in 1996 by the Home Mission project of Wokha town Baptist Church. Presently the college is operating in the old church building situated right in the center of the town. The college has already purchased 21 acres of land at the outskirts of Wokha town some 3 Kms away and is expected to shift to this new residential campus by year 2005. The college is temporarily affiliated to Nagaland University upto Degree level (Arts). The college has 6 classrooms, a library room with around 950 books, and a separate administrative building. During the academic session 2003-2004, 209 students were enrolled in the college. The college has 11 lecturers 1 with Ph.D. and 6 non-teaching staff.

College No. 27: *Zisaji Presidency College. Status: Higher Secondary Arts and Three-Year Degree Course (Gen & Maj) Arts.* Zisaji Presidency College, Kiphiri, was established in 1997 by United Sangtam Students' Conference. The college did not respond to the questionnaire and requests made on visit.

College No. 28: *Pfütsero College. Status: Higher Secondary Arts and Three-Year Degree Course (Gen & Maj) Arts.* Pfütsero College, Pfütsero, was established in 1982 and is situated in the middle of the town with an area of 5 acres. The College is temporarily affiliated to Nagaland University upto degree level. The college has 8 classrooms, 4 office rooms, a lecturer's room and a separate auditorium. The college library is equipped with 2000 books and provides facilities for both indoor and outdoor games. During the academic session 2003-2004, 160 students were enrolled in the college. The college has 14 lecturers and 4 non-Teaching staff.

IV. Patrons of Private Colleges in Nagaland: It would be of general interest to know the ownership pattern of the Private Colleges in Nagaland. Six different types of ownership have been identified.

Colleges that are owned by a single individual are usually family managed colleges. A governing body or a Board of Directors is appointed to manage the affairs of

the college though the final decision rests with the owner. There are five colleges that are owned by single individuals. They are college nos. 1, 4, 14, 19 and 25.

Table 2.3 (i) Patrons of private colleges

Sl. No	Patrons	No of Colleges
1	Single Individual	5
2	Church Sponsored	5
3	Catholic Mission	2
4	Organisation	7
5	Partnership/Joint	4
6	Board	5
		28

Churches in Nagaland play an important role in providing education not only in schools but also for higher education. These colleges are entirely financed, sponsored by the church. These colleges run under a Christian atmosphere. It aims to bring an all round development of the students- *Academic, Spiritual and Physical*. There are five Colleges that are financed and sponsored by the Church. They are college nos.2, 5,8,16 and 26.

Catholic Mission run Colleges are similar to Church sponsored colleges. These Missionaries belong to the Catholic group whose motives are to spread education and expand their religion as well. In Nagaland there are many Catholic Mission run schools and a few Colleges providing education to many thousands. There are two Colleges that are owned by the Catholic Mission. They are college nos.9 and 17.

Colleges under an organization are usually set up with a non-sectarian, non-communal and non-political character and outlook. These organizations are basically from one community or a particular tribe. Donations become an integral part in financing these colleges other than admission and tuition fees. Any loss made by the college is recovered by the organization. There are seven Colleges that fall under this. They are college nos.10, 12, 13, 21, 23, 24 and 27.

Partnership or joint venture Colleges usually consists of some few individuals or an association whose main motive is to provide education especially in remote areas. These colleges are entirely financed by these few individuals and the association. The decision making of the College rests upon the association or the individuals. There are four Colleges that owned jointly or partnership. They are serial nos.3, 11, 15 and 28.

Some colleges are controlled directly by a Board. The chairman is usually the Deputy Commissioner of the District. Other members include eminent persons in the field of education, social worker or retired persons. There is 5 such Private College in Nagaland. They are college nos.6, 7, 18, 20 and 22.

V. Faculty-wise distribution of colleges and higher secondary schools: In Nagaland there are 28 Private Colleges and 28 Private Higher Secondary Schools as on 2002-2003. One interesting feature of these Schools and Colleges is that 49 Schools and Colleges offer Arts, which is almost 88 percent. Below we look in detail the faculty-wise distribution of Higher Secondary Schools and Colleges.

As on 2004 there are 36 colleges with 8 government and 28 private colleges in Nagaland. 25 college's offers only Arts, 5 are government and 20 are private colleges. Six colleges offer Arts and Commerce of which five are private and one Government College. There are three colleges which offer Arts and Science of which one is private and the other two private. There is one private and one Government college that offer only Science. There are 37 Higher Secondary Schools in Nagaland of which 28 are private and 9 government Higher Secondary Schools. Of the nine government Higher Secondary Schools seven higher Secondary Schools offer Arts and Science and two offer Science and Commerce. As for private Higher Secondary Schools sixteen Higher Secondary Schools offer only Arts, four offer only Science, three offer Arts and Science, two offer Arts and Commerce and two offer Science and Commerce.

Table 2.4 (i) Faculty-wise distribution of colleges and Higher secondary schools 2003-2004

Sl. No	Streams	Colleges			HSS		Total
		Govt.	Private	Total	Govt.	Private	
1	Arts only	5	20	25	0	16	16
2	Science only	1	0	1	0	4	4
3	Commerce only	0	1	1	0	0	0
4	Arts and Science	1	2	3	7	3	10
5	Arts and Commerce	1	5	6	0	2	2
6	Science and Commerce	0	0	0	2	2	4
7	Arts, Science & Commerce	0	0	0	0	1	1

Economics of Higher Education: Micro Analysis of Private Colleges in Nagaland
Jamir, Temjenzulu (2006), PhD Dissertation, Department of Economics, NEHU, Shillong.

CHAPTER III

STRUCTURE OF PRIVATE COLLEGES IN NAGALAND

I. Introduction: By structure of any complex body we mean the pattern or form or manner in which the constituent parts of that body are arranged together. Taking the Private colleges as a complex body we have to examine how its different constituents i.e. Teachers, students, administrators and owners, are linked together.

II. Salient Features of the Private Colleges: The below table presents the type and courses that are provided by the colleges. Except for colleges #12 and #13 the rest are Co-ed. Colleges #12 and #13 are Girls College. Out of the 25 colleges save for college# 18 the rest offers Arts. College # 13 offers only Commerce. There are 17 colleges that offer Arts only. Five colleges offer Arts and commerce and two college's offers Arts and Science. In an average six periods are taken for each class daily. College #17 and # 24 takes only five periods for each class.

Table 3.1. (i) Characteristics of private Colleges in Nagaland. (2003-2004)

co de	College	Co- ed 0=n 1=y	Streams 0=no; 1=yes			No of periods (taken per day)				Uni- form 0=no 1=yes	Vocati onal 0=no 1=yes	Comp- uter 0=no 1=yes
			Arts	Com	Sc	XI	XII	Gen	Maj			
1	Alder	1	1	0	0	7	7	7	7	0	0	0
2	Baptist	1	1	1	0	7	7	7	7	0	0	0
3	Oriental	1	1	1	0	6	6	6	6	0	0	0
4	Mountain	1	1	0	0	6	6	6	6	0	0	0
5	Mount	1	1	0	0	6	6	6	6	0	0	1
6	Kohima	1	1	0	0	6	6	6	6	0	0	1
7	Modern	1	1	1	0	6	6	6	6	1	0	0
8	Japhu	1	1	0	0	6	6	6	6	0	0	1
9	St Josephs	1	1	1	0	6	6	6	6	0	0	1
10	Kilen..	1	1	0	1	6	6	6	6	0	0	0
12	SD Jain	0	1	1	0	7	7	7	7	1	0	1
13	Prana...	0	1	0	0	7	7	7	7	1	0	0
14	Eastern	1	1	0	0	6	6	6	6	0	0	1
15	Tetso	1	1	0	0	6	6	6	6	1	0	1
16	Patkai	1	1	0	1	7	7	7	7	0	1	1
17	Salesian	1	1	0	0	0	0	5	5	0	0	1
18	Public	1	0	1	0	6	6	6	6	1	0	1
19	Salt	1	1	0	0	6	6	6	6	0	0	1
20	Sakus	1	1	0	0	7	7	7	7	1	0	0
22	Peren	1	1	0	0	6	6	6	6	0	0	0
23	Yingli	1	1	0	0	7	7	7	7	0	0	0
24	Tuli	1	1	0	0	5	5	5	0	0	0	0
25	Peoples	1	1	0	0	6	6	6	6	0	0	0
26	Bailey	1	1	0	0	6	6	6	0	0	0	0
28	Pfutsero	1	1	0	0	6	6	6	6	0	0	0

Table 3.1 (ii) Gender wise distribution of students in different class. (2003-2004)

co de	HS Arts		HS Com		HS Sc		B.A		B.Com		B.Sc		Total	
	B	G	B	G	B	G	B	G	B	G	B	G	B	G
1	308	197	0	0	0	0	317	181	0	0	0	0	625	378
2	120	102	51	62	0	0	310	335	102	33	0	0	583	532
3	105	80	77	15	0	0	48	16	45	20	0	0	275	131
4	33	13	0	0	0	0	17	15	0	0	0	0	50	28
5	260	151	0	0	0	0	119	88	0	0	0	0	379	239
6	465	384	0	0	0	0	740	612	0	0	0	0	1205	996
7	155	94	82	20	0	0	75	45	0	0	0	0	312	159
8	220	130	0	0	0	0	110	62	0	0	0	0	330	192
9	292	240	154	59	0	0	373	352	152	54	0	0	971	705
10	52	37	0	0	92	12	11	11	0	0	25	6	180	66
12	0	284	0	164	0	0	0	447	0	193	0	0	0	1088
13	0	365	0	0	0	0	0	315	0	0	0	0	0	680
14	105	92	0	0	0	0	187	133	0	0	0	0	292	225
15	190	101	0	0	0	0	105	37	0	0	0	0	295	138
16	267	211	0	0	116	72	438	348	0	0	86	56	907	687
17	0	0	0	0	0	0	139	18	0	0	0	0	139	18
18	0	0	322	45	0	0	0	0	342	38	0	0	664	83
19	391	305	0	0	0	0	450	272	0	0	0	0	841	577
20	303	152	0	0	0	0	179	76	0	0	0	0	482	228
22	46	39	0	0	0	0	39	9	0	0	0	0	85	48
23	72	36	0	0	0	0	0	0	0	0	0	0	72	36
24	22	37	0	0	0	0	1	2	0	0	0	0	23	39
25	165	151	0	0	0	0	68	40	0	0	0	0	233	191
26	93	90	0	0	0	0	17	9	0	0	0	0	110	99
28	73	52	0	0	0	0	24	11	0	0	0	0	97	63
	3737	3343	686	365	208	84	3767	3434	641	338	111	62	9150	7626
*B-Boys, G-Girls														

Table 3.1 (ii) shows the gender wise distribution of students in different streams and classes. Out of the total 16776 students enrolled 9150 are boys and 7626 are girls. The enrollment of boys exceeds the girl's enrollment in all the colleges except in college #24. In Arts there are 14281 students of which 7504 are boys and 6777 are girls. Arts enrollment comes to 85.13% to the total students. In Commerce there are 2030 students of which 1327 are boys and 703 are Girls. The total percentage of Commerce enrollment comes to 12.10%. In Science stream there are 465 students of which 319 are boys and 146 are girls. The percentage of Science students is 2.77%.

Table 3.1 (iii) Gender wise distributions of students and lecturers. (2003-2004)

co de	Teachers (Total)				Students (Total)				Student Teacher ratio		
	M	%	F	%	B	%	G	%	B/Mt	G/Ft	S/T
1	11	57.89	8	42.10	625	62.31	378	37.69	56.82	47.25	52.79
2	16	69.56	6	30.44	583	52.29	532	47.71	36.44	88.67	50.68
3	10	58.82	7	41.18	275	67.73	131	32.27	27.5	18.71	23.89
4	6	54.54	5	45.46	50	64.10	28	35.90	8.33	5.6	7.10
5	11	68.75	5	31.25	379	61.33	239	38.67	34.45	47.8	38.63
6	18	51.43	17	48.57	1205	54.75	996	45.25	66.94	58.59	62.89
7	11	57.89	8	42.11	312	66.24	159	33.76	28.37	19.88	24.79
8	15	68.18	7	31.82	330	63.22	192	36.78	22	27.43	23.73

9	23	69.70	10	30.30	971	57.94	705	42.06	42.22	70.5	50.79
10	13	65	7	35.00	180	73.17	66	26.83	13.84	9.43	12.3
12	16	69.56	7	30.43	0	0	1088	100	0	155.43	47.3
13	5	31.25	11	68.75	0	0	680	100	0	61.81	42.5
14	7	58.33	5	41.63	292	56.48	225	43.52	41.71	45	43.08
15	7	50	7	50	295	68.13	138	31.87	42.14	19.71	30.93
16	32	62.75	19	37.25	907	56.90	687	43.10	28.34	36.16	31.25
17	8	80	2	20	139	88.54	18	11.46	17.38	9	15.7
18	12	100	0	0	664	88.89	83	11.11	55.33	0	62.25
19	23	100	0	0	841	59.31	577	40.69	36.57	0	61.65
20	12	54.55	10	45.45	482	67.89	228	32.11	40.17	22.8	32.28
22	7	58.33	5	41.67	85	63.91	48	36.09	12.14	17	11.08
23	9	100	0	0	72	66.67	36	33.33	8	0	12
24	2	28.57	5	71.43	23	37.09	39	62.91	11.5	7.8	8.86
25	9	56.25	7	43.75	233	54.95	191	45.05	25.89	27.29	26.5
26	5	45.45	6	54.55	110	52.63	99	47.37	22	16.5	19
28	8	57.14	6	42.86	97	60.63	63	39.37	12.13	10.5	11.43
	291		170		9150	57.80	7626	42.20			36.39
M-Male, F-female, B/Mt = Boys Student Teacher Ratio, G/Ft = Girls Student Teacher Ratio, S/T = Student Teacher Ratio											

Table 3.1 (iv) Gender wise distribution of students from outside Nagaland (2003-2004)

Code	Students from outside		Total Stud-ents	Students in the college		Total stu-dents	SOT Ratio
	B	G		B	G		
1	27	6	33	625	378	1003	3.29
2	30	8	38	583	532	1115	3.40
3	30	22	52	275	131	406	12.80
4	4	0	4	50	28	78	5.12
5	15	5	20	379	239	618	3.23
6	159	127	286	1205	996	2201	12.99
7	29	15	44	312	159	471	9.34
8	6	3	9	330	192	522	1.72
9	138	90	228	971	705	1676	7.35
10	16	1	17	180	66	246	6.91
12	0	365	365	0	1088	1088	33.54
13	0	183	183	0	680	680	26.91
14	16	58	74	292	225	517	14.31
15	25	16	41	295	138	433	9.46
16	238	155	393	907	687	1594	24.65
17	107	17	124	139	18	157	78.98
18	22	3	25	664	83	747	29.88
19	120	102	222	841	577	1418	15.65
20	35	26	61	482	228	710	8.59
22	0	0	0	85	48	133	0
23	1	0	1	72	36	108	0.93
24	0	5	5	23	39	62	8.06
25	6	3	9	233	191	424	2.12
26	2	2	4	110	99	209	1.91
28	1	1	2	97	63	160	1.25
	1027	1213	2240	9150	7626	16776	
B-Boys, G-Girls, SOT-Students from outside to total student ratio							

Tables 3.1 (iii) and 3.1 (iv) shows the gender wise distribution of students, teachers and students from outside the state. During the session 2003-2004, 461 lecturers

were employed in 25 colleges including 10 contract lecturers. Out of the 461 lecturers 291 are male lecturers and 170 are female lecturers. The Student lecturer ratio is 36.39

During the session 2003-2004, 2240 students from outside the state (Non-Naga) were enrolled in 24 colleges. Out of this 1027 are boys and 1213 are girls. The total percentage of students from outside to total students is 13.35%.

Table 3.1 (v) Infrastructure in the Private Colleges. (2003-2004)

code	D In km	B 0=n 1=y	H 0=n 1=y	L 0=n 1=y	SQ 0=n 1=y	HC 0=n 1=y	C 0=n 1=y	Various types of rooms in the College building						TS	SCR
								CR	OR	LR	SR	A	PR		
1	1	0	1	1	1	0	1	13	7	1	0	1	1	1003	77.15
2	1	0	0	1	0	0	0	15	3	2	0	0	1	1115	74.33
3	6	1	1	1	1	0	1	11	1	1	0	0	1	406	36.91
4	8	1	1	1	0	0	0	8	1	1	0	1	1	78	9.75
5	0.5	0	0	1	1	0	1	5	2	1	0	0	1	618	123.6
6	0	0	0	1	0	0	1	17	3	1	2	1	1	2201	129.47
7	3	0	1	1	1	0	0	14	4	1	1	0	1	471	33.64
8	12	0	1	1	0	0	1	12	3	1	0	1	1	522	43.5
9	15	0	1	1	1	0	0	21	2	1	0	1	1	1676	79.81
10	3	0	1	1	1	0	0	15	4	1	0	0	1	246	16.4
12	1	0	0	1	1	0	0	18	3	1	0	0	1	1088	60.44
13	2	0	0	1	0	0	0	15	1	1	1	0	1	680	45.33
14	4	0	1	1	0	0	1	9	2	1	0	1	1	517	57.44
15	10	0	1	1	0	0	1	5	2	1	0	1	1	433	86.6
16	19	1	1	1	0	1	1	22	13	1	0	1	1	1594	72.45
17	9	0	0	1	1	0	0	3	1	1	1	1	1	157	52.33
18	0	0	0	1	1	0	0	7	3	1	0	0	1	747	106.71
19	0.5	0	1	1	0	0	1	13	3	1	0	1	1	1418	109.08
20	1	0	1	1	0	0	1	10	3	1	0	0	1	710	71
22	0.5	0	0	1	0	0	0	7	1	1	0	0	1	133	19
23	2	0	1	1	1	0	0	6	5	1	0	1	1	108	18
24	0.5	0	1	1	1	0	0	5	1	1	0	1	1	62	12.4
25	1	0	1	1	1	0	0	5	2	1	0	0	1	424	84.8
26	0.5	0	1	1	1	0	0	6	1	1	0	0	1	209	34.83
28	0.5	0	0	1	1	0	0	8	3	1	0	1	1	160	20
								270	74	26	5	12	25	16776	

D-Distance from the main town; B-Bus; H-Hostels; SQ-Staff quarters; L- Library; HC-Health center; C- Canteen; CR-No of classrooms; OR- No Of office room; LR-Lecturers room; SR- Students room; A- Auditorium; P-Principals room; TS-Total no of students; SCR-Student classroom ratio.

A congenial environment is a pre-requisite factor in the College campus and therefore, unless they are proper and adequate infrastructure. The minds of the teachers and students will be distracted by the poor physical structure of the academic house. Table 3.1 (v) presents the college infrastructure. 18 colleges are located within a range of 5 Kms from the main town. The rest 7 colleges are situated away from the main town with distance ranging from 6 to 19 Kms. Colleges # 8, #9, #15, #16 and #17 which falls under this category are residential colleges. Almost all these colleges provide hostels to majority of the students, have their own college bus and provides quarters to college

staffs. There are 270 classrooms, 74 office rooms, 26 lecturer's rooms and 5 students room. All the colleges have a library room a separate room for the principal. Not all college has a separate auditorium. The ratio of student classroom is 62.13. The highest being 129.47 for college # 6 and lowest is 9.75 for college # 4.

III. Qualification of Lecturers in Private Colleges: A tree is known by its fruits. So also, quality of education is known by the quality of students produced. Of the quality education indicators, teachers are rank as number one. If education is the vehicle of change and social transformation, the teachers are the vehicles of education. Teachers are the central pivots in all education system. Teachers of today, particularly in higher education have to become seriously aware of the realities, and do all that are possible on their part through research and teaching to usher in a new era of positive growth.

Below we look at the various qualifications of teachers employed in the private colleges in Nagaland.

Table 3.2 (i). Qualification of lecturers

code	College	P.hD		M.phil		MA/MCom /MSc		Total Male	Total female	Total
		M	F	M	F	M	F			
1	Alder	0	0	0	0	11	8	11	8	19
2	Baptist	3	0	2	0	11	6	16	6	22
3	Oriental	2	0	2	0	6	7	10	7	17
4	Mountain	1	0	0	0	5	5	6	5	11
5	Mount	0	0	0	0	10	5	10	5	15
6	Kohima	2	0	1	1	14	16	17	17	34
7	Modern	0	0	0	1	11	7	11	8	19
8	Japhu	1	0	2	0	13	5	14	7	21
9	St Josephs	2	0	0	0	20	10	22	10	32
10	Kilen..	0	0	0	0	13	7	13	7	20
12	SD Jain	0	0	1	0	13	7	14	7	21
13	Prana...	0	0	0	0	5	11	5	11	16
14	Eastern	0	0	1	0	4	5	5	5	10
15	Tetso	1	0	0	0	5	7	6	7	13
16	Patkai	8	1	0	1	23	17	31	19	50
17	Salesian	2	0	0	0	5	2	7	2	9
18	Public	0	0	0	0	11	0	11	0	11
19	Salt	2	0	0	0	18	0	20	0	20
20	Sakus	0	0	1	0	11	10	12	10	22
22	Peren	0	0	0	0	7	5	7	5	12
23	Yingli	2	0	1	0	6	0	9	0	9
24	Tuli	0	0	0	0	2	5	2	5	7
25	Peoples	1	0	1	0	7	7	9	7	16
26	Bailey	0	1	0	0	5	5	5	6	11
28	Pfutsero	0	0	0	0	8	6	8	6	14
		27	2	12	3	244	163	281	170	451

Private Colleges in Nagaland employed 451 regular lecturers and 10 on contract. The table 3.2 (i) present the various degrees that the lecturers hold. In all there are 29 lecturers who have Doctorate of which two are Female. There are 15 Lecturers who holds M.Phil degree of which 12 are Male and 3 are Female. The rest 407 are post graduates.

IV. Co-curricular and Extra-curricular Activities: Apart from classroom education all the college provides ample opportunity for all round development of the students as such Students' welfare activities like Games& Sports, literary, cultural and other social activities are under taken every year. Some college also provides the opportunity to students to participate in the National Service Scheme (NSS), National Cadet Corps Program (NCC) and also conduct spiritual activities. Thus almost all the private colleges in Nagaland aspire for three-dimensional excellences- *Academic, Spiritual and Physical*.

Table 3.3 (i) Co-curricular and extra-curricular activities. (2003-2004)

co de	NSS	NCC	S	ST	CP	LP	co de	NSS	NCC	S	ST	CP	LP
1	0	0	1	0	1	1	15	0	0	1	1	1	1
2	1	0	1	0	1	1	16	1	1	1	0	1	1
3	0	0	1	0	1	1	17	0	0	1	0	1	1
4	0	0	1	1	1	1	18	1	0	1	1	1	1
5	0	0	1	0	1	1	19	1	0	1	0	1	1
6	1	1	1	1	1	1	20	1	0	1	0	1	1
7	0	1	1	0	1	1	22	0	0	1	0	1	1
8	0	0	1	0	1	1	23	1	0	1	1	1	1
9	1	1	1	1	1	1	24	0	0	1	0	1	1
10	0	0	1	1	1	1	25	1	0	1	0	1	1
12	0	0	1	0	1	1	26	0	0	1	0	1	1
13	0	0	1	0	1	1	28	0	0	1	0	1	1
14	0	0	1	0	1	1							
NSS-National Service Scheme, NCC-National Cadet Corps, S-Sports; ST-Study tours, CP-Cultural Program, LP- Literary Program, 1=yes, 0=no													

A look at the table suggests that apart from Sports, Cultural programmes and Literary programmes, other extra-curricular activities are hardly taken up by the colleges. Only eight colleges give the opportunity for the students to participate in National Service Scheme. During the session 2003-2004 the total number of students enrolled in NSS is 1621 which is only 9.66% of the total students. Likewise for NCC only three colleges provides the opportunity with 345 students enlisted. Seven colleges regularly take the students to go for study tour.

V. Relationship between the Age of a College and its Enrollment Size: Private colleges in Nagaland have a great role in providing higher quality education. The first college in Nagaland was a private college, which was established in 1959. It was only in

1962 that the state government took up the college. As on year 2003, there are colleges that are 37 years old while there are colleges that are relatively middle- aged or young. The age of a school can be a good indicator in determining the size of a college. In chapter II we have seen that in average a larger number of students are enrolled in colleges that are older. This may be partly due to the experienced teachers and administrators, the infrastructure of the college or the results of the college that the parents and students opt for these older colleges.

A study of the relationship between the age and its enrollment size is pertinent and some type of curve fitting can study this.

Variable	Coefficient	Std Err	't' value	Prob
ESTAB	52.432	12.715	4.124	0.001
ARTS	497.817	483.248	1.030	0.316
COMMERCE	412.740	223.776	1.844	0.081
SCIENCE	35.492	335.487	0.106	0.917
HS	-661.939	551.050	-1.201	0.244
G	-1494.311	736.200	-2.030	0.057

a Dependent Variable: STUDENTS $R^2=0.810$

Variable	Coefficient	Std Err	't' value	Prob
(Constant)	-588.249	350.113	-1.680	0.107
ESTAB	48.221	12.206	3.951	0.001
AC	446.642	221.396	2.017	0.056

a Dependent Variable: STUDENTS; $R^2=0.452$

Variable	Coefficient	Std Err	't' value	Prob
(Constant)	-11.551	215.210	-.054	0.958
ESTAB	45.506	12.916	3.523	0.002

a Dependent Variable: STUDENTS; $R^2=0.351$

VI. Size Distribution of the Colleges: In the following table we present the size distribution of colleges according to different criteria.

