THE FINANCING OF EDUCATION IN INDIA WITH SPECIAL REFERENCE TO BIHAR AND MAHARASHTRA

Dissertetion submitted to the Jawaharlal Nehru University
in partial fulfilment of the requirements
for the award of the Degree of
MASTER OF PHILOSOPHY

[ECONOMICS OF EDUCATION]

JYOTSNA JHA

ZAKIR HUSSAIN CENTRE FOR EDUCATIONAL STUDIES
SCHOOL OF SOCIAL SCIENCES
JAWAHARLAL NEHRU UNIVERSITY
NEW DELHI - 110067

1989

जवाहरलाल नेहरु विश्वविद्यालय
JAWAHARLAL NEHRU UNIVERSITY
NEW DELHI - 110067

SCHOOL OF SOCIAL SCIENCES
ZAKIR HUSSAIN CENTRE FOR EDUCATIONAL STUDIES

12th July, 1989

D E C L A R A T I O N

Certified that the dissertation entitled "THE FINANCING OF EDUCATION IN INDIA WITH SPECIAL REFERENCE TO BIHAR AND MAHARASHTRA" submitted by Ms.Jyotsna Jha in partial fulfilment of the requirements for the award of the degree of MASTER OF PHILOSOPHY, has not been previously submitted for any other degree of this or any other University and is her own work.

We recommend that this dissertation may be placed before the examiners for evaluation and consideration.

Narinder Singh
(Dr.Narinder Singh)
Supervisor

Sushila Singhal
(Dr.(Mrs.) Sushila Singhal)
Chairperson

GRAM : JAYENU TEL. : 667676, 667557 TELEX : 031-73167 JNU IN

A C K N O W L E D G E M E N T S

I would like to avail myself this opportunity to acknowledge for the help that I derived so generously from many in the process of this study.

To begin with, I am extremely grateful to my Supervisor, Dr. Narinder Singh, for his guidance and encouragement at all stages of the study.

I am also grateful to Prof. Tapas Majumdar, [illegible] Dr. J.L.Azad, Dr.Binod Khadria and other faculty members of the Centre for the guidance and help extended to me. My thanks are due to Dr.Amitabh Kundu for his guidance and suggestions. I owe a special thanks to Ms. Yazali Josephine for her friendly encouragement and help.

I also express my gratitude to the Librarians and Staff of Jawaharlal Nehru University Library, New Delhi, Central Secretariat Library, New Delhi Planning Commission Library New Delhi and National Institute of Educational Planning and Administration Library, New Delhi, Centre for Education and Documentation, Bombay, Bombay University Library, Bombay, T.I.S.S. Library, Bombay. I am thankful to Mrs. H.Mureli for typing the final draft of this dissertation.

Finally, I am indebted to all my friends and family members for their warm companionship and active help.

Jyotsna Jha

(JYOTSNA JHA)

July 13, 1989
New Delhi

C O N T E N T S

LIST OF TABLES

INTRODUCTION

Education is no more only a self satisfying activity. Since the advent of the Human Capital theory in the sixties to explain the increased productivity per worker, education has increasingly been recognised both as an item of consumption and of investment. Human capital theory says that the increasing amount of resources spent on the potential labour force in the form of education, training, health, etc. increases the skill and ability of the workers. Human capital, in recent years, has been viewed as important as, if not more than, physical capital. Its formation, growth and distribution seem to have far reaching consequences. Of the various forms of human capital, formal education has been heavily stressed for both economic and non-economic reasons.

The distinction between the expenditure on education for consumption and for investment is a difficult task. Most of the expenditures contain both the elements. Hence it becomes difficult to determine the optimum resources for education. However, there is no disagreement on the point that expenditure on education is vital from the point of view of productivity

and development. Education may contribute to economic growth directly and indirectly. In the first place it may raise the quality of labur force. It may be presumed to increase labour productivity, independently of any tendency for a large number of educated people to speed the enlargement of the society's stock of knowledge relevant to production. In the second place, education, by raising the quality of labour force may accelerate the productivity of the economy. Thus investment in education expands and extends knowledge, leading to advances which raise productivity and improve health.[1]

In recent years, the emphasis has been more on development than on growth especially in developing countries. Development consists of growth plus change in ideas and systems. Education assumes importance in that sense also as it exposes the people to new ideas and helps in bringing social change. Besides, if education raises the economic capabilities of the educands, the rewards from the use of these

---

1. Johnson, H.G., "Towards a Generalized Capital Accumulation Approach to Economic Development." in Mark Blaug (ed.), Economics of Education, Vol I Penguin, 1968, p.37.

capabilities would also be increased. Thus, if properly phased, the policy of supply of education should be a potential redistributive agent to reduce the socio-economic inequalities in the country.

However, the role of education both in Growth and equality have been questioned and several theories (screening, queue, etc.) have been put forward. The critics of the Human Capital theory argue that the productivity role of education is limited; education serves only as a credential mechanism and a screening apparatus (Arrow 1973; Spence 1973). Criticism was also levelled on the marginal productivity hypothesis of taking wages as reflective of productivity (e.g. Bhadhuri 1978). Without going into detail of the different theories and research studies, it can safely be said that quantitative evidence on the whole is still overwhelmingly in support of the hypothesis that education contributes positively to economic growth (Denison 1962; Giliches and Jorgenson 1966; Aukrast 1959; Psachoropoulos 1973; Krueger 1968; Kothari 1970; Bowman and Anderson 1963; Bowman 1980; Wheeler 1980; Benavot 1985; Tilak 1986). The positive relation between education and economic development was found to be stronger in case of less developed countries (Psachoropoulos 1973). A

strong positive relation between literacy and economic development and between primary level education and economic developmet was also suggested by many studies (Lee and Psachoropoulos 1970; Meyer 1979; Benavot 1985; Bowman 1970; Peasle 1965 and 1987; Wheeler 1980).

The role of education in income redistribution has also been questioned. Various studies have pointed out that education itself is determined by outside forces like ownership of assets, stratification of society, etc. and reinforces these values (Foster 1980; Alexander 1980; Tohstan 1983, Uthoff 1981; Carnoy 1979; Bhaduri 1973). On the other hand, various other studies have established the positive relation between education and income distribution (Schultz 1963; Harbinson 1973; Tinburgen 1970, 1975, 1980; Knight and Sabot 1983; Ahluwalia 1976; Morris 1973; Chiwsick 1979; Chernery and Syrquin 1975; Winegarden 1979; Ram 1984-1985; Tilak 1986; Fishlow 1972). Despite the fact that in some cases the positive effect of education on income distribution is offset to some extent by other forces, on the whole it has been found to be one of the most important variables affecting income distribution.

Since education is very significant for both development and distribution, its financing assumes importance. For any qualitative or quantitative expansion of education, finance is a vital factor. The study of the financing of education may provide on insight into the nature, priorities and direction of education systems. The financing of education is associated with the questions like locating and mobilising resources for education and also with the process of resource allocation among different subsectors of education with reference to the national economy as a whole. It is not easy to locate the source of finance for a particular subsector of education because the resources come for the education sector as a whole and then are allocated among its different subsectors. Therefore, financing of education is studied very often in terms of the patterns and processes of intra-sectoral resource allocation. Moreover, financing of education cannot be independent of the financing of other sectors in the national economy. Therefore, it has to be considered in relative terms and under the broad political framework within which the economy operates.

In India, the amount of expenditure on

education was 1.2% of the National Income (G.N.P.) in 1951 which increased to 3.3% in 1978-79. It has been varying between 3% and 3.5% in the eighties. This is probably a little more than the corresponding figures for a few other countries of South Asia but certainly much less than what is being spent by some other developing countries such as Sri Lanka, Malaysia, Algeria, Tanzania, Uganda etc. The per capita expenditure is also much less than advanced countries like U.S.S.R., U.S.A., Great Britain, France and Japan. Even in some of the other Asian and African countries, the per capita expenditure on education is more than that in India (Ministry of Education Report, 1980). However, in the National Policy on Education 1986, it has been laid down that "education will be treated as a crucial area of investment for national development and survival.... It will be ensured that from the Eighth Five Year Plan onwards, it will uniformly exceed 6 per cent of the National Income."

The Indian Constitution has made certain provisions regarding education and successive planning has set certain goals. The objectives as seen from the Five Year Plan documents are (i) universalisation of elementary education, (ii) eradication of illiteracy,

(iii) reduction in inequalities between regions, income classes, sex and caste groups.[2] These objectives are far from having been achieved.

According to 1981 census report the overall literacy rate was 36%, a low level indeed. Though in 1951, it was only 17%. The literacy rate is so low despite the fact that the country has reached a gross enrolment level of 93.4 percent at primary level, according to the 1981 census report. The paradox can partly be explained in terms of high drop-out rates. Most of the studies on wastage and stagnation record reveal that the dropout rate is highest at the primary level. As 1981 census report suggests, out of every 100 students enrolled in class I, only 40 reach class V and 23 reach class VIII. All these dropouts add to the population of illiterates. Moreover, retention rate among girls is poorer and only 16 to 18 percent girls of those enrolled in class I reach class VIII. High drop-outs lead to the wastage of resources as the students do not complete their studies. An NCERT study (1971)

---

2. Tilak, J.B.G.; Economics of Inequality in Education; Sage Publishers, New Delhi, 1987 p. 20.

estimated the cost of wastage for four years at Rs. 75.36 crores which was nearly 27.6% of the total resources spent on education.

Educationists have attributed this unsatisfactory progress to several factors. Some of them, relevant in the present context are inadequacy of finances, improper allocation of resources across different sectors of education, and the improper methods followed in allocations to the planning units within a state etc.

The literacy rate is not only low in India, it also varies widely across different states, sex and caste groups. On the one hand, the literacy rate is as high as 69.2% and 47% in Kerala and Maharashtra respectively. On the other hand, it is only 26% and 24% in Bihar and Rajasthan respectively. The literacy rate for men in India is 46.74 and for women is 24.88. If the present trend continues, it would take somewhat more than seven decades for the Indian population to be fully literate - men would take more than five decades and women a little more than ten decades. To reach this goal Kerala may require only 15 years, whereas Rajasthan may have to strive for another 100 years.[3]

---

3. Sharma, O.P. and Robert D Rutheford; Recent literacy in India, The Economic Times, Jan 2, 1988.

In addition to variation in literary rate, wide variations have also been noted in availability of resources at inter-state level. Both private and public investment are found to vary significantly for different states in the country. It is through a systematic analysis of the inter-temporal and spatial trends in educational finances in relation to other socio-economic indicators, that some of the factors which account for variations in educational finances, can be pinpointed.

There have been several studies on financing of education per se, analysis of time trends in educational expenditure, both in the aggregate, and by its various components, etc. Education Commission (1964-66) made a fairly exhaustive study of the problem of financing of education, presenting a detailed analysis of different aspects of education finance, and developing estimates of educational expenditures for 1985-86. Some other studies have also been published by the Planning Commission and by the Ministry of Education, Misra (1959, 1962, 1967, 1971), Nair and Pillai (1962), Panchamukhi (1970), Shah (1969), Sinha (1967), Malaviya (1977), Azad (1972, 1975), Tilak (1983, 1985, 1986, 1987), Padmanabhan (1984, 1986) are

some of the major studies in educational finance. Prof. J.P.Naik's studies on financing of elementary education constitute by far the most comprehensive and analytical one, going into all aspects of financing of education. Azad (1972) has presented on incisive analysis of the problems of higher educational finances using official data. He has also provided a comparative analysis of the government grants-in-aid system for higher education (1975).

In recent years, some interesting studies with inter-state and intra-state (inter-regional) focus have been attempted. Panchamukhi (1970) used the statistical technique of factor analysis to construct a composite index of educational development for different states determining their ranks on this basis. In the context of the resource allocation from the Centre to the States, through the Finance Commission and Planning Commission, studies about educational distance of different states, assume great importance. Tilak (1980) and Panchamukhi (1981) suggest simpler methods for measuring the composite educational development of States. Jain (1981) uses Kendall's coefficient of concordance for measuring educational disparities. Bihar undoubtedly was and is the most backward

state in respect of all types and levels of education, whatever the method used. Nair (1978 and 1980), George (1982). Venkatasubramaniam (1977), Shah (1981), Dave (1979) one major studies dealing with interdependence between economic development and education. Veeraraghavan and Gapra (1982) have examined the salient features of inter-state variations in educational expenditure. In a study related to U.P. and Kerala, Padmanabhan (1986) has examined the equality of opportunity in the financing of education.

An analysis of the trends in educational finances in India acquires an added significance not only in the context of time horizon but also in the context of regional disparities, as the balanced regional development has been accepted as one of the major policy instruments for development planning by the central and the state governments. The present study proposes to take a macro view of the financing of education in India and specifically the states of Maharashtra and Bihar. The former is relatively an educationally advanced state with a literacy rate of 47 per cent while the latter an educationally backward state

with a literacy rate of just 26%. Maharashtra's men literacy rate is 69 per cent against Bihar's 43 per cent. The range is even wider in case of women literacy rate with Bihar's being just 11.2% as against Maharashtra's 40 per cent. As mentioned earlier, different studies on inter-state variation in educational development have found Bihar the most backward and Maharashtra a leading state. In terms of economic indicators like per capita income, state domestic product, etc. also Maharashtra is one of the richest states while Bihar lies at the bottom of the ladder. In the course of the study it can be examined whether resources have played any role in creating educational disparity.

Thus, broadly speaking, the objective of the study is to find out and examine whether the trend of the financing of education has been in accordance with the goals of universalisation of elementary education and balanced regional development. To be more specific the objectives are as follows. First to find out and analyse the trend of educational finances in general over the years. Secondly, to examine the salient features of inter-state variations in educational finances. Thirdly, to examine the earlier findings of the subject in the light of present findings.

The research questions before this study are as follows :- What is the nature and extent of variation in the contribution of different sources of finance for education in India? What is the behaviour of plan and non-plan expenditure on education in both the Centre and the states? What is the behaviour of the allocation of resources to the different subsectors of education? What is the nature and extent of variation in methods and direction of resource allocation in different states? How do allocation and utilization of resources for education deviate from each other? What is the difference in relative importance of various sources of educational finance in different states? What is the extent of variation in the growth rates of educational expenditure in different states? How do expenditure in current prices vary from expenditure in constant prices?

The cost of education is met by the state governments, local bodies, parents, philanthropists and others. The community contributes in cash as well as in kind to the development of education. The income forgone by the students also constitutes the cost of education. However, due to lack of data, it is difficult to compute expenditure on education

from all these sources. So far as public expenditure on education is concerned, the bulk of it is reflected in the budgets of the central ministry of education and the state departments of education, although other departments also contribute to it in small amounts. The present study, while analysing the trend of educational expenditure, is limited to the expenditure met by education and other departments. The analysis relates mainly to the revenue account, the expenditure on capital account being an insignificant portion of the total educational expenditure.

The plan of contents of the present study is as follows :

Chapter I gives a general picture of the financing of education in India. The Chapter has been divided into two broad sections, the pre-Independence and the Post-Independence period. The administration, sources and objects of educational finances have been discursed in both the periods. It discusses the mechanism and principles of the finances have been discussed in both the periods. It discusses the mechanism and principles of the financing of education. The chapter also gives an idea about the trends of both the sources of educational finances and the objects of educational expenditure in both the periods.

Chapter II deals with the financing of education in states with particularY reference to Bihar and Maharashtra, after independence. A comparative analysis of inter-state variation in method and sources of educational finance and objects of expenditure has been done with the help of a comparative study of Bihar and Maharashtra.

Chapter III examines certain propositions, based on the findings of earlier studies in this field, in the light of the findings of present study. This chapter also serves the purpose of the survey of literature to some extent as it includes the examination and of earlier findings.

The last chapter provides the summary and conclusion of the study. It analyses critically the trends oberved and tries to identify some policy implications.

There are seven appendices which follow these chapters. Appendix I contains constitutional provisions on education and referred to in Introduction and Chapter I. Appendix II deals with the use of word 'State' referred to in Chapter I and Chapter II. Appendix III is statistical appendix corresponding to

the discussions in Chapter I and II. Appendix IV gives the explanatory note on the nature of data. Appendix V contains note on the selected physical indicators, Referred to in the Chapter II. Appendix VI deals with the methods of data calculation done in Chapter II. Appendix VII discusses the method of drawing trend line and testing significance, reffered to in Chapter II.

The research has mainly relied on documentation and data interpretation. A comparative approach to study the behaviour of educational finances across Maharashtra and Bihar has been used. This involves the use and analysis of time series of different components and parameters. Index Numbers and Compound Growth Rates have been used to show the trend over the years. The inter-state analysis requires a correlation and regression approach and the significance of change of financial indicators over the period of time. The study largely uses the statistical indicators like expenditure in millions of rupees, expenditures as a proportion of GNP, expenditure as a proportion of total budget, expenditure as a proportion of revenue receipts, expenditure per head, average expenditure per student etc.

The non-availability of the latest data about educational finance for a subsector presents the most formidable problem, mainly in the case of state financing. The analysis is, therefore, restricted to the latest available documents wherever possible. The sources of data are draft five year plan documents of the central government and the states, Education in India published by the Government of India. General analysis of budgeted expenditure on education by the Government of India, Handbooks of educational and allied statistics by the Government of India, various reports of education ministries at the Centre as well as the State level, Annual progress report of the states and other publications of National Institute For Educational Planning and Administration. (NIEPA) and the Planning Commission.

...

CHAPTER I

EDUCATIONAL FINANCE IN INDIA : A GENERAL VIEW

A broad view of financing of education includes mobilisation of resources, administration and mechanism of resource allocation and the objects of educational expenditure. An analysis of any of these needs a proper understanding of all these components. This chapter tries to discuss briefly all these aspects in Indian context so as to serve as the proper background for following chapters. The problem of educational finance in India is much older than the country's Independence. The preesent system of educational finance developed as a historical process that was started in British India. Hence, for the sake of convenience this chapter has been divided into two parts, namely the Pre-Independence and the Post-Independence periods.

1.1 The Pre-Independence Period

Some of the important changes that took place in British India formed the base of modern educational finance. The state responsibility towards education

was realised for the first time. Education took a secular character as it no more remained dependent on religious institutions and local chiefs.

1.1.1 Administration

The administration of educational finance in India can be discussed in terms of financial relationship between the crown and the provincial governments in British India and between the Centre and the States in independent India. In the field of education the period upto 1833 was characterised by a total absence of central control. Even though the Directors of the East India company were compelled to accept some responsibility and incur some expenditure on education for the first time by the Charter Act of 1913, no central educational machinery was created for the purpose. With the Charter Act of 1833, the concentration of powers in the hands of the Crown in education started which continued till 1870 but in a sense rigidly upto 1854 only.[4] The Wood's despatch of 1854 did organise education on systematic lines, but the financial administration continued to be centralised.

---

4. Tilak, J.B.G., Centre State Relations in Financing Education in India, NIEPA; New Delhi; 1984, p.3.

Lord Mayo introduced a system of decentralisation in 1871 according to which, except in matters of all India concern, provincial governments had the responsibility of legislating in accordance with the requirements of local needs. Lord Ripon's resolution of 1882 on Local Self Government aimed at developing local bodies as "instruments of political and popular education." The Indian Education Commission of 1882 gave a directive that "The primary education be declared to be that part of the whole system of public instruction which possesses an almost exclusive claim on local funds, set apart for education ad a large claim on provincial revenues."[5] However, in reality, an undue amount from local funds was devoted to secondary education. In 1901-02, the government gave larger grants for primary education but no effort was made to evolve a scientific system of grants-in-aid. Lord Curzon came to India in 1898 and during his period the policy towards education changed. He initiated a period of central intervention and active policy

---

5. Government of India; Report of the Committee on the relationship between the State Governments and local bodies in the Administration of Primary Schools Delhi; Manager of Publications; 1954; p.12; Quoted in Mukherjee, S.N.; Administration of Education, Planning and Finance; Baroda 1970, Acharya Book Depot p.249.

making in education and education system was almost controlled by the Central Government. However, after his exit, Curzon's policies were neither sponsored vigorously nor abondoned altogether.

The Government of India Act of 1919 placed education as the responsibility of Indian ministers. But finance was declared as a reserved subject, and so the Indian ministers had very little say in deciding priorities or levying duties. The special grants to education totally discontinued. However the provincial autonomy granted by the Government of India Act of 1935 gave more powers to the provinces to organise their own educational services. Finance was no longer a reserved subject. With the revival of Central Advisory Board of Education, the Central government began taking the responsibility of education. Between 1937 and 1947, though the ability of education sector to support itself more than doubled, the educational expenditure did not increase in proportion to the total revenue or to the expenditure on other items.

1.1.2 Sources of Educational Finances

With the advent of change and official acceptance of State responsibility in the field of education,

the state started providing statutory and stable maintenance to education, supplemented by compulsory fees from students and contrition of local self governments. Thus, there emerged five different sources of financing education in India, namely State revenues, student fees, taxes on public for education, local bodies and other sources.[6]

State Revenues : State Revenues became one of the sources of educational finance after Charter Act of 1913, which set aside Rs. 1 lakh annually for educational purposes. The amount was increased to Rs. ten lakhs in 1953 which was further enhanced in 1954 by Wood's Education Despatch which organised the system of education in India from the primary to the university stage. The decentralisation of administration in 1871 devolved the responsibility of educational expenditure to the provinces. Due to natural calamities and financial stringency in the provinces, the share of State revenue to the total educational expenditure declined from about 40 percent

---

6. Mishra, A; The Financing of Indian Education; Asia Publishing House; Bombay, 1967, p.184.

in 1891-92 to nearly 26 per cent in 1901-02. The favourable change in the attitude of Central Government in the beginning of the twentieth century increased the share to the extent of 49.1 per cent in 1921-22. With the introduction of Diarchy and the depression of the 1930's, the contribution of State revenues fell to 43 per cent in 1936-37. The provincial autonomy in 1937 granted financial power to provinces and led to an unexpected acceleration in educational expenditure. The sargeant plan estimated the expenditure shared by public and private (other than public) sector in education in 1944 which amounted to 88.6 and 11.4 per cent respectively which was quite similar to the estimate made by the Kothari Commission twenty years later.

Fees : Fees developed as a source of finance as the Government's assignments were not able to meet the demand and also to apply the filtration theory of educating one class only. The charging of fees from the pupil seem to have started as early as 1822. The Educational Despatch of 1854 made the payment of fees a condition for grants-in-aid to schools. Thus, tution fee began to be charged in all institutions and gradually became an important source of school revenue. In 1857 the Acts incorporating the three universities

provided for other types of fees also namely, fees for conferring degrees and for admission to the universities.[7] The proportional contribution of fees to the total educational expenditure have declined from 86% in 1870-71 to 31.6% in 1901-02 to 26.4% in 1946-47 (Table 1).

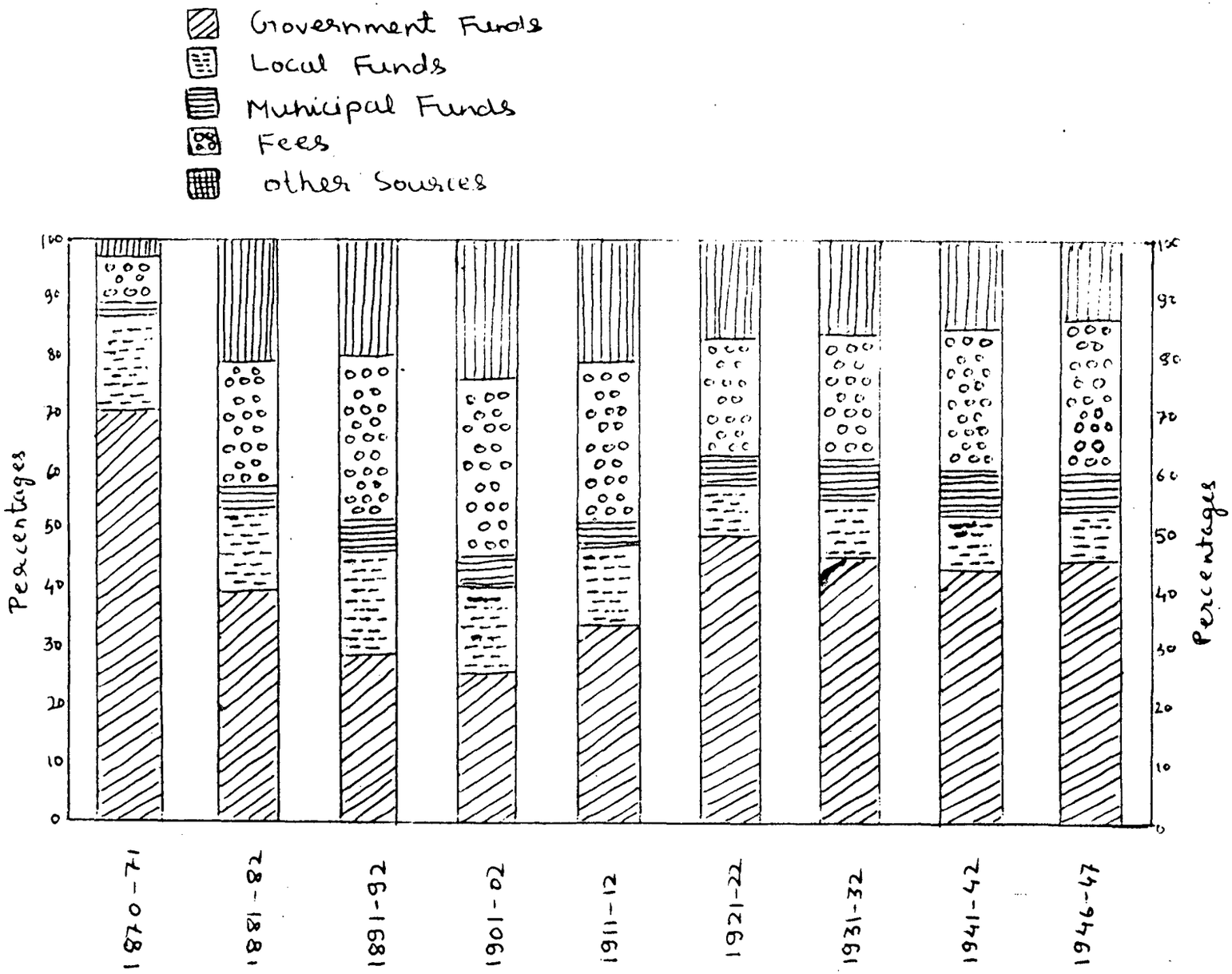
Taxes : Lack of funds for education in early days led to the evolution of another sources of educational finance namely taxes, rates or cess. The first rate for education was levied in 1851, called Halkabandi Cess in the vernacular schools in the North Western Provinces. It was such a success that the Educational Despatch of 1854 recommended it to other provinces also. Punjab followed the example and in 1856 imposed a valuntary cess for education at one per cent of land revenue which was made compulsory in 1864. The Government of India encouraged the imposition of such taxes in the provinces and accordingly a cess was imposed in all provinces except West Bengal during the following decade.

---

7. Acts Nos. II, XXII and XXVII of 1857, to establish and incorporate a university at Calcutta, Bombay and Madras, Statute 15 of each Act, vide p 413, 419, 425, J.A.Richey (ed.) Selections from Educational Records, Calcutta, 1922, quoted in Ibid p 187.

Local Bodies : The transfer of several departments including education consequent on Lord Mayo's decentralisation of administration in 1871 created difficulties for the provincial governments in financing education fully. It became necessary to meet the deficit from the local taxation, by developing the institution of local self governments. Lord Ripon's Resolution of 1882 reorganised the local bodies and strengthened the association of primary education with them. These local bodies, municipalities in urban areas and local, rural or local board funds or panchayats in rural areas were responsible for the control and financing of education. The first educational duty of local bodies was towards primary education as directed by the Indian Education Commission (1882) and the government resolutions of 1904, 1913, 1916 and 1919. The proportional share of local bodies and municipalities in the total educational expenditure was respectively 16.9 and 12.7 percent in 1870-71, 14.7 and 3.8 per cent in 1901-02 and 9 and 5.6 per cent in 1946-47. This shows that the municipal expenditure on education has always been lesser than that of local bodies and that the proportional expenditure of local bodies has been decreasing and that of the municipalities has been increasing during the period.

Fig:1 Percentage Contribution by Various Sources during 1870-1947.



Other Sources : The main sources of educational finance in the Pre-British period were endowments, donations and gifts but during this period the state support, fees and local bodies assignments assumed such importance that they receded to the background and were named together as the 'other sources'. As the government shouldered the responsibility, the people's obligation towards education lessened. The religious incentives were gone with the separation of education from religion and the declaration of education as being secular.

1.1.3 Objects of Expenditure

The objects of expenditure which were held insignificant in ancient or medieval times assumed a different significance in British period. The expenditure on education is broadly divided into two parts namely direct and indirect. Direct expenditure refers to the operational costs of instruction at various stages of education i.e. primary, secondary, higher, professional and technical education; and indirect expenditure includes the outlays on buildings, furniture, educational administration and scholarships. [8]

---

8. Mishra, Atmanand; op.cit., pp.192.

Elementary education was imparted through domestic system and indigenous schools till the Educational Despatch (1854) strongly recommended the government to take it over. The missionaries started a number of secondary schools. But a graded system evolved only after the Educational Despatch of 1854. These secondary schools were either maintained by the government which bore the whole cost or by private bodies which received grants-in-aid from the Government. As far as higher education is concerned, although the first institution on modern lines was started as early as 1815, the establishment of universities in Calcutta, Bombay and Madras in 1857 was the actual beginning. This provided incentives for opening new colleges which could be affiliated to the universities. But a larger part of Government expenditure went to its own colleges and the privately managed colleges, received less than one third of it. The disparity was so sharp that the Indian Commission of 1382 recommended special grants for the private colleges. The Government Resolution of 1913 envisaged

one university in each province. During provincial autonomy higher education considerably expanded and the coordination developed. The professional and technical education developed out of the Government's provisions for the technical training of its subordinate officers. The survey, engineering, industrial, forestry, agricultural, and arts schools were first to be started. The financial stringency during diarchy and the political upwheal during the provincial autonomy slowed down the progress.[9]

The expenditure on higher education i.e. secondary schools and colleges had always been greater than that on primary education except in two decades ending with the years 1921-22 when Lord Curzon and his successor's bounty in giving earmarked imperial grants to education gave a fair deal to primary education. The expenditure on direct objects had always been above 75 per cent of the total expenditure except in the year 1921-22 when it was 71%, the decrease being due to the emphasis on quality of education which necessitated more expenditure on equipment, buildings, direction and inspection. Technical and vocational education received emphasis much later. Tables II and III show the allocation of direct and indirect expenditure

---

9. Ibid., p.192-196.

to various items. Among the direct objects the increase was higher for secondary than primary education except when the Indian ministers held charge of education and primary education received more emphasis. The highest increase among indirect objects was on capital outlay and miscellaneous items; naturally larger on the former.[10]

To sum up, though the East India Company had to undertake the education of the Indian people due to some political developments, it never accepted the responsibility for education of the people of India. The Crown did accept it but half-heartedly and expenditure was always treated as relatively unimportant subject of the country's budget except for a brief spell during Curzon's reign.[11] However, some important changes in educational financing took place in British India whose significance should not be under-estimated. The greatest achievement of the period was the legislative provision for the appropriation of State revenue in financing education. The second significant change was the growing secular characters

---

10. Mishra, Atmanand; Educational Finance in India, Asia Publishing House, Bombay, 1967, pp.239-240.

11. Ibid., pp.241.

of education. The next was the shift of emphasis among the sources of educational finance. In 1946, Government contributed 45% followed by fees and local bodies sharing 26.4% and 14.6% respectively. The share of endowment and other sources was 14%. Another important change was the expansion of both direct and indirect objects of educational expenditure and development of a graded system of schools. Hence, it can be said that the financing of education was systematized for the first time on scientific lines in the British period which laid the basis for future development.

1.2 Post Independence Period

With the adoption of the Constitution of India the place accorded to education in the federal frame-work underwent a sea change. The Indian Constitution is neither purely federal nor purely unitary but a combination of both. Its character is federal with strong unitary features and it declared India to be a 'Union of States'. The administration of educational finances should be studied with this characteristic of the Constitution in mind.

