An Analysis of Public funding for Higher Education in India in Post Reform Era

A Case Study of Rajasthan

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Certificate

This is to certify that the research work embodied in this thesis entitled **"An Analysis of Public funding for Higher Education in India in Post Reform Era: A Case Study of Rajasthan"** has carried at the Centre for Economic Studies and Planning, School of Social Science, Jawaharlal Nehru University, New Delhi. This research work is original and has not been submitted in part or full for any other degree or diploma of any university.

(Ashok)

We recommend that this thesis be placed before the examiners for the evaluation for the award of a Ph.D. degree of this university.

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ABBREVIATIONS

AICTE	All Indian Council for Technical Education
BCI	Bar Council of India
BPL	Blow Poverty Line
CAGR	Compound Annual Growth Rate
CCH	Central Council of Homeopathy
CCIM	Central Council of Indian Medicine
CoA	Council of Architecture
CoV	Coefficient of Variance
DCI	Dental Council of India
DEC	Distance Education Council
FRBM	Fiscal Reform and Budget management
GDP	Gross Domestic Product
GFD	Gross Fiscal Deficit
GoI	Government of India

GSDP	Gross State Domestic Product
HDI	Human Development Index
IGNOU	Indira Gandhi National Open University
IMF	International Monetary Fund
IMR	Infant Mortality Rate
INC	Indian Nursing Council
MCI	Medical Council of India
MHRD	Ministry of Human Resources Development
NAAC	National Assessment and Accreditation Council
NCTE	National Council for Teacher Education
NPE	New Economic Policy
NSDP	Net State Domestic Product
NSSO	National Sample Survey Organotin
PCI	Pharmacy Council of India
RBI	Reserve Bank of India
RCI	Rehabilitation Council of India
SBC	Special Backword class
UGC	University Grants Commission
UNDP	United Nation Development Programme
VCI	Veterinary Council of India
WTO	World Trade Origination

CHAPTER -1

INTRODUCTION

Introduction

Demand for higher education continues to outpace the supply due to growing population of young people, gains in school education, the growing middle class, and its rising aspirations. Public funding has increased across countries in absolute terms, as a percentage of GDP, but only in a few cases there has been increase in per student public expenditure. However, it is a fact that higher education in India is severely under-funded, which is corroborated in a recent study by Tilak (2004). He found that with the increasing enrolments in recent years, there has been a decline in per student expenditure in higher education. This decline has been drastic in the 1990s. There is another estimate that this decline is at 28 per cent points over a 12 year period from the year 1990-91 to 2002-03(Agarwal, 2009).

More recently, Tilak (2015) argues that in view of decrease in public expenditure on higher education in India, the theme of privatization of higher education is unavoidable, but at the same time conferring knowledge, equity and democratic rights is equally important. Since 1990 the government policy towards higher education has been pro-private. There is confusion whether private education at large scale will be good or bad. But this laissez-faireism or non-intervention by the state is not very clear in terms of its objective. In a way, it is absence of any policy rather than non-intervention by the state. The privatization of economy in India in the early 1990s became an essential component of neo-liberal policies, which was suggested by the World Bank and International Monetary Fund (IMF) an inevitable option. In the present context, it is very unfortunate that due to neo-liberal policies privatization has not just remained an instrument or strategy to develop higher education, but has become the goal in itself.

Chattopadhyay (2015) has also pointed out that the New Economic Policy (NEP) implemented in1991 has two components. First, Structural Adjustment Policy (SAP) associated with World Bank and secondly, Stabilization Policy advocated by IMF. SAP stresses on private sector and marketization, while Stabilization Policy advocates controlling the fiscal deficit. However, for a developing country like India, equity is equally important.

Public expenditure on social sectors like health and education was not getting the required budget. Policy makers, he argued, should treat the social sectors differently. As per an analysis done by Agarwal (2006), nearly 50 per cent of the higher education expenditure comes from private sources in India. Although private funding of higher education affects the supply, public funding still has a major role in supply of higher education because of the social responsibilities of a welfare state.

1.1.1 Research Question

Public funding of higher education has been changing in response to changing economic policies; it has affected the enrolment in higher education over the years from 1991 to 2010. The pattern of change in public funding of higher education in all Indian states has not been the same. Different states have their own problems of financing. Apart from the policies, capacities of different states for public funding for higher education are different, which depends on the income and fiscal condition of the state concerned. It may be hypothesized that the allocation of public fund on higher education in different states may be different during the period 1991 to 2010.

Therefore, it is logical to study the pattern of public funding for higher education with respect to income and fiscal constraints of respective states since 1991 with a view to understand their performance. How the public funding for higher education affected by the income, fiscal conditions and policy of the state? How the patterns of this funding varied state- wise in the period under study? Have the disparities amongst the different states in public funding of higher education increased during this period and to what extent the allocation of public funding has affected the enrolment of the students? As part of the policy of a welfare state, public funding of education in general and of higher education in particular, aimed at ameliorating the condition of historically disadvantaged groups, such as Scheduled Castes, Scheduled Tribes, and Other Backward Classes, minorities and women. It will be important to examine the impact of changes in policy to fund higher education by the state on the enrolment of these social groups during this period.

Why Rajasthan?

Generally, greater degree of privatization in higher education has been observed in richer states where per capita income is higher. However, in Rajasthan, despite having low per capita income, there is very fast increase in enrolment in private higher educational institutions since 2002. It is not very clear why there is preference for private education in a poor state like Rajasthan. Therefore, it is essential to understand the pattern of public funding for higher education after 2002 and its effects on enrolment of different social groups (SC, ST, OBC, minorities and women) in public and private sector institutions in Rajasthan.

Since higher education is a public good, if only private sector operates in higher education it may not be able to maximize the output which is socially optimum. Due to market failure, missing market and asymmetric information, the output will be less than the social optimum. In this case, government intervention becomes justified. But the story does not end here. Higher education should be in public sector but it is not the ultimate solution to resolve all problems. Public sector may fail due to policy failure or corruption. Public sector may fail to achieve the aims of higher education. The objectives or goals of higher education are:

(i) to transfer the existing knowledge to new generation and produce new knowledge for future requirements of the society for its long run interest, and

(ii) to produce excellence.

The most important objective of higher education is expansion of frontiers of knowledge. Many societies gives very high value to knowledge, as knowledge itself was viewed as wealth. Contemporary psychologists and sociologists argue that higher education is an instrument for expanding intellectual horizons, personal development, empowerment of individuals and enhancing the quality of life (Tilak, 2005).

But which student will be the excellent we do not know. We can only provide equal opportunity to everybody who wants to get higher education. Therefore, we have to expand the capacity of higher education in inclusive way to give the equal opportunity to everybody. This expansion requires huge finance. Who should finance the higher education for this expansion? Now, there is a dilemma, public v/s private finance who can serve the long run interest of the society and who will work for only profit maximization, short run interest, and self-interest? There are many opinions about this dilemma.

Financing of higher education has many sources, like state finance; charitable and philanthropic non-governmental household expenditure, fees, student loans and voluntary contributions; profit-seeking non-governmental; etc. (Tilak, 1993)

Self-finance and private unaided institutions become major source of finance and are dominating especially in technical and professional education. Since resources are limited, expansion of higher education needs more finance. Should we allow private finance for this required expansion? If we think in broader terms about financing for higher education, ultimately it is the nation that has to pay for higher education, whether it is paid by private or public or by both the sectors. If it is paid by public sector, this is collected from citizens of the nation and spent for higher education; then, it is a redistribution of income. If it is paid directly by parents and students; then, it is called private finance. If it is paid by private and public sector both jointly; then it is called public private partnership. Who finances and who manages the system is very important for expansion, excellence, equity, and inclusiveness of the higher education system.

Why public funding is essential for higher education? To promote the fundamental academic research, which is not directly marketable, but it is crucial for long run development of the society. Professional and technical courses, research, and development in technology are directly marketable, but fundamental academic research is not marketable in short run while it is important basis for future development in long run for the society.
Only public funding can nurture such type of non-marketable academic research for development of fundamental research. Research in subjects like, physics, philosophy, archaeology, history, and literature are not marketable directly. However, these are also important for society's long run interest.

1.1.2 Growth of Private Institutions in India

The post-1990 period saw the emergence of new types of providers of higher education in India. During this period, the private institutions proliferated; the distance education programmes gained wider acceptance; the public universities and colleges started self-financing programmes; and foreign institutions started offering programmes either by

themselves or in partnership with Indian institutions; and the non-university sector grew rapidly.

In the post-1990 period, a few institutions were set up by religious and charitable trusts of repute for philanthropic purposes. Most other higher education institutions were set up by individuals or family groups. These were not financially dependent on the government and came to be known as private unaided institutions. According to Altbach (2005 b) such family-style higher education institutions are a part of a worldwide trend. In such institutions, the family members remain directly involved in the administration, governance, financial control, and direct and/or indirect ownership of the institution. These are de jure not-for-profit institutions; however, most of such institutions in India exhibit several characteristics of the private-for-profit institutions as elsewhere in the world. Such institutions are often referred to as self-financing institutions. For the sake of convenience, we shall call then 'private' institutions as distinct from 'public' institutions that will include both government as well as private aided institutions.

1.1.3 Worldwide Higher Education Reforms and Privatization

The emergence of a global economy due to increased trade, investment and mobility of people, and more recently, work across borders has forced nation states to adapt their systems of higher education to the changed global realities. Rather than continuing with their inward looking policies, several countries are reshaping their systems of higher education for making them globally competitive. Pragmatism, rather than ideology, is driving this change.

The United States of America (USA) has major plans for investment in higher education. The United Kingdom (UK) has injected new dynamism in the higher education sector through competition and incentives. China has undertaken a package of comprehensive reforms in higher education for over the past two decades. The government in China has declared education, science, and technology to be the strategic driving forces of sustainable economic growth. In contrast to the developments in the above-mentioned countries, India is still basking in the glory of some of its initial success centring on the Information Technology (IT) sector. Although some amount of success in the IT sector can be attributed to the government policy, most of it is for other reasons such as:

(i) a large population base with sizeable numbers having English language skills,

(ii) innate abilities of the Indians with their good analytical skills that came in handy in modern economy and

(iii) success of a few institutions that promoted merit and attracted very bright Indian students.

With the opening of the Indian economy, the entrepreneurial spirit of the Indians was unleashed. The new breed of entrepreneurs saw a big opportunity in meeting a huge unmet demand for job-oriented education and training.

This resulted in a huge expansion of private higher education and training sector in the country. However, instead of embracing the growth of private higher education, the public policy has been apologetic about it. One often sees conflicting signals coming from government reports and pronouncements. The financing of higher education by the government has been marginal, which remains at less than half a per cent of GDP despite often heard statements made by the government to increase it to 1.5 per cent. The expenditure per student has declined rapidly over the years. Accountability mechanisms in the higher system are in disarray. Unlike many other countries, one does not see a clear direction for change in the higher education system in India. Despite the fact that the USA has the finest system of higher education in the world, it has set up a commission to examine the future of higher education recently (in September 2005). The mandate of the commission is to ensure that America remains the world's leader in higher education and innovation. For this purpose, the USA intends to make an investment of US $134 billion in higher education over the next ten years.

In the UK, higher education is primarily in the public sector. Faced with problems of deteriorating standards due to inadequate funding and failing accountability, a number of innovations in financing of higher education, such as the performance-based funding for teaching and research and portable students' aid etc. were introduced during the last decade. This helped the UK higher education to regain its place as one of the best systems of higher education in the world. In a politically sensitive and a tough decision, the UK government has now allowed the universities to compete for students and charge variable fees, bringing an end to the regulated fee regime in the UK (Agarwal, 2009).

Reforms in higher education in China were initiated along with other economic reforms when China decided to become a market economy in the year 1978. Prior to that, higher education was in the public sector. There was no tuition fee. The government also took care of living expenses of the students. Since then, the system of higher education in China has radically changed. The concept of cost-sharing and cost recovery was introduced in the early years of reforms. Tuition fees have now been made compulsory. The higher education institutions in China were expected to diversify their revenue sources and, therefore, they were allowed to have affiliated enterprises (Sanyal and Martin, 2006).

Higher education in China received an increased financial allocation from the government along with an increased support from alternative sources. With massive expansion in enrolment, the average funding per student was not allowed to be reduced. Through a national legislation in 2002, China proactively involved the private sector to contribute and invest in higher education. That has paved way for a very rapid growth of higher education in China. With a view to nurture excellence, a selective approach in public funding was adopted. In 1993, special financial allocations were provided for China's top 100 institutions to upgrade them to international standards. In the year 1998, an even higher-level funding was provided to nine top universities to make them world class.

In 2003 in an integrated package for reforms in higher education, the government in Australia decided to increase funding support for higher education and significantly enhance provision for subsidised loans and scholarships for students. The higher education reform package in Australia includes areas as diverse as teaching, workplace productivity, governance, student financing, research, cross-sectoral collaboration, and quality (Commonwealth of Australia, 2003).

1.1.4 Global Experience

There is rich and varied global experience with private higher education. Among the 78 countries of which information has been gathered by the programme for Research in Higher Education (PRORHE), India's level of private enrolment exceeds 55 cases and trails behind just 22. If the private sector is loosely defined to include private aided institutions, then private share in India is one of the highest in the world. It is seen that while countries in East

Asia and Latin America have high private share, even countries from the erstwhile Communist bloc have significant private share. The emerging economies such as South Korea, Taiwan and Malaysia have rapidly increased enrolment in higher education through private participation. Only a few countries in Europe, such as Germany, United Kingdom, and France have low private share. The small Nordic countries like Finland have no private higher education at all. Higher share in terms of number of institutions than enrolment share for all countries suggests that size of private institutions is usually small.

Interestingly, private share in India exceeds that in the United States. In the United States, 77 per cent of the US students receive education in 92 public university out of the 100 largest ones. In India, a majority of large universities and colleges are public. Major private universities occupy all but three or four of the top 25 slots in most rankings in the US. Thus, the private research university appears to be held in especially high regard in the US and around the world. In India, no private university so far has the profile of a world class research university, even though a few new ones aspire to achieve that status.
In most countries, private growth occurred outside government planning, even catching the government and others by surprise (Levy, 2006). But it is increasingly common for the governments today in Asia, Eastern Europe and now even in Africa and the Middle East also to acquire a rationale for private access.

1.2 Objectives

We want to analyse the public funding for higher education for the major Indian states and a case study of Rajasthan. These are the following objectives which we want to posit in our study. The interstate variations in the period under study, the different aspects of public expenditure on higher education, and relation between per capita income and extent of privatization will be examined with respect to the policy regarding higher education of the respective state.

The various indicators of public expenditure on higher education such as its relations with state budget, state income (NSDP) and their growth rates, fiscal conditions of the respective states are evaluated to examine the interstate variations to know the determinants of public expenditure on higher education.

How the disparities are across the different state varied in public expenditure on higher education and other related aspects such as sate income (NSDP), per capita income, per student expenditure, enrolment, etc. will be investigated.
Since we are making a case study of Rajasthan, we will attempt the comprehensive analysis of higher education enrolment and public expenditure on higher education for the state of Rajasthan.

The growth rates of various aspects of public expenditure on higher education, like per capita expenditure, per student expenditure and, proportion of state plan and non-plan expenditure for the period under study will be investigated.

The level of access and disparities among different social groups (SC, ST, OBC, Minorities and Women) in higher education in Rajasthan in view of public financing for higher education will be studied.

Finally, from the point of view of the pro-privatization policies relating to financing, enrolment in public and private institutions of Rajasthan, and such other affirmative policies to reduce social disparities will be examined.

1.3 Hypotheses

Based on the above objectives, we posit following 3 hypotheses to be examined in our study:
After 1990s, due to pro-privatisation policy regarding higher education the higher education system in Indian states is changing towards more privatisation.

The public expenditure on higher education is not increasing according to the growth rate of the state income (NSDP) among the Indian states after 1990s.

Disparities among the Indian states are increasing in different aspects of public expenditure on higher education and enrolment than the per capita income of the states, after 1990s.

In the state of Rajasthan, because of pro-privatisation policy of the state on higher education the public expenditure on higher education is lagging behind the enrolment in higher education. The affirmative policy of the government for the weaker sections of the society (SC, ST, OBC, Minorities and women) is not enough to meliorate their condition in higher education, the inequities in the enrolment of weaker sections in public and private institutions have increased.

The above hypotheses are then applied to examine in the higher education in Indian states in general and Rajasthan in particular.

1.4 Methodology

1.4.1 Study Area

For the analysing of public expenditure on higher education across the Indian state, we have taken fifteen major States as classified by erstwhile Planning Commission of India. Other states belong to either special Category State or minor State, which are not comparable with major States. Thus the study of these fifteen states represents almost entire India. As from 1990-91 the New Economic Policy (NEP) has implemented in India, the present study covers the period from 1990-91 to 2009-10 for the purpose of above-stated analysis.

Scope of the Study in the Case of Rajasthan:
For the case study of Rajasthan the data about enrolment related to higher education are taken from the office of the Director College Education, Rajasthan. Only 10 years segregated data are available for gender-wise, category-wise and management-wise (Public and Private) are available. The study will be limited to general higher education only. It will not include technical and professional education.

Our study is limited to the only affiliated colleges of the state. We are not taking into account the University departments of constituent colleges. Only the colleges affiliated to Higher Education Department of the State are studied. The segregated enrolment data are available only for the affiliated colleges. The year-wise data related to university departments and constituent colleges are not fully available. We have estimated some data and found that in

the year 2004-05, the enrolment in University Departments and their constituent colleges was 8.59 and in the year 2012-13 it was 12.88 per cent of the total enrolment in the state. Even without this data we are able to catch the major part of total enrolment of the higher education system.

We are not including the enrolment in private universities in our study because no data available about the enrolment in private universities. There were only 4 private universities in the year 2006-07 in the state, which gradually increased and in the year 2012-13 their number rose to 34. Although the number of private universities is very high as compared to public universities, the total enrolment in private universities is only a small fraction of total enrolment in the state, because they cannot affiliate any college. Sometimes their own colleges have to be affiliated to public sector universities.

Most of the private universities are completely engaged in professional and technical education. A very few private universities are engaged in general higher education but their share of enrolment in general/liberal education is very small and negligible. Since our focus is only on general higher education, we are not taking into account the State Universities which are exclusively imparting technical and professional education like Medical University, Agricultural University, Technical University, etc. There is a central university in the state, but its enrolment is also a very small proportion of the total enrolment of the state, and we are going to study the state government expenditure on higher education. Therefore, we are not including it in our study.

We have studied the period from 2002-03 to 2012-13 because before this period, detailed and segregated data of enrolment are not available to fulfil our requirements of study. For the year 2011-12, the data regarding enrolment are not available. We have segregated data pertaining to government and government aided colleges as well as private un-aided colleges. We have considered government institutions and government aided institutions in Public Sector category, because both are financed by the government. Only un-aided institutions are considered in Private Sector category. All these data are segregated into different categories (ST, SC, OBC, and Minorities), gender wise, and management-wise (Public and Private).

1.4.2 Data Sources

For Inter-state analysis secondary data has been used from deferent sources. For Net State Domestic Product (NSDP) at current price and constant price, State budget expenditure and interest payment and revenue expenditure in state budget of deferent states has been taken from *RBI Hand Book of State Finance* for various years. NSDP data are available on deferent base years which have been converted into the same base year of 2004-05. Expenditure on Higher Education, Secondary Education and Elementary Education are taken from the *Analysis of Budget Expenditure on Education* published by MHRD for deferent years. Data on current price converted into constant price by state-wise deflator. The population data of deferent states has been taken by the census of India and year-wise data interpolated by decadal data. Data related to enrolment in higher education are taken by UGC year book of deferent years.

Since the separate data related to enrolment in higher education in private and public sector institution are not available, only a Higher Education Survey 2012 published by MHRD gives the separate data for public and private enrolment in higher education in different state.
For the case study of Rajasthan the data about enrolment related to higher education are taken from the office of the Director College Education, Rajasthan. Only 10 years segregated data are available for gender-wise, category-wise and management-wise (Public and Private) are available. The study will be limited to general higher education only. A small number of numbers of colleges will be surveyed to know the internal operation specially the private ones, with regard to quality of education salary of teachers, admission policy etc.

1.4.3 Research tools

Growth rate analysis and various other univariate and bivariate statistical tools are used for the analysis of public expenditure on higher education and enrolment of the different Indian States in general and Rajasthan in particular. NSDP data are available on deferent base years which have been converted into the same base year of 2004-05. Data on current price converted into constant price by state-wise deflator. The population data of deferent states has been taken by the census of India and year-wise data interpolated by decadal data.
Tabulation and chart has been used to compare the different parameters of different states. Coefficient of Variation, Coefficient of Correlation and Compound Annual Growth Rate (CAGR) are also used to compare the state-wise different parameters. All calculations are made by using excel software.

CHAPTER -2

REVIEW OF LITERATURE

As per New Policy on Education (NPE) 1986 "the essence and role of education is in our national perception, education is essential for all. This is fundamental to our all-round development, material and spiritual. Education has an acculturating role. It refines sensitivities and perceptions that contribute to national cohesion, a scientific temper and independence of mind and spirit - thus furthering the goals of socialism, secularism and democracy enshrined in our constitution". The education is a unique investment for present and future research and development, which is crucial for the supply of man power for national self-reliance.

The Universal declaration of Human Rights (1948) of the United Nations did include higher education as an important human right though qualified in contrast elementary education as an absolute human right. Keeping this tenet our New Policy on Education (NPE) 1986 envisages education is fundamental for acculturation, national cohesion, scientific temper, democratic values, and all round material and spiritual development.

2.1 Historical Perspective

2.1.1 Ancient Period

In ancient India there were many famous universities like Nalanda, Takshashila, Vallabhi, etc. These were the most honoured and glorious institutions of higher education, which were famous not only in India, but also all over the world, especially in China and Middle Asia. These institutions were the first generation universities which were completely different from the modern universities (Tilak, 2010a). The evolution of the system of education prevailed in India since ancient times because the society considered it its primary obligation and imparted it in different ways in different periods. Learning in ancient India was imparted by the teachers at a Gurukul which functioned as a domestic school, where the children's

learning was developed by the Guru who gave personal instruction which was primarily the privilege of the upper castes and was normally imparted orally.

With the growth of urban centres and trade during the Mauryan and the post-Mauryan periods, the Indian society was dominated by the mercantile community, which played an active role in providing education. The knowledge of mining, metallurgy, carpentry, weaving, dyeing, architecture, astronomy, etc. was also evolved.

In the Gupta period, the Jain and Buddhist systems of education assumed a different dimension. Learning began from the oral method and reached the reading of literary texts. The monasteries had libraries where important manuscripts were copied and stored. Students from other countries like China and South-East Asia came to the Buddhist monasteries for education. The monasteries were normally maintained by grants from kings and the rich mercantile class. The subjects taught included Vedanta, philosophy, Puranas, epics, grammar, logic, astronomy, philosophy, medicine, etc Sanskrit language was the medium of instruction. In post-Gupta period art and education made great strides at all levels; education was given in temples and monasteries and higher education in universities called '*Ghatikas'.* Colleges attached to the temples emerged as new centres of learning which provided Brahmanical education. Entry to these temple colleges was open only to the upper castes. Education became the privilege of only the uppermost sections of the society (NIOS, 2016).

2.1.2 Medieval Period

With the establishment of the Delhi Sultanate, Islamic system of education was introduced. Education in medieval India was designed on the lines of the Islamic tradition. They developed institutions that provided school education known as '*makltabs',* while those of higher learning were called '*madrasas'.* The main feature of the Muslim educational system was that it was traditional in spirit and theological in content. It introduced the study of philosophy and logic in the curriculum at a later stage.

The Mughal period made immense contribution to the field of learning and education. The Mughal emperors had great love for learning and they contributed more to the field of

spreading education through Pathshalas, Vidyapeeths, Makatabs and Madarsas. Akbar gave grants to educational institutions. He started a college near Jama Masjid. At that time education was not dependent on the state. Generally, the temples and mosques were the centres of elementary education. They were dependent on the donations given by rulers, rich men, and donors. Sanskrit and Persian were taught in temples and mosques respectively. There was no provision for women's education. The women of the royal and rich families got education at home. During the Mughal regin learning of literature in Urdu as a language which emerged out of Persian and Hindi. It also introduced the study of mathematics, astronomy, and geography in the '*madrasas'* in Delhi. This helped in reducing the bias in the existing education system. Many Hindus learnt Persian and a number of translations from Sanskrit to Persian were made. Subjects like accountancy, public administration, geometry were taught. A workshop was built by Akbar near his palace during his reign and he introduced secular and scientific system of education disliked by the orthodox sections but his efforts ushered in a change which continued for centuries.

As in other aspects of social life in India, many of the traditional features of the preceding centuries had continued in the field of education. The old famous centres of higher learning had disappeared; Islamic education, on the other hand, flourished subsequently under the patronage of rulers and nobles. However, the majority of the Hindu population continued to receive education of older tradition of Sanskrit (NIOS, 2016).

2.1.3 Colonial Period

The British, who were involved in trade and conquest in India, introduced a widespread style of elementary education and higher education. For about 150 years, they maintained a distance from all kinds of cultural activities including education. The beginning of oriental scholarship was made by Warren Hastings in 1781, when he started Calcutta Madrasa. His endeavour was primarily due to administrative reasons. Eleven years later, in 1792, Jonathan Duncan, a Resident of Varanasi started a Sanskrit college to educate native Hindus to assist the Europeans while Christian missionaries were making efforts to introduce Western education by providing education to the more humble sections of the society, including the so-called untouchable castes.

The first half of the nineteenth century can be called a period of educational experiments. The East India Company's Charter Act of 1813 enabled the Company to set aside one lakh rupees for "the revival and improvement of literature and the encouragement of learned natives of India and for the introduction and promotion of knowledge of sciences among the inhabitants of the British territories in India". A debate ensued between the Orientalists and the Anglicists which was finally settled by Macaulay's Minutes and Bentinck's Resolution of 1835. It was decided that this fund of one lakh rupees would be utilised to promote European literature and sciences. William Bentinck adopted English as the official language of the government. Lord Harding in 1844, decided to grant employment to those Indians who had received English education. Wood's Despatch of 1854 underlined the objective of educational policy which was the diffusion of "the improved arts, sciences, philosophy, and literature of Europe" through English or other modern Indian languages as the medium. The Despatch suggested that Universities should be set up in Bombay (now Mumbai), Madras (now Chennai), and Calcutta (now Kolkata). It emphasized the development of private enterprise, a system of grants-in-aid, training teachers in the schools, women's education and so on. In 1857, the Universities of Bombay, Madras, and Calcutta were established. The Universities of Punjab and Allahabad were established in 1882 and 1887 respectively.

In 1947-48 there were 20 universities where approximately 2 lakh students were enrolled. The geographical distribution of these universities was highly unequal. In the beginning of the 20th Century, i.e. in 1901, Lord Curzon convened the conference of Directors of Public Instruction which began an era of educational reforms based on its decisions. In 1904, the Indian Universities Act was passed that enabled the Universities to assume teaching, inspection of colleges and undertake measures for qualitative improvement in higher education. Under the Colonial Rule, mass education was neglected and the attempt was to create urban educated élite that would act as interpreters between the rulers and the ruled. The examination system was emphasised in both high schools and Universities. The impact of English education was not even. Literacy and education were more widespread in towns than in villages. Its positive aspect was that it produced a breed of educated political leaders and social reformers who played important roles in the freedom struggle of the country (NIOS, 2016).

The modern western education system was not appropriate to the Indian requirements. The new modern western education supplanted the pre-colonial traditional Indian educational

system which had new language, new curricula, and new objectives. It had been developed according to the requirements of the colonial power, their prejudices and their requirements. The Indian education policy supported the imperial economic interest which considered India a raw-material-producing country and market for the finished products of Britain. In the long run this new education system had completely destroyed the traditional indigenous education system (Dharampal, 1993).

These new universities which were considered to be planted were alien for India. They were never replicated in our own design and they could not be. Either London or Oxford or Cambridge could not be replicated in Indian condition (Basu, 1991).

Indian universities could borrow the basic structure from outside, but they could not adopt their soul and the originality on which the University of London was modelled. In Indian universities, there was strict control by the government as against Britain, where universities were autonomous. Because of this strict control Indian universities could not develop up to the mark. In higher education, there were many students enrolled in science and technology, but they were completely neglected by policy makers. The whole system was highly exclusive where the access was limited to the élite only.

Some national universities like Banaras Hindu University, Aligarh Muslim University, and JamiaMilliaIslamia, etc. were established by social and political leaders. Mahatma Gandhi also established some universities like Gujarat Vidyapith, Kashi Vidyapith, etc. for different objectives. Rabindranath Tagore established a new type of university called Vishvabharati which was based on the concept of mixed culture of Europe and India (Tilak, 2010a).

2.1.4 Development in the Era of Liberalisation

Indian economy has been facing global challenges since 1991, when new Economic Policy (NEP) was introduced; economy has become more integrated with world economy. Higher education has become more important because it generates knowledge which becomes an integral part of human capital. This knowledge embodies human capital, which has become an essential input for economic growth and development to face global challenges. Indian economy has been changing towards knowledge economy. We have, on one hand, the policy

of promoting privatization and, on the other hand, fiscal constraints of the government, both of which are adversely affecting the growth of public funding for higher education.

Kumar (2014) has enlisted the summary of recommendations of different committees and commission of post-1991 committees on education as follows:

"1992: Justice Punnaya Committee on Higher Education:
It recommended that Universities/Colleges should strictly adhere to strict financial discipline. It [has] suggested that failure to comply be punished and strict adherence be rewarded. It suggested that the institutions augment resource availability. For instance, there should be 100per cent tax rebates for investment purposes. Further, it suggested that student funding be based both on merit as well as social and economic considerations.

"2000: Birla-Ambani Committee (Chairperson: Mukesh Ambani/Deputy: Kumaramangalam Birla):
Its major recommendations were that the government should spend more on primary/secondary education and less on higher education. It said that Higher Education is a private good, so it should mostly be in the private sector and especially the professional and applied courses should be left to the market. To promote growth of higher education, it asked that FDI be allowed in Higher Education. Further, there should be a Private Universities Bill to promote them.

It suggested a grading system (ranking[s]) for the educational institutions. It felt that this would give students choice. That there could be severe information asymmetries for the students and the families and they could be taken for a ride was ignored. They suggested a rating system like for financial products.

"2006-07: National Knowledge Commission (2 Reports). (Chairperson: Sam Pitroda):
The main recommendation is to bring in private players in education in a major way without worrying whether the objective of 'inclusion' would be fulfilled or not and without understanding the reasons of failure of the education system as it exists or suggesting how privatization would help in overcoming them. Its underlying assumption is that the Indian Education System can't be revamped so new structures have to be created. It has suggested setting up of 1500 more Universities through conversion of the best colleges into universities,

setting up of 50 Inter-disciplinary National Universities and so on. It suggests an Independent Regulatory Authority of Higher Education (IRAHE) in place of UGC/AICTE, etc.

It argues, [the] government has failed to expand Higher Education in India because of lack of resources and inefficiency and corruption. There is a need for increase in public funding and diversification of sources of funding, including selling of land. It has suggested privatization of quality and development of rating system (also recommended by Birla-Ambani Report). NKC criticized the prevalent practice that if Universities augmented resources by a certain amount the UGC would reduce budget allocation to that university by the same amount as it left no incentive for universities.

"It has proposed a mechanical incentive system, like in business and argued for salary differentials and bonuses for teachers. Whether these incentives work in academia or not is of little concern to the Commission.
It has suggested Gross Enrolment Ratios in higher education to be raised from 11 per cent to 16 per cent. It also suggested that deserving students be encouraged through scholarships and affirmative action.

"2008: Anwar Hooda Committee:
Its major recommendation was that salary structure of teachers be revised to overcome shortages and institutions be allowed to make profits so as to encourage the entry of private players.

"2009: Yashpal Committee (UGC Reform and Restructuring Committee):
Set up in response to the recommendation made by the National Knowledge Commission for the abandonment of [the] UGC. Set up to look into ways to reform and restructure UGC in the present context. Quality of education is difficult to define, as are the inputs as well as the outputs of education. There is a fear that loose definitions of quality would make private players resort to cost-cutting techniques and become diploma granting factories rather than citadels of learning.

"11th Five-Year Plan Proposals:

By 2012, the expenditure on education is to go up by 8.5 times and new institutions are to be created: 16 IITs, 6 IIMs, 1600 Engineering Colleges, 2000 Medical Schools, 1700 Teacher Training Institutes, and 2600 Professional Colleges."

2.2 Access and Equity in Higher Education

Rudolph, Lloyd et al. (1970) note that after independence, the biggest outcome of expansion of higher education is decline in its quality. There is rhetoric about this decline in quality but no empirical analysis is done. The traditional logic is that higher education system has been expanded at a very fast rate but not the secondary education system. Therefore, the students who are taking admission in colleges are not fully prepared for that. Also, there are the first generation literate students who are taking admission in higher education.

With respect to access to higher education, Nayyar (2007) says that it is highly unequal among different nations as well as people within nations due to difference in social and economic opportunities. Higher education is the most suitable tool to create capabilities among people in the globalised and integrating world. Earlier, land, natural resources, labour-efficiency, capital accumulation, and technical progress were the sources of economic growth and prosperity but now social progress and knowledge are the important conditions for that. In future, the problem of have and haves-not's will be changed into the gaps between those who have more knowledge and who have less knowledge. Market forces and globalization do not allow us to shape our higher education, therefore, we ourselves should prepare our own agenda to get the benefits of opportunities and defend ourselves from the dangers of market and globalization.

The concept of equity in universities is generally misunderstood by intellectuals. They have big differences in public opinion and their private opinion. If all the intellectuals of India are divided in two groups, say egalitarian and non-egalitarian, obviously the egalitarians will be in high majority. The people who are successful and are on high posts will privately claim that treatment of equality is against the nature because the ability and intelligence is not distributed equally among the people. Indeed, the logic of equality is not understood correctly, rather it has been analysed in a wrong manner. Those who privately believe in natural inequality, publicly they support the normal logic of equality (Beteeilie, 2005). The question of caste discrimination and merit in higher education have been analysed in

independent India. The conclusion is that we should think about our requirement, which is to develop an appropriate system which helps in the creation of social capital as well as to help the deprived section of the society to integrate with the upper class in sustainable manners (Deshpande, 2006).

The logic for the OBC reservation is to enhance their ratio in higher education. No doubt, it is essential to increase the ratio in higher education so that employable skill flourishes so as to fulfil the aspirations of the skilled people in an environment of fast-increasing economic system, although it is applicable to society as a whole and not for the OBC only. The important point here is that to fix the reservation quota in higher education for any section of the society is not the solution to this problem. We should pay attention to school-level education and invest more resources for that, so that larger part of the population can get the fundamental education and ultimately all the sections of the society can get admission to higher education. To extend the reservation in higher education, the attention of the society and the resources will be diverted into wrong direction and moreover it will change the pyramid of education in wrong direction (Sundaram, 2006).

Kapur and Mehta (2004) observe that after 1992-93 per student real public expenditure on higher education has declined in India. Due to self-financing institutions in higher education equity and access are adversely affected. Equity and access can only be provided through public education system. They also refer to the NSSO, 52nd round (1995-96 survey) which shows that enrolment of students from the poorest 40 per cent households in government funded and managed educational institutions is only 9.9 per cent and in the case of private institutions it shrinks to 5.8 per cent only. It is found that higher education is concentrated among better–off households. Due to the different costs of higher education, the access of higher education is concentrated in well–off only in both government funded and private institutions. Anand Krishnan (2006) finds that only one fourth of the total private educational institutions genuinely work as public trusts or charitable societies, which are committed to educational excellence and serious in their responsibility.

Srivastava and Sinha (2008) have examined the relative accessibility of higher education. They find that SC, ST, and OBC have less access to higher education in ascending order in comparison to others, irrespective of their religion: Hindu, Muslim, Sikh, Christian, or Buddhist. Females have less enrolment in all these categories. For wage labourer households

the enrolment rate is found low. In rural areas also the enrolment rate is low across all categories.

