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Madhya Pradesh
HIGHER EDUCATION Reform
POLICY OPTIONS

Report from
The World Bank
South Asia Human Development Department
December 2012



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Table of Contents

Preface	v
Executive Summary	1
Introduction	7
Young people in MP and their socio-economic characteristics	8
The Socio-Economic Context of Madhya Pradesh	10
Chapter 1: Effectiveness of the Higher Education System	11
Labour Market Outcomes	11
Educational outcomes and quality	13
Access and Equity	14
Addressing equity gaps	19
Conclusion	22
Annexure: Returns to tertiary education	22
Chapter 2: Improving System Performance through Governance Reform	25
The national context	25
The affiliation system	26
Institutional and sector governance	27
The Madhya Pradesh Universities Act, 1973	28
Learning from other States	30
Policy Options for MP	31
Conclusion	37
Annexure: Summary of State Councils for Higher Education	39
Chapter 3: Improving System Performance through Financing Reform	43
Public spending	43
Private spending	47
Fee paid by students of technical education	48
Allocation of public spending	49
Improving the Allocation of Funding	51
Conclusion	54

Chapter 4: Consultations	55
Best Practices	55
Governance	56
Equity and Access	57
Finance	58
Interactions with Students	59
Bibliography	61
Annexure: Additional Tables	63
State-wise Per Capita Net State Domestic Product at Factor Cost	63
Expenditure by the Directorate of Higher Education under various heads/schemes	63
Expenditure by the Directorate of Technical Education under various heads/schemes	68

Preface

This report was prepared by a team lead by Toby Linden (Lead Education Specialist, World Bank) and consisting of Siddhartha Gupta, Venkatesh Kumar, Soumya Mishra, Abhinav Prakash and Priyanka Shrivastava (all consultants to the World Bank).

The team would like to **express** its sincere gratitude **for** the support, assistance and encouragement it received from the Government of Madhya Pradesh, Department of Higher Education. Two successive Principal Secretaries (B. P. Singh and J. N. Kansotiya) lead the reform dialogue and provided the overall vision, and Dr. Rakesh Shrivastava (Advisor, Higher Education) and Mr. V. S. Niranjana (Commissioner, Higher Education) were constant sources of information and advice, as well as organizing the consultative Conclaves. All participated actively in the consultative process, which set the benchmark for how to engage the sector and generate consensus for reform. The draft report was discussed with officials of the Commissionariate and the Secretariat in October 2012.

The team owes a debt of gratitude to Andreas Blom (Lead Education Specialist, World Bank) who, from the World Bank side, initiated the dialogue with the Madhya Pradesh Government and established a firm partnership which provided the basis for this report.

The draft report was reviewed by Prof. Errol d'Souza (IIM Ahmedabad), Prof. T. C. Anant (Central Statistics Office), Nina Arnhold, Andreas Blom, and Hiroshi Saeki (all World Bank) and the team is thankful for the expert comments received which significantly improved the report. The report was prepared under the overall supervision of Amit Dar (Education Sector Manager) who provided support and guidance throughout the process. Renu Gupta provided excellent administrative support throughout the consultation and report preparation processes.

Part of the funding for this study was from a generous grant by the United Kingdom's Department for International Development.

List of Abbreviations

AFRC	Admission and Fee Regulatory Committee
AICTE	All-India Council of Technical Education
BE	Budget Estimates
BoG	Board of Governors
CGPA	Cumulative Grade Point Average
GDP	Gross Domestic Product
GER	Gross Enrollment Ratio
HDI	Human Development Index
IIM	Indian Institute of Management
IISc	Indian Institute of Science
IIT	Indian Institute of Technology
LFP	Labour Force Participation
MHRD	Ministry of Human Resource Development (Government of India)
MP	Madhya Pradesh
NER	Net Enrollment Ratio
NSDP	National State Domestic Product
NSS	National Sample Survey
OBC	Other Backward Caste
RE	Revised Estimates
SC	Scheduled Caste
SDP	State Domestic Product
ST	Scheduled Tribe
TISS	Tata Institute for Social Sciences
UGC	University Grants Commission
UT	Union Territory
VC	Vice Chancellor

CONVERSIONS

1 lakh = 100,000

1 crore (cr.) = 10,000,000

The US Dollar: Indian rupee (Rs.) exchange rate at the time of writing (September 2012) was approximately 1:55.

Executive Summary

In October 2010, the Government of Madhya Pradesh hosted, with World Bank technical advice, a Conference on higher education reform in the State. The Governor, the Chief Minister and the Minister of Higher Education all addressed the Conference and about 150 people attended the event. Subsequently, four regional Conclaves were organized, in which a total of more than 400 people participated, representing the leadership, administrators, faculty and students at universities and colleges across the State. This represents an impressive outreach to the sector stakeholders.

This report is written on the cusp of the publication of the Government of India's 12th Five Year Plan. The indications are that the Government of India intends to push ahead with some significant reforms in the higher education sector. Of particular significance for this report is the emphasis, for the first time, on the need to support the improvement of State universities and colleges.

The objective of this report is to provide policy makers in Madhya Pradesh with a menu of options for improving the equity, governance and financing of the higher education system in the State. Though the primary audience is policy makers, this report could serve as part of the continued dialogue with the higher education sector on the direction for reform.

EFFECTIVENESS OF THE HIGHER EDUCATION SYSTEM

The effectiveness of the higher education system can be measured in a number of ways. The first way is through employment status of graduates. In Madhya

Pradesh, overall unemployment rates are very low, at 1.17 percent, which is not surprising since most people cannot afford not to work regardless of their educational attainment. The unemployment rate is more than five times higher for those with higher education qualifications (at 6.02 percent), but this is still quite low in an international context. However, males and females with higher education qualifications have quite different labour force participation rates. About one third of both boys and girls, below 30 years of age and with a degree, are studying and so not looking for work. However, 50 percent of girls with a degree are neither working nor studying; while for boys this figure is just 7 percent.

A second measure of system effectiveness is graduates' earnings and type of work. In MP an individual with tertiary education earns 35 percent more than an individual with only senior secondary level of education, meaning about Rs. 20,000 more per year. Those with higher education also get better jobs; 70 percent of the employed adults (aged 20 and above) with higher education worked in the services sector.

