Chapter I

Introduction, Scope and Method
INTRODUCTION, SCOPE AND METHOD

Economics of education is a relatively new branch of study, which together with health economics forms the core of the economics of human resources. It is now generally recognized that improvements in the quality of labour (through education, training, etc.) can lead to high rates of economic growth. Thus the economics of education with its concept of human capital has revolutionized economic thinking and has emerged as an important discipline.

The birth of the economics of education can be traced back to T.W Schultz who in his presidential address at the annual meeting of the American Economic Association in December 1960 brought into focus the concept of human capital formation. Subsequently there was an acceleration of research in this area as more and more economists came to realize its importance.

The present study on the Economics of Higher Education in the State of Uttar Pradesh is analyses of costs and financing of higher education in Uttar Pradesh, which is the most populous state in India. No comprehensive study on this theme has been done for Uttar Pradesh though there are other aspects of education on which a few citations are available. The study pertains to general higher education. Technical education is outside the purview of this study.

The subject matter of economics of education falls into two broad categories. The first evaluates the contribution of education to economic growth, examines and analyses the impact of education on labour productivity, occupational mobility, income distribution, etc. The second deals with the financial aspects of educational systems and analyses the costs of education and the methods of financing these costs. The different aspects of education which require a detailed probe relate to how much a government needs to spend on

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education and how this expenditure is to be financed; is education mainly 'investment' or mainly 'consumption'; if investment, how much is the yield compared to other forms of investment; if consumption, what are the determinants of the demand for education. It is important to assess which form of education would serve the needs of the economy, specifically, how economic growth can be accelerated through the expansion of educational systems.

A positive correlation has been found to exist between education and level of development in different countries during different periods. These calculations confirmed, though in a general way, that education is a form of investment and a vital one.

Education and training increase productivity and consequently earnings of labour. Although the consumption element is present in expenditure on education, the investment aspect is crucial and has an important bearing on the quality of labour, which determines its productivity. While education at the primary level provides a country with a literate workforce amenable to change and acceptance of new ideas, at the higher level education acts as a tool of change and development.

Traces of the discussions of human capital and its importance can be found since the beginning of economics as an independent branch of knowledge. Classical economists recognized the economic value of human capital but its contribution to economic growth was not given due emphasis. Adam Smith in his "Wealth of Nations" makes a reference to the "acquired and useful abilities of all the inhabitants or members of society" which according to him was due to "education, study or apprenticeship", expenditure on which he regarded as "fixed capital". Marshall, too, considering the benefits of education was of the view that education is "an important means towards the production of material wealth".

During the last four decades or so the priority which was earlier given to investment in physical capital for effecting economic growth has changed and emphasis is now on human capital, which constitutes human resources capable of
yielding economic returns over their life span. Therefore, any expenditure on education, training, health, etc., is considered an investment.

A number of economists are not very happy about the concept of human capital. Schultz feels that this is on account of "our values and beliefs which inhibit us from looking upon human beings as capital goods, except in slavery, and this we abhor". The prevalent view was that wealth exists for man who should be served by economic endeavour. To consider man as wealth or as a marketable asset would reduce man to a mere material component, to something akin to property. For man to look upon himself as capital may seem to debase him. Economists therefore consider the concept of human capital as improper. H.G. Shaffer criticizes the concept of human capital on the following grounds.

(i) Investment in man is essentially different from investment in non-human capital. A part of the expenditure for improvement of man is undertaken for reasons other than expectation of a monetary return, its effects on future output are uncertain and it satisfies wants directly. Further, it is inseparable from expenditure that may be termed as investment.

(ii) It is virtually impossible to allocate specific return to a specific investment in man. Aggregate expenditure on improvements in man's skill and abilities, it is accepted, does have a positive influence of "indeterminate magnitude" on man's efficiency and hence on output.

(iii) Even if it were possible to separate consumption expenditure from investment expenditure in man, and income from such investment

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could be computed, as a basis for public policy it would be of questionable value.

It was the recognition of education as investment, which led government in all countries to spend liberally on education, and the share of education as a percentage of government budget/GDP gradually increased. The peaks in general were reached by 1990. Since the adoption of the structural adjustment of the IMF (in India since 1991) with a view to reduce fiscal deficit, social sector expenditures were reduced and education has been the main casualty. It has posed another threat to education in India, which is already starved of funds.

A glance over the impact of structural adjustment on educational financing would reveal that adjustment is associated with a decline in (a) public financing of education, (b) gross primary enrolment rates (c) teacher-student ratio and (d) the growth of teachers. Our main concern in this research work is in the constraints to financing.