3.4. (i) Size Distribution of the Colleges. (2003-2004)
(According to the enrollment of the total No. Of students)

Size class	No of students	Frequency	Percent	Cumulative percent
1	50-500	12	48	48
2	500-900	6	24	72
3	900-1300	4	16	88
4	1300-1700	2	8	96
5	1700-2300	1	4	100
Total	50-2300	25	100	

3.4. (ii) Size Distribution of the Colleges. (2003-2004)

(According to the total No. Of teaching and Non-Teaching staff)

Class size	Number of staff	Frequency (Number of Colleges)	
		Teaching	Non-Teaching
1	0-5	0	11
2	5-10	5	10
3	10-15	6	3
4	15-20	7	0
5	20-25	4	0
6	25-30	0	0
7	30-35	2	0
8	35-40	0	0
9	40-45	0	0
10	45-50	1	1
Total		25	25

3.4. (iii) Size distribution of the Colleges. (2003-2004)

(According to the total No. of lecturers of various degrees)

Class size	No. of lecturers	Frequency (Number of colleges)		
		P.G	M.Phil	PhD
0	None	0	0	0
1	1-5	0	0	0
2	6-10	3	2	2
3	11-15	7	0	3
4	16-20	7	3	2
5	21-25	5	5	3
6	26-30	0	0	0
7	31-35	2	1	2
8	36-40	0	0	0
9	41-45	0	0	0
10	46-50	1	1	1
Total		25	12	13

Table 3.4 (1) through (iii) suggests that 12 colleges are relatively small in size with students less than 500. These twelve colleges have enrollment of 48 percent of the total students in private colleges. Three colleges are relatively large with student's enrollment over 1300 students. 22 colleges have lecturers between 5 to 25 with the maximum number of lecturers within the range of 15 and 20. All the colleges have lecturers more than 5 and only 1 college employs more than 45. The number of Non-Teaching staff is almost same in all the colleges with staff less than 10. Only 1 college has staff more than 45.

In table 3.4 (iv) students enrollment is shown according to different classes i.e Pre University/ Higher secondary and degree. Up to a maximum of 900 students there are 21 colleges that have almost equal number of students. It is only in 3 colleges that the

student's enrollment in degree course exceeds than the higher secondary. It is to be noted that college #17 offers only degree course and college #23 do not have any students in degree during the session 2003-2004.

3.4. (iv) Size distribution of the colleges. (2003-2004)

(According to the total No of students in higher secondary and degree course)

Class size	No Of students	Frequency (Number of Colleges)	
		Higher secondary	Degree Course
1	1-100	4	6
2	100-300	6	8
3	300-500	9	4
4	500-700	3	1
5	700-900	2	2
6	900-1100	0	2
7	1100-1300	0	0
8	1300-1500	0	1
Total		24	24

Table 3.4 (v) Regression of Enrolment (2000-2001) on Age & Location				
	Coefficient	SEE	't' value	prob
Intercept	528.340	221.8751	2.38125	.026335
AGE	29.746	10.2358	2.90611	.008190
LOC	-125.782	45.9297	-2.73856	.011992
$R^2 = 0.4330$, $F(2,22)=8.4$; SEE = Standard Error of Estimates				

Table 3.4 (vi) Regression of Enrolment (2001-02) on Age & Location				
	Coefficient	SEE	't' value	prob
Intercept	537.759	238.1059	2.25849	.034170
AGE	30.094	10.9846	2.73970	.011961
LOC	-123.114	49.2896	-2.49777	.020467
$R^2 = 0.3970$, $F(2,22)=7.2$; SEE = Standard Error of Estimates				
Table 3.4 (vii) Regression of Enrolment (2002-03) on Age & Location				
	Coefficient	SEE	't' value	prob
Intercept	501.270	202.1061	2.48023	.021264
AGE	42.902	9.3238	4.60138	.000139
LOC	-155.501	41.8374	-3.71679	.001200
$R^2 = 0.6261$, $F(2,22)=18.4$; SEE = Standard Error of Estimates				

Table 3.4 (viii) Regression of Enrolment (2003-04) on Age & Location				
	Coefficient	SEE	't' value	prob
Intercept	584.963	230.0748	2.54249	.018557
AGE	43.614	10.6141	4.10908	.000462
LOC	-165.988	47.6271	-3.48515	.002097
$R^2 = 0.5816$, $F(2,22)=15.3$; SEE = Standard Error of Estimates				

Table 3.4 (ix) Regression of Enrolment (1999-04) on Age & Location				
	Coefficient	SEE	't' value	prob
Intercept	611.518	89.45756	6.83585	.000000
AGE	35.201	4.34136	8.10826	.000000
LOC	-139.909	19.84700	-7.04938	.000000
$R^2 = 0.4989$, $F(2,122)=60.7$; SEE = Standard Error of Estimates				

VII. Utilization of Classrooms : The number of classrooms available in a college is one of the factors which determine the size of enrollment in a particular college. An optimum size of a class is preferred not only by the students but also by the teachers. The teaching and learning becomes difficult once there is overcrowding inside a classroom. Optimum utilization of classrooms therefore is important not only in bringing a good environment inside the classrooms but also in the performance of a college.

In estimating the extent of classroom utilization we have assumed that the optimal size of Higher Secondary and graduation class to be 60. The optimal size of the class is defined as the number of students attending the class in a particular period. With this assumption we define: $R_x = (\text{No. of enrolment in particular class } x) / M(x)$, where $x=1$ for higher secondary class, and 2 for graduation class. Then, $R = \sum [ROUND(R_x + \eta, 0)]$, where the summation is done over $x=1, 2$ and $\eta = 0.1$, which is the value of the laxity factor. The ROUND (*, 0) function rounds off $(R_x + \eta)$ to the nearest integer. Since the value of η is = 0.1, if $R_x = 1.4$ is rounded off to 2 while $R_x < 1.4$ is rounded off to 1. The laxity factor (η) takes care of the ease in crowding of a class due to some students being absent. R gives the number of classrooms actually required. UC gives the index of classroom utilisation, which is given by the ratio of required rooms to existing rooms. This index is presented in the table 3.5 (i). It can be seen that the classrooms are somewhat over utilized. In 12 colleges the classrooms are over utilized while in 10 colleges it is underutilized. The rest three colleges are having the optimum utilization of classroom index. The maximum value of UC = 220 for college #5 and the minimum value of UC = 20 for college #24.

Table 3.5 (i) Utilisation of classrooms

co de	College	Streams	No of students		Classroom requirements = R*		No of classrooms		Classroom utilisation (UC)
			HS	G	HS	G	Exist	Reqd=R	
1	Alder	A	505	498	8.61	8.60	13	17	130
2	Baptist	A & C	335	780	5.99	13.60	15	19	126
3	Oriental	A & C	277	129	5.02	2.74	11	8	72
4	Mountain	A	46	32	1.07	0.83	8	2	25
5	Mount	A	411	207	7.05	3.75	5	11	220
6	Kohima	A	849	1352	14.35	22.83	34	36	106
7	Modern	A & C	351	120	6.25	2.30	14	9	64
8	Japhu	A	350	172	6.03	3.17	12	9	75
9	Josephs	A & C	745	931	12.81	16.12	21	29	138
10	Kilen..	A & S	193	53	3.63	1.38	15	5	33
12	SD Jain	A & C	448	640	7.87	11.26	18	19	105
13	Prana...	A	365	315	6.28	5.55	15	12	80
14	Eastern	A	197	320	3.48	5.63	9	9	100
15	Tetso	A	291	142	5.05	2.67	5	8	160
16	Patkai	A & S	666	928	11.49	16.07	22	28	127
17	Salesian	A	0	157	0	2.92	3	3	100
18	Public	C	367	380	6.32	6.63	7	13	185
19	Salt	A	696	722	11.8	12.33	13	24	184
20	Sakus	A	455	255	7.78	4.55	10	12	120
22	Peren	A	85	48	1.62	1.10	7	3	42
23	Yingli	A	108	0	2	0	6	2	33
24	Tuli	A	59	3	1.19	0.15	5	1	20
25	Peoples	A	316	108	5.47	2.09	5	8	160
26	Bailey	A	183	26	3.25	2.62	6	6	100
28	Pfutsero	A	125	35	2.28	0.8	8	2	25
			350	348	4.39	4.77	287	295	101..2

Table 3.5 (ii) Utilisation of classrooms in private colleges

Index of utilisation	40	70	100	130	160	190	220
No. of colleges with (UC) =X	5	2	6	6	3	2	1
No. of colleges with (UC) <= X	5	7	13	19	22	24	25

VIII. Performance of the Colleges : Performance of the colleges can be assessed through internal performance and secondly through the performance in Board and University examinations. Internal performance will include the promotion examinations, dropouts and percentage of students selected for Board and University examinations. Secondly the external performance will have indicators like percentage of students passed in Board and University examinations, the percentage of students passed in First and Second division. We have constructed 10 indicators of performance taking a period of 5 years from 1998-2002. In constructing the indices we have used the method of principal components (Kendall and Stuart, 1968; Mishra, 2003-b).

x_1 = percentage of students promoted to Class XII

x_2 = percentage of students selected for Board exams

x_3 = percentage passed students in Board examinations

x_4 = percentage passed in first division in Board examinations

x_5 = percentage passed in second division in Board examinations

y_1 = percentage of students promoted to Graduation II and III

y_2 = percentage of students selected for University exams

y_3 = percentage passed students in University examinations

y_4 = percentage passed in first division in University examinations

y_5 = percentage passed in second division in University examinations

Table 3.6 (iv) Ranking of Colleges according to Mean of Factor-I (Obtained by Principal Components Analysis)					
Code	College	number	F1	F2	Mean F1
8	Japfu	2	2.764	0.874	1.382
16	Patkai	4	3.883	4.016	0.971
17	Salesian	1	0.889	1.714	0.889
9	St.Josephs	4	2.603	3.114	0.651
12	S.D Jain	4	2.177	2.124	0.544
1	Alder	2	1.03	-1.377	0.515
15	Tetso	2	0.998	-1.178	0.499
2	Baptist	4	1.986	-0.666	0.497
26	Bailey	1	0.153	-1.523	0.153
25	Peoples	2	-0.057	-3.112	-0.029
10	Kilenkaba	3	-0.188	-1.911	-0.063
14	Eastern	2	-0.204	2.135	-0.102
20	Saku	2	-0.206	-2.14	-0.103
4	Mountain	2	-0.343	0.657	-0.172
18	Public	2	-0.517	-0.945	-0.259
13	Pranaba..	2	-0.546	-0.659	-0.273
19	Salt	2	-0.781	0.707	-0.391
24	Tuli	1	-0.486	-1.203	-0.486
7	Modern	3	-1.834	-1.405	-0.611
3	Oriental	3	-2.119	0.535	-0.706
6	Kohima	2	-1.95	-0.126	-0.975
28	Pfutsero	2	-2.008	-0.353	-1.004
22	Peren	2	-2.079	0.964	-1.040
23	Yingli	2	-3.165	-0.244	-1.583

Table 3.6 (v) Ranking of Colleges according to Mean of Factor-II					
code	College	number	F1	F2	Mean F2
17	Salesian	1	0.889	1.714	1.714
14	Eastern	2	-0.204	2.135	1.068
16	Patkai	4	3.883	4.016	1.004
9	Josephs	4	2.603	3.114	0.779
12	S.D Jain	4	2.177	2.124	0.531
22	Peren	2	-2.079	0.964	0.482
8	Japfu	2	2.764	0.874	0.437
19	Salt	2	-0.781	0.707	0.354
4	Mountain	2	-0.343	0.657	0.329
3	Oriental	3	-2.119	0.535	0.178
6	Kohima	2	-1.95	-0.126	-0.063
23	Yingli	2	-3.165	-0.244	-0.122
2	Baptist	4	1.986	-0.666	-0.167
28	Pfutsero	2	-2.008	-0.353	-0.177
13	Pranaba..	2	-0.546	-0.659	-0.330
7	Modern	3	-1.834	-1.405	-0.468
18	Public	2	-0.517	-0.945	-0.473
15	Tetso	2	0.998	-1.178	-0.589
10	Kilenkaba	3	-0.188	-1.911	-0.637
1	Alder	2	1.03	-1.377	-0.689
20	Saku	2	-0.206	-2.14	-1.070
24	Tuli	1	-0.486	-1.203	-1.203
26	Bailey	1	0.153	-1.523	-1.523
25	Peoples	2	-0.057	-3.112	-1.556

Factor Loadings (Unrotated) (factor56.sta)		
Extraction: Principal components		
(Marked loadings are > .700000)		
	Factor-1	Factor-2
Z1(Promotion)	-0.72165	0.401955
Z2 (Selection)	-0.4065	0.721333
Z3 (Pass)	0.274346	0.763445
Z4 (I Division)	0.810309	0.119017
Z5 (II Division)	0.634288	0.437345
Expl.Var	1.820208	1.470173
Prp.Totl	0.364042	0.294035

Factor Score Coefficients (factor56.sta)		
Rotation: Unrotated		
Extraction: Principal components		
	Factor-1	Factor-2
Z1	-0.39647	0.273407
Z2	-0.22333	0.490645
Z3	0.150723	0.519289
Z4	0.445174	0.080955
Z5	0.34847	0.297479

IX. Average Classes for Lecturers : An analysis of the average classes taken by a lecturer is shown below. This will give us a picture whether lecturers in private college are overburdened or not. For the 25 colleges in a day 1136 classes are taken. In an average it comes to 46 classes per college per day. For a lecturer the average classes per day comes to 2.54, with highest number of classes being 4.38 for college # 13 and lowest being 1.4 for college # 23. Taking 5.5 days as the working days per week we find that the workload per lecturer in a week is 13.99 classes. The highest number of classes for a lecturer per week is 24.09 for college # 13 and the lowest is in college # 23 with 7.70 classes in a week.

Table 3.7 (i) Average classes for lecturers

code	College	No of Lecturers	No of sections Arts	No of sections Com	No of sections Science	Total No of sections	Average classes per day	Average classes per day per lecturer	Average classes per week per lecturer
1	Alder	19	7	0	0	7	49	2.58	14.19
2	Baptist	23	7	5	0	12	84	3.65	20.08
3	Oriental	17	5	5	0	10	60	3.53	19.42
4	Mountain	11	5	0	0	5	30	2.73	15.02
5	Mount	15	5	0	0	5	30	2	11.00
6	Kohima	34	10	0	0	10	60	1.76	9.68
7	Modern	19	5	5	0	10	60	3.16	17.38
8	Japhu	21	6	0	0	6	36	1.71	9.41
9	Josephs	32	7	5	0	12	72	2.25	12.38
10	Kilen..	20	5	0	5	10	60	3	16.50
12	SD Jain	21	5	5	0	10	70	3.33	18.32
13	Prana...	16	5	0	0	5	70	4.38	24.09
14	Eastern	11	5	0	0	5	30	2.73	15.02
15	Tetso	15	7	0	0	7	42	2.8	15.40
16	Patkai	53	14	0	7	21	86	1.62	8.91
17	Salesian	10	3	0	0	3	15	1.5	8.25
18	Public	11	0	7	0	7	42	3.81	20.96
19	Salt	21	7	0	0	7	42	2	11.00
20	Sakus	22	7	0	0	7	49	2.23	12.27
22	Peren	12	5	0	0	5	30	2.5	13.75
23	Yingli	10	5	0	0	5	14	1.4	7.70
24	Tuli	7	2	0	0	2	15	2.14	11.77
25	Peoples	16	5	0	0	5	30	1.88	10.34
26	Bailey	11	5	0	0	5	30	2.73	15.02
28	Pfutsero	14	5	0	0	5	30	2.14	11.77
		461	139	32	12	183	1136	2.54	13.99

APPENDIX III

III (i) Sections in different classes

code	XI Arts	XII Arts	XI C	XII C	XI Sc	XII Sc	BA I	BA II	BA III	BC I	BC II	BC III	BSc I	BSc II	BSc III	Total sections
1	3	1	0	0	0	0	1	1	1	0	0	0	0	0	0	7
2	1	1	1	1	0	0	2	2	1	1	1	1	0	0	0	12
3	1	1	1	1	0	0	1	1	1	1	1	1	0	0	0	10
4	1	1	0	0	0	0	1	1	1	0	0	0	0	0	0	5
5	1	1	0	0	0	0	1	1	1	0	0	0	0	0	0	5
6	2	2	0	0	0	0	2	2	2	0	0	0	0	0	0	10
7	1	1	1	1	0	0	1	1	1	1	1	1	0	0	0	10
8	2	1	0	0	0	0	1	1	1	0	0	0	0	0	0	6
9	2	2	1	1	0	0	1	1	1	1	1	1	0	0	0	12
10	1	1	0	0	1	1	1	1	1	0	0	0	1	1	1	10
12	1	1	1	1	0	0	1	1	1	1	1	1	0	0	0	10
13	1	1	0	0	0	0	1	1	1	0	0	0	0	0	0	5
14	1	1	0	0	0	0	1	1	1	0	0	0	0	0	0	5
15	2	2	0	0	0	0	1	1	1	0	0	0	0	0	0	7
16	3	3	0	0	2	2	3	3	2	0	0	0	1	1	1	21
17	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	3
18	0	0	2	2	0	0	0	0	0	1	1	1	0	0	0	7
19	2	2	0	0	0	0	1	1	1	0	0	0	0	0	0	7
20	2	2	0	0	0	0	1	1	1	0	0	0	0	0	0	7
22	1	1	0	0	0	0	1	1	1	0	0	0	0	0	0	5
23	1	1	0	0	0	0	1	1	1	0	0	0	0	0	0	5
24	1	1	0	0	0	0	1	1	1	0	0	0	0	0	0	5
25	1	1	0	0	0	0	1	1	1	0	0	0	0	0	0	5
26	1	1	0	0	0	0	1	1	1	0	0	0	0	0	0	5
28	1	1	0	0	0	0	1	1	1	0	0	0	0	0	0	5
C-Commerce, BC- Bachelor of commerce																

III (ii) Requirement of classrooms (Arts)

code	XI Arts	Cl. room reqd	XII Arts	Cl. room reqd	BAI	Cl. room reqd	BAII	Cl. room reqd	BAIII	Cl. room reqd
1	311	5.18	194	3.23	176	2.93	193	3.22	129	2.15
2	95	1.58	127	2.12	284	4.73	214	3.57	147	2.45
3	130	2.17	55	0.92	14	0.23	33	0.55	17	0.28
4	16	0.27	30	0.5	5	0.08	15	0.25	12	0.2
5	242	4.03	169	2.82	72	1.2	94	1.57	41	0.68
6	475	7.92	374	6.23	427	7.12	551	9.18	374	6.23
7	122	2.03	127	2.12	29	0.48	58	0.97	33	0.55
8	200	3.33	150	2.5	70	1.17	60	1	42	0.7
9	302	5.03	230	3.83	225	3.75	260	4.33	240	4
10	61	1.02	28	0.47	0	0	20	0.33	2	0.03
12	152	2.53	132	2.2	144	2.4	166	2.77	137	2.28
13	227	3.78	138	2.3	108	1.8	126	2.1	81	1.35
14	114	1.9	83	1.38	86	1.43	86	1.43	148	2.47
15	166	2.77	125	2.08	49	0.82	62	1.03	31	0.52
16	278	4.63	200	3.33	293	4.88	246	4.1	247	4.12
17	0	0	0	0	60	1	54	0.9	43	0.72
18	0	0	0	0	0	0	0	0	0	0
19	445	7.42	251	4.18	252	4.2	351	5.85	119	1.98
20	281	4.68	174	2.9	108	1.8	95	1.58	52	0.87
22	58	0.97	27	0.45	16	0.27	21	0.35	11	0.18
23	41	0.68	67	1.12	0	0	0	0	0	0
24	28	0.47	31	0.52	3	0.05	0	0	0	0

25	192	3.2	124	2.07	38	0.63	41	0.68	29	0.48
26	126	2.1	57	0.95	7	2	10	0.17	9	0.15
28	68	1.13	57	0.95	13	0.22	16	0.27	6	0.1
	179.56	2.99	128.26	2.14	112.68	1.88	120.52	2.01	84.78	1.41

III (iii) Requirement of classrooms (Commerce)

Sl. No	XI Com	Cl. room reqd	XII Com	Cl. room reqd	BCom I	Cl. room reqd	Bcom II	Cl. room reqd	Bcom III	Cl. room reqd
1	0	0	0	0	0	0	0	0	0	0
2	40	0.67	73	1.22	70	1.17	36	0.6	29	0.48
3	44	0.73	48	0.8	15	0.25	27	0.45	23	0.38
4	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0
7	51	0.85	51	0.85	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0
9	114	1.9	99	1.65	73	1.22	69	1.15	64	1.07
10	0	0	0	0	0	0	0	0	0	0
12	85	1.42	79	1.32	78	1.3	59	0.98	56	0.93
13	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0
18	219	3.65	148	2.47	142	2.37	161	2.68	77	1.28
19	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0
	92.17	9.22	83	8.3	75.6	6.3	352	5.87	49.8	4.15

III (iv) Requirement of classrooms (Science)

co de	College	XI Sc	Cl. room reqd	XII Sc	Cl. room reqd	BSc I	Cl. room reqd	BSc II	Cl. room reqd	BSc III	Cl. room reqd
1	Alder	0	0	0	0	0	0	0	0	0	0
2	Baptist	0	0	0	0	0	0	0	0	0	0
3	Oriental	0	0	0	0	0	0	0	0	0	0
4	Mountain	0	0	0	0	0	0	0	0	0	0
5	Mount	0	0	0	0	0	0	0	0	0	0
6	Kohima	0	0	0	0	0	0	0	0	0	0
7	Modern	0	0	0	0	0	0	0	0	0	0
8	Japhu	0	0	0	0	0	0	0	0	0	0
9	Josephs	0	0	0	0	0	0	0	0	0	0
10	Kilen..	46	0.77	58	0.97	8	0.13	19	0.32	4	0.07
12	SD Jain	0	0	0	0	0	0	0	0	0	0
13	Prana...	0	0	0	0	0	0	0	0	0	0
14	Eastern	0	0	0	0	0	0	0	0	0	0
15	Tetso	0	0	0	0	0	0	0	0	0	0
16	Patkai	86	1.43	102	1.7	58	0.97	49	0.82	35	0.58
17	Salesian	0	0	0	0	0	0	0	0	0	0
18	Public	0	0	0	0	0	0	0	0	0	0

19	Salt	0	0	0	0	0	0	0	0	0	0
20	Sakus	0	0	0	0	0	0	0	0	0	0
22	Peren	0	0	0	0	0	0	0	0	0	0
23	Yingli	0	0	0	0	0	0	0	0	0	0
24	Tuli	0	0	0	0	0	0	0	0	0	0
25	Peoples	0	0	0	0	0	0	0	0	0	0
26	Bailey	0	0	0	0	0	0	0	0	0	0
28	Pfutsero	0	0	0	0	0	0	0	0	0	0
		61	2.2	80	2.67	33	1.1	34	1.13	19.5	0.65

III (v) Enrolment Age and location

Code	College	E2000	E2001	E2002	E2003	E2004	AGE	LOC
1	Alder	1002	1032	760	841	1003	11	1
26	Bailey	222	232	175	212	209	7	5
2	Baptist	826	752	863	1070	1115	21	1
14	Eastern	887	438	443	315	517	11	3
8	Japfu	411	444	383	441	522	7	2
9	Josephs	1494	1580	1651	1676	1676	18	2
10	Kilenkaba	246	236	234	261	246	9	3
6	Kohima	1503	1458	1340	2105	2201	36	1
7	Modern	214	167	178	436	471	6	1
5	Mount	489	523	540	616	618	11	1
4	Mountain	259	242	249	135	78	12	2
3	Oriental	223	154	315	316	406	7	2
16	Patkai	1285	1133	1305	1374	1594	29	4
25	Peoples	427	374	341	428	424	19	5
22	Peren	100	142	129	134	133	16	6
28	Pfutsero	74	126	132	138	160	21	5
13	Pranaba..	489	558	705	678	680	12	3
18	Public	605	734	822	749	747	18	3
12	S.D Jain	787	834	1016	985	1088	10	3
20	Saku	417	464	484	553	710	9	3
17	Salesian	143	136	154	163	157	21	4
19	Salt	1502	1543	1660	1133	1418	12	3
15	Tetso	281	248	258	334	433	9	4
24	Tuli	46	65	56	41	62	7	6
23	Yingli	72	68	58	129	108	11	6

Economics of Higher Education: Micro Analysis of Private Colleges in Nagaland
Jamir, Temjenzulu (2006), PhD Dissertation, Department of Economics, NEHU, Shillong.

CHAPTER IV

ECONOMIC EVALUATION OF PRIVATE COLLEGES

I. Introduction: Educational institution, whether owned by an individual proprietor, partners, organizations or churches etc. undertakes college business in anticipation of future gain or return from it. Like any other business enterprise engaged in production of certain goods or services, they too anticipate a certain amount of profit to achieve their long-term objectives. No doubt, among many others, one of the objective of these educational institutions is to provide better and quality education, but in order to meet those objectives the colleges have to get a certain amount of profit that will be used for their further development.

II. Sources of Revenue: Basically there are two sources of revenue for the colleges. First, internal sources, which are collected from the students at the time of admission and during the course of the study. This includes admission fee that the students have to pay at the time of admission. Along with the admission fee the students have to pay establishment fee, examination fee, Library fee, college development fee, Games and Sports fee, Nagaland Board of school Education fee (for higher secondary classes), University fee, Identity card fee, Medical fee, Maintenance fee, Hostel admission fee, security deposits, etc. The other internal source are the monthly tuition fees, computer fees and hostel fees which are paid in installments or per month depending on the college. Secondly, there are external sources, which include donations and grants-in-aid from the state government. Donations may be from individuals or associations within the state or from others states or abroad. The state government gives grants in the form of grants-in-aid to the colleges every year. Though the contribution of external revenue is a meager 5.65% of the revenue of the colleges, no doubt, it lessens the burden of the colleges on internal sources to meet their expenditures.