The major findings of Ajith and George (2009) regarding the extent of privatisation and access of higher education system in Kerala are as follows:-
(i) in recent years higher education system has shifted from inclusive; to exclusive more than 80 per cent of engineering colleges, nursing colleges, nursing schools, and pharmacy college are working under self-financing stream; more than one-fifth of medical stream, i.e. allopathy, ayurveda and homeopathy college also self-finance; 45 per cent of general education, i.e. arts and science colleges are also under self-financing stream;

(ii) public expenditure was at high level when growth of SDP was low. The share of revenue expenditure out of SDP on education was 4.8, 6.1, and 3.3 per cent in 1970-71, 1980-81 and 2004-05 respectively.

2.3 Financing of Higher Education

Bhushan (2009) examines the public expenditure on higher education since 1980 and concludes as follows:

Pattern of public expenditure in higher education constitutes two important phases. A phase from 1951 to 1980 is a high growth phase of public expenditure and the second phase from 1980 to 2004 is a low growth phase of public expenditure in higher education. The compound annual rate of growth of central plan and non-plan expenditure in the former phase has grown at 17 per cent but it has declined sharply to 10 per cent in the second phase. The compound annual rate of growth of state plan and non-plan expenditure in the former phase has grown at 15 per cent but it has declined sharply to 11 per cent in the second phase. Thus the decline in the rate of growth of public expenditure by the centre has been much sharper in comparison to the decline in the rate of growth of public expenditure by the state. The former phase in the growth of public expenditure was a high growth phase in spite of the fact that the rate of growth of GDP was much lower in the former phase at 3.35 per cent as compared to the 5.42 per cent of growth of GDP in the second phase. The latter phase is, therefore, the phase of deceleration of public expenditure of higher education

An important point to observe is the contribution of the centre and the state in the financing of higher education. The trend since 1950 provided an interesting picture. So long as education was under state list till the 42nd amendment in 1976, the central government increased the share in the financing of public expenditure on higher education. The centre contributed 37 per cent in the total financing of higher education in 1965-66, thereafter even though education was put under concurrent list in 1976 thereby placing greater responsibility upon the centre, the share of the public financing of higher education went on declining. The share of the centre to the public financing of higher education declined to 19 per cent in 2003-04. The centre's declining share is one of the important reasons for the deceleration in the public funding of higher education. States were constrained by fiscal shortages and they found it difficult to invest in plan funding to improve the quality of higher education.

In nominal terms per student public expenditure in the year 2003-04 for elementary, secondary and higher education stands at Rs. 2162, Rs. 6852, and Rs.12518 respectively. The trend analysis shows that the increase is not that marked if we consider the growth in enrolment. In fact the nominal per student public expenditure in higher education has gone up only by 40 per cent period during 1993-94 to 2003-04.However, in real terms per student public expenditure on higher education declined from Rs. 8961 in 1993-94 to Rs. 7117 in 2003-04. In elementary education, the public expenditure per student has increased from Rs. 825 to1229 only during the same period. In secondary education public expenditure per student has remained almost static during the period at little below Rs. 4,000. The breakup of plan and non-plan expenditure on education is equally important to understand the role of the centre and the state. It may be noted that on an average during 2002-05 the central plan and non-plan expenditure per student amounts to only 7 per cent and 13 per cent respectively, whereas the state plan and non-plan expenditure per student amounts to around 5 per cent and 75 per cent respectively. Thus, the total plan expenditure of the centre and states constitutes only 12 per cent. The bulk expenditure is on account of non-plan expenditure. It is important to note that there has been a consistent decline in the planned resources per student for higher education.

According Kumar at al. (2005) to as a result of economic liberalisation in India the share of developmental expenditure from total expenditure of the State is declining, especially the expenditure on education and health is declining at a faster rate. Expenditure on higher

education and budget processes are determined by the whims and vagaries of the policy makers. Again, it becomes very complex when the government the frequently changes its priorities.

The share of expenditure on higher education in 1990-91 budget of the government of India was 20.6 per cent, which declined to 16.6 percent in 1996-97 and as a share of GDP it was 0.46 percent which remained 0.37 percent in 2003-04 (Sharma, 2005). According to a Government of India report (2007), the quality of education is deteriorating not only due to insufficient funds but also due to change in its composition. At present, 75 per cent of the total expenditure on higher education is spent on salaries and maintenance only, 10 to 15 per cent share is spent on development activities.

Agarwal (2009) observed that more and more public funding is good for the betterment of higher education. It is estimated that 1 per cent of the public funding (the same is contributed by private finance also) of GDP in India is not low. Per student expenditure as a percentage of per capita GDP is 95 but the absolute amount of per student expenditure is very low. Therefore, for a better higher education system, mere finance is not sufficient. The government policies, innovative ideas, social changes and reforms are also, important. Also the government strategic intervention is essential with private finance.

Ved Prakash (2007) argues that the state should increase the funding for expansion of higher education. Public funding for higher and technical education is insufficient and has been decreasing for one and a half decades. The public funding is lagging behind in comparison with the enrolment and the real unit cost has fallen at a very fast rate since 1990s. Because of slow down in public funding and increasing demand for higher education the quality of higher education is also suffering.

Kumar (2004) and Majumdar (1997) comment that it is a faulty argument that expenditure on elementary education and that on higher education both are competitive against each other. Indeed, both have an order and have strong relationship. They should not be considered in isolation. Higher education provides the administrators and educators to elementary and secondary education. On the other hand, a person can be eligible to get higher education only after completing elementary and secondary education. Kumar (1987) argues that for healthy development of the higher education system, it should be autonomous, accountable and

democratic. The system accountability should be for long run interest of society rather than educational bureaucracy. System of mechanical productivity is not application to higher education.

Tilak (2016) analysed the interstate variations of expenditure on higher education for the year 2009-10 and his major findings are as follows:

In state-wise per capita expenditure on higher education a wide variation is found. Per capita expenditure on higher education is highest in Goa (INR 14646), followed by Tamil Nadu (INR 13101). Bihar and Uttar Pradesh are economically back-ward and spend very less on higher education in terms of per capita expenditure, but Maharashtra and Punjab also spend less amounts, INR 1091 and INR 2732, respectively. Chhattisgarh spend higher amounts than Gujarat, Maharashtra and Punjab. The coefficient of variation is high, 0.63 there is not much relationship between economic development of a state and its expenditure on higher education. Tamil Nadu and Madhya Pradesh spend highest proportions 1.5 and 1.3 per cent respectively. In Jharkhand, Maharashtra and Uttar Pradesh this proportion is less than 0.2 per cent. Interstate variation in higher education expenditure in terms of share of GSDP is quite high. In terms of share of expenditure on higher education out of total education budget a wide variations can be observed. Among the major states, Chhattisgarh, Rajasthan and Himachal Pradesh it is very low i. e. less than 8 per cent. In Andhra Pradesh, Goa and Haryana it is more than 20 per cent. For a good quality higher education system in the country and balanced regional development, the interstate variations in public expenditure on higher education should be reduced A minimum proportion of government expenditure should be spent on higher education and different items of higher education as a norms at both national and state level.

2.4 Gaps in the Existing Literature

Any broad and comprehensive study on public expenditure on higher education of the period of time (1991-2011), with reference to enrolment, finance and disparity among Indian states could not be found. Although many studies have been made about all India experience on public expenditure on higher education, we could not find any state-wise study on this subject and for this period.

All the earlier researchers studied different aspects about the financing of higher education public sector v/s private sector. Access to higher education (Gross Enrolment Rate) at all India level and state level disparities among different social groups (SC, ST, women, religious groups, poor and non-poor, etc.) have been studied. Therefore, in all these studies census and NSS data were used, which are not year-wise data.
Public funding for higher education has been analyzed for different years for all India level. State-wise public funding and disparities on higher education are also studied for particular year (2002-2003). It is not studied for year-wise data and with respect to enrolment rate and per capita income.

The public expenditure on higher education analysed by Tilak (2016) for the year 2009-10 only, so interstate variation explained for that particular year only. After 1990s a drastic change has been observed in economic policies related to higher education. What is happed in this whole period, in terms of public expenditure is not clear by this study. Disparities among the state also analysed through coefficient of variation, but it also limited for that particular year only. Again it is limited to expenditure on higher education only. This study does not take into account the enrolment rate, per student public expenditure and extent of privatization of enrolment. Therefore, it is essential to understand the whole gamut of public expenditure on higher education by analysing the all above mentioned aspects, from 1990s. It will make clearer the interstate variations across the time.

The interstate variations in public expenditure on higher education can be explained with respect to fiscal conditions, per capita income, growth rate of state income (NSDP) and above all the policy of the respective state regarding higher education. Similarly, the disparities among the state in the public expenditure on higher education can be explain with respect to the disparities in the state income (NSDP), total budget expenditure as a share of NSDP, etc.

The state specific study is done by Ajith and George (2009) for the state of Kerala. They found that higher education system is moving towards privatization. Share of enrolment in private institution has increased drastically, particularly for professional and technical coursed. Public expenditure on higher education as a share of State Domestic Product is also declined after 1980-81 to 2004-05. In this study the changes in the proportion of different weaker sections of society (SC, ST, OBC and Minorities and women) are not examined.

What is the policy of the state government for these weaker sections? How weaker sections are protested from the negative effects of privatization of higher dedication system is not examined in their study.

Kapur and Mehta (2004) observed in all India level study that poor students have less access to private institutions. Due to increasing number of self-financing institutions in higher education equality and access are adversely effected. For comprehensive understanding the public expenditure on higher education and its outcome in terms of enrolment should be seen with respect to the resent of privatization growth in state income, fiscal conditions of the state. All these should be examined through state-wise variations and how the disparities among the states are varying. At the same time, in state level study public expenditure on higher education privatization in enrolment should be seen with respect to equality and access of different social groups (SC, ST, OBC, Minorities and women).

Bhushan (2009) examined the public expenditure on higher education since 1951. Apart from financing he attempted some other important issues related to higher education like growth, quality, foreign universities in India, FDI in higher education, reforms, governance, etc. On the issue of financing he analysed the growth rate of public expenditure on higher education by central and state governments. Contribution of central and state governments in financing higher education has been compared since 1951. Per student public expenditure on higher education in nominal and real terms has been studied from 1993-94 to 2003-04. He found that in nominal terms it has gone up but in real term it declined during this period. He concluded that due to neo-liberal policies of the government, public funding for higher education has decelerated since 1980. He evaluated other aspects related to financing higher education such as tax to GDP ratio, crowding out public expenditure for higher education, access and expansion, quality, excellence, etc.

But in his study state-wise variations in these issues related to higher education are not attempted. Although in this study central and state financing for higher education has been studied but, expenditure of the entire states are taken jointly. It has not taken separately for each state. Because each state has different fiscal conditions, per capita income and above all, different policy regarding higher education, they cannot be studied jointly. Here the policy is more important. It may be possible that a state may spend more on higher education even when its fiscal conditions are under stress. At the same time some other state may spend less

even when its fiscal conditions are sound. It depends on the priorities of the state for higher education and other heads of expenditure like elementary education, secondary education, health and other developmental expenditure. These all depends on the policy of the state concerned. Extent of privatisation is also depends on the policy of the state.

Obviously, policy is a political question, but other non-political aspects like fiscal conditions, per capita income, etc. also limits the expenditure on higher education. Out of total enrolment in higher education in India more than 80 per cent enrolment comes under the state government. Both the central and state governments are concurrently responsible for funding higher education. The share of central government in funding higher education in 1956-66, 2003-04 and 20009-10 was 37, 19.4, and 35.5 per cent respectively (MHRD). Thus state governments have always greater contribution in funding higher education. Therefore, whenever we study public funding for higher education, it becomes essential to analyse the state-wise funding.

The gaps exist as far as Rajasthan is concerned enrolment of different social groups in higher education in public and private institutions with respect to public funding are not studied earlier. Generally, greater degree of privatization in higher education has been observed in richer States where per capita income is higher. However, in Rajasthan, despite having low per capita income, there is very fast increase in enrolment in private higher educational institutions since 2002. It is not very clear why there is preference for private education in a poor state like Rajasthan. Therefore, it is essential to understand the pattern of public funding for higher education after 2002 and its effects on enrolment of different social groups (SC, ST, OBC and, women) in public and private sector institution in Rajasthan.

In the proposed study:

We want to analyse the public funding for higher education in Indian states in general and for Rajasthan in particular. We would like to study the disparities in public funding for higher education, enrolment in higher education with respect to per capita NSDP among different major states from 1991 to 2010. We would also like to explore the reasons for these disparities.

The interstate variations in the period under study in different aspects of public expenditure on higher education like, per capita income and extent of privatization will be examined with respect to the policy regarding higher education of the respective state.

The various aspects of public expenditure on higher education such as its relations with state budget, state income (NSDP) and fiscal conditions of the respective state are evaluated to examine the interstate variations to know the determinants of public expenditure on higher education. How the disparities are across the different state varied in public expenditure on higher education and other related aspects such as sate income (NSDP), per capita income, per student expenditure, enrolment, etc. will be investigated.

Since we are making a case study of Rajasthan, we will attempt the comprehensive analysis of higher education enrolment and public expenditure on higher education for the state of Rajasthan. The various aspects of public expenditure on higher education, like per capita expenditure, per student expenditure, plan and non-plan expenditure for the period under study will be investigated. The level of access and disparities among different social groups (SC, ST, OBC, minorities and Women) in higher education in Rajasthan in view of public financing for higher education will be studied. The pro-privatization policies relating to financing, enrolment in public and private institutions of Rajasthan, and such other strategic policies to reduce social disparities will be examined.

CHAPTER 3

THEORETICAL FRAMEWORK

Our objective is to study the public funding of higher education among the Indian states. For this purpose, it is essential to contextualise the subject of study in theoretical frame work. In the theoretical framework, we have gone through the relevant aspects of theory of economics of education in three broad areas i.e. education as public versus private good, public versus private funding of education and neo-liberal frame work of education market. All these aspects are reviewed market for education but particularly for higher education. In our study we are dealing with the determinants of the public funding for higher education, privatisation and its effects on market and quality of education. The theory belong to to nature of good, nature of market is important to understand the rational for public or private funding for higher education. We are also dealing with the effects of privatisation policy on inclusiveness and access of weaker sections of the society, it became important to review the theoretical view of neo-liberal framework. The Chapter is divided into three Sections.

In the Section 3.1 we have discussed the nature of education (good): public versus private. In this Section we examine the theory related to public and private good and where education stands, particularly higher education. In Section 3.2 we have pondered the public versus private funding for higher education and discussed the different arguments in favour and against the public funding, then accessed the arguments. In last Section 3.3, we discussed the theoretical framework of neo-liberal policy to understand the New Economic Policy (NEP) and liberalisation policy of the government. It will help to comprehend the public expenditure policy of the government for higher education and theoretical rational for privatisation policy.

3.1 Education: Public versus Private Good

To know the nature of market, it is essential to address what kind of good/service higher education is. Technically speaking, higher education should be considered a mix good or a quasi-public good (Musgrave and Musgrave, 1989; Marginson, 2007), that is, a private good

with positive externalities which accrues to society as a whole. Although this task of categorization of higher education as a public good or a quasi-public good is delicate, subjective and often emotional, it has profound policy implication (Chattopadhayay, 2012).

For the higher education to qualify as pure public good, two important characteristics need to be satisfied: non-rivalry in consumption and non-excludability. Higher education fails to satisfy both these criteria. Often eligibility requirement needs to be complied with for taking admission in institutes of higher education and credential certificates are given to successful candidates, who pass the examination and comply with the norms of the institutions for being considered successful candidates. Therefore, it is rivalry in admissions and exclusion is easily enforceable for higher education. Higher education or training for skill development is not exactly akin to private service either which can be bought and sold in the market. Paying for the service does not entitle a student to a degree, rather it has to be earned or acquired (Majumdar 1983).

Stiglitz (2000) describes that some goods are pure public, some are pure private and others are in between them as follows:
Pure public goods have two properties:
(1) Perfectly non-rival consumption
(2) Non-excludability

Non-rivalry in consumption means the marginal cost of providing it to an additional individual is strictly zero, and non-excludability means the cost of excluding an individual from consuming the good is prohibitively high.

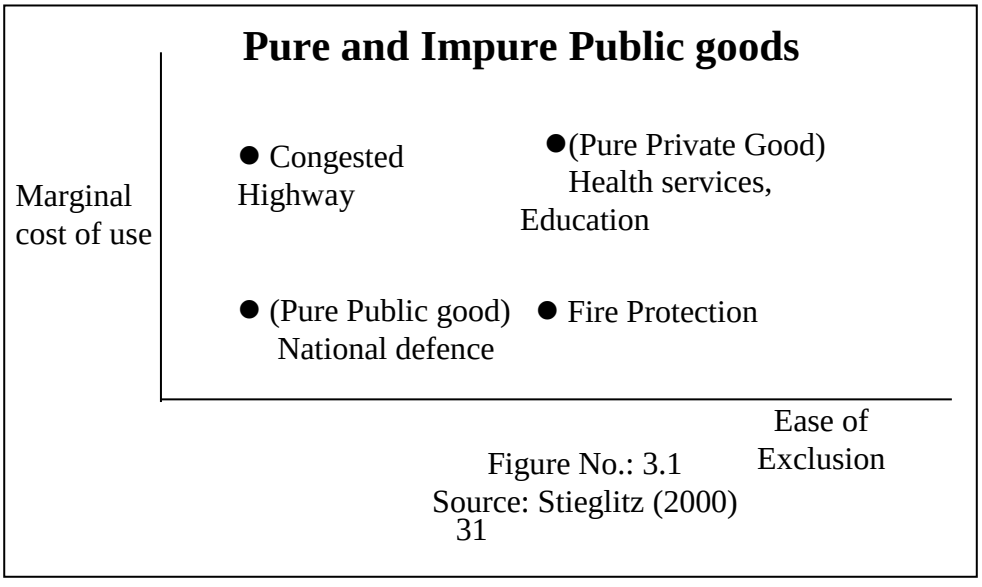


Figure No.: 3.1
Source: Stieglitz (2000)

Many goods are not pure public good but have one or other property of public good to some degree as shown in the figure 3.1

Externalities as impure public goods:

Pure public goods have the property that if one individual purchases more of it, individuals' consumption of that good increases by the same amount. (Individual may, of course, differ in how much they value the increased consumption).

Pure private goods have the property that if one individual purchases more of it, others are (at least directly) unaffected. Goods for which there are externalities in consumption, have property that others are affected, but not necessarily in the same amount. Externalities can thus be viewed as a form of impure public goods (or perhaps better stated, public goods can be viewed as an extreme form of externalities).

Education is a publicly provided private goods:

Publicly provided goods, for which there is a large marginal cost associated with supplying additional individuals are referred to as publicly provided private goods. If the number of students enrolled double, cost will roughly be double. Stiglitz (2000) considers education as a publicly provided private good, because it is rival and excludable for seats are limited in educational institutions, particularly in privately funded ones. Therefore, education can be bought and sold in the market just like any other private good.

Education is consider as a public good and higher education as quasi-public good. Higher education is neither a pure public good, like national defence or clean environment, nor a pure private good, like food or clothing. There is no rivalry in consumption of a pure public good, and individuals may not be willing to pay for it. Those who pay for cannot exclude those who do not pay for from receiving benefits (Samuelson 1954).

Sanyal (2012) discusses the nature of education. According to him, education is partly public good and partly private good. A student can be excluded for not paying fees. But, at the same time, the more the students are educated, the better society, we get the benefits of which cannot be held away from anyone. In public good market, producers know the cost of production, but the buyers do not reveal how much they can pay or how badly they need the good. In such a condition, therefore, private firms produce lesser than social optimum.

Merit Goods Merit Bads:

Stiglitz and Walsh (2010) presents merit goods and merit bads as follows:

Some government activities do not correct market failure nor redistribute income. Rather, they impose social values on individuals to compel or induce them to do more of some things and less of some others. Government tries to discourage consumption of drug and encourages education. These merit goods (and bads) need to be distinguished from externalities: no one else may be harmed by someone smoking marijuana, however many governments prohibited it. Even moderate drinking or cigarette smoking may have an adverse effect only on the drinker or smoker, yet government still discourages the consumption through high taxes. In these instances, government intervene with the general principle of consumer sovereignty, which holds that consumers are the best judge of what is in their own interest, and promote their own well-being. The government acts paternalistically. Many economists believe that government should limit such behaviours to its oversight of minors-few object to compulsory education requirement for children, but many questions arise, such as whether government should dictate what adult should or should not do, so long as their actions do not cause harm to others.

A merit good is defined as good preferred by the community as a whole, and meant for societal benefit without any reference to individual choice (Creedy, 1995; Musgrave and Musgrave 1989), and it is more a matter of paternalistic choice implying that the government knows better than the individuals, what is good for them. Musgrave and Musgrave (1989) define the merit good as the commodity, which gives priority to the collective choice of the community, rather than the individual choice, and it has the public interest. It has the paternalistic approach, which considers that the government knows better than the individual about public interest (Creedy, 1995). Higher education is considered a quasi-public goods or mixed goods, because it has the characteristics of both public and private goods. It is demanded by students because they get private benefit. At the same time, it has the characteristics of positive externalities for the society (Musgrave and Musgrave, 1989; Srivastava et al, 1997).

Srivastava and Rao (2004) categorized the higher education technical good as merit good and non-technical good as non-merit good. Merit goods are the goods which have the characteristics of positive externalities (Srivastava et al, 1997).

Srivastava and Bhujanga Rao (2004) classify the merit and non-merit goods as follows:

Merit Goods and Services: Elementary education, Public health, Sewerage and Sanitation; Welfare of SCs, STs and OBCs; Labour, Social Welfare, Nutrition, Soil and water conservation; Environmental forestry and wildlife; Agriculture research and education; Flood control and drainage; Roads and bridges; Space and oceanographic research; other scientific researches; Ecology and environment meteorology.

Non-Merit Goods and Services: Education, (other than elementary education) sports, arts and culture; Medical and family welfare; Water supply and sanitation; Housing, Urban development, Social security and welfare; other social services, Agriculture and allied activities; Cooperation, Rural development, Special area programmes, Irrigation, Power, Industries, Transport, Civil supplies and other economic services.

Although this classification has been criticized by many scholars, Srivastava et.al. (1997) defines merit good simply as a good with positive externalities. It is disconcerting to note that the 'Discussion Paper on Government Subsidies in India' (1996) brought out by the GOI identifies higher education as a non-merit good. By doing so, it defies the entire body of empirical evidence and endogenous growth theory literature, that higher education generates substantial externalities and influences growth (Chattopadhayay, 2007).

Report on Central Government, Ministry of Finance in 2004 categorized education (other than elementary education) as merit-II good. The report further recommended that merit-II goods should be given lower subsidies than merit-I goods. These categorization runs into contradiction both with empirical evidences and theory, as higher education generates positive externalities, although the degree may be different. Humanities and social services (non-technical education) are equally essential. The idea to include these as non-merit good reflects a lack of perspective and understanding of art, culture, and society and their linkage with experience and technology. This idea thus has negative implication for society and higher education (Chattopadhayay, 2007).

Credence Goods:

In education market, because of asymmetric information, the buyer has less information about the product that he is going to purchase (D'Souza, 2004). In economic literature, it has been shown that asymmetric information arises due to the nature and characteristics of commodities. There are three types of commodities that have been described. First,

commodities, about which we know the nature and characteristics before we purchase. We have to search only the minimum price, like petrol, text-book, orange, etc. Secondly, Experience Goods: the goods, about which the characteristic and nature could be known only after we purchase them, like wine, old car, etc. In these commodities, the seller has complete knowledge about the nature of the commodity, but not the buyer. Thirdly, Credence Goods: those goods, the nature and characteristics of which cannot be fully known even after the consumption, like surgery done by a surgeon, legal advice, etc. There is big asymmetry in the information; therefore, we have to trust on the service-provider.

Education is credence goods, and therefore market for this commodity also fails. Thus, education is more complex than credence goods and it has several complexities. To go to and eat in a restaurant is something completely different from going to a university for education, because in a restaurant there is no restriction regarding ability and qualification of the buyer. A student is not a passive agent, rather s/he is an active co-producer. A teacher is not a mere information provider, but s/he has a bigger role. S/he also provokes the thoughts of students and provides a new understanding to them (D'Souza, 2004).

Positional Good:

Because of the job market's consideration on the brand value of a college with the college or university one attends determining in society hierarchy his/her social prestige and apposition, education is being often argued as a positional good. (Chattopadhyay, 2013)

Market Failure

Stiglitz (1999) describes the market failure as markets failing to produce efficient outcome. The fundamental theorem of welfare economics says that the economy is Pareto efficient only in certain circumstances or conditions. There are six important conditions under which markets are not Pareto efficient. These conditions are referred to as market failure, and they provide a rational for government activity. The six conditions are as follows:

1. Imperfect competition
2. Public goods
3. Externalities
4. Incomplete markets
5. Imperfect information

6. Unemployment and other macroeconomic disturbances

All the above mentioned market failures are not mutually exclusive, rather they are interrelated.

Designing of Programmes and Government Failure:

Stiglitz (2000) explains government failure as follows:

Even when there is agreement about what government should do, analysts often disagree on how it should be done. Take for instance, the problem of pollution- the government can tax those who pollute, it can regulate pollution, or it can subsidize actions that abate pollution. Or consider education, at the elementary and secondary level, the government provides free public education to all; it is a producer. But at university level, education is not free to all. Instead government subsidises those who choose to go to public university and colleges, and provides grants to low income individuals to go to any university or college- public or private. A variety of consideration go into making these choices.

As it often happens, when government is an inefficient producer it makes more sense for it to provide the money to individuals, who can make purchases from the more efficient producers. In the case of higher education, the government improves the access of those from poor or disadvantaged backgrounds by offering educational grants to individual rather than by providing the education itself. Such grants to individual students are more controversial when it comes to elementary or secondary education.

Stiglitz (2000) explains how and when government fails to attain the goals of policy as follows:

Under what circumstances would government programmes not work well? Were the failure of government programmes accidents, or did they follow predictably from the intrinsic nature of government activity? Are there message to be learned for strategy of programmes in the future? There are four main reasons for the systematic failures of the government to realise- its stated goals: the government's narrow information, its limited control over private reactions to its actions, its limited control over bureaucracy, and the limitation obligatory by political process.

1. Limited information: The result of many actions are complicated and difficult to predict. The government did not expect the precipitous increase in expenditure on medical

care by the elderly that followed the adoption of the medicare programme. Often government does not have the information required to do what it would like to do. For example, there may be common agreement that the government should help the disabled, but those who are capable to work should not get a free ride at public expense. Nonetheless, limited information on the part of government may prevent it from differentiating between those who are really disable and those who are pretending.

2. Limited control over private market reaction: The government has only limited control over the consequences of its actions. For example, government failed to anticipate the fast increase in health care expenditure after the adoption of Medicare Programme. One reason for this is that government did not directly control the total level of expenditure. Even when it fixed prices such as for hospital care and doctors services it did not control utilization rates. Under the fee-for-service system, doctors and patient decide how much and what kind of services are provided.

3. Limited Control over bureaucracy: Parliament and State design legislation, but delegates' implementation to government agencies. An agency may spend substantial time writing exhaustive regulations; how they are drafted is critical in determining the effects of the legislation. The agency may also be responsible for ensuring that the regulations are enforced. For instance, when the parliament passed the Environment Protection Act, its intent was clear to ensure that industries did not pollute the environment. But the technical detail for instance, determining the admissible level of pollutants for different industries were left to environmental protection agency. In many cases, the failure to carry out the intent of the parliament is not deliberated but rather a result of ambiguities in parliament's intentions. In other cases, problems arise because bureaucrat lacks appropriate incentive to carry out the will of parliament.

4. Limitation executed by political process: Even if government were perfectly informed about the consequences of all possible actions, the political process through which decision about the actions are made would increase extra problems. For example, representative has incentives to act for the benefit of special interest groups, if only to raise funds to finance increasingly expensive campaigns. The electorate often has a panchayat to look for simple solutions to complex problems; their understanding of the complex determinants of poverty, for example, may be limited.

Government Intervention:

Stiglitz and Walsh (2010) present reasons for government intervention in the economy as follows:

1. To correct market failures: market failures such as externalities provides a rationale for government intervention, which aims at improving economic efficiency.
2. To pursue equity: Market outcome, even when they are efficient, might fail to satisfy social standard of equity. Government may intervene to redistribute income.
3. To promote and discourage merit goods and bads: sometimes government imposes social values, by mandating the consumption of merit good (education) and prohibiting the consumption of merit bads (illicit drugs).

Arguments in Favour of Government Intervention:

Even if the economy were Pareto efficient, there may be very unequal distribution of income. Government intervention become very important for income redistribution. Goods that government compels individuals to consume, like seat belts and elementary education are called merit goods. Government knows what is better for individuals than they do themselves in their best interest, this view is called paternalism.

What are the causes why government plays a big role in education? Why education is publicly provided and publicly financed? Education is not a public good. The marginal cost of education for an additional child is far from zero, indeed, the marginal and average costs are (at least for large school districts) approximately the same. And there in no technical difficulty in charging individuals for use of this service.

Those who seek to justify public education in terms of market failure, emphases on the importance of externalities. It is often claimed that these are significant externalities associated with having an educated citizenry. A society in which everybody can read functions far more smoothly than a society in which few can read. But there is large private return to being able to read, and even in the absence of government support, many individuals would learn this and other basic skills. Indeed, most individuals would go for beyond then the question is, given the level of education that individuals would choose to undertake privately if there was no government subsidy, would the further increase in education generate any important externalities?

There is no agreement concerning the answer but the case for government support based on these kinds of externalities – at least for advanced industrial economics like United States – seems, at best, approved.

Higher education generates numerous externalities. Social benefits that arises from higher education goes much beyond the mere increase in GNP. Irrespective of who get the higher education and who does not, the whole society get the benefits of higher education through externalities such as improvement in health and income distribution, reduction in poverty, population growth and crime, rapid adoption of new technologies, strengthening of democracy, ensuring civil liberties etc., and even dynamic externalities (Schutz. 1988, Romer, 1986, 1990; Lucas 1988) and 'technological' externalities (Behrman, 1990). Positive externalities like technical progress and economic growth that limits diminishing marginal returns are important to justify the role of state in higher education (Nerlove, 1972) "It is necessary to provide free education at all levels and also to subsidize students' living expenses in post-secondary schooling so as to guarantee equality of educational opportunity" (Blaug and Woodhall 1979, P 352).

As Arrow (1993) observed, asymmetric information and imperfect capital markets justify. In many developing countries markets are 'incomplete' and credible market do not exists (Joseph Stiglitz). Education credit markets are also incomplete (Kodde and Ritzen 1985). In education credit market lender may be reluctant to accept risk which is dependent on future income of debtor (Arrow 1993). Education sector is subject to increasing returns to scale. In higher education scientific equipments, libraries, etc, cannot be used in small scale. Therefore it is more efficient for the government to provide it (Colclough 1996).

Balance Between Public and Private:

Problems when only Public Sector Produces:

Production only by the government is not a good solution. Only a few goods such as defence, the police, etc. should be produced by the government because these goods have extra-economic considerations. In general, the government has poor records as a producer of public goods. It is not only inefficient but also ineffective. Since the people who takes the decision in government may be motivated by self-interests rather than public-interest, it may lead to

government failing to do the right things. It is not correct that everywhere and always governments are bad. But the government procedures work against efficient production. The government should intervene as a provider but not as a producer. The government should raise the funds for public goods and get these produced by private producers (Sanyal, 2012).

Apart from these there are many other problems that can arise if only the government produces public goods, then the government becomes the only employer of professionals. So the salaries, benefits, and work conditions tend to stagnate. It reduces the incentives for joining of efficient professionals, after a generation. The quality of service deteriorates because the lack of competition and mechanism to set incentives for quality. Further, as demand increases with population growth, the expansion of facilities is not automatically driven by demand as in private system. It waits for bureaucratic procedures and creates a big gap between demand and supply. On the demand side there may be misuse of services because these are free or highly subsidised (Sanyal, 2012).

Problem when both Produces:

If the government and private firms both produce public goods, whereas the government provides free or at subsidized price, a private producer at market price, but this mechanism also has some inbuilt problems. Why will anybody buy at market price? If only lower income people or weaker sections of the society are allowed to get at free or subsidised price then the quality of service in public system goes to decline because these people have less political and social clout. On supply side wages, incentives, work environment, and responsibility structure of the private firm may attract better professionals from the government (Sanyal, 2012).

Problem when only Private Sector Produces:

Since private universities fund themselves from student fees and compete to get more students, ideally, competition in the market improves the quality of service. In case of education, when students shop around for higher education, private institutions can compete regarding various items. Tuition fees, library and computers, class-room gadgetry, residential facilities, better teaching, accreditation from professional bodies, and placements are some of the items of competitions and there it is good to have competition of these items for improving the quality. But it is also possible that institutions may attract students by lowering academic standards, such as making it easier to pass and get a first division, thinning down of course structure reducing the level of rigour, lowering the percentage to pass, and raising

grades; all of these may be competitive tools in the cynical world of private production. In a globalized world, this problem of competition among private providers affects not only the country itself but other countries as well. The third world students are vulnerable to privatization of higher education in some of the western countries. In the third world job market western degrees are highly valued. Therefore, the third world students try to get degrees from cheaper providers. These cheaper providers reduce their cost by paying less to their faculties. Because of less payment they cannot get good talented faculties. Obviously, those who get their degrees do not possess good quality education (Sanyal, 2012).

Stiglitz (2000) describes different opinions about balance between the public and private sectors as follows:
Markets often fail, but government often do not succeed in correcting the failures of market. Today economics in ascertaining the appropriate role of government, attempt to incorporate an understanding of the limitations of both government and markets. There is an agreement that there are many problems which the market is fully efficient only under fairly restrictive assumptions.

But the recognition of the limitations of government implies that government should direct its energies only at those areas in which market failures are most significant and where there is evidence that government intervention can make significant difference. Among American economists today, the dominated view is that limited government intervention could alleviate (but not solve) the worst problems. Thus, the government should take an active role in maintaining full employment and alleviating the worst aspect of poverty, but private enterprise should play the central role in the economy. The prevalent view attempts to find ways for government and markets to work together rely more heavily on markets and market like mechanism. But controversy remains over how limited or how active the government should be, with views differing according to how serious one considers the failure of the market to be and how effective one believes government is in remedying them. Economists such as Michael Boskin and John Taylor of Stanford University (who served on the council of Economic Advisers during the Bush administration) and Martin Feldstein of Harvard University (who served as Chairman of President Reagan's Council of Economic Advisers) advocate a more limited role. On the other hand, economists who have served on the council of Economic Advisers under Democratic administration, such as Alan Blinder of Princeton,

Laura D' Andra Tyson of Berkely, and Charls Schultz of the Brookings Institution, advocate a more active role.

Efficiency conditions for Public goods:

Pure public goods are efficiently supplied when the sum of the marginal rates of substitution (over all individuals) is equal to the marginal rate of transformation. The marginal rate of substitution (MRS) of private good for public good tells how much of private good each individual is willing to give up to get one more unit of the public good. The sum of marginal rate of substitutions thus tell us how much of the private good all the members of society, together, are willing to give up to get one more unit of the public good which will be jointly consumed by all. The marginal rate of transformation tell us how much of the private good must be given up to get one more unit of the public good. Efficiency requires, then that the total amount individuals are willing to give up- the sum of marginal substitution- must equal the amount they have to give up- the marginal rate of transformation.

Efficient production occurs at the intersection of the collective demand curve, formed by vertically adding the demand curves for each individual, with the supply curve.We should emphasize that we have characterized the Pareto efficient level of expenditure on public goods corresponding a particular distribution of income. The efficient level of expenditure on public good generally depends on the distribution of income (Stiglitz, 2000).

3.2 Education: Public versus Private Funding

Since higher education is a quasi-public good, if only private sector operates in higher education it may not be able to maximize the output which is socially optimum. Due to market failure, missing market and asymmetric information, the output will be less than the social optimum. In this case, government intervention becomes justified. But the story does not end here. Higher education should be in public sector but it is not the ultimate solution to resolve all problems. Public sector may fail due to policy failure or corruption. Public sector may fail to achieve the aims of higher education. The objectives or goals of higher education are:

(i) to transfer the existing knowledge to new generation and produce new knowledge for future requirements of the society for its long run interest, and

(ii) to produce excellence.