A third measure of system effectiveness is quality. However, assessing the quality of higher education is difficult because of the lack of comparable measures. The best available measure in India is perhaps the accreditation process undertaken by the National Assessment and Accreditation Council (NAAC). Between 2007 and 2012, only 98 colleges in MP have valid accreditation (out of more than 1,427 government and private institutions in the State). If one looks from the input perspective, there are also some concerns about the quality of education.

Of particular concern is the large number of faculty positions which are unfilled by full-time regular faculty. Out of 8,000 total posts sanctioned by the department of higher education in government and aided institutions, 29 percent were vacant in 2011-12.

ACCESS AND EQUITY

In terms of enrollment, Madhya Pradesh exhibits a similar trend to the national picture, with large increases in recent times. Enrollments have recorded a large increase of 25 percent in undergraduate courses and 49 percent in post graduate courses in just the one year to 2010-11. As of 2010-11, the GER in MP was 13.9 percent which is slightly below the national level. In terms of overall enrollments, Madhya Pradesh is in fact doing **slightly** better than expected, given its socio-economic position.

At the overall level, Madhya Pradesh is doing fairly well but a closer look into the enrollment rates across various socio-economic groups within the state reveals some major problems in the context of access and equity. Enrollment in Madhya Pradesh shows that girls, those living in rural areas, and those from disadvantaged groups have significantly lower rates of enrollment than boys, those in urban areas and those from more affluent families, respectively.

Only a small percentage of girls and disadvantaged students are enrolled in higher education and this number appears to be falling. Girls constitute only 42 percent of students in higher education. In urban areas, 29 percent of young people are enrolled, but the corresponding figure in rural areas was only 9 percent. The proportion of students in the category of Scheduled Caste (SC) and Scheduled Tribes (ST) in the year 2010-11 was 8.48 percent and 4.14 percent respectively, significantly below their shares in the population. Particular sub-populations face multiple disadvantages, especially girls and ST/SC in rural areas. In rural areas, less than four percent of young SC and ST are in higher education and less than five percent of girls.

Poor attendance in earlier phases of education is a very important factor in explaining low enrolment in

higher education of girls and disadvantaged groups. It is striking the high proportions of the young people in certain sub-populations that have *never* attended an educational **institution** - 25 percent of females; 22 percent of those in rural areas, compared to less than 7 percent in urban areas; one third (31.5 percent) of rural girls; and ST – 34 percent; SC – 17 percent. The first approach to addressing the overall equity gaps in higher education, therefore, must be to increase the numbers of those from disadvantaged groups who enroll in and complete primary and secondary education. This is especially important since, of those young people who have completed grade 12, girls and boys and those from disadvantaged groups enroll into higher education in roughly equal proportions.

The Government of Madhya Pradesh has three main scholarships for girls. The *Gaon Ki Beti*, the *Pratibha Kiran*, and the *Vikramaditya* Schemes provided more than **36,000** scholarships in **2011-12**, a slight increase from the previous year. However, more efforts are needed to understand how to increase the impact of these schemes in the context of sharply rising numbers of students and girls attending higher education, so that the schemes can effectively help all those students in need.

There are several options for improving access for those living in rural areas. One is to establish more institutions of higher education in rural areas, either through government or private institutions. However, rural colleges tend to be of much poorer quality in terms of infrastructure and availability of faculty (and their smaller size makes them hard to make educationally and economically viable). A second option is for an existing university to establish constituent units in rural areas so that it could deploy its own faculty and maintain quality. A third option is for the state to support students from rural areas to enroll in an urban area. This last option has the advantage that young people from rural areas would study in larger, better-equipped institutions where the quality of education is generally higher. It also helps promote greater diversity at (urban) institutions, with resulting benefits for all students.

IMPROVING SYSTEM PERFORMANCE THROUGH GOVERNANCE REFORM

The governance structures of State universities require fundamental transformation – to become more efficient, transparent, democratic, and student focused. A comprehensive university reform programme needs to be designed and implemented jointly by Central and State Governments to promote strategic planning and recognizing performance at the University level for accessing resources. It is, therefore, pertinent for each State to prepare a comprehensive State Higher Education Plan, which will effectively assess the needs and requirements of States for a better, more equitable and balanced allocation of resources. Currently no State has such a plan.

There are a number of weaknesses of the affiliation system. First, the relationship between a State University and its affiliated colleges is one of administration – affiliation, course recognition, syllabus prescription, and examination. Second, since a typical affiliating university caters to hundreds of colleges, it cannot provide a curriculum to meet the local needs of colleges, but instead offers the same curriculum to all. In addition, in most affiliated colleges, faculty strength is inadequate and mostly filled with ad-hoc contract faculty, which does not facilitate quality enhancement and continuity. The University departments and affiliated colleges are then reduced to common, minimal curriculum, improvement and innovation. There are two other fundamental weaknesses: the affiliation model also separates student assessment from teaching and separates research from teaching, with one function taking place in the university and the other in affiliating colleges. Finally, the lack of mobility, differentials in salary, retirement age and benefits between affiliated colleges and State Universities in relation to centrally-funded Universities and the private sector institutions is drawing out the best faculty from State Universities.

Given the number of affiliating colleges in Madhya Pradesh, the affiliation system will take some time to reform and a number of different approaches will need to be considered, tested and evaluated. The first option is to reduce the total number of affiliating colleges by encouraging the better performing colleges to become autonomous. By becoming ‘autonomous’,

a college would gain academic autonomy as well as administrative autonomy over its budget, and becoming eligible to receive funds directly from the University Grants Commission. The bigger task however is to improve the quality of education provided in the larger number of colleges. One option is establishing a specific unit of the higher education council or the affiliating university to monitor and built capacity in these colleges. Similarly, it would be possible to establish one University exclusively for affiliations, or a dual Model for a few Universities as is being proposed in Karnataka with the remaining universities become exclusively teaching/research institutions. One of the other models of managing the problem of affiliation is to have the University divided into several campuses with each having colleges around its vicinity affiliated to those campuses. This model is being currently discussed in Maharashtra in the case of University of Mumbai. It would also be possible to create College Cluster Universities by clustering a minimum of 50 colleges in the area surrounding a city or district giving the university its own independent establishment and relevance. Another way to get larger institutions with more faculty and students would be for a number of colleges to merge. It is likely that larger institutions would have the capacity to become autonomous. State funding could be provided to promote such mergers. Lastly, it is possible to establish new constituent colleges where there is a large population of youth people. Unlike the affiliated colleges which are managed by a college management committee, the administrative control of the constituent colleges will be by the University.