4.1. (i) Revenue from Tuition fees in private colleges. (2002-2003)

code	College	Higher secondary			B.A		B.Com		B.sc		Total no of Students	Annual Revenue. In Rs
		Arts	com	Sc	Gen	Maj	Gen	Maj	Gen	Maj		
1	Alder	300	0	0	320	350	0	0	0	0	841	2793600
2	Baptist	220	220	0	230	280	230	280	0	0	1070	3114000
3	Oriental	250	250	0	250	250	250	250	0	0	316	875950

4	Mountain	250	0	0	300	300	0	0	0	0	135	434400
5	Mount	250	0	0	270	270	0	0	0	0	616	1891350
6	Kohima	250	0	0	250	250	0	0	0	0	2105	6315000
7	Modern	300	300	0	300	300	300	300	0	0	436	1497780
8	Japfu	350	0	0	350	450	0	0	0	0	441	1765000
9	Josephs	290	290	0	320	320	320	320	0	0	1676	6167640
10	Kilen..	180	0	250	200	200	0	0	250	280	261	693560
12	SD Jain	150	150	0	200	200	200	200	0	0	985	2833860
13	Prana..	180	0	0	200	250	0	0	0	0	678	1593100
14	Eastern	200	0	0	200	200	0	0	0	0	315	957100
15	Tetso	200	0	0	200	200	0	0	0	0	334	801600
16	Patkai	210	0	240	240	290	0	0	270	320	1374	4149230
17	Salesian	0	0	0	200	200	0	0	0	0	163	391200
18	Public	0	250	0	0	0	250	300	0	0	749	2277000
19	Salt	150	0	0	200	200	0	0	0	0	1133	2481600
20	Sakus	250	0	0	275	275	0	0	0	0	553	1459920
22	Peren	200	0	0	220	220	0	0	0	0	134	333120
23	Yingli	200	0	0	250	250	0	0	0	0	129	314400
24	Tuli	200	0	0	220	0	0	0	0	0	41	99120
25	Peoples	300	0	0	300	350	0	0	0	0	428	1528400
26	Bailey	200	0	0	230	0	0	0	0	0	212	518160
28	Pfutsuro	300	0	0	300	300	0	0	0	0	138	496800
											15263	45782890

Table 4.1 (ii) Tuition fees of Higher secondary class (2002-2003)

No of Colleges	HS Arts students	HS Com students	HS Sc students	Total students	Revenue
25	6155	998	245	7398	21015000

Table 4.1 (iii) Tuition fees of BA, B.Com and B.Sc (2002-2003)

No of Colleges	B.A Stud ents	B.Com stud ents	B.Sc stud ents	Total students	Revenue
25	6757	942	166	7865	24767890

Table 4.1 (iv) Revenue from Tuition fees in private colleges.(2002-2003)

Colleges	Arts students	Commerce students	Science students	Total students	Total revenue
25	12912	1940	411	15263	45782890

4.1. (v) Revenue from admission fees of private colleges in Nagaland. (2002-2003)

code	college	Higher secondary			B.A		B.Com		B.sc		Total No of Students	Annual revenue from admission
		Arts	com	Sc	Gen	Maj	Gen	Maj	Gen	Maj		
1	Alder	2915	0	0	2925	3015	0	0	0	0	841	2178535
2	Baptist	2215	2215	0	2225	2225	2225	2225	0	0	1070	2373080
3	Oriental	2425	2425	0	2235	2235	2235	2235	0	0	316	737850
4	Mounta in	3590	0	0	3590	3590	0	0	0	0	135	425240
5	Mount	2650	0	0	2535	2535	0	0	0	0	616	1635800
6	Kohima	2020	0	0	1440	1440	0	0	0	0	2105	3512830
7	Modern	2600	2600	0	2666	2666	0	0	0	0	436	1217745
8	Japfu	1650	1650	0	1675	1675	0	0	0	0	441	731025

9	Josephs	2950	2950	0	2950	2950	2950	2950	0	0	1676	4931800
10	Kilen..	2300	0	5700	2300	2300	0	0	4635	4965	261	1066700
12	SD Jain	1750	1750	0	1685	1685	1685	1685	0	0	985	1279410
13	Prana..	2000	0	0	2000	2000	0	0	0	0	678	1356000
14	Eastern	2800	0	0	3100	3100	0	0	0	0	315	1190670
15	Tetso	2390	0	0	2440	2440	0	0	0	0	334	803730
16	Patkai	2180	0	3630	2400	2600	0	0	2845	3780	1374	3473120
17	Salesian	0	0	0	1506	1506	0	0	0	0	163	242720
18	Public	0	2235	0	0	0	1610	1660	0	0	749	1439280
19	Salt	1300	0	0	2600	2600	0	0	0	0	1133	2225070
20	Sakus	2300	0	0	2800	3200	0	0	0	0	553	1451040
22	Peren	1700	0	0	1570	1570	0	0	0	0	134	246340
23	Yingli	2500	0	0	2600	2600	0	0	0	0	129	323300
24	Tuli	2100	0	0	2100	0	0	0	0	0	41	86300
25	Peoples	1665	0	0	1660	1660	0	0	0	0	428	708860
26	Bailey	1770	0	0	1385	0	0	0	0	0	212	370170
28	Pfutsur o	3200	0	0	3300	3300	0	0	0	0	138	412500
											15263	34419115

Table 4.1 (vi) Revenue from admission fees of private colleges in Nagaland. (2002-2003)

Colleges	Arts students	Commerce students	Science students	Total students	Total revenue
25	12912	1940	411	15263	34419115

II.1. Admission Fees and Tuition Fees (Core Sources of Revenue): Table 4.1 (i) through 4.1 (iv) present the total revenue generated from admission and tuition fees (for details see appendix IV (i) to (vii)). Tuition fees for higher secondary Arts and Commerce are the same. In case of Higher Secondary Arts College # 8 charges the highest tuition fees with Rs 350 per month and Colleges # 12 and # 19 charge the lowest with Rs 150 per month. In case of higher secondary Commerce, College # 7 charges the highest with Rs 300 and the lowest is charged by college # 12 with Rs 150. In higher secondary Science, College #10 charges Rs 250 and it is Rs 240 for college # 16. In graduation (B.A, B.Com and B.Sc) tuition fees are the same for Arts and Commerce. For Arts, college # 8 charges the highest tuition fees for both B.A. general and major (honours). In Commerce it is College # 9 which charges the highest tuition fees for both general and major. In case of Science, college # 16 charges the highest for both general and major.

The total revenue generated from tuition fees during 2002-2003 is Rs 45782890. This comes to 47.17% to the Gross revenue generated by all the colleges.

Even in the case of admission fees it is the same for both Arts and Commerce for both higher secondary and graduation. Admission fees in higher secondary Arts and

Commerce ranges from Rs 1300 for college # 19 to Rs 3590 for college # 4. For graduation (general) it ranges from Rs 1385 for college # 26 to Rs 3590 for college # 4. In the case of major courses, admission fees range from Rs 1440 for college # 6 to Rs 3590 for college # 4. In higher secondary science, college # 10 charges Rs 5700 and college # 16 charges Rs 3630. For B.Sc college # 10 charges Rs 4635 and Rs 4965 for general and major respectively. College # 16 charges Rs 2845 for general and Rs 3780 for major.

Total Admission fees which is Rs 34419115, contributes 35.46% to the gross revenue of the colleges.

II.2. Hostel Facilities in Private Colleges: Twelve colleges provide hostel facilities to the students. The total number of boarders in these hostels is 2703 or 17.71% of the total number of students enrolled. On an average, the boarders pay Rs 200 monthly. Apart from the hostel monthly fee the students have to pay hostel admission fee, hostel maintenance fee, etc. The total revenue during 2002-2003 from twelve colleges amounted to Rs 9692720, which comes to approximately 10.06 percent to the total revenue.

Table 4.2 (i) Boarding in the private colleges of Nagaland. 2002-2003

code	College	Total No of Students	No. of Boarders	Admission Fee	Total admission fee	Monthly boarding charges	Annual boarding revenue	Total Hostel revenue	Boarder % to total Students
1	Alder	841	65	1500	97500	400	312000	409500	7.73
2	Baptist	1070	0	0	0	0	0	0	0
3	Oriental	316	81	1500	121500	300	291600	413100	25.63
4	Mountain	135	70	250	17500	250	210000	227500	51.85
5	Mount	616	0	0	0	0	0	0	0
6	Kohima	2105	0	0	0	0	0	0	0
7	Modern	436	60	500	30000	100	72000	102000	13.76
8	Japfu	441	254	500	127000	300	916000	1043000	57.59
9	Josephs	1676	300	500	150000	100	360000	510000	17.90
10	Kilen..	261	34	850	28900	250	102000	130900	13.03
12	SD Jain	985	0	0	0	0	0	0	0
13	Prana..	678	0	0	0	0	0	0	0
14	Eastern	315	50	2500	125000	180	108000	233000	15.87
15	Tetso	334	160	1150	184000	100	192000	376000	47.90
16	Patkai	1374	1174	650	763100	240	3381120	4144220	85.44
17	Salesian	163	0	0	0	0	0	0	0
18	Public	749	0	0	0	0	0	0	0
19	Salt	1133	350	2500	875000	150	630000	1505000	30.89
20	Sakus	553	105	1500	157500	350	441000	598500	18.99
22	Peren	134	0	0	0	0	0	0	0
23	Yingli	129	0	0	0	0	0	0	0
24	Tuli	41	0	0	0	0	0	0	0
25	Peoples	428	0	0	0	0	0	0	0
26	Bailey	212	0	0	0	0	0	0	0
28	Pfutsuro	138	0	0	0	0	0	0	0
		15263	2703					9692720	

II.3. Computer course in Private Colleges: Computer course are not offered by most of the colleges. Only 11 private colleges offer computer education. The courses differ from college to college. Courses like Diploma in computer applications, Basic, CCB & COA, C++ , Data representation and syllabus of NBSE and NCTE are offered for a duration ranging from three months to 1 year. All the colleges offering computer course have a qualified computer teacher.

Table 4.3 (i) Computer course in private colleges

code	Total no of students	Computer students	No. Of Computer	Monthly Fees	Admission fee	Revenue	Computer Teacher/ Staff	Total Salary	Net Computer revenue
1	841	0	0	0	0	0	0	0	0
2	1070	0	0	0	0	0	0	0	0
3	316	0	0	0	0	0	0	0	0
4	135	0	0	0	0	0	0	0	0
5	616	20	8	150	100	38000	1	36000	2000
6	2105	350	4	0	170	59500	1	52500	7000
7	436	0	0	0	0	0	0	0	0
8	441	30	6	0	1000	30000	1	19500	10500
9	1676	300	23	50	0	180000	1	108000	72000
10	261	0	0	0	0	0	0	0	0
12	985	111	10	180	150	256410	1	48000	208410
13	678	0	0	0	0	0	0	0	0
14	315	170	15	0	500	85000	2	78000	7000
15	334	150	6	0	1100	165000	2	150000	15000
16	1374	45	30	400	100	22500	1	10000	12500
17	163	65	0	0	0	0	1	0	0
18	749	350	10	50	100	245000	1	36000	209000
19	1133	876	13	40	200	595680	3	144000	451680
20	553	0	0	0	0	0	0	0	0
22	134	0	0	0	0	0	0	0	0
23	129	0	0	0	0	0	0	0	0
24	41	0	0	0	0	0	0	0	0
25	428	0	0	0	0	0	0	0	0
26	212	0	0	0	0	0	0	0	0
28	138	0	0	0	0	0	0	0	0
	15263	2467	125			1677090	15	500500	995090

During the session 2002-2003, some 2467 (16.16%) students were enrolled for computer course. The total number of computers in these colleges is 125 that come to 19.74 students per computer. Out of the eleven colleges offering computer course, two colleges, #6 and #15, are provided computers by an institute (CDAC). The proceeds are then shared between them. The mode of paying admission and tuition fees differs in most of the colleges. Some colleges collect the entire fee during the time of admission, for

others monthly fees are collected. Again for some colleges no admission fees are charged, only monthly or fees for the entire period are charged.

There is a wide difference in the salary paid to the computer instructor/ teacher ranging from Rs 3000 to Rs 9700. The total amount of salary (for 10 colleges) during 2002-2003 comes to Rs 500500, making a profit of Rs 995090.

II.4. Revenue from Donations, Grants and Others: Apart from the sources mentioned above, some colleges receive income from donations, grants, etc. The details are given in the tables below.

Table 4.4 (i) donations, grants and others

code	College	Donat- ions (in Rs)	Grants (in Rs)	Others	Total
1	Alder	0	75000	0	484500
2	Baptist	0	75000	0	75000
3	Oriental	0	75000	75000	563100
4	Mountain	0	75000	0	302500
5	Mount	300000	75000	0	413000
6	Kohima	0	75000	0	134500
7	Modern	23000	75000	0	200000
8	Japfu	820000	75000	153475	2121475
9	Josephs	50000	100000	98000	938000
10	Kilen..	303685	75000	0	509585
12	SD Jain	0	75000	0	331410
13	Prana..	0	75000	0	75000
14	Eastern	0	75000	0	393000
15	Tetso	10000	75000	1000000	1626000
16	Patkai	33232	75000	0	4274952
17	Salesian	0	75000	0	75000
18	Public	0	100000	0	345000
19	Salt	0	75000	0	2175680
20	Sakus	0	75000	0	673500
22	Peren	0	500000	0	500000
23	Yingli	0	75000	0	75000
24	Tuli	50000	75000	25000	150000
25	Peoples	0	75000	0	75000
26	Bailey	0	75000	0	75000
28	Pfutsuro	200000	75000	0	275000
		1789917	2350000	1351475	16861202

II.5. The Gross Annual Revenue: A sum total of revenue from all sources for each college is given in the table 4.4(ii).

Table 4.4 (ii) Gross annual revenue. 2002-2003

code	college	Hostel (in Rs)	Comp- uter (in Rs)	Donat- ions (in Rs)	Grants (in Rs)	Admission (in Rs)	Tuition (in Rs)	Others	Total annual revenue
1	Alder	409500	0	0	75000	2178535	2793600	0	5456635
2	Baptist	0	0	0	75000	2373080	3114000	0	5562080
3	Oriental	413100	0	0	75000	737850	875950	75000	2176900

4	Mountain	227500	0	0	75000	425240	434400	0	1162140
5	Mount	0	38000	300000	75000	1635800	1891350	0	3940150
6	Kohima	0	59500	0	75000	3512830	6315000	0	9962330
7	Modern	102000	0	23000	75000	1217745	1497780	0	2915525
8	Japfu	1043000	30000	820000	75000	731025	1765000	153475	4617500
9	Josephs	510000	180000	50000	100000	4931800	6167640	98000	12037440
10	Kilen..	130900	0	303685	75000	1066700	693560	0	2269845
12	SD Jain	0	256410	0	75000	1279410	2833860	0	4444680
13	Prana..	0	0	0	75000	1356000	1593100	0	3024100
14	Eastern	233000	85000	0	75000	1190670	957100	0	2540770
15	Tetso	376000	165000	10000	75000	803730	801600	1000000	3231330
16	Patkai	4144220	22500	33232	75000	3473120	4149230	0	11897302
17	Salesian	0	0	0	75000	242720	391200	0	708920
18	Public	0	245000	0	100000	1439280	2277000	0	4061280
19	Salt	1505000	595680	0	75000	2225070	2481600	0	6882350
20	Sakus	598500	0	0	75000	1451040	1459920	0	3584460
22	Peren	0	0	0	500000	246340	333120	0	1079460
23	Yingli	0	0	0	75000	323300	314400	0	712700
24	Tuli	0	0	50000	75000	86300	99120	25000	335420
25	Peoples	0	0	0	75000	708860	1528400	0	2312260
26	Bailey	0	0	0	75000	370170	518160	0	963330
28	Pfutsuro	0	0	200000	75000	412500	496800	0	1184300
		9692720	1677090	1789917	2350000	34419115	45782890	1351475	97063207

Table 4.4 (iii) Total Revenue of private Colleges in Nagaland. (2002-2003)

Sources of revenue No of colleges =25	Total	Percentage
Admission fee	34419115	35.46
Tuition fee	45782890	47.17
Computer	1677090	1.73
Hostel	9692720	9.99
Donations	1789917	1.84
Grants	2350000	2.42
Others	1351475	1.39
Total	97063207	100.00

Tuition fees generate Rs 4.5 crore (47.17%) of the total revenue followed by admission fees Rs 3.4 crore (35.46%), making up 82.51% of the total revenue of private colleges. Computer and hostel fees contribute 1.03 crore (11.72%) to the total revenue. However, not all the colleges provide computer and hostels. Only 11 colleges offers computer course contributing 16.7lakhs (1.73%) and 12 colleges provides hostel accommodations contributing 96.9 lakhs (9.99%) to the total revenue. Donations and grants contribute 41.3 lakhs (3.81%). Donations come from individuals, churches and associations within the state, outside the state and also from abroad. It contributes 17.8 lakhs (1.84%) to the total revenue. Grants-in-aid from the state Government contribute

23.5 lakhs (2.42%) to the total revenue of the private colleges. Other miscellaneous sources contributes Rs 1351475 (1.39%).

III. Items of Expenditures: The main items of expenditures for the private colleges are salary to lecturers and non-teaching staff. Other items of expenditures are infrastructure, rent, academic awards, social functions, electricity, water, administrative cost, academic cost, study tours, library and laboratory. The details of the expenditures are analysed below.

III.1. Expenditure on Salaries of Teachers and Non-Teaching Staff: Private colleges in Nagaland employ 451 regular lecturers and 213 regular non-teaching staff. The lecturers are divided into three categories according to experience, viz. below five years, above five years and below 10 years and above 10 years. As for the non-teaching staff they are divided into grade I, II, III and IV.

Table 4.5 (i) Salary of teaching staff

Colleges	No Of lecturers below 5 years of service	No Of lecturers below 10 years of service	No of lecturers above 10 years of service	No of Contract lecturers	Total No Of lecturers	Total salary
25	225	168	58	10	461	44670084

Table 4.5 (ii) Salary of Non-Teaching staff

Colleges	No of grade I staff	No of grade II staff	No of grade III staff	No of grade IV staff	No of contract staff	Total No of staff	Total salary
25	27	40	61	88	10	226	10414942

Table 4.5 (iii) Expenditure on salary of Lecturers and Non-Teaching staff.

code	RL	Annual Salary (in Rs)	NT	Annual Salary (in Rs)	CL	Annual salary	CNT staff	Salary	CT	Annual salary	Total Salary (in Rs)
1	19	2044560	10	598200	0	0	0	0	0	0	2642760
2	22	2746524	6	344478	1	3000	0	0	0	0	3094002
3	17	1734000	3	200400	0	0	0	0	0	0	1934400
4	11	685200	4	102000	0	0	0	0	0	0	787200
5	15	1618800	5	246000	0	0	2	36500	1	36000	1937300
6	34	4527600	15	791760	0	0	3	54000	1	9000	5382360
7	19	1428000	7	264000	0	0	0	0	0	0	1692000
8	21	2010000	5	366500	0	0	0	0	1	19500	2396000
9	32	3588000	15	731904	0	0	0	0	1	108000	4427904
10	20	1123200	7	223200	0	0	2	36000	0	0	1382400
12	21	2328000	10	288000	0	0	0	0	2	48000	2664000
13	16	1129920	8	348000	0	0	0	0	0	0	1477920
14	10	748800	7	222000	1	12000	0	0	2	78000	1066800

15	13	1113600	8	220800	2	31200	3	36000	1	12000	1413600
16	50	6019200	48	2622000	3	30000	0	0	1	10000	8681200
17	9	804000	3	96000	1	3000	0	0	1	0	903000
18	11	1110000	9	576000	0	0	0	0	1	36000	1722000
19	20	2040000	10	312000	1	4000	0	0	3	144000	2500000
20	22	1896000	11	642000	0	0	0	0	0	0	2538000
22	12	900000	3	138000	0	0	0	0	0	0	1038000
23	9	687600	5	300000	1	5000	0	0	0	0	992600
24	7	396000	2	62400	0	0	0	0	0	0	458400
25	16	1420800	5	144000	0	0	0	0	0	0	1564800
26	11	1144080	7	268800	0	0	0	0	0	0	1412880
28	14	1338000	3	144000	0	0	0	0	0	0	1482000
	451	44581884	216	10252442	10	88200	10	162500	15	500500	55585526
RL- regular lecturers, NT-Non-Teaching; CL-Contract lecturers; CNT-Contract Non-Teaching; CT-Computer Teacher											

Table 4.5 (iv) Monthly (average) salary of lecturers in private colleges in Nagaland, 2002-2003

No of colleges =25	Below 5 years (a)	Above 5 years and below 10 years (b)	Above 10 years (c)	Contract/adhoc/visiting lecturers (d)	Total (a+b+c)
No of lecturers (percent to total)	225 (49.89)	168 (37.25)	58 (12.86)	10	451 (100)
Total monthly salary	1643360	1431774	640023		3715157
Average monthly salary	7303.82	8522.46	11034.88		8237.59
Total salary	19720320	17181288	7680276	88200	44581884

The above table 4.2 (iv) represents the monthly (average) salary of lecturers and contract/visiting lecturers of the private colleges in Nagaland. During the session 2002-2003, there were 10 contract and visiting lecturers in 7 colleges. The duration for the visiting and contract lecturers was from 1 to 3 months. During this session the total salary bill of contract and visiting lecturers was Rs 88200. The total salary bill of all the lecturers (contract and regular) comes to Rs 4,46,70,084 during 2002-2003.

Table 4.5 (v) Monthly (average) salary of Non-Teaching in private colleges in Nagaland, 2002-2003

No of colleges =25	Grade I (a)	Grade II (b)	Grade III (c)	Grade IV (d)	Work charge/ Daily wage (e)	Total (a+b+c+d)
No of staff (percent to total)	27 (12.5)	40 (18.52)	61 (28.24)	88 (40.74)	10	216 (100)
Total monthly salary	191591.67	189802.5	242544	230432	-	854370.17
Average monthly salary	7095.99	4745.06	3976.13	2618.55	-	3955.42
Total salary	2299100	2277630	2910528	2765184	162500	10252442

The above table 4.2 (v) shows the Monthly (average) salary of non-teaching staff of 25 private colleges in Nagaland. Out of the 226 non-teaching staff, 216 are permanent staff. The rest 10 are daily wage earners and work charge. During the session 2002-2003, the total salary bill of work charge and daily wage staff was of Rs 1,62,500. In the table it can be seen that average monthly salary and total monthly salary is not calculated for them since there are some who have worked for less than a month. As such we have estimated only the total wage bill that was incurred on them during 2002-2003. The total salary bill of the non-teaching staff including the daily wage earner and work charge comes to Rs 1,04,14,942 during 2002-2003.

III.2. Expenditure on Library Facilities: Most of the colleges in Nagaland have small libraries. However, depending on the resources they add to the number of books every year. The following table gives an idea of the same.

Table 4.6 (i) Library expenditures

code	College	No of Books	Expenditure	code	College	No of Books	Expenditure
1	Alder	2500	50000	15	Tetso	500	500000
2	Baptist	3500	100000	16	Patkai	16071	544470
3	Oriental	1250	3800	17	Salesian	30000	0
4	Mountain	2000	30000	18	Public	2500	20000
5	Mount	500	25000	19	Salt	8000	0
6	Kohima	10000	150000	20	Saku	1350	0
7	Modern	2300	25000	22	Peren	436	20000
8	Japfu	15000	62000	23	Yingli	300	25000
9	Josephs	9000	180000	24	Tuli	550	10000
10	Kilenkaba	532	15000	25	Peoples	5604	9961
12	S.D Jain	1500	20000	26	Bailey	950	20950
13	Pranaba..	1128	0	28	Pfutsero	2000	5000
14	Eastern	3200	100000		Total	120671	1916181

III.3. Expenses on Students and Other Items: Colleges spend some amount on students activities such as study tour, annual conventions of students, etc. Some of them also give scholarships to meritorious students. Expenditure on such items is presented in the table below.

Table 4.7 (i) Expenditure on student's activities, awards and study tour.

code	Students activities	Awards	Study tour	Total	code	Students activities	Awards	Study tour	Total
1	85000	10000	0	95000	15	100000	10000	20000	130000
2	0	0	0	0	16	176131	3000	0	179131
3	20000	15000	0	35000	17	0	0	0	0
4	15000	0	15000	30000	18	40000	10000	10000	60000

5	100000	20000	0	120000	19	0	0	0	0
6	30000	20000	30000	80000	20	0	0	0	0
7	50000	10000	0	60000	22	18000	0	0	18000
8	20000	0	0	20000	23	50000	10000	20000	80000
9	260000	10000	25000	295000	24	10000	0	0	10000
10	14485	5000	10000	29485	25	35000	0	0	35000
12	25000	25000	0	50000	26	10000	2000	0	12000
13	0	0	0	0	28	5000	10000	0	15000
14	30000	50000	0	80000		1093616	210000	130000	1433616

Expenditure on students and other related activities comes to Rs 1433616 which is 1.88% of the gross expenditures made by the colleges. Out of the total expenditure of these activities a major chunk of it is spent on students' activities like annual sports, cultural and literary programmes, freshers' and parting social functions. The total expenditures on these activities is Rs 1093616 which is 76.28% of the expenditure incurred on students and other related activities.

During the session 2002-2003 seven colleges incurred expenses on students' study tour which amounted to Rs 130000. Not all colleges are able to take their students to study tour because of financial crunch and the state hardly comes to the rescue.

The rest Rs 210000 are spent on awards that are given to students for academic and other extra-curricular activities that are undertaken by the colleges.

III.4. Imputation of Administrative and Academic Expenses: Not all colleges had furnished the expenditure incurred on Administrative and Academic heads; only 11 colleges had furnished the expenses. To calculate the total expenditure incurred on administration, we have calculated the total administrative expenses of colleges furnishing expenses and then divide it with the total number of staff in the colleges. On an average the Administrative expenses come up to Rs 3799.08 per staff. To find out the total expenses of all the colleges incurred on Administration we multiply Rs 3799.08 to the number of staff in each college. In the same way, to find out the expenditure incurred on 'Academic', we take the average by dividing the total expenditure by the number of students for the colleges that have furnished the expenses. The average expenditure on academic comes to Rs 204.73 per student. To find out the total expenditure for all the colleges we multiply the number of students in each college with Rs 204.73.