The most important objective of higher education is expansion of frontiers of knowledge. Many societies gives very high value to knowledge for the sake of knowledge, as knowledge itself was viewed as wealth. Contemporary psychologists and sociologist argues that higher education is an instrument for expanding intellectual horizons, personal development, empowerment of individuals and enhancing the quality of life (Tilak, 2005).

But which student will be excellent we do not know. We can only provide equal opportunity to everybody who wants to get higher education. Therefore, we have to expand the capacity of higher education in inclusive way to give the equal opportunity to everybody. This expansion requires huge finance. Who should finance the higher education for this expansion? Now, there is a dilemma between public and private finance, which can serve the long run interest of the society, which will work only for profit maximization, short run interest, and self-interest? There are many opinions about this dilemma.

The major sources of source of financing of higher education are state finance, charitable and philanthropic non-governmental, household expenditure, fees, student loans, voluntary contributions, etc. (Tilak, 1993a)

Since resources are limited, expansion of higher education needs more finance. Should we allow private finance for this required expansion? If we think in broader terms about financing for higher education, ultimately it is the nation that has to pay for higher education, whether it is paid by private or public or by both the sectors. Who finances and who manages the system is very important for expansion, excellence, equity, and inclusiveness of the higher education system.

Why public funding is essential for higher education? To promote the fundamental academic research, which is not directly marketable, yet is crucial for long run development of the society. Professional and technical courses, research, and development in technology are directly marketable, but fundamental academic research is not marketable in short run while it is important basis for future development of the society in long run. Only public funding can nurture such type of non-marketable academic research for development of fundamental research. Research in subjects like physics, philosophy, archaeology, history, and literature are not marketable directly. However, these are also important for society's long run interest.

Tilak (2010) favours the public funding for higher education and suggests a legislative method to ensure it. There should be a national legislation that ensures a minimum level of public funding as a proportion of GNP, as a proportion of total expenditure, for different levels of education, with a minimum level of per student public expenditure at real price level. It will ensure a minimum level of public funding for education even at the time of financial crisis. Hillman (2003) notes that since students are considered the beneficiaries, they are to get the education loans. But capital market is found to be imperfect for such kinds of loan. These imperfections arise due to asymmetric information, adverse selection and many other reasons. Human beings cannot be used as collateral for education loans.

There are many logics in favour of public subsidy for higher education and many empirical studies have been made in developed nations that also supports the same. It becomes debatable when we have two objectives: first, to increase the enrolment with equal access and equity; secondly, to control fiscal deficit. Both have inverse relationship. Many alternatives are suggested to achieve both these objectives simultaneously, such as deregulating fees, education vouchers, education loans, income related loans, graduate tax, and generating financial resources by educational institutions themselves (Greenway and Haynes, 2004; Tilak, 2004). Verghese (2010) stresses the importance of public funding in higher education. A cut in education budget affects current student population negatively. It will result in negative effect on future economic development. Therefore, many countries maintain the same level of education budget even at the time of financial crisis.

NIEPA (2005) report attempts to identify the nature and finance of higher education. Its major conclusions are:-

higher education possesses economic, social, cultural, demographic and political externalities, while

dynamic externalities in higher technical education. It is a specialised human capital which promotes equity in the society, especially for the weaker sections.

public funding for higher education is essential for economic growth and development of a nation. It is observed that the countries where public funding is dominated in higher education are more developed than where private funding is dominated.

a normative ratio of total public funding for education has been suggested. For elementary, secondary and higher technical education 50, 25 and 25 per cent of the total education budget should be allocated respectively.
higher technical and professional education generates specialised human capital, therefore, investment on such capital gives increasing returns.

Srivastava (2007) suggests that state and central governments should levy a cess on tax to finance higher education. It will increase accessibility of higher education and an effective way of mobilizing public opinion in favour of higher expenditure on higher education. But CABE Committee (2005) contradicts with his opinion of levying a cess on tax for higher education. The Committee is against any cess on tax and suggests that fee for better off students should be raised and free-ships and scholarships created for the needy ones.

The importance of public education was highlighted by classical economists also. As Vaizey (1962, p 23) observed, "there is a long and honourable tradition from Adam Smith to Alfred Marshall which assigns to publicly supported education a major role not only in promoting social peace and harmony and self-improvement, but in the process of wealth-creation itself". Mishan (1969) observed that "[higher] education is an investment and will pay for itself; and will increase the earnings of the beneficiary students and the government will recover its costs through consequent higher tax receipts."

According to an extreme form of free market philosophy [a la Hayek, 1944], there is no meaning to 'social good' and 'social welfare'; there is no such things as society or value to society that is inseparable from individual gains. Only individuals are real, and therefore their gains are important and individual freedom is more important than even democratic values. Public good and social justice are considered as impossible and even as not necessarily desirable.

Higher education generates numerous externalities. Social benefits that arises from higher education goes much beyond the mere increase in GNP. Irrespective of who get the higher education and who does not, the whole society get the benefits of higher education through externalities such as improvement in health and income distribution, reduction in poverty, population growth and crime, rapid adoption of new technologies, strengthening of

democracy, ensuring civil liberties etc., and even dynamic externalities (Schutz. 1988, Romer, 1986, 1990; Lucas 1988) and 'technological' externalities (Behrman, 1990).

Positive externalities like technical progress and economic growth that limits diminishing marginal returns are important to justify the role of state in higher education (Nerlove, 1972) "It is necessary to provide free education at all levels and also to subsidize students' living expenses in post-secondary schooling so as to guarantee equality of educational opportunity" (Blaug and Woodhall 1979, P 352).

As Arrow (1993) observed, asymmetric information and imperfect capital markets justify the public subsidy to higher education.In many developing countries markets are 'incomplete' and credible market do not exists (Joseph Stiglitz). Education credit markets are also incomplete (Kodde and Ritzen 1985). In education credit market lender may be reluctant to accept risk which is dependent on future income of debtor (Arrow 1993). Education sector is subject to increasing returns to scale. In higher education scientific equipments, libraries, etc, cannot be used in small scale. Therefore it is more efficient for the government to provide it (Colclough 1996). According to human capital approach, Fine and Rose, (2001) advocate intervention of the government in the market to spend on education so that economic development can be accelerated.

Ghosh (2004) favours the public funding for higher education and research. "The state cannot abandon fundamental research, the infrastructure for which should be viewed as a long term investment, the returns of which may not be immediate. This is not a luxury at the cost of the public if fundamental research is abandoned by the state, it will be irreversible because a collapse of all applied research in long run, and the nation cannot ever dream of becoming self-reliant in today's knowledge society." The same argument was put forth very strongly in an open letter dated 7th January, 2004 addressed to French Government by the French Scientist participating in highly successful recent movement called "*SauvonslaRecherche*" (Let's save research). "To hold that it is possible to limit research to a few priority areas is to start down a road towards underdevelopment. Useful & profitable applications come and will continue to come out of applied research. However the latter depends on the use of new tools and concepts emerging out of fundamental research. As the objective of fundamental research is the development of knowledge regardless of any considerations of profitability, its funding can only come, for the most part from public sources. This primary responsibility of the state

cannot be transferred to private charitable organizations or to international structures even though researches often find substantial additional funding from these donors."

Arguments against Public Subsidies:

Since the social rates of return for higher education are significantly lower than the private rate of return individuals should pay for their education and public subsidies should be minimized (Psacharopoulos 1994; Word Bank, 1994).

Public subsidies to education would be regressive, and increase income inequality by transferring resources from the poor to the rich as most of the people who access higher education are well off. This has the implication that subsidy accrues more to the rich than to the poor (Psachropoulos 1977; Jimenez 1987; World Bank 2000). Public subsidies to higher education should be reduced and it should be limited to the poor only (World Bank 1994). Public subsidisation of education is not required to promote equity or to promote democracy (Tooley, 2000).

Tilak (2005) also mentioned many arguments against giving public subsidy to education as put forth by other scholars but he does not favour these arguments. Since education, particularly higher education may not be price-elastic, it is argued that cost recovery would not make any significant fall in enrolments rather cost recovery would improve access and improve the quality by reducing the baby- sitting role of education. It would make students more diligent as private rate of returns is very high, people will be willing to pay for their education (Tilak, 2005).

Due to the effects of neo-liberal ideology higher education is essentially considered private goods (Jones, 1997). It is in accordance with the World Bank's ideology. The World Bank is trying to integrate the world economy. It works on the following ideologies:

(i) to recover the cost of higher education so that the government can reallocate the money in favour of elementary education,

(ii) to promote loans for higher education and for that to develop the credit market to give selective scholarships.

(iii) to decentralize the management of public education and for that to extend the help of non-government and community agencies.

Punnayya Committee (1993) suggests enhancing the fees in higher education so that a part of its cost can be recovered, because for many years the basic structure of fees in Indian Universities has not changed and fees are constant. Burnett (2010) advocates cost recovery and cost sharing by the students and their families. Although many ideological discussions prevail on this issue, he is indifferent to any ideology, and adopts a pragmatic approach for private funding in higher education. He says that private finance should be used to complement public finance for higher education.

Chattopadhyay (2007) has made the following suggestions for alternative funding of higher education, compatible with privatization:

"1. Deregulation of Fee Structure: to enable institutions to raise resources as they wish with at least 20per cent of the cost of education recovered from students. The private sector has used this in a big way but the public universities and colleges are also pressurized to follow the suit. It is argued that quality and cost are positively related, so good education will have high cost and the students should bear a part of it. The scheme is made to sound reasonable by providing for scholarships to the deserving ones who cannot afford higher fees.

"2. Education Loans to the students to meet cost of education: It is suggested that there should be low cost loans with liberal repayment terms from various sources (like, banks). The idea is that after the loanees start working they will be able to earn extra and pay the loan back. An element of subsidy from the state may be involved to enable cheap loans to be given. These loans can especially go to the marginalized groups. However, since repayment is involved, there is a bias in favour of market-oriented courses where the possibility of higher income exists. Income contingent loans are suggested. These loans are to be paid back if the annual income turns out to be greater than the target limit, otherwise not. The government will step in and repay the loan. However, the poor are usually averse to taking loans since this can be a big burden on the family in the eventuality of the child not getting an appropriate job or due to some calamity the child is unable to earn.

"3. Graduate Tax: This can be levied on those who get higher degrees from public-supported universities. In a sense, one is paying back to the nation for what one got when one was studying.

"4. Human Capital Contract: In this scheme, students are treated as stocks that will pay a dividend. Thus, students pay a portion of their future salary for a fixed period of time.

"5. Voucher: Instead of paying the institution a subsidy, the students will be given vouchers and they pay them to the institution they study in and the institutions will incash them from the government. This is supposed to foster competition in the market and the institutions will compete to get the students and improve their quality. The students will be free to choose courses and have the flexibility that is currently missing. School Education in the UK is like this, but a little segregation is beginning to take place with the privileged preferring one kind of school; the under privileged have no choice but to go elsewhere.

"6. Charity: Funds can be raised through charity and philanthropy. This is a big source in the US with the alumni of the institution contributing substantially. In India this has not picked up to any significant extent except perhaps in the IITs. In the case of the USA, due to the high estate duty, the individual cannot easily pass on a huge sum of money to the inheritors of the Estate so people donate a large part of their property before their death. In India, where the Estate duty is hardly there and people tend to be more family oriented and wish to pass on as much as possible to their children.

"7. Intellectual Property Rights: It is being suggested that institutions go in for this in a big way to raise resources. Many institutions have now set up cells for this purpose. However, this depends on the dynamism of the research in the Institutions. Further, if the public funds that the institution was getting get reduced if one earns through other sources, then there would be little incentive to earn more."

Arguments against Role of the State:

Since the social rates of return for higher education are significantly lower than the private rate of return individuals should pay for their education and public subsidies should be minimized (Psacharopoulos 1994; Word Bank, 1994). Public subsidies to education would be regressive, and increase income inequality by transferring resources from the poor to the rich as most of the people who access higher education are well off. This has the implication that subsidy accrues more to the rich than to the poor (Psachropoulos 1977; Jimenez 1987; World Bank 2000). Public subsidies to higher education should be reduced and it should be limited to the poor only (World Bank 1994). Public subsidisation of education is not required to promote equity or to promote democracy (Tooley, 2000).

Tilak (2005) also mentioned many arguments against giving public subsidy to education as put forth by other scholars but he does not favour these arguments. Since education, particularly higher education may not be price-elastic, it is argued that cost recovery would not make any significant fall in enrolments rather cost recovery would improve access and improve the quality by reducing the baby- sitting role of education. It would make students more diligent as private rate of returns is very high, people will be willing to pay for their education (Tilak, 2005).

Assessment of Augments:

Friedman (1962, p 86) implicitly agreed that because of huge externalities associated with education it should be financed by the state. Though all the social benefits cannot be quantified and measured accurately, they are nonetheless substantial. Vaizey (1962, p 34) concluded "publicly financed education is a legitimate end of public activity, even to extreme exponents of classical economic doctrine". Most of the arguments made against public subsidization do not have qualified support either from theory or empirical evidence. (Tilak, 2005). Patterns of public expenditure in developing countries show that the governments are not as much starved of resources as of lack of priorities and political will in education sector (Tilak, 2005).

It is argued that public subsidies to higher education benefit mostly the better off and subsidies to primary education benefits the masses. Psacharopoulos (1977) argues that public subsidisation of education has pervasive effects on distribution. Ram (1982, pp. 45-46) concluded in a cross country analysis, "there is little evidence in favour of the postulate of a significant disequalizing effect of public subsidy to higher education. If there is such an effect at all, it appears to be stronger in the developed countries than in less developed countries". Trostel (1996) finds that public subsidy to education correct distortions in taxation; therefore, it is efficient to subsidize education. Leslie and brinkman (1988, p 118) found that "higher education in most cases does contribute to progressivity and moreover that when the analytical methods employed are most advanced, progressivity is found without exception". Johnson (1984) found that the externalities associated with higher education leads to the rich getting higher benefit than the poor. It can even be justified to tax the poor to finance higher education of the rich, as income of the rich will increase permanently and a portion of this income accrues to the poor also. The solution to regressive effect of subsidies lies in a progressive tax system, rather than in eliminating or reducing subsidies (Tilak, 2005).

Generally the argument of higher private rate of returns in higher education used against public subsidies is incorrect given the fact that this private rate of returns is far less than social rates of return (Mc Mohan, 1999; Weale 1992, 1993). Arrow (1993) favours cost recovery in higher education but he is not against the public subsidy. Public subsidy can increase efficiency. There is a need to mobilized additional resources from alternative sources.

Most of the arguments given against public subsidies are not proper:

(i) Higher education gives more private returns than social one, may not sustain in long run, in many countries students are not willing to pay.

(ii) If public subsidy declined drastically or is withdrawn, private rate of returns will also decline. As a result an individual's incentive to invest in education become unattractive.

(iii) The rate of returns cannot be used to argue against public subsidies to education (Task Force on Higher Education and Society 2000, p 39) because it is not the true social returns. Except for tax benefits, other social rate of returns are not taken into consideration to estimate social rate of returns to education. Therefore for any sound public policy it should not be criterion for public subsidies (Majumdar, 1983).

If social rate of returns are estimated properly it will be much higher than private ones (Mac Mohan, 1993; Weale, 1992, 1993). Many argue that education is not a public good because the criteria of 'non-exclusion' and 'free-rider' cannot be applied. Admission of one additional student in a school could imply denial of somebody else to admission, as the numbers of seats are limited (Eicher and Chevillier 1993, p 473). But this argument cannot sustain because those who do not go to school also get the benefits of education. They cannot be excluded from getting benefits, as they are part of neighbourhood population.

Those who favour cost recovery in higher education are not against public subsidization per se. They argue that since public spending has limitations, additional resources should be mobilized through alternative sources. They recognize that public subsidies improve the efficiency (Arrow, 1993). Eicher and Chevaillier (1993, p. 480) favours public subsides. Even if theoretical justification is weak, "it would probably be a mistake to curtail public subsidies to education sharply."

3.3 Education: Neo-liberal Framework

Government policy regarding higher education is highly inclined towards privatization and marketization or in other words it is shifting towards neo-liberal approach. This policy is based on three assumptions--education is a commodity, university is a factory and construction of market is essential for excellence and reform in higher education. (Chattopadhyay, 2014).

Olssen et al (2014) argues that economic agents give their best in competitive environment only. Neo-liberal society is based on market principles, for this it is required to create "manipulatable man". Education is not only a commodity it is fundamental to a dignified existence. It should be made available to all which is not possible by market mechanism. Education transforms individual and society (Sen, 2000).

University cannot be treated as a factory or a firm in economic theory. The concept of educational production function is very difficult to apply. An input-output model, well defined inputs and outputs, technical relation, efficiency cannot be conceptualized for education and university (Majumdar, 1983).

If the concept of education production function were valid, then the private and public institutions would have produced quality education by now (Chattopadhyay, 2012). Quality of education cannot be measured and quantified in a mechanical manner. It is dependent upon motivation and jointly produced by teachers and students, not by service providers alone. Often, higher the rate of failure of students, the quality of the education is considered to be better (Majumdar, 1983).

Quality of education depends upon commitment and expertise of teachers. They cannot be produced like any other factory product. Good students and good teachers choose the best institutions. Therefore, the best institutions cannot be replicated like a factory as the technology for factory is well defined. The human capital embodied cannot be replicated and the quality of a new educational institution is not guaranteed automatically (Chattopadhyay, 2015). Adam Smith (1776), stressed on consumer sovereignty and competition for students and teachers to overcome university from failure. But assumptions behind this idea are that

students are hardworking and well intentioned. Teachers also do not appease the students by awarding high grades.

Teachers cannot be treated as engineers and managers. Quality of teachers depends on the human capital that embodies them. But more importantly it depends on their level of motivation. Therefore, quantification of teachers' performance will be a daunting process (Chattopadhyay, 2015). The process of computation of Academic Performance Indicator (API) to assess the performance of a teacher for their promotion and appointment in university and college undermines the role of teacher and university in the society (Chattopadhyay, 2015). This process has the potential to ruin the Indian higher education system. It undermines the process of knowledge generation and demotivates the teacher. In fact, motivation and passion are more important for the quality of a teacher (Das and Chattopadhyay, 2014).

Bhushan (2009) argued that the whole neo-liberal framework for higher education is based on incorrect assumptions. The neo-liberal doctrine for quality improvement is driven by managerialism. Accountability is supposed to improve the quality of higher education in India. Competition among the institutions will enhance the quality. Thus, it favours individual rationality and denies collective rationality of the state. The state can, however create conditions for managerial rationality.

The neo-liberal way of institutional reform is based on certain assumptions. It assumes that all actors (all students and all teachers) are homogeneous. It also assumes that all institutions (all colleges and all teachers) are homogeneous. Given market signals in terms of information, students will make choices about courses and colleges through the demand and supply mechanism. Competition will then allow quality courses and institution to survive. Teachers should also respond to the information in terms of evaluations and adjust their behaviour and conduct through better choice of actions. It also assumes that all teachers have uniform facilities and privileges and there is no distinction between a teacher posted in a rural college and the ones in an urban college.

The above assumptions are not correct. Perfect information does not exist. Students are from different backgrounds. They need differential support in admission, financial support, and even pedagogic support. Rural and urban colleges need to be differentiated. Students and

teacher in both these set-ups may not respond to market based signals. They need institutional support in varying manners. Students coming from agricultural labour families and those coming from high class families may join the same college. This diverse situation will always require differential strategies.

Bhushan (2009) explains the role of state within neo-liberal framework as follows:

The neo-liberalism argues that public monopoly should be abolished. Barriers to entry should be done away with and opportunities should be created for the private participants. There is greater role for the policy in favour of restructuring rather than planning by the state. Market based incentives need to be promoted by the state. Thus, the role of the state is not negated. The state participates more and more not in the production of goods and services but should participate in facilitating the production by the privatized mode. The neo-liberal doctrine was propagated in variants such as Human Capital Theory, Agency Theory, Public Choice Theory, Transaction Cost Economics, and Conservatist Doctrine of Monetarism. The neo-liberal doctrine rests upon the following maxims:

1. Tariffs and subsidies should be abolished.
2. Cost recovery should be made.
3. Entry barriers such as legislative requirement should not exist.
4. Competitions should be generated through more and more players in the provision of services.
5. Control in export and import of capital as well as goods and services should be over.
6. Argues against too many regulations as it prevents competition.
7. Accountability should be generated through measurable yard-stick and competitive pressures.
8. Individual rationality is preferred to collective rationality; in fact collective rationality does not exist at all.
9. Quality is maintained only when there is competition.

It is important to bear in mind that under neo-liberalism the state is not negated. It actively constructs the market. Discourse of state management and control is authoritarian to invoke the principle of market. It points to more effective means of social engineering. Control of the state is more devolved and flexible. Decentralization of power and provision of services is

preferred. It will be interesting to find that recommendations of NKC (National Knowledge Commission) are influenced by the neo-liberal doctrines.

Bhushan (2009) summarised the neo-liberal principles which are given by Foucault (1991) following ways:

1. Market and competition to be engineered by the state.
2. Increase competitive forms throughout the society, social and work relations to assume market form.
3. Support active creation of social condition for an effective market order.
4. Policies geared to create entrepreneurial spirit and opposing bureaucratic initiatives.
5. Correct bureaucratic dislocations.
6. The state is subject to market laws

Neo-liberalism reinforced the idea of individual rationality of liberalism. It also argued in favour of competition as the basis of market mechanism in achieving equilibrium. The further shift from liberalism to neo-liberalism means that the state is supposed to intensify the market operations. It implies privatization of a part of services produced by the state. Neo-liberalism means that bureaucracy is to be replaced by the new doctrine of managerialism, contracting, and performance appraisal. It is assumed that self-interest of bureaucrat leads to corruption and inefficiency as there is nothing called collective self-interest. An individual as a part of the state needs to be manipulated in such a manner that it becomes responsive to market signals and performance orientation.

Due to the effects of neo-liberal ideology higher education is essentially considered private goods (Jones, 1997). It is in accordance with the World Bank's ideology. The World Bank is trying to integrate the world economy. It works on the following ideologies:

(i) to recover the cost of higher education so that the government can reallocate the money in favour of elementary education,

(ii) to promote loans for higher education and for that to develop the credit market to give selective scholarships.

(iii) to decentralize the management of public education and for that to extend the help of non-government and community agencies.

The neo-liberals favour to construct a market for education where education-producer and student-consumer are free. It will lead to competition in the market. Competition makes the market efficient and quality of education will improve (Jongbloed, 2004).

Institutional reform in higher education is needed to improve quality. Quality of higher education is related to value, diversity, and employability. Therefore, it is a political, social, and economic issue, which cannot be viewed as the market principle. Quality is not related with efficiency. Efficiency, competition and accountability are values that need to be deliberated upon and higher education system should adhere to these principles and ideals (Jairam, 2007).

According to an extreme form of free market philosophy [a la Hayek, 1944], there is no meaning to 'social good' and 'social welfare'; there is no such things as society or value to society that is inseparable from individual gains. Only individuals are real, and therefore their gains are important and individual freedom is more important than even democratic values. Public good and social justice are considered as impossible and even as not necessarily desirable.

As Tilak (2005) observed the paradigm shift in policy regarding education and particularly higher education is from Keynesianism to 'neo-liberalism'. Nowadays market is taking the centre stage in many countries, particularly developing countries. It is believed that only market can do everything for everybody, not the government. Market philosophy entered the education sector, more particularly higher education sector prompting an understanding that the role of state should be reduced to promote economic efficiency. It is argued that role of government should be limited to the formulation of a coherent policy frame-work only [World Bank, 1994]. Market philosophy into education has grown at faster pace, especially in American psyche. This bring a cultural shock to most people in developing countries and several European countries including UK (Bottery, 1992, P83)

New economic reform promotes market policies thereby replacing traditional and well established values, concepts and approaches with new values and practices in higher education. These policies do not differentiate education from any other commercial product. Traditional functions of higher education of generation and dissemination of knowledge are undermined. Equity aspect of higher education is not cared for (Tilak, 2005).

Different Perspectives:

Education is not only a commodity it is fundamental to a dignified existence. It should be made available to all which is not possible by market mechanism. Education transforms individual and society (Sen, 2000). The human capital theories gives importance to the role of higher education, as it transforms human being into human capital by improving productivity, economic growth and ultimately well-being of societies (a la Theodore Schultz and Gary Becker).

Institutional reform in higher education is needed to improve quality. Quality of higher education is related to value, diversity, and employability. Therefore, it is a political, social, and economic issue, which cannot be viewed as the market principle. Quality is not related with efficiency. Efficiency, competition and accountability are values that need to be deliberated upon and higher education system should adhere to these principles and ideals (Jairam, 2007).

According to human capital approach, the expenditure on education is primarily an investment which is invested for positive return so that one can earn higher income in future; otherwise, direct/indirect cost will increase for ones in future (Schultz, 1961; Beeker, 1993). Psacharopoulos (1973) observed that returns from the elementary education are higher than those from the higher education; hence we should increase the subsidy in primary education so that everybody can at least get the elementary education. In the knowledge-driven society, higher education is an important factor for innovation, development, and technical progress in the competitive world economy.

Tilak (2003) argues that returns from higher education are not only economic returns, but these are more than mere economic ones. There are some returns which are not quantifiable, such as quality of life, individual dignity and individual freedom, which have more value than economic returns. We should not be mesmerised by the notion that higher education is an investment good which gives more economic returns than many other investments. It may always not be true. Therefore, the decision to invest in higher education should not depend on economic returns only. He (1987) has analysed inequality in rates of returns to education in different social groups of population in India. His major findings are:-

the weaker sections of the society, namely women and backward castes have lower rates of returns from education than others.
in the formation of human capital among different groups of population inequality has been found. Distribution of this capital is skewed against the weaker sections.
the weaker sections are discriminated in labour market in employment and wages.
inequality in the distribution in different groups can be due to social and economic factors and also on account of inadequate public policy.

Kumar (2004) and Majumdar (1997) comment that it is a faulty argument that expenditure on elementary education and that on higher education both are competitive against each other. Indeed, both have an order and have strong relationship. They should not be considered in isolation. Higher education provides the administrators and educators to elementary and secondary education. On the other hand, a person can be eligible to get higher education only after completing elementary and secondary education. Kumar (1987) argues that for healthy development of the higher education system, it should be autonomous, accountable and democratic. The system accountability should be for long run interest of society rather than educational bureaucracy. System of mechanical productivity is not application to higher education.

We can conclude this chapter as follows.
As we are attempting on public expenditure on higher education, it will be necessary to study the theory regarding the nature of education, particularly higher education and nature of higher education market. What happens when public and private sector both provide higher education in the market? The theoretical debate of public funding versus private funding for higher education and the theory related to neo-liberal framework is equally important to understand the market for education, intervention of the government and regulation, in the light of New Economies Policy (NEP). Thus, higher education is public good or private good, it mostly depends upon the policy of the government. Ideally it should be public good if not public, at least good quasi-public

We cannot favour that higher education should be a private good. Although, higher education has huge positive externalities, which cannot be quantified or measured exactly. Thus higher education policy should go towards less private to more public. To increase the publicness of

high or education government policy and public funding both are important. Pro-privatization policy can increase the enrolment but not the quality. Because, in education market, education production function in not tenable. We cannot get the same output by same input because, process is also impotent. University cannot be repeated like a factory. Indeed both are equally important that who finance and who manage. Therefore, public funding and public policy both are important.

CHAPTER -4

PUBLIC FUNDING IN HIGHER EDUCATION: A COMPARATIVE ANALYSIS OF INDIAN STATES

4.1 Introduction

Politically India is a federal nation, comprising central government and many states. All the Indian states are placed differently in terms of their geography, economy, history, and culture. Huge diversity is found among the Indian states, which affects many developmental aspects such as health and education. Education was on the state list till the 42nd Amendment in constitution in 1976. Thereafter, education was put on the concurrent list. Thus, now both the central and state governments are concurrently responsible for funding education. The share of central government in total expenditure on higher education in 1956-66, 2003-04 and 2009-10 was 37, 19.4, and 35.5 per cent respectively (MHRD). Thus, state governments had to contribute more in funding higher education as compared to the central government. Therefore, in any study of public funding for higher education it is appropriate to analyse the state-wise funding. Ved Prakash (2007) observed that public funding for higher education is lagging behind in comparison with the enrolment since 1990s, and due to slow down in public funding and increasing demand for higher education the quality of higher education is suffering.

For the analysis of public expenditure on higher education across the Indian states, we have taken fifteen major States as classified by erstwhile Planning Commission of India. Other states belong to either special Category State or minor State, which are not comparable with major States. Thus the study of these fifteen states represents almost entire India. The New Economic Policy (NEP) was implemented in India from 1990-91. Hence, the present study covers the period from 1990-91 to 2009-10 for the purpose of inter-state analysis.

Primarily, public funding for higher education of any state depends on the per capita income, fiscal condition, and polity of that state. There is inequality across states in terms of per capita income and resources .The demand for higher education in any state depends upon several

factors such as, per capita income, distribution of income, occupational distribution, and share of industry and service sector in the economy, culture, and history of that state. The supply of public funding for higher education depends not only on fiscal condition and per capita income of the state but also on the policy of the state regarding higher education. It is possible that the fiscal condition of the state may be sound but still the state may not spend adequately on higher education. If the state gives priority to higher education, it can allocate higher funds to achieve this objective even at the time of fiscal stress. However, allocation of budget for higher education is constrained by both the income and fiscal stress of the state. Per capita income affects both supply of and demand for higher education. There are many factors affecting the demands and supply of Higher education which in turn, also affect each other.

We have first looked at the income (per capita NSDP) of the states and privatization in higher education. How does per capita income affect the extent of privatization of higher education in different states in the period under our study? Then, how are public expenditure on higher education as a share of state income (NSDP) and that of the total budgeted expenditure in different states changing their patterns? For convenience, we have divided the period of study into two decades, and compared how the different parameters pertaining to enrolment and public expenditure on higher education were changing in different states.

Thereafter, we examined the relationship between plan and non-plan expenditure on higher education with the levels of fiscal stress of the respective states. We studied the change in the proportions of planned and non-planned expenditures in the total expenditures on higher education across the states over the period under study. We have compared the Coefficients of Variation and growth rates of all the parameters of public expenditure on higher education for all the states.

4.2 Per Capita Income and Enrolment in Higher Education

The states have big differences in their per capita incomes. We are comparing the different states according to their per capita income and extent of privatisation of higher education in the respective states. We assume that higher per capita income in any state allows the parents and students more private expenditure on higher education, which, in turn, increases the rate

of total enrolment. The greater the affordability of getting admission in private institutions, the higher will be the demand for private institutions; and the higher demand for private institutions will increase their supply in that state. As a result of this, the proportion of enrolment in private higher educational institutions will be more as compared to enrolment in public institutions in these states.

For convenience, we can classify all the states into three categories, viz. rich states, middle income states and poor states, according to their per capita incomes (NSDP). In a rich state (where per capita income is high) the fiscal stress is relatively lower than poor states. Therefore, it can spend more on higher education. At the same time, in a rich state demand for higher education is also high; in such circumstances the policy of the state becomes crucial.

On one hand, the state can choose the path of high privatisation to fulfil the higher demand for higher education. On the other hand, the state can opt for higher public funding to higher education to fulfil the increasing demand for higher education with low or minimum privatisation. The policy varies from state to state. Thus, the per capita income is a primary factor and fiscal stress is a secondary one. Since the fiscal stress is also affected by the income of the state, they cannot be considered in isolation. However, the poor states will not face this problem, because the students and parents cannot afford private education.

In the concept of per capita income it is assumed that it is uniformly distributed (because it is average income) but it is not true in reality. The distribution of income is always found unequal in the real world. Because only the well-offs demand higher education, the demand for higher education is also determined by the distribution of income. When we consider per capita income as a factor which affects the demand for higher education, for convenience we assume that its distribution pattern is the same in all the states, although it is not true in reality.

Higher per capita income induces more private expenditure on higher education. Therefore, if the total (public + private) expenditure on higher education in a state is high, then the rate of enrolment will also be high. At the same time if the extent of privatisation in a state is high, then the public expenditure on higher education may be low.

In the state where per capita income is low, the government's capacity to allocate budget on higher education will be limited and students' capacity to afford higher education in private higher educational institutions will also be constrained. Therefore, the demand for private institutions will be lower. The extent of privatisation will also be low there. In these kinds of states almost the whole higher education system depends on public sector institutions. The proportion of enrolment in private institutions in these states will be lower. The governments in such states may have to spend more on higher education as a share of their income (NSDP) and budget. The growth of public expenditure on higher education may be relatively high in these states. Since the per capita income is low, the absolute amount of per student expenditure is likely to be low, and the total (public+private) expenditure on higher education is also likely to be lower. Therefore, the enrolment rate in higher education is likely to be low.

We have assumed a positive correlation between per capita income (NSDP) of a state and the extent of privatisation of higher education in the state. In other words, the higher the per capita income, the greater will be the extent of privatisation of higher education in a state. It may not strictly follow in a specific state, because privatisation of higher education also depends on the state policy about higher education. In a rich state, the government can choose any one of the policy out of the four options which are as follows:

the state can spend more money on higher education and allow less privatisation.
the state can spend less money and allow higher privatisation.
the state can spend more money and allow high privatisation.
The state can spend less money and allow minimum privatisation.

To increase the enrolment rate is one of the important objectives of the policy for any state. Therefore, generally no state follows the policy to spend less money and allow minimum privatisation, which is in contradiction with the objective.

To promote private sector, government can give land and/or buildings at concessional price or token price or free for opening new higher educational institutions. The government can create conducive environment for private sector through various concessions and incentives which make it easy to open new private institutions of higher education. All the clearances can be given in one go, without any hurdle.

If we compare the ordering of all the states in terms of per capita income and proportion of enrolment in private institutions, it is found that some states have high rank in per capita income but low rank in the enrolment in private institutions of higher education. Similarly, some states have low rank in per capita income but low rank in the enrolment in private institutions. Thus, the public policy of the state concerned on higher education may be crucial to explain such situations.

Goa has the highest per capita income among the states in our study, but has a very low proportion of enrolment in private institutions because of strong public policy and high expenditure on higher education. Goa is an outlier.

Table No. 4.1

State-wise Rank Correlation

States	Rank PC NSDP	Rank GER	% Enl. Pvt. HEIs
Haryana	1	4	8
Maharashtra	2	3	12
Punjab	3	5	3
Kerala	4	8	6
Gujarat	5	7	11
Tamil Nadu	6	1	1
Andhra Pradesh	7	2	2
Karnataka	8	6	4
West Bengal	9	13	13
Rajasthan	10	12	7
Odisha	11	11	9
Madhya Pradesh	12	9	10
Uttar Pradesh	13	10	5
Bihar	14	14	14
Rank Correlation Coefficient between Per Capita NSDP and GER= 0.75 and between Per Capita NSDP and % Enrolment in Private HEIs= 0.32			

Table No. 4.2

State-wise Rank Ordering

	GER	Rank GER		Rank % Enl Pvt HEIs	% Enl Pvt HEIs			Rank PC NSDP
Tamil Nadu	19.56	1	Tamil Nadu	78.83	1	Haryana	80654.79	1
Andhra Pradesh	19.2	2	Andhra Pradesh	75.71	2	Maharashtra	73871.46	2
Maharashtra	15.18	3	Punjab	49.49	3	Punjab	65254.22	3
Haryana	14.83	4	Karnataka	46.42	4	Kerala	62054.08	4
Punjab	14.24	5	Uttar Pradesh	40.76	5	Gujarat	62023.68	5
Karnataka	14.2	6	Kerala	37.35	6	Tamil Nadu	59735.3	6
Gujarat	13.03	7	Rajasthan	33.23	7	Andhra Pradesh	52731.56	7
Kerala	12.57	8	Haryana	30.49	8	Karnataka	50721.58	8
Madhya Pradesh	11.41	9	Odisha	26.95	9	West Bengal	40988.27	9
Uttar Pradesh	11.37	10	Madhya Pradesh	25.31	10	Rajasthan	34466.5	10
Odisha	11.27	11	Gujarat	24.32	11	Odisha	34133.12	11
Rajasthan	10.08	12	Maharashtra	24.18	12	Madhya Pradesh	28296.39	12
West Bengal	9.06	13	West Bengal	12.44	13	Uttar Pradesh	27367.52	13
Bihar	6.92	14	Bihar	3.26	14	Bihar	16112.39	14

Sources: Higher Education Survey MHRD 2011, RBI Hand Book (Various Years), Census (Various Years)Source : UGC annual reports (Various Years), Census Reports, GoI (Various Years)

We assumed that a state with higher per capita NSDP will have higher GER. In our study on 14 Indian states, we found the rank order correlation between these two variables to be 0.758. Thus, we find high correlation between per capita NSDP and GER, which can be explained as follows.

