ECONOMICS OF HIGHER EDUCATION IN THE STATE OF UTTAR PRADESH

ABSTRACT

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BY NIGHAT AHMAD

DEPARTMENT OF ECONOMICS ALIGARH MUSLIM UNIVERSITY ALIGARH (INDIA) 1999
ABSTRACT

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.\(^1,2\)

Economics of higher education has emerged as an important discipline over the last few decades and the subject matter of the 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 present study pertains to the latter category though it also touches upon some issues of the former.

The recognition of education as investment has led governments all over the world to spend liberally on education at all levels. In India, too, after Independence the government has assumed the major responsibility of financing education. This is true of Uttar Pradesh as also of other states in India. Although the head of education belongs to the Concurrent List of the Constitution of India, State governments have come to shoulder the greater part of the burden of

\(^1\) Agarwal RB: *Financing of Higher Education in India*. Ganga Kaveri Publishing House, Varanasi, 1993 (which is primarily a comparative study of financing of Aligarh Muslim University and Banaras Hindu University).

\(^2\) Mohammad Muzammil: *Financing of Education*, Ashish Publishing House, New Delhi, 1989 (which is an analysis of financing different levels of education, but concentrates on primary and secondary levels of education in Uttar Pradesh).
financing education. Realizing the importance of higher education liberal grants-in-aid were provided by the government. A phenomenal growth has taken place in the higher education sector in Uttar Pradesh with expansion in the number of colleges and universities. Uttar Pradesh incidentally has the largest number of universities (27) than any other state in India.

Increasing population has led to greater entry of students at the tertiary level, more so because higher education is viewed as an important means to effect vertical social mobility. The resultant additional demand for resources from the government has put a heavy strain on the government budget. The question is how long can the government extend increasing support to higher education and subsidize its services, especially in view of competing demands from other sectors of the State economy.

During the last decade the system of state financing of higher education has come under severe strains. With the wave of liberalization sweeping the country since 1991, privatization of higher education is being advocated generally. In all likelihood public expenditure on higher education is to be reduced, at least in relative terms, with greater reliance of its financing on private shoulders. The predicament of such a situation may be much more for the most populous and relatively backward State of U.P., where higher education age specific population is increasing fast and public support is relatively on a decline. Uttar Pradesh therefore appears to be an appropriate State for the study of economics of higher education under the present setting.

This investigation 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 expenditure on higher education in aggregated and disaggregated form, (iv) the process of budgetary allotment of funds and the procedure of grants-in-aid, (v) projection of financial requirements for higher education in Uttar Pradesh for the next 10 years and a blue print of alternative
schemes of resource mobilization. The study pertains to general higher education. Technical education is outside the purview of this study.

Data Base:

The database of this study is what is generally called secondary or documentary 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 as submitted to the Directorate of Higher Education 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 inter-state comparisons, the publications of the Ministry of Human Resource Development, Government of India, have been used. Plan documents, including Five Year Plans, Annual Plans, Plan Reviews and Evaluation Reports of the Central and particularly State government embodying policy pronouncements and action programmes 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 and Survey Reports. Materials for international comparisons have been drawn from World Development Reports and other publications of the World Bank, Human Development Reports and other reports of the United Nations Development Programme and its Regional offices in South Asia and the UNESCO.

When secondary data forms the basis of the study, the first problem that is encountered is that data is 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. For narrowing down discrepancies officials of the concerned Departments were contacted. However, in most of the cases variations could not be satisfactorily explained and we had to proceed on our own judgement.

Period:

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 until latest data are available.

Chapters

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.

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 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 certain important conclusions, which 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 teaching and non-teaching 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 finances 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 Uttar Pradesh. 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 inadequate?

From the view point 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 is to partake the character of investment clearly requires application of higher and precise criteria. 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.

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.

Conclusions:

The role of higher education is instrumental in economic development. A significant part of growth in National Income is explained by investment in education (human capital). Compared to physical capital spillover benefits of higher education to the economy are far varied, far-reaching and significant in many ways. Income differentials exist between earners with different levels of education. Contribution of higher education to economic development is found to vary from country to country. Incidentally it is one of the highest in India. Higher education and industry linkages are important to meet new challenges of development in future. Vast potential exists in India in this regard.

The initiative for development of higher education was taken by the Government of India after Independence. A phenomenal growth has taken place since 1951, both at the national level and in Uttar Pradesh. At both the levels, enrolments in higher education have been faster than at any other level. In U.P. enrolments in higher education increased from just 50,000 to 8.4 lakhs during the period 1951 to 1997. During the same period, number of degree colleges increased from 40 to 486 and number of universities from 6 to 26.