Table 4.8 (i) Imputed value of A & A cost

code	college	A&A cost	Imputed A &A cost	code	college	A&A cost	Imputed A &A cost
1	Alder	0	282349	15	Tetso	300000	300000
2	Baptist	0	329232	16	Patkai	2383633	2383633
3	Oriental	52000	52000	17	Salesian	0	82758
4	Mountain	60000	60000	18	Public	180000	180000
5	Mount	125000	125000	19	Salt	0	349728
6	Kohima	0	530952	20	Saku	0	238583
7	Modern	0	119261	22	Peren	30000	30000
8	Japfu	0	189061	23	Yingli	75000	75000
9	Josephs	0	408124	24	Tuli	35000	35000
10	Kilenkaba	267601	267601	25	Peoples	0	167403
12	S.D Jain	0	251657	26	Bailey	27400	27400
13	Pranaba..	0	229982	28	Pfutsero	0	74584
14	Eastern	400000	400000				7189308

III.5. Imputation of House Rent: Some colleges are housed in the buildings that they own, while some others are housed in rented buildings for which they have to pay. The economic value of investment or expenditure on housing is approximated by the rent paid by the colleges. However, those colleges that are housed in the buildings owned by themselves do not pay any rent explicitly. For accounting and comparison purposes we have to impute the rental value of the buildings of such colleges. We see that the colleges that pay rent come to Rs 309030, which is 1.49 percent of the total expenditure of all the colleges. To work out the imputed value of rent we have $IR = 0.015 * EXP$, where IR is the imputed rent and EXP is the total expenditure of all the colleges that do not pay rent. This is based on the assumption that every college pays 1.49% of its expenses on house rent. The coefficient (0.015) is obtained by solving the equation $IR = \{0.0149 / (1 - 0.0149) * EXP\}$. However this method may not be reliable because of several reasons, such as difference in cost structure, utilization of classrooms, location of colleges etc.

Considering all these difficulties, we devise another empirical formula in which imputed rent is a function of the number of rooms in the college. We assume that, on an average, rent would be proportional to the number of rooms in the college. Again, different colleges are housed in different types of buildings. Incorporating all this factors the formula is expressed as $IR = 3000 * (NR/BT)$, where NR stands for number of rooms in the college, BT stands for building type (1 for RCC, and 2 for Semi RCC).

By computing IR using this formula the share of the house rent in the total expenditure is 1.45 percent. From the above table we see that those colleges that actually pay rent, the percentage expenditure on rent is 1.49 percent. The difference being small to be significant for any practical purpose we use the formula: $IR = 3000 * (NR/BT)$.

The imputed value of rent for all the colleges is shown in table 4.9 (i).

Table 4.9 (i) Imputed value of rent

code	College	Rooms	Type	IR	code		Rooms	Type	IR
1	Alder	23	1	69000	15	Tetso	10	1	30000
2	Baptist	21	2	31500	16	Patkai	38	1	114000
3	Oriental	14	2	21000	17	Salesian	8	1	24000
4	Mountain	12	1	36000	18	Public	12	1	36000
5	Mount	9	1	27000	19	Salt	19	1	57000
6	Kohima	25	1	75000	20	Saku	15	1	45000
7	Modern	21	1	63000	22	Peren	10	2	15000
8	Japfu	18	2	27000	23	Yingli	14	1	42000
9	St.Josephs	26	1	78000	24	Tuli	9	1	27000
10	Kilenkaba	21	1	63000	25	Peoples	9	2	13500
12	S.D Jain	23	1	69000	26	Bailey	9	1	27000
13	Pranaba..	19	1	57000	28	Pfutsero	14	2	21000
14	Eastern	14	1	42000	total		412		1110000

III.6. Overhead Expenditure: Overhead costs or expenditure are the costs that are not directly associated with the product, that is, all costs other than direct material cost and direct labour cost. The colleges in producing its product have their own overhead cost. Production overheads include the cost on infrastructure, Academic and Administrative expenses, Water and Electricity, Laboratory etc.

The total overheads expenses come to Rs 1,81,69,356 which is 23.81% of the total expenditure. Eighteen colleges have incurred expenses on infrastructure. The total expenses on infrastructure is Rs 77,53,649, which is 42.67% of the total overhead costs. Academic and Administrative costs come next, with Rs 71,89,308, which is 39.57% of the total overhead costs. Other items of overhead cost are library, water and electricity, rent, laboratory and other miscellaneous. The total expenses of these come up to Rs 24,41,188, which is 13.44% of the total overhead expenditure.

Table 4.10 (i) Expenditure on overheads. (2002-2003)

code	College	Infrast-Ructure. (in Rs)	Academic & Admin-istration	Library (in Rs)	Water & Electri-city	Rent (in Rs)	Lab (in Rs)	others	Total (in Rs)
1	Alder	70000	282349	50000	13000	69000	0	0	415349
2	Baptist	416000	329232	100000	15000	31500	0	0	610232
3	Oriental	400000	52000	3800	28000	21000	0	0	521800
4	Mountain	100000	60000	30000	6000	36000	0	0	196000
5	Mount	25000	125000	25000	20447	27000	0	0	195447
6	Kohima	125000	530952	150000	10000	75000	0	0	815952
7	Modern	200000	119261	25000	20000	63000	0	0	484261
8	Japfu	1471000	189061	62000	104000	27000	0	55000	1929061
9	St.Josephs	2000000	408124	180000	125000	78000	0	0	2713124
10	Kilenkaba	194153	267601	15000	29346	63000	100500	0	606600
12	S.D Jain	100000	251657	20000	52255	69000	0	0	423912
13	Pranaba..	0	229982	0	43167	57000	0	0	273149
14	Eastern	1000000	400000	100000	30000	42000	10000	0	1540000
15	Tetso	1500000	300000	500000	40000	30000	0	0	2350000
16	Patkai	0	2383633	544470	240615	114000	229634	0	3398352
17	Salesian	0	82758	0	18175	24000	0	0	100933
18	Public	50000	180000	20000	20000	36000	0	0	283030
19	Salt	0	349728	0	43167	57000	0	0	392895
20	Saku	0	238583	0	34079	45000	0	0	272662
22	Peren	0	30000	20000	22719	15000	0	0	72719
23	Yingli	30000	75000	25000	5000	42000	0	0	135000
24	Tuli	20000	35000	10000	5000	27000	0	0	70000
25	Peoples	0	167403	9961	2784	13500	0	0	180148
26	Bailey	2496	27400	20950	5300	27000	0	0	56146
28	Pfutsero	50000	74584	5000	3000	21000	0	0	132584
		7753649	7189308	1916181	936054	1110000	340134	55000	18169356

III.7. Gross Expenditures: The overall gross expenditure of the colleges under study is given as follows:

Table 4.11 (i) Expenditures of private colleges in Nagaland.

Items of expenditures	Total	Percentage
Salary	55585526	72.83%
Infrastructure	7753649	10.16%
Academic & Administration	7189308	9.42%
Library	1916181	2.51%
Water & Electricity	936054	1.23%
Rent	1110000	1.45%
Students Welfare	1433616	1.88%
Laboratory	340134	0.45%
Miscellaneous	55000	0.07%
Total	76319468	100%

Private colleges employed 451 regular and 10 contract lecturers of which 29 are PhD and 16 M.Phil., 15 computer teacher and 213 non-teaching staff and 10 daily wage and work charge. The annual salary bill of the staff amounts to Rs 55585526 that comes to (72.83%) of the total expenditure. Out of this Rs 45170584 (81.26%) is the salary of

lecturers, Rs 1,04,14,942 (18.74%) is for the Non-Teaching staff. Expenditure on infrastructure comes next with Rs 77,53,649 (10.16%). Academic and Administration cost amounted to Rs 7189308 (9.42%). The total expenditure incurred on library is Rs 27,05,781 (2.51%). Another head of expenditure is the rent, electricity and water, which amounted to Rs 9,99,131 (2.68%). Apart from these major head of expenditure the colleges incur expenditure on awards, social and cultural activities, games and sports, study tours, laboratory etc. The total amount under these heads amounted to Rs 18,28,750 (2.4%) to the total expenditure.

IV. Estimation of Profit and Loss: The Private colleges in Nagaland (25 respondent colleges out of 28) earned revenue of Rs 9,70,63,207 and spent Rs 7,63,19,467 during the session 2002-2003. Thus the Net revenue comes to Rs 2,07,43,740. Ten colleges incurred losses amounting to Rs.37, 98,113. The total net profit for the fifteen colleges comes to Rs.2, 45,41,853.

Table 4.12 (i) Revenue and Expenditure

co de	College	Gross Revenue	Gross expendit ure	Net Revenue	co de	College	Gross Revenue	Gross Expendit ure	Net Revenue
1	Alder	5456635	3222109	2234526	15	Tetso	3231330	3913600	-682270
2	Baptist	5562080	3985734	1576346	16	Patkai	11897302	12372683	-475381
3	Oriental	2176900	2474200	-297300	17	Salesian	708920	1027933	-319013
4	Mountain	1162140	1049200	112940	18	Public	4061280	2088000	1973280
5	Mount	3940150	2279747	1660403	19	Salt	6882350	2949895	3932455
6	Kohima	9962330	6353312	3609018	20	Saku	3584460	2855661	728799
7	Modern	2915525	2179261	736264	22	Peren	1079460	1143719	-64259
8	Japfu	4617500	4324061	293439	23	Yingli	712700	1249600	-536900
9	St.Josephs	12037440	7514028	4523412	24	Tuli	335420	565400	-229980
10	Kilenkaba	2269845	2081485	188360	25	Peoples	2312260	1793448	518812
12	S.D Jain	4444680	3206912	1237768	26	Bailey	963330	1508026	-544696
13	Pranaba..	3024100	1808069	1216031	28	Pfutsaro	1184300	1650584	-466284
14	Eastern	2540770	2722800	-182030			97063207	76319467	20743740

Table 4.12. (ii) Gross indicators regarding private colleges in Nagaland. 2002-2003

Items	Measure	Items	Measure
No. of Private colleges	25	A&A cost	7189308
No. of Students	15263	Students activities	1223616
No. of P.G Lecturers	407	Gross expenses	76319467
No. of M.Phil Lecturers	15	Revenue from Tuition Fees	45146290
No. of PhD Lecturers	29	Revenue from Admission Fees	34419115
No. of contract lecturers	10	Revenue from Computer Fees	1677090
No. of Computer Teachers	15	Revenue from Hostel fees	9692720
No. of Non-Teaching staff	216	Government Grants	2350000
No. of contract N-T Staff	10	Donations	1789917
No. of Office rooms	75	Gross Annual revenue	92923290
No. of class rooms	270	Gross Annual income	97063207
No. of Lecturers room	25	Profits	20743740

Salary to Lecturers (regular)	44581884	Gross Profit Rate on Expenses	27.18%
Salary to Lecturers (contract)	88200	Share of Lecturers in Income	46.54%
Salary to N-T Staff (regular)	10252442	Share of Staff in Income	10.73%
Salary to N-T staff (contract)	162500	Share of A&A expenses in Income	7.41%
Salary to Computer teacher	500500	Share of Students' expenses	0.53%
Scholarships and awards	210000	Share of Miscellaneous Expenses	0.07%
Expenses on Infrastructure	7753649	Share of Infrastructure expenses	10.16%
Miscellaneous Expenses	55000	Share of Rent in Income	0.11%
Expenses on Rent	1110000	Share of library in income	2.79%
Library	2705781	Share of Capital in Income	
Laboratory	340134	Share of Labour in income	
Water and electricity	702045	Share of Entrepreneur (Profits)	

V. Comparison of Private and Government Colleges: The table below gives a comparative picture of private colleges vis-à-vis Government colleges. The private colleges outperform the Govt. colleges in examination results (except in science stream where private colleges have not come up many in number). Better performance is the key factor that popularizes the private colleges, although their services are costlier.

Table 4. 13 (i). A Comparative view of Government and private colleges in Nagaland.

Characteristics	Govt. colleges	Private colleges
Number of colleges in 2003	8	28 (25)
Number of students in 1999	3879	14004
Number of students in 2000	4136	13683
Number of students in 2001	3340	14251
Number of students in 2002	3178	15263
Number of students in 2003	3543	16776
Number of students appeared in XII Arts (1998-2002)	3491	11214
Number of students appeared in XII Commerce (1998-2002)	452	2057
Number of students appeared in XII Science (1998-2002)	1190	649
Number of students appeared in B.A General (1998-2002)	1013	5451
Number of students appeared in B.A Honours (1998-2002)	466	2970
Number of students appeared in B.Com General (1998-2002)	113	364
Number of students appeared in B.Com. Honours (1998-2002)	34	420
Number of students appeared in B.Sc General (1998-2002)	317	30
Number of students appeared in B.Sc. Honours (1998-2002)	314	36
Pass percentage of XII Arts (1998-2002)	46.92	59.35
Pass percentage of XII Commerce (1998-2002)	28.54	64.55
Pass percentage of XII Science (1998-2002)	71.85	46.31
Pass percentage of B.A General (1998-2002)	51.79	73.99
Pass percentage of B.A Hons (1998-2002)	74.82	76.23
Pass percentage of B.Com General (1998-2002)	45.13	67.58
Pass percentage of B.Com Honours (1998-2002)	52.94	75.71
Pass percentage of B.Sc General (1998-2002)	80.44	93.33
Pass percentage of B.Sc Honours (1998-2002)	89.49	80.56
Overall pass percentage in Arts (1998-2002)	52.52	61.91
Overall pass percentage in Commerce (1998-2002)	33.06	64.91
Overall pass percentage in Science (1998-2002)	65.87	48.75
Overall I division percentage in Arts (1998-2002)	0.71	2.80
Overall II division percentage in Arts (1998-2002)	17.47	26.51
Overall I division percentage in Commerce (1998-2002)	1.01	4.92
Overall II division percentage in Commerce (1998-2002)	10.10	36.96
Overall I division percentage in Science (1998-2002)	11.28	7.84

Overall II division percentage in Science (1998-2002)	59.49	62.84
Average No. Of Lecturers	34	18.04
Average No. Of Non-Teaching staff	30.08	8.64
Average No of classrooms	19	10.76
Average annual admission fee XI&XII (Arts & Commerce)	800	2260
Average annual admission fee XI & XII Science	1330	4665
Average annual admission fee B.A&B.Com	1090	2285
Average annual admission fee B.Sc	1325	4055
Average monthly tuition fee XI & XII (Arts & Commerce)	10	230
Average monthly tuition fee XI & XII Science	10	245
Average monthly tuition fee B.A&B.Com General	10	250
Average monthly tuition fee B.A&B.Com Major	10	270
Average monthly tuition fee B.Sc General	12	260
Average monthly tuition fee B.Sc Major	12	300
Average annual Hostel admission fee	190	800
Average monthly Hostel room fee	25	225
Average monthly salary of lecturers below 5 years	13500	7305
Average monthly salary of lecturers above 5 years and below 10 years	18000	8525
Average monthly salary of lecturers above 10 years	23000	11035
Note : () -Respondant colleges. Good data base is available only for 24 colleges.		

VI. Production Function in the College Education Industry: Production Function represents the technological relationship between output and factor inputs. Although it is theoretically correct to define production function as the relationship between inputs and the maximum value of output (frontier output with most efficient management fully exploiting the technological possibilities), more than often such technological and managerial efficiency is taken for granted and production function is the relationship between observed values of output and inputs.

Empirical work on production function requires to choose a particular form of functional relationship to be estimated. Various forms have been proposed and used by the practicing econometricians, of which: (a) Cobb-Douglas, and (b) CES are prominent. Among these, the Cobb-Douglas type of production function is most frequently used mainly for reasons of ease in estimation. The CES production function is a generalization of the Cobb-Douglas, Leontief and linear specifications of production function.

VI.1. The Cobb-Douglas Specification: The Cobb-Douglas Production function has the form:

$$Y = A L^{\alpha} K^{\beta}$$

where A , α and β are fixed positive parameters, and the homogeneity of the function is measured by $\alpha + \beta$, relating to the returns to scale of production because if we change the level of inputs we get

$$\lambda^{\alpha+\beta} Y = A (L\lambda)^\alpha (K\lambda)^\beta = A \lambda^{\alpha+\beta} L^\alpha K^\beta$$

and, thus, if each factor (input) is multiplied by a (non-zero) constant, λ , the output is multiplied by $\lambda^{\alpha+\beta}$.

Econometrically, it is important to specify the relationship of error in Y , the manner in which errors enter into the equation. There are two typical forms:

$$Y = A L^\alpha K^\beta + e \quad : \text{Additive disturbances:}$$

$$Y = A L^\alpha K^\beta e \quad : \text{Multiplicative disturbances:}$$

To estimate A , α and β and their standard errors of estimate (in order to test hypotheses regarding the values of A , α and β and also $\alpha+\beta$) of (3) and (4) above, we cannot use the same procedure. To estimate (3) we must use some method of nonlinear regression. Experience suggests that, in the neighbourhood of the optimal solution, these methods falter more than often and for the same data they yield only tolerably similar estimates. To obtain standard errors of estimate of the parameters is another vexing problem that plagues nonlinear regression. It is often obtained through bootstrapping method. This problem has serious implications to testing hypotheses.

VI.2. The CES Production Function: The Constant Elasticity of Substitution (CES) Production Function (due to K J Arrow, H B Chenery, B S Minhas and R M Solow) is a generalization of the Cobb-Douglas (as well as the Leontief's and the linear) production function and it is specified as,

$$Y = A \{ \delta L^{-\beta} + (1-\delta) K^{-\beta} \}^{-\eta/\beta} e \quad ; \quad (\text{multiplicative residual term})$$

which may also be expressed (Zerembka) as $Y^{-\beta/\eta} = (\alpha_1 L^{-\beta} + \alpha_2 K^{-\beta}) e$

$$Y = A \{ \delta L^{-\beta} + (1-\delta) K^{-\beta} \}^{-\eta/\beta} + e \quad ; \quad (\text{additive residual term})$$

where, A is the *scale parameter*, $A > 0$; δ is the *distribution parameter*, $0 < \delta < 1$; β is the *substitution parameter*, $\beta \geq -1$; η is the *homogeneity parameter* measuring the degree of homogeneity of the production function, generally, but not necessarily, assumed to be

equal to unity. The *elasticity of substitution*, σ , is defined as $\sigma = 1/(1+\beta)$. Since $\beta \geq -1$, σ tends to be very large (infinity) when β tends to be closer to its lower limit (i.e. -1), a linear, *perfect substitution* production function is obtained. When β tends to be very large, σ tends to be close to zero (its lower limit) and yields Leontief type (L shaped) production function, where there is *no substitution between inputs*. When β is equal to zero, σ is unity, yielding Cobb-Douglas production function. In this sense, CES is a true generalization of Cobb-Douglas and Leontief production functions.

The Leontief production function specified as $Y = \min(L/a, K/b)^e$ may directly be estimated by search methods. A number of very powerful search methods are available for this purpose (Mishra, 2006). The most theoretically elegant form of Leontief function, $Y = \max\{\min(L/a, K/b)\}$, needs programming techniques for estimation. Direct estimation of CES production function needs nonlinear regression techniques.

VI.3. Production Function in the Present Study: The colleges render services to the students. In every college we have several types of students: in higher secondary classes, Arts, Science and Commerce; in BA/BSc/Bcom general (pass) course and in BA/BSc/BCom major (honours) course. Then there are various subjects in each stream. Thus, in a sense, colleges produce multiple output. The enrollment figures as a measure of output may lead to inappropriate aggregation problems. Therefore, we have decided to measure output in value terms, represented by the total revenue of the college in a year.

In measuring inputs, we have to face several problems. There are teachers and the non-teaching staff. There are permanent and temporary teachers. There are newly appointed and experienced teachers receiving different salaries and so on. Thus, the common unit of labour is difficult to obtain. It has been decided, therefore, that the total salaries would represent the labour inputs.

Measurement of capital is still more problematic. Possibly, capital may be measured by the annual depreciation value of infrastructure in the colleges and the rental value of land. An imperfect measure of capital may be the amount spent on maintenance and management of infrastructure in the college and the rental value. However, some colleges are running on rented premises while others have their own land and buildings. Hence, the imputed value of rent has to be obtained. Then, there are expenses on library, electricity, water and so on. Over and above its infrastructure, a library is a collection of

books of different vintages – some books are quite old and others are quite new. It is difficult to decide on the rate of depreciation of books. In view of all these problems, we have decided to use the total overhead expenditure of the college as a proxy to capital.

First, we have estimated the Cobb-Douglas Production Function. Two methods of estimation, namely, the Least Squares and the Least absolute deviation have been used. (Mishra and Dasgupta, 2003). The application of the least absolute deviation method is used because of the presence of several outliers in the data. The estimated parameters, their standard errors of estimate, computed t values and probabilities of significance are given in the tables below. These results suggest that the Cobb-Douglas specification is not appropriate. The elasticity of labour is larger than unity.

Table 4.14(i) (i) Revenue, overhead expenses and salaries

Colleges	Total Revenue	Overhead Exenses	Salaries	Colleges	Total Revenue	Overhead Exenses	Salaries
Alder	5381635	484349	2642760	Peoples	2237260	193648	1564800
Bailey	888330	83146	1412880	Peren	579460	87719	1038000
Baptist	5487080	891732	3094002	Pfutsero	909300	153584	1482000
Eastern	2465770	1582000	1066800	Pranaba..	2949100	330149	1477920
Japfu	3722500	1908061	2396000	Public	3961280	306000	1722000
St.Josephs	11887440	2791124	4427904	S.D Jain	4369680	492912	2664000
Kilenkaba	1891160	669600	1382400	Saku	3509460	317662	2538000
Kohima	9887330	890952	5382360	Salesian	633920	124933	903000
Modern	2817525	427261	1692000	Salt	6807350	449895	2500000
Mount	3565150	222447	1937300	Tetso	3146330	2370000	1413600
Mountain	1087140	232000	787200	Tuli	210420	97000	458400
Oriental	2101900	504800	1934400	Yingli	637700	177000	992600
Patkai	11789070	3512352	8681200				

Table 4.14 (ii) Coefficients of Cobb-Douglas Production function

Variable	Coefficient	Std Err	“t” value	Prob
Intercept	-5.10231	1.853068	-2.75344	0.011596
LKAP	0.29008	0.097657	2.97040	0.007062
LLAB	1.11438	0.168156	6.62707	0.000001
R ² =0.836; Estimation by Ordinary Least Squares method				

Table 4.14 (iii) Coefficients of Cobb-Douglas Production function

Variable	Coefficient	Std Err	“t” value	Prob
Intercept	-7.00000	-	4.5E+08	0.000000
LKAP	0.36647	0.01038	35.3158	0.000000
LLAB	1.15093	0.01382	83.2604	0.000000
R ² =0.844; Estimation by Least Abs Deviation method				

Then, we have estimated the CES production function directly using a nonlinear estimation method. The least squares methods did not give acceptable results. Hence we used the least absolute deviation method of estimation. The data on total revenue represents the output, while expenses on infrastructure and salaries represent capital and labour respectively. There are several reasons to represent output and inputs in this manner. The results are presented in the table below:

Table 4.14 (iv) Estimated Parameters of CES Production function				
Statistic	A	δ	β	η
Estimate	.43450	.066416	.543953	1.1026
Std.Err.	.00628	.023215	.655959	.0060
t(21)	69.15683	2.860855	.829248	182.6921
p-level	.00000	.009357	.416291	0.0000
R ² = 0.755, Method of estimation : Least absolute deviation due to presence of outliers				

In the functional form it is given as:

$$P = 0.4345(0.066416K^{-0.543953} + 0.933584L^{-0.543953})^{-\left(\frac{1.1026}{0.543953}\right)}$$

The value of scale parameter, η , is 1.1026, suggesting a slightly increasing returns to scale. The value of the substitution parameter, β , is 0.543953 (but statistically, not different from zero), giving the elasticity of substitution, $\sigma = 0.6477$, smaller than unity. This suggests that the substitution between labour and capital is feasible only to some limited extent. Also, a small value of distribution parameter, $\delta (= 0.066)$ indicates that capital contributes only meagerly to production. These findings clearly suggest the labour-intensive nature of production.