1.2.1 Administration

The Constitution of India made three lists :

List 1; List of Union Functions, List 2 - List of State Functions, and List 3, List of Concurrent Functions. Education was placed in List II except a few parts of it which were placed in List 1. The following sectors of education are listed as the functions of the union : Central universities, institutions for professional, vocational and technical training, coordination, determination of standards in higher education.

The Central Government intervenes in education particularly in three ways : First, it has its own sector which includes, besides those mentioned in List I, the regional colleges of education, national scholarships, the programmes of University Grants Commission, etc. Administrative as well as financial functions of this sector are the full responsibility of the Central Government. Secondly, there is a Centrally sponsored sector, which is generally related to programmes for weaker section or the promotion of Hindi etc. The Central Government takes care of the financial part of these activities. Thirdly, there is a centrally assisted sector which includes activities, in the promotion of which the centre is actively interested though they are embodied in the state plans.[12] The

---

12. Tilak, J.B.G.; Op.cit.; p.8-9.

role of Central Government has been justified on the ground of regional imbalance in education among states and their own financial constraints to reduce it.

From the Constitution, the Government of India obtained a larger authority over education than under the Government of India Acts of 1919 or 1935. Three extraneous factors can be identified to explain this :

(a) the adoption of planning as the technique of development and the formulation of Five Year Plans by the Planning Commission, covering both Central and State development activities;

(b) the institutions of large central grants earmarked for specific educational schemes.

(c) the political accident of the same party being in power at the Centre and in the states.[13]

It is believed that the Central Government should extend its jurisdiction in education to maintain uniformity and quality and for national integration. It is also viewed that the Centre can act as a clearing

---

13. Rao, V.R.R.V.; "Centre-State Relations in Education," in S.N.Jain (ed.) "The Union and the States, National, Delhi, 1972, p.179.

house and coordinating agency in every sector of education, and it can develop programmes of significant and fundamental research.[14] Central intervention is further justified, as provision of educational facilities as a right to all, particularly elementary education, and protection of educational interests of weaker sections, are a part of the Directive Principles of State Policy in the Constitution.[15]

The Forty-second Amendment brought education to the Concurrent List. On the whole it can be said that though education was a state subject before 1976, it was in reality a concurrent subject. However, the concurrency was limited to non-financial aspects mainly and even after this amendment, any real 'financial concurrency' is not found, as the later part of this chapter shows.

1.2.2 Devolution of Resources :

India's polity is federal in character and as such there is a division of powers between the union and the states in respect of raising and disbursing

---

14. Naik, J.P., "The Role of the Central, State and Local Governments and Voluntary Agencies" in the Indian Year Book of Education, NCERT, New Delhi, 1967, pp 433-51.

15. Nautiyal; K.C.; "Education as a Concurrent, Subject" Journal of Indian Education, 8/2 July, 1982, pp 26-32.

of public funds. Besides, there is also a provision for the distribution of resources between the union and the states. Union-State financial relations in India have been greatly influenced by the fact that the federal structure has evolved from a unitary system of finances.

The financing system in India makes a sharp distinction between development (Plan) and maintainance (non-plan) expenditure on education. The process of sharing the resources by the Centre and the States, takes place through the Planning Commission, a permanent non-statutory and quasi-judiciary body and the Finance Commission, a statutory body appointed once in every five years. The former takes care of the plan expenditure and the latter of the maintenance expenditure. The Planning Commission gets its authority of assessment of requirements of Centre and States only by convention. Its recommendations are not strictly binding on the Centre or on the States, but are normally accepted, particularly in view of its commanding influence on both the Governments.[16]

The Finance Commission makes an assessment of the States' claims on maintainance and makes its recommendations on the distribution of resources.

---

16. Tilak, J.B.G., op.cit., pp 9-10.

The recommendations when adopted by the Parliament and approved by the President are binding on the Centre and the States. In making those recommendations the Finance Commission is expected to take into account

(a) the requirements of the State Government under revenue account to meet expenditure on administration and non-plan commitments or liabilities;

(b) Provision for emoluments of government employees;

(c) Commitment in regard to interest changes or debt;

(d) Transfer of resources to local organisations;

(e) Maintenance of capital assets;

(f) Maintenance of plan schemes completed in the earlier plan, and

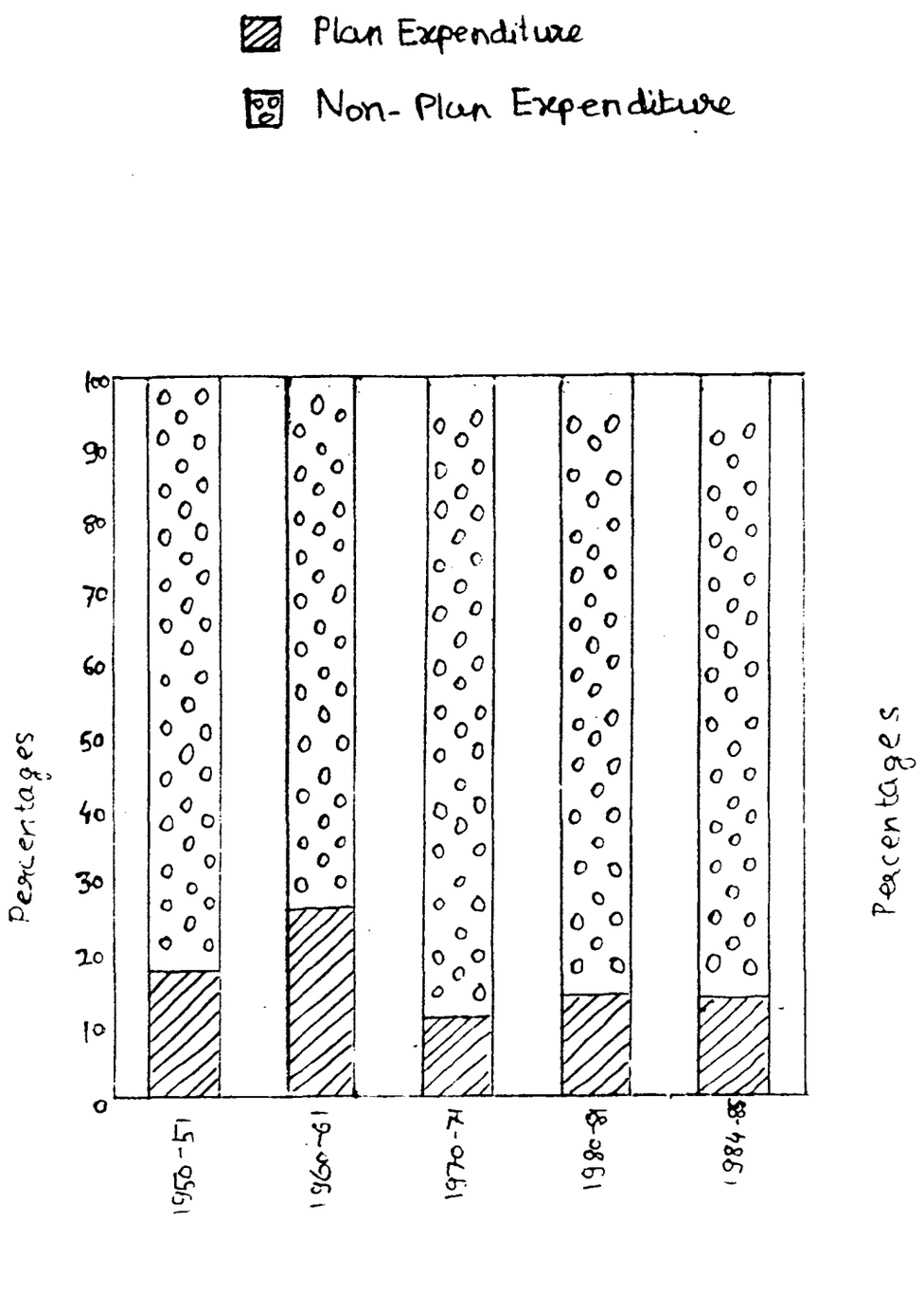
(g) Requirements of the backward states for upgrading standards in general education.[17]

The constitution has laid down the detailed mechanism of sharing the resources by the Centre and the States through the Finance Commission. In all, there are three types of transfers from the Centre to the States, the tax receipts, grants and loans. The states possess relatively inelastic sources of revenue whereas their fiscal needs tend to increase due to their expanding functions. At the end of each

---

17. Veeraraghavan,J.,Non Plan Resources for Education : The Role of Finance Commission; Paper presented in the Seminar on Mobilisation of additional resources on education, NIEPA July 1982, New Delhi.

Fig: 2 Plan and Non-Plan Expenditure on Education in India (Percent)



five year plan period, the programmes and activities of that plan fall into non-plan category. The Table (4) shows that though there has been an increase in both plan and non-plan expenditure during the period, the share of plan expenditure has been decreasing and that of non-plan expenditure increasing, specially after the year 1960-61.

The allocation of resources to education in the five year plans has been going down from plan to plan excepting the 3rd plan, (Table 5). In the Ist plan it was 7.2% and by 6th plan it has gone down to 2.6% of total public sector outlay. The fall in the percentage allocation to education has not been done on any rational or scientific basis but only by a process of resource allocation in which the requirements for education were met after taking care of the needs of other sectors of development. The plan has both a Central and State sector. Under the central sector, the percentage of outlay authorised for education to total plan outlay has been : 4.4, 3.7, 4.1, 3.5, and 2.5 and 1.6% respectively for the Ist to 6th plan. In the state plan, the state outlay to Central outlay has been changing from 25 to 30% (Table 5).

Planning has changed the economic, fiscal

Fig:3 Contribution of Centre and the states to Education Finance in India (Percent) (Plan Expenditure)

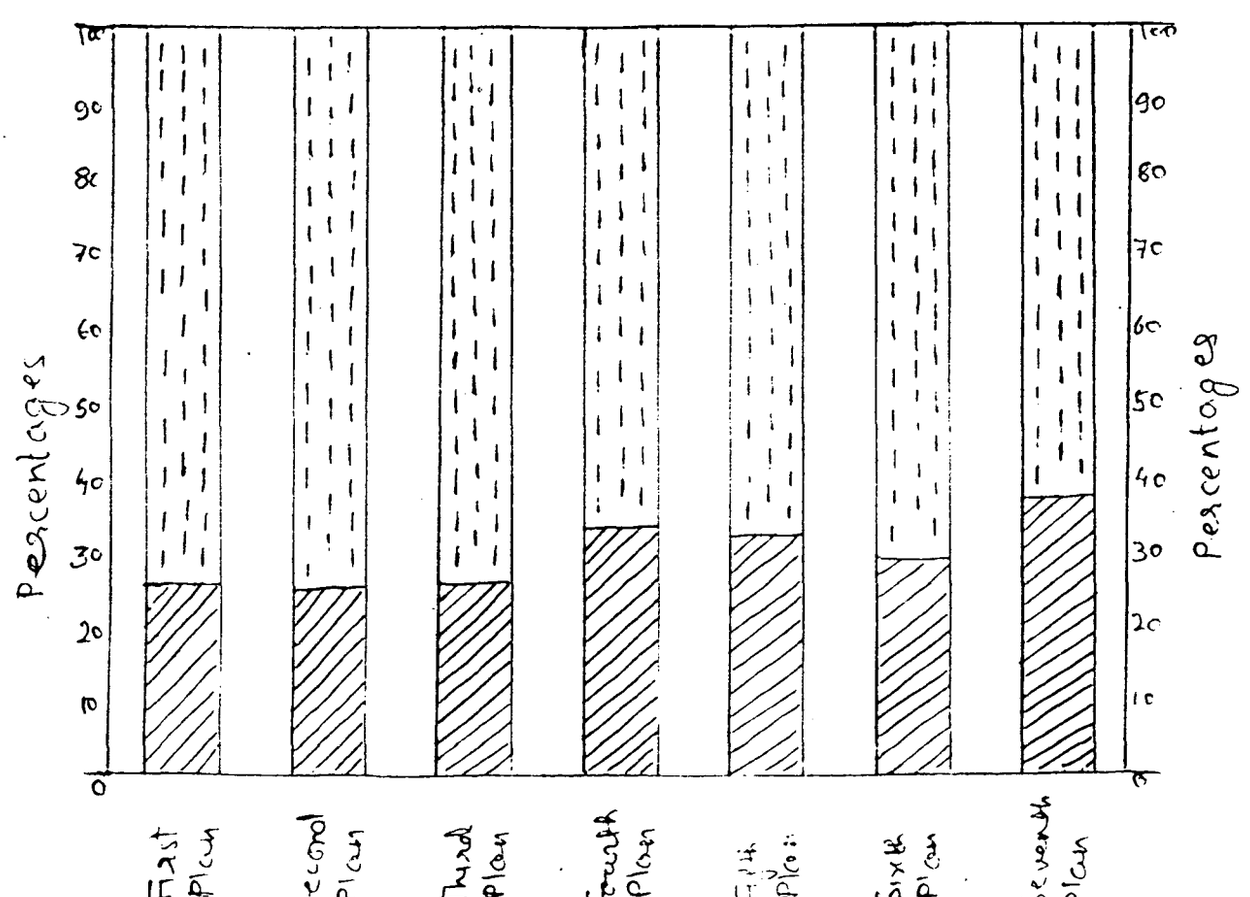
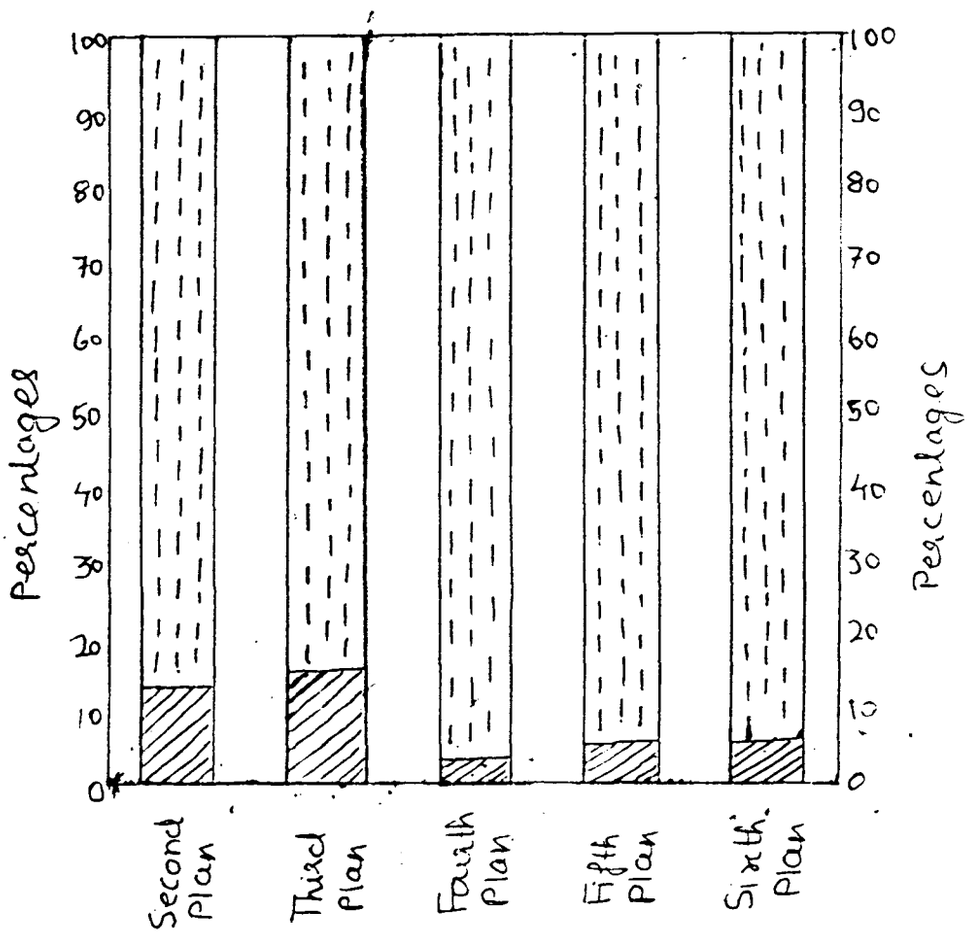


Fig: 4 Contribution of Centre and the states to Educational Finance in India (Per cent) (Non-Plan Expenditure)



and also the political control of the country.[18] Though Education has been placed in the Concurrent List for more than a decade, the policies and priorities are generally determined by the Central Government and the Planning Commission, the responsibility for providing funds, continues to be mostly borne by the States.[19] Both in plan and non-planexpenditure on education, the share of states is remarkably higher in all the plan periods, the gap being wider in non-plan expenditures (Table 6 and 7).

1.2.3 Principles of the Allocation of Resources

It is expected that the allocation of resources for education to the States would be based upon certain well defined and clearly formulated principles. The problem obviously, is of two types : distribution of resources between the Centre and the States, and distribution of resources by the Centre among the different States. In either case, the canons of distribution of resources can be divided as follows:[20]

---

18. Baker, N.A., Union and the States in Education: A Study in Educational Finance and Planning, Shabd Samachar, New Delhi, 1976, p.206.

19. Sarup, Anand, Resource Allocation and Planning for Education, Mainstream, (Annual 1988) Oct.8, 1988 New Delhi, p.53.

20. Tilak, J.B.G., op,cit. pp.13-15

a) The equity Criterion : With respect to the distribution of educational resources among different states, equity in allocation of resources should mean allocation in such a way that it produces equity i.e. all the states develop their educational systems more or less equally. It might imply even unequal distribution, the less developed state receiving more from the centre.

b) The ability Criterion : The ability principle gets identified with equity principle when it means more resources to educationally backward states. In other words, it should mean more resources to less able states.

c) Degree of the educational effort : This principle also implies allocation of resources to different states in such a way that all the states reach a given level of educational development uniformly i.e. the centre makes the matching allocation in such a way that regional imbalances are minimised.

d) Educational accomplishment : This principle holds that if the devolution of resources to the states by the Centre is guided by rewarding motive, those states which accomplished well on educational front might receive more resources. On the other hand, if the

reverse of educational accomplishment is taken into account, the allocation mechanism might favour the backward states.

e) The efficiency Criterion : The criterion suggests that more resources should be given to those states who have efficiently spent the already given resources. Efficiency might be measured in various ways. The most sophisticated ways of measuring efficiency are benefit cost ratio, greater cost effectiveness etc. They generally measure whether the cost is higher or lower than the benefit. If higher, what is the ratio of benefit to cost, and whether this ratio is economically beneficial or not. The principle of efficiency might or might not go against the principle of equity.

1.2.4 Sources of Educational Finance

India has a multi source financing system for education. The different layers of the Government, for example, the Central, the State and local bodies participate in different ways in financing education. It is claimed that such a multiple source of finance for education has enabled the Indian education system to get larger resources than it could have got

otherwise.[21] The various sources of educational finance in India can be classified as follows.[22]

a) The Public Sector :

(i) Central Government

(ii) State Government

(iii) Local Governments (Zilla Parishad, Municipalities and Panchayats)

b) The Private Sector :

(i) Students/Parents, eg. fees/maintenance cost.

(ii) Endowments and Donations

(c) Other resources including foreign aid.

Even before 1976 when education was brought into the concurrent list the Central Government shared a significant portion of expenditure, especially on higher education, as has been seen earlier, In 1953, the Univerwity Grants Commission was established to coordinate facilities, maintain standards and allocate grants. Besides these, the Centre gives proportional or matching grants or the whole cost of general educational

---

21. Padmanabhan, C.B., "Financing of Indian Education" Journal of University Education, 5(2), December 7, 1976 pp 84-87.

22. Tilak, J.B.G., Educational Frances in India, NIEPA, New Delhi, 1986; pp 11.

projects and schemes in various states and maintains its own institutions for education in the Union Territories.

State Governments have been a perpetual and most important source of educational finance in the post-Independence period (Table 8). Educational expenditure as percentage of State Domestic Product (S.D.P) has increased for all the States between 1960-61 and 1985-86. The high increase in per capita expenditure on education between 1961-62 and 1985-86 may be partly attributed to the inflation. Percentage of budgeted expenditure on education to total budget shows a decline in some states and a rise in others. The States with high literacy levels like Kerala and Maharashtra show a decline and states with lower literacy rate like Bihar and Orissa show a rise. However, some states with low literacy levels also show a decline. (Table 8).

The other important sources of educational finances are local bodies including municipal bodies and panchayats. The municipalities are primarily responsible for primary education in their areas. But some of them spend on secondary education and sometimes on colleges as well. There is no uniform policy for allocating funds for education and separate

rules are prevalent in different states. The Constitution gives the panchayats the authority in the administration of primary education. Certain States give them discretionary authority while others make it an obligatory duty on them to finance primary education. However, the financial resources of the Panchayats are so limited that they can only exercise superficial control.[23]

Fees are another important source of contribution which depends largely on the number of enrolment and rate of fees. After Independence due to various incentives there was a large scale increase in enrolment. The rates of fee were enhanced with the increase in the cost of living. Hence, the income from fees rose considerably although this rise was limited by the policy of free elementary education and many other discriminatory protective measures adopted by the central and various State Governments for Scheduled Castes, Scheduled Tribes, and women. Various types of fees are being charged, the main being admission fee, tuition fee, library fee, etc. The rates for different kinds of fee vary from

---

23. Mishra, Atmanand, the Financing of Indian Education, Asia Publishing House, Bombay, 1967, pp.223-225.

State to State and sometimes from region to region. Private institutions began to charge at par with the Government Institutions and wherever better facilities were provided, the rate could even be higher. The rate structure is not fixed in private institutions and most of the time includes fees such as building fee etc. which is not the part of fees in Government institutions. In fact, there is no exact data available for the amount charged as fees by private institutions as they generally do not disclose it in order to evade taxes.

The contribution from endowments and other sources to education has been steeply declining perhaps due to the general feeling that education is the responsibility of the elected government in a democracy.

The role of foreign aid in the educational bills of under-developed economies is quite significant, Throughout the developing world aids account for about 8 per cent.[24] In case of foreign aid to education

---

24. Eidle, J.H., "Financing education in developing countries," Comparative Education, 7/2 November 1971.

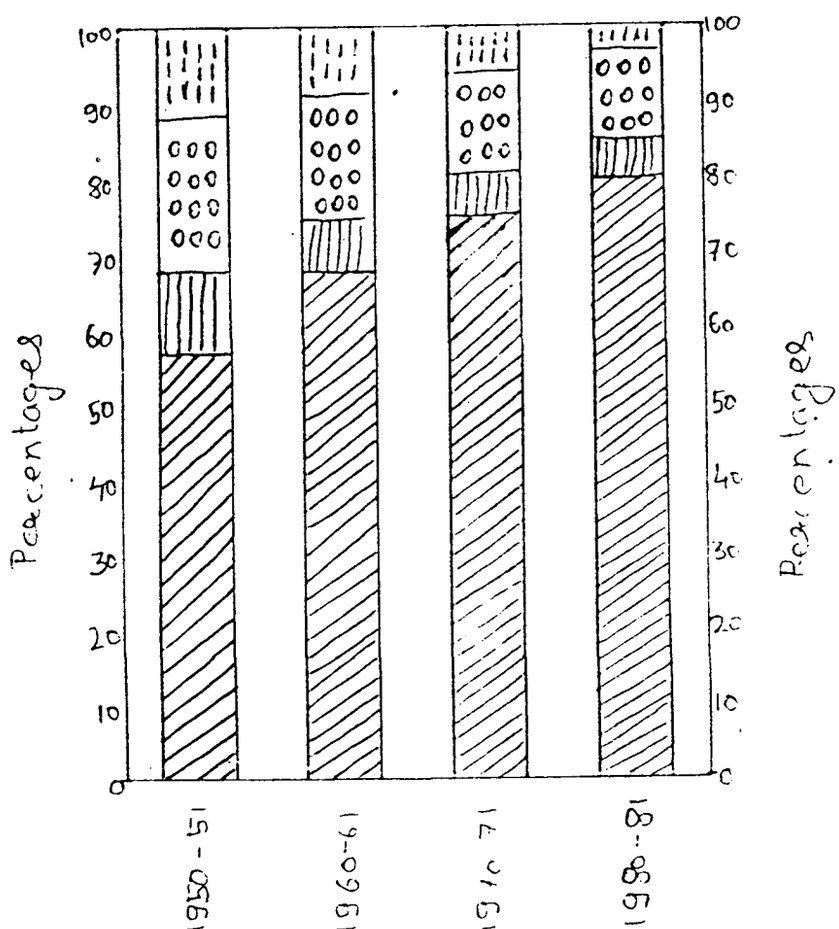
we have international bodies like the UNO, UNESCO, and the Colombo Plan and some philanthropic organisations such as the Ford Foundation, the Commonwealth the Federation of British Industries, etc. The Governments that offer facilities are those of USA, U.K., U.S.S.R., Italy, Germany, France, etc. The help come in different forms like scholarships and tour grants for studying abroad, providing expert personnel etc. The experts generally serve in country's planning boards, Education Commissions, Survey team, etc.

Sufficient reliable data at the macro level on the maintainance costs incurred by the student/ parents are not available and hence most analysis of educational finances remain confined to the rest of the sources mentioned above and the aggregate is referred to as total educational finances. But to ignore these household costs is too costly for educational planning in the long run. To note briefly, the maintenance expenditure, including fees met by the households, which can be called household investment in education has increased at an annual growth rate of 9.2% between 1970-71 and 1982-83, though in real terms there is no

Fig-5

Source wise contribution of Resources to Education in India (Percent)

- Central and State Governments.
- Local Bodies
- Fees
- Endowments and other Sources



increase. (Table 9). Both as a proportion of GNP and as per capita in real terms it has shown a decline.

Of the total educational finance that excludes the household expenditure, the share of the Central and State Governments has increased from 57 per cent at the inception of planning in the country to 80% by 1980-81. The share of every other sector declined during the period(Table-10).

The steep increase in the role of the government and relative fall of all other sources in financing education can be attributed to three factors. First, it is in conformity with the 'law of increasing State activity 'working in several countries of the world. Secondly, the government has to expand educational investment to build a socio-economic system after the colonial rule. The government policy towards equality in higher education through subsidies to weaker section led to the growth of educational expenditure.[25]

This pattern of financing has serious implications as the burden of indirect taxes that goes to the public

---

25. Tilak, J.B.G., "Investment in Education" Eastern Economist, Annual No.1980.

exchequer to be spent on education is generally borne by the relatively poor people. This raises the question whether the benefit accrued goes to this strata or not? The answer needs a careful examination of the objects of expenditure in education sector. In the next section the objects of educational expenditure are going to be discussed.

1.2.5 Objects

The objects of expenditure in the post-Independence period remained almost the same as in the British period but they were classified afresh with a view to providing detailed information in respect of various sectors of education. Thus, colleges and schools were divided into three categories : (1) for general education, (2) for professional and vocational education and (3) for special education. Greater details of each category of institutions began to be provided in the statistical reports on education. The indirect objects of expenditure were broken into (1) Direction and Inspection (2) Buildings and Furniture (3) Scholarships and other Financial concessions (4) Hostel charges and (5) Miscellaneous.[26]

---

26. Misra, Atmanand, op.cit., pp 231-248.

Elementary education caters to the age-group of 6 to 14 years and includes the primary and middle school education from Class I to VII. The constitution promised to provide free and compulsory education to all the children upto the age of 14, within ten years of its commencement. In 1957 an All India Council for Elementary Education was established to prepare a programme for early fulfilment of the directive. But the achievement of this objective remained a far cry and currently the government expects to fulfill it by 1989-90.

The other object of direct expenditure is secondary education. There are a number of organisations to help in the construction and improvement of various aspects of secondary education. Still it has been the weakest link between school and university. The Directorate of Extension Programme for Secondary Education and the National Council for Educational Research and Training were established in 1959 and 1961 respectively to promote secondary education.

Higher education was modelled after the recommendations of the Radhakrishnan Commission. The University Grants Commission was established in 1953 for the promotion and coordination of higher education and the determination and maintainance of standards

of instruction, examination and research. The allocation of grants to institution of higher education is one of its responsibilities. There has been tremendous increase in the institutions as well as enrolment in higher education in the post-Independence period.

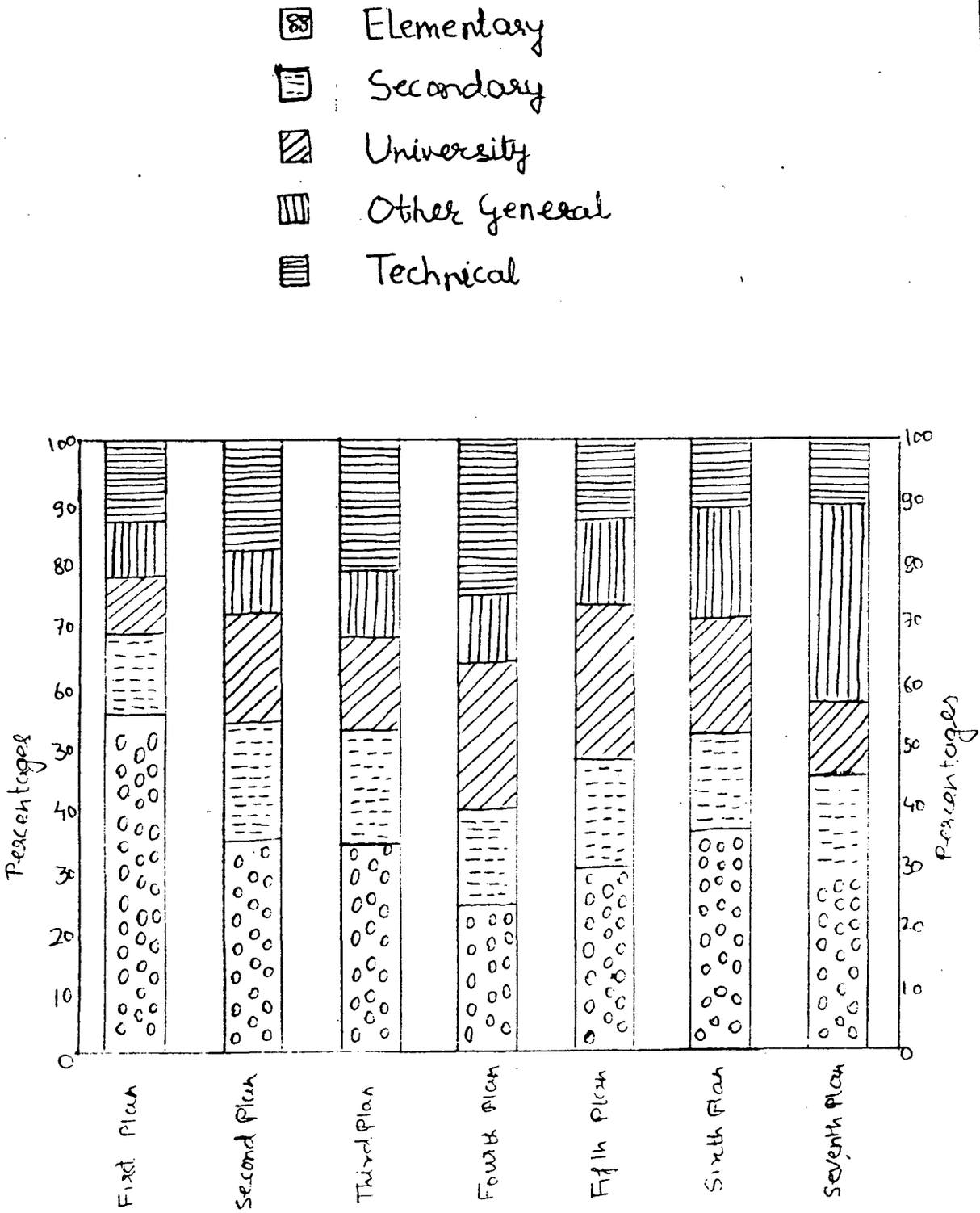
The expenditure on professional education in agriculture, applied art and architecture, commerce, engineering, forestry, law, medicine, physical education, teacher training, veterinary and others is made at two levels (a) College level and (b) Secondary level. The All India Council of Technical Education set up in 1945 organises and coordinates the development of technical education in the country. The NCERT coordinates and encourages research in the vocational education at secondary level. The Medical Council of India prescribes and maintains standards in medical education. The Indian Council of Agricultural Research works in the field of agriculture and allied subjects. Similar bodies in other areas are also operating for promotion of the respective fields.