On analyzing different growth parameters of higher education in U.P., we find that the growth with respect to girls' education has been higher both with respect to number of degree colleges as well as enrolments (in universities and
colleges). In both universities and degree colleges the ratios of women teachers have increased. This is very much in tune with government's emphasis on the education of girls. Growth in the number of teachers could not however keep pace with enrolments in higher education and over the years the teacher student ratio deteriorated, both in colleges and universities.

To ensure balanced development of higher education and also to relieve burden of students on existing colleges, degree and post-graduate colleges have been established in hilly, backward and unserved areas. The growth of higher education in all its aspects has entailed greater financial responsibility on the government and at the same time has provided more facilities to larger number of students.

The Five Year Plans in India ushered in an era of systematic development of higher education. An unprecedented expansion took place in this sector. While in earlier Plans emphasis was on expansion, from Seventh Plan onwards emphasis shifted to consolidation and improvement in standards and reforms to make higher education more relevant to national needs and to form linkages with employment and economic development. Of late the government has emphasized on raising of own resources by universities and colleges.

The examination of financial allocations reveals that both at the Centre as well as in Uttar Pradesh, from the First to the Eighth Plan, percentage allocation to the social sector as well as to education (as its sub-sector) has reduced substantially. Further, during major part of the Plan period 10 percent or less of the total educational outlay has been devoted to higher education, elementary education being allocated 50 percent or more of plan educational allocation.

A comparative study of the economic aspects of higher education reveals that public expenditure on higher education is much higher in developed than in developing countries. Educational expenditure as a ratio of total government expenditure is also lower in developing countries. Expenditure on higher education as percentage expenditure on education is around 20 to 25 percent.
Among developing countries, it is much lower in South Asian countries (e.g., India 13.7 percent and Sri Lanka 9.3 percent) than in others (e.g., Syria 25.9 percent and Brazil 26.2 percent). As a percentage of GNP, educational expenditure over the last decade or so shows that for most developed and developing countries it has gone up while in India it has remained constant, though low, at 3.4 percent. The share of public financing of education for most countries, developed and developing, varies between 60 to 100 percent. In the sub-sector of higher education it is 75 percent and even more.

Within the country, growth of students in higher education is highest in U.P. compared to other states and within the State, compared to other levels of education. Enrolment ratios in higher education in India is less than 7 percent compared to almost 90 to 100 percent in developed countries and 15 to 20 percent in developing countries.

Per capita educational expenditure as well as expenditure on higher education as a ratio of educational expenditure is among the lowest in Uttar Pradesh. Bulk of educational expenditure in India is non-plan. Plan expenditure on education is not even 10 percent in most States while in U.P. it is around 5 percent. These and other such parameters point to educational backwardness of Uttar Pradesh.

Though substantial increase in per capita State income has taken place in Uttar Pradesh, per pupil fee has recorded a decline. As a proportion of per capita State income it fell from 0.57 percent to 0.03 percent only. Two important conclusions that can be drawn are that costs of higher education in U.P. could not be internalized and secondly that ample scope exists for tapping private voluntary as well as compulsory sources of finance. Per unit public cost of higher education has increased at an annual average compound growth rate of 8.11 percent at current prices and 1.7 percent at constant prices.
A break-up of costs of institutions of higher education in U.P. (colleges and universities) shows that recurring costs vary between 92 to 98 percent while salary component of these costs accounts for 90 to 95 percent.

Turning to sources of finance for higher education they may be External and Internal, the latter being the predominant source. Internal sources may be private in the form of endowments (voluntary) and fees (compulsory) or public from various levels of government and from government agencies. Over the planning period a remarkable change has taken place in their relative contributions, both at the level of total education as well as higher education, and both at the Centre and in Uttar Pradesh. We find government emerging as the most important source accounting for 90 percent and above, contribution of private sources falling to less than 10 percent. Almost the entire amount comes from State governments, Central government grants being negligible.

Grants may be deficit or block grants. While the former are based on estimated approved expenditure subject to adjustments, the latter are based on past expenditure, with or without allowance for normal increase. The government of Uttar Pradesh stipulates that grants be used only for the purpose for which they have been sanctioned.

Central grants are routed through the UGC and are given for development purposes to colleges and universities. For additional staff and equipment grant is 100 percent and 50 percent for other purposes. State grants to universities and colleges are in the form of maintenance grant (routine functioning), development grant (matching basis to UGC grant) and non-recurring grant (for building and equipment). Grant may be earmarked for specific purposes or may be block grant in which case actual use depends on the priorities of the institution.