APPENDIX IV

IV.(i) Tuition fees of Higher secondary (2002-2003)

code	College	HS Arts students	fees	HS Com students	Fees	HS Sc students	Fees	Total students	Revenue
1	Alder	376	300	0	0	0	0	376	1353600
2	Baptist	212	220	102	220	0	0	314	828960
3	Oriental	141	250	67	250	0	0	208	624000
4	Mountain	86	250	0	0	0	0	86	258000
5	Mount	409	250	0	0	0	0	409	1227000
6	Kohima	817	250	0	0	0	0	817	2451000
7	Modern	219	300	98	300	0	0	317	1141200
8	Japfu	289	350	0	0	0	0	289	1213800
9	Josephs	532	290	213	290	0	0	745	2592600
10	Kilen..	89	180	0	0	102	250	191	192240
12	SD Jain	246	150	151	150	0	0	397	714600
13	Prana..	365	180	0	0	0	0	365	788400
14	Eastern	126	200	0	0	0	0	126	302400
15	Tetso	209	200	0	0	0	0	209	501600
16	Patkai	338	210	0	0	143	240	481	1263600
17	Salesian	0	0	0	0	0	0	0	0
18	Public	0	0	367	250	0	0	367	1101000
19	Salt	525	150	0	0	0	0	525	945000
20	Sakus	326	250	0	0	0	0	326	978000
22	Peren	85	200	0	0	0	0	85	204000
23	Yingli	129	200	0	0	0	0	129	309600
24	Tuli	38	200	0	0	0	0	38	91200
25	Peoples	305	300	0	0	0	0	305	1098000
26	Bailey	183	200	0	0	0	0	183	439200
28	Pfutsuro	110	300	0	0	0		110	396000
		6155		998		245		7398	21015000

IV (.ii) Tuition fees of BA, B.Com and B.Sc (2002-2003)

code	College	B.A Stud ents	B.Com stud ents	B.Sc stud ents	B.Sc Maj fee	B.Sc Gen fee	B.A Gen fee	B.A Maj fee	B.Com Gen fee	B.Com Maj fee	Total students	Revenue
1	Alder	465	0	0	0	0	320	350	0	0	465	1440000
2	Baptist	633	123	0	0	0	230	280	230	280	756	2285040
3	Oriental	60	48	0	0	0	250	250	250	250	108	251950
4	Mountain	49	0	0	0	0	300	300	0	0	49	176400
5	Mount	207	0	0	0	0	270	270	0	0	207	664350
6	Kohima	1288	0	0	0	0	250	250	0	0	1288	3864000
7	Modern	119	0	0	0	0	300	300	300	300	119	356580
8	Japfu	152	0	0	0	0	350	400	0	0	152	551200
9	Josephs	725	206	0	0	0	320	320	320	320	931	3575040
10	Kilen..	36	0	34	280	250	200	200	0	0	70	501320
12	SD Jain	405	183	0	0	0	200	200	200	200	588	2119260
13	Prana..	313	0	0	0	0	200	250	0	0	313	804700
14	Eastern	189	0	0	0	0	200	200	0	0	189	654700
15	Tetso	125	0	0	0	0	200	200	0	0	125	300000
16	Patkai	761	0	132	320	270	240	290	0	0	893	2885630
17	Salesian	163	0	0	0	0	200	200	0	0	163	391200
18	Public	0	382	0	0	0	0	0	250	300	382	1176000
19	Salt	608	0	0	0	0	200	200	0	0	608	1536600
20	Sakus	227	0	0	0	0	275	275	0	0	227	481920
22	Peren	49	0	0	0	0	220	220	0	0	49	129120

23	Yingli	0	0	0	0	0	250	250	0	0	0	4800
24	Tuli	3	0	0	0	0	220	0	0	0	3	7920
25	Peoples	123	0	0	0	0	300	350	0	0	123	430400
26	Bailey	29	0	0	0	0	230	0	0	0	29	78960
28	Pfutsuro	28	0	0	0	0	300	300	0	0	28	100800
		6757	942	166							7865	24767890

IV.(v) Admission fees (2002-2003)

code	College	XI Arts	XII Arts	XI Com	XII Com	XI Sc	XII Sc	BA I Gen	BA I Maj
1	Alder	3065	2765	0	0	0	0	3120	3210
2	Baptist	2240	2190	2240	2190	0	0	2260	2260
3	Oriental	3000	1850	3000	1850	0	0	3000	3000
4	Mountain	3590	3590	0	0	0	0	3590	3590
5	Mount	3000	2300	0	0	0	0	3000	3000
6	Kohima	2270	1770	0	0	0	0	2270	2270
7	Modern	2600	2600	2600	2600	0	0	3000	3000
8	Japfu	1650	1650	0	0	0	0	1675	1675
9	Josephs	3000	2900	3000	2900	0	0	3000	3000
10	Kilen..	2300	2300	0	0	5700	5700	2300	2300
12	SD Jain	1750	1750	1750	1750	0	0	1550	1550
13	Prana..	2000	2000	0	0	0	0	2000	2000
14	Eastern	2800	2800	0	0	0	0	3100	3100
15	Tetso	2390	2390	0	0	0	0	2440	2440
16	Patkai	2180	2180	0	0	3630	3630	2180	2180
17	Salesian	0	0	0	0	0	0	1580	1580
18	Public	0	0	2020	2020	0	0	0	0
19	Salt	1300	1300	0	0	0	0	2600	2600
20	Sakus	2300	2300	0	0	0	0	2800	3200
22	Peren	1700	1700	0	0	0	0	1570	1570
23	Yingli	2500	2500	0	0	0	0	2600	2600
24	Tuli	2100	2100	0	0	0	0	2200	2200
25	Peoples	1690	1640	0	0	0	0	1690	1690
26	Bailey	1870	1670	0	0	0	0	1495	1495
28	Pfutsuro	3200	3200	0	0	0	0	3300	3300

IV. (vi) Admission fees (2002-2003)

code	College	BA II Gen	BA II Maj	BA III Gen	BA III Maj	B Com I Gen	B.Com I Maj	B.Com II Gen	B.Com II Maj	B.Com III Gen	B.Com III Maj
1	Alder	2825	2915	2825	2915	0	0	0	0	2190	2190
2	Baptist	2190	2190	2190	2190	2260	2260	2190	2190	1850	1850
3	Oriental	1850	1850	1850	1850	3000	1850	1850	1850	0	0
4	Mountain	3590	3590	3590	3590	0	0	0	0	0	0
5	Mount	2300	2300	2300	2300	0	0	0	0	0	0
6	Kohima	1770	1770	1770	1770	0	0	0	0	0	0
7	Modern	2500	2500	2500	2500	0	0	0	0	0	0
8	Japfu	1675	1675	1675	1675	0	0	0	0	2900	0
9	Josephs	2900	2900	2900	2900	3000	2900	2900	2900	0	0
10	Kilen..	2300	2300	2300	2300	0	0	0	0	0	0
12	SD Jain	1750	1750	1750	1750	1550	1550	1750	1750	0	0
13	Prana..	2000	2000	2000	2000	0	0	0	0	0	0

14	Eastern	3100	3100	3100	3100	0	0	0	0	0	0
15	Tetso	2440	2440	2440	2440	0	0	0	0	0	0
16	Patkai	2180	2180	2180	2180	0	0	0	0	0	0
17	Salesian	1470	1470	1470	1470	0	0	0	0	1820	1870
18	Public	0	0	0	0	1820	1870	1820	1870	0	0
19	Salt	2600	2600	2600	2600	0	0	0	0	0	0
20	Sakus	2800	3200	2800	3200	0	0	0	0	0	0
22	Peren	1570	1570	1570	1570	0	0	0	0	0	0
23	Yingli	2600	2600	2600	2600	0	0	0	0	0	0
24	Tuli	2200	2200	2200	2200	0	0	0	0	0	0
25	Peoples	1640	1640	1640	1640	0	0	0	0	0	0
26	Bailey	1325	1325	1325	1325	0	0	0	0	0	0
28	Pfutsuro	3300	3300	3300	3300	0	0	0	0	0	0

IV. (vii) Revenue from Admission fees (2002-2003)

code	College	B.Sc I Gen	B.Sc I Maj	B.Sc II Gen	B.Sc II Maj	B.Sc III Gen	B.Sc III maj	Total Students	Total Revenue
1	Alder	0	0	0	0	0	0	841	2178535
2	Baptist	0	0	0	0	0	0	1070	2373080
3	Oriental	0	0	0	0	0	0	316	737850
4	Mountain	0	0	0	0	0	0	135	425240
5	Mount	0	0	0	0	0	0	616	1635800
6	Kohima	0	0	0	0	0	0	2105	3512830
7	Modern	0	0	0	0	0	0	436	1217745
8	Japfu	0	0	0	0	0	0	441	731025
9	Josephs	0	0	0	0	0	0	1676	4931800
10	Kilen..	2300	2300	6300	5800	6300	5800	261	1066700
12	SD Jain	0	0	0	0	0	0	985	1279410
13	Prana..	0	0	0	0	0	0	678	1356000
14	Eastern	0	0	0	0	0	0	315	1190670
15	Tetso	0	0	0	0	0	0	334	803730
16	Patkai	3830	3830	4530	5930	4530	5930	1374	3473120
17	Salesian	0	0	0	0	0	0	163	242720
18	Public	0	0	0	0	0	0	749	1439280
19	Salt	0	0	0	0	0	0	1133	2225070
20	Sakus	0	0	0	0	0	0	553	1451040
22	Peren	0	0	0	0	0	0	134	246340
23	Yingli	0	0	0	0	0	0	129	323300
24	Tuli	0	0	0	0	0	0	41	86300
25	Peoples	0	0	0	0	0	0	428	708860
26	Bailey	0	0	0	0	0	0	212	370170
28	Pfutsuro	0	0	0	0	0	0	138	412500
								15263	34419115

IV. (ix) Salary of Lecturers in private colleges (2002-2003)

code	College	Below 5 years	No Of lect	Below 10 years	No Of lect	Above 10 years	No of lect	C	Period	No of lect	Total No Of lect
1	Alder	8500	9	9388	10	0	0	0	0	0	19
2	Baptist	8800	7	10687	12	13011	3	3000	1mth	1	23
3	Oriental	8500	17	0	0	0	0	0	0	0	17
4	Mountain	5000	8	5700	3	0	0	0	0	0	11
5	Mount	8700	7	9000	6	10000	2	0	0	0	15
6	Kohima	8700	9	10600	15	14000	10	0	0	0	34

7	Modern	5000	7	6000	6	8000	6	0	0	0	19
8	Japfu	7500	16	9500	5	0	0	0	0	0	21
9	Josephs	9000	23	10000	8	12000	1	0	0	0	32
10	Kilen..	4500	8	4800	12	0	0	0	0	0	20
12	SD Jain	8000	5	9500	12	10000	4	0	0	0	21
13	Prana..	5040	4	6000	8	6500	4	0	0	0	16
14	Eastern	5100	4	7000	6	0	0	4000	3mths	1	11
15	Tetso	6800	10	7800	2	9200	1	5200	3mths	2	15
16	Patkai	8580	20	10000	20	13000	10	10000	1mth	3	53
17	Salesian	7000	7	9000	2	0	0	3000	1mth	1	10
18	Public	8000	8	9500	3	0	0	0	0	0	11
19	Salt	6500	10	9000	5	12000	5	4000	1mth	1	21
20	Sakus	6000	10	7500	8	9500	4	0	0	0	22
22	Peren	5500	5	6500	5	7500	2	0	0	0	12
23	Yingli	6100	3	6500	6	0	0	5000	1mth	1	10
24	Tuli	4500	4	5000	3	0	0	0	0	0	7
25	Peoples	5325	8	8835	6	11395	2	0	0	0	16
26	Bailey	8000	7	9835	4	0	0	0	0	0	11
28	Pfutsuro	7000	9	8500	1	10000	4	0	0	0	14
			225		168		58			10	461

IV.(x) Salary of Non-teaching Staff (2002-2003)

co de	Grade I	No of staff	Grade II	No of staff	Grade III	No of staff	Grade IV	No of staff	Contract	No of staff	Period	Total no of staff
1	13850	1	8500	1	4000	5	2500	3	0	0	0	10
2	0	0	6802.5	1	4802	2	4100	3	0	0	0	6
3	9500	1	0	0	4200	1	3000	1	0	0	0	3
4	0	0	0	0	2500	1	2000	3	0	0	0	4
5	0	0	5500	1	4500	2	3000	2	50per day	2	1year	7
6	7250	2	6000	2	3710	4	3520	7	1500	3	1year	18
7	0	0	4000	1	3500	3	2500	3	0	0	0	7
8	12000	1	7500	1	4100	2	2500	1	0	0	0	5
9	8000	1	6500	2	4000	1	3272	11	0	0	0	15
10	0	0	5950	1	2600	4	2000	2	1500	2	1year	9
12	0	0	3500	3	3000	2	1500	5	0	0	0	10
13	0	0	5000	2	4500	2	2500	4	0	0	0	8
14	3500	2	3000	2	2000	2	1500	1	0	0	0	7
15	3200	2	2800	1	2000	2	1600	3	1000	3	1year	11
16	8000	10	5500	10	4500	11	2000	17	0	0	0	48
17	4000	1	0	0	0	0	2000	2	0	0	0	3
18	0	0	0	0	6000	5	4500	4	0	0	0	9
19	3000	2	2500	8	0	0	0	0	0	0	0	10
20	7500	2	5500	4	4500	2	2500	3	0	0	0	11
22	0	0	0	0	4500	1	3500	2	0	0	0	3
23	10000	1	0	0	4000	2	3500	2	0	0	0	5
24	0	0	0	0	3000	1	2200	1	0	0	0	2
25	0	0	0	0	3000	2	2000	3	0	0	0	5
26	0	0	0	0	4100	3	2525	4	0	0	0	7
28	5000	1	0	0	4000	1	3000	1	0	0	0	3
		27		40		61		88		10		226

Economics of Higher Education: Micro Analysis of Private Colleges in Nagaland
Jamir, Temjenzulu (2006), PhD Dissertation, Department of Economics, NEHU, Shillong.

CHAPTER V

PRICING AND PRODUCT POLICY

I. Introduction: The prices of goods and services are crucial magnitudes in every economic system. A college acts as a mill in which the parents bring in the raw material (the students) to be shaped for the future benefits. For doing so the college charges necessary fees for the services rendered to the student. Like any producing unit in the economy, colleges use resources and technology to turn out something of benefit the individuals and the society. This “something” can probably best be characterised as educational services. To get at what comprises educational services, we can pose the question: Why is one attending a college? There are at least three answers to the question. First, one expects education to improve one’s capacity to produce and to earn, that is, to augment the quality of one’s labour resources. We call this development of human capital. Second, quite apart from improving the quality of one’s resources, one derives immediate satisfaction from one’s present participation in college process and activities - it is in this respect a direct consumption service. Third, one may expect that in addition to the benefits that accrue to one-self from obtaining education, there will be some benefits to the society as a whole.

II. Pricing and Product Policy: An economic viewpoint of colleges naturally leads us to the question as to how these colleges determine their scale of operation (the number of students they admit to impart education) and what prices (fees) they charge for their services. An established methodology to investigate into this question suggests us to go in for computing revenue and cost curves. In what follows, an attempt has been made to do the same. The basic data for statistical analysis to this end have been collected from the colleges (by visiting the colleges, interviewing the principals, noting down data from the college records, etc.). Appropriate statistical analyses have been carried out to draw conclusions from the data so collected.

II.1. Revenue and Cost Analysis: First we look into the cost aspects and then to the revenue aspects. These findings lead us to the well-established marginal analysis.

Table-5.1(i) Quadratic Regression of Average Cost (AC) on No. of Students (N)*					
Variable	Coefficient	Standard Error	Beta	't' value	Prob
Intercept	8408.230	1768.454		4.755	0.000
N ⁻¹	233244.840	137383.377	0.350	1.698	0.104
N	-7.112	3.799	-1.155	-1.872	0.075
N ²	0.00251	0.002	0.804	1.444	0.163
Dependent variable: Average Cost; R ² = 0.568; F=9.212 significant at 0.000					

The quadratic regression equation of average cost curve is given by

$$AC = a_0 + a_1N^{-1} + a_2N + a_3N^2 + e$$

The estimated average cost curve is obtained as:

$$\hat{AC} = 8408.230 + 233244.840N^{-1} - 7.112N + 0.00251N^2 ; R^2 = 0.568$$

From this equation, we obtain (Intriligator, pp. 281-284) the estimated marginal cost curve as

$$\hat{MC} = \hat{a}_0 + 2\hat{a}_2N + 3\hat{a}_3N^2$$

$$\hat{MC} = 8408.230 - 14.224N + 0.00753N^2$$

An attempt to fit a quadratic regression equation to the average revenue (AR) data has shown that the average revenue does not respond to the number of students. The results are given in the table below.

Table-5.1(ii) Quadratic Regression of Average Revenue (AR) on No. of Students (N)					
Variable	Coefficient	Standard Error	Beta	't' value	Prob
Intercept	7276.500	1396.577		5.210	0.000
N ⁻¹	32343.420	108493.949	0.089	.298	0.769
N	-1.353	3.000	-0.403	-.451	0.657
N ²	0.0003072	0.001	0.181	.224	0.825
Dependent variable: Average Revenue; R ² = 0.092; F=0.710 significant at 0.557					

No regression coefficient (except the intercept) is significant even at 20 percent probability level. The coefficient of determination (R²) also is insignificant.

Attempts to fit a linear and inverse regression equations to the average revenue (AR) data also have shown that the average revenue does not respond to the number of students (N). The results are given in the tables below.

Table- 5.1(iii) Regression of Average Revenue (AR) on No. of Students (N)*					
Variable	Coefficient	Standard Error	Beta	't' value	Prob
Intercept	7027.609	826.912		8.499	0.000
N^{-1}	45743.750	88516.143	0.126	0.517	0.610
N	-0.708	0.819	-0.211	-0.864	0.397
Dependent variable: Average Revenue; $R^2 = 0.090$; $F=1.087$ significant at 0.355					

Table-5.1(iv) Inverse Regression of Average Revenue (AR) on No. of Students (N)					
Variable	Coefficient	Standard Error	Beta	't' value	Prob
Intercept	6431.016	452.594		14.209	0.000
N^{-1}	88071.606	73319.979	0.243	1.201	0.242
Dependent variable: Average Revenue; $R^2 = 0.059$; $F=1.443$ significant at 0.242					

These results indicate that the average revenue is a constant value (with sample disturbances, of course), not responding to the number of students. The mean revenue per students is obtained as Rs. 6359.379.

An attempt has also been made to fit regression equations to the total revenue (TR) data. The following tables present these attempts.

Table-5.1(v) Quadratic Regression of Total Revenue (TR) on No. of Students (N)					
Variable	Coefficient	Standard Error	Beta	't' value	Prob
Intercept	-47606.663	542690.000		-0.088	0.931
N	7274.120	1525.952	1.172	4.767	0.000
N^2	-0.797	0.774	-0.253	-1.030	0.314
Dependent variable: Average Revenue; $R^2 = 0.873$; $F=75.74$ significant at 0.00					

Table-5.1(vi) Linear Regression of Total Revenue (TR) on No. of Students (N)					
Variable	Coefficient	Standard Error	Beta	't' value	Prob
Intercept	354026.610	377860.693		0.937	0.359
N	5779.502	471.862	0.931	12.248	0.000
Dependent variable: Average Revenue; $R^2 = 0.867$; $F=150.02$ significant at 0.00					

In both the tables above, the coefficient associated with N alone is statistically significant. This indicates that revenue is more or less proportional to the number of students. The average and the marginal revenue curves, therefore, are more or less parallel to the axis on which we measure the number of students.

The average revenue (per student) of the colleges under study is somewhat explicable by their performance and crowding. The regression results (of AR on two performance indices and the classroom-utilization index) of the colleges reveal that in determining per student revenue of these colleges, performance as well as crowding matter. Higher classroom-utilization index has negative effect on average revenue, or thought differently, colleges that charge lower fees are overcrowded. It appears to be the most likely reason behind the negative (though insignificant) coefficient associated with N in the quadratic as well as linear regression of AR on the number of students, presented in tables below.

Table-5.1(vii) Regression of Average Revenue (AR) on Performance Indices and Crowding					
Variable	Coefficient	Standard Error	Beta	't' value	Prob
Intercept	8417.907	860.653		9.781	0.000
Perform(1)	870.434	577.860	0.348	1.506	0.148
Perform(2)	34.666	460.066	0.016	0.075	0.941
Class-Util	-16.249	8.009	-0.453	-2.029	0.056
Dependent variable: Average Revenue; $R^2 = 0.197$; $F=1.638$ significant at 0.212					

Table-5.1(viii) Regression of Profit/Loss on Performance Indices and Crowding					
Variable	Coefficient	Standard Error	Beta	't' value	Prob
Intercept	-2466.609	1041.782		-2.368	0.028
Perform(1)	-100.561	699.473	-0.030	-0.144	0.887
Perform(2)	342.058	556.889	0.118	0.614	0.546
Class-Util	27.202	9.694	0.574	2.806	0.011
Dependent variable: Average Revenue; $R^2 = 0.325$; $F=3.21$ significant at 0.045					

The positive (and statistically significant) coefficient associated with classroom utilization index may indicate that profit is earned through admitting larger number of students. This analysis provides two possibilities: (a) to consider industry average revenue curve as constant, parallel to the axis measuring no. of students, and (b) to consider industry average revenue curve falling with the no. of students.

Table 5.1(ix). Observed Total and Average Revenue and Costs in The Private Colleges of Nagaland

code	College	No. of Students	Total Revenue	Total Cost	Average Revenue	Average Cost	AR less than 6300
1	Alder	841	5456635	3222109	6488.270	3831.283	
2	Baptist	1070	5562080	3985734	5198.206	3724.985	Yes
3	Oriental	316	2176900	2474200	6888.924	7829.747	
4	Mountain	135	1162140	1049200	8608.444	7771.852	
5	Mount	616	3940150	2279747	6396.347	3700.888	At margin

6	Kohima	2105	9962330	6353312	4732.698	3018.200	*
7	Modern	436	2915525	2179261	6686.984	4998.305	
8	Japfu	441	4617500	4324061	10470.52	9805.127	
9	Josephs	1676	12037440	7514028	7182.243	4483.310	
10	Kilenkaba	261	2269845	2081485	8696.724	7975.038	
12	S.D Jain	985	4444680	3206912	4512.365	3255.748	Yes
13	Pranaba..	678	3024100	1808069	4460.324	2666.768	Yes
14	Eastern	315	2540770	2722800	8065.937	8643.810	
15	Tetso	334	3231330	3913600	9674.641	11717.37	
16	Patkai	1374	11897302	12372683	8658.881	9004.864	
17	Salesian	163	708920.0	1027933	4349.202	6306.337	Yes
18	Public	749	4061280	2088000	5422.270	2787.717	Yes
19	Salt	1133	6882350	2949895	6074.448	2603.614	Yes
20	Saku	553	3584460	2855661	6481.844	5163.944	
22	Peren	134	1079460	1143719	8055.672	8535.216	
23	Yingli	129	712700.0	1249600	5524.806	9686.822	Yes
24	Tuli	41	335420.0	565400.0	8180.976	13790.24	
25	Peoples	428	2312260	1793448	5402.477	4190.299	Yes
26	Bailey	212	963330.0	1508026	4544.009	7113.330	Yes
28	Pfutsero	138	1184300	1650584	8581.884	11960.75	

**Table 5.1(x). Estimated Average and Marginal Revenue and Costs in
The Private Colleges of Nagaland**

code	College	No. of Students	Estimated Marginal Cost	Estimated Average Cost	Mean Average Revenue	Estimated Marginal Revenue*	Estimated Average Revenue*
1	Alder	841	1771.672	4479.656	6359.379	5836.853	6486.573
2	Baptist	1070	1809.647	3890.075	6359.379	5512.589	6312.800
3	Oriental	316	4665.362	7149.593	6359.379	6580.253	6948.640
4	Mountain	135	6625.224	9221.594	6359.379	6836.549	7270.872
5	Mount	616	2503.550	5358.317	6359.379	6155.453	6665.740
6	Kohima	2105	11832.330	4670.148	6359.379	4047.029	5559.000
7	Modern	436	3637.989	6319.504	6359.379	6410.333	6823.838
8	Japfu	441	3599.888	6288.885	6359.379	6403.253	6819.108
9	Josephs	1676	5720.395	3678.215	6359.379	4654.493	5868.294
10	Kilenkaba	261	5208.717	7616.640	6359.379	6658.133	7018.084
12	S.D Jain	985	1703.384	4074.972	6359.379	5632.949	6376.669
13	Pranaba..	678	2225.779	5084.120	6359.379	6067.661	6615.054
14	Eastern	315	4674.834	7157.465	6359.379	6581.669	6949.807
15	Tetso	334	4497.431	7011.165	6359.379	6554.765	6928.094
16	Patkai	1374	3080.160	3544.667	6359.379	5082.125	6088.109
17	Salesian	163	6289.783	8746.612	6359.379	6796.901	7192.842
18	Public	749	1978.792	4800.863	6359.379	5967.125	6558.390
19	Salt	1133	1958.616	3778.258	6359.379	5423.381	6265.819
20	Saku	553	2845.100	5664.655	6359.379	6244.661	6718.804
22	Peren	134	6637.423	9240.925	6359.379	6837.965	7274.108
23	Yingli	129	6698.641	9340.650	6359.379	6845.045	7290.880
24	Tuli	41	7837.704	13809.760	6359.379	6969.653	8114.282
25	Peoples	428	3699.734	6369.050	6359.379	6421.661	6831.463
26	Bailey	212	5731.170	8113.507	6359.379	6727.517	7093.285
28	Pfutsero	138	6588.719	9164.754	6359.379	6832.301	7261.381

**Table 5.1(xi). Estimated Average Revenue, Costs , Profits and Loss in
The Private Colleges of Nagaland**

code	College	No. of Students	Average Cost	Estimated Average Cost	Average Revenue	Estimated Average Revenue*	Profit/ Loss
1	Alder	841	3831.283	4479.656	6488.270	6486.573	2656.987
2	Baptist	1070	3724.985	3890.075	5198.206	6312.800	1473.221
3	Oriental	316	7829.747	7149.593	6888.924	6948.640	-940.823
4	Mountain	135	7771.852	9221.594	8608.444	7270.872	836.592
5	Mount	616	3700.888	5358.317	6396.347	6665.740	2695.459
6	Kohima	2105	3018.200	4670.148	4732.698	5559.000	1714.498
7	Modern	436	4998.305	6319.504	6686.984	6823.838	1688.679
8	Japfu	441	9805.127	6288.885	10470.52	6819.108	665.393
9	Josephs	1676	4483.310	3678.215	7182.243	5868.294	2698.933
10	Kilenkaba	261	7975.038	7616.640	8696.724	7018.084	721.686
12	S.D Jain	985	3255.748	4074.972	4512.365	6376.669	1256.617
13	Pranaba..	678	2666.768	5084.120	4460.324	6615.054	1793.556
14	Eastern	315	8643.810	7157.465	8065.937	6949.807	-577.873
15	Tetso	334	11717.37	7011.165	9674.641	6928.094	-2042.73
16	Patkai	1374	9004.864	3544.667	8658.881	6088.109	-345.983
17	Salesian	163	6306.337	8746.612	4349.202	7192.842	-1957.14
18	Public	749	2787.717	4800.863	5422.270	6558.390	2634.553
19	Salt	1133	2603.614	3778.258	6074.448	6265.819	3470.834
20	Saku	553	5163.944	5664.655	6481.844	6718.804	1317.9
22	Peren	134	8535.216	9240.925	8055.672	7274.108	-479.544
23	Yingli	129	9686.822	9340.650	5524.806	7290.880	-4162.02
24	Tuli	41	13790.24	13809.760	8180.976	8114.282	-5609.26
25	Peoples	428	4190.299	6369.050	5402.477	6831.463	1212.178
26	Bailey	212	7113.330	8113.507	4544.009	7093.285	-2569.32
28	Pfutsero	138	11960.75	9164.754	8581.884	7261.381	-3378.87

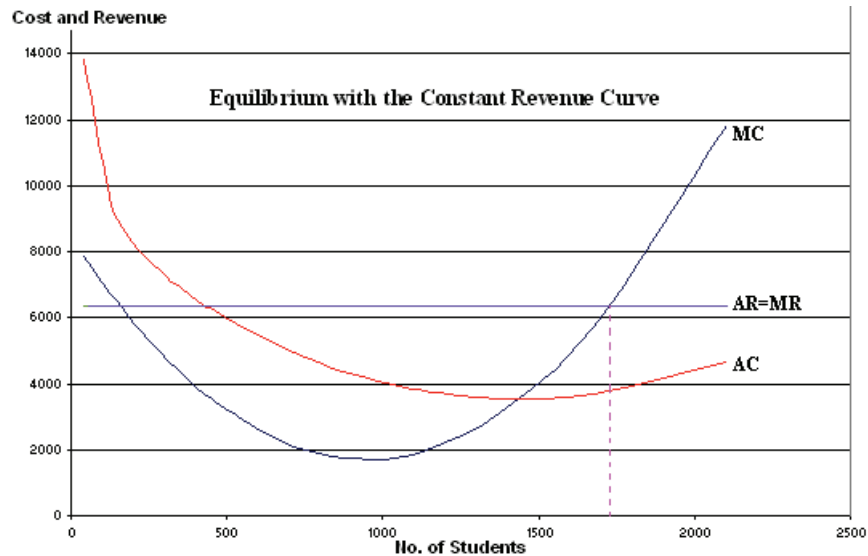


Fig 5.1: Equilibrium with the Constant Revenue Curve

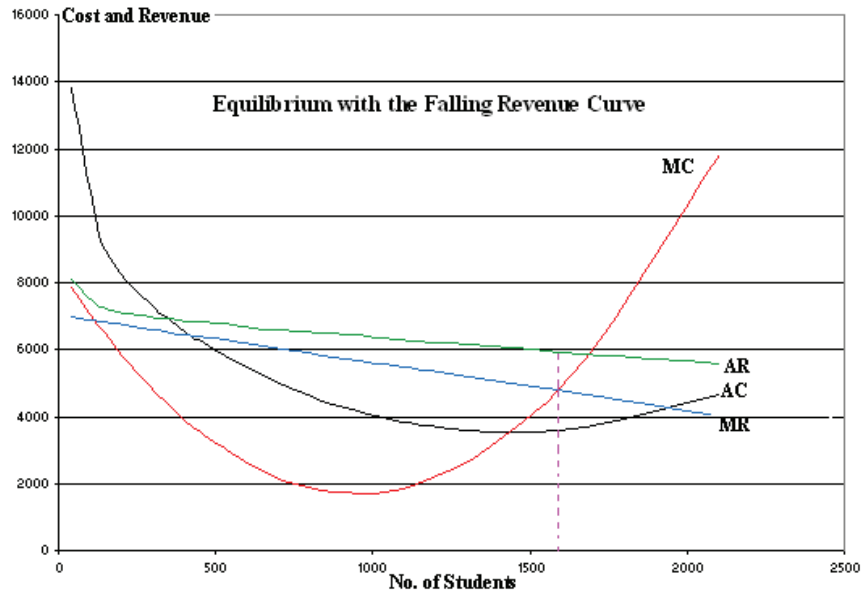


Fig 5.2: Equilibrium with the falling Revenue Curve

II.2. Marginal Analysis by Running Cumulation: In the previous section we carried out the marginal analysis (for determining output and price – that is no. of students served and fees charged) assuming that there is an ideal firm (college) with ideal cost and revenue structure. The real (observed) colleges partake of that and thus they are samples drawn from a uniform population. Hence, statistical analysis would give two sets of curves, marginal and average cost curves and marginal and average revenue curves. An intersection of the two marginal curves would suggest us the point of equilibrium at which output and prices would be decided.