Indirect Expenditure : As a result of great expansion of education at all levels and implementation of new projects and schemes, educational administration

had to be strengthened and reconditioned. In many states a deputy minister of education, joint directors for technical education, women's education and physical education were appointed. The increase in the enrolment and the opening of new institutions necessitated provision of buildings, furniture and equipment. Designs of cheap buildings for schools and laboratories were considered and implemented. For the purposes of democratization of educational opportunities in independent India, a large number of scholarship, stipend and free studentship schemes were started. Besides, special grants for physical activities, libraries, and reading rooms, expenses on special programmes like mid-day meals were provided. The Asian Institute of Educational Planning and Administration was established in 1962 which was renamed as National Institute of Educational Planning and Administration in 1979.

An analysis of intra-sectoral resource allocation in education in five year plans shows some clear cut trends. The declining share of elementary education from 56 percent in the First Plan to 29 per cent in Seventh plan is remarkable. Elementary and secondary education together account for only 45 per cent

Fig:6 Intra Sectoral Resource Allocation in Education in India in Five Year Plans (Per Cent)



of total educational expenditure. Another notable point is the sudden increase in social education including teacher education, vocational and adult education etc. from 18 per cent in Sixth plan to 33 percent in the Seventh Plan. (Table 11). A detailed analysis of intra-sectoral resource allocation in the states will be done in the next chapter.

Even if both plan and non-plan expenditure are taken, the trend is similar. The share of elementary education in the total direct expenditure shows a decline and the secondary education's share shows marginal increase. The share of higher education kept on rising. The rate of growth of indirect expenditure between 1950-51 and 1976-77 is really slow. (Table 12).

Tabe 13 shows the share of different subsectors of education in both plan and non-plan expenditure as well as in total expenditure. In the year 1985-86. This brings into the fact that the share of primary and secondary education are lower in plan expenditure than in non-plan expenditure. On the other hand, the share of higher and technical education in plan expenditure are greater than their shares in non-plan education.

Fig : 7

Percentage Share of Subsectors in Total Expenditure on Education (1985-86)

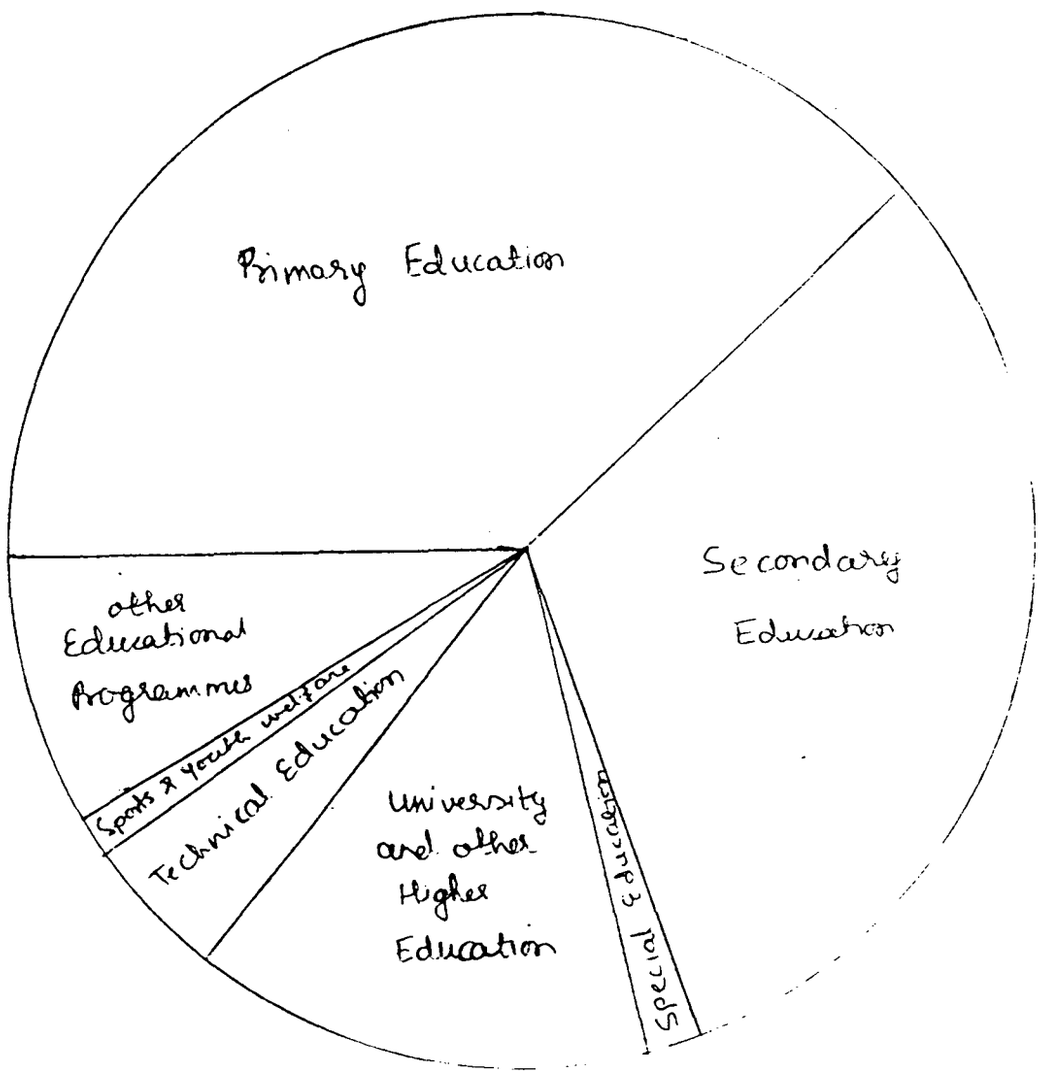


Fig: 8

Percentage share of Subsectors in Plan Expenditure on Education (1985-86)

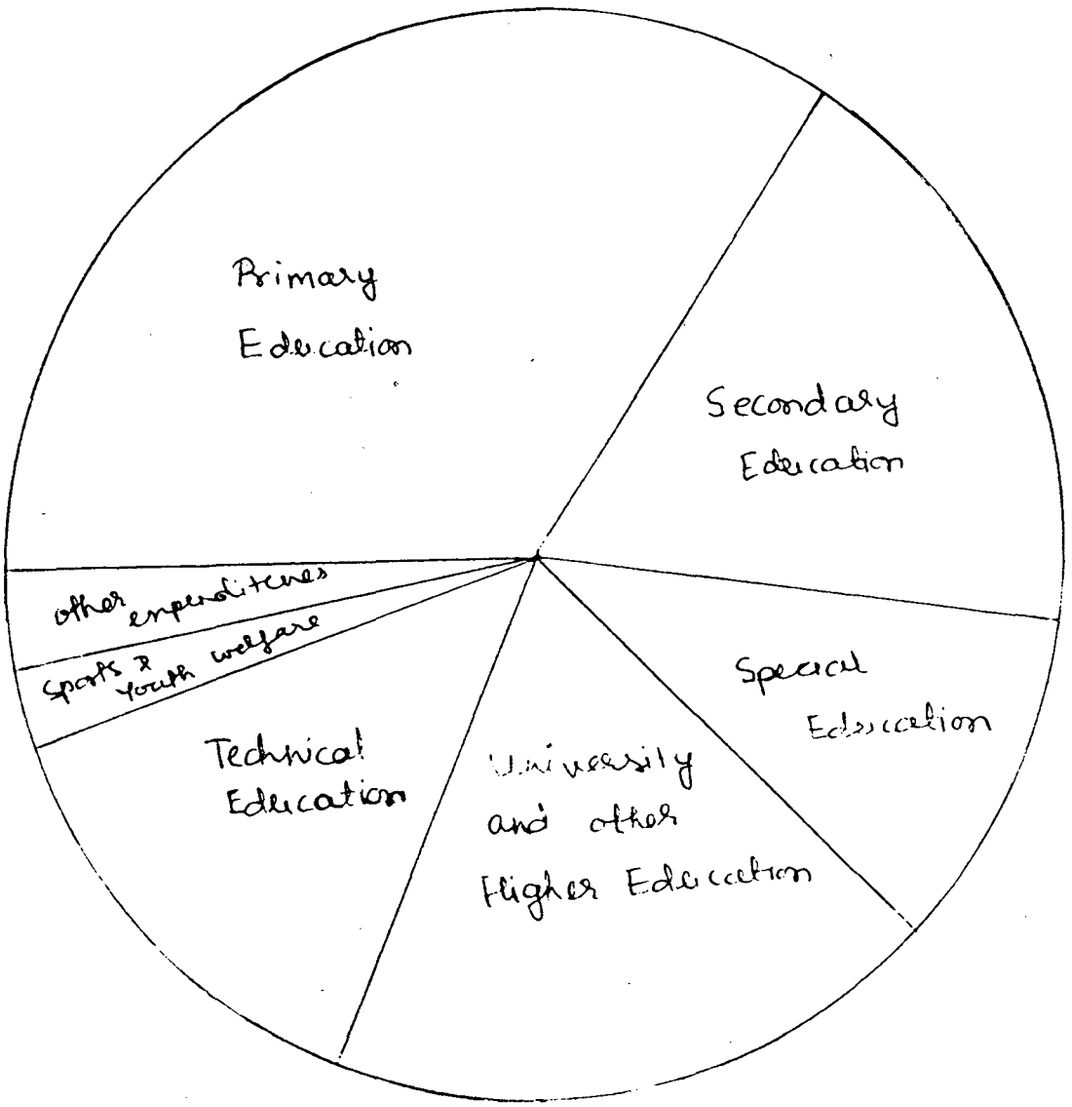
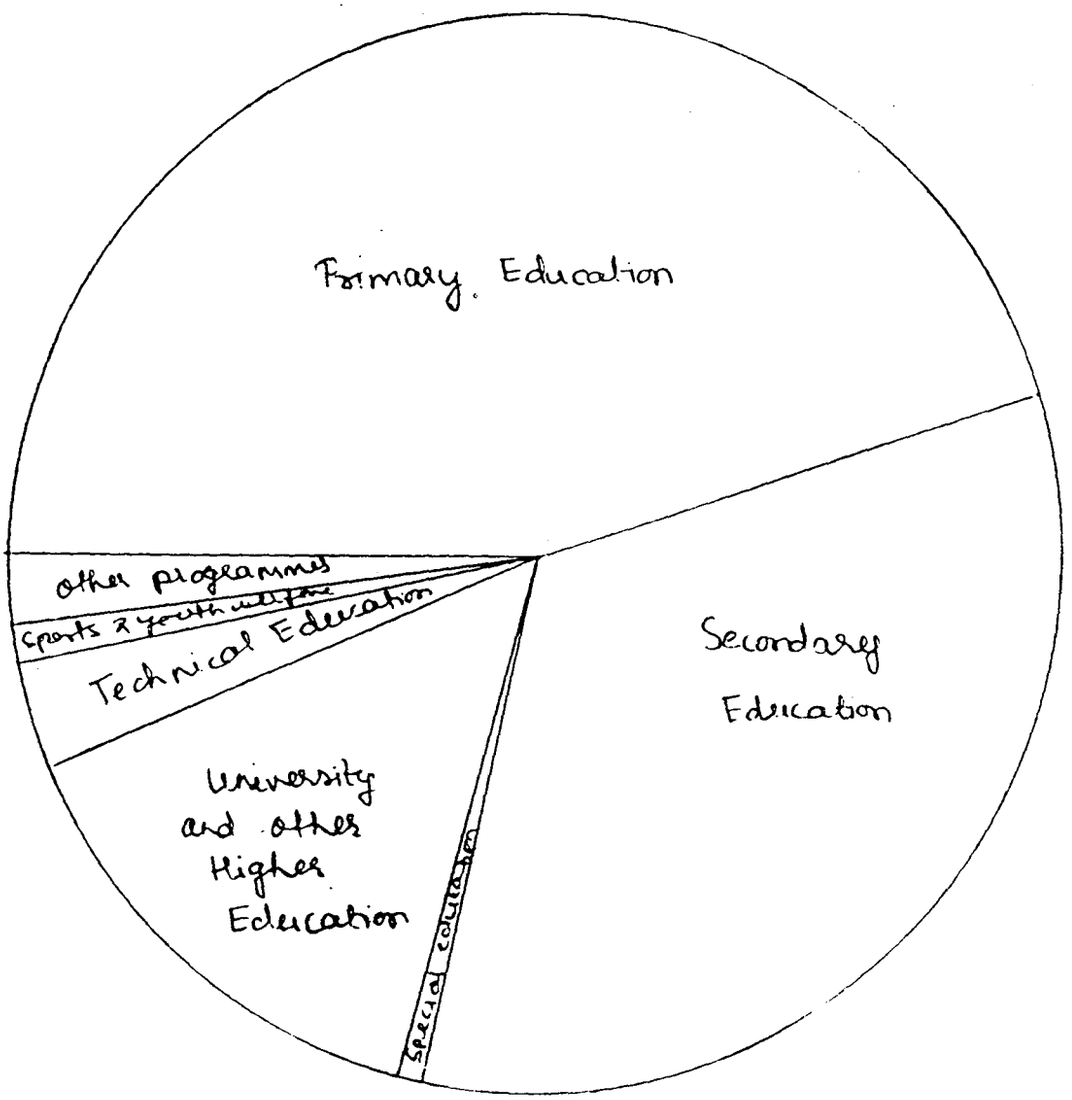


Fig: 9

Percentage Share of Subsectors in Non-Plan Expenditure on Education (1985-86)



The Education Commission (1964-66) suggested that at least two-thirds of the total expenditure should be in school education and one third in higher education. But experience suggests that even that is not adequate and at least three - fourths of education budget should have been invested in elementary education, if we are serious to achieve the objective of universalisation of elementary education.[27]

The state-wise figure of intra-sectoral analysis shows wide intra-state variations, (Table 14) One interesting fact is that Bihar spends 61.1 percent of its total budget on primary education and still trails far behind in literacy level. On the other hand, Maharashtra stands second among states in literacy level just by spending 44.2 percent on primary education. However, Maharashtra spends notably higher share on secondary education than Bihar. Another important fact is that even economically prosperous states like Punjab spends only 33.5 percent on primary education. The detailed analysis of these trends will be done in the next chapter.

---

27. Tilak & Varghese, "Resources for Education in India", Occasional papers No.2, NIEPA, New Delhi, 1983.

1.2.6 The Intra-Sectoral Allocation By Sources

Lastly, the intra-sectoral allocation of resources in education by sources have been considered. In 1982-83 the proportion of allocation for education in the central budget was only 2% while that for the states was 18%. A careful analysis reveals that a large part of the cost per pupil is borne by the State Governments, whether it is recurring cost or non-recurring cost. While at every level of education the contribution of state governments is the highest, its percentage share declines at increasing levels of education. (Table 15). In other words, while for primary education the State Government's share is three fourths of the total, for higher education it is about half. Same is the case for middle education. The share of the Central Government is less at lower levels of education, than at higher levels of education.[28] The contribution of local bodies is relatively higher at lower levels of education than at higher levels. However, the share of non-government sources are declining over a period of time and that of the government sources are increasing.

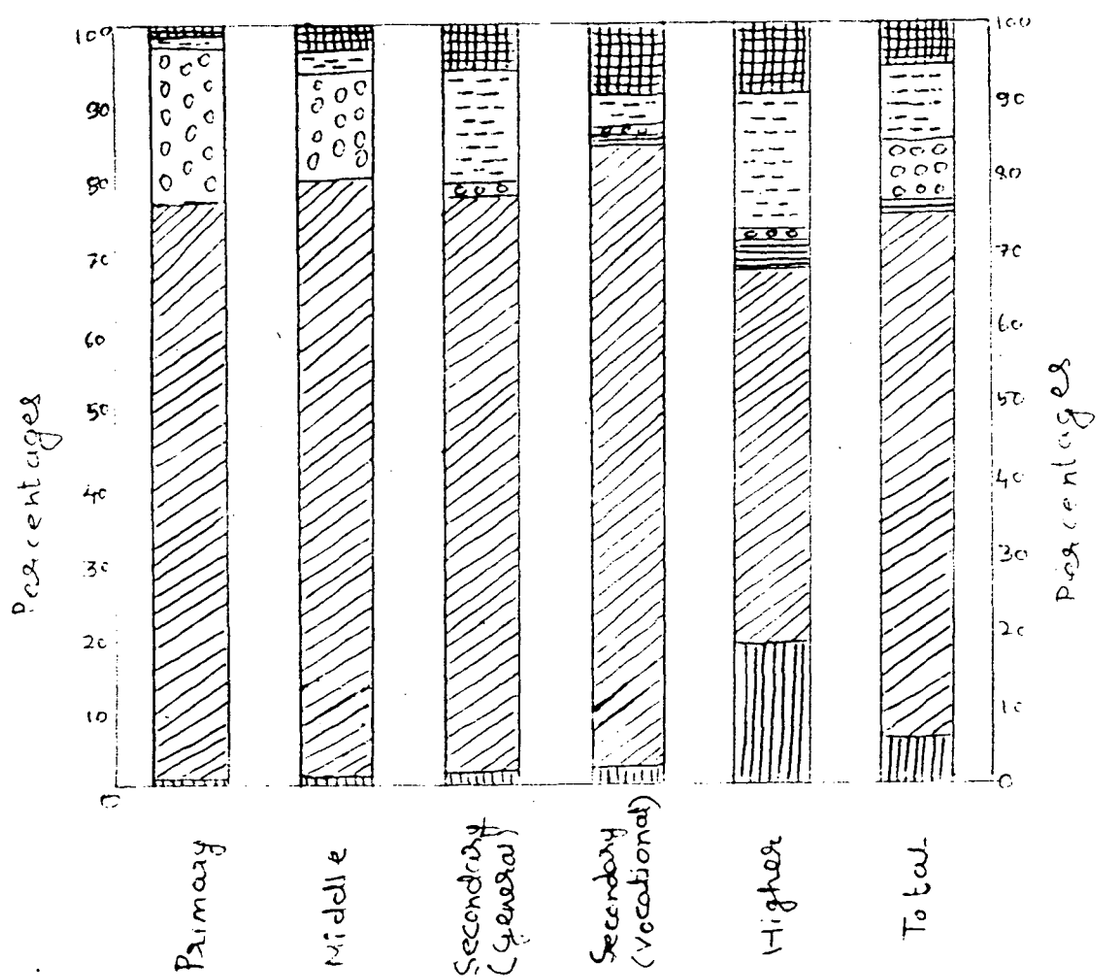
---

28. Ibid.

Fig: 10

Institutional Costs of Education by sources in India (1976-77)
(Recurring and Non-Recurring)

- Central Government
- State Government
- Universities
- Local bodies
- Fees
- Endowments



The Centre-state shares by levels of education in plan outlays have been shown in Table 16. The Centre's share has increased from 2.4% in Fourth Plan to 6.4% in Sixth Plan and to 5.5% in Seventh Plan. The Centre's share is higher for higher education. The Centre's share for technical education is also quite high but has come down from 53.4% as Fourth plan to 44.3% in Fifth plan and to 32.3% in Seventh Plan. The percentage share of Centre in education as a whole was 32.9, 22.3 and 37.4 in Fourth, Sixth and Seventh Plans respectively.

Thus, in this chapter, the roles of the Centre and the States in the financing of education beginning from the British period to the present time have been discussed briefly. The Central Government has emerged as the main policy maker while the States are main financing source especially at school level. The changing significance of different sources of educational finance as well as the trends in the intra-sectoral allocation of educational expenditure have also been discussed. In the country as a whole, the Government sector has emerged as the most important source. Although, the share of primary education, is

higher than on other sectors, it is not upto the required level. The aim of this chapter has been to provide a general picture of educational finances in India in order to provide background for studies of specific sectors in the following chapters.

...

CHAPTER - II

THE FINANCING OF EDUCATION IN THE STATES - A COMPARATIVE STUDY OF BIHAR AND MAHARASHTRA

In the last chapter, the different aspects of Educational Finance such as Centre-State relations, administration, sources and objects of expenditure in respect of both the pre-Independence and the post-Independent India have been reviewed. But within the country all the states are not at the same educational level nor do they follow the same pattern of educational financing. Hence, the study becomes more meaningful if it takes account of some specific study related to states. To this end, two states - Bihar and Maharashtra have been taken into account. The former is educationally backward and lies at the bottom of the ladder while the latter is educationally advanced and lies next only to Kerala among states in terms of literacy rate. It is true that education in Maharashtra received more attention during the British period due to several factors such as the growth of industrialization and trade, but even after Independence, it is generally felt

that, the education sector has received greater importance there as compared to other states. This chapter tries to examine the trends of educational finances at inter-sectoral and intra-sectoral level both within the state and between the states.

2.1 A Comparison of Economic Indicators

Both Bihar and Maharashtra are among the most populous states of the country, holding second and third position respectively, U.P. being the first. Both the states are rich in natural resources - Bihar being the richest in mineral resources like cooking coal, iron-ore, mica, etc. and Maharashtra having huge reserves of oil. But though Maharashtra is a highly industrialized state, Bihar is ironically industrially backward. Maharashtra is rich in producing cash crops such as cotton, sugarcane and tobacoo. The share of agriculture to S.D.P. is around 70% in Bihar as against 20% in Maharashtra. The share of industries in SDP is only around 15% in Bihar against more than 40% in Maharashtra. Despite being an agricultural state, Bihar remains a deficit state in foodgrains. Maharashtra is ahead of Bihar in terms of economic indicators like State Domestic Product, per capita Income, etc. (Table 17).

2.2 A Comparison of Physical Indicators in Education

Both Bihar and Maharashtra follow a system of 10+2 pattern in school level education. In both states the education of +2 kind is available both in schools and colleges. In Bihar education is free upto class X whereas in Maharashtra it is free upto class XII.

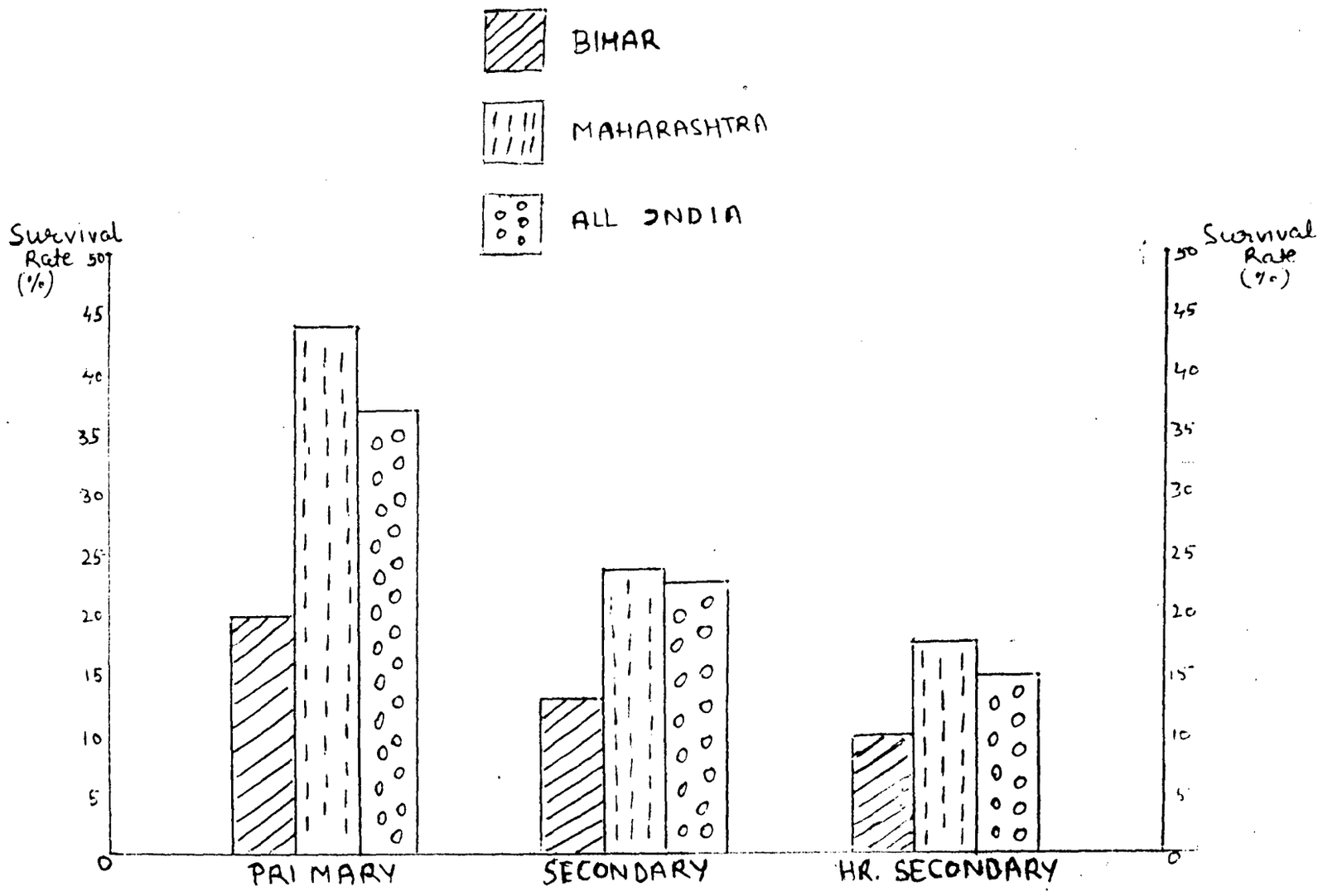
A comparison of physical indicators of education between both the states as well as India as a whole is essential along with financial indicators. Table 18 shows the edge of Maharashtra in literacy rate in both 1971 and 1981 over Bihar. Maharashtra is well above the national average in both the years while Bihar is at quite a low level of literacy rate as compared both to Maharashtra and to All India average. The rate of growth of literary rate between 1971 & 1981 is also higher in Maharashtra than in Bihar and India.

The number of primary schools is remarkably higher in Bihar than in Maharashtra (Table 19). Similar is true with the average number of schools available per lakh of population at the primary level (Table 20). But at secondary level the number of institutions is more in Maharashtra (Table 16). One

interesting fact is that though the number of professional education institutions at pre-degree level is more in Maharashtra, Bihar exceeds in the number of post-degree professional colleges. Teachers-pupil Ratio does not vary much at school level between these two states (Table 21). The single teacher primary schools as a percentage of total number of primary schools is 33.5 in Bihar as against 52.7 in in Maharashtra (Table 22). The percentage of schools with library facilities is slightly lower at primary level in Bihar and slightly higher at middle, secondary and higher secondary level (Table 23).

All these indicators show that Bihar had a better prospect for spread of education at primary level but this did not happen. Gross Enrolment Ratio is higher in Maharashtra than in Bihar and India at all levels. At primary level it is only 66 in Bihar as against 100 in Maharashtra (Table 24). All higher level, in all the courses the enrolment is higher in Maharashtra than in Bihar (Table 24(B)). Some other statistical indicators can perhaps explain this phenomena to some extent. More than eighty percent of Bihar's population belong to rural areas and the percentage of rural population served within habitation both at primary and middle level is markedly low there as

Fig : 11 Survival Rates of Students at Various Stages of School Education (1976-77)



compared to Maharashtra (Table 25). Not only the enrolment ratio is lower in Bihar at all levels, but the survival rate is also very low at all levels of school education as compared to Maharashtra and also to all India (Table 26). Table 27 shows the statewise frequency distribution of Districts by categories of total literacy. While in Maharashtra there is not a single district below the average literacy level, in Bihar 23 out of 31 districts are below average literacy level.

2.3 Educational Expenditures in Bihar and Maharashtra

The educational expenditure as percentage of State Domestic Product was 2.3 in 1960-61 in Bihar which increased to 4.2 in 1985-86 whereas in Maharashtra it increased from 3.0 to 3.5 during the same period. The rank of Bihar and Maharashtra is 3rd and 17th respectively from the point of view of percentage of budgeted expenditure on education to to total budget. The per capita Educational expenditure increased from Rs. 5.2 in 1960-61 to Rs.64.26 in 1985-86 in Bihar and from Rs. 13.9 to 120.46 in Maharashtra during the same period. Table 28 shows inter-district variations in per capita expenditure within the states of Bihar and Maharashtra Coefficient of variation is a relatively better measures of dis-

persion which is significantly higher in Bihar. Table 29 shows the Representation Index of investment in Education. It makes it clear that while Bihar is an under-invested state, Maharashtra is an over-estimated one.

Next the inter-state variations at inter-sectoral and intra-sectoral levels, would be examined. However, before attempting any inter-state comparative analysis, the following two points should be kept in mind :

i) It may be noted that the total expenditure relates to the sum of the expenditure incurred by different states and it does not include the expenditure by the centre.

ii) The analysis relates only to the expenditure on the revenue account.

Table 30 shows the percentage of Budgeted Expenditure on education by Education and other departments to the total budget from 1968-69 to 1986-87. The data for All India here indicate the average of the grand total of all the states and union territories. The trend lines in Figure II which has been drawn on the basis of Table 25 help us to recognise the

trend in these states over the years. Following are the trend line equations.

Bihar $Y_1 = 22.398 + 0.453\ t$

Maharashtra $Y_2 = 22.429 - 0.03\ t$

All India $Y_3 = 23.497 + .097\ t$

Where Y_1, Y_2 and Y_3 represent the percentage expenditure and t the time respectively. We see that percentage expenditure on education has declined in Maharashtra as the slope of the line is negative while for India and Bihar it has increased. The decline in Maharashtra is insignificant whereas the increase for both Bihar and All India is significant. Following are the b, r^2 and observed t values

	b*	r^2	t
Bihar	.453	.404	4.932ff
Maharashtra	-0.03	.003	0.293
All India	.039	.143	2.449f

* Slope coefficient

f Significant at 5% level.

ff Highly significant at 5% level.

However if the absolute amount of expenditure is taken into account in these two states, Maharshtra has maintained its supremacy all through these years (Table 31), though the difference has slightly narrowed down. In 1968 Maharashtra's expenditure was 2.7 times more than Bihar's while in 86-87 it came down to 1.9 times. However the shares of both the states in total expenditure for All India have almost remained the same over the years at 5.3% and 5.7% for Bihar and at 11.5% and 11.05% for Maharashtra in the year 1968-69 and 1986-87 respectively.

The percentage of plan expenditure on Education to total expenditure of the Education Department has declined in Maharashtra and increased in Bihar over the years. (Table 32). Following are the equations for Trend lines.