An analysis of the MP Public Universities Act, 1973 identifies four main concerns. The first concern is the rigidity of the current governance framework for the state universities in MP. For example, the Chancellor (the State Governor), more often his office, decides on several administrative decisions. Instead, it is recommended that the Governor’s responsibilities be devolved to the Board of Governors (BoG) and the Vice-Chancellors (VC) as many are administrative in nature. The Visitor (as is proposed as a new role for the Governor) should continue in his role as the Head of the University to preside at important university events such as convocations and commencements. In addition, it is proposed that a BoG be established which will be the final approving authority on key matters of the university. The

BoG will be responsible for setting the university's strategic directions and development, and will be the final approving authority for key matters including finance and human resources (within approved policy parameters and guidelines), and making and reviewing statutes and ordinances. The BoG will also be given the flexibility to decide on the internal governance structures of the university.

The second concern is that the existing provisions of the Act provide an opportunity for political interference in the appointment of the Vice-Chancellor and other key **staff**. Instead, a selection committee comprising three to five independent well-respected representatives from the Board, society, industry, government and academia could be formed and tasked with the responsibility of selecting the candidates. The BoG should appoint the Vice-Chancellor. Key selection criteria should include academic credentials, management experience and expertise, leadership potential, integrity and values.

Third, the current practice is that the Public Service Commission selects and appoints teachers in the Government funded and aided colleges but this is ineffective, non-transparent and goes against the basic principle of **institutional** autonomy. The selection of the faculty should be devolved to the individual institution to administer as per the norms laid by the University Grants Commission.

The last concern is that, given the archaic nature of the Act with all powers (over-centralization) vested with the Vice-Chancellor and Governing bodies, there is time and cost over run on a number of matters, which should instead be addressed at the levels of Deans or Department Chairs.

There is also a need to improve the governance arrangements for the higher education sector as a whole. It would be desirable for Madhya Pradesh to establish a State Council for Higher Education for planned and coordinated development of higher education, to foster sharing of resources between universities, benefit from synergy across institutions, lead academic and governance reforms at the institution level, establish principles for funding institutions, maintain a databank on higher education and conduct research and evaluation

studies. Madhya Pradesh can learn from the handful of states that have a functioning State Councils for Higher Education, especially that the Chairman is selected on merit and that State Councils should be of manageable size.

IMPROVING SYSTEM PERFORMANCE THROUGH FINANCING REFORM

Public spending in Madhya Pradesh was Rs. 1,064 crores on higher and technical education in 2010-11, with almost 80 percent of that expenditure (Rs. 850 crores) going on higher education. Total budget spending doubled **in nominal terms** between 2007-08 and 2010-11, with projected increases for the following years too. However, in recent years, the proportions of the budget that are not being actually spent during a year have been rising; in 2010-11, actual spending was around 80 percent of the budget estimates. Madhya Pradesh spent a slightly higher percentage of public spending on higher education than the Indian average. **The State** spent 10.7 percent of total education expenditure on higher education in 2007-08; it was more than the median value of 9.7 percent.

The main source of private income is from tuition fees charged by institutions. An estimate of the fee income in government universities and their affiliated government colleges is Rs. 100 crores per year and **in** aided institutions is Rs. 1,000 crores. An estimate of tuition fees paid by students attending private unaided technical institutions is between Rs. 543 crores and Rs. 1,060 crores (depending on data sources). Total spending on higher education from all sources was approximately Rs. 2,800 crores. Therefore, private spending is approximately (and probably more than) three times public spending.

Ninety percent of the public expenditure goes into funding salaries in both higher and technical education. Shares of various salary and non-salary expenditures in general higher education have not changed significantly in recent years. What these figures indicate is the impact of filling sanctioned faculty positions as the cost of additional

1,000 teaching staff members is Rs. 78 crores per annum.

There are no clearly declared funding mechanisms from central and state funding bodies. The result is that there are quite different allocations per student across the state institutions. This ad hoc approach is common to many states. Given that the current amount of public money is a minority of funding for institutions, and that the amounts given to each institution are relatively small, this suggests that the process for allocating grants should be simple and transparent. It is desirable to move away from the more traditional negotiations of budgets between governments and public institutions and toward funding formulas.

Changing the allocation mechanism for institutions is desirable **and** should be carried out in phases. In Phase I, grants to institutions would be done on the basis of the numbers of students enrolled. Each institution would receive money equal to the per student amount multiplied by the number of students at the institution. It would be important also to link funding directly to some key building blocks of the new governance system, for example,

requiring institutions to complete a data return. In Phase II, the actual cost of providing certain courses would be calculated and the government would move increasingly to meet a higher and higher proportion of these actual costs per student. Again, this Phase would give the opportunity to link funding to other aspects of the governance agenda. For example, an institution could get a higher ('weighted') per pupil amount if it obtained autonomous status or a certain proportion of its courses were accredited. In Phase III, increased amounts of funding could be targeted to good performers. The measures of performance would be directly related to key policy outcomes, for example, retention and graduation rates (overall and for specified sub-populations). Attention should be paid here to improved performance as well as the absolute level of performance – to encourage all institutions to strive towards the State's policy goals.

This report identifies a number of options for the Government of Madhya Pradesh to consider. Once policy options are made, there would need to be more detailed policy and programme design, while continuing the strong outreach to and engagement of the sector stakeholders.