Higher education in the pre-Independence days was largely supported by private charity. However, the role of government gradually increased in its financing after Independence. This is true of Uttar Pradesh as also of all other states in India. State government in Uttar Pradesh (as elsewhere) adopted a policy of subsidizing higher education and provided liberal grants-in-aid. Realizing the importance of higher education and need for its wider dispersal, the State on its own started many general and professional colleges and universities in Uttar Pradesh. The share of government funding, consequently, went on rising. However, around 1990, the system of State financing of higher education came under severe constraints and now (after 1997) higher education is being considered as a "merit good" and privatization of higher education is being advocated. It has added yet another dimension to the problem under probe in this thesis.
Scope and objective

Briefly stated the present study aims at analyzing: (i) the placement of higher education in the scheme of plan priorities in Uttar Pradesh, (ii) costs of higher education, sources of finance and their relative significance in higher education in Uttar Pradesh, (iii) public higher educational expenditure in aggregated and dis-aggregated form, (iv) the process of budgetary allotment of funds and the procedure of grants-in-aid, (v) a blueprint of alternative schemes of resource mobilization for higher education in Uttar Pradesh for the next 10 years.

A problem often discussed with respect to costs in higher education arises in estimation of actual costs incorporating its various components and the amount of financing which is supposed to defray the cost of higher education calculated as mentioned. Often in the study of financing of education cost is taken synonymous to financing on the assumption that financing is attempted to defray the costs. On the other hand calculation of costs may be attempted by following a different methodology as suggested by Vaizey^4, who emphasized on estimation of various components of costs, like the maintenance costs of students, fees, incidental expenses, earnings forgone, etc. There is no denying that this is a better approach to cost calculation, but then it is beyond the capacity of the individual researcher to calculate it at the State level. Therefore, several studies have taken to the former option^5, and we have also followed the same pattern in this investigation. While Azad's pioneering work gives a national perspective, the work of Muzammil is related with the analysis of education in Uttar Pradesh, and that of Singh deals with similar issues in the State of Bihar. And all of them have

taken cost and financing as synonymous on the assumption that financing is attempted to cover-up the costs.

The thesis begins with the chapter on higher education and economic development (Chapter II) which seeks to demonstrate that investment aspect of higher education is more important and thereby helps in economic development. In this chapter a brief survey of the existing literature on economics of higher education is also attempted with a view to ascertaining the place of higher education, its costs and returns in the growth process of a developing economy.

Chapter III presents the system of higher education in Uttar Pradesh and analyzes the physical indicators in the growth of higher education in the State. It disaggregates higher education into university education and degree collegiate education for purposes of analysis. Quantitative growth rates have been computed with regard to several types of numerical data – student enrolment, institutions, teachers, teacher-pupil ratio, etc.

Without going into the detail of the overall plan making process, Chapter IV attempts to analyze the placement of higher education in the scheme of Plan priorities in Uttar Pradesh (as also in India to have a national perspective). Plan-wise discussion in this Chapter brings out the plan policy parameters with regard to development of higher education in the State. The task in this chapter is mainly to see to what State Plan documents have to say on social services and education in general and higher education in particular as the end product of a long process of formulations, revisions, and finalization of Five Year Plans.

Certain inter-State and international comparisons of the economic aspects of higher education are given in Chapter V. Comparison is attempted of the position of economics of higher education in Uttar Pradesh with what is obtained in other (less developed and more developed) states of India. Such comparisons are also extended to certain developed and developing countries particularly the neighbouring Asian nations. This has helped in reaching at certain important conclusions, which has proved to be very useful in policy recommendations.
Various types of costs of higher education and their nature in the context of financing are analyzed in Chapter VI. Detailed discussion is attempted on recurring and non-recurring costs and the components thereof. Total costs have also been disaggregated into public and private, including their constituents in turn.

Chapter VII examines the relative roles of various sources of finance for higher education in Uttar Pradesh, particularly public and private sources taken as two aggregates. It analyzes the data relating to financial support from different public and private sources to university and collegiate higher education in U.P. It also evaluates the role of fees and other related charges in higher education. In particular answers to the following questions are attempted in this chapter: (a) what is the amount and growth rate of fee per pupil in higher education? (b) is per pupil fee increasing or decreasing in money/real terms? (c) at which period of time in higher education the contribution of fee has been the largest? (d) whether per pupil fee has gone up in the same proportion as per capita State income? (e) what is the amount and growth rate of per pupil voluntary contribution to higher education from private sources? (f) what is the relative trend in private voluntary contribution to higher education, and (g) whether, keeping in view the private returns to higher education, private contribution (both fees and donor support) is adequate?