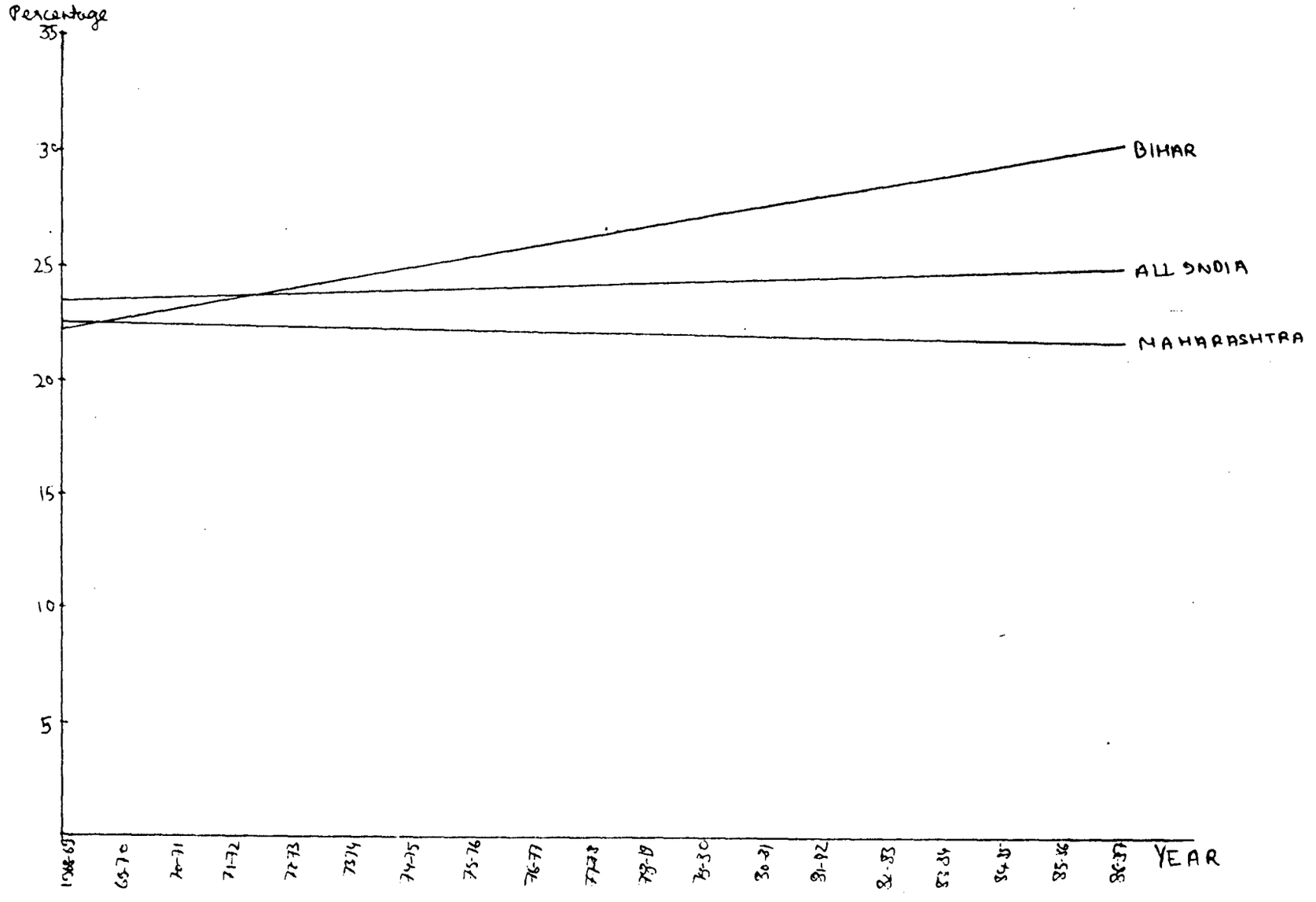
Bihar $Y_1 = 7.580 + 0.294\ t$

Maharashtra $Y_2 = 11.278 - 0.218t$

All India $Y_3 = 8.835 + 0.168\ t$

In 1968-69, the percentage share of plan expenditure in Bihar was 10.1 against Maharashtra 15.2 whereas in 1986-87, it went up to 16.9 in Bihar and came down to 9.2 in Maharashtra. Following are the b, r^2

Fig: 17. Trend Line of Percentage of Budgeted Expenditure on Education by Education and Other Departments to total Budget.



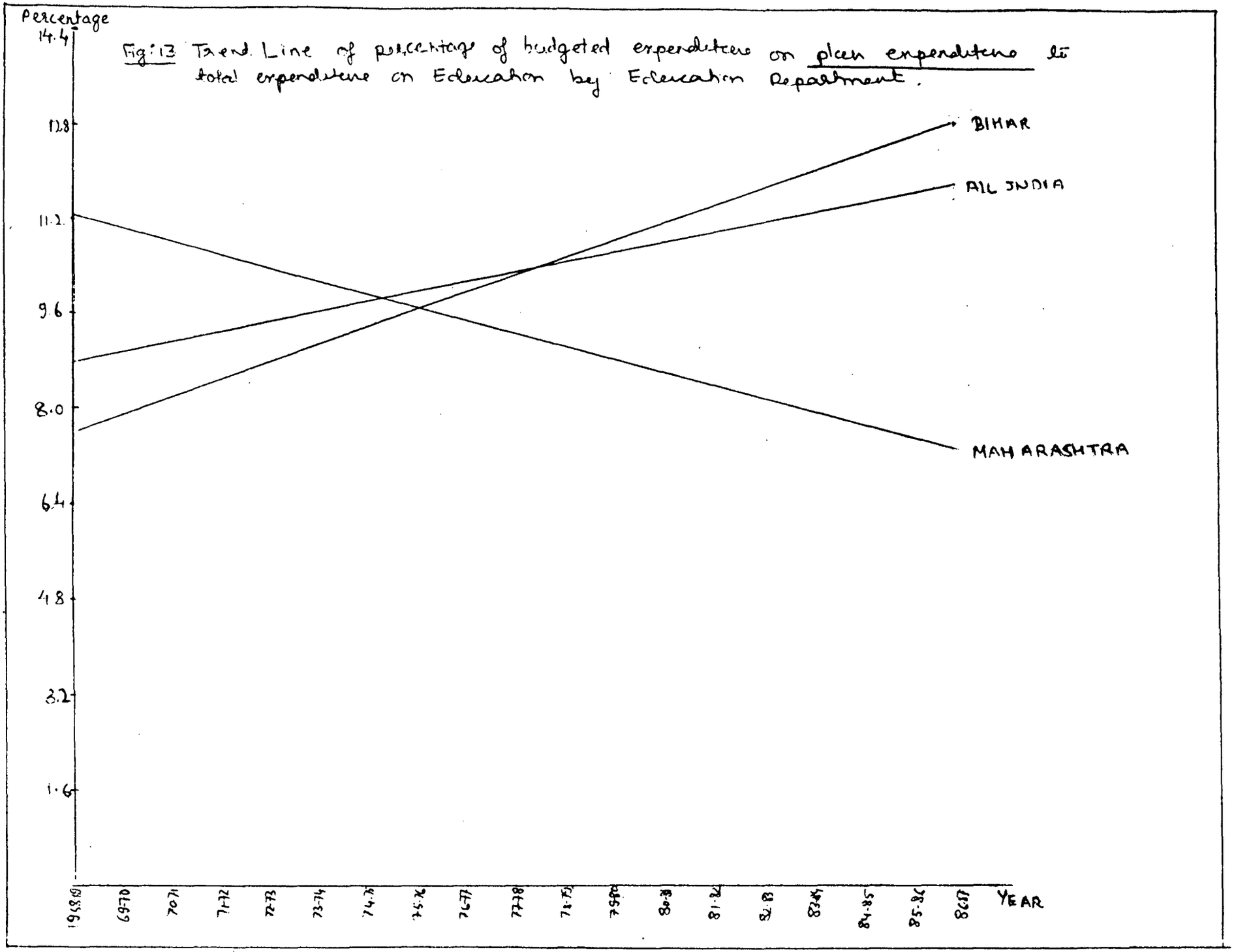


Fig: 13 Trend Line of percentage of budgeted expenditure on plan expenditure to total expenditure on Education by Education Department.

and observed it values worked out on the basis of Table 32.

	b	r^2	t
Bihar	.294	.098	1.983
Maharashtra	-.218	.057	1.489
All India	.168	.080	1.770

It is found that observed 't' values are not significant for either of the States or all India at 5% level. It shows that the rise or decline over the years is statistically insignificant.

Next the allocations for different sub-sectors of education sector in these states are taken. The four subsectors - Elementary, Secondary, Universities and higher and Technical, which together take the major chunk of education budget have been taken into consideration. The data for the period 1968-69 to 1986-87 have been taken. The percentage share of elementary education has always been higher in Bihar as compared to Maharashtra and Indian average (Table 33). The equations of the trend lines are as follows :

Bihar $Y_1 = 63.871 - .057\ t$

Maharashtra $Y_2 = 44.656 - .165\ t$

All India $Y_3 = 46.542\ t. .087\ t$

On the other hand, the percentage share of secondary education is much higher in Maharashtra compared to Bihar all through these years (Table 34). The percentage share for secondary education in Bihar has been much lower than the national average also. The equations for the trend lines are as follows :

Bihar $Y_1 = 11.252 + 0.589\ t$

Maharashtra $Y_2 = 33.448 + .039t$

All India $Y_3 = 31.216\ t\ .113\ t$

The percentage share for university and other higher education has been higher than national average in both the states in 1986-87, though this was much lower in Maharashtra in 1968-69 (Table 35). The trend line equations for area as follows :

Bihar $Y_1 = 13.408 - .038t$

Maharashtra $Y_2 = 5.255 + .560\ t$

All India $Y_3 = 10.537 + .108t$

The percentage share of technical education in the total educational expenditure is lower in Bihar as compared to Maharashtra (Table 36). The trend line equations are as follows :

Fig: 14 Trend Line of percentage expenditure on **Elementary Education** to total Budgeted Expenditure on Education by Education Department.

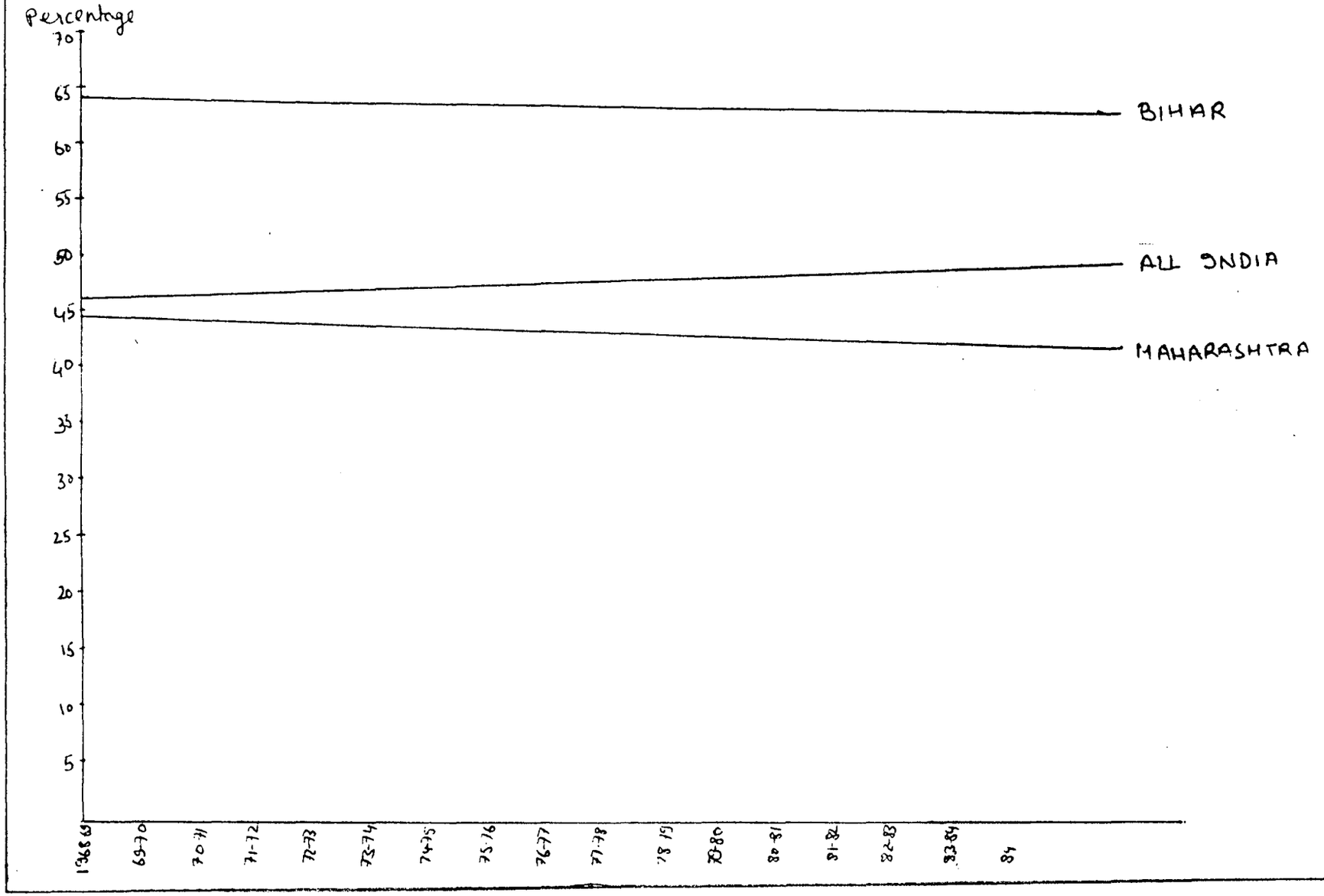


Fig: 15 Trend Line of percentage expenditure on Secondary Education to total Expenditure on Education by Education Department.

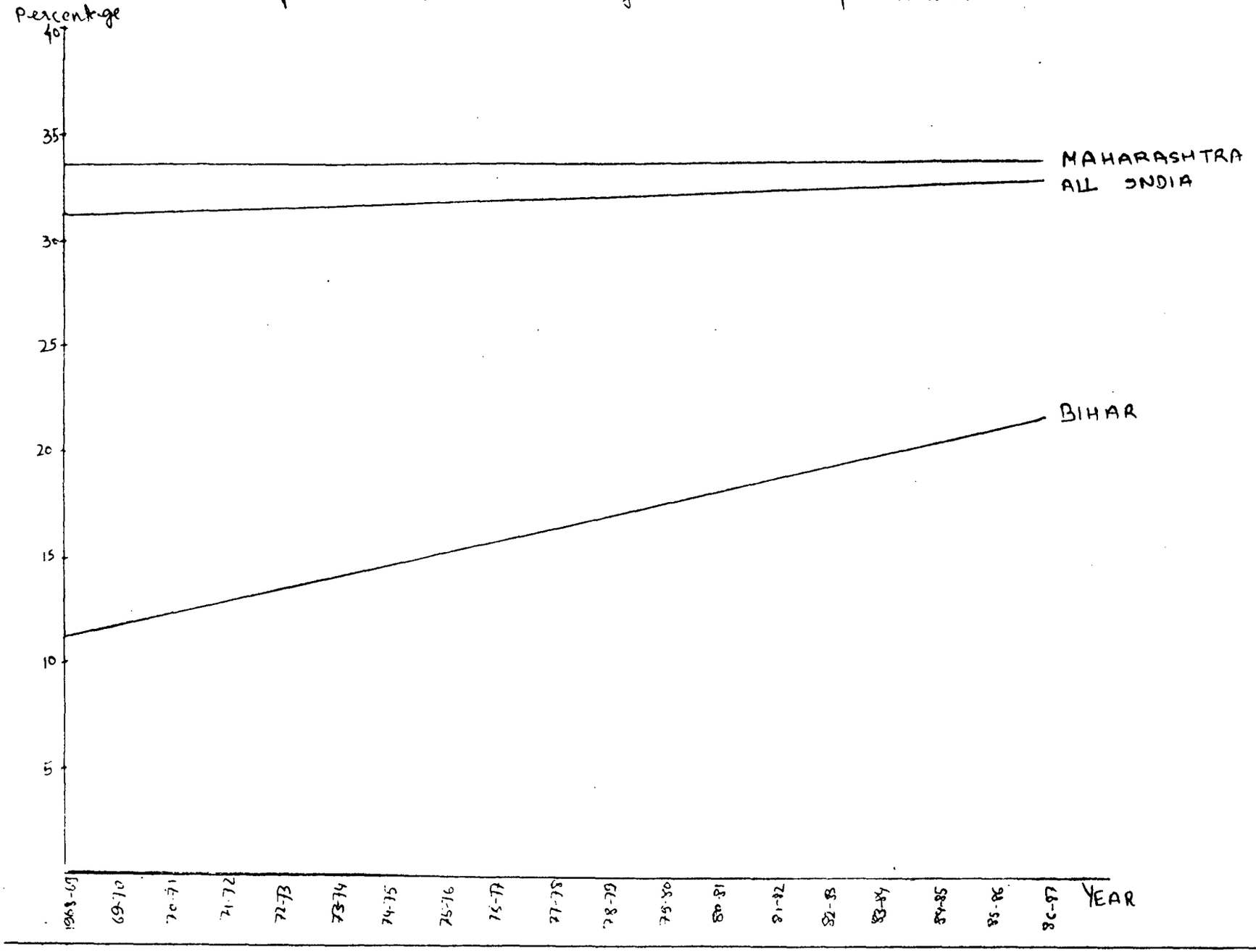


Fig:16 Trend Line of Percentage Expenditure on University and other Higher Education to total Expenditure on Education by Education Department.

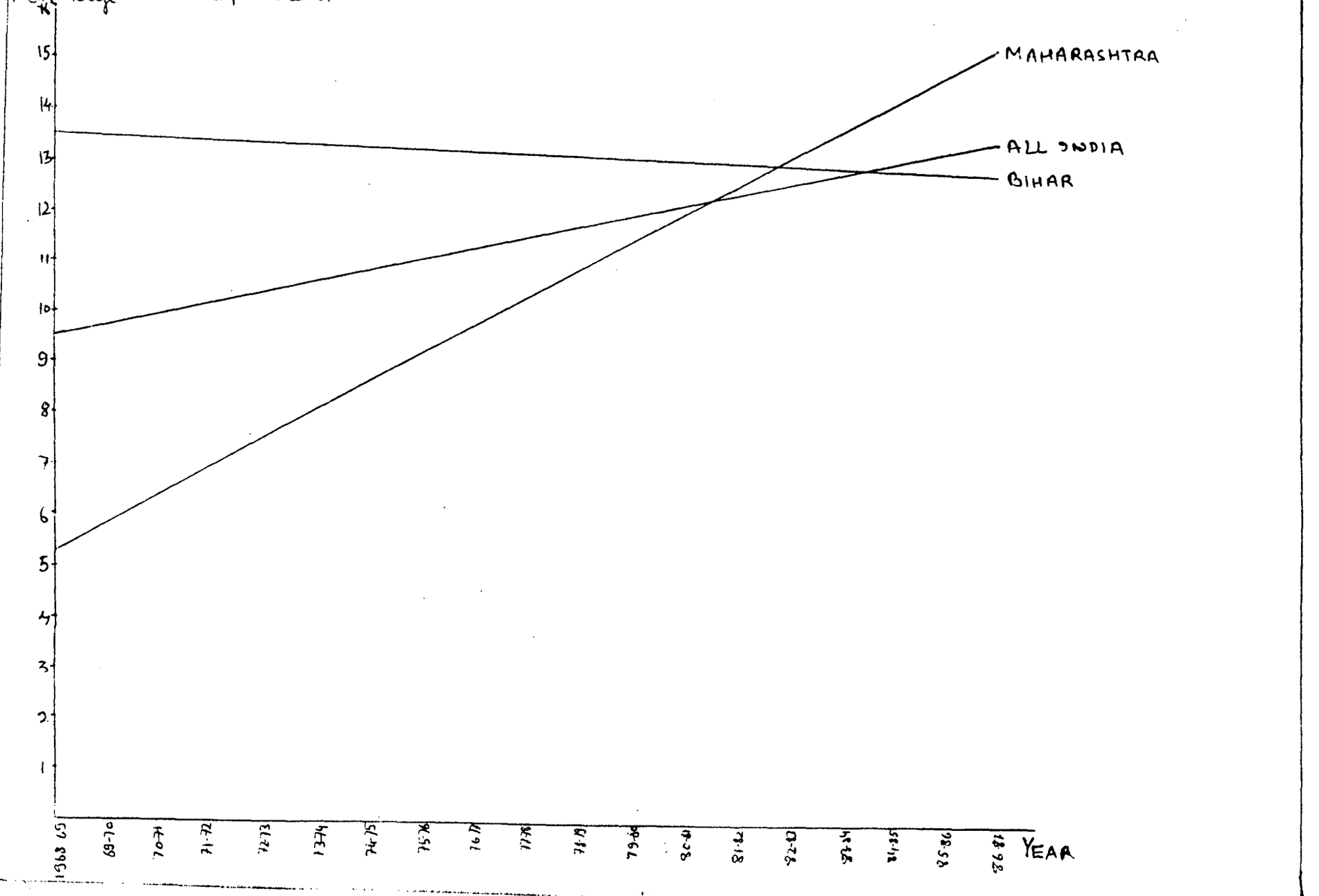
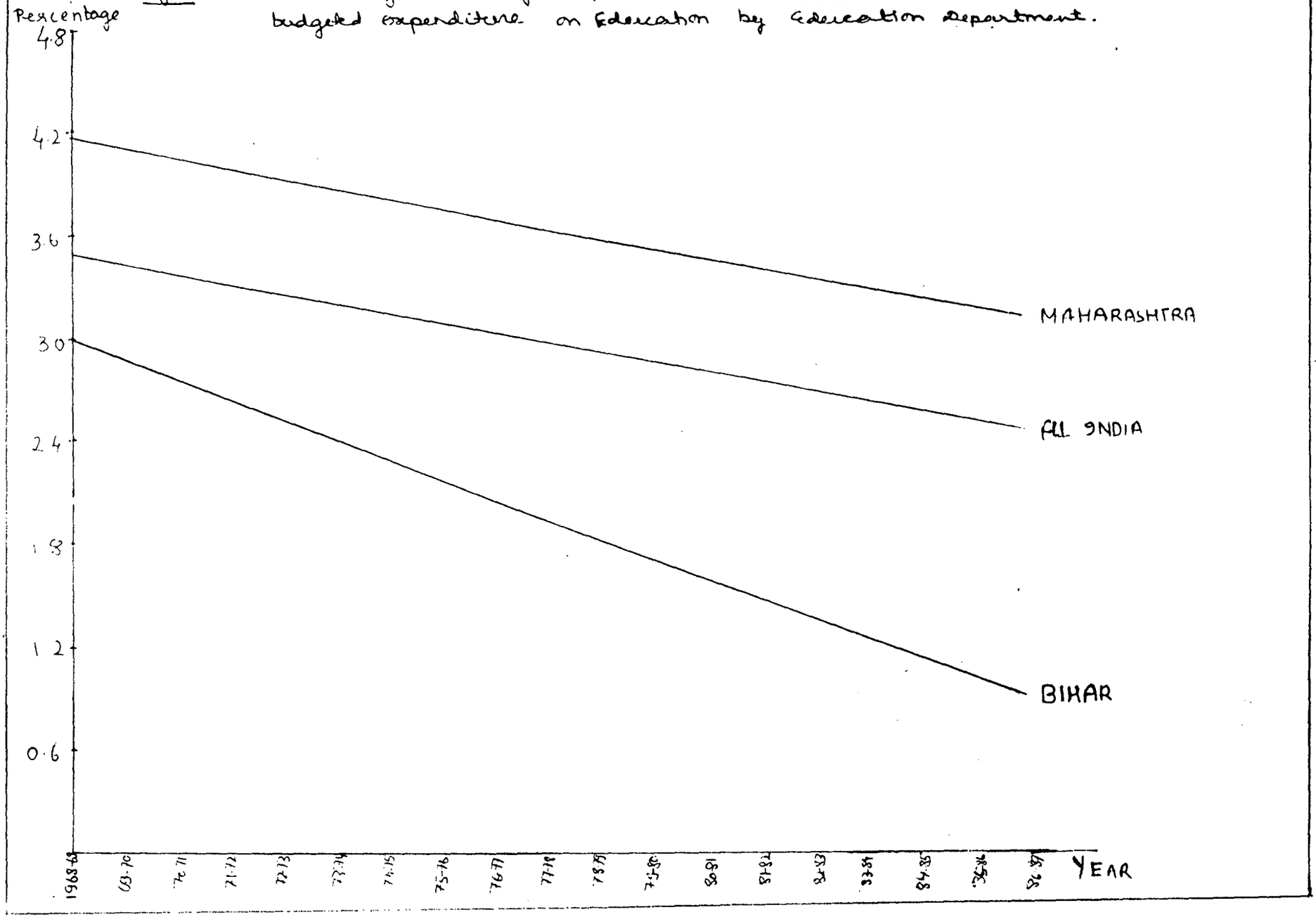


Fig:17 Trend Line of Percentage Expenditure on Technical Education to total budgeted expenditure on Education by Education Department.



Bihar $Y_1 = 3.007 - 0.116\ t$

Maharashtra $Y_2 = 4.165 - 0.056\ t$

All India $Y_3 = 3.493 - 0.056\ t$

Following are the b, r^2 and observed t. values for educational expenditure on different subsectors worked out on the basis of Table 32,33, 34, 35 and 36.

	Elementary			Secondary		
	b b	r^2	t	b	r^2	t
Bihar	-.057	.005	.445	.389	.670	8.595**
Maharashtra	-.165	.109	2.105*	.038	.048	1.352
All India	.087	.139	2.416*	.113	.423	5.13*

	Higher			Technical		
Bihar	b	r^2	t	b	r^2	t
Bihar	-.039	.009	.572	-.116	.655	8.286**
Maharashtra	.560	.798	11.539**	-.056	.490	4.116*
All India	.223	.662	7.01**	-.056	.339	4.27*

The percentage share budgeted expenditure on elementary education has declined both in Bihar and Maharashtra but the decline for Bihar is insignificant while for Maharashtra it is significant. The all Indian average has increased over the years and the increase is statistically significant. For secondary

education, the share of budgeted expenditure has shown an increase in both the states. But increase for Maharashtra is insignificant while for Bihar is highly significant. Thus despite a higher rate of increase over the years, the percentage share of secondary education has remained much lower to Maharashtra. The all India's average also shows a significant increase over the years. In case of Universities and other higher education, there has been an insignificant decline in its share in Bihar over the years. On the other hand Maharashtra shows a highly significant increase during the period in this respect. Consequently Bihar's share of higher education which was much higher to Maharashtra's as well as all India's share in 68-69 has become lower to both of these in 1986-87. The all Indian average also shows a significant rise during these years. As far as the percentage share of technical education in total budgeted expenditure is concerned share has been significant decline in Bihar, Maharashtra and India. However the decline for Bihar is highly significant. As a result, the gap between Bihar and Maharashtra has widened in this respect, Maharashtra's share always being higher during the period.

Thus, it is seen that the percentage share for elementary education is higher in Bihar whereas the share for secondary and technical education is higher in Maharashtra. The percentage share for university and other higher education was earlier lower in Maharashtra but lately it has more or less equilised Bihar in that sense.

However, the consideration of absolute data shows a different trend in intra-sectoral data also as is in inter-sectoral analysis. The expenditure on elementary education has all along been higher in Maharashtra and the difference has also been almost similar. In 1968-69 Maharashtra's expenditure was 1.63 times higher than Bihar's and in 1986-87 it came down slightly to 1.24. The share of Bihar in India's total expenditure was 7% in 1968-69, 8% in 1986-87 as against Maharashtra's 11% and 10.05% in 1968-69 and 1986-87 respectively. In case of secondary education also, the total expenditure is much higher in Maharashtra, though the difference has been narrowed down. Maharashtra's expenditure was higher by 7.66 and 3.31 times in 1968-69 and 1986-87 respectively. The share of Bihar in the total Indian expenditure was 1.8% in 1968-69 which went up to 3.4% in 1986-87. Maharashtra's share went down slightly from 13.7%

to 11.4% during the same period. (Table 37 and Table 38).

The absolute amount of expenditure is higher in Maharashtra in all the sectors including higher and technical education. The difference is more marked in technical education where Maharashtra's expenditure is more than three times greater than Bihar's. In case of higher education, in 1968-69, when Bihar's percentage share was more, the absolute expenditure was 1.4 times less (Table 39 and 40).

In Table 41, Compound Growth Rates (CGR) of total Budgeted Expenditure have been worked out for education and different sub-sectors of education. The difference between growth rates for education sector as a whole between Bihar and Maharashtra is slight. In case of primary and secondary education, the CGRs are greater in Bihar. The CGR for higher education is higher than that for elementary education in both the states. The CGR for technical education is lower as compared to other sectors both in Bihar and Maharashtra. When the 18 years period is divided into three periods of six years each, it is marked that in Bihar the CGR has been highest for higher education in last six years. In

Maharashtra the difference among CGRs for different sectors have narrowed down in last six years spell showing that the state has a sufficient base in all the sectors now.