Introduction

In October 2010, the Government of Madhya Pradesh hosted, with World Bank technical advice, a Conference on higher education reform in the State. This Conference achieved three key objectives. First, it gave a platform for the highest political level of the State to express its strong commitment to higher education (the Governor, the Chief Minister and the Minister of Higher Education all addressed the Conference). Second, it gave an opportunity for a wide range of stakeholders in the sector to begin an engagement on the need for reform. About 150 people attended the event, which received significant press coverage. The third objective of the Conference was to identify the key issues facing Madhya Pradesh, discuss examples of good practice from India and around the world, and chart a path for developing a reform agenda and plan of action. The Report of the Conference (World Bank, 2012) included papers by the keynote speakers. The Conference converged on three main themes around which a reform agenda should be formulated: ensuring access and equity; governance; and financing. The present report takes forward these themes and undertakes more detailed analyses.

The Government of Madhya Pradesh has engaged in an extensive outreach to the sector stakeholders. As the World Bank's technical inputs were in a draft stage, four regional Conclaves were organized: in Indore (12 July 2012), Rewa (28 July), Jabalpur (29 July) and Gwalior (8 August). At these events, a total of more than 400 people participated, representing the leadership, administrators, faculty and students at universities and colleges across the State. At each event, senior officials from the Department of Higher Education attended the sessions and listened to the views of the participants. This is a significant and noteworthy approach to building consensus for reform. In addition, the Department, with the World Bank's help, launched an online survey

to try to capture additional views. These inputs have been used to inform and enrich the analytical work that the Bank team has carried out. The main issues raised during these various consultative processes are discussed in a separate chapter in this report.

This chapter provides some background to the report, especially for those who are less familiar with MP and its higher education system. The chapter looks at the characteristics of those young people who are 18-23 years old, as this is the group of people who are of the age to attend higher education. The general socio-economic features of Madhya Pradesh are also discussed as this provides the context within which the higher education system operates and within which those young people in higher education will seek work.

This report is timely. It was written on the cusp of the publication of the Government of India's 12th Five Year Plan. Previously published background papers and draft Plan documents have indicated that the Government of India intends to push ahead with some significant reforms in the higher education sector. Of particular significance for this report is the emphasis, for the first time, on the need to support the improvement of State universities and colleges, through which about three-quarters of students attend higher education. Previously, central funding had been targeted on national institutions. For the State universities and colleges to be invigorated, the State governments themselves will have to play a more significant and more strategic role. This report is therefore in part intended to help the State of Madhya Pradesh be at the forefront of these reform efforts.

There are challenges with the quality of available data. There were weaknesses along several dimensions. First, in some areas, crucially in the area of outcomes,

data is not collected or collated. For example, there is no annual reporting of the number of qualifications awarded by the institutions in the State (at Bachelors, Masters and PhD levels). This makes it impossible to undertake an analysis of the effectiveness of the higher education system. Second, where data is collected, the definition used focuses on the input aspect rather than outcomes. For example, the labour market success of graduates is an important measure of the effectiveness of higher education institutions; and most colleges and universities have a unit (usually called a Placement Cell) whose role it is to help students find employment. However, the indicator they use to measure job success is 'placement', but this means only that a student has been offered a job, not that job has been accepted. Moreover, if an individual student receives 3 job offers, then the Placement Cells count this as 3 placements; so it is possible to have more placements than graduates (and therefore a placement rate of more than 100 percent). In fact, more typically, placement rates are below 100 percent but the way placement is defined makes it is hard to interpret these figures to assess the effectiveness of institutions. A third general difficulty with the data is the inconsistency across different sources, even from official sources. The analytical work undertaken in the context of this report, therefore, presents the most accurate picture of higher education in Madhya Pradesh that could be obtained and, we believe, which is available in the public domain. However, no primary data collection took place.

In this report, we have looked at all parts of the post-secondary sector, that is, both general and technical education courses in higher education, those which are taught by both universities and colleges. We have considered those students who have finished 12 grades of primary and secondary education ('plus 2' in Indian terms), so we have excluded those studying in polytechnics.¹ These different parts of the higher education sector are often treated separately, and, indeed, in Madhya Pradesh there is a separate

¹ It should be noted that the All India Survey of Higher Education (AISHE) uses a different definition of higher education. The AISHE is to be welcomed in that it will be the first comprehensive database of higher education, collecting data from all universities and colleges. However, in addition to the elements of higher education used in this report, it includes as higher education courses of at least 3 years for those who have passed grade 10 and courses of at least 9 months' duration after class 12.

government department for each. However, many of the issues discussed are relevant to both the general and technical parts of the higher education sector and so this report covers both.

The objective of this report is to provide policy makers in Madhya Pradesh with a menu of options for improving the equity, governance and financing of the higher education system in the State. Each option is described with its rationale. Though the primary audience is policy makers, this report could serve as part of the continued dialogue with the higher education sector on the direction for reform. Once policy options are made, there would need to be more detailed policy and programme design.

Finally, this report focuses on the three issues identified at the Bhopal Conference. Clearly these three issues are central to the future of the MP higher education system, but there are other issues of importance which the report does not attempt to cover (for example, curriculum and pedagogy issues and the status of research). The team has tried to identify a number of key issues on which action can be taken in the short and medium term, to start the process of reform and make a significant impact over that time period.

The rest of this report is arranged as follows. There are three main chapters dealing with the three major themes emerging out of the Bhopal Conference. In each chapter, an analysis of the current situation and some directions and options for reform are identified. There is then a chapter outlining the consultation process, given how important this is in the Indian policy-making context. Finally, the conclusion draws together the main messages and identifies further avenues for analysis.

YOUNG PEOPLE IN MP AND THEIR SOCIO-ECONOMIC CHARACTERISTICS

The total population of Madhya Pradesh is approximately 73 million.² Madhya Pradesh is the sixth largest state of India in terms of overall population. Around 7 percent of the total

² As per the provisional figures from census 2011: 72, 597, 565.