Such an approach would not have been needed if we had time series data on each college. In that case, marginal and average (revenue and cost) curves could have been computed for each college and their output/price determination could have been studied. But unfortunately, we do not have access to such data.

Now we make an attempt to carry out an analysis with running cumulation. We arrange the colleges according to their size (of output or the size of enrollment) – from the smallest to the largest. Then we make a cumulative subtotal. Then we carry out the marginal analysis on these running cumulatives. This analysis would suggest us how changes in scale of operation lead to changes in cost and revenue structure. This analysis

also is an (imperfect) alternative of the situation when time series data for each unit of analysis is available.

Table 5.1(xii). Cumulative Marginal and Average Revenue and Costs in Private Colleges of Nagaland

code	Up to College	No. of Students	Total Revenue	Total Cost	Marginal Cost	Average Cost	Marginal Revenue	Average Revenue
24	Tuli	41	335420	565400	9421.724	13799.78	7138.518	7331.505
23	Yingli	170	1048120	1815000	9247.381	10411.29	7123.413	7243.109
22	Peren	304	2127580	2958719	9069.039	9858.845	7108.196	7203.961
4	Mountain	439	3289720	4007919	8892.206	9588.704	7092.641	7179.197
28	Pfutsero	577	4474020	5658503	8714.392	9400.801	7074.267	7158.108
17	Salesian	740	5182940	6686436	8508.204	9226.82	7050.371	7136.776
26	Bailey	952	6146270	8194462	8246.253	9037.495	7020.951	7115.019
10	Kilenkaba	1213	8416115	10275947	7933.416	8833.397	6985.444	7091.967
14	Eastern	1528	10956885	12998747	7570.05	8610.143	6949.824	7070.661
3	Oriental	1844	13133785	15472947	7221.13	8401.786	6912.176	7049.243
15	Tetso	2178	16365115	19386547	6869.322	8193.532	6863.932	7022.77
25	Peoples	2606	18677375	21179995	6444.018	7940.731	6814.786	6996.482
7	Modern	3042	21592900	23359256	6040.238	7696.921	6765.076	6970.33
8	Japfu	3483	26210400	27683317	5662.088	7462.899	6702.742	6937.936
20	Saku	4036	29794860	30538978	5230.907	7186.072	6633.307	6902.196
5	Mount	4652	33735010	32818725	4806.944	6898.451	6556.882	6863.131
13	Pranaba..	5330	36759110	34626794	4408.952	6606.326	6472.455	6820.197
18	Public	6079	40820390	36714794	4052.908	6312.75	6377.658	6772.174
1	Alder	6920	46277025	39936903	3757.752	6019.051	6266.628	6716.098
12	S.D Jain	7905	50721705	43143815	3552.781	5722.936	6146.018	6655.323
2	Baptist	8975	56283785	47129549	3502.161	5459.413	6018.306	6591.078
19	Salt	10108	63166135	50079444	3643.847	5246.09	5863.429	6513.27
16	Patkai	11482	75063437	62452127	4085.178	5077.817	5674.51	6418.465
9	Josephs	13158	87100877	69966155	5023.459	5006.47	5437.235	6299.5
6	Kohima	15263	97063207	76319467	6824.621	5125.049	7138.518	7331.505

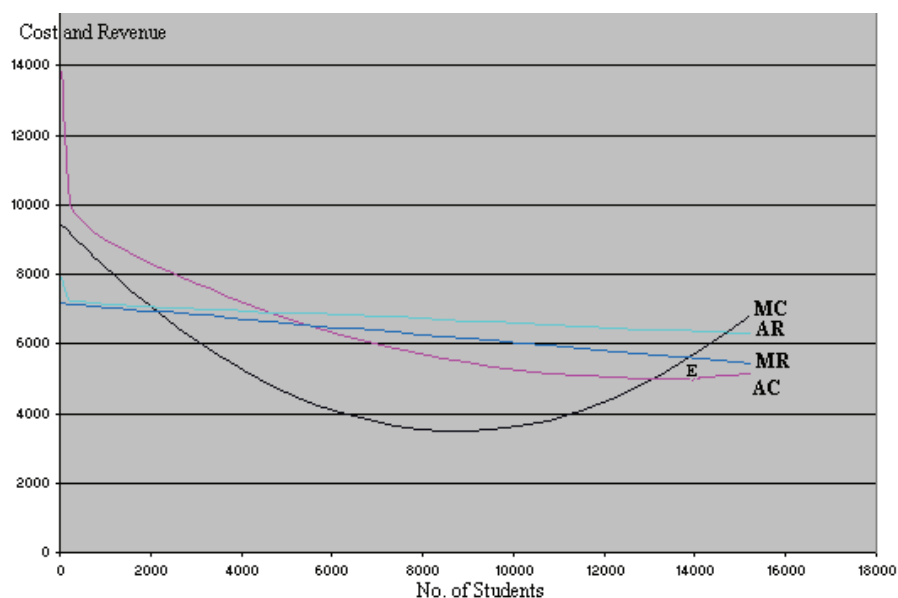
Table-5.1(xiii) Quadratic Regression of Cumulative Average Cost (AC) on No. of Students (N)*

Variable	Coefficient	Standard Error	Beta	't' value	Prob
Intercept	9477.681	150.810		62.845	0.000
N ⁻¹	178353.978	15949.932	0.412	11.182	0.000
N	-0.684	0.057	-1.423	-11.943	0.000
N ²	2.608E-05	0.000	0.754	6.564	0.000
Dependent variable: Average Cost; R ² = 0.978; F=312.74 significant at 0.000					

Fig 5.3: Equilibrium in the Running Cumulatives

Table-5.1(xiv) Regression of Average Revenue (AR) on No. of Students (N)*

Variable	Coefficient	Standard Error	Beta	't' value	Prob
Intercept	7157.680	135.601		52.785	0.000
N ⁻¹	31179.113	18319.855	0.295	1.702	0.103
N	-0.05636	0.020	-0.481	-2.774	0.011
Dependent variable: Average Revenue; R ² = 0.417; F=7.863 significant at 0.003					



This analysis provides several insights. First, the marginal cost is equal to the marginal revenue at the cumulative output (no. of students) level a little over 13000 at which the average revenue is about 6300 or so. At this level and beyond, only two colleges are there; namely, Joseph's College and Kohima College. Joseph's College is at a point close to the optimal level, but Kohima college is turning out students beyond the optimal scale. It is the only deficit college among the colleges under study. These two colleges admit about 3.8 thousand students (about 1/4th of the total). Taking the prices set above (Rs. 6300 per annum), only six other colleges can earn some profit. These colleges are: Public, Alder, SD Jain, Baptist, Salt and Patkai. These six colleges turn out 7.8 thousand students (about 40 percent of the total). The rest 17 colleges cannot run profitably at these prices. These colleges together admit about 5.3 thousand students (35 percent of the total).

II.3. Marginal Analysis with Revenue sans Donations and Grants: Should Donations and grants be included in revenue and cost computations? In fact, this type of revenue is not a part of the entrepreneurial activity of the colleges and perhaps they only inflate the revenue figures. Excluding the amount of donations, grants, etc. from the total revenue of colleges we carry out marginal analysis once again. We have obtained the following results.

Table-5.1(xv) Quadratic Regression of Cumulative Average Cost (AC) on No. of Students (N)*					
Variable	Coefficient	Standard Error	Beta	't' value	Prob
Intercept	7712.940	1734.739		4.446	0.000
N ⁻¹	129016.080	134764.258	0.230	0.957	0.349
N	-6.005	3.726	-1.155	-1.611	0.122
N ²	2.122E-03	0.002	0.805	1.245	0.227
Dependent variable: Average Cost; R ² = 0.417; F=5.013 significant at 0.009					

Table-5.1(xvi) Regression of Average Revenue (AR) on No. of Students (N)*					
Variable	Coefficient	Standard Error	Beta	't' value	Prob
Intercept	6646.378	736.826		9.020	0.000
N ⁻¹	-75393.995	78872.927	-0.240	-0.956	0.350
N	-0.414	0.730	-0.142	-0.567	0.576
Dependent variable: Average Revenue; R ² = 0.04; F=0.458 significant at 0.638					

Table 5.1(xvii). Analysis of Marginal and average revenue (ex Donation etc) and costs in Private Colleges of Nagaland

code	College	No. of Studs	Total Revenue	Total Cost	Average Cost	Average Revenue	AC exp	AR exp	MC	MR	L
1	Alder	841	5381635	3147109	3742	6399	4317	6209	2115	5950	k
2	Baptist	1070	5487080	3910734	3655	5128	3838	6133	2151	5760	k
3	Oriental	316	2101900	2399200	7592	6652	6436	6277	4553	6385	ok
4	Mountain	135	1087140	974200.0	7216	8053	7897	6032	6208	6535	ok
5	Mount	616	3565150	1904747	3092	5788	5029	6269	2730	6136	k
6	Kohima	2105	9887330	6278312	2983	4697	4536	5739	10640	4903	k
7	Modern	436	2817525	2081261	4774	6462	5794	6293	3687	6285	k
8	Japfu	441	3722500	3429061	7776	8441	5770	6293	3655	6281	ok
9	Josephs	1676	11887440	7364028	4394	7093	3686	5908	5466	5259	ok
10	Kilenkaba	261	1891160	1702800	6524	7246	6785	6249	5012	6430	d
12	S.D Jain	985	4369680	3131912	3180	4436	3988	6162	2060	5831	d
13	Pranaba..	678	2949100	1733069	2556	4350	4807	6254	2497	6085	d
14	Eastern	315	2465770	2647800	8406	7828	6441	6277	4561	6386	d
15	Tetso	334	3146330	3828600	11463	9420	6330	6282	4412	6370	od
16	Patkai	1374	11789070	12264451	8926	8580	3562	6023	3229	5509	od
17	Salesian	163	633920.0	952933.0	5846	3889	7582	6116	5924	6511	od
18	Public	749	3961280	1988000	2654	5289	4578	6236	2289	6026	d
19	Salt	1133	6807350	2874895	2537	6008	3747	6111	2278	5708	d
20	Saku	553	3509460	2780661	5028	6346	5274	6281	3018	6188	d
22	Peren	134	579460.0	643719.0	4804	4324	7909	6028	6218	6535	r
23	Yingli	129	637700.0	1174600	9105	4943	7974	6009	6270	6540	r
24	Tuli	41	210420.0	440400.0	10741	5132	10617	4791	7231	6612	r
25	Peoples	428	2237260	1718448	4015	5227	5833	6293	3739	6292	m
26	Bailey	212	888330.0	1433026	6760	4190	7144	6203	5453	6471	w
28	Pfutsero	138	909300.0	1375584	9968	6589	7860	6043	6177	6532	P
L=Location: k-Kohima; ok-outskirts of kohima; d-Dimapur; od-outskirts of Dimapur; r-rural; m-mokokchung; w-wokha; p-pfutsero; EXP= Expected, AC=Average Cost, AR = Average Revenue; MC=marginal Cost, MR= Marginal Revenue											

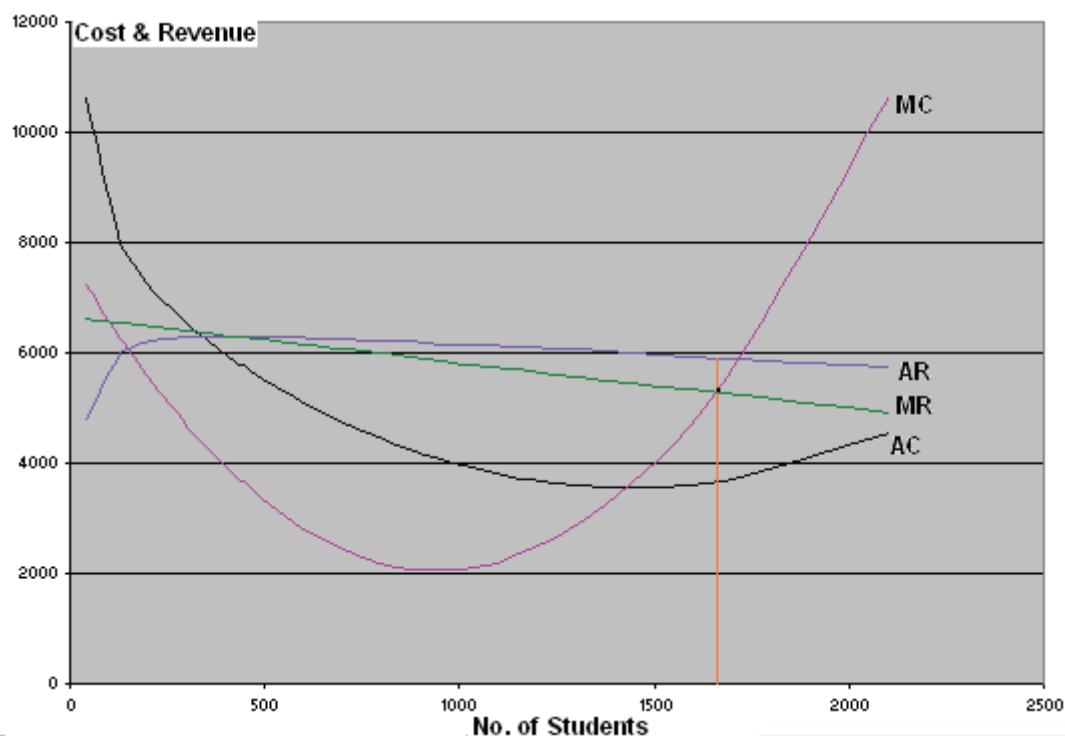


Fig 5.4: Representative Marginal Analysis (ex donation grants)

Table-5.1(xviii) Quadratic Regression of Cumulative Average Cost (AC) on No. of Students (N)*					
Variable	Coefficient	Standard Error	Beta	't' value	Prob
Intercept	8012.398	214.794		37.303	0.000
N ⁻¹	114065.141	22717.033	0.363	5.021	0.000
N	-0.470	0.082	-1.348	-5.758	0.000
N ²	1.656E-05	0.000	0.660	2.926	0.008
Dependent variable: Average Cost; R ² = 0.915; F=75.77 significant at 0.000					

Table- 5.1(xvix) Regression of Average Revenue (AR) on No. of Students (N)*					
Variable	Coefficient	Standard Error	Beta	't' value	Prob
Intercept	5938.706	156.475		37.953	0.000
N ⁻¹	-46681.945	21140.058	-0.423	-2.208	0.038
N	2.650E-02	0.023	0.217	1.130	0.270
Dependent variable: Average Revenue; R ² = 0.289; F=4.473 significant at 0.023					

Table 5.1(xx). Cumulative Analysis of Marginal and average revenue (ex Donation etc) and costs in Private Colleges of Nagaland

code	Up to College	No. of students	AR	AC	AR EXP	AC EXP	MR	MR=AR	MC
24	Tuli	41	5132	10741	4799	10775	5939	6088	7974
23	Yingli	170	4989	9500	5667	8604	5946	6088	7854
22	Peren	304	4696	7430	5791	8246	5953	6088	7731
4	Mountain	439	5728	7364	5842	8069	5960	6088	7609

28	Pfutsero	577	5934	7987	5871	7944	5967	6088	7487
17	Salesian	740	5484	7515	5893	7828	5976	6088	7344
26	Bailey	952	5196	7347	5913	7700	5987	6088	7163
10	Kilenkaba	1213	5637	7170	5930	7561	6001	6088	6945
14	Eastern	1528	6088	7425	5947	7408	6018	6088	6692
3	Oriental	1844	6185	7454	5960	7264	6034	6088	6448
15	Tetso	2178	6681	8068	5973	7120	6052	6088	6201
25	Peoples	2606	6442	7403	5988	6944	6075	6088	5900
7	Modern	3042	6445	7026	6002	6773	6098	6088	5613
8	Japfu	3483	6698	7121	6016	6609	6121	6088	5341
20	Saku	4036	6650	6834	6032	6413	6151	6088	5028
5	Mount	4652	6536	6339	6050	6209	6183	6088	4715
13	Pranaba..	5330	6257	5857	6069	5999	6219	6088	4414
18	Public	6079	6138	5463	6090	5786	6259	6088	4134
1	Alder	6920	6170	5254	6113	5569	6303	6088	3887
12	S.D Jain	7905	5954	4995	6140	5346	6356	6088	3686
2	Baptist	8975	5855	4835	6169	5141	6412	6088	3578
19	Salt	10108	5873	4578	6200	4965	6472	6088	3587
16	Patkai	11482	6197	5098	6237	4809	6545	6088	3769
9	St.Josephs	13158	6311	5008	6282	4704	6634	6088	4245
6	Kohima	15263	6088	4729	6338	4704	6746	6088	5239

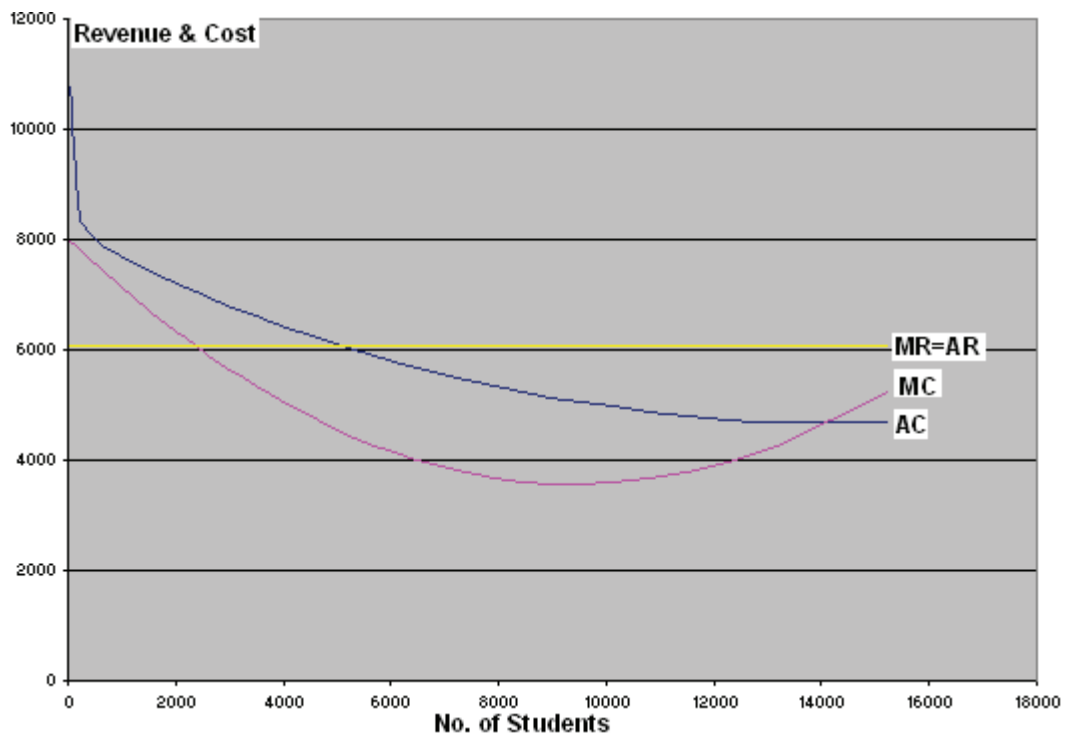


Fig 5.5: Cumulative Analysis (ex donation grants)

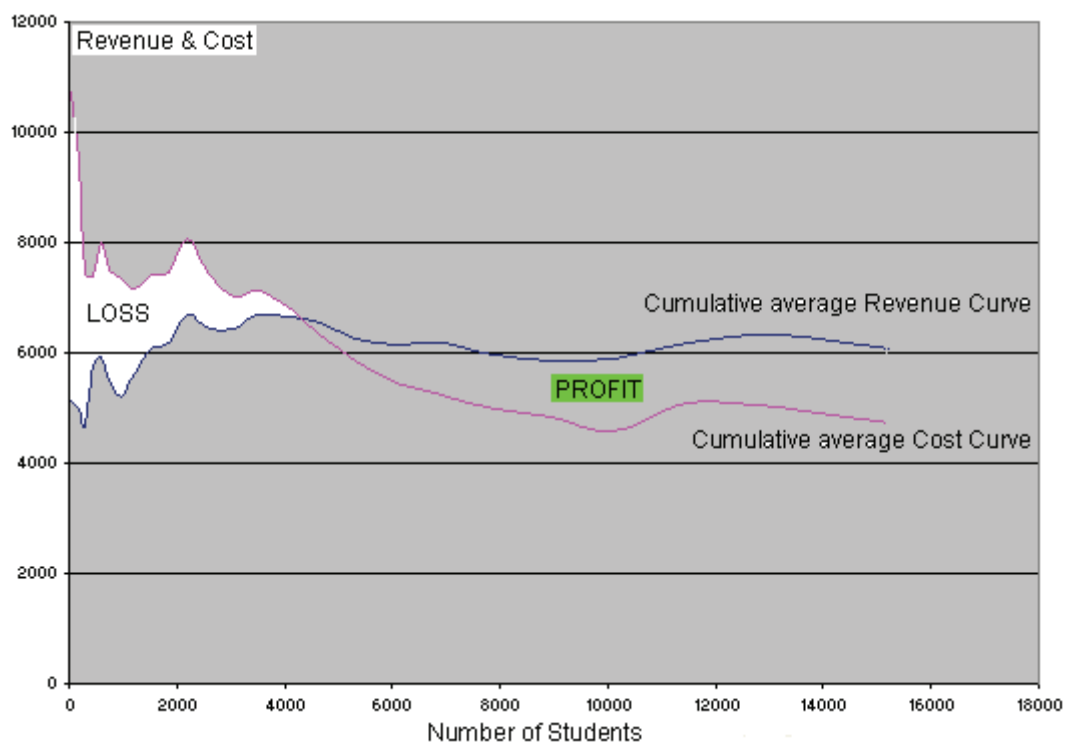


Fig 5.6

II.4. Marginal Analysis of Core Revenue: So far, we included in revenue several heads such as revenue from hostels, computer courses, etc. Now we analyse our data with the core business of the college that fetches admission and tuition fees.