2.4 Growth of Expenditure in Real Terms

Till now, the growth of absolute expenditure on education has been analysed at current prices. But the expenditures at current prices do not depict real picture as it does not take into consideration the price rise. As such it does not became clear whether the rise is real or due only to price rise. Hence, it is necessaryto deflate the amounts on the basis of yearly inflation so that the change shown is real. The growth rate should be at least equal to the growth rate of total population, otherwise the per capita expenditure might show declining trends which would be posing serious problems for policy planners. The expenditure at current prices on education sector and different sub-sectors for Bihar and Maharashtra have been changed into constant prices terms and then Growth Rates have been compared. Index Numbers for both the series have been computed to show the difference. The expenditure have been taken from 1970-71 for the sake

Fig: 18 The Growth of Total Budgeted Expenditure on Education by Education and other Departments in Bihar
(1970-71 to 1986-87)

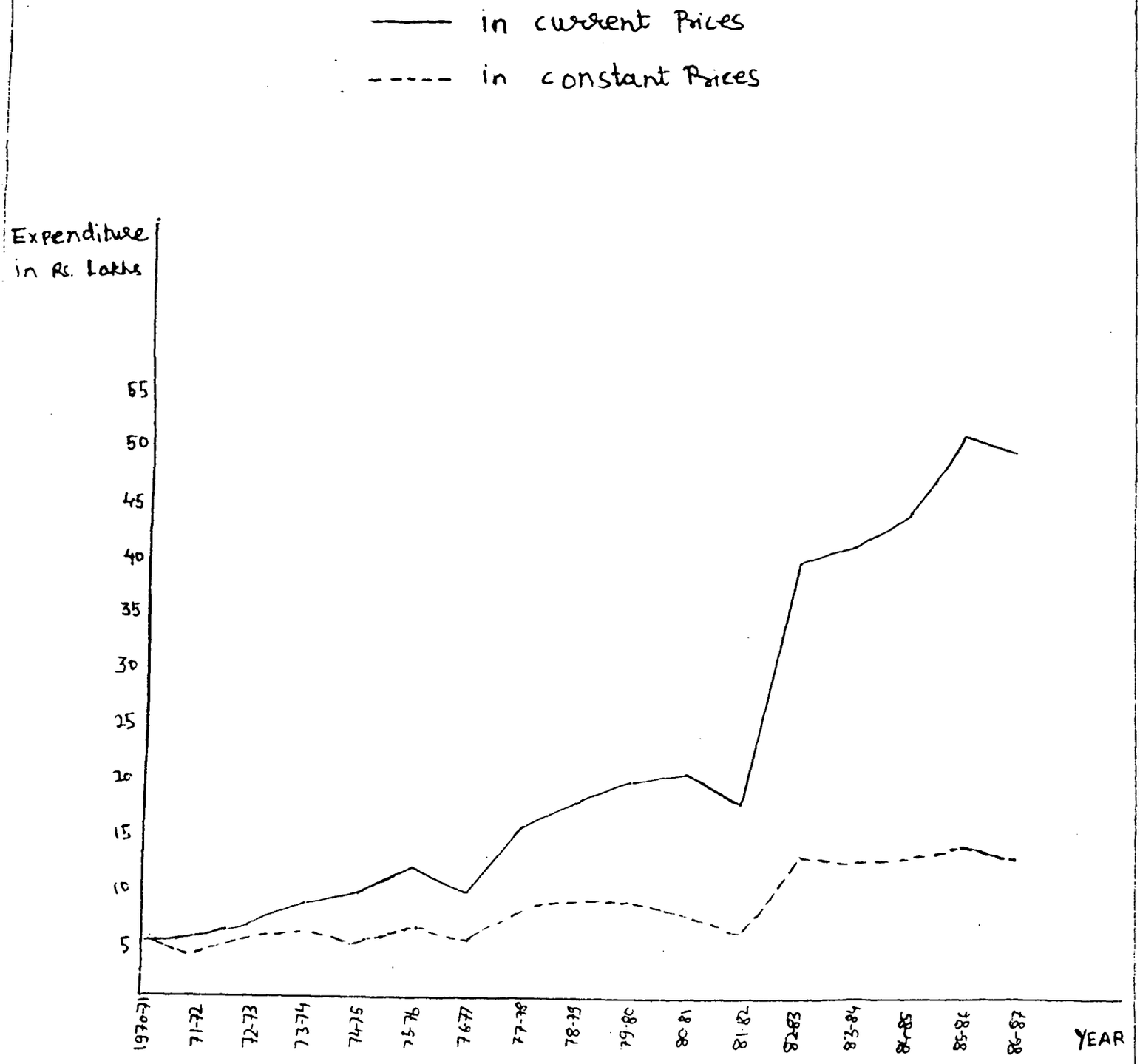
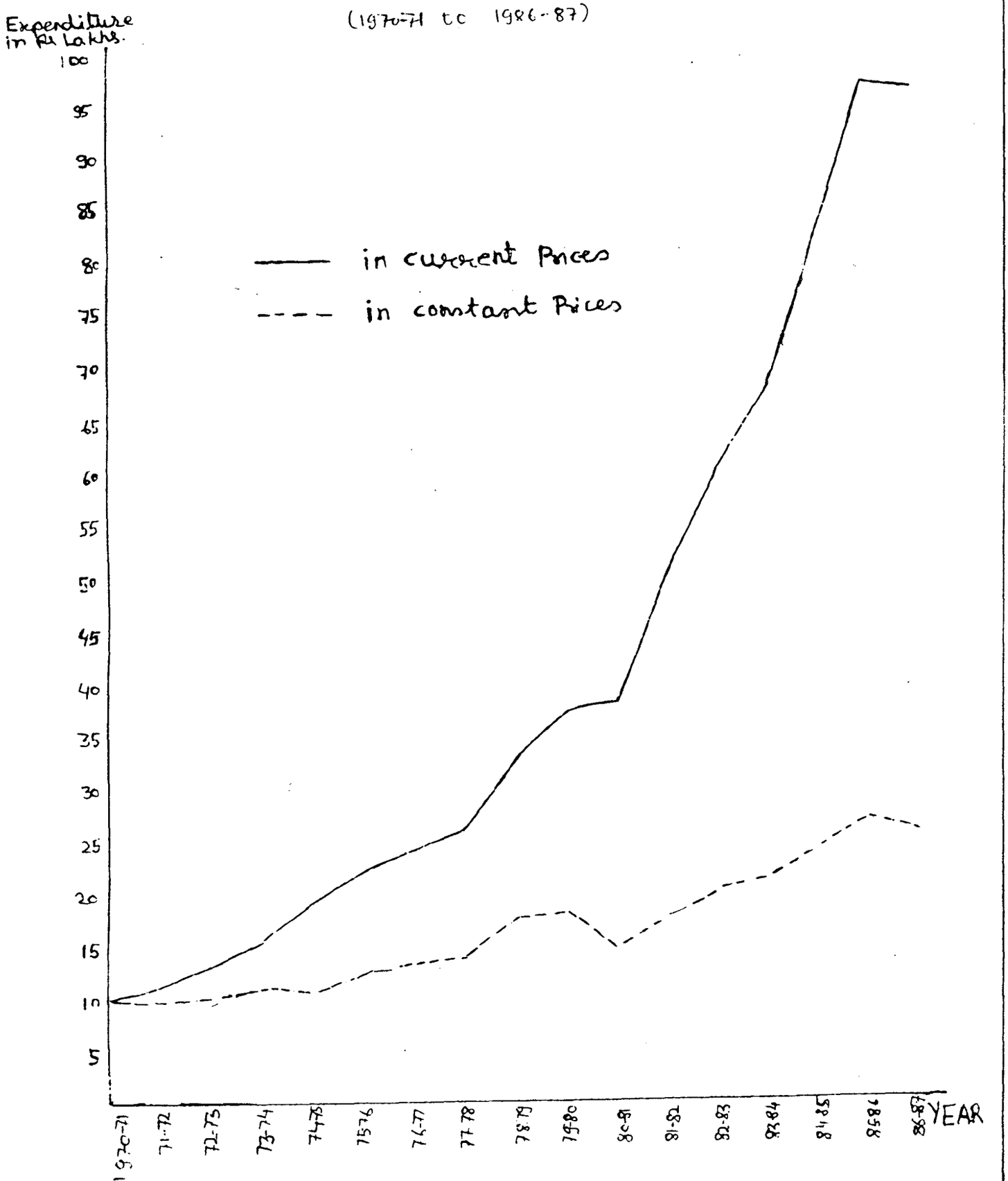


Fig:19 The Growth of Total Budgeted Expenditure on Education by Education and other Departments in Maharashtra (1970-71 to 1986-87)



of convenience in computing Index Number.

There is a wide difference between the expenditure at current and constant prices. In case of total expenditure by education and other departments, the Annual Compound Growth rate comes down to 5.9% and 5.6% for Bihar and Maharashtra respectively. In term of current prices, the CGR for sixteen years remains as high as 15.2 and 15.0 per cent. Similarly, Index Numbers show that an increase of 85.7 per cent in terms of current prices over a period of sixteen years comes down to 149.9 per cent in real terms in Bihar. In Maharashtra also Index Number shows a growth of 838 per cent in monetary term whereas it is only 144.8 in real terms. (Table 42 and 43).

Similar is the case with different sub sectors of education also. At constant prices, the CGR for elementary Education is only 5.5% and 4.3% in Bihar and Maharashtra respectively as against 14.7% and 13.4% at current prices. In terms of Index number a growth of 798.3% comes down to 134.6% in Bihar and from 652.9% to 96.6%, in Maharashtra (Table 44 and 45). In case of expenditure on secondary education the CGR of 18.3% comes to 8.8% in Bihar and of 14.3% to

5.0% in Maharashtra (Table 46 and 47). In Bihar, the growth of 1163.3% in index Numbers over a period of sixteen years (from 1970-71 to 1986-87) in terms of current prices comes down to 229.7% when deflated in real prices terms for universities and other Higher Education. Similarly in Maharashtra it comes down from 1555% to 331.6% In real terms CGR for higher Education is 7.8%, and 9.6% for Bihar and Maharashtra respectively. (Table 48 and 49). In Technical education, expenditure have increased at a CGR of only 2.9% in Bihar and of 2.8% in Maharashtra at constant prices (Table 50 and 51).

2.5 Allocation and Actual Utilisation of Resources:

So far the educational expenditure in absolute and percentage terms at intersectoral and intrasectoral level have been examined. But sometimes there is a difference between the allocation for the education sector in the budget and the actual utilisation of it, this factor would be examined here. The percentage of Actual expenditure to Budget Estimates and Revised Estimates for expenditure on all sectors of education sector together for the period 1968-69 to 1982-83 have been worked out (Table 52). In Bihar, the percentage of Actual

expenditure exceeded the budgeted estimates in nine out of fifteen years and remained lower in six years. In Maharashtra, in thirteen years the actual expenditure exceeded the budget estimate, remaining lower only in two years. Whereas in India, it remained low in four years, exceeding budget estimates in eleven years.

Next comes the percentage of actual expenditure to Revised estimates. Here only in two years in Bihar, actual expenditure exceeded revised estimates as against four years in Maharashtra and six years in all India. Thus it can be said roughly that in Maharashtra, resources are generally diverted from other sectors to education whereas in Bihar both the diversion from other sectors to education and from education to other sectors take place and a common trend is not observable.

2.6 Direct and Indirect Expenditure

So far the analysis has been confined to budgetary allocations at inter-and intra-sectoral levels in different states. The comparism of the trends in direct and indirect expenditure of different states is also important. Direct expenditure refers to the operational costs of instruction at various stages of education i.e.

primary, secondary, higher, professional and technical education and indiredt expenditure includes the outlays on buildings, furniture, administration and scholarships etc. The data has been taken only upto 1975-76 because after that the data has been published under different format and they are not directly comparable.

Table 53 shows that in 1956-57,Bihar spent only 63.5% of total expenditure on education on direct expenditure whereas Maharashtra Spent 35.2% on direct expenditure. The total direct expenditure of Maharashtra was more than twice greater than the Bihar's direct expenditure. Thus the share of direct expenditure was lower in Bihar in 1956-57 than in Maharashtra both in absolute and percentage terms. In 1975-76, though Bihar's share of direct expenditure exceeded the national average and almost approached Maharashtra's share in percentage terms, it was well below Maharashtra in absolute terms. In case of indirect expenditure in 1956-57 Bihar exceeded Maharashtra both in percentage and absolute terms. In 1975-76, Maharashtra, though still slightly below in percentage terms, exceeded Bihar's total indirect expenditure by 2.4 times.

Next we would examine the distribution of direct expenditure on education by objects. With a view to examine the distribution of expenditure, the following components have been considered :

i) expenditure on salaries of teachers.
ii) expenditure on salaries of other staff;
iii) expenditure on equipment and other appliances; and
iv) expenditure on other items.

Table 54 presents the distribution of the total expenditure by objects for the years 1968-69 and 1975-76. Though the period is a smaller one, the analysis provides significant trends. The percentage share of salaries of teachers went up in Bihar from 73.44 to 81.75 during the period while it went down from 73.66 to 72.12 in case of Maharashtra. On the other hand, in case of salaries of other staff the percentage share went down in Bihar from 8.13 to 7.52 and went up in Maharashtra from 9.39 to 12.08 during the same period. The percentage share for equipment and other apparatus went down from 3.43 to 2.0 and from 3.42 to 2.86 in Bihar and Maharashtra respectively.

2.7 Sources of Funds for Education

There is a multi-source system of financing of education in India due to historical reasons. The relative change in the importance of different sources in the country was marked in the last chapter. Table 56 (A) shows the percentage contribution of different sources in 1956-57 and 1976-77 in Bihar, Maharashtra and All India and Table 56(B) shows the average annual rate of growth of contribution by each source over the same period. The percentage contribution of Government funds went up in both the states but the annual rate of growth was 15 in Bihar where it went up from 50.9 to 85.9 during the period 1956-57 and 1976-77 as against 13.5 in Maharashtra where it went up from 55.5 to 69.5 during the same period. The percentage contribution of local bodies to educational finance was as high as 21.6 in Bihar in 1956-57 as against Maharashtra's 10.6. In Maharashtra it increased with an annual growth rate of 14.7 to 15.3% in 1976-77 whereas in Bihar it went down and in 1976-77, the share of local bodies was nil. This shows the declining importance of local bodies in Bihar and vice-versa in Maharashtra. The percentage share of

both fees and endowments and other sources declined in both the states as well as in India as a whole. The rate of growth of total expenditure was 10.2 in Bihar against 12.6 in Maharashtra over the same period.

2.8 Decentralization of Educational Planning in Maharashtra.

Maharashtra was one of the first states to introduce decentralized planning in education. The process was made operational in 1962 by constituting Zilla Parishads and Panchayat Samitis. Studies have shown that the experiment has been institutionalized and can be considered quite successful. In view of this, the working of the system deserves a brief analysis here.

A Zilla Parishad is composed of the elected representatives of the rural areas and may also, include coopted members for special reasons. It is the Education Committee of the Zilla Parishad which is entrusted with the details of policy matters and administrative work related to school education. It is responsible for establishment, management, maintainance, inspection and supervision of primary schools including grants to aided schools but not

the laying down of syllabi or the prescription of text books.

The Zilla Parishads can formulate its own schemes to meet the needs of the district. It has full powers to decide about location of new schools, upgrading of existing schools, deciding about the schools where additional classrooms are to be constructed, and organization of inservice training programmes for teachers. It is responsible for developmental programmes pertaining to education although, in certain financial matters, the Education Committee can decide about new programmes without placing the proposals before the full Zilla Parishad.

The main source of finance for a Zilla Parishad is grants from the State Government. However, Zilla Parishads can raise funds by way of cess on land revenue, water rates, pilgrim taxes, rents, profits, contribution from private agencies, proceeds of tolls on roads and bridges, license fees on brokers, commission agents, marketing fees, fees on registration of animals sold in the market, forest revenue and so on.

An evaluation conducted by a committee appointed by the State Government in 1971 showed that

conscious and systematic planning in the local sector was lacking. In 1972 the State government introduced a number of measures to strengthen planning at the district level and adopted the principle of district planning since the commencement of the Fifth Five year plan in 1974-75. The underlying philosophy of district planning is not not only that every district should get a certain plan allocation, decided on the basis of certain parameters, but a cross section of the representatives of the people should have a say as to how this plan allocation should be spent in the district. This new body was called the District planning and Development Council (DPDC). Meeting quarterly, the functions of the DPDC are :

(i) to ensure coordinated action by various implementing agencies at the district level including Zilla Parishads.

(ii) to give guidance to various implementing agencies at the district level in regard to preparation and implementation of the Five Year and Annual Plans.

(iii) to approve Five year and Annual Plans of the district, and

(iv) to review, from time to time, the implementation

of Five Year and Annual Plans and make recommendations to the State government on their behalf.

In order to decide the allocation of plan funds among the districts on a rational basis, the state government adopted a formula based on total population, population of scheduled castes, scheduled tribes, backwardness in different sectors and special problems, etc.

Since the inception of Zilla Parishads, there has been a marked improvement in quantitative aspects of primary education such as the number of primary schools and enrolment. Female enrolment in particular has increased considerably, and there has also been a remarkable increase in the coverage of pupils belonging to scheduled castes and Tribes.

The most important achievement as a result of democratic decentralization of educational planning and administration in Maharashtra has been the more ready cooperation of the village communities. Awareness of the people regarding the significance of primary education is one of the major gains. One of the objectives was to bring local knowledge to bear upon the solution of problems. In this regard also, Zilla Parishad educational administration has achieved notable success. Every Zilla

Parishad has implemented some special educational programmes suited to its local needs. They have been able to make their own contributions, however small, to innovate experiments.

Another advantage of such institutions has been the inter-departmental coordination. For example, the District Public Health Officer is expected to carry out medical checkups of students in primary schools. Construction of school buildings is entrusted to the works Department.

Alongwith the advantages, the system has brought with it some problems as well. One of the most important is the frequent transfer of teachers and the consequent involvement in politics. Sometimes, on excess number of teachers is posted in schools on the main road, whereas in the interior areas there is a shortage of teachers. Many times, there is political interference in the work of the officials. The less than emicable relations between the technical administrators and the generalist administrators also developed and to avoid this problems, the government has withdrawn control by the block development officers and planned them directly under the block education officer.[29]

29. Kalpande, V.A.; Decentralization of Educational Planning in India : The Maharashtra Experience in Warren Mellor (ed);Micro Level Educational Planning and Management; Case Studies from India. UNESCO; Bangkok 1987,p.34-55.

Fig:20 Percentage Share of different heads of Expenditure in BIHAR for Primary Education (1986-87) Budgeted Estimate.

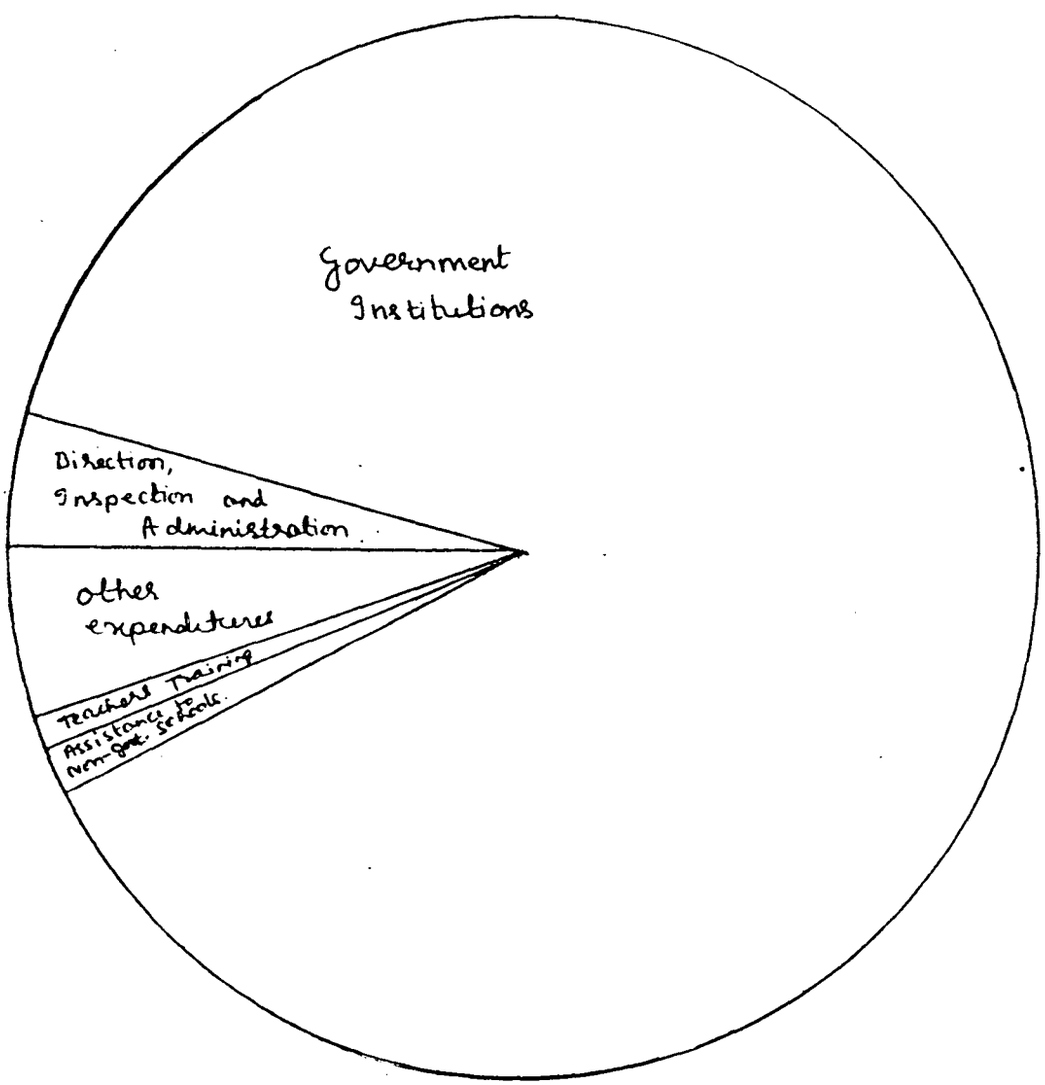
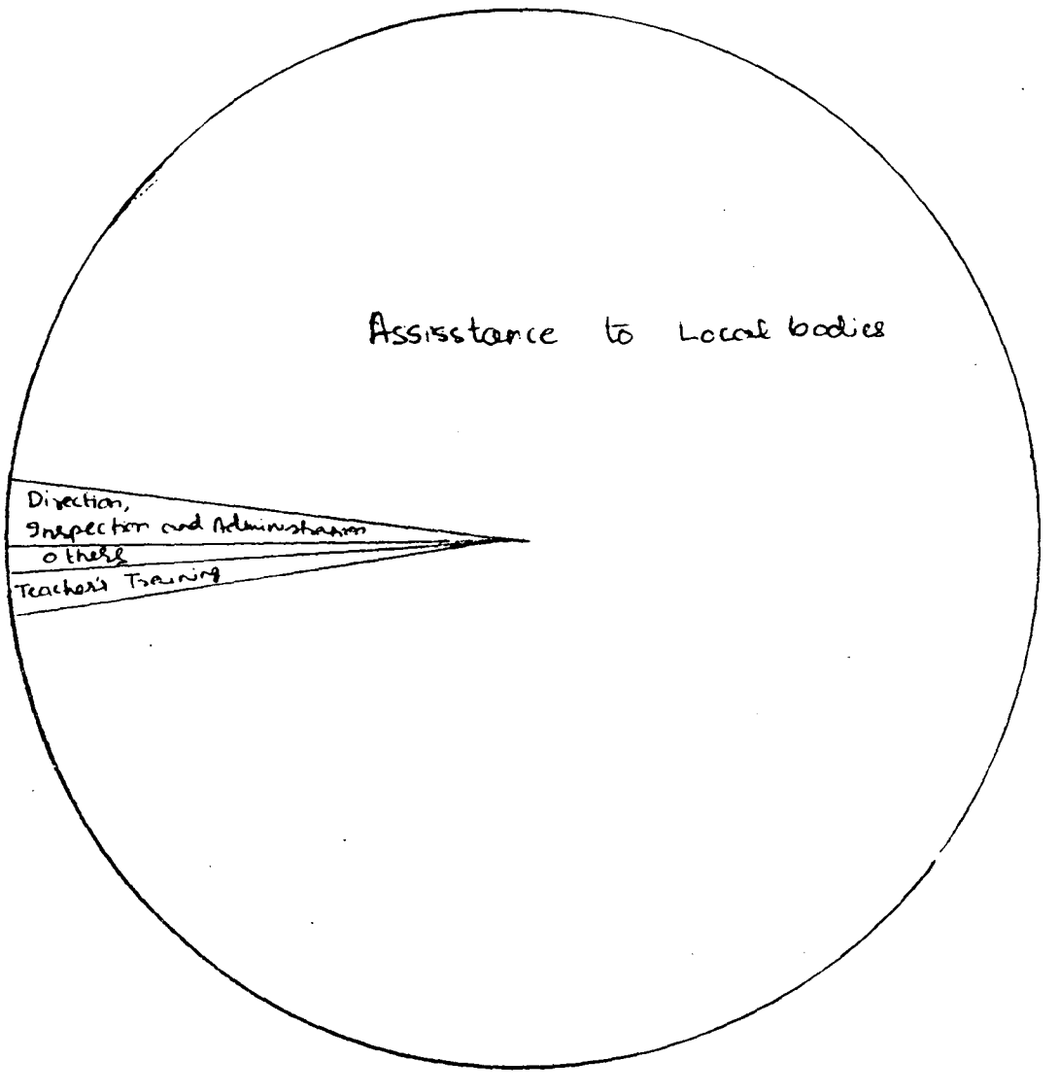


Fig: 21

Percentage Share of Different Heads of Expenditure in Maharashtra for Primary Education (1986-87)
Budgeted Estimate

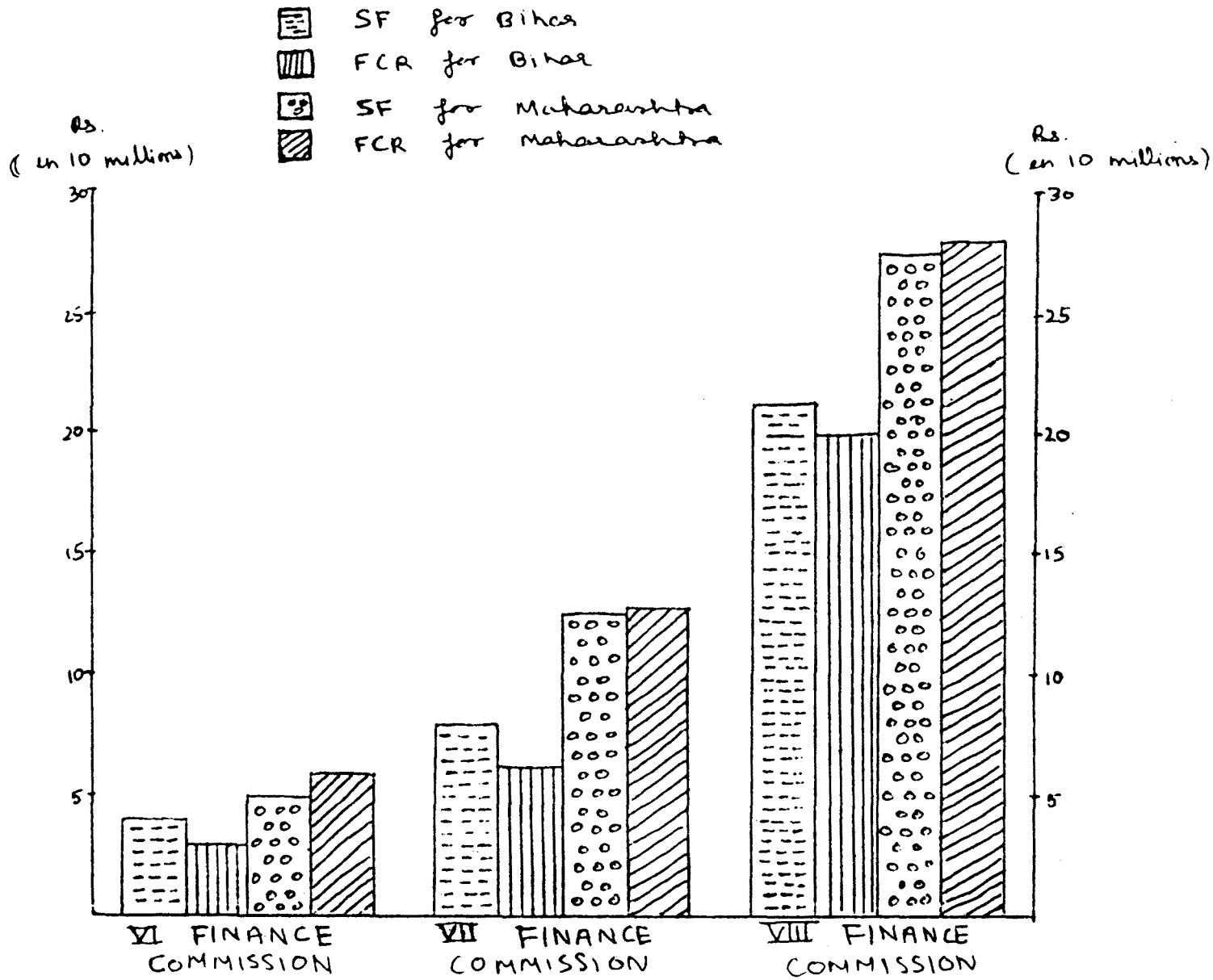


Tabe 55 shows the percentage share of different heads of expenditure in the budgeted estimated of 1986-87. It shows that 96% of total finances for primary education goes to local bodies in Maharashtra. In case of secondary education 85.7% of finances goes to non-government schools. On the other hand, in Bihar, 88.5% of finances for primary education and 87.1% of finances for secondary education goes to government institutions. No finances goes to local bodies for education at any level in Bihar.

2.9 Education Expenditure and Revenue Receipts

In order to understand and appreciate inter-state variations in educational expenditure better Table 57 has disaggregated total revenue receipts into own tax revenue, sales tax revenue, non-tax revenue, transfer from centre and the total non-plan educational expenditure is also given. It has looked at educational expenditure from different points of view: as a percentage of state's own tax revenue, of sales tax only and of total non-plan revenue expenditure. Non-Plan expenditure on education as a percentage of own tax revenue is 82.9 in Bihar against Maharashtra's 8.2 whereas the country's average is 42. Bihar spends 31.4% of

Fig: 22 State Forecasts (SF) and Reassessments by the Finance Commission (FCR) in relation to Education.



its non-tax revenue on education whereas Maharashtra spends 19.4% and the national average is 24.1%. Thus, it is seen that though Bihar spends a much greater share of its revenue receipts on education, the expenditure on education is lower than Maharashtra in absolute amount as the size of its revenue receipts is smaller.

2.10 Transfer of Resources

When forecasts of the states and the final awards of the Finance Commission are compared interesting facts are revealed. Table 58 shows the forecasts of the states, final rewards and the difference for VI, VII, VIII Finance Commissions. The table shows that the amount transferred for education to Maharashtra exceeded the amount transferred to Bihar. Bihars experienced severe cuts by the Sixth, Seventh and Eighth Finance Commissions. While Maharashtra received more than the state Forecasts from these three Finance Commissions. Not only that, the cuts for Bihar has increased in amount from sixth to seventh and from seventh to eighth Finance Commission.

With the help of this brief analysis of the different aspects of financing of education in Bihar and Maharashtra some trends concerning the importance

of education sector vis-a-vis other sectors in the Budget, relative expenditure on different sub-sectors of education, the difference between monitary and real increase, the difference between allocation and utilisation of resources for education, relative importance of direct and indirect expenditure on education and also the relative importance of different sources for educational finances over the years have been identified.

A comparison of physical indicators shows that though Bihar has a higher number of institutions at primary level and a higher average availability enrolment level and lower literacy rate. At secondary and higher level, both the number of institutions and enrolment is higher in Maharashtra. Library facilities are more or less same in both the states at all levels. However, the difference in enrolment and literacy rate can be explained to some extent in term of low survival rate at all levels in Bihar. A comparison of financial indicators show that Bihar is an underinvested state. The share of education to total budgeted expenditure has had shown a significant change over the years in Maharashtra and shown a significant rise in Bihar. In Bihar, the shares of elementary and higher

education have not shown and significant change highly whereas that of secondary education shows highly significant rise and of technical education a highly significant decline. In Maharashtra the share of secondary education did not show any significant change, that of higher education increased and of elementary and technical education showed significant decline. In absolute terms, the expenditure on all the subsectors in Maharashtra exceed the expenditure in Bihar. However, in both the states, the rate of growth of expenditure becomes much lower at constant prices. As far as diversion of resources from education to other sectors is concerned, no clear trend has been observed either in Bihar or in Maharashtra. More than 85% of total expenditure goes to direct expenditure in both Bihar and Maharashtra and a major portion of direct expenditure goes to salaries in both the states. One remarkable difference between the two states is importance of local bodies in Maharashtra especially at primary level. Bihar spends a much greater share of its revenue receipts on education than Maharashtra and still its expenditure remains lower in absolute terms. In case of transfer of resources for education by Finance Commission, Bihar gets lower amounts as compared to Maharashtra. In the next chapter, several propositions formed on the basis of earlier findings, would be examined in the light of present study's findings.

CHAPTER - III

SOME PROPOSITIONS ON FINANCING OF EDUCATION IN INDIA

As mentioned earlier, there are several studies related to the trends in financing of education in India. Some of the studies deal specifically with state-wise variations in educational development and resources. Several propositions have been formed here on the basis of the conclusions reached by those studies. However, different studies refer to different time-periods using different combinations of variables and statistical techniques and hence, sometimes, vary in their conclusions. As such, some of the propositions can be contradictory to each other. This chapter examines these propositions in the light of the present study's findings. The propositions are numbered for the sake of clarity and convenience.

3.1 Proposition I to XII

Proposition - I : The Government's contribution in overall educational finances has been continuously increasing and that of other resources like fees, local bodies etc. has been declining.

Discussion : It is true that the percentage contribution of Government sector has been increasing over the years in the country as a whole and naturally the shares of other sectors have been declining.

However, if the source-wise contribution to educational expenditure is considered state-wise, some interesting facts come up. In Bihar, the share of Government went up during the planning period and the share of all other sources came down, whereas in Maharashtra, the share of local bodies also went up along with Government. However, the share of fees, endowments and other sources have been decreasing in both the states. Thus, it can be said that the share of the Government sector has been continuously increasing in India and in all the states and that of fees, endowments and other sources declining everywhere. But the share of local bodies, though declining as a whole in India, does not show the same trend in all the states.

Proposition - II : There is a persistent downward trend in the share of plan expenditure in total educational expenditure which is unhealthy for educational development.

Discussion : The share of plan expenditure was 13.3 per cent against non-plan expenditures of 86.7 per cent in 1983-84. And as such non-plan constitutes more than four-fifths of the total expenditure. The share of plan expenditure has increased at an annual growth rate of 11.5% while the rate of growth for non-plan expenditure is 14.8% from 1950-51 to 1980-81. However, this statement needs examination. The share of plan expenditure went up from 17.6% in 1950-51 to 26.2% in 1960-61 and then come down to 10.3% in 1970-71. It again went up to 13.8% in 1980-81. Thus the trend is upwards for seventies. Besides, to call any trend healthy or unhealthy depends on how the terms plan and non-plan expenditure are defined. The Indian planners have adopted the yardstick of classifying all new expenditures or 'investment' as constituting the plan outlay in a given Five Year Plan period. At the end of the five years, the recurring part of the new expenditure gets transferred to non-plan and becomes maintenance or non-plan expenditure. Thus, it is natural that the share of plan expenditure is high at the beginning of the planning. The ever increase in the absolute amount of the non-plan expenditure is also natural. But the decrease in the percentage share of plan expenditure is not justified because the country is still educationally backward

and needs further investments. This means to say that there should be more allotment to education sector in plan outlays. Thus, it can be said that there is a downward trend in the share of plan expenditure which cannot be called healthy.