Table 1 Education and Labor Market status of young people in MP, 2009-10

	Gender		Location		Socio-economic status				
Age: 18-23 (Status of current attendance)	Total	Male	Female	Rural	Urban	ST	SC	OBC	Others
Population Estimate ('000)	8,799	4,443	4,355	6,599	2,200	1,809	1,874	3,471	1,645
Educational status									
Never attended educational institution (%)	18.1	11.2	25.1	21.9	6.4	34.2	17.3	16.5	4.9
Ever attended but currently not attending (%)	55.9	58.5	53.3	58.5	48.0	54.9	65.2	57.1	43.8
Sub-Total	74.0	69.7	78.3	80.4	54.4	89.2	82.6	73.6	48.7
School (%)	10.3	11.9	8.7	10.2	10.8	6.6	10.5	11.6	11.3
Graduate and above (%)	13.4	15.4	11.4	8.5	28.7	3.6	5.3	13.5	33.2
Diploma or certificate (below graduate level) (%)	1.1	1.7	0.5	0.5	3.0	0.5	0.6	0.5	3.4
Diploma or certificate (graduate and above) (%)	1.2	1.3	1.1	0.5	3.2	0.2	1.0	0.7	3.3
Total	100	100	100	100	100	100	100	100	100
Work									
Labor force participation rate (Usual Status) (%)	52.0	69.1	34.4	58.5	32.1	67.6	60.4	50.5	28.4
Worker participation rate (Usual status) (%)	50.6	67.5	33.3	57.7	29.2	67.4	58.5	49.5	25.5
Unemployment (Usual Status) (%)	2.7	2.4	3.2	1.5	9.2	0.3	3.1	2.1	10.0
Idleness (neither studying nor in the labor force: both employed and unemployed) (%)	24.1	2.1	46.7	25.0	22.0	22.0	24.0	26.0	22.0
Educational level Attained									
At least higher secondary education (%) ⁵	23.7	27.1	20.1	14.9	50.2	7.8	11.7	23.0	56.1

Source: Authors (Estimated using NSS 66th round, 2009-10).

population of India in the age-group 18 to 23 comes from Madhya Pradesh³. Madhya Pradesh ranks fifth after Uttar Pradesh, Maharashtra, Andhra Pradesh and West Bengal (in that order) as far as the number of people in the age group 18 to 23 is concerned. The population in this age group is estimated to be 8.8 million⁴ for Madhya Pradesh (Table 1); it is 12.12 percent of the total population of the State.

For the country as a whole the population of youth in the age group 18 to 23 is 135 million. Around 70 percent of this population comes from rural areas and

around 48 percent are women. The composition in terms of social categories is 8.48 percent Scheduled Tribe (ST), 20.5 percent Scheduled Caste (SC), 40.77 percent Other Backward Castes (OBC) and 30.26 percent others. Madhya Pradesh is slightly more rural than India as a whole, with 75 percent of the people in the age group 18-23 from rural areas. 49.5 percent in the State are women, while the break-up by social categories is 20.6 percent ST (which is significantly higher than for the country as a whole), 21.3 percent SC, 39.4 percent OBC and 18.7 percent others. **Labour** Force Participation (LFP) of people in the age group 18-23 is high in MP as compared to the other states. As per the NSS (2009-10) survey MP has the 10th largest LFP rate in this age group.⁵

³ Using NSS 2009-10.

⁴ The share of the age group 18-23 in total population was estimated from NSS 2009-10 and population data of census 2011 was used to get to an estimate of the number of people 8,798,825.

⁵ Includes "Diploma/certificate (below graduate level)".

THE SOCIO-ECONOMIC CONTEXT OF MADHYA PRADESH

The Human Development Index (HDI) of MP lies below that of India overall. The HDI rank of MP was 20 in both 1999-2000 and 2007-08. In fact all the states had similar rankings in the two time periods. The top five ranks in both the years were states of Kerala, Delhi, Himachal Pradesh, Goa and Punjab. The education index⁶ of MP rose from 365 in 1999-2000 to 522 in 2007-08. For India, the index rose from 442 to 568 over the period (IAMR, 2011).

The average economic growth rate of MP between 2004-05 and 2009-10 was 7.11 percent, somewhat below the overall Indian rate of 8.63 percent. The best performer in terms of economic growth in 2009-10 was Uttarakhand (with a growth rate of its Gross State Domestic Product of 10 percent) followed by Odisha, Chhattisgarh and Gujarat, while Karnataka, Rajasthan and Jharkhand experienced the lowest growth rates.

There is relatively low per capita availability in MP despite high Labor Force Participation (LFP) and low unemployment rate. Per capita availability in Madhya Pradesh is close to the availability in poor states of Bihar and Uttar Pradesh. Ranks of states in terms of per capita availability, measured by Per Capita Net State Domestic Product at Factor Cost (PCNSDPFC), in 2009-10 can be seen in the annexure “State-wise Per Capita Net State Domestic Product at Factor Cost. Ranking has remained nearly the same between 2004-05 and 2009-10. At 2004-05 prices, PCNSDPFC was Rs. 19,736 in MP which is much less than that of India (Rs. 33,731). Labor force participation of persons in the age group 15-59 years was slightly higher in MP (62.4 percent) than the country (59.6 percent) in 2009-10 (NSS). Work participation rate, the share of employed in total population (both in and out of labour force), was 61.7 percent in MP and for India it was

58.3 percent. As is typical in developing countries, the unemployment rate (i.e., those seeking but not finding work) is very low: in MP it was 1.2 percent and in India it was 2.2 percent for the same age group (2009-10). With respect to the unemployment rate of youth (15-29), MP is placed well as compared to the other states. 2.68 percent youth unemployment in MP and 5.75 for the country. See the graphs in the annex.

Rural areas of MP are mainly agrarian, though the share of services is high in its State Domestic Product (NSDP). There are three major employment-providing services sectors: (i) construction; (ii) trade, hotels, and restaurants; and, (iii) public administration, education, and community services. Evidence from the NSS data suggests that for every 1000 people employed in rural and urban India, 679 and 75 people respectively are employed in the agriculture sector, 241 and 683 respectively in services sector (including construction), and 80 and 242 respectively in the industrial sector. State-wise, there are wide differences in the share in employment of different sectors in rural India. While some north-eastern states like Sikkim, Tripura, and Manipur have a high share of employment in the services sector, city states like Chandigarh and Delhi also have very high shares (826 and 879 respectively out of 1000 employed people). Among the larger states, Kerala has a high share of employment in the services sector at 511 persons per 1000 (rural & urban). In urban India the share of employment in services is very high in most of the states. In Madhya Pradesh, the share of services (including construction) is 700 per 1000 employed individuals in urban areas, somewhat above the national average. However, in rural areas of MP share of agriculture is still very high as only 128 individuals per 1000 employed persons work in the services sector; it is almost half of its share at the country level (241). Similarly, in rural areas of MP, the share of industry is much lower (48 in 1000) than the share at all-India level (80)⁷. Growth rate of services sector is low in MP as compared to many other states.