Table 5.1(xxi). Marginal Analysis with the Core Revenue of Private Colleges in Nagaland

code	College	No.of Students	Revenue from		Average Fee		Core *Revenue	Average Core Revenue
			Admission	Tution	Admission	Tution		
24	Tuli	41	86300	99120	2104.88	2417.56	185420	4522.44
23	Yingli	129	323300	314400	2506.20	2437.21	637700	4943.41
22	Peren	134	246340	333120	1838.36	2485.97	579460	4324.33
4	Mountain	135	425240	434400	3149.93	3217.78	859640	6367.70
28	Pfutsero	138	412500	496800	2989.13	3600.00	909300	6589.13
17	Salesian	163	242720	391200	1489.08	2400.00	633920	3889.08
26	Bailey	212	370170	518160	1746.08	2444.15	888330	4190.24
	Kilenkaba	261	1066700	693560	4086.97	2657.32	1760260	6744.29
10	Sans Sc	125			2576.80	2235.52		4812.32
14	Eastern	315	1190670	957100	3779.90	3038.41	2147770	6818.32
3	Oriental	316	737850	875950	2334.97	2771.99	1613800	5106.96
15	Tetso	334	803730	801600	2406.38	2400.00	1605330	4806.38
25	Peoples	428	708860	1528400	1656.21	3571.03	2237260	5227.24
7	Modern	436	1217745	1497780	2792.99	3435.28	2715525	6228.27
8	Japfu	441	731025	1765000	1657.65	4002.27	2496025	5659.92
20	Saku	553	1451040	1459920	2623.94	2640.00	2910960	5263.94
5	Mount	616	1635800	1891350	2655.52	3070.37	3527150	5725.89
13	Pranaba..	678	1356000	1593100	2000.00	2349.71	2949100	4349.71

18	Public	749	1439280	2277000	1921.60	3040.05	3716280	4961.66
1	Alder	841	2178535	2793600	2590.41	3321.76	4972135	5912.17
12	S.D Jain	985	1279410	2833860	1298.89	2877.02	4113270	4175.91
2	Baptist	1070	2373080	3114000	2217.83	2910.28	5487080	5128.11
19	Salt	1133	2225070	2481600	1963.87	2190.29	4706670	4154.17
16	Patkai	1374	3473120	4149230	2527.74	3019.82	7622350	5547.56
	Sans Sc	1099			2290.00	2975.00		5264.68
9	St.Josephs	1676	4931800	6167640	2942.60	3679.98	11099440	6622.58
6	Kohima	2105	3512830	6315000	1668.80	3000.00	9827830	4668.80
* Core Revenue = Revenue from Admission and Tuition Fees Charged from the students; Sans=without								

Admission and tuition fees charged from the students make the core revenue of the college. The core revenue makes up 82.6 percent of the gross revenue. There is a wide variation across the colleges in the unit (average) revenue accruing from admission as well as tuition fees. While the middle sized SD Jain College charges the lowest admission fees (about Rs.1300), immediately followed by Salesian (about Rs. 1500) and Eastern (about Rs. 3800), the largest college, Kohima, charges admission fees as modest as Rs. 1670, which is much below the industry average (Rs. 2358). Kohima College is a deficit college. The second largest college, Josephs College, charges admission fee at Rs. 2942. These figures are the mean figures over different standards (higher secondary and graduation, arts and commerce streams).

On the other hand, the lowest tuition fees are charged by Salt (Rs. 2190), a medium size college. On the other hand, Japfu, a small college, charges the highest tuition fees of about Rs. 4000 per year. Kohima College charges Rs. 3000 as tuition fees per annum. The third largest college, Patkai, also charges the tuition fees at approximately same rate. However, Josephs, the second largest college, charges Rs. 3680, which is the second highest rate (after Japfu).

Admission fee as a price has many attributes and scopes. It may be used (and often works) as a prestige price, reference price or psychological price. It may also be used as a deceptive price. Admission fees may be used as a tool of captive product pricing or two-part pricing policy. It may also be used as a tool of penetrating pricing policy.

Psychological pricing is the concept that certain prices are more appealing than others are. The psychology of prices and not simply the economics are considered. The price is used to say something about the product. One special form is reference pricing where there are prices that the buyers carry in their minds and refer to when looking at a

given product. Image pricing or prestige pricing is used as a measure of quality. A prestige price often goes with the snob appeal. A college that has earned reputation and is sought after for admission may use high admission prices. The richer section of the consumers who considers it prestigious to join the college will join it. High admission prices may discourage the relatively poorer section of students, but the college will raise enough revenue from those who opt for admission to it.

Low admission fees followed by significantly large tuition fees may work as a deceptive price. Students may be attracted to take admission at low prices. Since tuition fees are paid in installments later, students may not feel the burden even when they pay somewhat more. In doing so, the college may earn more.

A small new college may use lower admission fee policy to attract more students, and enter into the market or increase its market share. In this case, it would use admission fees as a tool of penetration pricing.

In any case, admission fees work as a tool of two-part pricing; in the first part students are registered to obtain the services (teaching) for which they pay in the second part. In this policy, admission fees cover a good part of the uncertainty as well the payment for initial investments made by the college.

Admission fees together with the tuition fees, therefore, make up the core price that students pay for the services of a college. The minimal core price (about Rs. 3890) is charged by Salesian, a small college. Bailey, SD Jain and Salt charge about Rs. 4200 per annum. On the other hand, Eastern College charges the maximum (about Rs. 6800), followed by St. Joseph's and Pfutsero, all above Rs. 6500 per annum.

We observe four bands of core prices (admission plus tuition fees). The lowest band is set around Rs. 4200, by two medium size colleges, Salt and S.D Jain, both located in Dimapur. The second band is at Rs. 4700, set by Kohima College (in Kohima), the largest college under study. Baptist at Kohima, a medium size college, sets the third band at Rs. 5100. Patkai College at Dimapur, the third largest college, charges a core fee of Rs. 5264 (for arts and commerce streams). The fourth band is set at Rs. 6600, by St. Joseph's at Kohima, the second largest college under the study. It may be noted that in core revenue, St. Joseph's has the largest market share (about 14 percent).

It may be noted that SD Jain, Baptist, Salt, Patkai, St.Joseph's and Kohima are the six largest colleges under study, with enrollments between 985 and 2105, admitting 8343 students and with a market share of 55.66 students. All these colleges charge tuition fees in the range of Rs. 2100 to 3700 and admission fees in the range of Rs. 1300-3000.

A distinction should be made among the colleges located in different places, because location affects competition and pricing policy adopted by the colleges. Salt and SD Jain are the medium level colleges located in Dimapur and therefore may compete with each other. Patkai, Tetso and Salesian are in the outskirts of Dimapur. Like Kohima College, Alder, Baptist, Mount and Modern are located in Kohima town. They may closely compete for the market share. St.Joseph's, Oriental, Mountain, and Japfu are in the outskirts of Kohima town. Peren, Yingli and Tuli are rural colleges. Peoples, Bailey and Pfutsero are in Mokokchung, Wokha and Phek and have no private colleges to compete with them.

If we look into the core pricing policy of the colleges located in and around Kohima town, we observe that they charge in the range of Rs. 4668 and 6623, Kohima College at the lowest and St.Joseph's College at the highest. Kohima College is a deficit college and may justify lower charges. Oriental and Baptist are close to each other in the Rs 5000-5200 range. Japfu, Mount and Alder are in Rs. 5500-6000 range. Modern, Mountain and St.Joseph's charge higher than Rs. 6000 per year.

Colleges in and around Dimapur charge core fees in the range of Rs. 3889-6818. Salesian charges the lowest and Eastern charge the highest core fees. Both are very small colleges. S.D Jain and Salt are medium size colleges. They charge a little less than Rs. 4200.

Table 5.1(xxii) Unit Revenue From Core Sources (Admission and Tuition Fees)					
Revenue Source	No.of Colleges	Minimum	Maximum	Mean	Std. Dev
Admission	25	1298.89	4086.97	2358.00	688.34
Tuition	25	1875.56	4002.27	2865.21	524.70
Core	25	3889.08	6818.32	5223.21	878.91

Table 5.1(xxiii) Profit rate from Core Revenue						
code	college	Students	Core AR	AC	AR/AC*100	Location
1	Alder	841	5912.17	3742	157.99	Kohima Main Town = 1
2	Baptist	1070	5128.11	3655	140.30	1
5	Mount	616	5725.89	3092	185.18	1
6	Kohima	2105	4668.8	2983	156.51	1
7	Modern	436	6228.27	4774	130.46	1

3	Oriental	316	5106.96	7592	67.27	Kohima Outskirts = 2
4	Mountain	135	6367.70	7216	88.24	2
8	Japfu	441	5659.92	7776	72.79	2
9	St.Josephs	1676	6622.58	4394	150.72	2
10	Kilenkaba	261	4812.32	6524	73.76	Dimapur Main Town = 3
12	S.D Jain	985	4175.91	3180	131.32	3
13	Pranaba..	678	4349.71	2556	170.18	3
14	Eastern	315	6818.32	8406	81.11	3
18	Public	749	4961.66	2654	186.95	3
19	Salt	1133	4154.17	2537	163.74	3
20	Saku	553	5263.94	5028	104.69	3
15	Tetso	334	4806.38	11463	41.93	Dimapur Outskirts = 4
16	Patkai	1374	5264.68	8926	58.98	4
17	Salesian	163	3889.08	5846	66.53	4
25	Peoples	428	5227.24	4015	130.19	Other District HQs = 5
26	Bailey	212	4190.24	6760	61.99	5
28	Pfutsero	138	6589.13	9968	66.10	5
22	Peren	134	4324.33	4804	90.02	Rural Areas = 6
23	Yingli	129	4943.41	9105	54.29	6
24	Tuli	41	4522.44	10741	42.10	6

All colleges in Kohima earn 40 to 85 percent profit. All colleges in the outskirts of Kohima except St.Joseph's are in loss, due to high average cost and small size. All colleges except Eastern in Dimapur earn profit. Eastern incurs a loss due to high costs, higher pricing policy and small enrollment. Kilenkaba is a distinct case that cannot be dealt with without its efforts in running the science stream with a good enrollment. Saku is a little better than at the break even.

All colleges in the outskirts of Dimapur incur losses. Patkai is a distinct case that cannot be dealt with without its efforts in running the science stream with a good enrollment. All colleges in rural areas and other district headquarters, except Peoples College, run at a loss, mostly due to small enrollment and high costs. Peoples College has a good enrollment and it charges a relatively high core fees. As a result, it earns profit. Pfutsero incurs a loss due to high charges, very high cost and poor enrollment.

Now we may take into account the two colleges, Patkai and Kilenkaba (in the town/outskirt of Dimapur) that offer education in the science stream. Education in sciences, primary due to laboratory requirements, is costlier. Students who opt for science stream are psychologically prepared to pay more.

For the higher secondary classes, Kilenkaba charges higher admission fees (Rs. 5700) and annual tuition fees (Rs. 3000) against Rs. 2300 and Rs. 2160 respectively for arts stream. At the graduation standard, admission fees are Rs. 4635 for pass course and

Rs. 4965 for honours course, against Rs. 2300 charged for arts pass and honours uniformly. Annual tuition fees for the science stream are Rs. 3000 (pass) and Rs. 3360 (honours) against Rs. 2400 (uniform) for the arts stream. Kilenkaba admits 191 students at the higher secondary level out of which 102 are in the science stream. At the graduation level, it admits 70 students of which 34 are in the science stream. Due to servicing of the science stream, Kilenkaba raises substantial revenue to make its (overall) average revenue of Rs. 6744 much higher than the average cost (Rs. 6524). Its profit margin is a meager 3 percent over the average cost.

Patkai College admits 1374 students of which 275 are in the science stream. Of the total (481 students) 143 are in the science stream at the higher secondary level. Admission fees are Rs. 3630 (against Rs. 2180 for arts) and tuition fees are Rs. 2880 (against Rs. 2520 for arts) per year. At the graduation level, the college admits 893 students of which 132 are in the science stream. Admission fees for BSc are Rs. 2845 (pass) and Rs. 3780 (honours) against Rs. 2400 (pass) and Rs. 2600 (honours) respectively for arts. Annual tuition fees for BSc are Rs. 3240 and Rs. 3840 against Rs. 2880 and Rs. 3480 arts. It is interesting to note that admission fees for BSc (pass) are lower than that for the higher secondary class. Revenue from the science stream is substantial addition to the total revenue, making the overall average revenue (all streams) of Rs. 5548 against the average cost of Rs. 8926. Due to high costs Patkai College incurs losses at the core activity of teaching.

II.5. Hostel Facilities as a Device to raise Revenue: Hostel facilities are the additional service provided by a college to its students. While cheap accommodation facilities may be attracting students, high price accommodation facilities may be used as a tool of optional-product pricing policy. Optional-product pricing is the pricing of optional or accessory products along with a main product. The price charged to the clients for such optional product (service) may be much higher than its average cost of production. Revenue from the sale of optional price makes up for lower main product revenue. If an oligopolist is not able to raise enough revenue from selling the main product (either due to high cost of the main product or inability to charge enough price to main product), he would make it up by selling the optional product to the customers.

Out of 25 colleges that we are dealing with in this study, 12 offer hostel facilities at widely varying lodging rates. Modern and St.Joseph's charge only Rs. 1700, Tetso Rs. 2300, Mountain Rs. 3250 and Patkai Rs. 3530 per year. Oriental, Saku and Alder charge over Rs. 5000 per year. Others charge between Rs. 4000 to 5000. These charges do not including boarding.

Of these colleges, Oriental, Mountain and Japfu, located in the outskirts of Kohima town, incur losses in the main product (teaching) business. St.Joseph's and Modern are profit earners in the main product business and charge very low prices for lodging. Only Alder, located in the Kohima town, charges at a very high rate (Rs. 6300 per year).

In Dimapur town, Kilenkaba, Eastern, Salt and Saku offer hostel facilities. Of these, Eastern is a small college that runs in the loss in the main product business. Even after offering hostel facilities it does not make profits. Kilenkaba and Saku, earning a modest profit in the main product business, enhance their profit margin by providing hostel facilities. Salt provides hostel facilities at a large scale. Its hostels provide lodging to 350 students (over 30 percent of its students).

In the outskirts of Dimapur, two colleges provide hostel facilities. Tetso runs at a loss even after providing hostel facilities. Patkai hostels provide lodging facilities to 1174 students (over 85 percent to its students) at the rate of Rs. 3530 per year. Patkai incurs loss in the main product business. Revenues from hostels greatly reduce the loss, but the college remains left to the break even point.

Overall, hostels rescue out Japfu and Mountain from the red in the main product market; Patkai, Oriental and Eastern come very close to the break even point, Kilenkaba and Saku become comfortable and Salt and Alder raise their profit margins substantially.

Table 5.2(i) Profit rate from Core Revenue and Hostel Revenue

code	College	Students	Core Rev	Av Cost	ratio	Loc	N H	H Rev	H rate	Ratio +H
1	Alder	841	5912.17	3742	157.99	1	65	409500	6300	171.01
2	Baptist	1070	5128.11	3655	140.30	1	0	0	0	140.30
5	Mount	616	5725.89	3092	185.18	1	0	0	0	185.18
6	Kohima	2105	4668.8	2983	156.51	1	0	0	0	156.51
7	Modern	436	6228.27	4774	130.46	1	60	102000	1700	135.36
3	Oriental	316	5106.96	7592	67.27	2	81	413100	5100	84.49
4	Mountain	135	6367.70	7216	88.24	2	70	227500	3250	110.50
8	Japfu	441	5659.92	7776	72.79	2	254	1043000	4106	103.20

9	St.Josephs	1676	6622.58	4394	150.72	2	300	510000	1700	157.64
10	Kilenkaba	261	6744.29	6524	103.38	3	34	130900	3850	111.06
12	S.D Jain	985	4175.91	3180	131.32	3	0	0	0	131.32
13	Pranaba..	678	4349.71	2556	170.18	3	0	0	0	170.18
14	Eastern	315	6818.32	8406	81.11	3	50	233000	4660	89.91
18	Public	749	4961.66	2654	186.95	3	0	0	0	186.95
19	Salt	1133	4154.17	2537	163.74	3	350	1505000	4300	216.10
20	Saku	553	5263.94	5028	104.69	3	105	598500	5700	126.22
15	Tetso	334	4806.38	11463	41.93	4	160	376000	2350	51.75
16	Patkai	1374	5547.56	8926	62.15	4	1174	4144220	3530	95.94
17	Salesian	163	3889.08	5846	66.53	4	0	0	0	66.53
25	Peoples	428	5227.24	4015	130.19	5	0	0	0	130.19
26	Bailey	212	4190.24	6760	61.99	5	0	0	0	61.99
28	Pfutsero	138	6589.13	9968	66.10	5	0	0	0	66.10
22	Peren	134	4324.33	4804	90.02	6	0	0	0	90.02
23	Yingli	129	4943.41	9105	54.29	6	0	0	0	54.29
24	Tuli	41	4522.44	10741	42.10	6	0	0	0	42.10

II.6. Computer Courses as a Source of Additional Revenue: Eleven (11) Colleges offer computer courses. Total Revenue (Gross) comes to Rs 1677090 which is 1.73% of the total revenue generated. These figures are excepting Salesian college as it did not furnish the details. Altogether 2402 students took up computer courses in 10 colleges. All colleges earned a profit in offering computer courses. The total net revenue is Rs 995090. Introduction of computer courses does not bring about any drastic increase in the overall profit margins. Public and Salt colleges earn a profit margin higher than 10%.

Table 5.3(1) Profit rate from Core Revenue, Hostel and Computer Revenue

code	College	Students	Core Rev	Av Cost	ratio	Lo c	Ratio +H	CS	Gross Revenue	Ratio+ h+c
1	Alder	841	5912.17	3742	157.99	1	171.01	0	0	171.01
2	Baptist	1070	5128.11	3655	140.30	1	140.30	0	0	140.30
5	Mount	616	5725.89	3092	185.18	1	185.18	20	38000	187.18
6	Kohima	2105	4668.8	2983	156.51	1	156.51	350	59500	157.46
7	Modern	436	6228.27	4774	130.46	1	135.36	0	0	135.36
3	Oriental	316	5106.96	7592	67.27	2	84.49	0	0	84.49
4	Mountain	135	6367.70	7216	88.24	2	110.50	0	0	111.59
8	Japfu	441	5659.92	7776	72.79	2	103.20	30	30000	104.08
9	St.Josephs	1676	6622.58	4394	150.72	2	157.64	300	180000	160.09
10	Kilenkaba	261	6744.29	6524	103.38	3	111.06	0	0	111.06
12	S.D Jain	985	4175.91	3180	131.32	3	131.32	111	256410	139.50
13	Pranaba..	678	4349.71	2556	170.18	3	170.18	0	0	170.18
14	Eastern	315	6818.32	8406	81.11	3	89.91	170	85000	93.12
18	Public	749	4961.66	2654	186.95	3	186.95	350	245000	199.28
19	Salt	1133	4154.17	2537	163.74	3	216.10	876	595680	236.83
20	Saku	553	5263.94	5028	104.69	3	126.22	0	0	126.22
15	Tetso	334	4806.38	11463	41.93	4	51.75	150	165000	56.06
16	Patkai	1374	5547.56	8926	62.15	4	95.94	45	22500	96.19
17	Salesian	163	3889.08	5846	66.53	4	66.53	0	0	66.53

25	Peoples	428	5227.24	4015	130.19	5	130.19	0	0	130.19
26	Bailey	212	4190.24	6760	61.99	5	61.99	0	0	61.99
28	Pfutsero	138	6589.13	9968	66.10	5	66.10	0	0	66.10
22	Peren	134	4324.33	4804	90.02	6	90.02	0	0	90.02
23	Yingli	129	4943.41	9105	54.29	6	54.29	0	0	54.29
24	Tuli	41	4522.44	10741	42.10	6	42.10	0	0	42.10

Table 5.4(i) Profit rate from Core, hostel, computer, grants, donations and miscellaneous revenue

code	College	Students	Core Rev (CR)	Av Cost (AC)	Ratio CR/AC	Location	Ratio of Core revenue including these to AC			G D and M (in Rs)
							CR+h	CR+h+C	CR+h+C+G+D+M	
1	Alder	841	5912.17	3742	157.99	1	171.01	171.01	173.39	75000
2	Baptist	1070	5128.11	3655	140.30	1	140.30	140.30	142.22	75000
5	Mount	616	5725.89	3092	185.18	1	185.18	187.18	195.05	150000
6	Kohima	2105	4668.8	2983	156.51	1	156.51	157.46	158.66	75000
7	Modern	436	6228.27	4774	130.46	1	135.36	135.36	153.38	375000
3	Oriental	316	5106.96	7592	67.27	2	84.49	84.49	87.61	75000
4	Mountain	135	6367.70	7216	88.24	2	110.50	111.59	121.66	98000
8	Japfu	441	5659.92	7776	72.79	2	103.20	104.08	134.66	1048475
9	StJosephs	1676	6622.58	4394	150.72	2	157.64	160.09	163.46	248000
10	Kilen..	261	6744.29	6524	103.38	3	111.06	111.06	133.30	378685
12	S.D Jain	985	4175.91	3180	131.32	3	131.32	139.50	141.89	75000
13	Pranaba..	678	4349.71	2556	170.18	3	170.18	170.18	174.50	75000
14	Eastern	315	6818.32	8406	81.11	3	89.91	93.12	95.95	75000
18	Public	749	4961.66	2654	186.95	3	186.95	199.28	253.86	1085000
19	Salt	1133	4154.17	2537	163.74	3	216.10	236.83	240.59	108232
20	Saku	553	5263.94	5028	104.69	3	126.22	126.22	128.91	75000
15	Tetso	334	4806.38	11463	41.93	4	51.75	56.06	58.67	100000
16	Patkai	1374	5547.56	8926	62.15	4	95.94	96.19	96.74	75000
17	Salesian	163	3889.08	5846	66.53	4	66.53	66.53	74.39	75000
25	Peoples	428	5227.24	4015	130.19	5	130.19	130.19	159.29	500000
26	Bailey	212	4190.24	6760	61.99	5	61.99	61.99	67.22	75000
28	Pfutsero	138	6589.13	9968	66.10	5	66.10	66.10	77.01	150000
22	Peren	134	4324.33	4804	90.02	6	90.02	90.02	101.67	75000
23	Yingli	129	4943.41	9105	54.29	6	54.29	54.29	60.68	75000
24	Tuli	41	4522.44	10741	42.10	6	42.10	42.10	104.55	275000
Location 1 (Kohima). 2(around Kohima), 3(Dimapur), 4(around Dimapur), 5(District HQ), 6(Rural) +h including hostel revenue, +C including Computer revenue, G=Grants, D=Donations, M=Miscellaneous										

II.7. Grants, Donations and Miscellaneous Revenue: Grants in the form of Grant-in-aid are provided by the state government. Donations normally come from individuals and associations from within and outside the country. Revenue generated through some activities within the college falls under the miscellaneous revenue. All colleges do not receive them uniformly. During the session 2003-2003, the total revenue from these sources was Rs 5491392 (5.65%). Grants, Donations and Miscellaneous revenue come to

the rescue for Peren and Yingli College. Table 5.4(i) above present the results of ratios of different concepts of average revenue to the average cost.

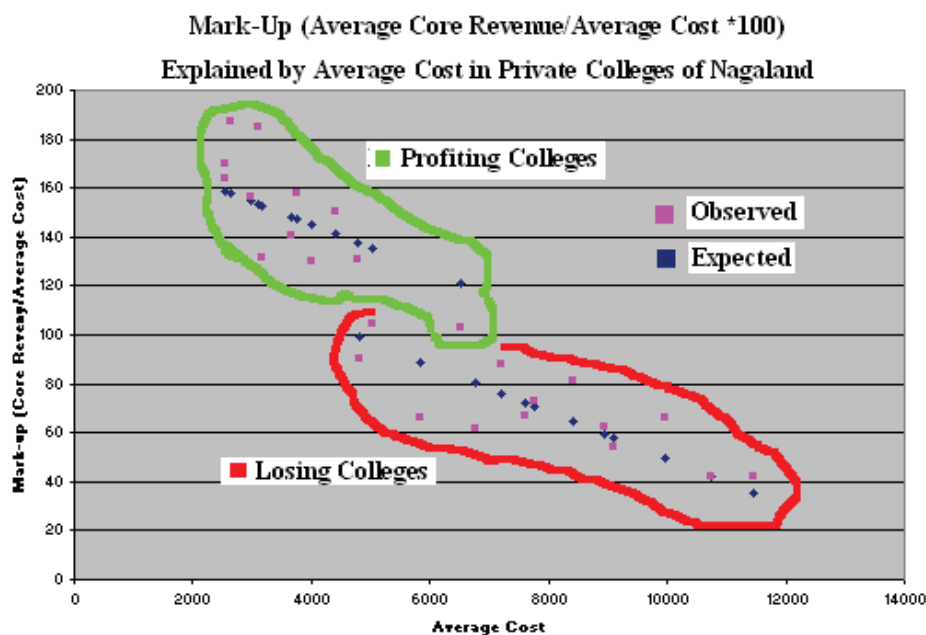
III. Evidences of Mark Up Pricing: To test the hypothesis of mark up pricing by the colleges we have formulated two alternative models. In the first model, we regress the ratio of average core revenue to average cost (MARK-UP) over and above average cost (AC), location dummy (LOC) and market share, that is the percentage of the enrolment in a particular college to total enrolment (SHARE). We visualize that location dummy (1 for Kohima main town, 2 for Kohima outskirts, 3 for Dimapur main town, 4 for Dimapur outskirts, 5 for other urban colleges and 6 for rural colleges) may be an important explanatory variable to the extent of mark up. Similarly, market share, being a measure of monopoly power, may explain the extent of mark up. Our results suggest (table 8) that except the average cost, no other variable (i.e. LOC and SHARE) shows statistically significant impact.

Table 5.5(i). Regression of Mark-Up on Average cost, Location dummy and Market share						
	β	<i>see of β</i>	b	<i>see of b</i>	t(21)	p-level
Intercept	-	-	196.9844	15.43936	12.75859	.000000
AC	-0.785892	0.100223	-0.0133	0.00170	-7.84144	.000000
LOC	-0.163004	0.100204	-4.6012	2.82850	-1.62672	.118709
SHARE	0.083303	0.101253	1.1199	1.36116	0.82273	.419907
R ² = 0.86110379, F(3,21)=43.397; p < 0.00000; Here see means the standard error of estimates						

In the second model we regress MARK-UP on average cost and profit-loss dummy (PL ; 1 for the colleges that earn profit and –1 for those that incur loss). The explanatory power of the second model is greater than the first model (R²=0.8861 against 0.8611). Both AC and PL are highly statistically significant. The mean mark-up level is 164 (average price 64 percent above the average cost). This is increased when the college has cost advantages (less AC), as the sign of b associated with AC is negative.