From the demand side, higher per capita NSDP induces higher demand for higher education. From the supply side also, higher per capita NSDP enables the state, through higher tax collection, to spend more on higher education, though, some other factors like fiscal

constraints and public policy of the government also affect this expenditure. This expenditure determines the number of public Higher Educational Institutions (HEIs) and number of seats therein. Both policy of the state concerned and demand for higher education determine the number of private HEIs and the number of seats therein.

Actual enrolment or Gross Enrolment Rate (GER) depends upon availability of seats in HEIs and their demand. It is also affected by the migration[1] of the students from one state to another for higher education which we have discussed later in this section. Thus, we can deduce that the state where per capita NSDP is higher, GER will also be higher. It is corroborated by high value of rank correlation (0.758) between them.

We do not find a perfect correlation. Some variation can be observed. For example, ranks of Tamil Nadu and Andhra Pradesh are 6th and 7th based on per capita NSDP, while those based on GER are 1st and 2nd (Table Nos. 4.1, 4.2). One of the reasons for higher GER in higher education in these states may be high literacy rate. This hypothesis finds further support if we consider Haryana, Punjab and Gujrat whose ranks based on per capita NSDP are high but those based on GER are low, as in these three states literacy rate is comparatively low. It can be argued that higher literacy creates more demand for Higher Education.

We hypothesized that the state with higher per capita NSDP will have low share in enrolment in private HEIs. In our study on 14 Indian states the value of rank order correlation between these two variables is 0.32, which can be explained as follows.

Higher per capita NSDP enables the state to spend more on higher education but the latter depends upon policy and fiscal condition (tax collection and expenditure) of the state concerned and the proportion of the budget allocated to higher education. If effects of policy and fiscal condition are same, rich states are likely to spend more on higher education. As a

[1] Migration of students from one state to another state is also an important factor, which affects the demand for higher education in any state although we do not have any state-wise data regarding migration of students for higher education, but can we observe that many student from Bihar and West Bengal come to Delhi for better higher education. Similarly, many students from north Indian state go to Andhra Pradesh, Tamil Nadu, and Karnataka for higher education especially for professional course. The demand arises due to such migration also induces privatisation. Ease to open a new private institution depends upon the policy of the state. Thus, extent of privatisation depends upon both, demand for higher education and ease to open new private institution in the state. In our study we are not considering the effect of migration of students from one state to another state due to non-availability of data.

result, they will have more number of HEIs and more seats therein. On the other hand, higher per capita NSDP induces more demand for higher education. Therefore, richer states have more demand for higher education.

At the same time, in richer states, ability to afford education in private HEIs will be higher. Very few private HEIs offer good quality education. Quality and prestige (brand value) of public HEIs are much better than those of private ones (Annandakrishnan 2006; Sing 1983). In private HEIs, fees are much higher. Not only the poor students but well-off students also prefer public institutions. In poor states generally literacy rate is low. These states have to spend more on school education than higher education. Similarly, poor states cannot spend more on higher education as their per capita NSDP is low and tax collection is also likely to be low. In rich states public higher education system is expected to be more developed than poor states. Thus, we can deduce that there will be low correlation between per capita NSDP and share of enrolment in private HEIs. It is also corroborated in our study, as the value of this coefficient of correlation is low, 0.32.

In our study we have focused only on general higher education. In future, research should focus on enrolment in both technical and professional, and general education in order to get a comprehensive understanding of enrolment in higher education. As a person with qualification in technical and professional higher education has a better prospect of getting employment, the demand for this kind of education will be higher. Therefore, preference for getting technical and professional education will always be higher than that of general education. The share of enrolment in private institutions of professional education also affects the enrolment in private HEIs of general education.

More private investment is done in technical and professional education than in general higher education. Investment by private sector is mostly guided by the consideration of getting higher returns. Therefore, private sector will invest more in technical and professional education than in general higher education. In such conditions, a welfare state takes care of general education and invests on general higher education.

For professional education we do not have data for the states except Maharashtra. In Maharashtra private sector has invested more in technical and professional higher education than in general higher education. As a result, the share of private sector in total enrolment in

institutions of technical and professional education is 99.36%, whereas in general education, this share is 58.03% (Government of Maharashtra, 2015-16)

Many institutions, both public and private, did not provide information regarding enrolment to the MHRD. The data[2] regarding the share of private HEIs in enrolment is not based on the survey of all institutions. Therefore, data are based on estimations.

4.3 Fiscal Stress and Public Expenditure on Higher Education

Public subsidy on higher education becomes debatable when we have two objectives: first, to increase the enrolment with equal access and equity; and second, to control fiscal deficit. These objectives have an inverse relationship (Greenway and Haynes 2004; Tilak, 2004). New Economic Policy (NEP) 1991 had two components, viz. Structural Adjustment Policy, and Stabilisation Policy. Whereas the former stresses on the marketization, the latter puts emphasis on controlling the fiscal deficit (Chattopadhyay, 2015). The FRBM Act 2003 mandates the state to control the GFD/GDP. To reduce the GFD/GDP the state governments have to reduce the total expenditures or have to raise their incomes. For raising income, the state governments have limited scope.

When fiscal stress pressurizes the state government to reduce expenditure, ideally the government should curtail the non-development expenditure. But it is easy for the government to cut the development expenditure. Whenever the fiscal stress increases, the government cuts the development expenditure such as expenditure on health and education. Thus, apart from the policy and strong priorities, fiscal stress is an important factor, which determines the allocation of the budget for higher education. Here we have taken two fiscal stress indicators as defined by the RBI:

(i) The ratio of interest payment to revenue expenditure, and
(ii) The ratio of revenue expenditure to gross fiscal deficit.

[2] There are no segregated data on the enrolment of higher education in private and public sector institutions available except the recent MHRD Higher Education Survey (2011). It shows the state-wise extent of privatization of higher education system in India. Although, it is based on the survey of the samples and not on the population data but it is the only available data, which show the share of enrolment in private higher educational institutions out of the total enrolment.

For most of the states, value of coefficient of correlation between higher education expenditure and fiscal stress indicator is very low. It shows that expenditure on higher education does not have any strong relation with fiscal stress. It may be due to the fact that this expenditure has a very small share in the total expenditure. However, on the basis of whatever we have, the value of correlation coefficient between annual change in fiscal stress indicator and annual change in expenditure on higher education for most of the states are found to be negative.

Table No. 4.3

Correlation Between Annual Changes in Fiscal Stress Indicators with Annual Change in Exp. Hr. Edu.

States	Coefficient of Correlation (Hr Edu. Exp.) and (Int pay/Rev Exp)	Coefficient of Correlation (Hr Edu. Exp.) and (Rev Defi/GFD)
Andhra Pradesh	-0.138	-0.056
Bihar	0.048	-0.060
Goa	-0.284	0.001
Gujarat	-0.373	-0.166
Haryana	0.163	-0.156
Karnataka	0.151	0.043
Kerala	0.548	-0.258
Madhya Pradesh	-0.179	-0.289
Maharashtra	-0.398	0.195
Odisha	-0.082	-0.120
Punjab	-0.190	-0.055
Rajasthan	-0.124	0.303
Tamil Nadu	-0.018	-0.156
Uttar Pradesh	0.412	0.085
West Bengal	-0.417	-0.159

Source : Budgeted Expenditure on Edu., MHRD, GoI (Various Years), RBI Hand Book (Various Years)

The value of correlation coefficient between higher education expenditure and the first type of fiscal stress indicator, i.e., the ratios of interest payment to revenue expenditure for each state, is observed to be negative, except for Bihar, Haryana, Karnataka, Kerala, and Uttar Pradesh. The values of this coefficient for Bihar, Haryana and Karnataka are positive but very low. For Kerala, the value of the coefficient is positive and high (0.548), which highlights a curious aspect of the state's policy. In the period when the increase in the fiscal stress is

above average level, the increase in the state expenditure on higher education turn out to be above average as well. The values of correlation coefficient between higher education expenditure and the second type of fiscal stress indicator, .i.e., the ratios of revenue deficit to gross fiscal deficit in each state, is also found negative for the states except Goa, Karnataka, Maharashtra, Rajasthan, and Uttar Pradesh. The values of coefficient of correlation for Goa, Karnataka and Uttar Pradesh are positive but very low (Table 4.3). We should note that our two indicators, measures different types of fiscal stress. Table 4.3 shows that, in the main, regardless of how fiscal stress is measured, public expenditure on higher education is adversely affected by fiscal stress.

The non-plan expenditure is mandatory for the state because it is essential for maintaining the existing capacity of the system like salary and establishment expenditure. The government cannot curtail the non-plan expenditure and therefore, the scope of policy discretion on non-plan expenditure is minimal. Actually, the plan expenditure shows the new investment for the expansion of capacity of the system like the construction of new buildings, furniture, and creation of new posts in both existing and new institutions, etc. Therefore, plan expenditure shows the policy discretion of the government.

The values of correlation coefficient between annual change in fiscal stress indicator and annual change in plan expenditure on higher education are observed to be negative for most of the states. The values of correlation coefficient between plan expenditure on higher education and fiscal stress indicator of the first type, i.e., ratio of interest payment to revenue expenditure, are negative for the states, except Gujarat, Maharashtra, and Uttar Pradesh. The value of correlation coefficient for Gujarat is positive but very low. The values of correlation coefficient between higher education plan expenditure and the other fiscal stress indicator, i.e., ratio of revenue deficit to gross fiscal deficit (GFD), are also found to be negative for eight out of the 15 states in review.

Note, also, that the values of correlation coefficient for Haryana and Rajasthan are positive but very small in magnitude (Table 4.4).

Table No. 4.4 Correlation between Annual Changes in Fiscal Stress Indicator with Annual Change in Plan Exp. Hr. Edu.		
States	(Hr Edu. Plan Exp) and (Int pay/Rev Exp)	(Hr Edu. Plan Exp) and (Rev Defi/GFD)
Andhra Pradesh	-0.25	0.12
Bihar	-0.01	-0.07
Goa	-0.08	0.24
Gujarat	0.08	-0.22
Haryana	-0.05	0.03
Karnataka	-0.45	0.11
Kerala	-0.50	-0.14
Madhya Pradesh	-0.32	-0.32
Maharashtra	0.12	0.24
Odisha	-0.08	-0.22
Punjab	-0.13	-0.25
Rajasthan	-0.20	0.06
Tamil Nadu	-0.50	-0.22
Uttar Pradesh	0.71	-0.14
West Bengal	-0.75	0.34
Source : Budgeted Expenditure on Edu., MHRD, GoI (Various Years), RBI Hand Book (Various Years)		

Despite the keenness shown by the Centre to raise budgetary allocation for higher education in recent years buoyed by a higher than anticipated tax collection, a majority of universities continue to suffer from fund crunch as the states are compelled to comply with the restrictions of borrowing as per the Fiscal Responsibility and Budget Management (FRBM) Act 2003 (Chattopadhayay, 2010).

In India, the FRBM Act 2003 set the limits to be achieved for fiscal and revenue deficits for the Centre. Since taxes are cut on the ground of giving stimulus to the private sector and observing fiscal balance limits government intervention, which is the real aim of these policies.

Using its clout, the Centre has forced the States to also pass their own FRBM Acts to bring down the deficits in their budgets. The Finance Commission was also used to coerce the latter into accepting the implementation of FRBM. In a federal structure, the Centre-State relations

are important but in India these have been heavily weighted in favour of the Centre with the States playing a subordinate role. This has undermined democracy in the country.

The federal structure ought to mean that the financially stronger states would help the weaker ones and ought not to mind proportionally higher allocations to the latter. However, recently, this spirit has weakened and the richer States have been objecting to such an arrangement claiming that their own needs also have to be met. It is forgotten that the nation is interdependent so that while the richer States may be producing more, the poorer States provide them the market to sell these products (Kumar, 2013).

4.4 Share of Plan Expenditure in Higher Education Expenditure

Plan expenditure is an expenditure over and above the non-plan mandatory expenditure. Plan expenditure includes new projects, new schemes, new institutions, and new posts. It is additional to the maintenance of existing capacity of the system. Out of the total expenditure, the share of plan expenditure shows new developments. It is optional and discretionary, which reflects the policy of the state. The share of plan expenditure on higher education out of total expenditure on higher education exhibits substantial fluctuations; sometimes it is 25 per cent, sometimes 2 per cent and sometimes nil. This shows an inconsistency of policy towards higher education and is a reflection of the whims and vagaries of policy-makers (Table 4.5).

Table No. 4.5 Share of Plan Exp. Hr. Edu. (Percentage)			
Year	1990-91	2000-01	2009-10
Andhra Pradesh	2.11	0.75	28.09
Bihar	3.02	2.13	18.41
Goa	52.56	26.16	18.60
Gujarat	1.11	1.31	16.08
Haryana	3.72	4.07	27.89
Karnataka	9.57	3.34	18.80
Kerala	3.70	5.40	9.25
Madhya Pradesh	14.68	2.62	5.05
Maharashtra	1.68	0.80	1.19
Odisha	26.52	25.87	4.55
Punjab	1.91	0.60	0.00
Rajasthan	6.15	8.59	3.04
Tamil Nadu	1.57	1.67	2.72
Uttar Pradesh	6.24	2.84	3.72
West Bengal	4.83	1.96	3.21
Source : Budgeted Expenditure on Edu., MHRD, GoI (Various Years)			

Table 4.6 shows that there is significant a cross-state variation in twenty years' average of the share of plan expenditure, out of total expenditure on higher education this ratio is 3 per cent for Maharashtra; for Goa, Odisha and Haryana, it is 32.62, 25.76, and 13.04 per cent respectively. Higher proportion of plan expenditure shows the higher priority and lower one shows low priority for new investment in higher education of the state concerned. Bhushan (2009) studied the plan and non-plan public expenditure on higher education for India. He found that the bulk of the higher education expenditure is of the non-plan type. Total plan expenditure during 2002-05, of both centre and states, constitutes only 12 percent of total expenditure. Quality of education is deteriorating not only due to insufficient fund, but also due to change in the composition of expenditure. At present, 75 percent of the total expenditure on higher education is spent on salaries and maintenance, only 10 to 15 percent is for development (GoI, 2007).

Table No. 4.6 Share of Plan Exp. Hr. Edu. (Percentage)	
States	Average of 20 Years
Andhra Pradesh	5.170
Bihar	3.800
Goa	32.621
Gujarat	3.188
Haryana	13.040
Karnataka	7.510
Kerala	5.301
Madhya Pradesh	10.867
Maharashtra	2.449
Odisha	25.768
Punjab	1.821
Rajasthan	5.991
Tamil Nadu	1.538
Uttar Pradesh	6.357
West Bengal	2.928
Source : Budgeted Expenditure on Edu., MHRD, GoI (Various Years)	

4.5 Analysis of Changes in Enrolment Rates

Here enrolment rate means the share of enrolment in higher education in the population of age group of 18 to 23 years. It is affected by the policy of the state. Every state has an objective to enhance the enrolment rate of higher education through its policy. Higher enrolment rate reflects the greater emphasis on the policy on higher education in a state.

In the year 1990-91, enrolment rates in higher education for all the states were below 7.00 per cent. It was the highest in Maharashtra (6.93 per cent), followed by Punjab (6.77 per cent), and Tamil Nadu (6.09 per cent). It was the lowest for Odisha (2.69 per cent), and then came Bihar (3.70 per cent). In the second decade (from 2000-01 to 2009-10) the enrolment rate increased at a higher rate than in the first decade (from1990-91 to 2000-01).

In the first decade, this increment is the highest for Odisha 5.38 per cent, then for Maharashtra 3.91 per cent and for Haryana 3.89 per cent. For Odisha it increased at a higher rate because its base was very low, and the absolute value was also low, i.e., 8.07 per cent.

For Rajasthan it increased at the lowest rate of 0.96 per cent, then for Punjab at 0.99 per cent and then for Kerala 1.87 per cent.

In the second decade it increased at the highest rate for Goa as its base was very low, i.e. 0.01. For Andhra Pradesh it was 11.46 per cent, then for Tamil Nadu 10.45 per cent and then for Punjab 6.48 per cent. For Bihar it increased at the lowest rate of 1.06 per cent, for West Bengal at 2.36 per cent and for Odisha at 3.20 per cent (Table 4.7). We conjecture that in the first decade, the rate of increment in enrolment of higher education was low due to the withdrawal of government funding and the lack of increase in private sector provisioning of higher education. In the next decade, enrolment increased at a higher rate. This may be due to higher rate of privatization in higher education, particularly in the richer States.

Table No. 4.7

Enrolment Rate in Higher Education (Percentage)

State	1990-91	2000-01	2009-10	Decadal Change (2000-01)-(1990-91)	Decadal Change (2009-10)-(2000-01)
Andhra Pradesh	4.25	7.74	19.20	3.49	11.46
Bihar	3.70	5.86	6.92	2.16	1.06
Goa	NA	0.01	17.69	NA	17.67
Gujarat	5.43	8.03	13.03	2.61	5.00
Haryana	5.00	8.88	14.83	3.89	5.95
Karnataka	5.78	8.60	14.20	2.83	5.59
Kerala	4.54	6.41	12.57	1.87	6.16
Madhya Pradesh	4.45	6.54	11.41	2.09	4.87
Maharashtra	6.93	10.84	15.18	3.91	4.33
Odisha	2.69	8.07	11.27	5.38	3.20
Punjab	6.77	7.76	14.24	0.99	6.48
Rajasthan	4.39	5.35	10.08	0.96	4.73
Tamil Nadu	6.09	9.11	19.56	3.02	10.45
Uttar Pradesh	4.14	6.13	11.37	1.99	5.24
West Bengal	4.65	6.70	9.06	2.05	2.36

Source : UGC annual reports (Various Years), Census Reports, GoI (Various Years)

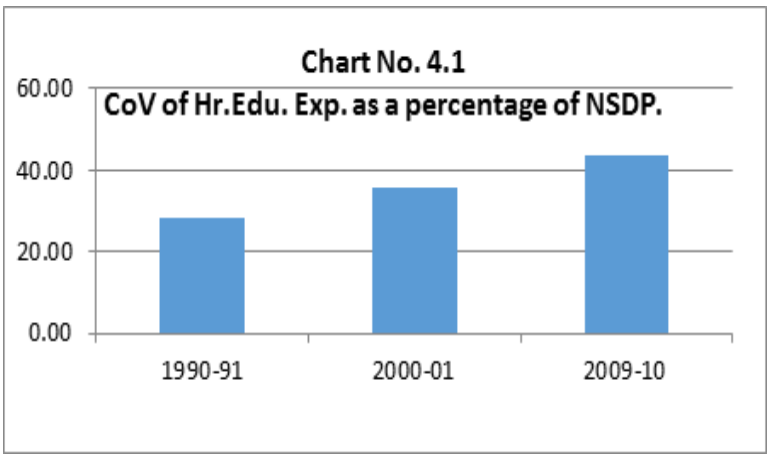
In 1990-91, the difference in enrolment rates of states was not high; the rates varied between approximately 3 to 7 percent. But in 2009-10 enrolment rates varied from this 6 to 19 per

cent. Thus, the disparities increased at a higher rate in the second decade. We can conclude that in the period of two decades, the richer states succeeded in achieving higher enrolment rate than the poor ones, with high privatization policy in the former.

4.6 Analysis of Disparity among the States

In the era of liberalization, due to neo-liberal and pro-privatization policies, disparities among the states have increased in terms of per capita income. In this section we want to study the disparities among the states in terms of different parameters of higher education. With the comparison of these different parameters we can explore the reason for the changes during the period under study. We want to investigate, one, how the disparity among the states has changed in the terms of per capita higher education expenditure, as a share of the per capita state income (NSDP) and, two, what are the possible reasons for these changes.

To measure the disparity among the states we calculated the coefficient of variance (CoV) for all these parameters. All the parameters or indicators are taken at three points of time (i.e., 1990-91, 2000-01, and 2009-10) and CoV has been calculated across the states for these 3 points. Then, we observe the trend to know how the disparity has changed over time. Higher education expenditure as a percentage of NSDP has been taken at three points of time (1990-91, 2000-01, and 2009-10) for 14 states, except Goa. It has been calculated across the states for these 3 points of time. Increasing trend is observed for these points: the CoVs are 28.30, 35.53, and 43.65 per cent respectively. It shows that disparity among the states in terms of higher education expenditure as a percentage of NSDP during two decades has been increasing (Chart 4.1).



Per capita NSDP (constant price) at the same three points shows an increasing trend, i.e., CoVs are 32.03, 34.54, and 40.50 per cent respectively. It shows that disparity across the states in per capita income during two decades has increased (Chart 4.2).

The coefficients of variation for per capita expenditure on higher education (constant price) indicates an increasing trend for these three points of time, i.e., 30.16, 37.41, and 41.72 per cent respectively (Chart 4.3).

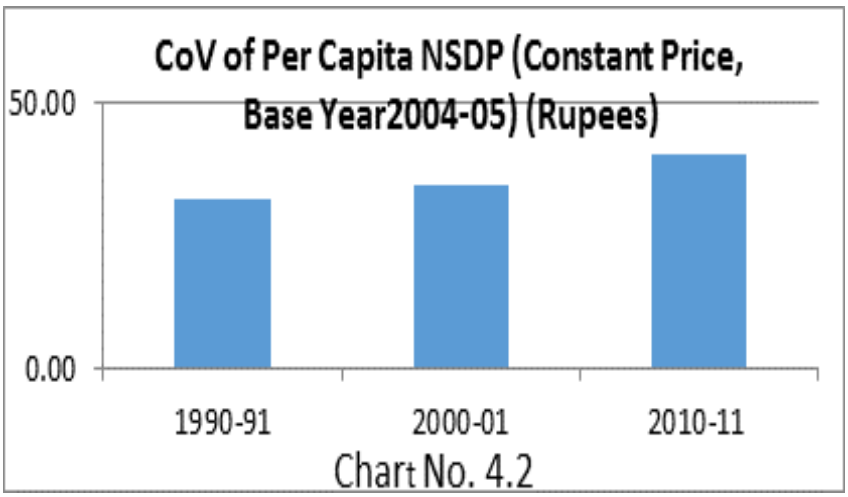


Chart No. 4.2

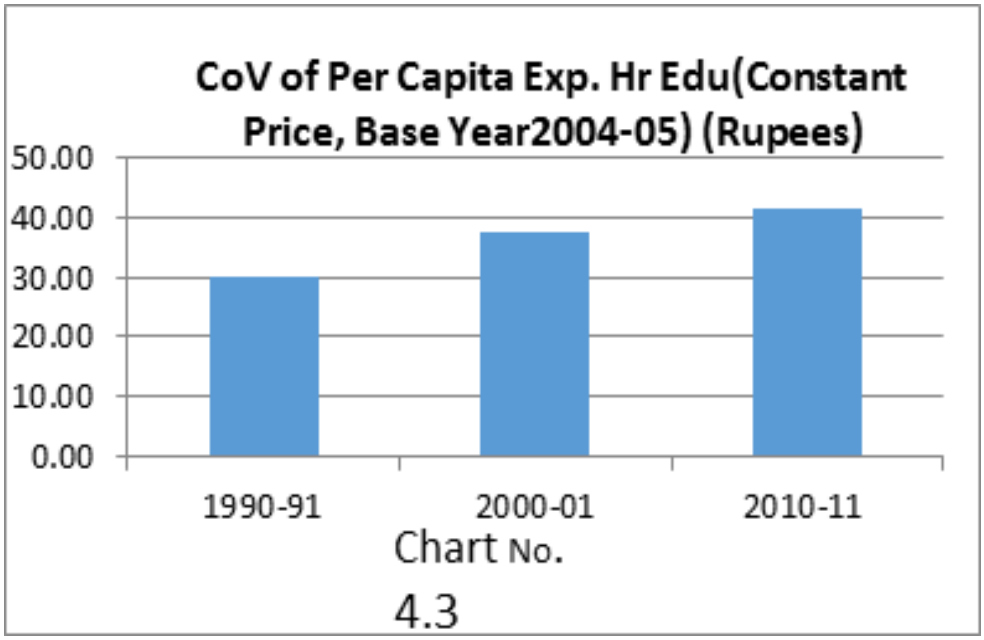


Chart No. 4.3

The CoV for state budget expenditure as percentage of NSDP at three points of time is observed to be 19.85, 17.92 and 18.75 per cent respectively. Between 1990-91 and 2009-10, disparity among the states, measured in terms of state budget as share of NSDP, during has declined slowly.

It is expected that as the disparity in terms of state budget expenditure decreases, the disparity in terms of higher education expenditure should decline as well. However, it has not happened in our cases. The disparity in terms of expenditure on higher education has increased across the states. It reflects that the states which were spending more on higher education earlier, later spent even more on higher education. However, inter-state disparity in the total budget expenditure other than the expenditure on higher education has declined.

Coefficient of Variation (CoV), for expenditure on higher education as a percentage of NSDP, has been calculated for 20 years, from 1990-91 to 2009-10, for each state. A low value of CoV would show that there is a consistency in expenditure on higher education in the state concerned. Haryana, Rajasthan, and West Bengal are found to have low values of CoV that shows low fluctuation rate in expenditure. Bihar, Goa, and Uttar Pradesh have high values of CoV which shows high rate of fluctuation in the expenditure. High rate of fluctuation in expenditure on higher education shows that policy of the state towards higher education is inconsistent.

4.7 Analysis of Economic Growth and Expenditure on Higher Education

Due to neo-liberal and pro-privatisation policy of the state, fiscal pressure on the state is increasing and the growth rate of public expenditure on higher education is continually decelerating (Tilak 1991; Agrawal 2009; Chattopadhyay, 2007). As a result, private sector is increasing its share in enrolment of higher education. Out of the total enrolment, approximately 60 per cent share has been captured by the private sector (MHRD, 2011). The law of increasing state activities (Wagner, 1883; 1890) says that as economy expands, public expenditure also increases. As the economy grows, the activities of the government increase over time. As economy grows, the revenue of the government increases. In a welfare state the responsibility of government increases, and it increases the public expenditure.

In this section we want to know the relationship between the growth in state income (NSDP) and the growth in different factors related to higher education. We assume that as the state income grows, public expenditure should also grow. Here, we analyse growth of different factors related to higher education, such as expenditure as a percentage of NSDP, state budget as a percentage of NSDP, total state budget, higher education expenditure, state income (NSDP), per capita expenditure on higher education, share of higher education expenditure in the total education expenditure etc.

For this purpose, we calculated Compound Annual Growth Rate (CAGR) of twenty years for different aspects of public expenditure on higher education and income and expenditure of related states. All these state-wise parameters are compared in order to examine the policy and performance of the state regarding enrolment and public expenditure on higher education.

The growth rates of public expenditure on higher education as a percentage of NSDP for twenty years for all the states are negative except for Odisha. It shows that all these states have a declining trend regarding the public expenditure on higher education as a proportion of NSDP. We have compared the share of public expenditure on higher education in the NSDP with the growth rates of state budget as a percentage of NSDP. The growth rates of state budget as a percentage of NSDP are also mostly negative, positive growth rates recorded in six states (viz. Andhra Pradesh, Karnataka, Madhya Pradesh, Punjab, Rajasthan, and West Bengal). Now compare the two colomns of data shown in Table 4.8. For most states (13 out of 15), the growth rate of state budget expenditure as a proportion of NSDP exceeds the growth rate of higher education expenditure as a proportion of NSDP. This shows lesser priority of the state for higher education than other expenditures in the budget.

Table No. 4.8 State-wise Growth Rates (1990-91 to 2009-10)		
State	CAGR of Tot. State Budget Exp. / NSDP	CAGR of Hr.Edu. Exp. as a percentage of NSDP
Andhra Pradesh	0.009	-0.039
Bihar	-0.005	-0.007
Goa	-0.021	-0.038
Gujarat	-0.009	-0.030
Haryana	-0.001	-0.001
Karnataka	0.002	-0.027
Kerala	-0.005	-0.017
Madhya Pradesh	0.004	-0.025
Maharashtra	-0.005	-0.023
Odisha	-0.003	0.010
Punjab	0.005	-0.018
Rajasthan	0.007	-0.011
Tamil Nadu	-0.003	-0.019
Uttar Pradesh	-0.005	-0.027
West Bengal	0.008	-0.015
Average of 15 State	-0.002	0.005

Since the 1990s most of the Indian states have a decelerating trend in expenditure on higher education. This is also corroborated by other researchers for all-India level studies. As a result of economic liberalisation, public expenditure on health and education is declining (Kumar et al, 2005). Expenditure on higher education as a share of the total budget of the Government of India shows a declining trend from 1980-91 to 1996-97 (Sharma, 2005).

We have compared the growth rate of expenditure on higher education (constant price) with the growth rate of NSDP (constant price). According to Wagner (1883; 1890), we can expect that as the income of a state (NSDP) increases, its expenditure on higher education should also increase. Growth rate of expenditure on higher education is found to be lower than the growth rate of NSDP in all the states, except Odisha and Haryana. In Haryana, both growth rates are the same; Odisha the growth rate of expenditure on higher education is higher than the growth rate of NSDP. (Table No. 4.9).

Table No.4.9 State-wise Growth Rates (1990-91 to 2009-10)		
State	CAGR of NSDP (Constant Price)	CAGR Exp. on Hr. Edu. (Constant Price)
Andhra Pradesh	0.060	0.019
Bihar	0.039	0.032
Goa	0.066	0.026
Gujarat	0.072	0.041
Haryana	0.064	0.064
Karnataka	0.063	0.034
Kerala	0.062	0.044
Madhya Pradesh	0.047	0.021
Maharashtra	0.067	0.042
Odisha	0.052	0.063
Punjab	0.047	0.028
Rajasthan	0.052	0.040
Tamil Nadu	0.063	0.042
Uttar Pradesh	0.054	0.026
West Bengal	0.061	0.045
Average of 15 State	0.065	0.051

This shows that both Haryana and Odisha give high priority to higher education in their state budgets. If we see the average for all the fifteen states, the growth rate of expenditure on higher education (0.051) is lower than the growth rate of NSDP (0.065). The same trends are observed if NSDP and higher education expenditure are measured at current prices (Table No. 4.9).

Table No. 4.10 State-wise Growth Rates (1990-91 to 2009-10)		
State	CAGR of NSDP (Current Price)	CAGR Per Capita Exp. Hr Edu. (Current Price)
Andhra Pradesh	0.136	0.079
Bihar	0.112	0.079
Goa	0.167	0.111
Gujarat	0.135	0.082
Haryana	0.141	0.117
Karnataka	0.131	0.084
Kerala	0.132	0.105
Madhya Pradesh	0.107	0.059
Maharashtra	0.134	0.089
Odisha	0.130	0.126
Punjab	0.120	0.083
Rajasthan	0.117	0.092
Tamil Nadu	0.131	0.096
Uttar Pradesh	0.127	0.075
West Bengal	0.122	0.090

We have compared the growth rate of expenditure on higher education and expenditure on education at all levels (Elementary + Secondary + Higher) across the states for twenty years. For all the states, except Punjab and Goa, the growth rate of expenditure on higher education is lower than the growth rate of expenditure on other levels of education. It shows lower priority of the States towards higher education. The State governments are giving higher priority to elementary and secondary education than higher education (Table No. 4.11). When we look at the two decades separately, the share of expenditure on higher education out of expenditure on all levels of education has a declining trend for most of the states, but it has declined at a higher rate in the second decade.

Table No. 4.11 State-wise Growth Rates (1990-91 to 2009-10)		
State	CAGR Exp. on Hr. Edu. (Current Price)	CAGR (Ele.+Sec.+Hr.) Edu. Exp. (Current Price)
Andhra Pradesh	0.092	0.153
Bihar	0.104	0.140
Goa	0.123	0.120
Gujarat	0.101	0.140
Haryana	0.140	0.165
Karnataka	0.100	0.153
Kerala	0.112	0.143
Madhya Pradesh	0.080	0.149
Maharashtra	0.107	0.147
Odisha	0.142	0.160
Punjab	0.099	0.097
Rajasthan	0.105	0.150
Tamil Nadu	0.109	0.131
Uttar Pradesh	0.097	0.146
West Bengal	0.106	0.117
Average of 15 State	0.122	0.132

The growth rates of per-student expenditure are negative for all the states, except Bihar. Bihar is the poorest state, where the degree of privatization of higher education is very low. Almost the entire system of higher education depends on public institutions; hence, the state has to spend a higher share of its income on higher education. Therefore, the growth rate of public expenditure on higher education is positive, although its absolute value is very low. Andhra Pradesh has the lowest growth rate in per-student expenditure, followed by Uttar Pradesh, Madhya Pradesh, and Karnataka. As mentioned earlier, other researchers (Agarwal, 2009; Bhushan, 2009; Ved Prakash, 2007; Sundaram, 2006) have also corroborated the same results for all India level studies.

The growth rates of enrolment for twenty years are higher than the growth rates of expenditure on higher education, except Bihar, Haryana, and West Bengal. It shows that in most of the states, expenditure on higher education is not increasing commensurately with the growth rate of enrolment. It implies that the state is withdrawing itself from higher education and letting the private sector expand. Andhra Pradesh has the highest difference in the growth

rate of expenditure on higher education and the growth rate of enrolment. It shows that Andhra Pradesh has a higher degree of privatisation in higher education among all the states (Table No. 4.12).

Table No. 4.12

State-wise Growth Rates (1990-91 to 2009-10)

State	CAGR of Enrolment Hr Edu	CAGR of Per Student Exp. Constant Price
Andhra Pradesh	0.094	-0.069
Bihar	0.041	0.061
Gujarat	0.063	-0.021
Haryana	0.082	-0.017
Karnataka	0.064	-0.028
Kerala	0.045	-0.001
Madhya Pradesh	0.056	-0.033
Maharashtra	0.061	-0.018
Odisha	0.089	-0.024
Punjab	0.055	-0.026
Rajasthan	0.070	-0.028
Tamil Nadu	0.069	-0.024
Uttar Pradesh	0.076	-0.054
West Bengal	0.051	-0.005

Table No. 4.13 State-wise Growth Rates (1990-91 to 2009-10)		
State	. (Constant Price CAGR of Hr. Edu. Exp)	CAGR of Enrolment Rate
Andhra Pradesh	0.019	0.078
Bihar	0.104	0.032
Gujarat	0.041	0.045
Haryana	0.064	0.056
Karnataka	0.034	0.046
Kerala	0.044	0.052
Madhya Pradesh	0.021	0.048
Maharashtra	0.042	0.040
Odisha	0.063	0.074
Punjab	0.028	0.038
Rajasthan	0.040	0.042
Tamil Nadu	0.042	0.060
Uttar Pradesh	0.018	0.052
West Bengal	0.045	0.034

Thus, we observe that the public funding for higher education in Indian states is decelerating, which may be adversely affecting the access and quality of higher education. Agarwal (2009) estimated that, to higher education private sector contributes 1.00 percent of the GDP and the same is contributed by the public sector.

Tilak (2010) argues that there should be a national legislation to ensure a minimum level of public funding as a share of GNP, total expenditure and per student expenditure in real price for different levels of education. We do not have any data about private funding of higher education. Agarwal (2006) observed that nearly 50 percent of the higher education expenditure comes from private sources in India. The advocates of privatisation claim that it is increasing all over the world in higher education. But it is not fully correct. In UK, higher education is primarily in the public sector. In US, 77 percent of all students receive education in 92 public universities (Agarwal, 2009).

Ved Prakash (2007) observed that public funding for higher education is lagging behind in comparison with the enrolment since 1990s. Because of slowdown in public funding and increasing in demand for higher education the quality of higher education is suffering.

Similarly, equity and access of different social groups are also examined by earlier researchers at all India level, e.g., Beteilie, 2005; Deshpande, 2006; Sundaram, 2006; Kapur and Mehta, 2004; Srivastava and Sinha, 2008. All these studies analysed the issue of access and inequality in higher education at all-India level. Only Ajith and George (2009) attempted a state level study for Kerala. They argued that higher education system is moving towards privatization and hence the accessibility of poor students has declined.