A critical evaluation of grants as they are practiced shows that they are discriminatory, giving preference to universities and professional colleges against colleges of general education. Since no objective criteria for their determination exits, they are often determined on an ad hoc basis by bureaucracy. They are
inadequate and inelastic as well and have not played a promotional role. States often have difficulty in meeting the matching provisions of development grants given by the UGC. Delays in assessment, sanction and release of grants pose yet another problem, with the universities and government officers blaming each other for the same. Universities and colleges have to resort to overdrafts, heavy cuts in development expenditure, keeping posts vacant and in some cases even mortgage of university property has been resorted to. Thus the system of grants has rendered the financing of higher education in U.P. inefficient.

Coming to growth and pattern of expenditure on higher education in U.P., we find that in terms of percentage of total educational expenditure of the State, it has remained constant at around 8 percent. In terms of total budgetary expenditure, higher education expenditure has been between 1.10 percent (1950-51) and 2.00 percent (1980-81). As a ratio of Net State Domestic Product the ratio of higher education expenditure has been very low, varying between a minimum of 0.04 percent (1950-51) and a maximum of 0.34 percent (1989-90). Ratio of plan expenditure in U.P. has fallen from 48 percent in 1965-66 to 5 percent in 1997-98, and of non-plan has increased from 52 to 95 percent. Per pupil expenditure on higher education in U.P. has increased from Rs.113 to Rs.3303 at current prices during 1950-51 to 1996-97 and Rs.224 to Rs.383 at constant prices. This indicates that real expenditure on higher education has not kept pace with inflation and enrolments.

Composition of higher education in U.P. shows that grants to non-government colleges claim the largest share (62 percent in 1997-98), followed by grants to universities (26 percent) and government degree colleges (11 percent). Total expenditure on higher education has increased enormously from less than Rs.1 Crore to more than Rs.352 crores over the period mentioned above.

An analysis of grants to 8 selected universities for 1989-90 to 1994-95 shows that 75 to 90 percent of allocation is claimed by these eight alone, with universities of Lucknow and Allahabad accounting for almost half of this
allocation. Regarding degree colleges, expenditure on non-government degree colleges accounts for 80 to 90 percent of the allocation. While expenditure on government degree colleges increased from Rs.4 lakhs in 1950-51 to Rs.38 crores in 1997-98, in the case of non-government colleges the respective figures were Rs.16 lakhs and Rs.218 crores. In spite of this increase most of non-government colleges are running into great financial crisis like the State universities.

With dwindling private resources, greater part of the burden has shifted to the government. The government is resorting to heavy cuts in expenditure. The resultant financial crisis has led to an urgent need for additional resource mobilization. Prestigious universities such as the Universities of Delhi, Calcutta, and in Uttar Pradesh the Allahabad and Lucknow are confronted with grave problems. Consequently, development is being adversely affected on the one hand, and on the other, the universities are indebted, and have to resort to overdraft. From the viewpoint of additional resource mobilization, the system based on market mechanism is gradually gaining ground.

An attempt has also been made in this thesis to project the financial requirements for higher education in U.P. over the next ten years. The projections are based on expected increase in enrolments and costs over the period. Two alternatives of expected enrolments have been considered. The first is based on trend rate of growth in enrolments and the second is based on the assumption that over the period about 15 percent of the higher education age-cohort population will join higher education institutions.

The first of the two projections of costs are based on trend rate of growth of costs during 1979-80 to 1993-94, the second on the assumption of 10 percent increase in prices per year. Projected costs divided by projected enrolments give us per pupil cost of higher education. Based on the above, we have four alternatives of per pupil cost projections. For each of the four projections, per pupil fee (cost borne by students) and public expenditure (cost borne by the government) have been worked out. In each case three alternatives of per pupil
fee have been calculated based on 35 percent, 50 percent and 60 percent of the burden being borne by students. Which of these alternatives will actually be adopted by the government will depend on how much burden of financing higher education the government is willing to bear itself.

Some alternatives of additional resource mobilization have also been suggested. First of all is the introduction of self-financed programmes in universities and colleges. Resources so generated can be used for improving quality while at the same time dependence on the government for funds will be reduced. Funds can be generated by exporting education to other developing countries. Foreign students may be made to pay higher fee. This has been implemented by some universities. Industry can be urged to collaborate with research activities in universities. Alumni, industrialists and businessmen may be encouraged to contribute generously towards financing higher education. Some incentives in the form of their recommendation for the purpose of admission to higher education could be given by way of recognition for their contribution. Sponsored research and consultancy could be given encouragement. At the same time government cannot take its hands off from financing higher education, especially in view of its commitment towards achievement of social justice. But with increasing demand for public expenditure from all departments, government is experiencing greater fiscal constraints. Therefore chances of substantial addition of resources from the government for higher education seem poor and bleak in future.

Thus, the strategy for solving the financial crisis must aim at:

I. A more rational government funding, and

II. Innovative measures of raising resources.

At the same time better utilization and honest management of resources may itself go a long way to maximize the output even with existing allocation.