Table 5.5(ii). Regression of Mark-Up on Average cost and Profit-Loss Dummy						
	β	see of β	b	see of b	t(21)	p-level
Intercept	-	-	164.0450	13.28372	12.34933	0.000000
AC	-0.565025	0.126656	-0.0096	0.00215	-4.46108	0.000196
PL	0.419912	0.126656	19.1806	5.78538	3.31536	0.003145
R ² = 0.88605457; F(2,22)=85.537; p < 0.00000						

Table 5.5(iii) Mark-Up of Profiting and Losing Colleges in Nagaland									
College	Students	Core Rev	Av Cost	Mark-Up	College	Students	Core Rev	Av Cost	Mark-Up
Public	749	4961.66	2654	186.95	Peren	134	4324.33	4804	90.02
Mount	616	5725.89	3092	185.18	Mountain	135	6367.7	7216	88.24
Pranaba..	678	4349.71	2556	170.18	Eastern	315	6818.32	8406	81.11
Salt	1133	4154.17	2537	163.74	Japfu	441	5659.92	7776	72.79
Alder	841	5912.17	3742	157.99	Oriental	316	5106.96	7592	67.27
Kohima	2105	4668.8	2983	156.51	Salesian	163	3889.08	5846	66.53
Josephs	1676	6622.58	4394	150.72	Pfutsero	138	6589.13	9968	66.1
Baptist	1070	5128.11	3655	140.3	Patkai	1374	5547.56	8926	62.15
S.D Jain	985	4175.91	3180	131.32	Bailey	212	4190.24	6760	61.99
Modern	436	6228.27	4774	130.46	Yingli	129	4943.41	9105	54.29
Peoples	428	5227.24	4015	130.19	Tuli	41	4522.44	10741	42.1
Saku	553	5263.94	5028	104.69	Tetso	334	4806.38	11463	41.93
Median College				Kilenkaba	103.38	6744.29	104.69	6524	



IV. Academic Performance and Mark-Up: We investigate the relationship between mark-up and academic performance of colleges. Two performance indices have been constructed with the following 10 variables, using principal components analysis.

x1 = percentage of students promoted to Class XII
x2 = percentage of students selected for Board exams
x3= percentage passed students in Board examinations
x4 = percentage passed in first division in Board examinations
x5= percentage passed in second division in Board examinations
y1 = percentage of students promoted to Graduation II and III
y2 = percentage of students selected for University exams
y3 = percentage passed students in University examinations
y4 = percentage passed in first division in University examinations
y5= percentage passed in second division in University examinations

Table 5.6(i). Regression of Mark-Up on Average cost and Performance indices						
	β	<i>see of β</i>	b	see of b	t(21)	p-level
Intercept	-	-	194.2215	9.694398	20.0344	0.000000
AC	-0.912616	0.090170	-0.0149	0.001468	-10.1211	0.000000
Perform-1	-0.012038	0.093362	-0.7436	5.767336	-0.1289	0.898693
Perform-2	-0.064934	0.093318	-3.5167	5.053868	-0.6958	0.494539
R ² = 0.83757835; F(3,20)=34.379; p < 0.00000						

The regression coefficients (table 5.6(1)) indicate that both academic performance indices have statistically insignificant coefficients. From this we conclude that academic performance does not determine profitability. This also shows that charging of fees does not depend on the performance. Thus, customers suffer moral hazards and fees paid by them do not provide even a slightest assurance to quality. This relates to our 3rd hypothesis.

CHAPTER VI

A SUMMARY OF FINDINGS AND POLICY IMPLICATIONS

I. Summary of Findings: With the increase in demand for higher education in Nagaland, private colleges in almost all districts have been established. Having seen the dire need to have colleges in both rural and urban areas individuals, associations, churches etc. have established colleges to cater the demands of the ever increasing students, to solve the unemployment problem, to generate income and also with the hope of bringing an all round development of the state.

Below we look at the important findings detailed in the preceding chapters.

1. Govt. vs. Private Colleges: Colleges started being established in Nagaland since 1959. By 1983, there were 8 government and 5 private colleges in the state. However, starting of new govt. colleges ceased afterwards. Since 1983, twenty-three private colleges have been established. In 2003-04, these twenty three colleges enrolled over 12000 students, while older (pre-1984) colleges enrolled 8.8 thousand students (govt. colleges: 3.5 thousand and private colleges: 5.2 thousand). Overall, private colleges enrolled over 17 thousand students while govt. colleges enrolled 3.5 thousand students. Thus, private colleges serve over 4/5th of the customers (students). This fact indicates the role of private colleges in the higher education sector of Nagaland.

Table 6.1 (i). Growth of number of students in the private Colleges in Nagaland. (1999-2004)

Sl No.	Name of the college	Year of Estd.	Total Number of students. (1999-2004)					Growth	
			1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	Student per year	Annual Average rate
1	Kohima	1967	1503	1458	1340	2105	2201	174.5	9.29
2	Patkai	1974	1285	1133	1305	1374	1594	77.25	4.81
3	Baptist	1982	826	752	863	1070	1115	72.25	6.99
4	Salesian	1982	143	136	154	163	157	3.5	1.96
5	Pfutsero	1982	74	126	132	138	160	21.5	23.24
6	Peoples	1984	427	374	341	428	424	-0.75	-0.14
7	St Joseph's	1985	1494	1580	1651	1676	1676	45.5	2.44
8	Public	1985	605	734	822	749	747	35.5	4.69
9	Peren	1987	100	142	129	134	133	8.25	6.6
10	Mountain	1991	259	242	249	135	78	-45.25	-13.98
11	Pranaba..	1991	489	558	705	678	680	47.75	7.81
12	Salt	1991	1502	1543	1660	1133	1418	-21	-1.12
13	Alder	1992	1002	1032	760	841	1003	0.25	0.02
14	Mount	1992	489	523	540	616	618	32.25	5.28
15	City*	1992	NR	NR	NR	NR	NR	NR	NR

16	Eastern	1992	887	438	443	315	517	-92.5	-8.34
17	Yingli	1992	72	68	58	129	108	9	10
18	S.D. Jain	1993	787	834	1016	985	1088	75.25	7.65
19	Loyem*	1993	NR	NR	NR	NR	NR	NR	NR
20	Kilenkaba	1994	246	236	234	261	246	0	0
21	Tetso	1994	281	248	258	334	433	38	10.82
22	Sakus	1994	417	464	484	553	710	73.25	14.05
23	Oriental	1996	223	154	315	316	406	45.75	16.41
24	Japfü	1996	411	444	383	441	522	27.75	5.4
25	Tuli	1996	46	65	56	41	62	4	6.96
26	Bailey	1996	222	232	175	212	209	-3.25	-1.17
27	Modern	1997	214	167	178	436	471	64.25	24.02
28	Zisaji*	1997	NR	NR	NR	NR	NR	NR	NR
Total			14004	13683	14251	15263	16776	+693	+3.96

Table 6.1(ii) Number of students in Government Colleges in Nagaland. (1999-2004)

Sl. No.	Name of The College	Year of Estd.	Total Number of students. (1999-2004)					Growth	
			1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	Student per year	Annual Average rate
1	Fazl Ali	1959	975	883	810	525	527	-112	-9.19
2	Kohima Sc	1961	923	974	1000	1065	1240	79.25	6.87
3	Sao Chang	1966	1105	1218	750	695	678	-106.75	-7.73
4	Dimapur	1973	271	205	258	234	420	37.25	10.99
5	Zunheboto	1974	257	465	108	286	213	-11	-3.43
6	Phek	1980	133	134	167	149	213	20	12.03
7	Mt. Tiyi	1981	86	133	118	94	126	10	9.3
8	Wankhao	1983	129	124	129	130	126	-0.75	-0.47
Total			3879	4136	3340	3178	3543	-84	-1.73

Private colleges enrolled 16776 students of which 9150 are boys and 7626 are girls. Enrolment of Non-Naga students is 2240 which is 13.35% of the total enrolment. The highest is 78.98% and in one college there is no Non-Naga enrolment.

Growth rates of students from 1999-2004 indicate that in case of the private colleges there was a positive growth of 693 students per year whereas for the government colleges there was a negative growth of 84 students per year. As for the average annual rate we have a positive growth rate of 3.96 for private colleges and a negative growth of 1.73 for government colleges. The average enrolment in government colleges during this period is 442.87 and 671.04 in private colleges.

2. Older Colleges Command Larger Market Share : Of the reporting 25 private colleges, the oldest 9 private colleges enroll 48.92% of the total number of students in the private colleges, while the youngest 16 colleges enroll 51% of the total students. 12

colleges are relatively small in size with students less than 500. These twelve colleges have enrollment of 48 percent of the total students in private colleges. Three colleges are relatively large with student's enrollment over 1300 students.

3. Employment Generation: Private Colleges in Nagaland employed 451 lecturers on regular basis and 10 on contract. In all there are 29 lecturers who have Doctorate of whom two are female. There are 15 lecturers who hold M.Phil degree of which 12 are male and 3 are female. The rest 407 are post-graduates. There are 22 colleges that have number of lecturers between 5 to 25 - with the maximum number of lecturers within the range of 15 and 20. All the colleges have lecturers more than 5 and only one college employs more than 45 lecturers. Lecturers working for a period of less than five years received, on an average, a monthly salary of Rs 7304; lecturers working for more than five years but below 10 years received Rs 8523 and lecturers above ten years of service received Rs 11035 on an average.

The number of non-teaching staff is almost same in all the colleges with staff less than 10. Only one college has staff more than 45. Private colleges employed 226 non-teaching staff of which 10 are on contract. On an average a grade I staffs monthly salary is Rs 7096, a grade II staff is Rs 4746, a grade III staffs is Rs 397.13 and grade IV staffs is Rs 2619.

4. Resource Utilization: The student/ Lecturer ratio is about 37 on an average, the highest being 62.89 and the lowest being only 7.10. Male Lecturers constitute 63% of the total number of lecturers. The student/ classroom ratio is a little over 62 on an average, the largest being 129.47 and the smallest being only 9.75. The index of utilisation of classroom indicates that the classrooms are slightly over utilized. On an average it is 101.2. The no. of existing classrooms is 287 and that of the required classrooms is 295. The maximum value of utilization index of classrooms is 220 and the minimum value is 20. For the 25 colleges, 1136 classes are taken in a day. In an average it comes to 46 classes per college per day. For a lecturer the average classes per day comes to 2.54, with highest number of classes being 4.38 and lowest being 1.4. The average workload per lecturer in a week is 13.99 (or 14) classes. The highest number of classes for a lecturer per week is 24.09 and the lowest is 7.70.

5. Performance: Performance of the colleges were analysed through internal and external examinations. Ten indicators of performance were for a period of five years, beginning from 1998-2002. The results suggest that Japfu, Patkai and Salesian Colleges were ranked first, second and third respectively according to mean factor- I. According to mean factor-II Salesian, Eastern and Patkai colleges were ranked first, second and third respectively.

6. Earning, Expenses and Profits: Private colleges in Nagaland earned revenue of Rs 9,70,63,207 and spent Rs 7,63,19,467 during the session 2002-2003. Thus the Net revenue comes to Rs 2,07,43,740. Ten colleges incurred losses amounting to Rs.37,98,113. The total net profit for the fifteen colleges comes to Rs.2, 45,41,853.

Table 6.1(iii). Gross indicators regarding private colleges in Nagaland. 2002-2003

Items	Me asure	Items	Me asure
No. of Private colleges	25	A&A cost	7189308
No. of Students	15263	Students activities	1223616
No. of P.G Lecturers	407	Gross expenses	76319467
No. of M.Phil Lecturers	15	Revenue from Tuition Fees	45146290
No. of PhD Lecturers	29	Revenue from Admission Fees	34419115
No. of contract lecturers	10	Revenue from Computer Fees	1677090
No. of Computer Teachers	15	Revenue from Hostel fees	9692720
No. of Non-Teaching staff	216	Government Grants	2350000
No. of contract N-T Staff	10	Donations	1789917
No. of Office rooms	75	Gross Annual revenue	92923290
No. of class rooms	270	Gross Annual income (GAI)	97063207
No. of Lecturers room	25	Profits	20743740
Salary to Lecturers (regular)	44581884	Gross Profit Rate on Expenses	27.18%
Salary to Lecturers (contract)	88200	Share of Lecturers in Income	46.54%
Salary to N-T Staff (regular)	10252442	Share of Staff in Income	10.73%
Salary to N-T staff (contract)	162500	Share of A&A expenses in Income	7.41%
Salary to Computer teacher	500500	Share of Students' expenses	0.53%
Scholarships and awards	210000	Share of Miscellaneous Expenses	0.07%
Expenses on Infrastructure	7753649	Share of Infrastructure expenses	10.16%
Miscellaneous Expenses	55000	Share of Rent in Income	0.11%
Expenses on Rent	1110000	Share of library in income	2.79%
Library	2705781	Share of Capital in GAI	21.36%
Laboratory	340134	Share of Labour in GAI	57.27%
Water and electricity	702045	Share of Entrepreneur in GAI	21.37%

Overall, the profit earned by the colleges is a little more than 27 percent (over expenses). Some colleges earn much larger profit while some others incur losses.

7. Production Function: We have represented production, capital and labour in value terms, since substantial variations in types of output (HS, BA, BCom, etc), capital (various types of infrastructure) and labour (teachers, non-teaching staff of different types) did not permit an aggregative measurement. Thus, we have proxied output by total

revenue, capital by overhead capital expenses, and labour by the aggregate salaries (all at the college level).

Table 6.1(iv). Estimated Parameters of CES Production function				
Statistic	<i>A</i>	δ	β	η
Estimate	0.43450	0.066416	0.543953	1.1026
Std.Err.	0.00628	0.023215	0.655959	0.0060
t(21)	69.15683	2.860855	0.829248	182.6921
p-level	0.00000	0.009357	0.416291	0.0000
R ² = 0.755, Method of estimation : Least absolute deviation due to presence of outliers				

Then, we have estimated the CES production function directly using a non-linear estimation method. The least squares methods did not give acceptable results. Hence we used the least absolute deviation method of estimation. The results are presented in the table above. In the functional form it is given as:

$$P = 0.4345(0.066416K^{-0.543953} + 0.933584L^{-0.543953})^{-\left(\frac{1.1026}{0.543953}\right)}$$

The value of scale parameter, η , is 1.1026, suggesting a slightly increasing returns to scale. The value of the substitution parameter, β , is 0.543953, giving the elasticity of substitution, $\sigma = 0.6476$, substantially smaller than unity. This suggests that the substitution between labour and capital is feasible to a limited extent. Also, a small value of distribution parameter, δ (= 0.066) indicates that capital contributes only meagrely to production. These findings clearly suggest the labour-intensive nature of output in the colleges of Nagaland.

8. Pricing and Product Policy: Pricing and product policy of the colleges under study has many dimensions. How many types of services (education in HS, BA, BCom, BSc, Hostel, etc) to offer, how many students to enroll, what fees to charge for different services, etc are covered under pricing and product policy.

Admission and tuition fees charged from the students make the core revenue of the college, which makes 82.6 percent of the gross revenue. There is a wide variation across the colleges in the unit (average) revenue accruing from admission as well as tuition fees. While the middle sized S.D Jain College charges the lowest admission fees (about Rs.1300), immediately followed by Salesian (about Rs. 1500) and Eastern (about

Rs. 3800). The largest college, Kohima, charges admission fees as modest as Rs. 1670, which is much below the industry average (Rs. 2358). Kohima College is a deficit college. The second largest college, St. Joseph's College, charges admission fee at Rs. 2942. These figures are the mean figures over different standards (higher secondary and graduation, arts and commerce streams).

Table. 6.1(v). Unit Revenue From Core Sources (Admission and Tuition Fees)					
Revenue Source	No. of Colleges	Minimum	Maximum	Mean	Std. Dev
Admission	25	1298.89	4086.97	2358.00	688.34
Tuition	25	1875.56	4002.27	2865.21	524.70
Core	25	3889.08	6818.32	5223.21	878.91

On the other hand, the lowest tuition fees are charged by Salt (Rs. 2190), a medium size college. On the other hand, Japfu, a small college, charges the highest tuition fees of about Rs. 4000 per year. Kohima College charges Rs. 3000 as tuition fees per annum. The third largest college, Patkai, also charges the tuition fees at approximately same rate. However, St. Joseph's, the second largest college, charges Rs. 3680, which is the second highest rate (after Japfu).

Admission fee as a price has many attributes and scopes. It may be used (and often works) as a prestige price, reference price or psychological price. It may also be used as a deceptive price. Admission fees may be used as a tool of captive product pricing or two-part pricing policy. It may also be used as a tool of penetrating pricing policy.

We observed four bands of core prices (admission plus tuition fees). The lowest band is set around Rs. 4200, by two medium size colleges, Salt and S.D Jain, both located in Dimapur. The second band is at Rs. 4700, set by Kohima College (in Kohima), the largest college under study. Baptist at Kohima, a medium size college, sets the third band at Rs. 5100. Patkai College at Dimapur, the third largest college, charges a core fee of Rs. 5264 (for arts and commerce streams). The fourth band is set at Rs. 6600, by St. Joseph's at Kohima, the second largest college under the study. It may be noted that in core revenue, St. Joseph's has the largest market share (about 14 percent). Thus, the higher education market in Nagaland is characterizing monopolistic competition with multiple leaders, possibly competing among themselves. Dimapur segment of market appears to have two leaders, while the Kohima segment of market has three leaders. There are some

evidences of mark-up pricing by the colleges. The mean mark-up level is 164 (average price 64 percent above the average cost). This is increased when the college has cost advantages (less average cost).

It has been found that academic performance does not determine profitability. This also shows that charging of fees does not depend on the performance. Thus, customers suffer moral hazards and fees paid by them do not provide even the slightest assurance to quality.

II. Concluding Remarks: The main points of our findings are summarized below:

1. Private colleges serve over 4/5th of the customers (students). The market share of private colleges is increasing over time, while the market share of govt. colleges is decreasing over time. Among the private colleges, older colleges command larger market share. Crowding is also observed in larger colleges.
2. Private colleges employ 461 teachers and 226 non-teaching staff. They are the largest employment generators in the higher education sector.
3. Private colleges earned revenue of Rs 9.7 crore and spent Rs 7.6 crore (during the session 2002-2003). Thus, they generate income of a sizeable amount. Overall, they earn a little over 27 percent profits over the cost.
4. Production function of private college industry indicates that it is a labour intensive industry with a good substitutability of labour to capital.
5. Private college industry is not competitive, but it has a monopolistic competition (or somewhat oligopolistic) market. Several bands of prices (fees charged) are observable.
6. In general, colleges use mark-up policy for fee determination. There is some evidence of leadership and barometric pricing also.
7. Charging of prices is not dependent on academic performance.

In view of all these, we agree with Bhusan (2004) that the private colleges be allowed to exploit the market for education only under the regulation and control by the government whereas the autonomy of institutions in admission policy, staff recruitment policy and the teaching-learning process should be provided under the guidelines issued by the government. The government should regulate the quality dimensions of the

programmes by making the recognition and accreditation of institutions and programmes mandatory for all private education providers.

III. Problems and Issues. Education, like food, clothing and shelter is a prime need of every individual. It is the backbone of any country's civilization and as such determines the capacity to develop and progress. The higher education, in particular, plays a vital role in nurturing human resources and furthering economic and social transformation to ensure growth and development of the nation. In Nagaland the system of higher education has undergone large horizontal growth in the proliferation of huge number of educational institutions in the last two decades to cope with its burgeoning student population. To cope with this high growth of students educational institutions should be well prepared to meet the demands of the students.

Many would agree that education, over the years has been transformed into a lucrative business. But to set up such a big undertaking it requires a large number of experienced and qualified manpower and above all it involves a huge amount of investment. An Undertaking, whether an individual proprietor, organisation or churches own it, is not without problems. The problems are diverse and many.

Below we look at some of the problems faced by the private colleges in Nagaland and also the suggestions that the colleges had given.

Financial Problems: One of the most important aspects of any undertaking is the finance. Not only is a huge amount of capital required for developing the infrastructure but it also has to meet with a large amount of overhead costs. Almost all the colleges suffer from financial constraints. These undertakings almost entirely depend on the internal source i.e fees from the students to meet the various expenditures. As such many colleges who do not get a large number of students meet with a deficit. Though the State Government gives financial assistance in the form of grant-in-aid to the private colleges, it is almost negligible.

The entire cost including heavy investments in providing necessary facilities in terms of buildings, equipments, research facilities and supportive infrastructure is provided by the institution concerned. Recovery of the investment is slow as per the revenues. This prompts the owners to recover the investment as early as possible, which leads to commercialization.

Infrastructure: Infrastructure in many of the colleges is in a very poor state. Not all colleges are ideally situated, they are congested and not enough space even to expand. Apart from the academics, students do look at the facilities, which the colleges provide like proper campus, hostel facilities, transportation, sports facilities etc., Likewise for the teaching faculty and the Non-teaching staff they would prefer to have quarters, good library, computer facilities, safe drinking water, electricity etc. Many colleges do not have outdoor sports facilities. Many colleges are not able to provide students with outdoor sport facilities and even indoor sports facilities. They do not have a separate auditorium to conduct college activities. Above all many colleges have limited classrooms, no student's room, and not enough room for the Non-Teaching staff, no health center and no college bus for transportation.

Lack of Qualified and Experienced Teachers: Another problem faced by the private colleges is regard to getting qualified and experienced teachers. The main reason for this is that lecturers in most of the private colleges are paid less as compared to the Government colleges and some few private colleges. Some colleges lament that if at all they have to raise the salary it will be at the cost of the students by increasing the fees.

Low Salary of the Staff: The stakeholders who are victims of commercialization are teachers, students and parents. Teachers working in these institutions, in many cases, are found underpaid. On an average, a lecturer working for 5 years in a private college gets a monthly salary of Rs7305 whereas a government lecturer gets Rs15000. Lecturers working for more than 5 years and less than 10 years in a private college get a monthly salary of Rs8525 whereas in government they get Rs18000. Again lecturers working above 10 years in private colleges get Rs11035 whereas in government colleges they get Rs23000.

The same is for the Non-teaching staff. On an average a grade I staff in a private college gets Rs7095 while in a Government College they get Rs13000. A grade II staff in a private college gets Rs4745 while in government colleges they get Rs11000. A grade III staff in private colleges gets Rs3976 while in government colleges they get Rs7990. A grade IV staff in a private college gets Rs2618 while in government colleges they get Rs 5600.

Permanent Affiliation: Apart from the problems related to finance, one important problem faced by many of the colleges is related to affiliation to the University. Out of the 28 private colleges only two colleges are affiliated permanently to Nagaland University. Even after completion of 10 years many private colleges are still not granted their permanent affiliation. And as such these colleges do not get any financial assistance from the Central government or the UGC.

Examination Center: Some of the private Colleges have still not been given the status of examination center. As such it becomes very difficult for the students as well as the teachers to go to other college situated in the town to appear the exams.

Study Tour: Except for one or two colleges, students are not given the opportunity to undertake study tour. The main problem of the colleges is that the college alone is not in a position to finance everything. Many students feel that their college is depriving them when their counterpart (Government colleges) takes students out for study tour.

Functioning of the University: Some colleges have also questioned the working of the Nagaland University: firstly, the marking system in the University exams. Secondly granting permanent affiliation to the private colleges. Lastly, depriving of examination center to some colleges.

Most of the problems faced by the private colleges are related directly or indirectly to finance. The revenue generated by these colleges through fees is not enough to cover both overhead costs and take developmental works. Salaries alone come to 75.49% of the total expenditure made by the private colleges. The private colleges do get Grant-in-aid from the state government and some few college's gets donations through they are in a way able to minimize their burden on fees alone. Even then little is left for the development of infrastructure of the college.

Other problems like lack of infrastructure lack of qualified and experienced lecturers, students study tours are all related to the problem of finance. Unless and until the colleges are able to have a sound financial background these problems are bound to crop up.

Apart from problems related to finance, many private colleges are affected because they are not permanently affiliated to the University. Some colleges also face the problem of not giving the status to conduct university examinations in their college. Few

colleges have even questioned the functioning of the university especially about the marking system in the university exams.

Suggestions: The problems faced by the private colleges are many and it differs from college to college. They have given a number of suggestions as to how the college will overcome these problems.

Increase the Staff: Many of the colleges face the problems of lack of teaching and Non-Teaching staff. The average no of lecturers in private colleges is 18 as compared to 30 in government colleges. As such the teaching load in case of private colleges exceeds that of the government colleges. On an average a lecturer in private colleges takes 21 classes per week whereas for a government college it is 13. With so much load and being paid so little the lecturers suggest that either the college has to appoint more lecturers or increase their salary

The case is same for the Non-Teaching staff. On an average in private colleges the number of Non-Teaching staff is 9 while in government colleges it is 29. With growing number of students and with limited time it becomes very difficult for them to complete their work.

Raise in Salary: There is a wide difference between the salary of the Staff in private colleges and the salary of staff in the government colleges. Even among the private colleges the gap is quite wide ranging from Rs4500 to Rs8000. Colleges that pay a higher salary attract more qualified and experienced faculty. As such other colleges that pay a lesser salary suffer from acute shortage of staff. In almost in all the private colleges the staff suggest that apart from raising their salary they should be given the benefits like, Dearness allowance, yearly increment and pension benefits.

Infrastructure Development: The development of a college largely depends on the kind of infrastructure it has. Most of the colleges do not have a proper permanent campus. As such there is the problem of congestion inside the class and also outside. They are mostly situated right next to the highway or in the middle of the town. As such the prospect of extension is impossible. Their only option is to find some other areas away from the town. But these require lots of investment, and the college alone finds it difficult to finance. As such private colleges have to look for some other means to finance them.

They have suggested that the State government, Central government and the UGC should provide some funds for developmental purposes.

More Grants from the State Government: The State Government through Grant-in-aid gives to the private colleges a sum of Rs 75000 annually. Apart from this some colleges get special grants for developmental works. Almost all the colleges have suggested that the Grant-in-aid of the state government should be raised so that the demand of the staff and students can be met. It will be worth mentioning that Grant-in-aid received from the state government during 2002-2003 was only 2.42% of the total revenue generated by all the private colleges.

Grants from the Central Government and UGC for Developmental Works: Almost all the colleges are able to meet with the expenditures like salaries, academic and administrative, students' activities but their main problems lies with the growing demands of the staff and students regarding classrooms, hostels, quarters etc. These colleges suggest that the central government and the UGC should give them assistance for development of infrastructure.

Permanent Affiliation: Out of the 28 private colleges in Nagaland, 22 colleges have already completed or are above 10 years. Till today there are only two colleges that are permanently affiliated to Nagaland University. The colleges, since they are not permanently affiliated, do not get financial assistance from the central government or the UGC. They have suggested that the University should at the earliest grant permanent affiliation to those colleges that have already completed 10 years.

Colleges to Have its Own Examination Center: Not all private colleges are situated in the town. They have started the colleges so as to cater to the needs of the rural people who could not afford to go out and study in other places. Some of these colleges have not been given the status of examination center. As such, for exams the students and the teachers have to go to other centers. This creates a lot of inconveniences to the students as well as the teachers. The University should take into consideration this problem and as soon as possible these colleges should be given the center to conduct the exams.

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