Interstate variation in public expenditure on higher education is analysed by Tilak (2016) for the year 2009-10 only. This is the only such study. In this study, disparities across the states are analysed through coefficient of variation, but for that particular year only. Again, this study is limited to expenditure on higher education. This study does not take into account the enrolment rate, per student public expenditure and the extent of privatization in higher education. After the 1990s a drastic change has been observed in economic policies related to higher education. A lot has happened in this whole period, in terms of public expenditure. Therefore, it is essential to understand the whole gamut of public expenditure on higher education by analysing all the above mentioned aspects, from 1990s. Our study has made clear the interstate variations over the two decades.

The interstate variations in public expenditure on higher education can be explained by fiscal condition, per capita income, growth rate of state income (NSDP) and above all, the policy of the respective state regarding higher education. Similarly, the disparities among the states with respect to the public expenditure on higher education can be explained by the disparities in the state income (NSDP), total budget expenditure as a share of NSDP, etc.
In most of the earlier studies, trends in public expenditure on higher education were analysed at all-India level, as in Ved Prakash, 2007; Bhushan, 2009; Kapur and Mehta, 2004; Agrwal, 2009; Sharma, 2005; Kumar at al, 2005. These studies did not examine state level variation.

Kapur and Mehta (2004) observed in their country level study that poor students have less access to private institutions. Due to increasing number of self-financing institutions in higher education equality and access are adversely effected. For a comprehensive understanding of public expenditure on higher education and its outcome in terms of enrolment, we should analyse the recent growth of privatization in higher education, growth in state income, and fiscal conditions of the state. All these should be examined through inter-state variations. At the same time, in any state level study of public expenditure on higher education,

privatization in enrolment should be seen with respect to equality and access of different social groups (SC, ST, OBC, Minorities and women).

A state specific study is done by Ajith and George (2009) for Kerala. They found that higher education system is moving towards privatization. Share of enrolment in private institutions has increased drastically, particularly for professional and technical courses. Public expenditure on higher education as a share of State Domestic Product declined from 1980-81 to 2004-05. In this study the changes in the proportions of different weaker sections of society (SC, ST, OBC and Minorities and women) in higher education are not examined. The policy of the state government for the weaker sections is not discussed in this study. How weaker sections are protected from the negative effects of privatization of higher dedication system is not examined in their study.

Bhushan (2009) examined the public expenditure of the whole country on higher education since 1951. Apart from financing of higher education, he analysed some other important issues related to higher education like growth, quality, foreign universities in India, FDI in higher education, reforms, governance, etc. On the issue of financing he analysed the growth rate of public expenditure on higher education by central and state governments. Contributions of central and state governments in financing higher education have been studied since 1951. Per student public expenditure on higher education in nominal and real terms has been studied from 1993-94 to 2003-04. He found that in nominal terms it has gone up but in real terms it has declined during this period. He concluded that due to neo-liberal policies of the government, public funding for higher education has decelerated since 1980. He evaluated other aspects relating to financing of higher education such as tax to GDP ratio, crowding out of private expenditure by public expenditure on higher education, access and expansion, quality, etc.

But in his study inter-state variations with regard to these issues in higher education are not studied. Although in this study central and state financing of higher education has been studied, the total expenditure of all the states is considered as a whole. Because states have different fiscal conditions, per capita incomes and above all, different policies regarding higher education, they cannot be studied jointly. Here the policy is more important. It may be possible that a state may spend more on higher education even when its fiscal conditions are under stress. At the same time, some other state may spend less even when its fiscal

conditions are sound. It depends on the priorities of the states for higher education and other heads of expenditures like elementary education, secondary education, health and other developmental activities. All these depend on the policy of the state concerned. Extent of privatisation also depends on the policy of the state.

Obviously, policy is a political question, but other non-political aspects like fiscal conditions, per capita income, etc. also limit the expenditure on higher education. Out of total enrolment in higher education in India, more than 80 per cent enrolment comes under the state government. Both the central and the state governments are concurrently responsible for funding higher education. The share of central government in funding higher education in 1956-66, 2003-04 and 20009-10 was 37, 19.4, and 35.5 per cent respectively (MHRD). Thus state governments have always made greater contributions to higher education than the central government. Therefore, whenever we study public funding for higher education, it becomes essential to analyse the state-wise funding.

4.8 Private Sector and Competition

Degree and employment are linked, in the public sector and in most of the organised private sector. A degree is considered as a minimum eligibility in the job market. It is one of the most important reasons for the demand for degrees. Generally it is assumed that anybody who has a degree will possess the quality, efficiency and dexterity in accordance with the grades in his/her degrees or certificates, and that s/he is eligible to get the job in that area. Due to huge expansion of higher education in public sector, uncontrolled expansion in private sector and increasing effect of corruption in higher education, the quality of higher education has drastically deteriorated. A huge gap is found between the actual quality of the degree-holder and the grades in his/her degree or certificates. There is no direct and certain relationship between the grades and the quality of the person who possesses a degree or certificates. In spite of this fact, the demand for the degree in the market is increasing at a fast rate, because it is a minimum eligibility to apply for the job in many places.

Although without any quality one cannot get a good job in the market, only on the basis the degree of good marks. Due to the increasing level of corruption in the society, these poor

quality degree holder try to get lower level jobs and sometimes they succeed to get these jobs. This phenomenon also increases the demand for degree in the market.

Ideally, to get a degree a person should have minimum eligibility, do good efforts, study hard and earn efficiency and quality. In the condition of high demand, in the private sector institutions one can easily get admission, if one can afford it financially, even if one may not have required merit and eligibility. Such candidates easily succeed to get the degree without much efforts, little study and minimum labour, from private institutions if they have money to pay their exorbitant fees. Because of this market condition, many institutions having low quality are charging exorbitant fees and mushrooming at a very fast rate. Therefore, to expect that the competition will improve the quality and efficiency in the private sector which in turn, will decline the cost, and ultimately prices for the consumers (i.e. students), does not prove true here. Because private sector is profit maximiser, it cannot provide justice to socially and economically weaker sections of the society. Private sector charges very high fees, which reduces the access of weaker sections to higher education. It is evident in available literature and research that the proportion of the students of weaker sections is relatively low in private sector higher education institutions. In these institutions not only the access of students of weaker section is very low, but they also compromise with merit and quality.

Bhushan (2009) argued that current neo-liberal policies of higher education is based on incorrect assumptions. It assumes that all actors (students and teachers) are homogenous. Students will choose course and colleges through demand and supply mechanism. Competitions will then allow quality courses and institutions to survive.
Actually, this whole gamut of policy based on wrong assumptions such as, by promoting the private sector, competition will increase in the market and it will improve the quality of the product; the institutions which have low quality will have to go out of the market; competition will increase efficiency; costs will decline and ultimately prices will also decline and consumer will get the benefit. As a result of all these, students will get the good quality education at low prices.

It is assumed that promotion of private sector will increase competition. It would attract new investment in the market, the number of higher education institutions would increase, and the enrolment in higher education would also go up. Since education is service which is entirely

different from the other services available in the market such as telephone, taxi, internet etc. there is a big asymmetry of information is found in the market of higher education. There is a big gap in the information between a consumer and a service provider. A consumer does not have full information about the quality of service which he is purchasing.

Demand for higher education continues to outpace the supply and higher education is severely underfunded by the state (Tilak, 2004). Per student public expenditure has been declining from 1990-91 to 2002-03, (Agarwal, 2009). Because of these factors the private sector is expanding at a very fast rate.

De jure or legally, any educational institution cannot earn any profit from its activities, but in practice, in most of the private higher educational institutions profit is the main drive for investing. They siphon out the money by manipulating their books of accounts (Chattopadhayay, 2007). At present very few institution are working for philanthropy. Especially, after the implementation of new economic policies, most of the new higher educational institutions are attracted to invest only by potential profit in this sector. Because of this profit maximization tendency in private sector institutions, the quality, merit, and access in higher education are badly affected. It has deteriorated the quality in the whole academia including public sector. Its bad social and economic effects have to be borne by whole society and economy. Most of the graduates are not employable because grades in their degrees do not represent their quality, efficiency, and dexterity. In such conditions, economy of the country cannot get the benefits of highly increasing growth rate of enrolment in higher education and demographic dividend.

The neo-liberal and pro-privatization policy of the government of India is affecting the nature of higher education in the nation. Due to pressure of treaties with IMF and WTO, the government of India has to change its policies in this line (Nayyar, 2007).

The quality of private and public institutions:

No doubt the quality of education is far better in public sector institutions of higher education than in private ones. In public sector institutions, the faculty are well qualified and most of them are permanent faculties. At present very few teachers are ad-hoc or on contract basis, but even these are also well qualified and their number is not more than 10 per cent. These institutions strictly follow all the rules and regulations of the respective state government

along with other regulations. In public sector institutions there is no difference in the stated salary and the real one. All the employees are given full salary as per the norms. If both public and private institutions exist in any city or town, generally the cut-off of merit for admission is found to be lower in private institutions. Sometimes all the admissions in private institution are found below the cut-off level of local public institutions. Meritorious students always prefer the public institutions. In private institutions, most of the faculties are on ad-hoc basis or temporary; very few are permanent. Even the permanent faculties are practically temporary. They are employed at the mercy of the management and they can be fired any time. The salaries to the employees in the private sector institutions are far below the stated salary norms. The private sector employers recruit such faculties who are technically qualified as per the norms but ready to work on minimum salary even, though they may not be good in quality. Since the extent of unemployment in the market is very high, the employers easily get the low quality faculty at minimum price. In India, no private university so far has the profile of world class research university, even though a few new ones aspire to achieve that status (Agarwal, 2009).

4.9 Corruption in Higher Education System

Corruption in higher education system also affects the quality of education, especially in private institutions. Misuse of public offices for private benefits is called corruption. The nature of corruption in public sector institutions is different from that of private ones. In public sector institutions employees of different levels in hierarchy, commit malpractices for their personal benefits. On the other hand, in private sector the operator designs the model to maximise the profit through corruption. The operator is more vigilant to prevent the internal corruption within the institution by the employees for their personal benefits. The internal governance of a private institution is found very strict.

Although, corruption is prevalent in both the sectors private and public, the private sector is more corrupt, because the operator of a private sector is a profit maximiser, and for profit maximising he designs the system accordingly even with corruption. If we allow the colleges and universities to generate surplus, there will be serious consequences on higher education (Majumdar, 1983). In a public sector employees misuse their office for their private benefits at the cost of organisational benefit or public benefits. The objective of public sector is to

promote higher education rather than profit earning. Therefore, most of the private higher educational institutions are working on commercial principle. Anand Krishan (2006) observed that only one fourth of total private educational institutions genuinely are working as public trusts or charitable societies.

There are various regulatory authorities, which ensure certain standards in higher education. The regulators in the Indian higher education system are as follows:

University Grants Commission (UGC)
All Indian Council for Technical Education (AICTE)
Distance Education Council (DEC) Under the IGNOU Act
Medical Council of India (MCI)
Pharmacy Council of India (PCI)
Indian Nursing Council (INC)
Council of Architecture (CoA)
Bar Council of India (BCI)
Dental Council of India (DCI)
Central Council of Homeopathy (CCH)
Central Council of Indian Medicine (CCIM)
Rehabilitation Council of India (RCI)
National Council for Teacher Education (NCTE)
Veterinary Council of India (VCI)

It is a pity that corruption is also prevalent among the regulators themselves in granting approval to new institutions, recognition, aid etc. Jurisdictions of the regulators are overlapping and often encroach upon others' jurisdiction, with the result that ultimately the students suffer. As the proportion of public funding reduces in higher education institutions, the extent of regulation of public authorities also declines (Prashad, 2008).

In public sector the nature of corruption is different. Teachers are careless, reluctant in teaching, research supervision, and evaluation. In this process they are not making money and direct benefits, but it is also indirect corruption. Generally, in public institutions admission process is transparent, in these institutions different type of quotas like MLA quota, MP quota, Governor quota are violation of merit and it is an indirect corruption. Teachers'

absenteeism is very common in public institutions. Mass coping in examination, sub-standard evolution, fake attendance of students and favouritism in evolution are also found in these institutions. These are non-monetary corruption in which teachers do not make money. Apart from these, teachers are also involved in making money and misusing of public office for their private benefits.

In private colleges and Universities corruption is different. Because, as per rule, private university cannot affiliate any college, all the private colleges are affiliated to Public University. Therefore, private college cannot do much malpractice in examination process. They do malpractices in admission, fees, and salary of employees. But, private universities have more freedom, and autonomy. They have their own admission, examination process, fees, curricula, and teaching learning process. The scope of corruption is more in private university than private college. Private university can do anything; they can go to any extent of malpractices. Many of the private universities do not follow rules and regulations of regulatory authorities. Even, some private universities have issued fake degrees and operators have prosecuted.

Private colleges charge exorbitant fees, many hidden charges on the name of lab charge, development fee, project and assignment fees etc. Acutely, they do not have all the facilities and full infrastructure in their colleges. They violate norms of affiliating university and other regulatory authorities. They recruit ghost (fake) teachers and staff on their record, and somebody else work in reality. They pay the lower salary to teachers and staff than what is stated.

Now they devise a new method of earning. They have started value added services by their sister concerns who run on commercial principles can legally earn commercial profit. The other services, like hostels, canteens, mess, transportation, stationery, and other equipment shops etc. are provided by the commercial sister concerns. Profit of their sister concerns does not reflect in the account books of the educational institutions.

Not only the public and private institutions of higher education are engaged in corruption but also many regulatory authorities are also caught and prosecuted. Some important cases of corruption in higher education system are as follows:

MCI Chairman, CBI probe, 2 Crore bribe,

PMT Scam, Madhya Pradesh, HC issue notice to MCI (ToI, August 12, 2013)
Former Principal held in UGC grant scam probe,
Former Chairperson AICTE accused in scam by CBI (ToI, August 27, 2011)
Indian Nursing Council, President prosecuted by CBI (ToI, October 4, 2009)

Impact of corruption on Higher education:

Due to the increasing level of corruption in the system, the quality of Higher Education is deteriorating, as is evident by NAAC grading in 2009 of universities and colleges in India. Most of the institutions (67.8per cent) are graded low (C grade); 11 per cent and 21.2 per cent are graded A and B respectively.

The number of Legal Cases with the UGC against educational institutions is as follows, which shows extent of corruption.

Year	No. of cases received
2007	414
2008	368
2009	410
2010	744

Source: UGC Annual Report 2010-11

Ways of corruption

Many retired faculties of public institutions are employed as principals or directors of certain private institutions. The salary which they are actually getting is much less than the formal account book salary. Further, they do not work there, only their names are on the roll. They go there only at the time of inspection by any regulator. In practice, somebody else, who is not qualified, works as the principal or director of that institution. Although as per rules, the service conditions and pay structure is at par with the government norms, in practice they work on contractor ad hoc basis, and can be removed any time. The element of corruption is also involved in regulatory authorities. In labour market, formal degree holders and technically qualified people are always available in excess of the demand. Private profit seeker operators employ those who are ready to work at minimum salaries even when they

may be lowest in the quality. Such operators work on the principle of cost minimization and profit maximization, i.e they have nothing to do with the quality of education.

In unaided private colleges, state private universities and unaided deemed universities, extreme level of malpractices can be observed. The same faculties who are experienced and technically qualified are employed by many institutions on papers. Whenever an inspection team of any regulator comes to visit a certain institution all the qualified faculties are present at that time only. In practice, unqualified/less qualified and inexperienced/less experienced persons teach in these institutions who are ever ready to work on minimum salary. The qualified and experienced faculties are formally employed in several institutions at the last time, but they teach only in one institution get some and money as commission from other institutions, where they do not teach.

Fake Degree and Private Universities:

The private universities have full autonomy and freedom to issue degrees to their students. In a way, many of them are almost selling their degrees indirectly. They admit the students, receive fees through demand drafts, issue admission cards, arrange examinations, and award degrees with good marks to every student. There is almost no classroom teaching in these universities for these students. No matter whatever the students write in the answer books, quite a few of them get first division regular degrees. The admissions are done by the agents from different cities situated in other states. No commission is charged by the agents of these universities from the students in order to show their honesty but their commission is included in the admission fees. The agents are paid handsome amounts by the universities indirectly. Students do not have to pay any direct commission to anybody. All this looks very fair.

In the case of a leading private university of the state, the operator (Jodhpur University) Mr. Kamal Mehta was arrested and prosecuted for selling more than 5000 professional degrees to the students from many states. Till now no degree has been cancelled by any regulatory authority or the government. However, the state government and the UGC have banned new admissions in this University (Rajasthan Patrika, 4-2-2016).

Since for the government service, a degree or a certificate is essential with minimum marks, for eligibility many potential candidates want to get the degree with high marks without any hard work or study. There is a high demand for these degrees in the market. Although, it is

also correct that only a degree is not a guarantee for the employment, due to increasing level of corruption in the society, these degrees may be used to get employment/jobs. Due to privatisation of education and poor regulation of the government, this tendency is increasing in the society. These degrees are highly demanded as they are helpful in not only getting employment but also enhancing social prestige and status of the degree-holders. As far as girls are concerned it is considered to minimise dowry. Although the relation between the grades in the degree and merit of the degree-holder is decreasing at a faster rate, even then degrees have some amount of prestige in the society. Till now the bubble has not burst.

Most of the private universities do not fulfil the criteria of academic and physical infrastructure as prescribed by the regulatory authorities. In record they have qualified staff but in practice they employ poor quality faculty at very low salary. They get temporary affiliation and recognition year after year and run the institution on ad hoc basis. Their objective is only to earn profit. Advertising and marketing misleads the facts and create asymmetric information in the market. Excess demand is there but the misconception prevails. Complaints regarding unfair practices are increasing; the complaints of fake (ghost) professors/faculties are also going up a number of cases of prosecution against the higher educational institutions is piling up every year. However, the current regulatory system has completely failed to check all these malpractices.

4.10 Summary

In this Chapter we have studied the public funding for higher education in major states of India from 1990-91 to 2009-10. In first section we introduce the research question and its relevance for the study of public funding for higher education. Why state-level analysis is relevant to study the public funding for higher education is answered. Then, contents of this Chapter are briefly introduced.

In second section, per capita income and extent of privatisation in the state have studied. All the major states have different per capita income. In general, richer states have higher privatisation and higher enrolment rate then poor ones. The poor states have lower privatisation and low enrolment rate then richer ones. And middle income states have mixed behaviour. This behaviour is not exactly always true, because public funding also depends upon the fiscal condition and policy of the state on higher education. Some state like

Maharashtra and Haryana have more per capita income than Tamil Nadu and Andhra Pradesh but have less privatisation in higher education.

The period under study has been divided in two decades. The public expenditure on higher education as a share of the state income (NSDP) has declined in both the decades, for most of the states, but it declined at a higher rate in second decade. Similarly, per student public expenditure on higher education also declined at a higher rate in the second decade. The expenditure on higher education as a share of budget expenditure has some variations in first decade; some state have negative trend and some positive. The average decadal change for all the states is negative. In second decade it has declined at a higher rate for most of the states. In the second decade after implementation of FRBM Act 2003, due to fiscal control over expenditure, social sectors like health and education witnessed decline at a faster pace in the states where per capita income was higher than average.

The public expenditure on higher education as a share of total education expenditure (all levels of education) has the greater variations across the states and time. Average of all the state for this expenditure has negative trend for both the decades. We can conclude the in second decade state has withdrawn itself and let it more open for private sector. We can deduct that rate of privatization was higher in second decade. At the same time rate of privatization was higher for richer states.

Among the richer state some states have higher privatization than others where policy of state was allowing more privatisation. The states, like Tamil Nadu, Karnataka and Andhra Pradesh have lower per capita income among the richer states but have higher privatization because of the specific policy of the state. These states have succeeded to achieve higher enrolment rate through higher privatization in higher education.

In our study we found the Public expenditure on higher education in most of the major state is broadly affected by 3 major factors:

i. Income i.e., per capita NSDP of the state concerned.
ii. Fiscal stress i.e., GFD, Interest payment of the state concerned.
iii. Extant of privatization policy towards higher education of the state.

State may give higher priority to other level of education than higher education or otherwise. In most of the states, whenever, fiscal stress increases the expenditure of the State government on higher education declines, or in other words, whenever, GFD and interest payment increase, the expenditure of State government on higher education declines. If it does not occur in any particular state then, there may be other reasons to explain this phenomenon. It could be possible that state government may not give much importance to higher education expenditure in the total budget, and expenditure on higher education may be very small fraction of the total budget. State has strong policy and higher priority and spend higher share on higher education, despite having higher level of fiscal stress. State government may give higher proportion to the other level of education than the higher education. Therefore, the expenditure on higher education becomes very small fraction of the total budget and at the time of fiscal stress, state may not pay much attention and may not be any curtailment in the higher education expenditure.

All the 3 factors are interlinked and also affect each other. And above all in case of very poor state, most of the enrolment exists in public institutions and major part of expenditure is non-plan expenditure that is mandatory one, which cannot be avoided therefore expenditure cannot be curtail further beyond a limit.

We have implicitly assumed a positive correlation between per capita income (NSDP) of a state and the extent of privatisation of higher education in the state. In other words, the higher the per capita income, the greater will be the extent of privatisation of higher education in a state. It may not strictly follows in a specific state, because privatisation of higher education is also depends on the policy about higher education of the state. In a rich state, the government can choose any one policy out of the three which are as follows:

i. the state can spend more money on higher education and allow less privatisation.
ii. the state can spend less money and allow higher privatisation.
iii. the state can spend more money and allow high privatisation.
iv. The state can spend less money and allow minimum privatisation.

To increase the enrolment rate is one of the important objectives of the policy for any state. Therefore, generally no state follows the policy to spend less money and allow minimum privatisation, which is contradictory with the objective.

To promote private sector government can give land and/or buildings at concessional price or token price or free for opening new higher educational institutions. The government can create an environment for private sector through various concessions and incentives which make easy to open new private institution of higher education. All the clearances can be given in one go, without any hurdle. If we compare order of all the states in terms of per capita income and proportion of enrolment in private institutions, it is found that some states have high rank in per capita income but low rank in privatisation of higher education. Similarly, some states have low rank in per capita income but low rank in terms of privatisation of higher education. Thus, the policy of state on higher education is crucial to explain such contradictory situation. Similarly, extent of privatisation depends upon both, demand for higher education and ease to open new private institution in the state.

Goa has the highest per capita income among the states in our study, but has a very low proportion of enrolment in private institutions, because of strong priority on higher education. The example of Goa is an outlier. On one hand, among the rich states (where per capita income is high) Tamil Nadu, Andhra Pradesh and Karnataka have high proportions of enrolment in private institutions, i.e., 78.83, 75.71 and 46.42 percent respectively. But their rank in per capita income is lower than Maharashtra and Haryana, whose proportions of enrolment in private institutions are low i.e. 24.18 and 30.49 percent respectively. Migration of students from one state to another state is also an important factor, which affects the demand for higher education in any state which is discussed in Section 4.2.

In most of the earlier studies, trends in public expenditure on higher education have been analysed at all India level, (e.g., Ved Prakash, 2007; Bhushan, 2009; Kapur and Mehta, 2004; Agarwal, 2009; Sharma, 2005; Kumar at al, 2005) in these studies state level variation are not examined.

Per student public expenditure on higher education has also declined in most of the states, but in the states where per capita income is low, it has increased at a higher rate. It is clear from this relationship that the states where per capita income is higher, enrolment in higher education has increased at a very high rate, but not the public expenditure. Obviously, this increase in enrolment is in private sector institutions (as discussed in Chapter 4). In most of the states per student public expenditure declined in the last two decades, but in the second decade it declined at a faster pace, which shows higher privatisation in the second decade. In

second decade it has declined at a higher rate for most of the states. In the second decade after implementation of FRBM Act 2003, due to fiscal control over expenditure, social sectors like health and education witnessed decline at a faster pace in the states where per capita income was higher than average.

Similar results have been observed by previous researchers since 1990s at all India level study (Agarwal, 2009; Bhushan, 2009; Ved Prakash, 2007; Sundaram, 2006).

The inequalities among the states have increased greater in terms of all the indicators related to expenditure on higher education than all other indicators of income and expenditure of the state. However, in terms of budget expenditure as a percentage of NSDP it has decreased.
The public expenditure on higher education analysed by (Tilak, 2016) for the year 2009-10 only, so inter-state variation explained for that particular year only. After 1990s a drastic change has been observed in economic policies related to higher education. What has happed in this entire period in terms of public expenditure is not clear from this study. Disparities among the state also analysed through coefficient of variation, but it also limited for that particular year only. Again it is limited to expenditure on higher education only. This study does not take into account the enrolment rate, per student public expenditure and extent of privatization of enrolment

The growth rate of per student expenditure on higher education was negative for all the states except Bihar. If we compare the growth rate of enrolment in higher education and the growth rate of public expenditure on higher education, we find that in most of the states the growth rate of former outpaces the latter. This difference shows the extent of privatisation as discussed in Chapter 4. In Tamil Nadu, the enrolment rate was much higher than the growth rate of public expenditure on higher education where higher education was undergoing privatisation at the highest rate among the major states, but for Bihar this relation shows the lowest rate of privatization.

The higher per capita income induces demand for higher education. At the same time, the higher per capita income makes affordable for students to pursue higher studies in private institutions. When the demand for higher education is higher and public expenditure on higher education does not increase accordingly, it becomes profitable for the private sector to open new institutions of higher education and invest on them. In such a condition the states

where per capita income is higher, the government may promote private sector in higher education**,** because of which the number of private institutions also increased at a very fast pace and the share of private sector in total enrolment also went up. Ultimately, the total enrolment in higher education also witnessed a rise.

Similarly, in the states where per capita income is low, the demand from the students for private higher educational institutions will be low, because a majority of them cannot afford them. Because of the low demand for private higher educational institutions, their profitability will also be low, and the investment of private sector in higher education will remain limited. Due to low per capita income, the demand for higher education will remain subdued. Since the total expenditure capacity of the state is also low, the expenditure on higher education will be low. Due to lack of public expenditure on higher education by the state, and lack of private investment in higher education and low per capita income; the enrolment rate of higher education in the states will be low.

Public subsidy on higher education becomes debatable when we have two objectives: first, to increase the enrolment with equal access and equity; and secondly, to control fiscal deficit. Both these objectives have inverse relationship (Greenway and Haynes 2004; Tilak, 2004). The New Economic Policy (NEP), 1991 had two components, viz. the Structural Adjustment Policy and the Stabilisation Policy. Whereas the former stresses on the marketization, the latter put emphasis on controlling the fiscal deficit (Chattopadhyay, 2015).

The FRBM (Financial Responsibility and Budget Management) Act, 2003 mandates the state to control the GFD/GDP to keep the fiscal deficit within the statutory limit. Therefore, all the states have to rein in their expenditures. Expenditure on health and education are the easy targets for this curtailment. Further in education expenditure, it is easy to curtail higher education expenditure than that on elementary and secondary education.

We can observe that the objective of expansion of higher education can be fulfilled by more privatisation and less subsidies, but at the same time we found in our study that the states found it difficult to address the objective of inclusiveness and equity. In our study we found that disparities among the Indian states have increased in terms of state income as well as in the indicators of higher education. Thus, in broader view or in a holistic sense it goes against the objective of realising inclusiveness. However the poor states suffer the most. It is also

contradictory to the federal spirit of a nation. Another aspect of inclusiveness is the access of weaker sections of the society to higher education. This is actually so in the scenario where out of the total enrolment, approximately 60 per cent share has been captured by the private sector (MHRD, 2011). It will be difficult to address properly the question of accessibility of the weaker sections. It is discussed in the next part of this Chapter in the case study of Rajasthan.

CHAPTER -5

AN ANALYSIS OF PUBLIC FUNDING AND ENROLMENT IN HIGHER EDUCATION IN RAJASTHAN

5.1 Introduction

In this Chapter, we have tried to answer our research questions regarding public funding, enrolment and policy on higher education in a case study of the state of Rajasthan. In the previous Chapter, we have studied a similar set of questions for the major Indian states from 1990-91 to 2009-2010 on a comparative basis. We have examined the determinants of public expenditure on higher education as well.

For the case study of Rajasthan, we have analysed the effects of public funding and policy of the state on enrolment in higher education from 2002-03 to 2012-13. The other relevant questions, like how the policy of the state has shaped the higher education system in the state, how the proportions of enrolment of different social groups and women in higher education changed through affirmative actions of the state, are also examined.

Generally, a greater degree of privatisation has been observed in richer states, where per capita income is higher. In Rajasthan, despite having low per capita income since 2002-03, the proportion of enrolment in private institutions of higher education has been increasing at a fast rate though the enrolment rate of higher education in Rajasthan is very low in comparison with the richer states. However it is a matter for deeper investigation why there is a strong preference for privatisation of higher education in a state like Rajasthan. Therefore, it is essential to understand the pattern of public funding on higher education after 2002-03 and its effects on enrolment of different social groups (SC, ST, OBC, minorities and women) in public and private sector institutions of higher education in Rajasthan.
We have divided this Chapter into four sections, which are as follows:

Introduction
Profile of Rajasthan

Public Funding and Enrolment in Higher Education
Public Policy including Affirmative Actions

Each section is further divided into sub-section(s) according to requirements. In the Introduction, we introduce the Chapter in brief and the related research questions. Because we are studying the case of Rajasthan, it is relevant to study the general features of Rajasthan. All the Indian states are not the same in terms of economy, geography, history etc. Among the states, huge variations are found. Public funding for higher education, enrolment in higher education, policy of the state on higher education, etc. are all closely related to the basic features of the state, like the economy, the polity and the geography.

In the second section, we discuss the profile of Rajasthan.

In the third section, we studiy public funding and enrolment in higher education in the state. Different aspects of this public funding, like state income (NSDP), expenditure on higher education as a share of the state income and as a share of the state budget are examined. After that, different components of public funding of higher education, like capital and revenue expenditure, plan and non-plan expenditure and their relevance with reference to fiscal condition of the state are also discussed.

In the third section, the growth and fluctuation in enrolment in higher education over time have also been looked into. The growth rates of different measures of public expenditure on higher education, like its share in state income and budget, per capita expenditure, per student expenditure, gender budget and the effect of elections on expenditure are discussed with respect to enrolment in this section.

In the fourth section, we discuss the public policy with affirmative actions of the state and its effect on the growth of enrolment of different social groups like SCs, STs, OBCs, minorities and women from 2002-03 to 2012-13. In the first part, we discuss all the policy measures of the state for the weaker sections of the society. The different affirmative actions, like reservations in admissions, special provisions for especially-abled persons, scholarships, book banks and transport vouchers are discussed. The affirmative policy of the state government for girl students is also discussed.

After discussing all these policies, we have examined the effects of these policy measures on the public and private institutions, and changes in the proportion of enrolment of weaker sections of the society in these institutions. How the public policy of the state affects the proportion of enrolment in public and private institution of higher education and how it affects the growth of public and private institutions, how the proportion of enrolment of different social groups has changed in public and private institutions and the social implications of these changes have then been analysed.

Why Rajasthan?

Generally, a greater degree of privatization in higher education is observed in richer states, where per capita income is higher. However, in Rajasthan, despite a low per capita income, there is a very fast increase in enrolment in private higher educational institutions since 2002. It is not clear why there is a preference for private education in a poor state like Rajasthan. Therefore, it is essential to understand the pattern of public funding and the state's policy for higher education after 2002 and its effects on enrolment of different social groups (SCs, STs, OBCs, minorities and women) in public and private sector institutions in Rajasthan.

5.2 Profile of Rajasthan

Higher education cannot be studied in a vacuum. All the Indian states are placed differently in geography, economy, history, polity and culture. There is a huge diversity among the Indian states. Per capita income and resources, distribution of income, occupational distribution and share of industry and service sector and fiscal condtitions in the economy, culture and history are different for every state. Those aspects that affect higher education need to be studied as well. Therefore, it is relevant to have a bird's eye view of geography and economy of the state of Rajasthan.

The present state of Rajasthan came into existence, by State Reorganization Act of India in 1956, formed with integration of 22 princely states. Geographically, it is the largest state among the Indian states and it has an area of 342739 sq. kilometres. It is situated between $23^{o}3'$ and $30^{o}12'$ north latitudes and $29^{o}30'$ and $78^{o}17'$ east longitudes. From the educational point of view, it is among the most backward states of India. Due to dessert, hills and difficult

terrains, it is economically backward and human life is very hard. So, the state is also backward in school education as well as in higher education.

India had 131st rank among 187 countries in Human Development Report (HDR) issued by the United Nations Development Programme (UNDP) in July 2016. In Human Development Index (HDI), developing countries like Sri Lanka, Brazil, South Africa and China have far better ranks than India. In HDI health, education and per capita income are the main components. Education is a well-accepted component of development indicators.

In Rajasthan, approximately 60.00 per cent of the agricultural area is dependent on rainfall. Rajasthan had the 17th rank in 2007-08 among the 23 Indian states in Human Development Report, whereas in 1999-2000, this rank became 14th. In 1999-2000 Human Development Index (HDI) of Rajasthan was at par with that of India. In 2012-13 the growth rate of Rajasthan was also at par with that of India. Thus, Rajasthan can be considered an average state among Indian states. As per 2011 Census, the share of Scheduled Castes in Rajasthan's population was 17.80 per cent, whereas in India it was 16.60 per cent, and the share of Scheduled Tribes in Rajasthan was 13.50 per cent, while in India it was 8.60 per cent. Since the proportions of both SC and ST population in Rajasthan are more than that of India, Rajasthan has greater responsibility for their socio-economic development.

Rajasthan is considered a low per capita income state. Rajasthan has the 10th rank among the least developed states as per the Raghuram Rajan Committee for backward states. If we compare the macro parameters of Rajasthan and India, we find fundamental imbalances. As per the 2011 Census, the population of Rajasthan was 6.85 crores, which was 5.70 per cent of India's population. Rajasthan had 10.41 per cent area of India, but it has only 1 per cent of surface water. In the last decade (2001-2011), the population growth in Rajasthan was 21.30 per cent, whereas in India it was 17.70 per cent.

Apart from low per capita income, the demographic indicators such as Infant Mortality Rate (IMR), Birth Rate, Total Fertility Rate (TFR), etc. are very high in Rajasthan so that it comes under the class of BIMARU (Bihar, Madhya Pradesh, Rajasthan, and Uttar Pradesh) states. In the year 2004-05, Below Poverty Line (BPL) population was 34.40 per cent in the state, which was reduced to 14.70 per cent in the year 2011-12.

The total number of labourers in 2011 in Rajasthan was estimated at around 3.00 crores, which was 43.06 per cent of its total population. For India, this proportion was 39.8 per cent. In 2011, the proportion of farmers out of total labour force was 45.60 per cent, whereas it was 24.60 per cent for India. It shows that in Rajasthan, labourers are heavily dependent on agriculture. Unemployment rate in Rajasthan was lower than all-India average.

In 2004-05 in Rajasthan, the proportions of agriculture, industry and service sectors in the state GDP were 25.60, 30.60 and 43.80 per cent respectively, whereas in 2014-15, they were 19.40, 30.60 and 50.00 per cent respectively. Average annual rain fall in Rajasthan is lower than all India average, and the state has to face drought and famine frequently. More than half of the population is dependent on agriculture in the state. More than 60 per cent cultivable area of land is dependent on rainfall for irrigation (DSE, 2014).

The backward communities and castes, which are in the list of Mandal Commission, are considered Other Backward Classes (OBC). OBCs are relatively backward as compared to the General Category people, but less backward than the SCs and the STs. Although there are no authentic data available about the proportion of OBCs in the population of India, they are given 27 per cent reservation in government jobs and admissions in higher educational institutions in India. In Rajasthan, they are given 21 per cent reservation. According to the 61st Report of NSSO, the proportion of OBCs in the population of India was estimated to be 41 per cent.

5.2.1 Geographical Regions of Rajasthan

Even though more than 60 per cent area of the State is covered by desert, most of the trading and industrial communities of the country hail from Rajasthan. The State has huge regional diversities. It can be divided into four geographical regions as follows:

(i) *Western Region*: The Western Region, which is known as the '*Thar'* desert, is sparsely populated and has a vast geographical area. It consists of the districts of Jaisalmer, Barmer, Bikaner, Jalor, Jodhpur, Nagaur and Pali. Aravali mountain range forms the boundary between this desert region and the remaining part of the state. The main occupations in this area are animal husbandry, agriculture and handicrafts. A large number of people emigrate for employment. This area is also known as the supplier of *jawans* in army recruitment. This

area is extremely under-developed in terms of human skills. People from this area are orthodox and strongly believe in the caste system.