6 The Education index is a weighted simple average of literacy and adjusted mean years of schooling. Education index = 1/3 (literacy index) + 2/3 (adjusted mean years of schooling index); where literacy index = literacy rate of people above 7 years of age; adjusted mean years of schooling index = average number of years of school education for people above 7 years of age, adjusted for out of school children in the age-group of 6-17 years.

7 Economic Survey 2011-12; NSS Report on Employment and Unemployment Situation in India 2009-10, on the basis of usually working persons in the principal status and subsidiary status.

Effectiveness of the Higher Education System

CHAPTER 1

INTRODUCTION

The outcomes of the higher education system can be measured in a number of ways. The State Government of Madhya Pradesh has not laid down their desired outcomes in a structured manner, but it has defined the objectives of the system, to not only develop the knowledge and skills of students but also help them be self dependent thereby increasing their standard of living and contribute in the process of nation building. To increase the rate of employment is also one of the objectives of Department of Technical Education. For the 12th Five Year Plan, a

Government working group has established certain objectives (Box 1).

LABOUR MARKET OUTCOMES

Overall unemployment rates are low. One measure of the performance of the higher education system is the employment rates of graduate students, since it is assumed that one very important motivation for attending higher education is to provide better job opportunities. In Madhya Pradesh, however, overall unemployment rates are very low, at 1.17 percent, which is not surprising since most people cannot

Box 1 Objectives for the XII Five Year Plan

- To increase the GER in HE to 15 percent by 2011-12, to 21 percent by XII Plan and 30 percent by 2020
- To expand institutional base of HE by creating additional capacity in existing institutions, establishing new institutions, and incentivizing state governments and NGOs/civil society.
- To provide opportunities of higher education to socially deprived communities and remove disparities by promoting the inclusion of women, minorities and differently-abled population.
- To remove regional imbalances in access to HE by setting up of institutions in under-served areas.
- To enhance plan support for infrastructure and faculty development in institutions of Higher learning and attract talent in teaching and research.
- Better research facilities.
- To promote collaboration with Indian Universities.
- To promote autonomy, innovations and acad. Reforms in HE institutions.
- To promote Indian languages.
- To undertake institutional restructuring.

Source: Madhya Pradesh Department of Higher Education, 2012

afford not to work regardless of their educational attainment. The unemployment rate is more than five times higher for those with higher education qualifications (at 6.02 percent). **Figure 1** but this is still quite low in an international context.

It should be noted, however, that males and females with higher education qualifications have quite different labour force participation rates. About one third of both boys and girls, below 30 years of age and with a degree, are studying and so not looking for work. However, 50 percent of girls with a degree are neither working nor studying; while for boys this figure is just 7 percent. In other words, half of girls who have finished higher education have withdrawn from the labor market, despite having studied (and paid to study) for at least 15 years and gained a higher education qualification. In contrast, 57 percent of boys with a higher education qualification are in the labor force and another 36 percent choose to study.

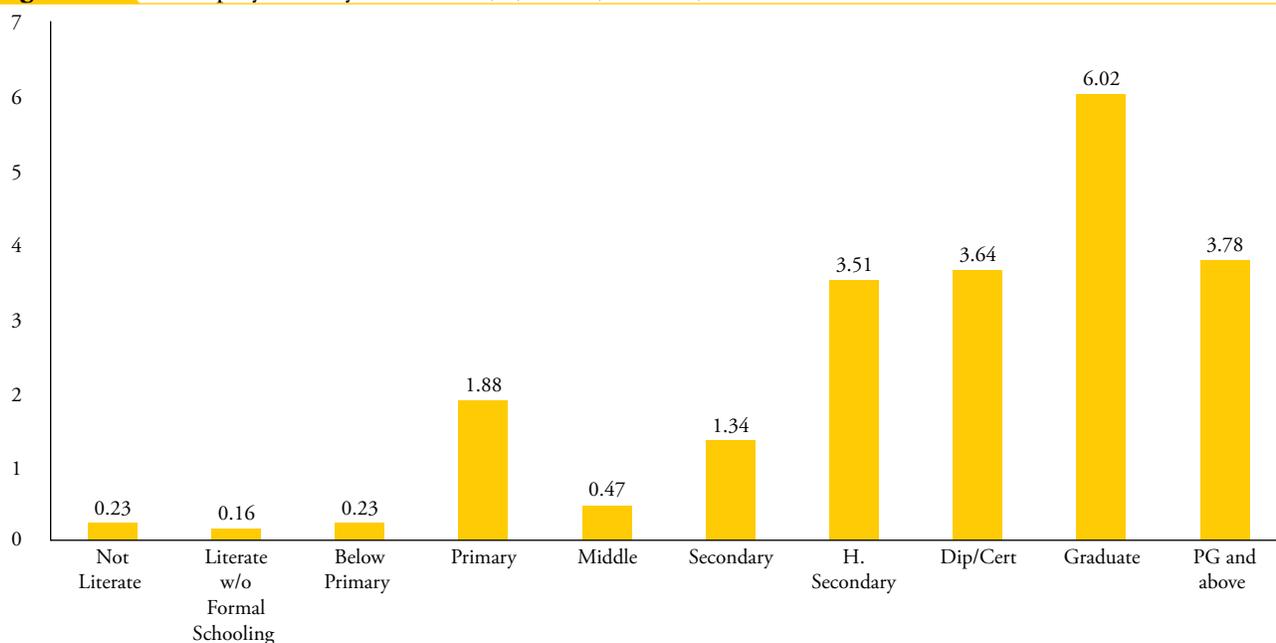
World Bank (2011) found that, for India as whole, there have been increases in the economic returns to higher education.