Proposition - III : Funds from education sector are diverted to other sectors.

Discussion : The present study does not support this proposition on the basis of comparison between actual expenditure and budget estimates in case of India as a whole. Only in four out of fifteen years taken into consideration, the actual expenditure has been less than the bdget estimate. In the case of Maharashtra the actual expenditure exeeeds budget estimates in thirteen out of fifteen years. In Bihar also actual expenditure fell short of budget estimates only in six years. The comparison between actual expenditure and revised estimates also does not support the statement in unambiguous sense. And hence, it can be said that there is no clear trend to show that funds are diverted from education sector to other sectors.

Proposition - IV : There is a gradual but steady increase in the total resources allocated as a share of GNP to education, the share of primary, secondary and higher education have remained constant.

Discussion : It has truely been pointed out that there has been a gradual increase in the total resources allocated to education as a share of G.N.P. in India. But the proposition that the share of primary, secondary and higher education have remained constant is not supported by the present study. The percentage share of primary education showed a marginal but significant increase over the years 1968-69 and 1986-87. During the same period, the share of secondary and higher education also increased very significantly. However, the technical education showed a significant decline. In the states of Bihar and Maharashtra also, the share of technical education showed similar trend. In Maharashtra, the share of higher education increased significantly and those of primary and secondary education did not show any significant change. In Bihar, the share of primary and higher education did not change significantly, while that of seconda education showed a significant change.

Proposition - V : The rate of growth of expenditure on higher education is higher and for elementary education it is lower.

Discussion : The present study confirms this statement. The All India average growth rate of expenditure on

higher education for eighteen years (1968-69 to 1986-87) is 16.9% against 15.2% for elementary education. Same is true for Maharashtra and Bihar. If the growth rate is taken on six yearly basis, it is seen that the gap between growth rate of higher and elementary education has widened in last six years spell (1980-81 to 86-87) not only in All India but also in Bihar as well as in Maharashtra.

Proposition - VI : A number of backward states have a higher growth rate of educational expenditure then educationally advance states.

Discussion : The present study has taken two states - Bihar and Maharashtra for the sake of comparative study. Bihar is an educationally backward state and Maharashtra an advance one. The growth rate of educational expenditure for eighteen years in Bihar is slightly higher (15.8%) then Maharashtra growth rate (15.0%). The growth rates for the two six year spell of 1968-69 to 1974-75 and 1974-75 to 1980-81 show similar trend. However, in the last six years spell of 1980-81 to 1986-87, the rate of growth of educational expenditure in Maharashtra is slightly higher than Bihar's rate of growth. As such, the present study does not support strongly this proposition.

Proposition-VII : The manner in which the centre financed education in the states, through the Finance Commission did not add to regional equality.

Discussion : The present study supports this statement. It is seen that the transfer of resources have not been on the basis of equality. The criteria of balanced regional development or equality demands that the transfer of resources to the backward states should be more in order to bring them towards parity. But in case of Bihar and Maharashtra this criteria has not been followed. The data on transfer of resources by the Finance Commission shows that not only the resources transferred to Maharashtra exceeds that of Bihar but Bihar's share has also been less than the state forecasts and Maharashtra has been getting more than its forecasts.

Proposition-VIII : Mere supply of educational facilities does not ensure the spread of education so far as primary and secondary education is concerned though at higher educational level, the number of educational institutions might induce an increase in enrolment.

Discussion : This proposition should be examined in the light of indicators in different states. In case of primary education the comparative study of Bihar

and Maharashtra supports this statement. The number of educational institutions at primary level is higher in Bihar than in Maharashtra but enrolment ratio is higher in Maharashtra at this level. However, at secondary level, both the number of institutions and the enrolment ratio is much higher in Maharashtra than in Bihar. Thus the present study supports the statement as far as primary education is concerned, it does not confirm the proposition in case of secondary education. In the case of higher education including degree and above in all fields, both the number of institutions and rnrolment ratio is higher in Maharashtra, thereby confirming the hypothesis.

Proposition-IX : Economic backwardness of any state by itself need not hinder the progress of education.

Discussion : The comparative study of Bihar and Maharashtra does not support this statement. Bihar is both economically and educationally backward. Despite spending a significantly larger proportion of its S.D.P. on education as compared to Maharashtra, Bihar spends much lower absolute amount. It means due to lack of resources Bihar spends less on education and remains backward in that sense. The dropout rate is very high in Bihar and one reason to explain this is also economic backwardness. Due to widespread

poverty many people cannot afford to send their children to schools as it would mean both foregoing the income the child could have earned as well as bearing the expenses of education. On the other hand, Maharashtra's dropout rate is lower. Thus, there is certain degree of correlation between economic and educational backwardness of any region. However, this is not to say that the economic backwardness is the only reason behind educational backwardness.

Proposition-X : A state with a higher per capita income spends more per capita expenditure on education as compared to the other states.

Discussion : This proposition is related and somewhat contradictory to the last one. The comparative study of Bihar and Maharashtra supports this hypothesis both per capita income and per capita expenditure on education is higher in Maharashtra than in Bihar.

Proposition - XI : The percentage of expenditure at primary level of education was higher in a state with a higher percentage of income from the agricultural sector whereas a higher percentage of expenditure on the secondary and higher levels of education was evident in those states where the percentage of income from industrial and tertiary sectors was higher.

Discussion : The share of agriculture to total state income is around 70% in Bihar whereas it is only 20% in Maharashtra. The share of industry and tertiary sectors is around 60% in Maharashtra. The percentage share of primary education is higher in Bihar as against Maharashtra earlier but has reached at par with Bihar in recent years. In case of technical education, the share is higher in Maharashtra. Thus the comparative study of Bihar and Maharashtra confirms the statement as far as primary and secondary levels of education are concerned, it does not support the proposition in case of higher education as Bihar, despite being primarily an agricultural state spends almost equal to Maharashtra on higher education.

Proposition - XII : The control of local bodies at the elementary level of education has greater impact on the spread of primary education as compared to the control of other bodies.

Discussion : The present study has taken two states, Bihar and Maharashtra, into consideration. In Bihar the elementary education is administered and controlled directly by the state government. In Maharashtra, the elementary education is controlled almost wholely by the local bodies i.e. Zilla Parishad. 96 per cent

of total funds allotted for primary education goes to local bodies in the form of assistance from the state government. Local bodies have their own sources of revenue also. The share of local bodies in the resource mobilisation for for education has been increasing in Maharashtra. On the other hand, in Bihar, local bodies do not contribute anything to educational finances. The high literacy rate and cent per cent enrolment ratio at primary level in Maharashtra, which resulted mainly from the introduction of decentralization, confirms the hypothesis that the control of local bodies at the elementary level has greater impact on the spread of primary education as compared to control of other bodies.

Thus, in this chapter several propositions have been examined. In the process, several statements have been supported and several others have not been found conclusive. However, one thing to be remembered is that the present study has its own limitations. For example, in case of inter state variation, it has taken into account only two states, Bihar and Maharashtra. Hence, the findings of this study have also their limitations, and the analysis of propositions have been done strictly on the basis of the present study only. The conclusions and implications that emerge from the critical analysis of the findings of the study have been discussed in the next chapter.

SUMMARY AND CONCLUSIONS

Some very important conclusions concerning the financing of education in the country in general and States in particular emerge from the study, which have significant policy implications. The study began with a brief analysis of the financing of education in the Pre-Independence period. The greatest achievements of the period were the legislative provision for the appropriation of State revenue for financing education and the growing secular character of education. At the time of Independence, educational finance came from the Government, fees, local bodies, endowment. Both direct and indirect objects of educational expenditure expanded and a graded system of schooling (primary, middle, secondary, higher) developed. Though education remained a relatively unimportant subject of the country's budget in the British days, the financing of education was systemized for the first time on scientific lines and laid the basis for future development.

After Independence, India adopted a Constitution which had both unitary and federal features. The

Constitution placed education in the State list except some portions of it which were in the Union list. In 1976, education was transferred to the concurrent list by means of the Forty-second Amendment. However, even before the transfer, the Central Government had a substantial say especially in higher education as a significant portion of it was in the Union list. Besides, the adoption of planning as the technique of development and the formulation of the five year plans by the Planning Commission, covering both Central and State development activities, gave the Government of India more powers than before in the State subjects also. The Planning Commission which is professionally staffed but politically led is a non-statutory body and its recommendations though not binding, are normally accepted by both the Central and the State Governments.

India's polity is federal in character and as such there is a division of powers between the Union and the States in respect of raising and disbursing of public funds. The financing system in India makes a sharp distinction between development (plan) and maintenance (non-plan) expenditure on education. The expenditure on the plans and programmes of the five year plan is called plan expenditure during the

period of that plan and at the end of each five year plan, the expenditure on all those falls into non-plan category. The devolution of plan expenditure is decided by the Planning Commission and that of the non-plan expenditure by the Finance Commission which is a statutory body. The constitution has laid down the detailed machenism of sharing the resources by the Centre and the States through the Finance Commission. The allocation of resources to the State for education is expected to be based on certain principles such as equity, ability, efficiency etc.

The study reiterates the earlier findings that non-plan expenditure constitues nearly four-fifths of the total expenditure on education leaving a mere one-fifth to be spent as plan outlay. The growth rate is also higher for non-plan expenditure and the share of plan expenditure has fallen. However, this trend should be seen with the definition of plan and non-plan expenditure in mind, as the very distinction is such that there has to be an increasing trend in non-plan expenditure.

But the allocation of resources to education in the five year plans has been going down from plan to plan.

The reduction of the share of education in plan outlays has some other implications. As plan outlay is "new investment" and this new investment is hardly sufficient to cover the growing pressure of additional enrolments, very little is left for quality improvement, raising of standards etc., which constitutes the core of development. If development is essentially referring to the raising of standards, there is very little provision for the purpose.[30] The fall in the percentage allocation to education has not been done on any rational or scientific basis but only by a process of resource allocation in which the requirements of education were met after taking care of the needs of other sectors.

Different sources of educational finance that had emerged during the British days continued in the Post-Independence period but the relative contribution underwent a change over the years. The Central and State Governments together finance four-fifths of total expenditure leaving only one-fifth for other

---

30. Veeraraghavan, J & C.L. Sapra; Trends in Education Expenditure in India : A Regional Analysis; UNESCO; Paris; 1982; p.76.

sources. The share of State Governments is remarkably higher, 96% in non-plan and more than one-third in plan expenditure, than Central Government. The continuous increase in Government's share might be attributed mainly to the increasing notion of education being a public good. Due to lack of reliable data the household expenditure is generally not included among the sources. The available statistics suggest that it has no real increase. However, the resources devoted are not adequate to meet the needs of the situation. A substantial part of resources seem to have been used for expansion purposes only. The steady decline of non-Governmental resources must be viewed with concern.

An analysis of intra-sectoral resource allocation in education shows that the rate of growth is higher for higher education than for primary education, confirming some of the earlier studies. In both plan and non-plan expenditures, the share of primary education has been declining. Increasing allocation of resources to higher education is not an unhealthy trend if (a) in the initial period educational expansion has taken place sufficiently at lower levels (b) the economy is facing acute shortage of qualified manpower and (c) it is not at the expense of education at lower levels.[31] Coming to the case

---

31. Tilak & Verghese; Resources for Education in India, NIEPA; 1983 (Nimeo).

in India, none of these arguments holds good. First, the base of educational pyramid is not adequately broad since two-thirds of the population is still illiterate. Secondly, there is large scale educated unemployment. Thirdly, increasing allocation of resources for higher education resulted in a reduction of resources for primary education.

The studies related to the other underdeveloped countries (Blaug; 1972, Psachoropaules; 1973) show that most profitable level of education in most countries is primary schooling, whereas higher education shows a much more modest rate of return. Not only in terms of rate of return but also in terms of the distribution of income, the relative emphasis on primary education has some merits. The studies (Jallado 1972, Fishlow 1973) on Brazil show that the way education is financed is much more crucial to the income distribution policy than the provision of income per se. The education investment pattern that places relative emphasis on higher education in a society where most children receive only primary education apparently contributes to greater earning inequality when those children enter labour force.

The analysis of intra-sectoral allocation of

resources in education by levels suggests that a large part of the cost per pupil is borne by the State Governments. While at every level of education, the contribution of the State Government is the highest, its percentage share declines at increasing levels of education. The contribution of Central Government is higher at higher levels and that of local bodies is higher at lower levels. In plan outlays also, the share of the Centre is higher for higher and technical education. With the placement of education in the State subject except some parts of it, mostly higher education, which were in the union list, the responsibility of the Central Government came to be identified with higher education and research while that of the States with elementary education. The position has remained the same despite the Constitutional Amendment to bring education into the Concurrent List.

The study has taken into account the financing of education in Bihar and Maharashtra in order to identify the salient features of inter-state variation. A comparison of physical indications shows that Bihar has a higher number of institutions and a higher average availability at primary level than Maharashtra.

The number of single teacher primary school is also lower in Bihar and there is not much difference in the teacher-pupil ratio at primary level between these two states. Despite all these, Bihar has a low literacy rate and lower enrolment ratio than Maharashtra at primary level, thereby confirming one of the earlier study's suggestion that mere supply of educational facilities does not ensure the spread of primary education.

The number of institutions is higher in Maharashtra both at secondary and higher level and so is the enrolment ratio. There is not much difference in the library facilities at all the levels between these two states. However, not only the enrolment ratio is lower at all the levels in Bihar, the survival rate is also very low. The percentage of population served within habitation by schools at elementary level is also lower in Bihar and it might explain the high dropout rate to some extent. Inter-district variation is more marked in Bihar in terms of literacy rate. Whereas in Maharashtra not a single district is below average, about three-forths of Bihar's districts are below average.

Representation Index shows that Bihar is an

under invested State and Maharashtra an over invested one. Ideally the Representation Index should be one for all the states. Inter-district variation in per capita expenditure on education is also more in Bihar than in Maharashtra.

An analysis of the educational expenditure makes clear that the percentage share of education in the total budgeted expenditures has shown a significant increase over the year in Bihar and in all India. It shows an insignificant decline in Maharashtra. In the 80's Bihar's percentage expenditure on education has been greater than Maharashtra's. The share of plan expenditure has not shown any significant change over the years in either of these two states or in all India.

The intra-sectoral analysis shows that the percentage share of elementary education has always been higher in Bihar than in Maharashtra and that of secondary education in Maharashtra than in Bihar. Thus, it supports the argument put forward by some earlier studies that a state with a higher percentage of income from the agricultural sector spends more on primary education and one with a higher percentage of income from the industrial and tertiary sector spends more on secondary education.

The share of higher education was lower in Maharashtra than in Bihar just after the inception of planning. But over the years it has shown a highly significant rise in Maharashtra and an insignificant decline in Bihar. In recent years, the percentage share on higher education has been more or less equal in these two states. The percentage share of technical education is higher in Maharashtra than in Bihar, which reflects the industrialized economy of Maharashtra. However, the percentage share of technical education has shown a significant decline in Bihar, Maharashtra as well as in all India; the decline being highly significant for Bihar. One remarkable point is that the number of technical institutions at the level of degree and above is more in Bihar and at pre-degree level, is more in Maharashtra. This shows that greater part of expenditure on technical education in Bihar goes to higher technical education.

In absolute terms, Maharashtra's expenditure on education exceeds Bihar's expenditure either taken as a whole or on sub-sectors basis. Even in elementary education where the percentage share is much higher in Bihar the absolute amount is much lower there as compared to Maharashtra. This implies that since Maharashtra's resources are greater, even by devoting

a smaller percentage to education sector, it can provide a larger amount in absolute sense.

The growth rate for total budgetary allocations to education sector does not differ much between these two states, thereby, belying some of the earlier findings that the growth rate for educationally backward states is generally higher than that for educationally advanced states. Growth rate for higher education is higher than that for primary education in both the states. The average for all India shows the same trend.

The annual compound growth rates of public expenditure on education is an important index to measure the efforts made by the Government. However, growth rates become more meaningful if read with initial base year level of expenditure. Prima facie, it could be postulated that after accounting for price rise, it should be at least equal to the growth rate of the total population, otherwise it would mean decline in per capita expenditure. In both the states of Bihar and Maharashtra the real growth rates of expenditure on education and of all its subsectors is more than the growth rate of population, thereby showing a real increase in per capita expenditure.

Some of the earlier studies held the view that resources are diverted from education to other sectors. The present study, after comparison of actual expenditure with budget estimates and with revised estimates, does not support the conclusion. However, at the same time it is not wise to conclude the contrary that resources are diverted from other sectors to education. The study safely concludes that no clear trend has been observed in this regard in either of the states or in all India.

The analysis of direct and indirect expenditure shows that a significantly large part of total expenditure goes to direct expenditure. Within direct expenditure, the salary component is rising and the non-salary component of expenditure, a small part as it is, tends to become even smaller both in Maharashtra and Bihar. This trend is understandable owing to the increasing pressures of inflation and pressures of increase in emoluments, but this trend must be taken seriously in the context of long term planning. The productivity and efficiency of the entire investment in education might become jeopardised due to the failure to invest adequately in non-teaching expenses. It is true that budgetary practices of providing funds

based on well considered norms in relation to the number of students and the number of teachers and other academic needs could contribute usefully to raising the quality and efficiency of education and also to the promotion of equity, as considerations of equity are related to quality as well.

A comparative analysis of the sources of educational finance brings out the fact that the Government has been the most important source in Maharashtra. In Bihar, the share of local bodies was significant in the 50's but with passage of time their contribution relegated to nil. In Maharashtra, the primary level institutions are mainly controlled by local bodies and secondary level institutions by non-government institutions, while in Bihar, government institutions remain most important agency at both of these levels. The high enrolment ratio at primary level in Maharashtra shows the great impact of control of local bodies at this level in the spread of primary education. The shares of fees endowments and other sources declined in both the states.

The present study brings into light the fact Bihar spends a much larger part of its revenue receipts on education than Maharashtra does. Maharashtra percentage share of education in its revenue receipts is lower than the national

average. The share of education is also lower in Maharashtra than the national average either as a percentage of State Domestic Product or of total budgeted expenditure. In Bihar the percentage share is above the national average in all three respects. Despite this, the total absolute amount of expenditure to education is much lower in Bihar. Hence, it might be concluded that economic backwardness of any state does determine the financing of education and as such the program of education is also affected. This might not be true for those states which had a large base in education at the time of Independence but it holds good in case of the states like Bihar which are economically backward and had no large base in education at that time.

The analysis of the transfer of resources by the Finance Commission suggests that the transfer hardly follows the criterion of equity. The objective of balanced regional development requires that the transfer of resources to the backward states should be more in order to bring them towards parity. In reality, the resources transferred to Maharashtra for education was much greater than the resources transferred to Bihar by Sixth, Seventh and Eighth Finance Commissions. Not only that, Bihar's share

has always been less than the state forecasts while Maharashtra's share always exceeded state forecasts.

Thus, the analysis of the financing of education in India, in general and in states, in particular, suggest some trends which are undesirable from the points of view of objectives like universalization of elementary education and balanced regional development. The change in these trends calls for changes in some policies and pattern of the financing of education.

As far as the Centre-State relationship is concerned, there is a need for more financial concurrency in the education. The share of the states is still very large and as such poorer states allocate smaller amounts to education. Besides, the Centre is mainly concerned with high education and hence the school level education suffers more because of lack of resources. As the universalization of elementary education is a constitutional obligation, the Centre cannot shirk its responsibility. Besides, the system of transfer of resources needs to be made more scientific and rational so that the poorer states get more amounts and not the vice-versa. The systems should be such that the amounts from surplus states are transferred and channelised to deficit states.

The process of planning is also highly centralised. In the planning of education in the states and setting up targets for enrolments, very often there is a tendency to regard what is given in five year plan of India at national level as firm targets. This should not be the case. The plan targets should not be taken as operational targets and should be laid down by the states on the basis of situations in different localities. Any plan before its implementation must be tested for financial feasibility also. The recent emphasis on district level planning and decentralization, if properly implimented, is a welcome step.

The allocation of resources to education, especially at elementary level is highly inadequate. There is a dire need for more investment in elementary education to make the system more equal and to use education as a tool of development and equal distribution. Since, the country suffer from resources constraints and there is a fierce competition among competing sectors, what needs to ensured is (a) better utilisation of existing resources and (b) exploitation of alternative resources.

The example of Maharashtra suggests that the

control of local bodies at elementary level of education can be very effective. The Maharashtra experiment may not be totally replicable in other states, but a number of lessons can be learnt. Decentralization is a gradual process that should be applied in stages. Every region can be made to evolve a locally suitable model. Chelliah Committee suggested a revised system of land revenue and argued that all the land revenue receipts assessed and collected by the State Government should be transferred to local bodies. This is equally relevant for the other states also. Besides, the recovery of the education cess can be made more effective. In urban areas, house tax, etc. can be levied. The gap between the potential revenue and expenditure of each local body may be estimated for a specified period and the grants-in-aids also by the state government may be used to fill the gap. The grants should be based on the grouping of local bodies on the basis of income and requirements. Community contribution should be ecouraged. Besides, to increase the survival rate, some sort of crafts education should be included in order to make students able to earn something.

As far as the secondary education is concerned, the responsibility can be shared effectively by the

government and non-government institutions. The efficient non-government institutions should get required funds in the form of aids from state governments. The private and pubic industrial undertakings can be asked to share the responsibility of professional, technical and vocational education both at pre and post degree level.

The higher education is also an essential part of the effective education system. At present the higher education in India is highly subsidised and the percentage share of fee is very low. In a country like India most of the people who go for higher education belong to relatively richer section of the society. The criteria of equity requires that the broader shoulders should share the heavier burden. This suggests a revision in the present system of fee structure. A programme structure of fee coupled with an efficient system of scholarships and stipeneds for relatively poor students may provide more resources without affecting the standard. This would also improve the equality of opportunity in education.

Thus, some changes are desirable in the administration educational finances, in the mobilisation of resources for education and also in the direction of the objects of educational expeditures. The feasibility of the changes suggested can be determined only with the help of further research.

APPENDICES

APPENDIX - I

CONSTITUTIONAL PROVISIONS ON EDUCATION

Directive principles of State policy consists of two articles related to education which are as follows :

Article 45 : The State shall endeavour to provide, within a period of ten years from the commencement of this constitution, for free and compulsory education for all children until they complete the age of fourteen years.

Article 46 : The state shall promote with special care the educational and economic interests of the weaker sections of the people, and, in particular, of the scheduled caste and scheduled tribes and shall protect them from social injustice and all forms of exploitation.

The Seventh Schedule of the Constitution contains the three lists, List-I (Union List), List II (State List) and List III (concurrent List), on the basis of which the legislative powers were distributed. Article 246 discussed the Subject matter of laws made by Parliament and by the Legislature of states.

Article 246 :- (1) Parliament has exclusive power to make laws with respect to any of the matters enumerated in List I in the Seventh Schedule (in the Constitution referred to as the "Union List").

(2) The legislature of any State also, have power to make laws with respect to any of the matters enumerated in List III in the Seventh Schedule (in the Constitution referred to as the "Concurrent List").

(3) The legislature of any State has exclusive power to make laws for such state or any part thereof with respect to any of the matters enumerated in List II in the Seventh Schedule (in this Constitution referred to as the "State List").

(4) Parliament has power to make laws with respect to any matter for any part of the territory of India not included not-withstanding that such matter is a matter enumerated in the State List.

These were subject to certain clauses.

After the Constitution (42nd Amendment) Act, 1976, List I and List III include education as a subject matter in following entries.

List I :

Entry 63. The institutions known at the commencement of this Constitution as the Benaras Hindu University, the Aligarh Muslim University, the Delhi University and any other institution declared by Parliament by law to be an institution of national importance.

64. Institutions for Scientific or Technical education financed by the Government of India wholly or in part and declared Parliament by law to be institutions of national importance.

65. Union agencies and institutions for

a) professional, vocational or technical training, including the training of police officers, or

b) the promotion of special studies or research; or research; or

c) scientific or technical assistance in the investigation or detection of crime.

66. Co-ordination and determination of standards in institutions for higher education or research and scientific and technical institutions.

List III

Entry 25 : Education, including technical education, medical education and universities, subject to the

provisions of Entries 63, 64, 65 and 66 of List I; vocational and technical training of labour. (Added by the Constitution (42nd Amendment) Act, 1976.

...

APPENDIX - II

A NOTE ON THE USE OF WORD 'STATE'

The world state has been used in different sense at different places by the Constitution as well as by other official documents also. At some places it means the Government, without denoting any particular state government of Central government. At others, it denotes some particular state of the country. However, the reference in which the word is used generally makes the meaning clear and does not remain ambiguous.

APPENDIX-III: TABLES

Table 1

Percentage Contribution by various sources during 1870-1947

Year	Government fund	Local funds	Municipal funds	Fees	Other sources
1870-71	70.6	16.9	1.2	8.6	2.7
1881-82	39.2	14.7	2.5	23.4	20.2
1886-87	33.9	14.7	4.8	25.9	20.7
1891-92	28.8	17.7	4.6	29.1	19.8
1896-97	27.0	16.3	4.3	30.1	22.3
1901-02	25.6	14.7	3.8	31.6	24.3
1906-07	33.0	16.3	3.6	27.2	19.9
1911-12	34.3	13.5	3.8	27.9	20.5
1916-17	34.7	15.4	4.4	28.2	17.3
1921-22	49.1	9.2	4.3	20.7	16.7
1926-27	48.5	9.9	5.0	21.2	15.4
1931-32	45.8	10.2	5.8	22.9	15.2
1936-37	43.1	9.1	7.4	25.3	15.1
1941-42	43.8	8.5	6.2	27.7	13.8
1946-47	45.0	9.0	5.6	26.4	14.0

Source : A.P.Howell, Education in British India Prior to 1854 and in 1870-71 (Calcutta, Government Printing, 1872); Quinquennial Reviews of the Progress of Education in India from 1886 to 1937; Decennia Review (1937-47); Taken from Mishra, Atmanand, Educational Finance in India, Asia Publishing House, Bombay (1962) p.458-459.

Table 2

Allocation of Direct Expenditure on Education

During 1870-1947*

Rs. in lakhs

Year	Higher education	Secondary education	Primary education	Professional & technical education
1870-71	10.54	43.85	26.11	11.85
1880-81	14.16	48.06	76.25	13.28
1886-87	22.49	80.95	81.25	13.63
1891-92	25.17	98.96	96.14	25.40
1896-97	30.41	114.52	110.89	28.28
1901-02	33.74	126.84	118.76	34.77
1906-07	41.05	150.88	155.54	51.59
1911-12	63.86	207.89	207.26	76.28
1916-17	96.56	319.29	293.14	109.40
1921-22	183.83	487.27	509.08	196.79
1926-27	246.39	661.94	695.22	249.28
1931-32	298.69	813.00	812.60	267.33
1936-37	340.02	881.47	837.80	251.17
1941-42	324.74	927.25	949.52	199.08
1946-47	546.07	1192.62	1848.53	387.94

* A.P.Howell, Education in British India Prior to 1854 and in 1870-71; Quin-quennial Reviews of the Progress of Education in India from 1836 to 1937; taken from Mishra, A, op.cit.; (1962) p.460.

Table 3

Allocation of Indirect Expenditure on Education during 1870-1947

Rs. in lakhs

Year	Direction & Inspection	Scholarships	Buildings Furniture equipment	Miscellaneous
1870-71	12.80	2.08		.96
1880-81	16.83	5.09	12.37	14.35
1886-87	19.91	6.29	18.45	5.78
1891-92	22.50	7.27	21.82	7.94
1896-97	24.37	7.98	23.70	12.30
1901-02	25.45	9.12	25.73	26.81
1906-07	36.50	10.55	67.12	45.81
1911-12	47.75	13.48	97.30	72.19
1916-17	58.57	21.66	137.09	93.13
1921-22	93.36	31.76	197.61	137.84
1926-27	103.02	£	277.25	255.37
1931-32	114.07	£	181.97	227.66
1936-37	117.12	£	152.84	220.91
1941-42	115.78	£	156.58	271.44
1946-47	182.38	22.53	284.53	459.79

* A.P.Howell, Education in British India Prior to 1854 and in 1870-71; Quin-quennial Reviews of Progress of Education in India from 1886 to 1937; Decennial Review 1937-47;

£ Figures for scholarships for the years 1926-42 are included in the last column for Miscellaneous; taken from Mishra A, op.cit, (1962) p.461.

Table 4

Plan and Non-Plan Expenditure on Education in India.

(in Rs. crores)

Year	Plan expenditure	Non Plan expenditure	Total Expenditure
1950-51 (Actual)	20(17.6)*	94(82.4)	114
1960-61 (Actual)	90(26.2)	254(73.8)	344
1970-71 (Actual)	115(10.3)	1,003(89.7)	1,118
1980-81 (Actual)	520(13.8)	3,226(86.2)	3,746
1984-85 (likely)	800(13.3)	5,200(86.7)	6,000
C.G.R.(%)£	11.45	12.53	12.35

*Figures in parentheses show percentage.

£ Compound Annual Growth Rate

Source : Seventh Five Year Plan, Vol. II, Planning Commission, Government of India.

Table 5

Shows the plan outlays for education in successive Five Year Plans.

	All sectors crores	Education	% of outlay for education to total
I Plan			
Centre	899	46	4.9
States	1457	126	8.7
Total	2356	170	7.2
II Plan			
Centre	2559	70	2.7
States	2241	207	9.2
Total	4800	277	5.8
III Plan			
Centre	3600	148	4.1
States	3900	412	10.6
Total	7500	560	7.5
IV Plan			
Centre	8871	271	3.1
States	7031	551	7.8
Total	15902	822	5.2
V Plan			
Centre	20437	405	2
States	18866	80	3.5
Total	39303	1285	3.3
VI Plan			
Centre	47250	735	1.6
States	50250	789	4.6
Total	97500	2524	2.6

Source : Padmanabhan, C.B.Mobilisation of Additional Resources for Education A case study of U.P. and Kerala; NEPA 1984, p.295.

Table 6

Contribution of Centre and the States to Educational Finance in India (Plan Expenditure) (Percentage)

Five Year Plans	Central Government	State Government
First Plan	26	74
Second Plan	25	75
Third Plan	26	74
Fourth Plan	33	67
Fifth Plan	32	68
Sixth Plan	29	71
Seventh Plan*	37	63

* Draft

Source : Five Year Plan Documents, Planning Commission Government of India, New Delhi, as given in Anand Sarup; Resource Allocation and Planning for Education, Mainstream (Annual 1988) Oct. 8, 1988, New Delhi.

Table 7

Centre-State Partnership in Financing
Non-Plan Expenditure on Education

(per cent)

Plan period	Central Government	State Government	Total
Second Five Year Plan	14	86	100 (577)
Third Five Year Plan	16	84	100 (1056)
Fourth Five Year Plan	4	96	100 (4820)
Fifth Five Year Plan*	6	94	100 (8009)
Sixth Five Year Plan	6	94	100 (23434)

Note : * 4 year period i.e. upto 1977-78

Figures in ( ) are Rs. in 10 million

Source : Ministry of Education

Table 8 :

Educational Efforts by States**in India

States	Educational Expenditure Expenditure as % of S.D.P.		Total Educational Expenditure per capita (in Rs.)		Percentage of Budgeted Expenditure on Education to total budget (Revenue Account		
	1960-61	1985-86	1961-62	1985-86(R.E.) at current prices	1960-61	1985-86	Rank
Andhra Pradesh	2.3	4.7	7.5	101.12	23.2	18.8	13
Assam	2.2	4.8	8.4	99.68	21.1	22.6	6
Bihar	2.3	4.2	5.2	64.26	18.9	24.3	3
Gujarat	2.5	5.4	10.1	147.18	23.4	24.1	4
Haryana	N.A.	3.3	NA	119.89	NA	17.2	17
H.P.	N.A.	7.2	N.A.	180.61	N.A.	19.2	12
J & K	2.2	6.7	8.4	145.86	16.3	13.7	19
Karnataka	2.6	5.2	9.0	109.26	21.2	18.7	14
Kerala	4.2	6.5	12.7	148.27	36.0	30.0	1
M.P.	2.3	4.2	7.4	82.15	24.2	15.7	19
Maharashtra	3.0	3.5	13.9	120.46	25.2	16.7	17
Orissa	1.9	4.7	4.5	76.67	12.8	18.5	15
Punjab	2.7	3.2	10.3*	146.16	20.6	20.8	7
Rajasthan	2.4	4.9	7.1	99.05	24.5	25.0	2
Tamil Nadu	2.8	4.6	11.4	108.25	23.3	20.0	18
Tripura	N.A.	6.9	-	198.56	-	19.2	11
U.P.	2.2	3.3	6.0	64.30	14.5	19.4	10
West Bengal	2.6	3.5	10.6	97.29	37.1	22.8	5
All India	2.5	3.8	8.8	100.41	22.5	20.1	0

N.A. : Not Available

** Does not cover all the present states

* includes Haryana

Source : Education in India and Analysis of Budget Expenditure in Education (Various volumes). A handbook of Education and Allied Statistics; Government of India, 1987.