(ii) *Northern Region*: This area is consists of Churu, Sikar, Jhunjhnunun, Ganganagar and Hanumangarh districts, and it is a semi-arid zone. Some of the districts in this area are receiving the benefits of canal system, and have become prosperous. This area falls under the developed segment in terms of education and human resources.

(iii) *East-North, East and South-East Regions*: These regions consists of Alwar, Bharatpur, Jaipur, Dholpur, Baran, Sawaimadhopur, Kota, Jhalawar, Bundi and Dausa districts. The regions have low farming activity, but some districts are better in agricultural activities.

(vi) *Southern Region*: This consists of Bhilwara, Rajsamand, Banswara, Udaipur, Chittorgarh, Pratapgarh, Dungarpur and Sirohi districts. It is a hilly area. There was a dense forest in this area in the past. The population belongs to scheduled tribes (STs), who are native to this area. To some extent, the ST community is still out of connection with the mainstream because of hurdles due to the geographical constitution of the area. This area is also under-developed in terms of human resources.

The western part of the state is relatively less developed than the Eastern one. Both the parts of the state are divided by the Aravalis. 61.00 per cent of the total area is spread over 11 districts of the state with 40.00 per cent population. The state faces the vagaries of nature in terms of drought and famine quite frequently. Relief works have to be organised in large areas under these conditions. The requirements of expenditure on infrastructure are larger under such difficult conditions and terrains. Monsoon is uncertain in India, but it is more so in Rajasthan. It leads to drastic fluctuations in agricultural production in the state, more particularly in the output of kharif food grains, which causes hardship for the people from time to time.

5.2.2 Education in Rajasthan

As per the Census of 2011, literacy rate in the state was 66.10 per cent whereas in India it was 73.00 per cent. In female literacy rate, Rajasthan occupies a still lower place; it was 52.10 per cent in Rajasthan. The female literacy rates in some districts were very low, for

example, in Sirohi district it was 39.70 per cent, which was the lowest in the state. This presents a challenge for future development. The Gross Enrolment Rate in classes 1-5 and 6-8 for Rajasthan in the year 2014-15 were 98.60 and 85.80 per cent respectively, which are lower than the country's average of 101.40 and 91.20 per cent respectively.

Before independence, higher educational institutions were established by religious and social organizations and rulers of princely states. At the time of independence the state had only one university, one medical college, one engineering college, one agriculture college, three teachers' training colleges and one research institution. In total 12000 students were enrolled in all these institutions. At that time, professional and technical education was at the initial stage of development. The first university, i.e., the University of Rajasthan (earlier known as the Rajputana University) was established on the 8th of June 1947 in Jaipur.

Before the establishment of this university, colleges of the state were affiliated to Calcutta, Allahabad and Agra Universities. By 2006, the number of universities increased from 1 to 22, which is nearly equal to that of the national rate of increase. The total enrolment also increased to approximately 4 lakhs. In 2006 the state had 750 colleges of general education, i.e., 1 college per one lakh population, whereas the national average was 0.77 colleges per one lakh population.

Expansion of higher educational institutions in the state is geographically highly skewed. Most of the higher educational institutions are located in the districts of Sikar, Kota, Ajmer, Dausa, Ganganagar, Jaipur and Jhunjhunun. In 2006, about 18.00 per cent of total institutions were situated only in Jaipur district. Banswara, Barmer, Baran, Dungarpur, Jaisalmer, Jalor, Jhalawar, Rajsamand and Sirohi were the most deprived districts. Out of the total of 272 women's colleges, 226 were situated in 14 districts, whereas only 46 colleges were in the remaining 17 districts. In 2001-02, there were 0.46 institutions of general higher education per one lakh population, and in the year 2012-13 it became 2.2.

This skewed geographical distribution of higher educational institutions can be explained through district-wise variations in economy, geography, polity and demography. Jaisalmer, Barmer and Jalor are sparsely populated desert districts, which are situated along the Pakistan border. Banswara, Dungarpur, Rajsamand and Sirohi come under the Tribal Sub-Plan (TSP) area, wherein more than 50 per cent of the population are tribes. Jaipur is the capital city of

Rajasthan, and Dausa, Sikar and Jhujhunun are the neighbouring districts of Jaipur. These are economically more developed districts. Kota and Ajmer are the divisional commissioner headquarters of historical significance and big cities. Ajmer is historically more developed in terms of education, because it was under colonial rule; it had many educational institutions. Ganganagar is a desert district situated on Pakistan border, but due to development of a canal system, it became very prosperous.

Enrolment to population ratios of SC, ST and total were 0.44, 0.48 and 0.55 per cent respectively, thereby showing unequal access of the weaker social groups of the population to higher education in the state. Quality of higher education is not commensurate with the expansion. Most of the colleges did not have the infrastructure and qualified staff as prescribed by the UGC and the affiliating university. Approximately, 20.00 per cent of the teaching posts were vacant in the colleges. A large number of teachers were working as guest faculties on hourly basis, which adversely affected the quality of education (NAAC, 2008).

5.2.3 Scope of the Study

For the case study of Rajasthan, the data about enrolment related to higher education are taken from the office of the Director, College Education, Rajasthan. Segregated data for gender, social category and management type (Public and Private) are available only 10 years. The study is limited to general higher education only. It does not include technical and professional education.

Our study is limited to only the affiliated colleges of the state. We are not taking into account the University departments and constituent colleges. Only the colleges affiliated to higher education department of the State are studied. The segregated enrolment data are available only for the affiliated colleges. The year-wise data related to university departments and constituent colleges are not available in full. We have estimated some enrolment figures and found that in the year 2004-05, the enrolment in University Departments and constituent colleges was 8.59 percent and in the year 2012-13, it was 12.88 per cent of the total enrolment in the state. Even without including the University Departments, we are able to study the major part of the total enrolment in higher education system.

We are not including the enrolment in private universities in our study because no secondary data are available about the enrolment in private universities. There were only 4 private universities in the year 2006-07 in the state, which gradually increased in number to 34 in the year 2012-13. Although the number of private universities is very high as compared to public universities, the total enrolment in private universities is only a small fraction of total enrolment in the state, because they cannot affiliate any college. Sometimes their own colleges have to be affiliated to public sector universities.

Most of the private universities are completely engaged in professional and technical education. A few private universities are engaged in general higher education but their share of enrolment in general/liberal education is very small and negligible. Since our focus is only on general higher education, we are not taking into account the State Universities which are exclusively imparting technical and professional education, like Medical University, Agricultural University, Technical University, etc. There is a central university in the state, but enrolment in this university is also a very small proportion of the total enrolment of the state. We are going to study the state government's expenditure on higher education. Therefore, we are not including the central university in our study.

We have studied the period from 2002-03 to 2012-13 because before this period, detailed and segregated data of enrolment are not available. For the year 2011-12, the data regarding enrolment are not available. We have segregated data pertaining to government and government aided colleges as well as private un-aided colleges. We have considered government institutions and government aided institutions in Public Sector category, because both are financed by the government. Only un-aided institutions are considered in Private Sector category. All these data are segregated into different categories (ST, SC, OBC, and Minorities), gender and management type (Public and Private).

5.3 Public Expenditure and Enrolment in Higher Education

In this section, we discuss different aspects of public financing of higher education, which also affect the quality and expansion of higher education. How different components of public expenditure are changing, which affect the growth of higher education are discussed.

Proportion of capital and revenue expenditure and that of plan and non-plan expenditures on higher education are examined.

Generally, the budget is divided into plan and non-plan expenditures. Plan and non-plan expenditures are further divided into capital and revenue expenditures. Thus, they may overlap one another. In plan expenditure, generally capital expenditure component is found to be higher, whereas that of in non-plan expenditure, revenue expenditure is found to be higher. In the sub- section, we discuss the changes and fluctuations in enrolment over time, and reasons for these fluctuations are explain. Then, we analysze the growth rates of different economic factors, such as state income (NSDP), state budget, etc., which are expected to affect the expenditure on higher education. The growth rates of higher education expenditure as a share of NSDP, state budget, etc. are also analysed.

In the following sub-section using yearly data from 2002-03 to 2012-13 we examine, how public funding on higher education is changing the enrolment in public institutions. Besides this, we explain the annual fluctuations in per student public expenditure in public institutions. Some other aspects of public funding on higher education, such as gender budgeting, elections and public expenditure and their effects on enrolment, are explained through year-wise changes in public funding for higher education.

Table No. 5.1

State Income and Per Capita Expenditure on Higher Education

Year	NSDP Current Price (Rupees Billion)	Per Capita Exp. Hr Edu. (Current Price) in Rs.	NSDP Current Price (Indexed)	Per Capita Exp. Hr Edu. (Current Price) (Indexed)
1990-91	251.59	10.00	100.00	100.00
1991-92	276.09	10.50	109.74	105.03
1992-93	325.76	11.55	129.48	115.47
1993-94	340.29	12.16	135.26	121.57
1994-95	431.38	13.75	171.46	137.48
1995-96	489.59	16.52	194.60	165.22
1996-97	598.76	17.29	237.99	172.90
1997-98	668.34	19.82	265.65	198.24
1998-99	770.34	24.29	306.19	242.90
1999-2000	816.08	25.66	324.37	256.60
2000-01	800.59	27.63	318.21	276.31
2001-02	889.86	38.75	353.70	387.49
2002-03	842.82	26.99	335.00	269.88
2003-04	1080.81	31.69	429.60	316.92
2004-05	1126.36	30.59	447.70	305.91
2005-06	1253.33	32.89	498.17	328.92
2006-07	1514.28	32.91	601.89	329.14
2007-08	1722.50	30.79	684.65	307.91
2008-09	2039.39	37.72	810.61	377.22
2009-10	2319.63	58.12	922.00	581.19

Source: Analysis of Budgeted Exp. on Edu. MHRD, GoI (Various Years), Hand Book of State Govt Finance, RBI (Various Years)

We have found that NSDP has faster growth rate than the per capita expenditure on higher education. Since 2002-03, the growth rate of NSDP has increased at a rate higher than that of per capita expenditure on higher education. Since 2001-02, per capita expenditure on higher education remains almost stagnant till 2008-09 (Table No. 5.1). We conjecture that the state in recent years, is inclined to promote private higher educational institutions as well. This results in the growth of per capita public expenditure on higher education not matching the growth of NSDP.

5.3.1 Capital and Revenue Expenditure on Higher Education

Generally, revenue expenditure refers to recurring expenditure such as salary, maintenance expenditure, etc. But, capital expenditure is meant for permanent infrastructure such as expenditure on physical infrastructure, expansion of the existing capacity, etc. We have studied 20 years of data for revenue and capital expenditure on higher education. We find that capital expenditure is a small share (less than 3 per cent) of the total public expenditure on higher education. Indeed, in some years, the share of the public expenditure on higher education is either zero or close to zero (Table No. 5.2).

Table No. 5.2
Public Expenditure on Higher Education (Current Price)

Year	Capital Expenditure (Percentage)	Revenue Expenditure (Percentage)
1990-91	0.00	100.00
1991-92	2.50	97.50
1992-93	0.87	99.13
1993-94	0.54	99.46
1994-95	0.92	99.08
1995-96	0.62	99.38
1996-97	0.00	100.00
1997-98	0.47	99.53
1998-99	0.16	99.84
1999-2000	0.04	99.96
2000-01	0.15	99.85
2001-02	0.11	99.89
2002-03	0.02	99.98
2003-04	0.00	100.00
2004-05	0.05	99.95
2005-06	2.41	97.59
2006-07	1.20	98.80
2007-08	2.81	97.19
2008-09	2.35	97.65
2009-10	0.81	99.19

Source: Analysis of Budgeted Exp. on Edu. MHRD,GoI (Various Years)

The proportion of capital expenditure out of total expenditure shows quality and quantity of permanent structure like buildings, equipment, apparatus, furniture, etc. Good quality and sufficient physical infrastructure is equally important for the quality of higher education. The

low proportion of capital expenditure (documented in Table No.5.2) may affect the quality of education indirectly. It was reported by RUSA (2013) that on average, 85.00 per cent of the expenditure was made on salaries in 2009-10, and only 10 per cent went to items of capital expenditure and the rest was incurred on other items.

5.3.2 Plan and Non-Plan Expenditure on Higher Education

The expenditure on higher education has two components, plan and non-plan. The non-plan component is generally mandatory expenditure, such as salary of staff and establishment to run the current activities. The government cannot withdraw itself from this expenditure. Plan expenditure is the new investment for the expansion of the existing capacity of the infrastructure such as opening new institutions, creation of the new posts, construction of new buildings, etc. Thus, the proportion of plan expenditure out of total expenditure reflects the future growth and expansion in the system. Generally, plan expenditure is not mandatory; rather it is discretionary and policy sensitive. In Rajasthan, the share of Plan expenditure is a small portion of the total expenditure. The average of 20 years of this expenditure was only 5.99 per cent. This shows that new investment for new projects, schemes or new development have low in the government's priority (Table No. 5.3).

Table No. 5.3 Public Expenditure on Higher Education in Rajasthan (Current Price) Revenue Account		
Year	Plan Expenditure (Percentage)	Non-Plan Expenditure (Percentage)
1990-91	6.15	93.85
1991-92	7.48	92.52
1992-93	8.06	91.94
1993-94	7.72	92.28
1994-95	7.05	92.95
1995-96	11.95	88.05
1996-97	8.83	91.17
1997-98	6.33	93.67
1998-99	6.61	93.39
1999-2000	6.88	93.12
2000-01	8.59	91.41
2001-02	7.46	92.54
2002-03	0.90	99.10
2003-04	3.15	96.85
2004-05	2.24	97.76
2005-06	4.67	95.33
2006-07	4.44	95.56
2007-08	5.46	94.54
2008-09	2.80	97.20
2009-10	3.04	96.96
Source: Analysis of Budgeted Exp. on Edu. MHRD, GoI (Various Years)		

Public subsidy on higher education becomes debatable when we have two objectives: first, to increase the enrolment with equal access and equity; and secondly, to control fiscal deficit. Both these objectives have inverse relationship (Greenway and Haynes 2004; Tilak, 2004). New Economic Policy (NEP), 1991 had two components, viz. Structural Adjustment Policy and Stabilisation Policy. The former stresses on the marketization, and the latter puts emphasis on controlling the fiscal deficit (Chattopadhyay, 2015). The FRBM Act 2003 mandates the state to control the GFD/GDP ratio. To reduce the GFD/GDP ratio, state governments have to reduce the total expenditure or have to raise their income. For raising the income, the state governments have limited scope.

The value of the coefficient of correlation between state plan expenditure on higher education and one fiscal stress indicator (where fiscal stress indicator is measured by the ratio of interest payment and revenue expenditure) is very low and negative (-0.20). We can so conclude that the fiscal stress indicator is negatively affecting the plan expenditure. Since

expenditure on higher education in itself is a very small proportion of the state budget, and plan expenditure again is a very small fraction of expenditure on higher education; the effect of fiscal stress on plan expenditure on higher education is expected to be low. This is corroborated by Bhushan (2009), who demonstrates that total plan expenditure on higher education during 2002-05 by the central and state governments constituted only 12 per cent of the total expenditure on higher education. Thus, the bulk of the expenditure on higher education has been made of the non-plan variety.

Generally, central government sponsored schemes have conditions of matching grants. If state government does not have matching grant due to fiscal stress, it cannot spend the money allotted by the central government. Thus, indirectly state government's fiscal stress can affect the plan expenditure. (Here, we have adopted the fiscal stress indicators as is given in the RBI Handbook, 2010.)

5.3.3 Growth of Enrolment in Higher Education

Enrolment in the state did not increase steadily or in a smooth way. There were many fluctuations that can be observed in the growth rate of enrolment in higher education. It has some peculiar behaviour, which needs to be explained. There were some contemporary changes in the policy, which were responsible for this peculiarity.

Year-wise and gender-wise data are available from 1982-83 to 2012-13, however the management-wise and category-wise data are available only for the period from 2002-03 to 2012-13. Growth rate of enrolment during the last two decades i.e. 1992-93 to 2002-03 and 2002-03 to 2012-13 was 136.79 per cent and 108.88 per cent respectively. The growth rate of enrolment from 1982-83 to 1993-94 was negligible. From 1982-83 to 1993-94 the growth rate of enrolment in higher education was very low. In this period per capita income, growth in per capita income and growth in the state domestic product were also very low. Population growth rate was very high and a severe famine in 1986-87 also badly affected the economy of the state.

The enrolment increased at a high rate since 1993-94. If we see the year-wise percentage change in total enrolment for 1986-87 and 1987-88, there were negative growth rates, i.e. -4.66 and -25.36 respectively. Again in the year 1993-94, it was slightly negative, i.e. -0.26

per cent. Since 1986-87, 10+2+3 scheme was introduced in the State. Before that, 10+1+3 scheme was in existence, in which students were given admission in degree colleges after passing class 11th. Since the introduction of 10+2 scheme in the state, students were eligible to get admission in degree colleges only after passing class 12th.

In the year 1987-88, the sufficient infrastructure was not available at the school level and very few schools offered admission to class 12th. Colleges started courses for class 12th only for one year. In the year 1988-89, all schools started courses for class 12th, while colleges also ran courses for class 12th. Therefore, in 1988-89 the growth rate was negative (-25.36). In the year 1993-94, all the students were awarded degrees after two years of study in colleges and they were given the option to get 3-year degree. Many students chose two years' degree and left the college, which resulted in negative growth rate in 1993-94 (Table No. 5.4).

Table No. 5.4

Year-wise Percentage change in Total Enrolment

Year	Percentage Change
1982-83	
1983-84	2.17
1984-85	4.09
1985-86	-0.22
1986-87	5.77
1987-88	-4.66
1988-89	-25.36
1990-91	1.79
1991-92	3.82
1992-93	12.70
1993-94	-0.26
1994-95	18.65
1995-96	11.72
1996-97	16.98
1997-98	10.06
1998-99	10.19
99-2000	8.90
2000-01	5.87
2001-02	2.88
2002-03	6.44
2003-04	9.35
2004-05	9.20
2005-06	4.82
2006-07	11.66
2007-08	3.83
2008-09	3.67
2009-10	7.25
2010-11	4.35
2011-12	15.68
2012-13	7.25

Source: Office of Director, College Education, Rajasthan

5.3.4 Growth of Public Expenditure on Higher Education

In this sub-section, we want to know how the public expenditure on higher education has changed in the period under study. It is expected that as the state income (NSDP) and state budget increase, expenditure on higher education should also increase accordingly. The size

and growth rate of the total budget expenditure on higher education shows the policy and priority of the state for higher education.

We have taken 20-year growth rate from 1990-91 to 2009-10 i.e., Compound Annual Growth Rate (CAGR) for different parameters. The growth rate of NSDP, expenditure on higher education and state budget (all at current price) are 0.117, 0.105, and 0.125 per cent respectively. Here the growth rate of state budget is higher than the growth rate of NSDP, which means the government expenditure is increasing at a higher rate than the state income. We can expect that expenditure on higher education should also increase at a higher rate than the state income (NSDP), but the growth of expenditure on higher education is lagging behind the growth rate of the state budget and state income (NSDP). It shows that the expenditure on higher education is given less priority in the state budget (Table No. 5.5).

Table No. 5.5

Growth Rates (1990-91 to 2009-10) CAGR

NSDP (Current Price)	State Budget (Current Price)	Exp. on Hr. Edu. (Current Price)
0.117	0.125	0.105

Source: Analysis of Budgeted Exp. on Edu. MHRD, GoI (Various Years), Hand Book of State Govt Finance, RBI (Various Years)

The growth rate of total state budget expenditure as a percentage of NSDP and expenditure on higher education as a percentage of NSDP were 0.007 and -0.011 per cent respectively. Although the values of growth rates for both are very small, but the value of growth rate of state budget as a percentage of NSDP is positive whereas the value of growth rate of higher education expenditure as a percentage of NSDP is negative. It shows that expenditure on higher education has decreased as a share of NSDP but total state budget as a share of NSDP has increased in these 20 years (Table No. 5.6).

Table No. 5.6 Growth Rates (1990-91 to 2009-10) CAGR	
Total State Budget Exp./NSDP	Higher Education Exp. as a Percentage of NSDP
0.007	-0.011
Source: Analysis of Budgeted Exp. on Edu. MHRD, GoI (Various Years), Hand Book of State Govt Finance, RBI (Various Years)	

Since, expenditure on higher education has increased at a lower rate than the state income or the state budget. Thus, it can be deducted that higher education in the state budget was given lower importance than the other items in the budget.

In terms of per capita expenditure on higher education, the state has not performed well. The growth rate of per capita expenditure on higher education in Rajasthan was lower than the average of major Indian states during the period under our study. The growth rates of per capita expenditure on higher education (current price) for Rajasthan and the average of 15 major states were 0.092 and 0.143 per cent respectively (Table No. 5.7).

Table No. 5.7 Growth Rates (1990-91 to 2009-10) CAGR	
State	Per Capita Exp. Hr Edu. (Current Price)
Rajasthan	0.092
Average of 15 Major States	0.143
Source: Analysis of Budgeted Exp. on Edu. MHRD, GoI (Various Years)	

Ajith and George (2009), while studying the higher education system of Kerala, found that the system shifted from inclusive to exclusive because of privatization. It was shown that the share of revenue expenditure out of SDP on education from 1980-81 to 2004-05 has been declining. Besides, expenditure, according to Sharma (2005), on higher education as a share of budget of Government of India has a declining trend from 1980-91 to 1996-97. As a result, per student public expenditure in real terms on higher education declined after 1992-93. This adversely affect the equity and access to higher education (Sundaram, 2006). Another study by Bhusan (2009) also found that per student public expenditure in real terms on higher education had shown a declining trend during the period 1993-94 to 2003-04. Thus, as Kumar

et al (2005) aptly puts, it public expenditure on health and education is declining as a result of economic liberalisation.

5.3.5 Enrolment and Expenditure

We assume that the enrolment in public sector higher education institutions is one of the outcomes of the expenditure on public sector higher education institutions. We have segregated enrolment data for public and private institutions of higher education from 2002-03 to 2012-13, but we do not have the expenditure incurred by private institutions on higher education. We have compared enrolment in public institutions and public expenditure on higher education (current price) for the same period. We found that from 2002-03 to 2007-08, enrolment and expenditure levels were almost stagnant. After 207-08, the expenditure increased at much faster rate than the enrolment. This is because of the arrears of Sixth Pay Commission which were paid in the years 2008-09, 2009-10, and 2010-11. Again in the year 2011-12, public expenditure declined because no arrears were paid in this year. The growth rate of expenditure from 2007-08 to 2010-11 does not pertain to any actual investment like creation of new posts, construction of new buildings or recruitment of staff for capacity expansion (Table No.5.8).

Table No. 5.8

Enrolment and Expenditure

Year	Public Exp. Hr. Edu. (Current Price)	Enrolment in Public Institution	Public Exp. Hr. Edu. (Current Price) (Indexed)	Enrolment in Public Institution (Indexed)
2002-03	2266648	230443	100.00	100.00
2003-04	2700593	242727	119.14	105.33
2004-05	2644847	261925	116.69	113.66
2005-06	2885291	262185	127.29	113.77
2006-07	2929360	265371	129.24	115.16
2007-08	2780389	252700	122.67	109.66
2008-09	3456026	254526	152.47	110.45
2009-10	5402483	282923	238.35	122.77
2010-11	6471993	307314	285.53	133.36
2011-12	5244257	295614	231.37	128.28
2012-13	NA	283913	NA	NA

Source: Office of Director, College Education, Rajasthan, * Enrolment data for the Year 2011-12 are projected

We have compared the annual growth rates of enrolment and expenditure from 2002-03 to 2012-13. We found that the growth rate of public expenditure on higher education in 2003-04 was 19.14 per cent and the growth rate of enrolment was 5.33 per cent. But in the year 2004-05, these were -2.06 and 7.91 per cent respectively. Because in the preceding year the growth rate of expenditure was very high, the corresponding growth rate of enrolment was not negative. In the year 2007-08, the growth rate of expenditure was -5.09 and the growth rate of enrolment was -4.77. Similarly, in the year 2011-12, the growth rate of expenditure was -18.97 per cent and the growth rate of enrolment was -3.96 per cent. Whenever the growth rate of expenditure was negative, the corresponding growth rate of enrolment was also negative. In the year 2011-12 the growth rate of expenditure was negative, i.e. -18.97 while the corresponding growth rate of enrolment was also negative, but its value was very small (-3.96 per cent) because in the year 2009-10, 2010-11 and 2011-12, arrears of Sixth Pay Commission were paid and therefore, the growth rate of expenditure was very high. But in the year 2012-13, no arrears were paid, so the growth rate is negative and high in nominal terms. But in real terms, this negative growth rate of expenditure was not very high (Table No. 5.9).

Table No. 5.9

Growth Rate of Enrolment and Expenditure

Year	Enrolment in Public Institution	Public Exp. Hr. Edu.	Enrolment in Public Institution (Indexed)	Public Exp. Hr. Edu. (Indexed)
2002-03	NA	NA	NA	NA
2003-04	5.33	19.14	100.00	100.00
2004-05	7.91	-2.06	148.38	-10.78
2005-06	0.10	9.09	1.86	47.49
2006-07	1.22	1.53	22.80	7.98
2007-08	-4.77	-5.09	-89.57	-26.56
2008-09	0.72	24.30	13.56	126.93
2009-10	11.16	56.32	209.30	294.18
2010-11	8.62	19.80	161.73	103.40
2011-12	-3.81	-18.97	-71.42	-99.09
2012-13	-3.96	NA	-74.25	NA

Source: Office of Director, College Education, Rajasthan

As the government shifts towards privatisation, public funding for higher education has been lagging behind with enrolment and per unit cost falling at very fast rate since 1990's. This, as Ved Prakash (2007) argues, affects the quality of higher education adversely.

5.3.6 Per Student Public Expenditure in Public Institutions

Though there are many factors which affects the quality of higher education, per student public expenditure is considered one of the important indicators of quality of education. We do not have the data for expenditure in private institutions. We have data only for public expenditure, therefore, we cannot compare the per student expenditure between public and private institutions. We have calculated the per student public expenditure in public institutions from 2002-03 to 2011-12.

During 2002-03 to 2007-08, the level of per student public expenditure was almost stagnant; thereafter it increased up to 2010-11, and then declined again. The growth from 2007-08 to 2010-11 was mostly due to salary hike and arrears payment of the Sixth Pay Commission. It is not due to new investment or capacity expansion of the existing infrastructure. Thus, this growth in per student does not make any impact on quality improvement in the education system (Table No. 5.10). Thus, if we carefully analyse this increase in per student expenditure, we have found that its big share was spent on arrears and salary hike for payment of the Sixth Pay Commission, rather than new recruitment for capacity expansion. As mentioned before, the decline in per student expenditure in real terms of higher education after 1992-93 has rather been hindering upon the equity and access for students to higher education (Sundaram, 2006).

Table No. 5.10 Per Student Pub. Exp. in Pub. Institutions	
Year	Per Student Exp.Pub Institution (in Rs.)
2002-03	9836.05
2003-04	11126.05
2004-05	10097.73
2005-06	11004.79
2006-07	11038.73
2007-08	11002.73
2008-09	13578.28
2009-10	19095.24
2010-11	21059.87
2011-12	17740.25
Source: Office of Director, College Education, Rajasthan, Analysis of Budgeted Exp. on Edu. MHRD, (Various Years)	

Bhushan (2009) found in his study that, per student public expenditure in real terms on higher education showed a declining trend during 1993-94 to 2003-04. Tilak (2004) argues that while higher education has been severely underfunded, demand for higher education continues to outpace the supply. Similarly, as was found in his study by Agarwal (2009), per student public expenditure on higher education has been declining from 1990-91 to 2002-03.

5.3.7 Gender Budgeting and Gender Gap in Enrolment

In general, Rajasthan is backward in education, and the literacy rate is very low, particularly female literacy (52.10 per cent) among the Indian states. Female literacy rate in some districts like Sirohi, Barmer, Jaislmer is very low. In Sirohi district, it is the lowest in the state i.e. 39.74 per cent. The dropout rate for girls in elementary education is very high. People are very traditional, believe in strong caste system and are very conservative about women. Therefore, in higher education the proportion of enrolment of girl students is also lower. In such conditions to introduce a separate gender budget to promote higher education among the girls is an important progressive step of the state government.

Since 2007-08, allocation of separate Gender Budget for higher education has been introduced in the State. Out of the total higher education budget, a fixed proportion is kept reserved for the expenditure only on the girls' colleges. In the year 2007-08, it was 38.96 per

cent, and then it declined in the year 2008-09 and became 29.67 per cent. In the next three years, 2009-10, 2010-11, and 2012-13, it continued to increase (Table No. 5.11). Since this component of the government expenditure is restricted to public sector girls' institution, its effect can be seen on the gender-wise enrolment in public sector institutions. In year the 2006-07 in public sector institutions the percentage of girl enrolment was 35.38. It continuously increased and in the year 2012-13 it became 39.53 per cent. We can conclude that the effect of separate gender budget is found positive on the enrolment of girl students.

Table No. 5.11

Exp. on Girl College out of Total Hr. Edu. Exp.

Year	Percentage
2007-08	38.96
2008-09	29.67
2009-10	39.79
2010-11	40.53
2012-13	44.61

Source: Office of Director, College Education, Rajasthan

The gender gap in enrolment shows the difference between enrolment rate of boys and girls. Due to social and cultural reasons, girls are not allowed or less preferred to be sent for higher education by parents in Rajasthan. But, over the time literacy rate has improved, enrolment ratio of girls in schools has also improved, the number of girls has increased, and above all socio-cultural conditions have also changed in the state. Therefore, a dramatic change can be observed in the gender gap in enrolment in higher education.

Gender-wise data are available from 1982-83 to 2012-13. From the year 1993-94 to 1997-98 the gender-gap has increased. Why it has increased is not clear by available fact and data in our study. Otherwise, the gender-gap has simply declined throughout, except for a few fluctuations. In the year 1982-83, 1990-91, 2000-01 and 2012-13 the percentage of girls' enrolment was 16.96, 23.92, 34.95, and 48.02 respectively. We found a drastic improvement in overcoming the gender-gap in the state (Table No. 5.12). Srivastava and Sinha (2008) in an all-India study, found that SC and ST, followed by OBC, belonging to any religion have lesser access to higher education, with females across the categories having lesser enrolment than males.

Table No. 5.12 Gender-wise Enrolment (Percentage)		
Year	Boy	Girl
1982-83	83.04	16.96
1990-91	76.08	23.92
2000-01	65.05	34.95
2012-13	51.98	48.02
Source: Office of Director, College Education, Rajasthan		

5.3.8 Elections and Changes in Expenditure Policy

Public expenditure on higher education in the Rajasthan has a relationship with the assembly elections in the state. It has been observed that whenever the general assembly elections is scheduled, in the election year and its preceding year public expenditure on higher education has also increased. As per the Election Commission rule, the code of conduct is implemented six months before the general election. Therefore, in the election year, there is little scope for the government to announce new schemes. Governments generally announce many new schemes and popular steps in the preceding year and the remaining period of the election year, which is discussed below.

In public sector institutions, during the election year and one year before the election, the size of the section/class was increased from 60 to 80 and 80 to 100 students, without increasing the number of teachers and infrastructure (Annual Reports of the Department of Higher Education). Not only the size of sections was increased, but also new colleges in public sector were started in these years. Therefore, in the election year and in the preceding year, the enrolment in the public sector institutions increased at a very fast rate. When the size of section/class increases, no new teachers are recruited. Even for the new colleges, for the increased workload, no new regular teachers are recruited. Only contractual teachers arranged for the increased workload.

There were assembly elections in the years 2009 and 2014, and in every election year and one year before that, a drastic change in government policies was observed. Most of the new colleges were opened in the same year or one year before the assembly elections. We can observe this phenomenon through the year-wise table of new government colleges. Similarly,

we can observe it in the enrolment data in public sector institutions, which increased only in the election year and one year before that year. In the year 2009-10, in all the government colleges of general education, 20 seats were increased in each section/class in the first year (Table No. 5.13).

Table No. 5.13

No of New Opened Colleges

Year	Govt. & aided College	Private Unaided College	Total
1997-98	11	13	24
1998-99	4	16	20
1999-00	12	20	32
2000-01	0	6	6
2001-02	0	14	14
2002-03	0	42	42
2003-04	0	175	175
2004-05	3	228	231
2005-06	0	115	115
2006-07	3	160	163
2007-08	3	107	110
2008-09	4	98	102
2009-10	0	112	112
2010-11	1	281	282
2011-12	0	143	143
2012-13	2	113	115

Source: Office of Director, College Education, Rajasthan

Ideally, in normal practice, announcements for new schemes, opening of new colleges, opening of new universities, etc. should be undertaken after clear examination of the existing capacity of higher education system, available resources and future requirement. Public expenditure should be increased steadily every year, depending upon the demand, requirement and fiscal condition of the state. But, the government in fact follows popular policies to lure the voters. In such a way, financing of higher education is heavily affected by elections in the state. Thus public expenditure on higher education and the policy of the state about higher education are determined by election politics, rather than by the requirement and fiscal conditions of the state. After the election, in the first 3-4 years the government does not do much and in ultimate and penultimate year government spends too much. It badly affects the fiscal condition of the state. In the election year, even when the fiscal conditions of the

state are very poor, the government spends too much. When fiscal conditions are good and the system requires more and steady investment, but state may not invest much or nil on new investment to enhance the capacity. This political factor badly affects the policy and financing of higher education in the state. It is also responsible for high fluctuations in public funding for higher education.

5.4. Policy including Affirmative Action

5.4.1 Affirmative Policy for Weaker Sections

The state government adopted pro-privatisation policy on higher education with strategic interventions. For that the government took many affirmative steps for weaker sections of the society to safeguard them from the negative effects of the privatisation. To examine this two-pronged policy, it is essential to study all the incentives for weaker sections so that we can know the effects of the policy. In this context we can observe the changes in the proportions of enrolment of weaker sections in public and private institutions.

Even with the equal treatment policy in public sector as well as private sector for students of all categories, the growth of enrolment of different categories can be different in public sector and private sector institutions. The difference in the management (public or private) of the institution decides the difference in fee structure, infrastructure facilities, location of the institution and quality of education, which affect the preference of the students of different categories.

After the year 2002, a drastic change has been observed in the higher education policy of the state government. If we compare private and public sector enrolment, a dramatic inclination of enrolment toward private institutions can be observed. The total enrolment from 2002-03 to 2012-13 has increased 108.44 per cent, out of which 729.60 per cent increased in private institutions and only 23.20 per cent increased in public sector institutions. How this pro-privatisation growth affects the different sections of the society has been investigated in the present section.

Enrolment in higher education in Rajasthan from 2002-03 to 2012-13 has been studied in detail. The important aspects, viz. privatisation and accessibility as well as inclusiveness have been studied in details through year-wise segregated data. Since 2002-03, the number of private institutions of higher education, and enrolment in these institutions has experienced a faster rate of growth than the public ones. The government has adopted liberal policy for private sector and has further liberalised it year after year. Generally, a faster rate of growth of private sector goes against accessibility and inclusiveness. Therefore, the government needs to make a strategic intervention through different restrictions on private institutions, and also through incentives for weaker sections of the society along with privatisation policy. To promote access to higher education among weaker sections of the society, the government has undertaken many affirmative actions, such as reservations, scholarships, freeships, etc. These incentives are provided as follows:

Reservation: As per the state government policy on higher education, reservation in admissions has been given to SC, ST, OBC, and SBC (Special Backward Class) in both public and private institutions at the rate of 16, 12, 21, and 1 per cent respectively. Horizontal reservation in admission is given to alternatively-abled persons at the rate of 3.00 per cent in both public and private institutions. Thus, in the state, the reservation policy is the same for both public and private institutions of higher education. According to the Census 2011 the population of SC and ST communities was 17.81 and 13.46 per cent respectively. There is no data available in the Census about the proportion of OBC and General category in population. According to the estimates (62nd round) of the National Sample Survey Organisation (NSSO) (TISS 2009:22), OBCs constitute 40 percent of India's total population. It is so pertinent to provide more resources for all the sections of the society to be able to get access to higher education, rather than just fixing a reservation quota (Sundaram, 2006).