The wage premium for tertiary education more than doubled in India between 2000 and 2010,

despite a large increase in the share of the labor force with tertiary education. Regular wage workers earn 23–59 percent more than casual workers in India in 2010. Regular wage or salaried workers have the highest wages and lowest poverty rates; the self-employed have higher poverty rates; and casual labor, especially agricultural casual labor, is associated with the lowest wages and the highest poverty rate. (page 31)

An analysis for MP conducted for this Report, showed strong returns from higher education (see Annexure: Returns to tertiary education for details). Adults between the age group 25 to 29 earn more in regular jobs, men earn more and those with tertiary education earn more, this holds true for both India and Madhya Pradesh. In MP an individual with tertiary education earns 35 percent more than an individual with only senior secondary level of education. For India as a whole tertiary education pays 67 percent higher income. A student who graduated from higher education in recent years in MP, and is younger than 30 years old, can expect to earn about Rs. 20,000 more per year than someone who has completed only senior secondary education (i.e., Rs. 82,000-60,000 from

Figure 1 Unemployment by education (%), MP (2009-10)



Source: Authors’ calculations from NSS database. Notes: “Diploma/Certificate” consists of those who have completed some diploma or certificate course in general or technical education, which is equivalent to below graduation level. Graduate and PG and above consist of those who have obtained degree or diploma or certificate in general or technical education, which is equivalent to graduation level and above.

Table 2 Annual Salaries by various educational levels and age of regular workers in MP, 2009-10

Education level attained	All Ages	<30	30-40	40-50	50-60
Secondary	67,000	44,000	63,000	75,000	132,000
Senior Secondary	96,000	60,000	76,000	118,000	136,000
Dip./Cert. below graduate level	190,000	62,000	155,000	223,000	292,000
Graduate (General and Technical)	130,000	82,000	133,000	140,000	164,000
PG and Above (General and Technical)	164,000	99,000	130,000	210,000	225,000

Source: Authors computed using data given on daily earnings during a reference week, NSS 2009-10.

Note: Figures in Rs.

Table 2). This compares with Rs. 27,000 annual private spending for technical education and Rs. 7,000 for general higher education. In other words, an individual with a degree can expect to recoup what they spent on higher education within a few years after graduating.

Those with higher education also get better jobs. An individual possessing higher education is most likely to join the services sector in MP; 70 percent of the employed adults (aged 20 and above) with higher education⁸ worked in the services sector. On the other hand, of all those who did not attain higher education (including those with no education) 73 percent were in agriculture and just 20 percent were in services (NSS 2009-10). If we look at those with only higher secondary level of education, 47 percent adults were in agriculture and 44 percent in services. In contrast, around 80 percent of the employed in MP are involved in skilled agricultural and fishery work or elementary occupations; but these occupations do not have a significant share among the workers who attained at least graduate level education.

There are also important social gains to individuals obtaining higher education qualifications. While there has been no attempt in this report to quantify the gains to Madhya Pradesh, there is wide literature exploring the benefits of higher education to society and the broader economy. These benefits include capabilities to pursue more knowledge-led growth, through a trained and adaptable workforce. More effective public administration and governance emerges

⁸ Higher education here does not include diploma/certificate below graduate level.

from technically competent teachers and future government, civil service and business leaders. Those with higher education are also more able to generate new knowledge and access the existing stores of global knowledge and adapt them for local use (World Bank, 2002).

EDUCATIONAL OUTCOMES AND QUALITY

During the preparation of this report and especially during the consultation phases, there were many comments about the critical need to raise the quality of higher education in MP. Indeed, the overall purpose of this report is to contribute to quality improvement. However, getting reliable measures of quality of higher education is difficult. The more comparable measure of the quality of the education provided in higher education institutions in India is perhaps the accreditation process undertaken by the National Assessment and Accreditation Council (NAAC). Both colleges and universities can seek NAAC accreditation, which is done at the institutional rather than departmental level.⁹ NAAC gives a summative numerical score (called Cumulative Grade Point Average or CGPA) between zero and 4 (with 4 being the best). There are currently **98 colleges in MP which have valid accreditation** (A+ - 3 colleges; A-, 3; B++ - 9; B - 29; C++ - 17; C+ - 10; and C - 3). Accreditation of 51 colleges and 5 universities in MP is no longer

⁹ The NAAC accreditation process identifies 7 criteria against which institutions are judged: Curricular Aspects; Teaching-Learning and Evaluation; Research, Consultancy and Extension; Infrastructure and Learning Resources; Student Support and Progression; Governance, Leadership and Management; and, Innovations and Best Practices.

Table 3 Sanctioned and vacant academic positions in government colleges and universities

	Sanctioned Posts	Vacant Posts	% Vacant
Principals	355	183	52
Professors	675	530	79
Assistant Professors	6,414	1,336	21
Librarians	306	127	42
Sports Officers	269	150	56
Registrars	31	10	32
Total	8,050	2,336	29

Source: Compiled by authors using the Administrative Report, Department of Higher Education 2011-12.

valid (National Academic Accreditation Council, 2010). It is difficult to compare these scores with those of other states, since it is not known what proportion of institutions seek accreditation, or the reasons why they do not do so.¹⁰ However, in the country as a whole, only two universities had accreditation with grade B and CGPA of around 2.7. CGPA of Jawaharlal Nehru University, Delhi is 3.9 which is the highest in the country (Grade A).