Table 9

Household Expenditure on Education in India

Year	Total (in Rs. 10 millions)		Per capita (In Rs.)		Total (%age of GNP)
	At current prices	At 70-71 prices	At current prices	At 70-71 prices	
1970-71	896	896	16.6	16.6	2.5
1975	1171	846	19.7	14.3	1.9
1980	1712	812	25.8	12.2	2.3
1982-83	2568	896	36.2	12.6	2.1
Rate of growth %	9.2	zero	6.7	- 2.4	

Source : Based on National Accounts Statistics 1970-71 to 1979-80 and 1970-71 to 1982-83 (New Delhi, Central Statistics Organisation) as given in Tilak, J.B.G.Educational Finances in India, NIEPA,1998)

Table 10

Source wise contribution of Resources to Education in India

Percent

Year	50-51	60-61	70-71	80-81
Government Sector Central and State Governments	57.1	68.0	75.6	80.0
Local Governments (Zilla Parishad, Municipalities, Panchayats)	10.9	6.5	5.7	5.0
Private Sector Fees	20.4	17.2	17.8	12.0
Endowments etc.	11.6	8.3	5.9	3.0
Total	100	100	100	100

Source : Education in India (various years); and Planning Commission for 1980-81.

Tabe 11

Intra-Sectoral resource allocation in education in India in the five year plans

(Rs. in millions)

Educational level	First plan	Second plan	Third plan	Plan holiday	Fourth plan	Fifth plan	Sixth plan	Seventh plan+
Elementary*	85 (56)	95 (35)	201 (34)	75 (24)	239 (30)	317 (35)	906 (36)	1830 (29)
Secondary	20 (13)	51 (19)	103 (18)	53 (16)	140 (18)	156 (17)	398 (16)	1000 (16)
University	14 (9)	48 (18)	87 (15)	77 (24)	195 (25)	205 (22)	486 (19)	750 (12)
Other General**	14 (9)	30 (10)	73 (12)	37 (11)	106 (14)	127 (14)	457 (18)	2121 (33)
Total general	133 (87)	224 (82)	464 (79)	241 (75)	680 (87)	805 (88)	2247 (89)	5710 (89)
Technical	20 (13)	49 (18)	125 (21)	81 (25)	106 (13)	107 (12)	278 (11)	682 (11)
Grand Total	153 (100)	273 (100)	589 (100)	322 (100)	786 (100)	912 (100)	2524 (100)	6383 (100)
% to Total plan outlay	7.86	5.82	6.87	4.86	5.04	3.27	2.59	3.55

Note : * includes pre-school education
** includes Teacher education, social education (Youth services) cultural programmes etc. Vocational & Adult
\+ Draft
.. Break-up is not available.

Source : A Handbook of Education and Allied Statistics; Seventh Five Year Plan; and Dept. of Education, Govt. of India.

Table 12

Trends in Intra-sectoral Resource (total) Allocation in Education in India (in Rs.in millions)

Year	Direct expenditure on						Total indirect Expenditure	Grand Total
	Primary	Middle	Secondary	School profile	Higher	Total		
1950-51	366(40)	77(8)	231(25)	60(7)	184(20)	921(100)	232	1153
1955-56	540(37)	154(11)	376(26)	81(6)	293(20)	1148(100)	449	1897
1960-61	630(25)	429(17)	689(27)	146(6)	565(22)	2573(100)	870	3444
1965-66	1213(26)	810(13)	1504(32)	105(2)	1241(27)	4673(100)	1192	5853
1970-71	2365(25)	1709(18)	2700(28)	128(1)	2709(23)	9611(100)	1572	11183
1975-76	4463(25)	3410(19)	4636(25)	206(1)	5410(30)	17925(100)	3122	21047
1976-77+	5467(25)	4121(19)	6051(28)	210( )	6033(28)	21883(100)	1220	23103
Annual Compound Growth %	11.0	16.5	13.4	4.9	14.3	13.0	6.6	12.2

* includes professional, technical, vocational and special types.
\+ Cols. 2 to 7 :recurring expenditure; Col. 8 : non-recurring expenditure.

Source : Education in India (various years) as in Tilak, J.B.G., Educational Finances in India, NIEPA, 1985

Table 13

Sector wise plan and Non Plan Expenditure in the year 1985-86

	% of Plan Expenditure	% of Non-plan Expenditure	% of Total Education budget
1. Primary Education	34.2	45.2	43.9
2. Secondary Education	18.1	33.0	31.3
3. Special Education	10.1	0.8	1.9
4. University and other higher education	16.9	14.4	14.7
5. Technical Education	13.5	3.4	4.6
6. Sports and Youth Welfare	2.7	1.1	1.3
7. Other Educational Programme	4.5	2.1	2.3
Total	100.0	100.0	100.0

Source: Analysis of Budgeted expenditure on education (1984-85 to 1986-87) Department of Education Government of India, 1988.

Table 14

Intra sectoral expenditure of plan & non plan budget (Revenue Account) for 84-85

(Actuals) (percentage)

State*	Primary	Secondary Education	Special Education	University and other	Sports & Youth Welfare	Other general Education
1. Andhra Pradesh	47.0	28.1	0.6	20.0	1.1	0.9
2. Assam	43.6	41.8	1.8	8.5	1.3	1.0
3. Bihar	61.1	22.3	4.1	10.2	0.7	0.4
4. Gujarat	55.2	29.6	0.5	9.2	1.2	1.5
5. Haryana	39.4	41.1	1.1	12.9	2.6	0.9
6. HP	56.7	29.7	0.7	8.5	2.3	1.2
7. J&K	-	-	-	-	-	-
8. Karnataka	53.0	22.6	0.9	18.3	1.8	0.4
9. Kerala	51.7	29.1	0.7	13.2	1.0	0.3
10. M.P.	46.7	35.5	1.8	9.8	1.3	0.9
11. Maharashtra	44.2	34.9	0.5	13.4	1.1	2.2
12. Manipur	51.1	26.2	0.8	16.9	3.1	1.2
13. Meghalaya	37.6	38.9	2.1	10.8	6.4	3.0
14. Nagaland	60.5	23.2	3.4	4.7	3.9	2.7
15. Orissa	42.1	37.5	0.8	13.5	1.1	2.5
16. Punjab	33.5	48.2	1.4	13.7	1.2	0.7
17. Rajasthan	52.8	33.2	1.1	10.2	0.9	0.7
18. Sikkim	29.7	59.9	1.2	3.1	2.6	3.4
19. Tamil Nadu	49.3	27.6	0.9	17.3	0.9	0
20. Tripura	36.7	42.6	6.6	5.8	1.6	5.2
21. U.P.	50.0	34.7	1.7	9.1	1.2	0
22. West Bengal	41.2	40.0	0.7	13.2	1.4	1.7

* Does not include those states which were granted statehood after this period.

Source : Analysis of Bugeted Expenditure on Education 1984-85 to 86-87 Government of India; 1988.

Table 15

Institutional costs of Education by sources in India 1976-77 (Recurring and Non-Recurring)

	Central Govt.	State Govt.	Univer-sities	Local bodies	Tees	Endown-ments	Total
Primary	0.7	75.7	-	20.6	1.6	1.4	100
Middle	0.7	79.2	-	13.9	3.2	2.9	100
Secondary (general)	1.4	76.4	-	1.6	13.6	5.4	100
Secondary (Vocational)	2.2	82.6	0.9	1.2	4.0	9.0	100
Higher	18.3	49.8	3.6	1.5	17.5	9.2	100
Total	6.0	69.4	1.1	8.4	9.9	5.2	100

Source : Education in India - 1976-77, Vol. II as given in Tilak & Varghese, "Resources for Education in India, "Occasional Papers No.2, NIEPA, New Delhi,1983.

Table 16

Centre-State Shares in Educational Finances, by levels of Education (%)

(Plan outlays)

	Fourth Five Year Plan		Sixth Five Year Plan		Seventh Five Year Plan	
	Centre	States*	Centre	States*	Centre	States*
Elementary	2.4	97.6	6.4	93.6	5.5	94.5
Secondary	0.3	99.7	4.2	95.8	..	..
University and Higher	56.7	43.3	41.3	58.7	..	..
Total General**	29.3	70.7	18.3	81.6	31.8	68.2
Technical	53.4	46.6	44.3	55.7	32.3	67.7
Grand Total	32.9	67.1	22.3	77.7	37.4	62.6

Note : .. Not available

* States and Union Territories

** includes all other levels of general education

\+ actual expenditure

Source : Planning Commission (1969, 1980 and 1985) and Ministry of Human Resource Development (1985).

Table 17

Estimates of Total and Per Capita
Net Domestic Product for States (1983-84)

	State	
	Bihar	Maharashtra
Net domestic product (Rs. millions)	88248	199752
Per Capita* (Rs.)	1174	3032

* Current Prices

Source : A Handbook of Education And Allied Statistics, Ministry of Education, Government of India, 1987.

Table 18

Literacy Position of States

States	Literacy Rate		No.of literates (in lakhs)		%age increase in no.of literates	No.of illiterates (in lakhs)		% age increase in no.of illiterates
	1971	1981	1971	1981		1971	1981	
Bihar	19.94	26.01	111.28	183.21	63.17	450.32	515.94	14.57
Maharashtra	39.18	47.02	197.83	286.21	49.73	305.26	331.63	8.64
All India	29.46	36.12	1614.15	2410.32	49.32	3847.22	4242.50	9.99

Source : Some selected Indicators of Educational Development in in India, NIEPA, 1984.

Table 19

Number of Educational Institutions

States	Primary	Secondary	High/Hr. Secondary Schools	Univer-sities	Colleges for gen. edu. (Degree & above)	Professional colleges (Pre-degree)	Professional Colleges (Degree & above)
Bihar	50.980	11,289	3244	8	289	184	243
Maharashtra	35,498	15,647	6119	10	412	324	180
India	494503	118535	51006	110	3421	2386	1317

Source : A Handbook of Education and Allied Statistics; Ministry of Education, Government of India, 1987.

Table 20

Average number of Primary, Middle and High/Higher Secondary Schools per lakh of Population (1979-80)

States	Primary	Middle	High/Hr. Secondary
Bihar	76	16	5
Maharashtra	57	26	10
All India	73	17	7

Source : A Handbook of Education and Allied Statistics; Ministry of Human Resource Development; New Delhi, 1987

Table - 21

Teacher - Pupil Ratio (1980-81)

States	Primary schools	Middle schools	High/Hr. Secondary schools
Bihar	40	34	27
Maharashtra	39	36	29
All India	40	34	25

Source : Ibid

Table 22

No. of Single Teacher Primary Schools, 1978

States	No.of Single teacher Primary schools	% age of single teacher Primary schools to total no.of primary schools
Bihar	17,085	33.5
Maharashtra	17,827	52.7
All India	1,64,931	34.7

Source : Ibid

Table 23

Percentage of Schools with Library facilities

States	Primary	Middle	Secondary	Hr. Secondary
Bihar	33.7	68.7	95.1	100
Maharashtra	37.0	62.5	90.6	96.1
All India	29.5	74.5	94.8	96.3

Source : Ibid

Table 24 (A)

Gross enrolment ratios at different levels (1980-81)

States	Primary classes IV (6-11 yrs)	Middle classes VI-VII (11-14 yrs)	Higher Sec. classes IX-XI/XII (14-17 yrs.)
Bihar	66.0	26.0	12.5
Maharashtra	100.0	50.9	26.7
All India	80.5	41.9	25.2

Source : Ibid

Table 24 (B)

Enrolment by Stages/Classes

(Higher Education)

(As on 30th Sept. 1983)

	Bihar	Maharashtra	All India
Ph.D./D.Sc./ Dh.Phil.	288	3500	25792
M.A.	8827	14000	168961
M.Sc.	2535	5600	70018
M.Com.	802	11500	54621
B.A./B.A.(Hons.)	102639	66000	1105603
B.Sc./B.Sc.(Hons)	53982	56000	583235
B.Com./ B.Com.(Hons.)	34312	134000	592033
B.E./B.Sc./ Engg./B.Arch.	6697	9200	122051
B.Ed./B.T.	2965	7400	72848
M.B.B.S.	4268	12000	74423
Total	217315	319200	2869585

Source: Selected Educational Statistics (1983-84)

Ministry of Education, Planning, Monitoring and Statistics Division, Government of India, New Delhi (1985).

Table 25

Rural Population served by Primary and Middle Schools

States	% age of population served by					
	Primary			Middle		
	within habitation	upto 3 kms.	upto 5 kms.	within habitation	upto 3 kms.	upto 5 kms.
Bihar	77.98	95.54	99.15	23.14	34.96	95.9
Maharashtra	90.10	96.97	99.03	56.50	87.5	95.59
All India	73.53	92.82	97.85	33.47	78.93	92.10

Source : Fourth All India Educational Survey; NCERT; 1973

Table 26

Survival Rates of Students at Various Stages of School Education

States	Upto primary stage		upto elementary stage		upto secondary stage	
	1972-73 class I	1976-77 class VI	1969-70 class-I	1976-77 class VIII	1967-68 class I	1976-77 class X
Bihar	100	20	100	13	100	10
Maharashtra	100	44	100	24	100	18
All India	100	37	100	23	100	15

Source : Selected Educational Indicators of Educational Development in India; NIEPA; 1984

Table 27

Statewise Frequency Distribution of Districts by Categories of Total Literacy (1981).

	Categories				
	High	moderately high	average	below average	total
Bihar	-	-	8	23	31
Maharashtra	3	14	19	-	26

Source : School Education in India : The Regional Dimension; NIEPA; New Delhi, 1984.

Table 28

Inter District Variations in Per Capita Expenditure

	Bihar		Maharashtra	
	1970-71	1976-77	1970-71	1976-77
1. Per Capital Expenditure	7.96	20.40	25.02	42.38
2. Range	14.20	40.40	35.10	52.50
3. Ratio between highest and lowest	3.80	5.00	2.60	3.00
4. Standard Deviation	3.75	10.27	8.48	12.41
5. Co-efficient of variation	47.10	51.00	33.40	29.00

Source : Inter State Variation in Financing of Education : A Regional Dimension. C.B. Padmanabham, NIEPA, 1986.

Table 29

Representation Index of Educational Expenditure

State	per capita expenditure (in Rs.)	Index
Bihar	64.26	0.640
Maharashtra	120.46	1.20
All India	100.41	

Table 30

Percentage of Budgeted Expenditure on Education by Education and other Departments to total budget (Revenue Account) Actuals

Year/State	Bihar	Maharashtra	All India
1968-69	21.6	21.1	22.2
1969-70	22.6	23.2	22.8
1970-71	21.0	22.4	23.4
1971-72	17.9	20.1	22.2
1972-73	20.4	20.6	22.7
1973-74	24.5	19.1	22.9
1974-75	27.4	26.2	26.5
1975-76	29.9	24.7	25.6
1976-77	24.2	23.6	25.5
1977-78	29.9	22.5	25.8
1978-79	31.2	21.4	25.6
1979-80	31.4	23.7	26.7
1980-81	29.4	22.1	24.5
1981-82	28.8	21.8	24.5
1982-83	30.0	21.3	24.3
1983-84	33.2	21.3	25.0
1984-85	26.3	21.3	23.6
1985-86*	27.9	22.4	24.0
1986-87£	25.4	21.2	23.8

* Revised Estimates

£ Budget Estimate

Source : Expenditure as shown in Central and State Budgets; Department of Education, Government of India, (different years). Analysis of Budgeted Expenditure on Education by Centre and States. Ministry of Education, Government of India (different years).

Table 31

Total Budgeted expenditure on Education by Education and other Departments. (Revenue Account)

(Rs.in thousands)
(Actuals)

Year	Bihar	Maharashtra	All India
1968-69	356851	771431	6645157
1969-70	491188	920244	7735180
1970-71	522378	1029441	9048893
1971-72	543105	1085025	10077998
1972-73	683204	1340274	11741242
1973-74	846659	1562382	13336593
1974-75	950531	1937134	16400272
1975-76	1181404	2261088	19121381
1976-77	996276	2424220	21375711
1977-78*	1571469	2689464	24853225
1978-79	1703623	3322341	17968211
1979-80	1987909	3790077	31386700
1980-81	2051948	3860876	31503929
1981-82	1766240	5085338	40480585
1982-83	3973408	6017217	51783274
1983-84*	413851	6854354	59761992
1984-85	4443550	8254759	68200917
1985-86*	5143914	9672984	81223920
1986-87£	4999157	9057481	87541818

* Revised Estimates

£ Budget Estimate

Source : Ibid.

Table 32

Percentage of Plan Expenditure on Education To Total Expenditure of the Education Department (Revenue Account) Actuals

Year/States	Bihar	Maharashtra	All India
1968-69	10.1	15.3	11.3
1969-70	6.2	4.6	6.5
1970-71	8.0	7.5	8.0
1971-72	4.1	14.5	10.9
1972-73	18.1	16.7	13.2
1973-74	16.1	20.9	16.8
1974-75	1.7	4.6	5.6
1975-76	8.1	6.4	7.8
1976-77	10.8	7.2	8.9
1977-78	7.4	10.3	9.5
1978-79	8.9	9.1	10.9
1979-80	10.4	2.9	6.1
1980-81	11.8	3.1	8.7
1981-82	12.0	4.4	9.5
1982-83	4.4	6.3	8.2
1983-84	4.0	8.9	9.8
1984-85	13.0	15.2	16.0
1985-86*	21.4	9.6	13.8
1986-87£	16.9	9.2	15.1

* Rinsed Estimates

£ Budget Estimate

Source : Ibid

Table 33

ıge of Budgeted Expenditure on Elementary Education To Total Expenditure of Education Department (Revenue Account) Actuals

Year/State	Bihar	Maharashtra	All India
1968-69	64.8	43.2	45.2
1969-70	63.4	46.7	46.2
1970-71	65.0	47.5	44.9
1971-72	64.6	46.0	44.7
1972-73	70.4	48.6	47.7
1973-74	69.1	45.5	47.2
1974-75	61.3	49.8	49.5
1975-76	59.4	51.3	49.6
1976-77	52.4	48.3	48.8
1977-78	61.1	47.1	48.4
1978-79*	60.7	46.0	48.1
1979-80	61.1	44.5	47.0
1980-81	73.5	46.4	48.5
1981-82	65.1	44.1	46.5
1982-83	65.6	44.6	48.2
1983-84*	64.9	44.5	48.6
1984-85	61.1	44.2	47.2
1985-86*	62.3	44.2	47.3
1986-87£	61.0	44.2	46.6

* Revised Estimates

£ Budget Estimates

Source : Ibid

Table 34

Percentage of Budgeted Expenditure on Secondary Education to Total Expenditure of Education Department (Revenue Account) (Actuals)

Year/State	Bihar	Maharashtra	All India
1968-69	10.4	34.0	30.0
1969-70	12.0	32.0	30.0
1970-71	11.7	33.5	31.3
1971-72	11.1	34.9	31.7
1972-73	10.8	35.3	32.4
1973-74	11.5	36.5	32.1
1974-75	14.4	34.6	33.0
1975-76	19.7	33.5	32.9
1976-77	19.5	33.1	32.7
1977-78*	18.9	33.1	32.0
1978-79	19.2	33.9	32.1
1979-80	18.8	34.6	32.8
1980-81	16.8	33.0	32.3
1981-82	20.7	34.1	33.9
1982-83	20.6	34.4	33.2
1983-84*	20.2	34.7	32.4
1984-85	22.3	34.9	32.9
1985-86*	18.0	34.7	32.3
1986-87£	18.0	34.9	32.5

* Revised Estimates

£ Budget Estimate

Source : Ibid.

Table 35

Percentage of Budgeted Expenditure on University And Other Higher Education to the Total Expenditure on Education Department (Revenue Account) (Actuals)

Year/State	Bihar	Maharashtra	All India
1968-69	10.7	6.4	9.6
1969-70	11.0	6.1	9.6
1970-71	10.3	6.6	9.3
1971-72	10.5	6.8	9.5
1972-73	122.2	6.6	10.5
1973-74	13.7	7.5	10.6
1974-75	18.9	6.9	10.8
1975-76	15.9	5.8	10.6
1976-77	21.4	9.8	11.7
1977-78*	15.4	10.5	12.5
1978-79	14.8	11.5	12.8
1979-80	14.3	13.7	13.3
1980-81	13.8	14.7	13.2
1981-82	10.9	14.5	13.4
1982-83	8.5	13.7	12.4
1983-84*	9.2	13.8	12.6
1984-85	10.2	13.4	12.4
1985-86	12.9	13.8	13.0
1986-87£	13.6	13.5	12.8

* Revised Estimates

£ Budget Estimate

Source : Ibid

Table 36

Percentage of Budgeted Expenditure on Technical Education To Total Expenditure of Education Department (Revenue Account) (Actuals) .

Year/States	Bihar	Maharashtra	All India
1968-69	3.5	4.6	3.5
1969-70	2.8	4.4	3.8
1970-71	2.6	4.3	3.7
1971-72	2.9	4.3	3.5
1972-73	2.6	3.8	3.3
1973-74	2.3	3.8	3.2
1974-75	2.1	3.4	2.8
1975-76	2.0	3.2	2.8
1976-77*	2.7	3.4	2.9
1977-78*	1.9	3.5	2.9
1978-79	1.7	3.5	2.9
1979-80	1.6	3.6	3.0
1980-81	1.0	3.0	2.2
1981-82	1.2	3.3	2.5
1982-83	1.1	3.5	2.7
1983-84*	1.2	3.3	2.6
1984-85	1.2	3.6	2.7
1985-86*	1.3	3.8	2.9
1986-87£	1.6	3.2	2.9

* Revised Estimates
£ Budget Estimate

Source : Ibid.

Table 37

Total Budget Expenditure on Elementary Education
(Revenue Account)

(Actuals)

Year	Bihar	Maharashtra	All India
1968-69	193622	316019	2738379
1969-70	274802	409980	3222815
1970-71	315278	466040	3718510
1971-72	322929	470049	4120177
1972-73	430512	564653	4969430
1973-74	537715	652951	5050991
1974-75	546631	807375	7125403
1975-76	624142	992084	8350173
1976-77	444962	1003708	8993995
1977-78*	858363	1096096	10376750
1978-79£	901724	1094486	10972258
1979-80	1099548	1432662	12517753
1980-81	1058878	1789929	15283088
1981-82	1064913	1863271	16501013
1982-83	2314723	2215109	21491382
1983-84*	2391587	2503883	24879634
1984-85	2595326	3051318	28261634
1985-86*	3011770	3558438	32875055
1986-87£	2832529	3508597	34911153

* Revised Estimates

£ Bugeted Estimate

Source : Ibid

Table 38

Total Budgeteded Expenditure on Secondary Education

(Rs. in thousands)

Year	Secondary (Actuals) Bihar	Maharashtra	All India
1968-69	32497	248838	1816345
1969-70	51901	281082	2051975
1970-71	56603	329062	2593818
1971-72	55534	356732	2921259
1972-73	66888	411094	3373610
1973-74	89178	522344	3839171
1974-75	128426	561238	4745138
1975-76	206514	648578	5544443
1976-77	165264	686776	6022563
1977-78*	265129	769469	6858733
1978-79£	277071	799195	7330815
1979-80	338138	1116201	8721818
1980-81	344170	1274314	10162500
1981-82	338480	1442751	12017218
1982-83	727082	1708228	14791106
1983-84*	743506	1951653	16585080
1984-85	946165	2909293	19672127
1985-86*	871587	2789186	22445497
1986-87£	836029	2768083	24329555

* Revised Estimates

£ Bugeted Estimate

Source : Ibid

Table : 39

Total Budget Expenditure on Universities and other Higher Education

(in Rs.thousands)

	Bihar	Maharashtra	All India
1968-69	33678	46736	579030
69-70	47731	53096	667043
70-71	50151	64671	771157
71-72	52139	68560	876874
72-73	74640	76631	1089110
73-74	106940	107517	1273221
74-75	168235	112774	1557419
75-76	167669	112267	1788905
76-77	182225	202578	2147629
77-78	216136	245025	2668131
78-79	218648	302891	2885079
79-80	257985	441814	3542006
80-81	177515	514942	3048957
81-82	178132	614726	4681297
82-83	300160	681844	5543650
83-84	339034	776605	6459120
84-85	434597	926836	7426073
85-86	623409	1108417	9018680
86-87	633555	1069064	9573964

Source : Ibid.

Table 40

Total Budgeted Expenditure on Technical Education

(Rs. in thousands)

	Bihar	Maharashtra	All India
68-69	10970	33832	213418
69-70	12372	38229	2673141
70-71	12544	42259	298183
71-72	14253	43972	314566
72-73	15768	44922	355316
73-74	17703	54185	390349
74-75	18250	54864	418662
75-76	21417	62464	486827
76-77	22701	70494	542222
77-78	26896	80194	626246
78-79	30251	79079	668468
79-80	29137	116019	783872
80-81	33534	130727	873417
81-82	19932	138014	963692
82-83	39800	175114	1169585
83-84	45515	187885	1345657
84-85	51832	244988	1605449
85-86	64721	305355	1990114
86-87	76342	251526	2135431

Source : Ibid

Table 41

Compound Growth Rates (Annual) of Total Budgeted Expenditure

(Percentage)

Heads	States	1968-69 to 1974-75	1974-75 to 1980-81	1980-81 to 1986-87	1968-69 to 1986-87
On Education by Education and other Departments	Bihar	17.7	13.2	16.0	15.8
	Maharashtra	16.6	12.2	16.5	15.0
	All India	16.3	11.5	18.6	15.4
On Elementary Education	Bihar	18.9	11.7	17.9	16.1
	Maharashtra	16.9	14.2	11.9	14.3
	All India	17.3	13.6	14.8	15.2
On Secondary Education	Bihar	26.0	17.8	16.0	19.8
	Maharashtra	14.5	14.6	13.8	14.3
	All India	17.3	13.5	15.7	15.5
On Universities and other higher Education	Bihar	30.0	0.9	23.6	17.7
	Maharashtra	15.8	29.0	13.0	19.0
	All India	15.1	11.8	21.0	16.9
On Technical Education	Bihar	8.9	10.7	14.7	11.4
	Maharashtra	8.4	15.5	11.5	11.8
	All India	10.6	14.4	16.1	13.7

Table 42

The Growth of Total Budgeted Expenditure on Education by Education and other Departments in Bihar (Actuals)

(Rs.in thousands)
Actuals

Year	At Current prices	Index nos. (base year 1970-71= 100)	At constant prices	Index nos.(Base year 1970-71=100)
1970-71	522378	100	522378	100
1971-72	543105	103.97	493732	94.5
1972-73	683204	125.8	555450	112.5
1973-74	846659	123.9	604756	108.9
1974-75	950531	112.3	513801	85.0
1975-76	1181404	124.3	656336	127.6
1976-77	996276	84.2	547404	83.3
1977-78	1571469	157.6	805882	147.1
1978-79	1703623	108.3	896644	111.3
1979-80	1987909	116.7	899506	100.2
1980-81	2051948	103.2	789211	88.0
1981-82	1766240	86.1	615415	78.0
1982-83	3973408	224.9	1324469	215.2
1983-84	4113851	103.4	1277594	96.5
1984-85	4443550	108.0	1295496	101.3
1985-86*	5143914	115.8	1420971	109.7
1986-87£	4999157	97.2	1305263	91.9
1986-87/ 1970-71		957.0		249.9
CGR@ = 15.2			5.9	

* Revised Estimates
£ Budget Estimates
@ Compound Annual Growth Rate (%)

Table 43

The Growth of total budgeted Expenditure on Education by Education and other Departments in Maharashtra (Rs. in thousands) (Actuals)

Year	At current prices	Index	At constant prices	Index
1970-71	1029441	100	1029441	100
1971-72	1085025	105.4	986386	95.8
1972-73	1340274	123.4	1089653	110.5
1973-74	1562382	116.5	1115987	102.3
1974-75	1937134	123.9	1047099	93.8
1975-76	2261088	116.6	1256160	119.9
1976-77	2424220	107.1	1331939	106.4
1977-78	2689464	110.9	1379212	103.4
1978-79	3322341	123.4	1748601	126.8
1979-80	3790077	114.1	1796415	102.6
1980-81	3860876	101.7	1484952	82.7
1981-82	5085338	131.6	1771895	119.2
1982-83	6017217	118.2	2005739	113.2
1983-84	6854354	113.8	2128681	106.0
1984-85	8254759	120.3	2406635	113.0
1985-86*	9672984	117.2	2672095	111.0
1986-87£	9657481	99.8	2521536	94.4
1986-87/70-71		938.0		244.8
CGR@	15		5.6	

* Revised Estimates

£ Budget estimates

@ Compound Annual Growth Rate (%)

Table 44

Table 44

The Growth of Budgeted Expenditure on Elementary Education in Bihar

(in Rs. thousand)

Year	At current prices	Index nos.	At constant prices	Index nos.
1970-71	315278	100	315278	100
1971-72	322929	102.2	293572	93.1
1972-73	430512	133.2	360000	122.5
1973-74	537715	124.8	384082	106.7
1974-75	546631	101.7	295476	77.0
1975-76	624142	114.2	346746	117.4
1976-77	444962	71.2	244485	70.5
1977-78	858363	192.8	440186	180.0
1978-79	901724	105.1	474592	107.7
1979-80	1099548	121.8	497533	104.7
1980-81	1058818	96.2	407237	81.9
1981-82	1064913	100.6	371050	91.0
1982-83	2214793	217.4	771574	207.8
1983-84	2391587	103.2	742729	96.2
1984-85	2595326	108.4	756655	101.8
1985-86*	3011770	116.0	831981	109.9
86-87£	2832529	94.0	729564	88.9
86-87/70-71		898.3		234.6
CGR@	14.7		5.5	

* Revised Estimate

£ Budgeted Estimate

@ Compound Annual Growth Rate (%)

Table 45

The Growth of total Budgeted Expenditure on Elementary Education in Maharashtra (Actuals)

(Rs. in thousands)

Year	At current prices	Index nos.	At constant prices	Index nos.
1970-71	466040	100	466040	100
1971-72	470049	100.9	427317	91.7
1972-73	564653	120.0	459067	107.3
1973-74	652951	122.6	466394	101.6
1974-75	807375	123.7	436419	93.6
1975-76	992084	122.9	551158	126.3
1976-77	1003708	101.2	551488	100.1
1977-78	1096096	109.1	561274	101.8
1978-79	1094486	99.9	576045	102.5
1979-80	1432662	130.9	648263	112.4
1980-81	1789929	124.8	688439	106.2
1981-82	1863271	104.1	649223	94.2
1982-83	2215109	118.9	738370	113.6
1983-84	2503883	113.0	777603	105.2
1984-85	3051318	121.9	889597	114.3
1985-86*	3558438	116.5	982994	110.5
1986-87£	3508597	98.6	916083	93.2
1986-87/70-71		752.9		196.6
CGR@	13.4		4.3	

* Revised Estimates
£ Budgeted Estimates
@ Compound Annual Growth Rate (%)