Chapter VIII analyzes the present system of budgetary allotment of funds for higher education in the State and also examines the scope for switching over to better methods of budget preparation for higher education. From the viewpoint of public expenditure on higher education, this sector competes with other levels of education, and education as such with other social services. Expenditure is no longer regarded as a routine budgetary problem of allocating public expenditure between one item of public consumption and another. But when it assumes the character of investment it clearly requires application of higher and precise criteria. Though by the 42nd Amendment to the Constitution of India, education
has been brought on the Concurrent List, the larger responsibility (as per
tradition) lies on the shoulders of the State government. Higher education in U.P.
is financed by State government virtually to the extent of totality. Higher
education expenditure of the U.P. government has registered phenomenal
increase. It has increased faster than total State income or total budgetary
expenditure.

Chapter IX examines at length the 'capacity' and 'effort' of the State
government to spend on higher education. The aggregative analysis aims at
finding out the State's ability and endeavour to invest in higher (university and
collegiate) education. Itemization of higher educational expenditure into major
economic and accounting heads, and the analysis of the components of higher
education expenditure have also been taken up in this chapter. Patterns and
emerging trends in public expenditure on higher education in U.P. have also been
enquired into in detail.

Alternative schemes of additional resource mobilization are laid down in
Chapter X. In view of the severe resource crunch before higher education, these
schemes for additional resources may be found helpful by the government for
policy formulation in the days to come.

The Data Base

The database of the study is what is generally called secondary database.
The annual budgets of the Government of Uttar Pradesh constituted the main
source of information. The Annual Reports of the UGC and the Annual budgets of
the educational institutions provided the second layer of information. The Annual
or other publications of the Department of Education and the Directorate of
Higher Education in U.P. have also been freely drawn upon. For interstate
comparisons, the publications of the Ministry of Human Resource Development,
Government of India have been used. Plan documents, including Five Year Plans
and Annual Plans, Plan reviews and evaluation, reports of the Central and
particularly State government embodying policy pronouncements and action programme constituted yet another source of material. Further, unpublished records to which access was obtained informally were also consulted extensively to fill in the gaps in knowledge based on published information alone. Data regarding age-specific population, literacy and allied matters were obtained directly from the Census Reports. Materials for international comparisons have been drawn from World Development Reports and other publications of the World Bank, Human Development Report and other reports of the United Nations Development Programme and its Regional offices in South Asia and the UNESCO.

When data are gathered from a plethora of agencies associated with a certain purpose, the problem of reconciling conflicting data poses a hindrance. For instance, enrolment figures in higher education differ widely in Plan documents and the records of the Education Directorate. Plan expenditure figures for a certain period differ widely from one document to another. Officials of the concerned departments were contacted in all such cases and their explanation duly noted for the purpose of narrowing down the discrepancies. However, in most of the cases the officials by themselves could not off-hand explain the variations satisfactorily, and we had to proceed on our own judgement. Often the discrepancies appeared to be printing errors, particularly in the documents of the Directorate of Education, which were glaring and deplorable. Even the high-powered Estimates Committee of legislature had occasions to lament upon such variations in facts and figures. Such discrepancies in government bookkeeping, even while budgetary classification, etc., is being improvised countrywide under the direction of Comptroller and Auditor General of India, is distressing indeed.

The data obtained from State departments, offices and agencies reveal considerable time lag. First of all there is a compilation lag because the job is done at different levels beginning with the college/university and ending at the State. A lag of up to six years in the final publication of educational financial
statistics, especially on educational finance is not uncommon. This time lag is lengthened further when Government of India – Ministry of Human Resource Development brings out its own publications containing the same information on an all India basis.

Universities and colleges are often not able to submit their budgets and financial records to higher authorities on time. Studies carried out earlier on the evaluation of educational programme in the State by the State Planning Institute and Uttar Pradesh Development Systems (U.P. DESCO) have invariably complained about the financial records not being maintained in an up-to-date fashion at different levels. The State Planning Institute has also noted that financial records related with education were generally incomplete.

**Period covered by the Study**

The study broadly covers the plan period in U.P. beginning with 1950-51 until date (for which latest data are available). Plan period is the base in Chapters III, IV, VI, VII and IX. However in Chapters VI and VII due to non-availability of the required data full plan period is not covered. Results have been obtained from data analysis for a shorter period. There cannot be any firm terminal for this type of study, therefore the analysis extends up to the period the latest data are available.

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