Special Provision for Alternatively-abled Persons (Specially-abled persons): Three per cent bonus marks in merit for admission are given to alternatively-abled persons. Special provision is being strictly followed in the admission policy for the deaf, dumb and blind students in the public sector institutions in the State. The candidates belonging to this category are given relaxation in eligibility criteria in the admission. All the blind candidates, having minimum passing marks in the eligibility examination, are given admission. Maximum 20.00 per cent new seats can be created for their admission, and these seats are considered extra seats over the sanctioned seats of the institution.

Scholarships: Student of SC, ST, OBC, SBC, and EBC (Economically Backward Class) are given post-metric scholarships by the Department of Social Justice and Empowerment of the state.

For SC and ST students total non-refundable fees and maintenance allowance are reimbursed through scholarships. Generally fees are higher in private institutions than in public ones. The scholarships for SC and ST students are given in such a way that it neutralise the fee difference between both the types of institutions, i.e. private and public. Hostellers are given higher rates of scholarships than day scholars. OBC, SBC, and EBC are given these scholarships at lower rates than SC and ST. For students to be eligible for these scholarships, their parents' annual income must not exceed 2 lakh, 2 lakh and 2.5 lakh rupees respectively for SCs, STs and OBCs.

The following scholarships are directly given by the Directorate of College Education:

(1) Mukhyamantri Uchch-Shiksha Chhatravritti (MUSC) for those who have more than 60 per cent marks at +2 level and their parents' income is less than 2 lakh rupees. It can be given up to 5 years. The total number of awards is one lakh.
(2) Scholarships to the sons/daughters/grandsons/grand-daughters of freedom fighters.
(3) Scholarships to the sons/daughters of the state government employees who died on duty.
(4) Scholarships to sons/daughters of ex-military persons.
(5) Mahila Yogyata Chhatravritti (MYC) for those girl students who have more than 60 per cent marks at +2 level and their parent's income is not more than Rs.1 lakh.
(6) Urdu scholarship is given to those girl students who are studying Urdu as one of the optional subjects and have secured more than 50per cent marks in the last examination.
(7) MCM(Merit-cum-Means) scholarship for minorities sponsored by the central government is given through the Director, College Education of the State.

Other Incentives **(Book Bank, Transport Voucher, etc.):**The minimum eligibility criterion for the admission of the SC and ST candidate is only minimum passing marks in the eligibility examination subject to the condition of availability of seats as per merit. In the special tribal area, Kishanganj and Shahbad tehsil's of the Baran district, all Sahariya tribe candidates who secure minimum pass marks in the eligibility examination are offered admission to government college/s of the district.

In all government colleges, transport vouchers are given to BPL (Below Poverty Line) students, who commute from different nearby villages/towns. All candidates in the Tribal Sub Plan (TSP) area are given 5.00 per cent relaxation of marks in the minimum eligibility standard for admission to the post-graduate programmes. All SC and ST students are given free text-books from book-banks of the government colleges. Apart from Mahila Yogayta Chhatravaritti (MYC) and Urdu scholarships, many other incentives are also given to the girl students.

Affirmative Policy for Girls Students:

(i) In Admissions: In the admission policy of public sector institutions, 2.00 per cent bonus marks are given to every girl candidate for admission (in the merit), and no tuition fee is charged from them in the public sector institutions. In case sufficient female candidates are not available at the post-graduate level, 5.00 per cent relaxation in marks is given to them in the minimum eligibility standard for admission. All the girl students, who score minimum passing marks, are eligible for admission, if seats are available in under-graduate programmes. When there is no local girls' college available in a particular city/town or when any desired subject is not being offered even if available, 3.00 per cent bonus marks are given to each girl student for admission in co-ed colleges. Special concessions and incentives are given to private sector for opening new girls' colleges, in the locality where no girls' college exists. All the girl students, whose parents do not pay income tax are provided free books from book-banks in all government colleges.

(ii) In Budget: Since 2007-08, separate gender budget is being prepared for girls' colleges by the Department of College Education of the State, and it has been increasing year after year. In the year 2012-13, out of the total budget of the department, 44.60 per cent budget was spent on girls' colleges by the Department of College Education.

(iii) In Opening New Private Girls' Colleges**:** In the area where girls' colleges are not available, such as desert area, tribal area, remote and under-developed areas, etc.; the private sector is given subsidy to open new girls' colleges. In the case of co-ed colleges, the application fee to open a new college is 60000 rupees, whereas for girls' college, it is 50000 rupees. Similarly, the security amount for Co-ed College is 10 lakh rupees, whereas it is 4 lakh rupees for a girls' college.

Concessions for Regional Development: Government colleges are being opened on priority basis at all tehsil head-quarters in Tribal Sub-Plan (TSP) area. Private sector institutions are given concessions, rebates and special incentives, such as free land, and sometimes free buildings to open new colleges in TSP area, and in the town, where no college is available. The relaxation in application fee is given to open a new private college in a backward area and a reserved assembly constituency. In the general area, the application fee for opening a new college is 60000 rupees, but for the backward area and the reserved constituency area, it is only 50000 rupees. Similarly, in the general area, the security amount for the co-ed college is 10 lakh rupees, whereas in the backward area and the reserved legislative assembly constituency area, it is only 5 lakh rupees, and for girls' college it is only 4 lakh rupees and 2 lakh rupees respectively. The backward area is defined by the state government, where the number of co-ed colleges and girls' colleges are not sufficient at the sub-divisional headquarters. Reserved constituencies are those constituencies which are reserved for either SC or ST for the MLA in the legislative assembly (Annual Reports of the Department of Higher Education).

5.4.2 Effects of the Policy

Public Sector versus Private Sector Enrolment: In the year 2002-03, the share of enrolment in public institutions was 87.93 per cent whereas in the same year in private sector it was only 12.07per cent. In the year 2012-13, the share of public sector enrolment became 51.00per cent while share of the private sector increased tremendously and became 48.01per cent. Up to 2008-09, the share of public sector enrolment continued to decline, thereafter, it increased slightly in 2010-11 and again declined in 2012-13.

The share of private sector continued to increase from 2002-03 to 2008-09 and thereafter it declined up to 2010-11 and again increased in 2012-13. The overall picture seems to be in favour of private sector because of the pro-privatisation policy of the government. There was a slight fluctuation in 2007-08, 2010-11, and 2012-13 because of some changes in the government policy (Table No. 5.14).

Table No. 5.14 Management wise Enrolment (Percentage)		
Year	Enrolment Govt.	Enrolment Pvt.
2002-03	87.93	12.07
2003-04	84.89	15.11
2004-05	83.88	16.12
2005-06	80.11	19.89
2006-07	72.63	27.37
2007-08	66.60	33.40
2008-09	64.70	35.30
2009-10	67.06	32.94
2010-11	69.80	30.20
2011-12	60.89	39.11
2012-13	51.98	48.02
Source: Office of Director, College Education, Rajasthan, 2011-12 projected		

Change in Enrolment in institutions under Different Management: Due to pro-privatization of the policy of the government from year 2002-03 to 2012-13, the share of enrolment in private institutions out of the total enrolment increased from 12.7 per cent to 48.20 per cent. Because of the affirmative action of the government for girl students, the share of enrolment of girls from 2002-03 to 2012-13 has increased from 26.63 per cent to 45.07 per cent.

Change in Enrolment of Different Social Groups: In the year 2002-03, the share of enrolment in both public and private (public + private) for General category, SC, ST, OBC and Minorities was 47.56, 12.86, 10.14, 27.8 and 2.26 per cent respectively. In the year 2012-13 it has changed to 27.09, 15.95, 14.02, 41.31, and 2.62 per cent respectively. Srivastava and Sinha (2008) find in their all India level study that SC and ST, followed by OBC, belonging to any religion have lesser access to higher education. Besides, females have lesser enrolment in all these categories than males.

To promote higher education among weaker sections of the society, the government undertook many affirmative actions like reservation, scholarships, freeships, etc. These incentives are as follows:-

16, 12, 21 and 1 per cent reservation in admission for SC, ST, OBC, and SBC (Special Backward Class) respectively in public sector as well as private sector institutions has been granted. Horizontal reservation is provided to alternatively abled persons. All types of

scholarships have been introduced in private as well as public sector institutions in the same manner.

The category-wise share in the total enrolment in the state in both (public + private) institutions for General, SC, ST, OBC and Minority categories was 47.56, 12.86, 10.14, 27.18 and 2.26 per cent respectively in the year 2002-03, which became, 26.09, 15.95, 14.02, 41.31 and 2.62 per cent respectively in the year 2012-13. During the period 2002-03 to 2012-13 the highest growth rate was observed for OBC category (216.46 %), followed by ST category (188.25%), SC category (158.49%), Minority (142.20%) and General category (14.35%) (Table No. 5.15, 5.16).

Table No. 5.15

Category-wise enrolment in Government + Private Management (Percentage)

Years	General	SC	ST	OBC	Minority
2002-03	47.56	12.86	10.14	27.18	2.26
2003-04	44.23	13.02	10.51	29.79	2.46
2004-05	40.37	13.68	10.87	33.02	2.06
2005-06	37.83	13.97	11.22	34.92	2.06
2006-07	35.76	14.01	11.35	36.52	2.36
2007-08	34.65	13.92	11.36	37.79	2.28
2008-09	32.21	14.26	11.39	39.81	2.34
2009-10	30.82	14.45	11.33	40.88	2.51
2010-11	30.45	14.76	11.74	40.65	2.39
2011-12	NA	NA	NA	NA	NA
2012-13	26.09	15.95	14.02	41.31	2.62

Source: Office of Director, College Education, Rajasthan

Table No. 5.16

Growth rates in Enrolment from 2002-03 to 2012-13

Category	Public	Private	Pub+Pvt
General	-38.58	308.69	14.35
SC	74.12	1697.20	158.49
ST	73.88	1588.14	188.25
OBC	82.21	1251.35	216.85
Minority	11.09	1179.79	142.20
TOTAL	23.20	729.60	108.44

Source: Office of Director, College Education, Rajasthan

Enrolment of Different Social Groups in Public Institutions:

Even with the equal treatment policy in public sector as well as private sector for all categories, the growth of enrolment in different categories is different in public sector and private sector institutions for different categories. The difference in the management of the institution decides the fee structure, infrastructure facilities, location of the institution and quality of education which affects the enrolment of the different categories.

In the year 2002-03, the share in total enrolment in government institutions for General, SC, ST, OBC and Minority categories was 45.85, 13.87, 10.66, 27.35 and 2.28 per cent respectively, which changed to 22.86, 19.60, 15.05, 40.45 and 2.05 per cent respectively in 2012-13. From 2002-03 to 2012-13, the highest growth rate was observed for OBC category (82.21%), followed by SC category (74.12%), ST category (73.87%), Minority (11.09%), and General Category (-38.58%).

Why is Private Sector Growth Higher?

Extent of Privatization: In the year 2002-03, out of the total enrolment, the share of enrolment in private institutions was only 12.07 per cent but it increased drastically and in the year 2012-13 it became 48.02 per cent. It was a complete paradigm shift in the higher education of the State (Table No. 5.14).

If we see the data regarding the number of new colleges opened, up to 2002-03 the total number of newly opened colleges was only 42. In the year 2004-05, 03 new government colleges and 228 private colleges were opened. Similarly, in the year 2010-11 only 1 new government college and 281 new private colleges were opened. So the number of private colleges has increased at an awfully higher rate than the government colleges (Table No. 5.13). In the year 2002-03 the total number of government colleges was 186 and that of the private was148. In the year 2013-14, the total number of government colleges became 199 and that of the private ones became 1329.

In public sector institutions of general education, the fee was Rs. 1,800 only in the year 2013-14. No tuition fee was taken from the girl candidates in public sector institutions. In private institutions fee structure depends upon status and location (urban and rural area). Fees may vary from Rs. 5,000 to Rs. 14,000and sometimes even more than 14,000 depending upon the

prestige and goodwill of the college. Most of the scholarships, like SC, ST, OBC and Merit-cum-Means (MCM) scholarship are awarded in both private as well as public sector institutions. Generally, in the public sector institutions, the number of total seats for admission is fixed and the minimum eligibility for admission is also strictly followed, e.g. the minimum percentage ineligibility examination may be 48 per cent or 45 per cent.

A candidate, who has secured less than 48 per cent at +2 level with physics, chemistry and mathematics cannot get admission in B.Sc. in a public institution, but he can get admission to B.Tech. in a private sector institution. Although in the private sector institutions the total number of available seats for admission is fixed, in practice, when more candidates come to get admission, they increase the number of seats and offer admission to all the candidates, even when they have less than 45 per cent marks in eligibility examinations. The number of seats is fixed by the affiliating university as per norms, but many times private affiliated colleges violate these norms of the maximum number of seats, and give admission to all the aspiring candidates. Even for that they pay penalty for violating the norms. Many private colleges do not get permanent affiliation because they do not fulfil the norms and criteria decided by the affiliating university and the state government, and every year they get temporary affiliation. Every year they pay penalty for not fulfilling the norms and following regulations of the affiliating University. In this way they economise the costs.

We can infer that the share of public expenditure is declining and that of private sector is increasing. Agarwal (2006) observed that the nearly 50 percent of the higher education expenditure comes from private sources in India. Sing (2004) argues that, negative dimension that private higher education has should as well not be overlooked. That, on the one hand, it discriminates against poor students benefitting only the students of affluent category. While on the other hand, it could impede growth, strengthening tendency towards corruption, which is already a menace to both our academic life and polity.

The total growth in enrolment (both public and private) is 108.43 per cent during the period 2002-03 to 2012-13. Out of this total growth, public sector and private sector institutions have contributed 23.20 and 729.60 per cent respectively. The growth in the private sector is approximately more than 7 times, which is too higher than that of the public sector. It is the outcome of pro-privatisation policy of the State. As the government shifts towards privatisation, public funding for higher education has been lagging behind with enrolment

and per unit cost falling at very fast rate since 1990's. This increasing privatisation, as Ved Prakash (2007) argues, affects the quality of higher education adversely. Ajith and George (2009) studied the higher education system of Kerala and found that the system shifted from inclusive to exclusive because of privatization.

However, if we see the enrolment growth rate of different social groups in public and private institutions, it appears that private sector is more inclusive than the public one. Growth rates of SC, ST, OBC and Minorities are much higher in private sector, but it should be seen in the light of the total growth rates in both sectors and government policy to promote private institutions.

It is assumed that STs are the most backward social group in the society, followed by SCs and OBCs. Minorities are also back-ward, but we cannot put them in any order. If we see the population shares, SC and ST are 17.80 and 13.50 per cent respectively. We do not know the population share of OBC. Minorities have 11.23 per cent share in the population of the state. If we look at the percentage share of different social groups in public and private sector institutions, we can know the real picture of the inclusiveness of the policy in both the sectors. Actually, the growth of private sector is much higher than that of the public one. The proportion of different social groups shows to what extent a particular sector is adopting the inclusive policy for the weaker sections of the society. It is not the relative value of the growth rate of the particular social group, but the proportionate share of that particular social group, which shows the real change in the policy.

The extent of the inclusive policy can be observed by the segregated data of enrolment of different social groups in public and private institutions separately. In the year 2002-03 for public sector institutions the proportions of SC, ST, OBC, and Minorities were 13.87, 10.66, 27.35, and 2.28 per cent respectively; for the same year in the private institutions these were 5.54, 6.35, 25.94, and 2.10 per cent respectively. In the year 2012-13 for public sector institutions the proportions of SC, ST, OBC, and Minorities were 19.60, 15.05, 40.45, and 2.05 per cent respectively; for the same year in the private sector institutions these were 12.00, 12.92, 42.25, and 3.23 per cent respectively.

It is evident that from the initial year 2002-03 to 2012-13, public sector institutions were more inclusive for SC and ST. For OBC in the initial year 2002-03, private sector and public

sector remains the same, although public sector had slightly higher proportion of OBC. However, in year the 2012-13, it was nearly the same as in the private sector. Generally, OBC is considered a more forward community than SC and ST, but socially and economically slightly backward than the general category.

For instance, Basant and Sen (2014) argue that Hindu OBCs are more likely to complete higher education, as compared to Hindu SCs. Therefore, affordability for OBC community for the private institutions is higher than other weaker sections. There are also no proper data available for the population of OBC community and general category. How much is the proportion of the OBC in the total population is not known. However, for OBC, 21 per cent reservation has been decided abruptly, without support of any sound data or research by the government. It is evident from the data that the proportionate share of General community has drastically declined in both the types of institutions, and was mostly substituted by the OBC category.

For Minorities in the initial year 2002-03, the proportion in enrolment was slightly higher in public institutions, but in the year 2012-13, this proportion was higher in private sector. It might be due to a high number of newly opened private colleges by religious minority category institutions during the period (2002-03 to 2012-13), where 50 per cent seats are reserved for the specific religious minority community. The share of minority communities in the population of the state is 11.23 per cent, but their share in enrolment is only 2.62 per cent. Although the total share has increased slightly from 2.26 to 2.62 per cent, it is negligible as compared to their total share in the population. In terms of their share in enrolment, they appear to be the most deprived community.

During the period under study, private institutions are seen to have been raising continuously. The government has also been promoting privatisation, while at the same time reducing public funding and grants year after year. Besides, because of easier admission procedures that the private sector follows, along with the reimbursements that students get from the government, enrolments in the sector too is growing over the period under study for all social categories. Alongside the government policy favouring the private sector, as Tilak (2005) argues, the scarcity of resources in public higher education is cited to be often the cause for growing private higher education. Besides, an equally significant concern is the change in attitudes of the people towards higher education, particularly ‘for-profit’ private institutions.

With the quality of higher education being compromised by 'profits', the public and merit good nature of higher education is being increasingly discounted.

According to Altbach (2011) rate of participation for minority students still lags behind in the US. It is a matter of fact however that inequalities do persist in countries with high rate of enrolment.

Enrolment of Different Social Groups in Private Institutions: In the year 2002-03 the shares of enrolment in private institutions for General, SC, ST, OBC and Minority were 60.08, 5.54, 6.35, 25.94 and 2.10 per cent respectively; then in the year 2012-13 it became 29.60, 12.00, 12.92, 42.25 and 3.23 per cent respectively. In the period from 2002-03 to 2012-13, the highest growth rate was for the SC category (1697.20. %), followed by the ST category (1588.14%), the OBC category (1251.35%), the Minority (1179.79%), and the General category (308.68%).

Policy for Private and Government Girls' Colleges:

The state government is providing many incentives to private sector for opening new girls' colleges. Generally, private girls' colleges are opened in urban areas, where, relatively prosperous (higher income) people live and where the demand by students and parents for girls' colleges exists. The government is giving more incentives to private sector to open girls' colleges than for co-ed colleges. Therefore, private sector prefers opening girls' colleges to co-ed colleges where the demand exists and they are financially viable, i. e. in the urban areas. The government does not have any such consideration of financial viability or profitability to open new girls' colleges. The government opens new girls' college in the areas where private sector does not take any interest in opening a new college, such as in rural areas, tribal areas, desert areas, hilly areas, and remote areas. The government's objectives are to promote girls' higher education rather than to earn profit. The government opens new girls' colleges even when the total number of students is very small in some initial years. The government opens new girls' college where girls' enrolment is low due to social reasons, e.g. parents do not send their daughters to co-ed colleges. Private sector prefers to open new girls' colleges in the capital city, district headquarters, sub-divisional headquarters, or in a prosperous town. Thus, most of the private girls' colleges are urban-biased.

Effects of Policy on Enrolment of Girl Students:

In the period under the study from 2002-03 to 2012-13 how the gender-wise composition of enrolment has changed in public and private institutions in different social groups, i.e. SC, ST, OBC and Minorities, has been analysed. The gender composition is affected by the government policy for private institutions, incentives for girls' education, and incentives to the different weaker sections. There are many incentives given by the state government to the girl students to enable them to get higher education. The girl students of the weaker sections are getting benefits of the incentives already given to these categories (SC, ST, OBC and Minorities) as well as the incentives given to girls in general. To control the effects of the incentives to the girl students of SC, ST, OBC and Minorities, we have to consider only the General category students to know the effects of the incentives given as girls.

Thus, we can observe the effect of incentives given to the girl students if we examine the change in the proportions in enrolment of only General category girl students. The incentives given to girl students in public and private institutions are different, so that we have to consider the proportion of girl students in public and private institutions separately. In public institutions no tuition fee is charged from girl students and in admission all the girl students are given concession in minimum marks in eligibility examinations. The government gives many concessions to promote private sector to open new girls' colleges, but these private institutions do not give any incentives to girl students like those in public institutions.

General Category Girls: Government Institutions: In the year 2002-03, the percentage-wise enrolment of boys and girls was 52.95 and 47.05 respectively; then in the year 2012-13 it became 46.09 and 53.91 per cent respectively. Private Institutions: In the year 2002-03, the percentage-wise enrolment of boys and girls was 31.86 and 68.14 respectively, which in the year 2012-13 became 47.22 and 52.78 per cent respectively.

It is evident from the above description that public institutions are more inclusive for General category girl students and incentives are more effective in these institutions. Now, we shall consider the proportions of girl students of different weaker sections in public and private institutions. Because in public institutions, the government has separate budget for girls' colleges, the effect of this policy will be different in public and private institutions. Apart from that if we see the proportion of girl students in public and private institutions for weaker sections separately; it will show the inclusiveness of these institutions and preferences of girl students of theses sections. Preferences of all the categories of girls are not the same for

public and private institutions. We have examined the proportions of girl students of different categories in public and private institutions separately.

SC Category Girls: Public Institutions: In the year 2002-03, percentage of the boys and girls were 82.07 and 17.93 respectively, which in the year 2012-13 became 66.31 and 33.69 per cent respectively .Private Institutions: In the year 2002-03 percentages of the boys and girls were 62.04 and 37.96 respectively which in the year 2012-13 became 53.64 and 46.36 per cent respectively.

Although the fee difference is neutralized by scholarships for girls and boys at the same rate in both the management i.e. public and private institutions but the private management institutions are more preferred than the public management institutions for the SC girls. It seems that private management institutions are more inclusive for the SC category girls.
ST Category Girls: Public Institutions: In the year 2002-03 percentages of boys and girls were 84.36 and 15.64 respectively which in the year 2012-13 became 63.22 and 36.78 per cent respectively. Private Institutions: In the year 2002-03 percentages of boys and girls were 82.06 and 17.94 respectively which in the year 2012-13 became 55.85 and 45.15 per cent respectively.

The difference in fees is neutralized by scholarships in both public and private institutions for girls and boys at the same rate. Even then the private institutions are more preferred than the public institutions for the ST girls. It looks that private institutions are more inclusive for girls belonging to the ST category girls. The government colleges are opened on priority basis at all tehsil headquarters in the Tribal Sub Plan (TSP) area. Private sector institutions are given concessions, rebates and special incentives, such as free land, and sometimes free buildings to open new girls' colleges in the TSP area and in any town area where there is no college. The number of newly opened private colleges is more than that of the government colleges in the TSP area. The number of private girls' colleges in the TSP area is also more than government girls' colleges. Therefore, it is the only option for ST category girls to get enrolled in private colleges.

OBC Category Girls: Public Institutions: In the year 2002-03 percentages of boys and girls were 75.93 and 24.07 respectively, which in the year 2012-13 became 64.85 and 35.15 per cent respectively. Private Institutions: In the year 2002-03 percentages of boys and girls was

39.73 and 60.27 respectively, which in the year 2012-13 became 46.19 and 53.81 per cent respectively.

The enrolment of girl students in private management institutions is declining but in public management institutions it is increasing, at par with the general category girl students. In terms of social backwardness, the OBC category is much nearer to the general category than the SC and ST categories. OBCs are less backward than SCs and STs. Therefore, they get scholarships at a lower rate than those for the SC and ST categories. The only difference for the General category and OBC category girls for public and private management institutions is the tuition fee. There is no tuition fee in public management institutions for girls of all categories. Therefore in public sector institutions the enrolment girl students of OBC and General Category has an increasing trend.

Minority Category Girls: Public Institutions: In the year 2002-03 the percentage of boys and girls was 59.02 and 40.98 respectively, which in the year 2012-13 became 58.29 and 48.71 per cent respectively. Private Institutions: In the year 2002-03 percentage of boys and girls was 28.21 and 71.79 respectively, which in year 2012-13 became 55.43 and 44.57 per cent respectively.

For Minorities the proportion was slightly higher in public sector in the initial year 2002-03 but in the year 2012-13 it became higher in private sector. It might be due to a good number of newly-opened private colleges by minority religious communities in the period (2002-03 to 2012-13), wherein 50 per cent seats are reserved for that community. The share of minority community population of the state is 11 to 12 per cent but their share in enrolment is 2 to 3 per cent only. Although the total share in enrolment has increased slightly from 2.26 to 2.62 per cent, i.e. negligible as compared to their total share in terms of population. Therefore, in terms of enrolment it appears to be the most deprived section.

In private management institutions the share of minority girls has drastically declined from 71.79 to 44.57 per cent. It may be due to some social reasons. It may also be possible that a higher number of newly opened minority religious colleges are co-eds than girls' colleges. Therefore, boys are enrolled at higher number than girls, because of social reasons of which, the enrolment of minority girls has declined. As Srivastava and Sinha (2008) also pointed out

through their study, irrespective of religion and as well of categories, females across have less enrolment rate in higher education. But in our study it is not correct of all categories.

Policy for Minorities (Jains v/s other Minorities):

Although there is no provision of reservation for minorities in general institutions, in all minority institutions, which are established by minority religious organisations and the minority status, have 50 per cent seats reserved for minorities. Some of these institutions are getting the grants from the state government. The MCM (Merit cum Means) scholarships are given by the state government to the minority students in higher education. During the period study, the enrolment of minority students in higher education has increased from 2.26 per cent to 2.62 per cent. Their proportion in population in the state in 2001 was approximately 11.23 per cent. In public sector institution their enrolment declined from 2.28 per cent to 2.05 per cent whereas in private sector institutions it increased from 2.10 per cent to 3.23 per cent.

Before 2002, the Jains were not considered a minority but there after the state government declared them a minority. Their proportion in the population in the state is only 1.15 per cent. They are considered relatively affluent, financially sound, and educated. They have sufficient representation in higher education. There are many educational institutions run by Jain societies and trusts. To declare the Jain community as minority may be a reason for the high growth of minorities in enrolment in private sectors institutions. We do not have separate data of enrolment of Jain community in public and private institutions. If we see the representation of all minority communities including Muslims, we find that it is the most backward in the higher education. Their population in the state is 11.23 per cent but their representation is only 2.26 per cent. They have low representation in elementary and secondary education; obviously, also therefore representation in higher education is obviously to be very low.

Specially, the Muslim community is relatively socially and economically the most backward community among the minorities, so their representation in elementary and secondary education is also very low. Although, more recently, more schools and colleges are opened in Muslim majority development blocks but more efforts are still required. In the state, most of the population belonging to minority communities is concentrated in Alawar, Sikar, Tonk, Barmer, Bharatpur, Bikaner, Ganganagar, Hanumangarh and Jaislmer districts and separate budget is allocated by the state government for the development those blocks, of these districts where minorities, such as Muslims, Christians, Sikhs etc. are concentrated.

Growth Rates of Enrolment of Various Categories: If we see the from 2002-03 to 2012-13, management-wise, category-wise and gender-wise growth rate of enrolment, we find that public sector institutions have the highest growth rate of ST category girl students followed by SC category girl students and OBC category girl students, which stand at 308.95, 227.22 and 166.09 per cent respectively. Similarly, in private management institutions the highest growth rate is observed in ST category girls, followed by minority category boys and SC category girls who consist4054.72, 2095.11 and 2414.97 per cent respectively. Interestingly, in public management institutions the growth rate of General category boy and girl students is -46.53 and -29.62 per cent respectively. The percentage of General category has declined and substituted by SC, ST, OBC, and Minorities. The growth rate of general category in public management institutions is positive but less than that of the SC, ST, OBC and Minorities.

Private Institutions and Weaker Sections:

In the period under the study, the share of enrolment in private institutions increased from 12.07 per cent to 48.02 per cent due to liberal and promotional policy of the state government towards private sector. Resultantly, the number of private higher educational institutions increased at a very fast rate. At the same time, with the pro-privatization policy and affirmative action of the state government for weaker sections, sufficient attention on the representation of weaker sections was given. Therefore, their representation in private institutions became almost equal to their proportion in population and, in some cases, more than their proportion.

Although it looks reasonable that due to increase in the number of private institutions, the access of weaker sections to higher education has increased, consequently helping in their academic and social progress; the quality of most of the private educational institutions is doubtful. Although formally every private institution is run by a society, a trust or a no-profit-company registered under section 25, and it cannot earn any profit as per its account books. But in practice, many new private institutions got established to get the benefits of government schemes, such as promotions, waivers etc. and also to get the benefit of increasing demand of higher education in the market. Consequently, they have been siphoning out the profits. Furthermore, the concern here lies in the difference of interests between the market-driven private universities and state universities, with the former tending to conflict not only with academic interests (Bok 2003), but also with national interests. The

intense seriousness that the conflicting interests of the state and market in education have hinders any attempt of public-private partnership, fearing the same may be counterproductive.

Some of the private colleges are surveyed in Udaipur, Jaipur, Bikaner and Sikar districts and interviews of faculty members and students are taken with anonymity in order to know their views about the quality and internal operation of the institution. In most of the private educational institutions, the faculty members are employed at minimum salary on ad hoc basis. A very few faculty members are appointed as permanent employees. Even those who are appointed permanently, practically they can be removed from service by the management at any time. However, at the time of appointment, the employer searches for those teachers who are ready to work for maximum time at minimum salary even though they may be very low in quality. The quality of teachers is not the criterion for selection but it is economic profit.

Since the number of formal degree holders is increasing and most of them have inferior quality, a big pool of educated unemployed youth is available in the market. So it becomes very easy for the employer to hire such poor quality teachers at very low salaries. Most of the private educational institutions have this inferior quality of teachers but formally they possess the required qualification.

Private educational institutions meet all the formal requirements of the state government, the UGC and other regulatory authorities; but they compromise with quality. Therefore, most of the private educational institutions fulfil the required formal norms, but they are very poor in maintaining the quality of higher education. There are some private institutions, which take recognition every year on temporary basis, and do not fulfil formal criterion, preferring so to rather pay fine to keep on continuing the recognition, thereby maximizing their profits. Nevertheless, the private higher education continues to flourish to maximize profits because of the close alignment of the interests of the ruling class and the private promoters.

The government has abolished the differences between private and government institutions through providing scholarships, equivalent to fee charged by private institutions from SC and ST students. The similar process is followed in the case of OBC students, but the amount of scholarship is comparatively lesser than that for SC and ST students. In such a situation,

private educational institutions get the scholarship amount of SC and ST students through ghost (fake) enrolment. A number of such incidences have been reported and institutions prosecuted. Although the representation of weaker section students has increased over time with the expansion of private sector due to affirmative action of the government, it appears that expansion of private educational institutions has not harmed the access of weaker sections to higher education but the benefit to them is doubtful. Nevertheless, private higher education has not come sans any negative dimension. Sing (2004) argues that private higher education on the on the other hand, discriminates against poor students benefitting only the students of affluent category. While on the other hand, it impedes growth, strengthening tendency towards corruption, which is already a menace to both our academic life and polity.

Low Growth in Gross Enrolment with High Growth Enrolment in Private Institutions: In the period from 2002-03 to 2012-13, during which the private sector expanded highly, the total enrolment increased by 110 per cent. While in the period from 1992-93 to 2002-03, during which the government sector expanded highly, the total enrolment increased by 136.79 per cent. Thus, we can observe that the growth rate of enrolment in the first decade (1992-93 to 2002-03) was greater (136.79%) when public sector was dominant than in the second decade (2002-03 to 2012-13) in spite of higher expansion of private sector (110%). We can conclude that in second decade it was low growth with higher privatisation. Thus, the policy of the government of promoting the private sector in higher education cannot be supported, because it is highly decelerating the quality of higher education. The state government has been providing subsidy to private sector through indirect concessions to promote higher education. It is not certain as well that the above-mentioned growth in enrolment is only due to expansion and promotion of private sector. This tendency promotes the tendency of commercialization of higher education.

In this way, the enrolment could have increased through expansion of government sector as it happened earlier. The enrolment rate has continuously increased in Rajasthan, i.e. in 1990-91, 2000-01 and 2009-10, the enrolment rates were 4.39, 5.35 and 10.08 per cent respectively, but it still is lower than other developed states, such as Andhra Pradesh, Tamil Nadu and Maharashtra, who had in 2009-10 enrolment rates of 19.20, 19.56 and 15.18 per cent respectively. Therefore, more efforts are required in Rajasthan to increase the enrolment in higher education.

5.5 Summary:

We can summarise the above described facts as follow.

Public expenditure on higher education:

The growth rate of expenditure on higher education was lower than growth rate of state budget and state income (NSDP) during the period under study. The growth rate of per capita expenditure on higher education in Rajasthan was also less than that of the average of 15 major Indian states. During (2007-08)-(2010-11) per student public expenditure on public institutions increased because of arrears payments of Sixth Pay Commission, otherwise, it did not increase truly speaking. Proportion of state plan expenditure on higher education was very small, with 20 years average of plan component was 5.99 only as per cent of the total. Fiscal stress and plan expenditure have negative correlation. A majority of universities, according to Chattopadhyay (2010), continue to suffer from fund crunch as the states are compelled to comply with the restrictions of borrowing as per the Fiscal Responsibility and Budget Management (FRBM) Act. Since 2007-08 separate gender budget reduced the grader gap in the enrolment. It is also observed that only in election year there was a sudden hike in new public sector college and size of class/batch in public sector institutions.

Private sector and government policy:

Government promoted new private institutions through liberal policy and incentives. Scholarships to SC and ST are given to the students enrolled in both public and private institutions in such a way that it neutralises the fee difference between the public and the private institutions. Scholarships to OBC also cover a part of the tuition fees in private institution. Apart from SC, ST and OBC Scholarships, other 7 types of scholarships and incentives are given by the government at the same rate in both public and private institutions as discussed in the section 5.4.1. In the period under study, enrolment in private institution increased by 729.6 per cent whereas in public institution it had increased by 23.20 per cent only. Proportion of weaker sections increased in both public and private but it had increased significantly in private institution. Proportion of girls' enrolment also significantly increased in the private institutions.

Every year, the number of pass out students from school (+2 level) are increasing. But at the same time government is withdrawing itself promoting private institutions through liberal policy and incentives instead of opening new public institutions. Through different scholarships and incentives, the government is indirectly financing the private institutions.

Regulation is ineffective:

Generally, most of the private institutions do not comply with the regulatory norms. Rather they prefer to pay penalty every year for violating regulatory norms and reap more benefits than cost incurred to pay for the penalty. Thus they maximise their profit. Therefore, imposition of penalty is not an effective instrument for regulating. Generally, quality of education in most of the private institutions is lower quality than the public ones. They resort to different methods to subvert the system of regulation as discussed in Section 4.9.

Many other studies also corroborate that private higher education institutions are making profit and in terms of quality, they do no better than the public ones. Even in USA some private institutions even are compromising the dignity of a true university while adopting for methods of marketing (Bok 2003, pp: 81-82). With the quality of higher education being compromised for 'profits', the public good nature of higher education, as Tilak (2005) argues, is being increasingly discounted. Nair & Ajit (1984) and Mathew (1990) found in their study of private colleges of Kerala that the colleges, which were meant to be non-profit institutions covering only costs, were rather making huge 'quick profits', which were not reinvested in education. Such an act of profit maximization has on the other hand subjected higher education to vulgar commercialization.

Why quality of higher education is low?

An input-output model, well defined inputs and outputs, technical relation, efficiency cannot be conceptualized for education and university (Majumdar, 1983). University cannot be treated as a factory or a firm in economic theory. The concept of educational production function is very difficult to apply for understanding the functioning of university.