Table 46

The Growth of Total Budgeted Expenditure on Secondary Education in Bihar (Actuals)

(Rs. in thousands)

year	At current prices	Index nos.	At constant prices	Index nos.
1970-71	56603	100	56603	100
1971-72	55534	98.1	50485	89.2
1972-73	66888	120.3	54381	107.6
1973-74	89178	133.2	63699	117.0
1974-75	128426	144.0	69420	108.9
1975-76	206974	160.9	114763	165.2
1976-77	165264	80.0	90804	79.1
1977-78	265129	160.3	135964	149.6
1978-79	277071	104.4	145827	107.3
1979-80	338138	122.0	153004	104.8
1980-81	344170	101.8	132373	86.4
1981-82	338480	98.2	117937	89.1
1982-83	727882	214.7	242361	205.5
1982-84	743506	102.3	230902	95.3
1984-85	946165	127.3	275850	119.3
1985-86*	871587	92.1	240760	87.3
1986-87£	836029	96.0	218284	90.7
1986-87/70-71		1477.6		385.5
CGR@	18.3		8.8	

* Revised Estimates
£ Budgeted Estimates
@ Compound Annual Growth Rate (%)

Table 47

The Growth of Total Budgeted Expenditure on Secondary Education in Maharashtra (Actuals)

(Rs. in thousand)

Year	At current prices	Index nos.	At Constant prices	Index nos.
1970-71	329060	100	329060	100
1971-72	356732	108.3	324302	98.6
1972-73	411094	115.1	339223	103.6
1973-74	522344	127.1	373103	111.5
1974-75	561238	107.3	303372	81.2
1975-76	648578	115.6	360321	114.9
1976-77	686776	105.9	377349	104.6
1977-78	769469	112.0	394599	104.6
1978-79	799195	103.9	420629	106.6
1979-80	1116201	139.7	505068	120.0
1980-81	1274314	114.2	490121	97.0
1981-82	1442751	113.2	502700	102.6
1982-83	1708228	118.3	569409	113.3
1983-84	1951653	114.3	606103	106.3
1984-85	2409393	123.4	702447	115.9
1985-86*	2789186	115.8	770493	109.7
1986-87£	2768083	99.2	722737	93.8
1986-87/70-71		841.2		219.5
CGR @	14.3		5.0	

* Revised Estimates
£ Budgeted Estimates
@ Compound Annual Growth Rate (%)

Table 48

e Growth of Total Budgeted Expenditure on
iversities and other Higher Education in Bihar
(Actuals)

(Rs. in thousands)

Year	At current prices	Index nos.	At constant prices	Index nos.
1970-71	50151	100	50151	100
1971-72	52139	103.9	47399	94.5
1972-73	74640	143.2	60683	128.0
1973-74	106940	143.3	76386	125.9
1974-75	168235	157.2	90938	119.0
1975-76	167669	99.7	93149	102.3
1976-77	182225	108.7	100124	107.5
1977-78	216136	1118.5	110839	110.6
1978-79	218648	101.2	115078	103.7
1979-80	257985	118.0	116735	101.3
1980-81	177515	68.9	68275	5855
1981-82	178132	100.3	62067	90.9
1982-83	300160	168.4	100053	161.1
1983-84	339034	112.9	105290	105.1
1984-85	434597	128.2	126705	120.2
1985-86*	623409	143.2	172212	136.0
1986-87£	633555	143.3	165419	96.1
1986-87/70-71		1263.3		329.7
CGR@	17.2		7.8	

* Revised Estimates
£ Budgeted Estimates
@ Compound Annual Growth rates (%)

Table 49

The Growth of Total Budgeted Expenditure on Universities and other Higher Education in Maharashtra (Actuals)

(Rs. in thousands)

Year	At current prices	Index nos.	At constant prices	Index nos.
1970-71	64671	100	64671	100
1971-72	68560	106.0	62327	96.4
1972-73	76631	111.8	62302	99.9
1973-74	107517	140.2	76798	123.3
1974-75	112774	104.9	60959	79.4
1975-76	112767	99.9	62648	102.8
1976-77	202578	179.5	111306	177.7
1977-78	245025	120.9	125654	112.9
1978-79	302891	123.5	159416	126.9
1979-80	441814	145.9	199916	125.3
1980-81	514942	116.6	198055	99.0
1981-82	614726	119.4	214190	108.0
1982-83	681844	110.8	227281	106.0
1983-84	776605	113.9	241182	106.0
1984-85	926836	119.2	270215	112.0
1985-86*	1108417	119.6	306192	113.2
1986-87£	1069064	96.3	279129	91.2
1986-87/70-71		1653.0		431.6
CGR@	19.2		9.6	

* Revised Estimates
£ Budgeted Estimates
@ Compound Annual Growth Rates (%)

Table 50

The Growth of Total Budgeted Expenditure on Technical Education in Bihar (Actuals)

(Rs. in thousands)

Year	At current prices	Index nos.	At constant prices	Index nos.
1970-71	12544	100	12544	100
1971-72	14253	113.5	12957	103.3
1972-73	15768	110.5	12820	98.9
1973-74	17703	112.3	12645	98.5
1974-75	18250	103.1	9865	78.0
1975-76	21417	117.4	11898	120.5
1976-77	22701	105.9	12473	104.7
1977-78	26896	118.5	13793	110.6
1978-79	30251	112.5	15922	115.3
1979-80	29137	96.2	13184	82.7
1980-81	33534	115.1	12898	97.7
1981-82	19932	59.3	6949	53.9
1982-83	39800	199.7	13267	190.9
1983-84	45515	114.4	14135	106.4
1984-85	51832	113.9	15111	106.9
1985-86*	69721	124.9	17879	118.2
1986-87£	76342	117.9	19933	111.5
86-87/70-71		608.6		159.0
CGR@		12.0	2.9	

* Revised Estimate
£ Budgeted Estimate
@ Compound Annual Growth Rate (%)

Table 51

The Growth of Total Expenditure on Technical Education in Maharashtra (Actuals)

(Rs. in thousands)

Year	At current prices	Index nos.	At constant prices	Index nos.
1970-71	42259	100	42259	100
1971-72	43972	104.0	39975	94.6
1972-73	44922	102.2	36522	91.4
1973-74	54185	120.5	38704	106.0
1974-75	54864	101.3	29655	76.7
1975-76	62464	113.9	34701	117.0
1976-77	70494	112.9	38733	111.5
1977-78	80194	113.8	41125	106.2
1978-79	79079	98.5	41621	101.1
1979-80	116019	146.6	52497	126.0
1980-81	130727	112.7	50280	95.8
1981-82	138014	105.6	48089	95.5
1982-83	175114	126.9	58371	121.4
1983-84	187885	107.3	58350	99.9
1984-85	244988	130.4	71425	122.3
1985-86*	305355	124.5	84352	118.1
1986-87£	251526	82.4	65673	77.9
86-87/70-71		595.1		155.4
CGR@	11.8		2.8	

* Revised Estimates
£ Budgeted Estimate
@ Compound Annual Growth Rate (%)

Table 52

Expenditure on All sectors of Education : % age of Actuals To Revised Estimates and Budget Estimates. (Revenue Account)

Years	Bihar		Maharashtra		All India	
	B.E.	R.E.	B.E.	R.E.	B.E.	R.E.
1968-69	128.7	98.1	117.8	98.3	111.5	100.9
1969-70	100.4	96.6	114.3	97.3	99.9	97.1
1970-71	106.6	97.9	113.2	96.6	109.2	104.6
1971-72	95.9	97.4	98.1	99.6	106.0	98.9
1972-73	112.0	79.6	110.6	102.6	104.2	96.5
1973-74	91.3	93.9	118.2	100.8	99.8	-
1974-75	102.2	105.3	101.6	96.8	103.9	101.0
1975-76	101.3	101.1	108.2	99.4	106.3	100.6
1976-77	78.2	78.4	101.3	98.1	101.2	98.0
1977-78	115.5	93.7	101.9	98.3	104.4	98.2
1978-79	101.2	96.7	117.7	99.3	104.2	97.3
1979-80	97.0	93.1	102.1	97.9	97.8	98.7
1980-81	96.7	76.2	94.0	87.4	92.3	85.0
1981-82	63.0	56.0	113.8	120.0	102.4	111.0
1982-83	119.9	84.4	128.4	102.0	129.0	100.7

Source : Analysis of Budgeted Expenditure on Education, Ministry of Human Resources Development, Government of India; (Different years); Expenditure on Education. As shown in Central State Annual Budgets (different years); Ministry of Education, Government of India.

Table 53

Total Direct and Indirect Expenditure

(Rs. in lakhs)

States	Total Expenditure in 1956-57			Total Expenditure in 1975-76		
	Direct Expenditure	Indirect Expenditure	Total Expenditure	Direct Expenditure	Indirect Expenditure	Total Expenditure
Bihar	874.50 (63.5)	522.24 (36.5)	1376.74 (100.0)	9211.80 (87.3)	1359.56 (12.7)	13302.9 (100.0)
Maharashtra	2123.39 (85.2)	368.76 (14.8)	2492.15 (100.0)	24635.22 (88.5)	3216.14 (11.5)	22720.36 (100.0)
All India	15963.55 (77.4)	4665.8 (22.6)	20629.41 (100.0)	179251.78 (85.2)	31218.51 (14.8)	230415.71 (100.0)

Figures in paranthesis show the percentage share.

Source : Education in India (different years)
Ministry of Education, Govt. of India.

Table 54

Percentage of Direct Expenditure on Education by objects to total Direct Expenditure (All Institutions)

States	Salaries of teachers		Salaries of other staff		Equipment and other apparatus		Other items	
	1968-69	1975-76	1968-69	1975-76	1968-69	1975-76	1968-69	1975-76
Bihar	74.44	81.75	8.23	7.52	3.43	2.00	13.90	8.73
Maharashtra	73.66	72.12	9.39	12.08	3.42	2.26	13.53	13.54
All India	74.58	76.23	9.47	10.71	3.80	3.30	12.15	9.76

Source : Education in India (different years), Ministry of Education, Government of India.

Table 55

Percentage share of different Heads of Expenditure in 1986-87 (B.E.)*

Heads	States	Direction Inspection & Administration	Government Institutions	Assistance to Non-Govt. Institutions	Assistance to local bodies	Scholarships	Teachers training	Other expenditures
Primary Education	Bihar	2.9	88.5	1.4	-	-	1.0	6.2
	Maharashtra	2.0	-	0.1	96.0	-	1.3	0.5
	All India	1.7	34.3	21.5	28.6	-	1.2	12.3
Secondary Education	Bihar	3.8	87.1	6.2	-	1.2	0.0	1.5
	Maharashtra	0.9	0.6	85.7	11.3	0.2	1.2	0.1
	All India	2.4	36.5	48.2	6.3	0.4	0.6	4.4

* Budgeted Estimate

Source : Analysis of Budgeted Expenditure on Education (1984-85 to 1986-87; Ministry of Human Resource Development (Department of Education); Government of India, New Delhi, 1988.

Table 56 (A)

Percentage Contribution to Education by Sources

States	1956-57				1976-77			
	Govt. Funds	Local bodies	Fees	Endowments & other sources	Govt. funds	Local bodies	Fees	Endowments and other sources
Bihar	50.2	21.6	18.4	9.8	85.9	[illegible]	8.6	5.5
Maharashtra	55.5	10.6	25.3	8.6	69.5	15.2	10.8	4.3
All India	62.7	8.4	19.8	9.1	76.5	8.4	9.8	5.3

Source : Taken from 'Mobilisation of AdditionalResources for Education: A case study of certain states in India; P.B.Padmanaban, NIEPA, 1984.

Table 56(B)

Average Annual Rate of Growth of Contribution by Each sources to Education Percentage of 1956-57 to 1976-77

States	Government funds	Local bodies	Fees	Endowments and other sources	Total
Bihar	15	Decrease	8.1	8.8	10.2
Maharashtra	13.5	14.7	7.9	8.8	12.6
All India	14	12.8	9	9.6	12.8

Source : Ibid

Table 57

Budgetary Position of States (1983-84)

(in lakhs rupees)

	Revenue Receipts										
	Own tax revenue		Non tax revenue	transfer from the centre	Total	Non-plan exp. on Education	Total	Col.(6) as % of			per capita exp.on education
	Total	Salestax						Col.(1)	Col. (2)	Col. (3)	
	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
Bihar	44149	29841	22924	83564	150437	36590	116546	82.9	122.6	31.4	52.33
Maharashtra	182249	119671	70899	72050	325198	51375	4930	8.2	42.9	19.4	81.83
All India	1075311	626106	416023	910048	2401382	451395	1868942	42.0	72.1	24.1	

Source : RBI Bulletin, November 1985.

Table 58

State Forecasts (SF), Reassessments by the Finance Commission (FCR) and Cuts by the Finance Commission (Var.) in relation to Education

(Rs. in 10 millions)

States	VI Finance Commission			VII Finance Commission			VII Finance Commission		
	SF	FCR	Var.	SF	FCR	Var.	SF	FCR	Var.
Bihar	414.7	321.6	-93.1	788.4	654.2	-134.2	2166.4	2013.2	-153.2
Maharashtra	516.9	584.4	+22.5	1248.6	1269.9	+21.3	2768.1	2813.4	45.4

Source : Finance Commission Reports (1973, 1978 and 1983)

APPENDIX - XIV

AN EXPLANATORY NOTE ON THE NATURE OF DATA

The data have been mainly collected from the various documents and reports, published by the Ministry of Education, Planning Commission, NIEPA etc., as mentioned in the introduction. Following are some of the explanatory notes :

(a) These statistics relate to recognized institutions only. Recognized institutions are those in which the coarse of study followed is that prescribed or recognized by the Government, or by a university or by a university or by a Board constituted by law and which satisfy one or more of these authorities, as the case may be, that they attain to a reasonable standard of efficiency.

(b) The Academic year in these tables is taken to coincide with the financial year i.e. from April 1 to March 31 of each year. The enrolment figures relate to enrolment as on the 31st March of the year.

APPENDIX V

A NOTE ON SELECTED PHYSICAL INDICATORS

Some physical indicators have been used to the show the developments in the field of education in Chapter III. They have been taken from "A Handbook of Education and Allied Statistics" published the Ministry of Education, Government of India. Some of the Indices used have been explained below :

(i) Gross enrolment Ratio : It measures about what percentage of the total population in the relevant age group is being covered by the various educational programmes being run in the country.

$$\text{Gross enrolment Ratio at stage i} = \frac{\text{Enrolment at stage i}}{\text{Population in the age group corresponding to the ith age}} \times 100$$

Various stages are primary (class I-V), Middle (Class-VI-VIII) and High/Higher Secondary (Class IX-XI/XII). The corresponding age groups for the stages are 6-11 years, 11-14 years and 14-17 years respectively.

(ii) Teacher Pupil Ratio : It is defined as the average number of Students per teacher for a particular type of school eg.

$$\text{Teacher-Pupil ratio for primary schools} = \frac{\text{Total enrolment in primary schools}}{\text{Total number of teachers in primary schools}}$$

(iii) Average number of primary, middle and High/ Higher Secondary Schools compared to its population which is defined as follows :

$$\text{Average number of Primary schools per lakh of population} = \frac{\text{Number of primary schools}}{\text{Total population}} \times 1,00,000$$

APPENDIX VI

DATA CALCULATION

(i) Representation index have been used to identify the underinvested or overestimated regions which can be defined as follows :

$$\text{Representation Index} = \frac{\text{Per capita Expenditure of the state}}{\text{Per capita expenditure of the country}}$$

(ii) The Compound Annual Growth Rate in percentage have been calculated for the expenditure on education and its subsectors in Bihar, Maharashtra and All India. The growth rates were calculated for a period of eighteen years as a whole and also seperately for three periods of six years each. The growth rates have been calculated on the basis of following formula.

$$P_n = P_o \ (1 + r)^n$$

$$= (1 + r)^n = P_n/P_o$$

$$1+r = \sqrt[n]{P_n/P_o}$$

$$r = \sqrt[n]{P_n/P_o} - 1$$

where, r = growth rate

n = number of years

P_n = Current year expenditure

P_o = Base year expenditure.

By taking logarithms the formula taken the following form in percentage terms :

$$\text{Antilog} \quad \frac{\log P_n - \log P_o}{n} - 1 \times 100$$

III. Current year expenditures have been converted into constant prices in order to see the real change. 1970-71 price was taken as the base year. The following formula was used to change the current year expenditure into constant prices.

$$\frac{\text{Base Year Price Index}}{\text{Current year Price Index}} \times \text{Current year Expenditure}$$

Base year Price Index is always equal to 100. Current year price Index with relation to base year was taken for different years from Economic Survey published by the Government of India.

IV. Index numbers were used to denote the percentage change in expenditure on different subsectors over the years. The formula on which Index numbers were calculated are as follows :

$$\text{Index Number} = \frac{\text{Figures of current year}}{\text{Figures of Base year}} \times 100$$

APPENDIX VII

A NOTE ON TREND LINES AND TEST OF SIGNIFICANCE

The trend lines have been drawn to show the change in expenditure on education and its subsectors. Students't' test has been applied to test the significance. The trend line, though based on pattern of regression line, is different from that as it does not say anything about causal relationship. Since it involves time-series data, the origin is generally changed for the sake of convenience. Following is the method followed in tracing the trend lines, referred to in Chapter II. The equation of the Straight line is expressed as $Y = a + bx$, where a is the intercept on the Y axis and b is the slope of the line. Our task is to estimate the values of the parameters a and b for a line which satisfies the properties of best fit, that is :

i) the sum of all vertical deviations from it is zero, and

ii) the sum of squared vertical deviations of each point from this line is the minimum. The data have been arranged in the following manner :

Year	t	y (%age values)	t^2	y^2	ty
1968-69	0	-	-	-	-
1969-70	1	-	-	-	-
	.	.	.	.	.
	.	.	.	.	.
	.	.	.	.	.
1986-87	18	...	-	-	-
	Σt	Σy	Σt^2	Σy^2	Σty

The values of a and b are found as following formulae

$$b = \frac{\Sigma ty - \frac{\Sigma t \Sigma y}{n}}{\Sigma t^2 - \frac{(\Sigma t)^2}{n}}$$

$$a = \frac{y}{n} - b \left\{ \frac{\Sigma t}{n} \right\}$$

and these values are fitted in the equation $y = a + bx$. By finding different values the lines have been plotted.

is the slope coefficient of lines. After that the value of correlation coefficient (r) has been found with the help of fallowing formula

$$r = \frac{\Sigma ty}{\sqrt{\Sigma t^2 \Sigma y^2}}$$

where $n = n - \bar{x}$ and $y = y - \bar{y}$

r can be both positive and negative and so they have been squared. To test the significance of change students 't' test has been applied. Different t values have been observed on the basis of following formula.

$$t = \frac{r\sqrt{N-2}}{\sqrt{1-r^2}}$$

The significance of observed t values have been tested with the help of the table of expected values of t at 5% level for (n-2) degrees of freedom).

B I B L I O G R A P H Y

Adisseshiah, M.S.; Centre-State-University College Partnership in Education, Paper presented in the National Seminar on Higher Education and the Future, University of Bombay; Bombay, 1983 (Mimeo).

Agarwal, J.C.; Development and Planning of Modern Education, Vikas Publishing House, New Delhi, 1982.

_____; Landmarks in the History of Modern Indian Education, Vikas Publishing House, New Delhi, 1984.

Atmanand; Financing of Education in India: A Case Study of Bihar, Commonwealth Publications, New Delhi, 1988.

Azad, J.L., Financing of Higher Education in India, Sterling Publishers, New Delhi, 1975.

_____; Financing of Higher Education in Indian States, (A case study of Andhra Pradesh, Gujrat, Haryana and Orissa), New Delhi, NIEPA, (Mimeo) 1985.

Baker, M.Abu; The Union and the States in Education - A Study in Educational Finance and Planning. Shabd Samachar, New Delhi; 1976.

Basu, D.D.; Introduction to the Constitution of India; Prentice Hall, New Delhi, 1987.

Bhicle, M.Y.; Finance for Education in Profiles of Indian Education, Parle Tilak Vidyalaya, Bombay, 1971.

Bhat, L.S.(ed); Regional Inequalities in India, Society For the Study of Regional Disparities, New Delhi, 1982.

Blaug, M.; "Economics of Education" (Vol.I), Penguin Books, New York, 1968.

_____, An Introduction to Economics of Education, Penguin Books, New York, 1970.

Brimmer, M.A. and L.Pauli; Wastage in education - world problem, UNESCO, Paris, 1971.

Carnoy, H.M. and others, The Political Economy of Financing Education in Developing Countries in"Financing and Educational Development." Proceedings of an International Seminar, Ottawa, May, 1982.

Chelliah, R.J.; 'Inaugural Address' (Summary) Seminar on Mobilisation of Additional Resources for Education, New Delhi, NIEPA, July 1982.

Chinappa, S.Paul; The British System of Education in Indian, Swati Publications, New Delhi, 1988.

Coombs, P.H.; The World Crisis in Education : the view from the Eighties, Oxford; New York, 1985.

Dennison, W.F.; Educational Finance and Resources, Croom Helm, London & Sydney, 1984.

Edding, F.; "International Trends in Educational Expenditure" in M.J. Bowman (ed); Readings in Economics of Education, UNESCO, Paris, 1968.

Harberger, A.C.; "On Allocating Resources to Education", in J.Simmon (ed); The Education Dilemma, Oxford, Pergaman, 1980.

Heyneman, S.P.; Investment in Indian Education - Uneconomic? World Bank Staff Working Paper no.327, Washington D.C. 1979.

James, H.R. and Arther Mathew; Development of Education System in India. Deep and Deep Publications, New Delhi, 1988.

Johnson, H.G.; "Towards a Generalized Capital Accumulation Approach to Economic Development" in Mark Blaug (ed), Economics of Education, Vol. 1, Penguin Books, 1968.

Kalpande, V.A., "Decentralization of Educational Planning in India:The Maharashtra Experience" in Warren Mellor (ed), Micro Level Educational Planning and Management:Case Studies from India, UNESCO, Bangkok, 1987.

Kapoor, M.M.; Quantitative Aspects of Educational Planning, NIEPA,NewDelhi,1981.

Karna, M.N.(Ed.); Studies in Bihar's Economy and Society; Concept Publishing Company, New Delhi, 1981.

Kaur, Kuldip; Education in India (1781-1985) Centre For Research in Rural and Industrial Development, Chandigarh, 1985.

Kothari, V.N.; Returns to Education in India, Meenakshi Prakashan, Meerut, 1967.

Kothari, V.N. and P.R.Panchamukhi, "Economics of Education : A Trend Report in D.T.Lakdawala (ed), A Survey of Research in Economics, Vol.VI, New Delhi, Allied Publishers, 1980.

Majumdar, T., Investment in Education and Social Choice, Cambridge University Press, Cambridge, 1983.

_____, Perspectives for the Finance Commission; Finances of the State Universities; Paper Presented in the Seminar on higher Education, Bombay University, Bombay, (Mimeo).

Mishra, Atmanand; Financing Education in India, Ganga Brothers, Allahabad, 1959.

_____, Educational Finance in India, Asia Publishing House, Bombay, 1962.

_____, The Financing of Indian Education, Asia Publishing House, Bombay, 1967.

_____, Education and Finance, Kailash Pustak Sadan, Gwalior, 1971.

_____, Grants-in-aid of Education in India, Macmillan, Delhi, 1973.

Mukherjee, S.N.; Administration of Education, Planning and Finance (Theory and Practice)Acharya Book Depot, Baroda, 1970.

Naik, J.P., "The Role of the Central, State and Local Governments and Voluntary Agencies" in Indian Year Book on Education, NCERT, New Delhi, 1964.

_____, Education in the Fourth Plan : Review and Perspectives, Nachiketa Publications, Bombay, 1968.

_____, Educational Planning in India, Allied Publishers, New Delhi, 1965.

_____, Elementary Education in India : A Promise to keep, Allied Publishers, Bombay, 1975.

_____, Equality, Quantity and Quality: The Elusive Triangle in Indian Education, Allied Publishers, New Delhi, 1975.

_____, The Education Commission and After, Allied Publishers, New Delhi, 1982.

Nair, K.R.G.(ed.); Regional Disparities in India, Agricole, New Delhi, 1981.

Padmanabhan, C.B.; Mobilisation of Additional Resources for Education : A Case Study of Certain States in India, NIEPA, New Delhi, 1984.

_____, Financing and Equality of Opportunity in Education with Special reference to U.P. and Kerala, NIEPA, New Delhi, 1986.

_____, Inter-state variations in Financing of Education : A Regional Dimension, NIEPA Occasional Paper, New Delhi, 1986.

_____, Economics of Educational Planning in India, New Delhi, Arya Book Depot, 1971.

_____, Financial Management in Education, Select Book Publishers, New Delhi, 1984.

Panchamukhi, P.R.; Economics of University Finances, Centre For Multi-Disciplinary Research, Dharwar, 1977.

_____, "Educational Finances in a Federal Framework", Paper presented in the Seminar on Mobilisation of Additional Resources for Education, NIEPA, New Delhi, 1982 (Mimeo).

Panchamukhi, P.R.; Economics of Education - A Trend Report' in Third Survey of Research in Education (1978-83) M C Bach (ed), NCERT,1987.

Pandit, H.N. "Investment in Indian Education : Occasional Paper No.42. International Institute for Educational Planning, Paris,1976.

Psachoropoulos, G.; Returns to Education - An International Comparison, Elseiew Scientific Publishing Company, Amsterdam, 1973.

_____; Higher Education in Developing Countries - a Cost-benefit Analysis. Staff Working Paper No.440, World Bank, Washington D.C., 1980.

_____, Jee-Peng Tan and Enmanuel Jimenez; Financing Education in Developing Countries: An Exploration of Policy Options, The World Bank Washington D.C. 1986.

Rao, V.K.R.V.; "Centre-State Relations in Education" in S.N.Jain (ed), The Union and the States. National, Delhi, 1970.

Report of the Seminar on Resources for Education, Maharashtra State Council of Education Research and Training, Pune, Aug.1988.

Report of the Fourth All India Educational Survey. NCERT, New Delhi, 1982.

Report of the Bihar State Seminar on Educational Planning & Administration, Patna, Jan20-24, 1970, NIEPA,New Delhi,1972.

Rizvi, F.H.; Financing of Higher Education in less Developed countries. Aligarh Muslim University, 1960.

Saini, S.K., Development of Education in India : Socio-economic and Political Perspectives, Cosmo Publications, New Delhi,1980.

Schiefelbein, Erneso; Educational Financing in Developing Countries; Research Findings and Contemporary Issues, International Development Research Centre, Ottawa, 1983.

Schultz, T.W.; Investment in People, Hindustan, Delhi, 1981.

Shah, K.R. and S.Srikantiah; Education, Earnings and Income Distribution, Criterion Publications, New Delhi, 1984.

Singh, Baljit (ed); Education as Investment. Meenakshi Prakashan, Meerut, 1967.

_____, (ed) Economics of Indian Education, Meenakshi Prakashan, Meerut, 1982.

_____, "An Approach to Union-State Financing Relations in India in the Contact of Educational Planning" in G.S.Sharma (ed) Educational Planning, Indian Law Institute, New Delhi, 1967.

Sinha Ramashis; The Economics of Education - A Case Study of Bihar, Orient Longman Ltd., Calcutta, 1982.

Tilak, J.B.G., Centre-State Relations in Financing Education in India, NIEPA occasional Papers, New Delhi, 1984.

_____, Educational Finances in India, NIEPA, New Delhi, 1985.

_____, Economics of Inequality in Education, Sage Publishers, New Delhi, 1987.

_____, Education and its Relations to Economic Growth, Poverty and Income Distribution : Past Evidence and Further Analysis, World Bank Discussion, Papers No.46, Washington D.C. 1989.

_____, (ed.) Education and Regional Development, Yatan Publications, New Delhi, 1986.

_____ and Verghese, Resources for Education in India; NIEPA Occasional Papers, New Delhi, 1983.

Vaizy John; The Costs of Education, George Allen and Unwin Ltd., London, 1958..

Veeraraghavan, J. "Non-Plan Resources for Education: the Role of Finance Commission, Paper published in the Seminar on Mobilisation of Additional Resources for Education, NIEPA, New Delhi, 1989 (Mimeo)

_____, and C.L.Sapra; Trends in Educational Expenditure in India - A Regional Analysis, UNESCO, Paris, 1982.

JOURNALS

Arrow, K.J., "Higher Education as a Filter". Journal of Public Economics,2,1973, pp. 193-216.

Azad, J.L.; "Academic and Financial Management of Higher Education". University Administration, Jan-Dec., 1975 p.1-20.

_____, "Financing Institutions of Higher Ecucation in India : The need for a Realistic Fee Policy " Higher Education, 5(1) Feb, 1976.

Dougharty, C. and G. Psachorapoulos, "Measuring the cost of Misallocation of Investment in Education." Journal of Human Resources (Fall) 1977, p 146-159.

Eidle, J.H., "Financing Education in Developing Countries." Comparative Education 7/2 (November) 1971.

Fields, G.S., "Allocation of Resources to Education in Less Developed Countries." Journal of Public Economics, 3/2 (May) 1974, p.133-143.

Nautiyal, K.C. "Education as a Concurrent Subject" Journal of Indian Education 8/2 July,1982 p 26-32.

Padmanabhan, C.B. "Financing of Indian Education", Journal of University Education 5(2), Dec.7,1976, p.84-87.

_____,"Financial Aspects of Indian Educational Administration with Special Reference to University Education," Education Quarterly 29(1) April, 1977.

Pandit, H.N; "Financing of Education in India", Economic and Political Weekly, Special Number August, 1972.

Sarup, Anand; Resource Allocation and Planning for Development. Mainstream, Annual Number, October 18,1988, p.53-57.

Schultz, T.W.,"Investment in Education: The Equity Efficiency Quandry", Journal of Political Economy, 80, No.3 (Supp: May/June),1972,p.2-30.

_____, "The Rate of Return in Allocating Investment Resources to Education". Journal of Human Resources, 2, No.3 (Summer) 1967, p.293-309.

Schultz, T.W., "Investment in Human Capital", American Economic Review 51, 1961, pp.1-17.

Sharma, O.P. and Robert D. Rutheford, Recent Literacy in India, The Economic Times Jan 2,1988.

Tilak J.B.G. "Investment in Education", Eastern Economist, Annual Number, 1980.

_____, "On Allocating Resources to Education" Margin 17/3, October, 1983.

_____, "Inter-state Disparities in Educational Development" Eastern Economist, 73/7 (July 20), 1979, p 140-146.

_____, "Investment Decision making in Education and the Internal Rate of Return" Indian Journal of Industrial Relations, Vol.16(3) Jan.1981, p.357-377.

_____, "Political Economy of Investment in Education in South Asia" International Journal of Educational Development. 6/3, 1986, p 209-214.

DOCUMENTS

Government of India, Ministry of Human Resource, Development, Department of Education, Analysis of Budgeted Expenditure on Education, various volumes.

_____, Report of the Education Commission (1964-66).

_____, Selected Educational Statistics, Various Volumes.

_____, Expenditure on Eduation as shown in Centre and State Annual Budgets, various volumes.

_____, Education in India, various volumes.

_____, A Handbook of Education and Allied Statistics, 1987.

_____, Trends of Expenditure on Education (1968-69 to 1978-79), New Delhi,1980.

_____, Challange of Education - A policy perspective. August, 1985.

Government of India, Planning Commission, All Five Year Plan (Vol. I & II) papers.

_____, Finance Commission Reports, 1973, 1978 and 1983.

Government of Bihar, Planning Department, Annual Plan (Different Years).

Government of Maharashtra, Department of Planning, Annual Plan (Different Years).

NCERT, Fourth All India Educational Survey, 1973.

NIEPA; Some Selected Indicators of Educational Development in India, New Delhi, 1984.

NIEPA, Basic Education Data, 1988.

OECD, Educational Financing and Policy Goals for Primary Schools, Country Reports, Vol I, II, III, 1979.

Reserve Bank of India Bulletin, November, 1985.