As argued by Chattopadhyay, (2012) the concept of education production function is not tenable. If it were valid, then the private and public institutions would have produced quality education by now. Quality of education depends upon commitment and expertise of teachers. They cannot be produced like any other factory product. Good students and good teachers choose the best institutions. Therefore, the best institutions cannot be replicated like a factory

as the technology for factory is well defined. The human capital embodied cannot be replicated and the quality of a new educational institution is not guaranteed automatically (Chattopadhyay, 2015). In fact, quality of education cannot be measured and quantified in a mechanical manner. It is dependent upon motivation and it is jointly produced by teachers and students, not by service providers alone. Often, higher the rate of failure of students, the quality of the education is considered to be better (Majumdar, 1983).

Although prestige and brand value of the institution is also important for attracting the best students. But most of the private institutions prefers profit rather than prestige, because it easy for them to make profit by offering the service (education) to the inferior quality students at higher price. Why degree is demanded? Why students go these lower quality institutions? As degree gives the signal to the employer about the quality, training ability of the candidate as a signalling device, it is demanded. Degree also provides some social prestige at some extent. Therefore students want to get degree with less effort, less training which result with lower quality of education. Private colleges nevertheless continues to grow in number due to excess in demands by upper class, and those who fail to get admission in government colleges. Although the quality of these private colleges rarely is superior; profit motive, influence and political power explain the growth of these private colleges Sing (1983). Thus private institutions in general offer substandard quality education and attract lower quality students, which are mutually reinforcing.

Although this policy of promoting private institutions has led to an expansion of the system and appears to be the inclusive one, for the sake complete analysis and comprehensive understanding, one has to look at quality. As public expenditure on higher did not increase much, it was almost stagnant with little capital expenditure, which resulted in a little expansion on public education system and quality is also affecting adversely.
At the same time private sector proliferates significantly, but owing to poor compliance with the regulatory norms, quality of private sector has turned out to be of low quality. Higher education has become more private than public. In the process, ultimately the whole system has expanded but with low quality education.

In such a complex juncture with private interests at one hand and public merit good at another for maintaining and sustaining the growth and quality of higher education, it is essential for the state to play a dominant role in the provisions for higher education by acknowledging the

socio-political constraints of the people (Tilak, 1991). Besides, as Nayyar (2007) has aptly put it, we must prepare and defend our higher education system from the dangers of market forces and globalization, which constrain us from shaping the system.

CHAPTER -6

SUMMARY, CONCLUSIONS AND POLICY IMPLICATIONS

In our study we have analysed the public funding for higher education for the Indian states and followed by a case study of Rajasthan. In Chapter 2, we have reviewed the relevant literature to know about the earlier studies pertinent to our objectives. In Chapter 3, the relevant theoretical framework has been discussed to contextualise the empirical analysis. In Chapter 4, the inter-state variations in the different aspects of public expenditure on higher education and relation between per capita income and extent of privatization have been examined with respect to the policy regarding higher education of the respective states. In Chapter 5, a set of issues emerged for deeper investigation in a state specific context of Rajasthan. Further public funding has been examined with respect to compliance of regulation and expansion of private sector is probed in deep.

For this purpose, relevant figures and tables presented to comprehend clearly all the changes in the different aspects of public funding for higher education over the period under study, and also how this public funding has been affected by fiscal conditions and the policy of the states as resource allocation across the sectors is indicative of priorities that the state assigns. On the basis of our analysis, we would like to conclude as follows.

Conclusions of Chapter- 4

Public Funding in Higher Education: A Comparative Analysis of Indian States

The first part of the conclusion which is related to Chapter 4, is an attempt to review the trends in public expenditure on higher education among the Indian states since the era of liberalisation, i. e., from 1990-91 to 2009-10. For the convenience of the study, we have divided this period into two decades and compared both the decades for analysis. Different aspects of public expenditure on higher education have been analysed such as inter-state

variations in this expenditure, in terms of share of state income, share of state budget and share of total education expenditure. The inter-state disparity in terms of all the above mentioned factors has been examined. The relation between the growth in the state income (NSDP) and the public expenditure on higher education has also been studied. How the pattern of public funding on higher education with respect to state income, fiscal conditions and the policy of a state have changed in the period under study is investigated in detail.

As a percentage of state income (NSDP), expenditure on higher education has been declining among all the states but in the states where per capita income is higher than all India average such as Andhra Pradesh, Maharashtra, Gujarat it has declined at a higher rate in comparison to the states where per capita income is lesser such as Bihar and Orissa. In the two decades, from 1990-91 to 2009-10, it has declined but the decline is at a higher rate in the second decade for all the states. In the second decade after implementation of FRBM Act, due to fiscal control over expenditure, social sectors like health and education witnessed decline at a faster pace in the states where per capita income was higher than average.

In our study we found that the public expenditure on higher education in most of the major state is broadly affected by 3 major factors:

Income i.e., per capita NSDP of the state concerned.
Fiscal stress, i.e., GFD, interest payment of the state concerned.
Extent of privatization policy towards higher education of the state.

All these 3 factors are interlinked as they affect each other. And above all in case of very poor state like Bihar and Odisha, most of the enrolment was in public institutions and a major part of expenditure is non-plan expenditure that is legal one, which cannot be avoided therefore expenditure cannot be curtailed beyond a limit.

State may give higher priority to other level of education than higher education or equal to all levels of education. In most of the states, whenever, fiscal stress increases, the expenditure of the State government on higher education declines, or in other words, whenever, GFD and interest payment increase, the expenditure of state government on higher education declines. If it does not occur in any particular state then, there may be other reasons to explain this

phenomenon. It could be possible that State government may not give much importance to higher education expenditure in the total budget, and expenditure on higher education may be a very small fraction of the total budget. State has strong policy and higher priority and spend higher share on higher education, despite having higher level of fiscal stress. State government may give higher proportion to the other level of education than the higher education. Therefore, the expenditure on higher education becomes very small fraction of the total budget and at the time of fiscal stress, state may not pay much attention and there may not be any curtailment in the higher education expenditure.

We have implicitly assumed a positive correlation between per capita income (NSDP) of a state and the extent of privatisation of higher education in the state. In other words, higher the per capita income, greater will be the extent of privatisation of higher education in a state. It may not strictly follow in a specific state, because privatisation of higher education also depends on the policy about higher education of the state. In a rich state, the government can choose any one policy out of the three which are as follows:

The state can spend more money on higher education and allow less privatisation.
The state can spend less money and allow higher privatisation.
The state can spend more money and promote privatisation.

To increase the enrolment rate is one of the important objectives of the policy for any state. Therefore, generally no state follows the policy to spend less money and allow less privatisation, which is in contradiction with the objective.

To promote private sector, government can give land and/or buildings at concessional price or token price or even free for opening new higher educational institutions. The government can create an environment for private sector through various concessions and incentives which make easy to open new private institution of higher education. All the clearances can be given in one go, without any hurdle. If we compare order of all the states in terms of per capita income and proportion of enrolment in private institutions, it is found that some states have high rank in per capita income but low rank in privatisation of higher education. Similarly, some states have low rank in per capita income but low rank in terms of privatisation of higher education. Thus, the policy of the state on higher education is crucial

to explain such contradictory situation. Similarly, extent of privatisation depends upon both demand for higher education and ease to open new private institution in the state.
Goa has the highest per capita income among the states in our study, but has a very low proportion of enrolment in private institutions, because of strong priority on higher education. The example of Goa is an outlier. On one hand, among the rich states (where per capita income is high) Tamil Nadu, Andhra Pradesh and Karnataka have high proportions of enrolment in private institutions, i.e., 78.83, 75.71 and 46.42 percent respectively. But their rank in per capita income is lower than Maharashtra and Haryana, whose proportions of enrolment in private institutions are low i.e. 24.18 and 30.49 percent respectively. Migration of students from one state to another state is also an important factor, which affects the demand for higher education in any state which is discussed in Section 4.2.

In most of the earlier studies, trends in public expenditure on higher education have been analysed at all India level, (e.g., Ved Prakash, 2007; Bhushan, 2009; Kapur and Mehta, 2004; Agarwal, 2009; Sharma, 2005; Kumar at al, 2005) in these studies state level variation are not examined.

Per student public expenditure on higher education has also declined in most of the states, but in the states where per capita income is low, it has increased at a higher rate. It is clear from this relationship that the states where per capita income is higher, enrolment in higher education has increased at a very high rate, but not the public expenditure. Obviously, this increase in enrolment is in private sector institutions (as discussed in Chapter 4). In most of the states per student public expenditure declined in the last two decades, but in the second decade it declined at a faster pace, which shows higher privatisation in the second decade. Similar results have been observed by previous researchers since 1990s at all India level study (Agarwal, 2009; Bhushan, 2009; Ved Prakash, 2007; Sundaram, 2006).

Proportionate expenditure on higher education among all the three levels of education, shows the priority of the state regarding higher education. In poor states where per capita income is low, public expenditure on elementary and secondary education is given higher priority than that on higher education. In the race of development, since these states are lagging behind, they have to spend more on elementary and secondary education. Since the per capita income is low, the extent of privatisation of elementary and secondary education is also very low. It can be observed by public expenditure on higher education as a percentage of total public

expenditure (at all levels) on education. In most of the states, this proportion has also declined in the second decade at a faster pace.

During the two decades from 1990-91 to 2009-10, in most of the states, whenever fiscal stress mounted, public expenditure on higher education declined commensurately. Similarly, whenever fiscal stress got aggravated, plan expenditure on higher education also declined in most of the states although in most of the states, plan expenditure on higher education is a very small fraction of the total expenditure. Actually, state plan expenditure shows the priority of the state towards investment for new avenues for expansion in higher education. In some states its average is only 2 per cent and in some others it is 25 per cent of the total expenditure.

The proportion of plan expenditure is not only very small but also highly fluctuating and inconsistent every year. It shows the non-seriousness of states towards the higher education. If we compare the enrolment rate of higher education among the states we find that in 1990-91 there was not much of a difference, but thereafter it increased at a very high rate. In low-income states the growth rates of public expenditure on higher education are higher than high-income states. At the same time, in higher-income states enrolment has increased at a very high rate. It shows increasing privatisation of higher education in these states.

Disparity among the States

To measure the disparity we have calculated the coefficient of variation (CoV) for various parameters related to expenditure on higher education among the various states, at three points of time i. e. 1990-91, 2000-01 and 2009-10 and, we find the interstate variations across the time. It shows the changes among states in different parameters during the period of study.

1. The disparity among the states has increased at a higher rate for expenditure on higher education than per capita NSDP.
2. The disparity among the states has increased at a higher rate for expenditure on higher education as a percentage of NSDP than for per capita NSDP.
3. The disparity among the states has got accentuated at a higher rate for per capita expenditure on higher education than for per capita NSDP.

4. The disparity among the states has increased for expenditure on higher education as a percentage of NSDP but, in terms of budget expenditure as a percentage of NSDP it has decreased.

We hypothesize that if the disparity in terms of state budget expenditure decreases, then, the disparity in terms of higher education expenditure should also decline but it is not, however, the case. The disparity in terms of expenditure on higher education has increased across the states. It reflects that the states which were advanced made further advancement in terms of those of higher education expenditure than other expenditure. The divergence in terms of higher education expenditure among the states has widened increased more than in those of other expenditure. In terms of other expenditure the difference has declined.

Thus, we can conclude that inequalities among the states have increased greater in terms of all the indicators related to expenditure on higher education than all other indicators of income and expenditure of the state. However, in terms of budget expenditure as a percentage of NSDP it has decreased.

The public expenditure on higher education analysed by (Tilak, 2016) for the year 2009-10 only, so inter-state variation explained for that particular year only. After 1990s a drastic change has been observed in economic policies related to higher education. What has happed in this entire period in terms of public expenditure is not clear from this study. Disparities among the state also analysed through coefficient of variation, but it also limited for that particular year only. Again it is limited to expenditure on higher education only. This study does not take into account the enrolment rate, per student public expenditure and extent of privatization of enrolment.

Growth and Expenditure on Higher Education

If we compare the growth rate of NSDP and the growth rate of public expenditure on higher education, it is found that the latter was lower than the former in most of the major states in India. Similarly, the growth rate of per capita expenditure on higher education was also lower than the growth rate of NSDP. The law of increasing state activities, according to (Wagner, 1883; 1890), that as economy expands, public expenditure also increases, and as the economy grows, the activities of the government increase overtime. Furthermore, as the economy

grows, the revenue of the government increases. In a welfare state, the responsibility of the government increases, thereby also increasing the public expenditure. Wagner (1883; 1890) argues that we can expect an increase in the expenditure on higher education, as and when the income of a state (NSDP) increases. In our study we found that lower expenditure on higher education than the growth rate of NSDP, which is contradictory.

The expenditure on higher education as a percentage of total educational expenditure has declined drastically, thereby showing that the states are giving lower priority to higher education than that on elementary education and secondary education. In the period under our study for Andhra Pradesh, the growth rate of state budget is the highest, i.e. 0.146 per cent but the growth rate of expenditure on higher education is very low, i.e. 0.092 per cent. It shows that the state is giving low priority to higher education in the budget. Nonetheless the enrolment rate in higher education in Andhra Pradesh is very high, which is attributable to higher degree of privatization has occurred in the state. If we see the average of fifteen states, the growth rate of higher education is lower than the growth rate of state budget.

The growth rates of enrolment for twenty years are higher than the growth rates of expenditure on higher education, besides Bihar, Haryana, and West Bengal. It shows that in most of the states, expenditure on higher education is not increasing commensurately with the growth rate of enrolment. It implies that the state is withdrawing itself from higher education and is looking forward to larger participation of the private sector. Andhra Pradesh has the highest difference in the growth rate of expenditure on higher education and the growth rate of enrolment. It shows that Andhra Pradesh has a higher degree of privatisation in higher education among all the states.

Since 1990s, most of the Indian states have been experiencing decelerating trend in expenditure on higher education, it is also corroborated for all India level study by Kumar et al (2005), public expenditure declined on health and education because of the growing economic liberalisation.

The growth rate of per student expenditure on higher education was negative for all the states except Bihar. If we compare the growth rate of enrolment in higher education and the growth rate of public expenditure on higher education, we find that in most of the states the growth rate of former outpaces the latter. This difference shows the extent of privatisation as

discussed in Chapter 4. In Tamil Nadu, the enrolment rate was much higher than the growth rate of public expenditure on higher education where higher education was undergoing privatisation at the highest rate among the major states, but for Bihar this relation shows the lowest rate of privatization.

The higher per capita income induces demand for higher education. At the same time, the higher per capita income makes affordable for students to pursue higher studies in private institutions. When the demand for higher education is higher and public expenditure on higher education does not increase accordingly, it becomes profitable for the private sector to open new institutions of higher education and invest on them. In such a condition the states where per capita income is higher, the government may promote private sector in higher education**,** because of which the number of private institutions also increased at a very fast pace and the share of private sector in total enrolment also went up. Ultimately, the total enrolment in higher education also witnessed a rise.

Similarly, in the states where per capita income is low, the demand from the students for private higher educational institutions will be low, because a majority of them cannot afford them. Because of the low demand for private higher educational institutions, their profitability will also be low, and the investment of private sector in higher education will remain limited. Due to low per capita income, the demand for higher education will remain subdued. Since the total expenditure capacity of the state is also low, the expenditure on higher education will be low. Due to lack of public expenditure on higher education by the state, and lack of private investment in higher education and low per capita income; the enrolment rate of higher education in the states will be low.

Public subsidy on higher education becomes debatable when we have two objectives: first, to increase the enrolment with equal access and equity; and secondly, to control fiscal deficit. Both these objectives have inverse relationship (Greenway and Haynes 2004; Tilak, 2004). The New Economic Policy (NEP), 1991 had two components, viz. the Structural Adjustment Policy and the Stabilisation Policy. Whereas the former stresses on the marketization, the latter put emphasis on controlling the fiscal deficit (Chattopadhyay, 2015).

The FRBM (Financial Responsibility and Budget Management) Act, 2003 mandates the state to control the GFD/GDP to keep the fiscal deficit within the statutory limit. Therefore, all the

states have to rein in their expenditures. Expenditure on health and education are the easy targets for this curtailment. Further in education expenditure, it is easy to curtail higher education expenditure than that on elementary and secondary education.

We can observe that the objective of expansion of higher education can be fulfilled by more privatisation and less subsidies, but at the same time we found in our study that the states found it difficult to address the objective of inclusiveness and equity. In our study we found that disparities among the Indian states have increased in terms of state income as well as in the indicators of higher education. Thus, in broader view or in a holistic sense it goes against the objective of realising inclusiveness. However the poor states suffer the most. It is also contradictory to the federal spirit of a nation. Another aspect of inclusiveness is the access of weaker sections of the society to higher education. This is actually so in the scenario where out of the total enrolment, approximately 60 per cent share has been captured by the private sector (MHRD, 2011). It will be difficult to address properly the question of accessibility of the weaker sections. It is discussed in the next part of this Chapter in the case study of Rajasthan.

Conclusions of Chapter- 5. An Analysis of Public Funding and Enrolment in Higher Education in Rajasthan

In second part of the conclusions emerging out of our analysis in Chapter 5 an attempt has been made to answer same broader question in the case study of Rajasthan, in some detail from 2002 till 2012. With the privatisation, how the proportion of different social groups (SC, ST, OBC, Minorities, and Women) has changed is investigated.

Generally, greater degree of privatization in higher education has been observed in the richer states, where per capita income is higher. However, in Rajasthan, despite having low per capita income than the all India average, there has been a very fast increase in enrolment in private higher educational institutions since 2002. The growth rate of public expenditure in the state on higher education was lower than the growth rate of NSDP (Current Price) from 1990-91 to 2009-10.

We found that NSDP had faster growth rate than the per capita expenditure on higher education. Because the enrolment in private institutions increased at a very high rate from

2002-03, the share of enrolment in private institutions had also increased at a faster rate. Thus, the total enrolment increased at a very high rate with higher privatization and per capita expenditure on higher education stood stagnant. It shows that policy of the state is much inclined towards privatisation.

The proportion of capital expenditure out of total expenditure shows quality and quantity of permanent infrastructures like buildings, equipment, apparatus, furniture, etc. The good quality and sufficiency of physical infrastructures are crucial for higher education. However, we find that capital expenditure is a small share of the total expenditure on higher education. It varies between 2 to 3 per cent. The same is corroborated by at all India level report that on average, 85.00 per cent of the expenditure is made on salaries in 2009-10, and only 10 per cent goes to items of capital expenditure and rest is incurred on other items (RUSA, 2013).

We can so conclude that fiscal stress indicator is negatively affecting the state plan expenditure. Since expenditure on higher education in itself is a very small proportion of the state budget, and plan expenditure again is a very small fraction of that, the extent of effect of fiscal stress on plan expenditure on higher education is expected to be very low.

Enrolment in the state did not increase steadily or in a smooth way. There were many fluctuations that could be observed in the growth rate of enrolment in higher education. It has some peculiar behaviour, which needs to be explained. There were some contemporary changes in the policy, which were responsible for this peculiarity which has been discussed in Chapter 5, Section 5.3.3.

As the growth rate of the state budget was higher than that of the state income (NSDP), we could expect that expenditure on higher education should also increase at a higher rate than the state income. But it is not the case. In fact, expenditure on higher education had increased at a lower rate than the state income. Thus, it can be deducted that higher education in the state budget was given lower importance than the other items of the budget. The growth rate (CAGR) of per capita expenditure on higher education in Rajasthan was 0.092 per cent, which was lower than the average of 15 major states.

Ajith and George (2009) studied the higher education system of Kerala, and found that the share of revenue expenditure out of SDP on education from 1980-81 to 2004-05 has been

declining. Besides, expenditure according to Sharma (2005), on higher education as a share of budget of Government of India has a declining trend from 1980-91 to 1996-97. As a result, per student public expenditure in real terms on higher education declined after 1992-93 (Sundaram, 2006). Another study by Bhusan (2009) also found that per student public expenditure in real terms on higher education also had shown a declining trend during 1993-94 to 2003-04. Thus, as Kumar et al (2005) aptly puts, public expenditure on health and education experienced decline as a result of economic liberalisation.

We assume that the growth rate of enrolment is the outcome of the growth rate of expenditure. We have compared the enrolment in public institutions and public expenditure on higher education from 2002-03 to 2012-13. We found that from 2002-03 to 2007-08, the growth rates of both enrolment and expenditure were almost stagnant, thereafter the expenditure increased at much faster rate than the enrolment. It is because of the arrears of Sixth Pay Commission, which were paid in the year 2008-09, 2009-10 and 2010-11.

Since 2002-03 to 2007-08, the growth of per student public expenditure on public institutions was almost stagnant, thereafter it had increased till 2010-11 and then again declined. The growth from 2007-08 to 2010-11 was mostly due to salary hike and arrears payment arising out of the implementation of the Sixth Pay Commission recommendations. It is not due to new investment or capacity expansion of the existing infrastructure.

This growth rate does not make any impact on quality improvement in the education system. Thus, if we carefully analyse this increase in per student expenditure, we have found that the large share was spent on arrears and salary hike for payment of the Sixth Pay Commission, rather than new recruitment for capacity expansion. As argued by Ved Prakash (2007), the government shifts towards privatisation, public funding for higher education has been lagging behind with enrolment and per unit cost falling at a very fast rate since 1990's.

Since 2007-08, allocation separately for Gender under the budget for higher education has been introduced in the State. Since it pertains to only public sector girls' institution, its effect can be seen on the gender-wise enrolment in public sector institutions. We found a drastic improvement to control the gender-gap in the state.

Public expenditure on higher education in the state also has a distinct relationship with the assembly elections in the state. In public sector institutions during the election year and one year before the election, the size of the section/class was increased from 60 to 80 and 80 to 100 students, without increasing the number of teachers and infrastructure. Most of the new colleges were opened in the same year or one year before the assembly elections. In such a way, financing higher education is heavily affected by elections in the state. This political factors distort policy making and affects adversely the financing of higher education in the state.

The total growth in enrolment (both public and private) was 108.43 per cent during the period 2002-03 to 2012-13. Out of this total growth, public sector and private sector institutions have contributed 23.20 and 729.60 per cent respectively. The growth in private sector is approximately more than 7 times, which is significantly higher than that of the public sector growth. It is the outcome of pro-privatization policy of the State. If we see the enrolment growth rate of different social groups in public and private institutions, it may appear that the private sector is found to be more inclusive than the public one. Growth rates of SC, ST, OBC and Minorities are much higher in private sector, but it should be seen in the light of the total growth rates in both the sectors, the quality of private sector institutions which undermine the rise in enrolment and the policy support from the government towards privatisation.

To promote access to higher education among the weaker sections of the society, the government has undertaken many affirmative actions, such as reservations, scholarships, freeships, and hostel facilities.

It is clear that except OBC and ST have their representation more than their reservation. But that is not the case with SC. Although there is no information about the proportion of OBC population, their enrolment in 2002-03 was 27.18 per cent, i.e. more than their reservation quota. In 2012-13, their representation in higher education became 41.31 per cent. Besides, in 2002-03 enrolment of general category was 45.85 per cent, which became 22.86 per cent in 2012-13. For this peculiarity, no clear and distinct reason could be found from this study. Only affirmative action of the government cannot be the reason for this high growth in the representation of these weaker sections. There may be some other possible reasons, which are not clear from our study. There may some other reasons as discussed below.

As Basant and Sen (2014) argued that it is not only the socio-religious affiliation that influences participation in higher education, other factors like- the importance of rural-urban divide, the economic background and the location of residence and crossing the threshold of higher secondary education too are of significant.

In our study, we considered only the liberal education (general education) and not the enrolment in technical and professional education. It may be possible that general category students have higher priority to enrol in professional and technical education rather than general education. Therefore, the weaker section students are getting admission in the places vacated by general category in general education. For admission one has to be eligible. The proportion of OBC in population in the state is not known. From time to time, a list of the OBC castes has been revised and many new castes of general category have been included in the list. In such a way, a proportion of general category population becomes a part of OBC population whenever the state government includes them. There may be a possibility that some castes which were earlier in general category have now come under the OBC category. This may have increased the proportion of enrolment of OBC category in higher education.
The peculiar behaviour may become slightly more comprehensible if we analyse the enrolment growth of different categories in private and public sector institutions. If we study the representation of the ST and SC students in private sector institutions during the period under study, the representations of SC and ST have been increased from 5.54 per cent and 6.35 per cent to 12.00 per cent and 12.92 per cent respectively, whereas in public sector institutions their proportion increased from 13.87 per cent and 10.66 per cent to 19.60 per cent and 15.05 per cent respectively. Thus, we find that the representation of ST and SC has relatively higher growth in public sector institutions.

On the other hand, the representation of general category students in public sector institutions declined from 45.85 per cent to 22.86 per cent, whereas in private sector institutions it declined from 60.08 per cent to 29.60 per cent. Representations of OBC remain the same in both the types of institutions.

Even with the equal treatment policy in public sector as well as in the private sector for all categories, the growth of enrolment in different categories is different in public sector and private sector institutions for different categories. The difference in the management (public or private) of the institution decides the difference in fee structure, infrastructure facilities,

location of the institution and quality of education which affects the enrolment of the different categories. During the period under study, the number of private sector institutions increased at a fast rate. We have observed that most of these private sector institutions were promoted and run by castes and religion based societies and trusts. Most of these institutions are located in Jaipur, Jhunjhanun, Ganganagar, Sikar, Ajmer and Kota. Most of these private sector institutions are concentrated in these district headquarters or located within these districts.

Policy for Minorities (Jains and other Minorities)

Although there is no provision of reservation for minorities in general institutions, all minority institutions, which are established by minority religious organisations and the minority status, have 50 per cent seats reserved for the minorities. Some of these institutions are getting grants from the state government. The MCM (Merit cum Means) scholarships are given by the state government to the minority students in higher education. During the period under study, the enrolment of minority students in higher education has increased marginally from 2.26 per cent to 2.62 per cent. Their proportion in population in the state in 2001 was approximately 11.23 per cent. In public sector institution, their enrolment declined from 2.28 per cent to 2.05 per cent, whereas in private sector institutions it increased from 2.10 per cent to 3.23 per cent.

Before 2002, the Jains were not considered a minority, but thereafter the state government declared them a minority. Their proportion in the population in the state is only 1.15 per cent. They are considered relatively affluent, financially sound and educated. They have sufficient representation in higher education. There are many educational institutions run by Jain societies and trusts. Inclusion of the Jain community as minority may be a reason for the high growth of minorities in enrolment in private sectors institutions. We do not have separate data of enrolment of Jain community in public and private institutions. If we see the representation of all minority communities including Muslims, we find that Muslims are the most backward in higher education. Their population in the state is 11.23 per cent, but their representation is only 2.26 per cent. They have low representation in elementary and secondary education; also an obvious reason for their very low representation in higher education.

How regulation is not effective:

Although it looks that due to increase in the number of private institutions, access of weaker sections to higher education increased and it helped in their academic and social progress, but the quality of the most of the private educational institutions remains doubtful. Although formally every private institution is run by a society, a trust or a no-profit-company registered under Section 25, and it cannot earn any profit as per its account books. But in practice, many new private institutions got established to avail themselves of the benefits of government schemes, such as promotions, waivers, etc. and also to get the benefit of increasing demand of higher education in the market. Some of the private colleges surveyed in Udaipur, Jaipur, Bikaner and Sikar Districts and interviews of faculty members and students are conducted with anonymity in order to know their objective assessment about quality and internal operation of the respective institution.

In most of the private educational institutions, the faculty members are employed at minimum basic pay on ad-hoc basis. A very few faculty members are appointed as permanent employees. Even those who are permanently appointed, can be practically removed from the service by the management at any time. However, at the time of appointment, the employer searches those teachers who are ready to work for maximum number of hours at irreducibly low salary, even though they may be of very low level of competence. The quality of teachers is surely not the criterion for selection, but it is driven by crash commercial objectives.

Since the number of formal degree holders is increasing and most of them have been imparted with inferior quality education, a big pool of educated unemployed youth is looking for jobs in the market. So, it becomes very easy for the employer to hire such poor quality teachers at very low salaries. Most of the private educational institutions have this inferior quality of teachers, but formally they possess the required qualification.

Private educational institutions meet all the formal requirements of the state government, the UGC and other regulatory authorities, but they compromise with quality. Therefore, most of the private educational institutions fulfil the required formal norms, but they end up delivering very poor quality education. There are some private institutions, who apply for recognition every year on temporary basis, and do not comply with the prescribed criteria, preferring so to rather pay fine to continue to retain the recognised status, and thereby serving their pure commercial interests.

The government has abolished the differences between private and government institutions through providing scholarships, equivalent to fees charged by the private institutions to the SC and ST students. The similar process is followed in the case of OBC students, but the amount of scholarship is comparatively lesser than that of students of SC and ST categories. In such a situation, private educational institutions get the scholarship amount of SC and ST through fake (ghost) enrolment. A number of such incidences have been reported and institutions prosecuted. Although the representation of weaker section students has increased over time with the expansion of private sector due to affirmative action adopted by the government, it appears that the expansion of private educational institutions has not harmed the access of weaker sections to higher education, but the very realisation of their objectives of higher studies remain doubtful.

Gender-wise enrolment of various social groups:

The public institutions are found to be more inclusive for General category girl students, and incentives are more effective in these institutions. It seems that private management institutions are more inclusive for the SC category girls. Although the fee difference is neutralized by scholarships for girls and boys at the same rate in both the management, i.e., public and private institutions, the private management institutions are more preferred than the public management institutions by the SC girls.

For the ST girls, difference in fees is neutralized by scholarships for studies in both public and private institutions for girls and boys at the same rate. Even then the private institutions are more preferred than the public institutions by the ST girls. It looks like the private institutions are more inclusive for girls belonging to the ST category girls. The government colleges are opened on priority basis at all the *tehsil* headquarters in the Tribal Sub Plan (TSP) area. Private sector institutions are given concessions, rebates and special incentives, such as free land, and sometimes free buildings to open new girls' colleges in the TSP area and in any town area where there is no college. The number of newly opened private colleges is more than that of the government colleges in the TSP area. The number of private girls' colleges in the TSP area is more than government girls' colleges. Therefore, it is the only option for ST category girls to get enrolled in private colleges.

The policy of the government promoting the private sector in higher education cannot be supported as it is leading to deterioration in the quality of higher education. The state

government has been providing subsidies to the private sector through indirect concessions to promote higher education. It is not certain that the above-mentioned growth in enrolment is only due to expansion and promotion of the private sector. This privatization promotes the tendency of commercialization of higher education. In the period from 2002-03 to 2012-13, during which the private sector expanded significantly, the total enrolment increased by 110 per cent, while in the period from 1992-93 to 2002-03, during which the government sector expanded substantially, the total enrolment increased by 136.79 per cent. Thus, we can observe that the growth rate of enrolment in the first decade, when the public sector was dominant (1992-93 to 2002-03), was greater (136.79%) than in the second decade (2002-03 to 2012-13) in spite of higher expansion of the private sector (110%). We can conclude that in second decade, it was low growth with higher degree of privatisation.

Due to New Economic Policy (NEP) and privatisation in the state, the growth rate of expenditure on higher education was lower than growth rate of state budget and state income (NSDP) during the period under study. The growth rate of per capita expenditure on higher education was also less than that of the average of 15 major Indian states. A majority of universities, according to Chattopadhayay (2010), continue to suffer from fund crunch as the states are compelled to comply with the restrictions of borrowing as per the Fiscal Responsibility and Budget Management (FRBM) Act. Since 2007-08 adoption of a separate gender budget reduced the gender gap in the enrolment.

Government promoted new private institutions through liberal policy and incentives. Scholarships to SC and SC are given in both public and private institutions in such a way that it neutralises the fee difference between both public and private institutions. Scholarships to OBC also cover a part of fee in private incitation. Apart from SC, ST and OBC Scholarships, other seven types of scholarships and incentives are given by the government without any differential treatment at the same level for both the public and private institutions as discussed in the section 5.4.1. In the period under study, enrolment in private institution increased by 729.6 per cent whereas in public institution it had increased by 23.20 per cent only. Proportion of weaker sections increased in both public and private but it had increased significantly in private institution proportion of girls enrolment also significantly increased in private institution.

Every year number of pass out student from school (+2 level) are increasing. But at the same time government is withdrawing itself and not opening new public institutions rather promoting private institutions through liberal policy and incentives. Through different scholarships and incentives government is indirectly financing the private institutions.

Many other studies also corroborate that private higher education institutions are making profit and their quality is lower than public ones. Some private institutions even are compromising with the dignity of a true university while adopting for methods of marketing (Bok 2003, pp: 81-82). With the quality of higher education being compromised by 'profits', the public and merit good nature of higher education, as Tilak (2005) argues, is being increasingly discounted. Nair & Ajit (1984) and Mathew (1990) found in their study of private colleges of Kerala that the colleges, which were meant to be non-profit institutions covering only costs, were rather making huge 'quick profits', which were not reinvested in education, thereby turning the colleges into teaching shops. Such an act of profit maximization has on the other hand subjected higher education in to vulgar commercialization.

Why quality of higher education is low?

Treating university as a factory or a firm as in economics of education is not tenable. The concept of educational production function is very difficult to apply. An input-output model, well defined inputs and outputs, technical relation, efficiency cannot be conceptualized for education and university (Majumdar, 1983). As argued by Chattopadhyay, (2012) the concept of education production function is not valid. If it were valid, then the private and public institutions would have produced quality education by now. Quality of education depends upon commitment and expertise of teachers. They cannot be produced like any other factory product. Good students and good teachers choose the best institutions. Therefore, the best institutions cannot be replicated like a factory as the technology for factory is well defined. The human capital embodied cannot be replicated and the quality of a new educational institution is not guaranteed automatically (Chattopadhyay, 2015). Quality of education cannot be measured and quantified in a mechanical manner. It is dependent upon motivation and jointly produced by teachers and students, not by service providers alone. Often, higher the rate of failure of students, the quality of the education is considered to be better (Majumdar, 1983).

Although prestige and brand value of the institution is also important for attracting the best students. But most of the private institutions prefer profit rather than prestige, because it easy for them to make profit by offering the service (education) to the inferior quality students at higher price. Why degree is demanded? Why students go for these lower quality institutions? As degree gives the signal to the employer about the quality, training ability of the candidate as a signalling device, it is demanded. Degree also provide some social prestige to some extent. Therefore students want to get degree with less effort, less training which result with lower quality of education. Private colleges nevertheless continues to grow in number due to excess in demands by upper class, and those who fail to get admission in government colleges. Although the quality of these private colleges rarely is superior; profit motive, influence and political power explain the growth of these private colleges Sing (1983). Thus private institutions are themselves lower in quality and getting lower quality students as well.

In such a complex juncture with private interests at one hand and public merit good at another for maintaining and sustaining the growth and quality of higher education, it is essential for the state to play a dominant role in the provisions for higher education by acknowledging the socio-political constraints of the people. As Tilak (1991) opines, such a dominant role of the state would enable the people to fight low levels of living, imperfect and incomplete markets and market mechanisms in higher education. Besides, as Nayyar (2007) has aptly put, we must prepare and defend our higher education system from the dangers of market forces and globalization, which constrain us from shaping the system.

We can address the research questions which we have raised in our objectives as follow.
Due to the adaptation of New Economic Policy (NEP) focusing on privatisation policy by the government and subsequent pressure of the FRBM Act, almost all the indicators of public expenditure on higher education exhibited declining trend among all the major Indian states.
Inter-state inequality among the states has increasing trend in all the indicators of higher education (public funding as well as enrolment) among all the major Indian states, which is contradictory to inclusiveness in a holistic sense. As a result, poor states (where per capita income is lower than average) had to suffer most endure the brunt of adjustment by compressing expenditure on higher education, while the need for public expenditure on higher education is more, than relatively well-off states.

In the case of Rajasthan same policy of privatisation was adopted by the states with the affirmative measures for the weaker sections of the society.

Owing to the inherent nature of the market for higher education (with the abuse of the process due to non-tenability of education production function) and regulation turn out to be ineffective, the quality of education has weakened.

Although this policy has expanded the system and appeared to be the inclusive one. As public expenditure on higher not increase much with little capital expenditure. It was almost stagnant, which resulted in a little expansion on public education system.

At the same time private sector proliferate significantly, but owing to poor compliance of regulation quality of private sector is also turn out to be low. Higher education became more private than public. Ultimately whole system expanded with low quality education.

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