If one looks from the input perspective, there are also some concerns about the quality of education. Of particular concern is the large number of faculty positions which are unfilled by full-time regular faculty, since the quality of teaching and research suffers. **Out of 8,000 total posts sanctioned by the department of higher education in government and aided institutions, 29 percent were vacant in 2011-12¹.** The vacant posts in the colleges and university teaching departments of the 7 traditional universities are many; 80 percent of sanctioned posts for Professors and 21 percent of sanctioned posts for assistant professors were vacant in 2011-12 (Table 3). The 7089 sanctioned posts for teaching staff are spread over 40 subjects. The subjects with relatively large numbers of sanctioned posts are Botany,

Chemistry, Commerce, Economics, English, Hindi, Mathematics, Physics, Sociology, Political Science and Zoology. Another cause for concern is the small size of institutions: as will be illustrated below, there are a little over 1 million students in higher education and approximately 4,000 institutions (universities and colleges in the government, aided and private sectors). This means an average size of about 250 students. This number does not allow sufficient number of students to generate enough income to upgrade equipment and materials, nor does it enable an institution to have a critical mass of faculty who can form a vibrant and supportive intellectual community.¹¹

ACCESS AND EQUITY

Higher education in India as a whole has been growing at a rapid rate, doubling from 8.4 million students to 17.0 million within the ten years to 2010-11 (Figure 2). The Gross Enrollment Ratio (GER) in India has been increasing: according to an estimate of Selected Education Statistics issued by the MHRD (2000), GER in India increased from 0.7 percent in 1950-51 to 1.4 percent in 1960-61, but by 2006-07 GER increased by a further **11 percent** (Table 4). The 11th Five Year Plan targeted to achieve a GER of 15 percent, a figure that according to NSS data (2007-08) has been exceeded. It should be noted,

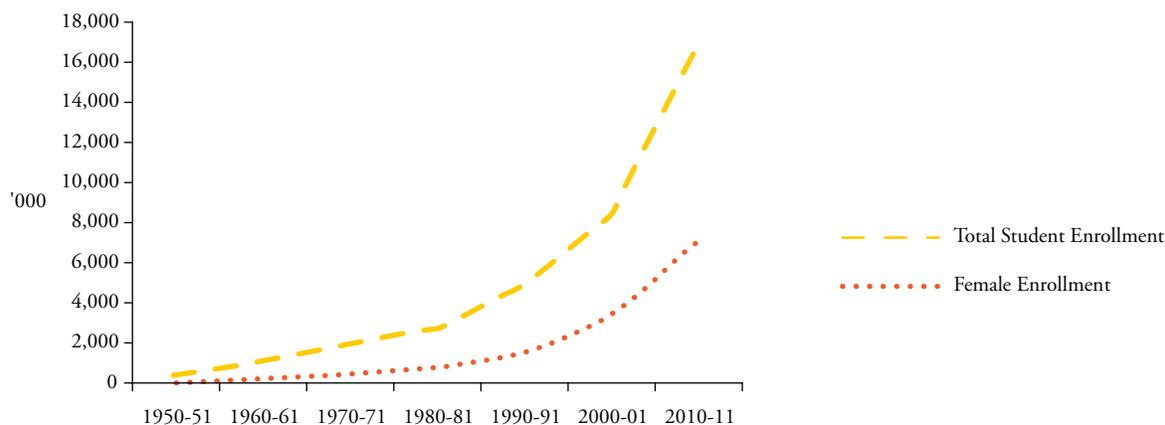
10 Some universities have made it mandatory for an institute to have NAAC accreditation every five years but most of the institutes do not go for an assessment by NAAC because, we can assume, they do not think they will rate very highly or do not meet the minimum requirements for getting assessed. Many institutes that had accreditation in the past may not go for assessment after five years for the same reasons. It is also likely that NAAC would have difficulty meeting the demands if all colleges and universities in India (of which there are more than 33,000) sought accreditation every five years.

11 Other possible measures of the quality of the system focus on efficiency, for example, the average time it takes to obtain a qualification or the dropout rate. It can be assumed that where it takes a lot of time to finish (or a large proportion do not do so), then the teaching and research environment (including faculty skills and available resources) is lacking. However, the data was not available which would allow these indicators to be calculated.

however, that in the past decade there has been an increasing gap between the enrollment of boys and of girls (Figure 2). There has been acceleration in the number of institutions in the past ten years, coinciding with the rapid increases in overall enrollments (Figure 3).

Madhya Pradesh exhibits a similar trend in overall enrollments to the national picture. In recent times, enrollments have recorded a large increase of 26 percent in undergraduate courses and 53 percent in post graduate courses in just one year to 2010-11 (comparable figures over a longer

Figure 2 Growth of Student Enrollment ('000) in India, 1950-51 to 2010-11



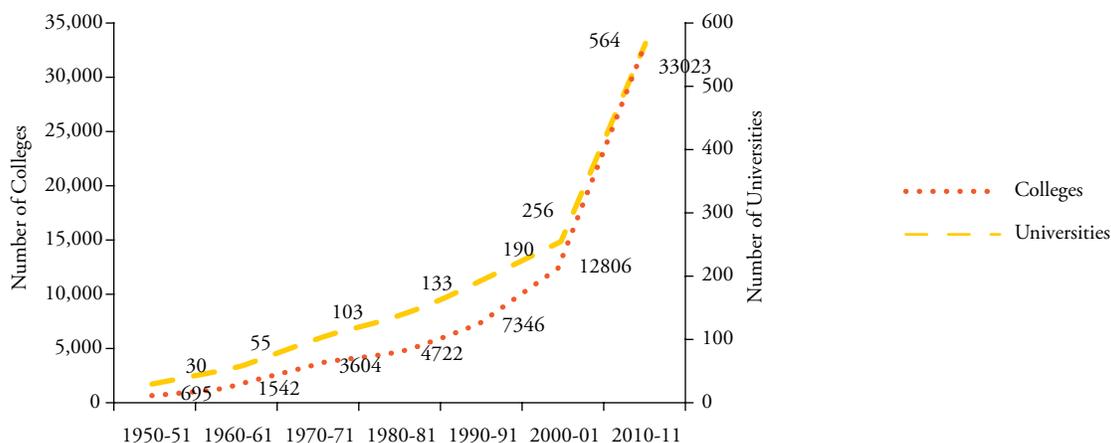
Source: MHRD for 1950-51 and 1960-61, UGC for 1970-71 onwards.

Table 4 Total enrollment and Gross Enrollment Ratio, Trends since 2004-05

	NSS 61st round (2004-05)		NSS 64th round (2007-08)	
	Enrollment ('000)	GER (%)	Enrollment ('000)	GER (%)
Scheduled Caste (SC)	1898.5	8.72	2485.5	11.54
Scheduled Tribe (ST)	767.0	8.44	652.0	7.67
Other Backward Castes (OBCs)	5027.4	11.48	6599.6	14.72
Others	7787.2	22.52	8886.6	26.64
Total	15480.1	14.19	18,623.7	17.21

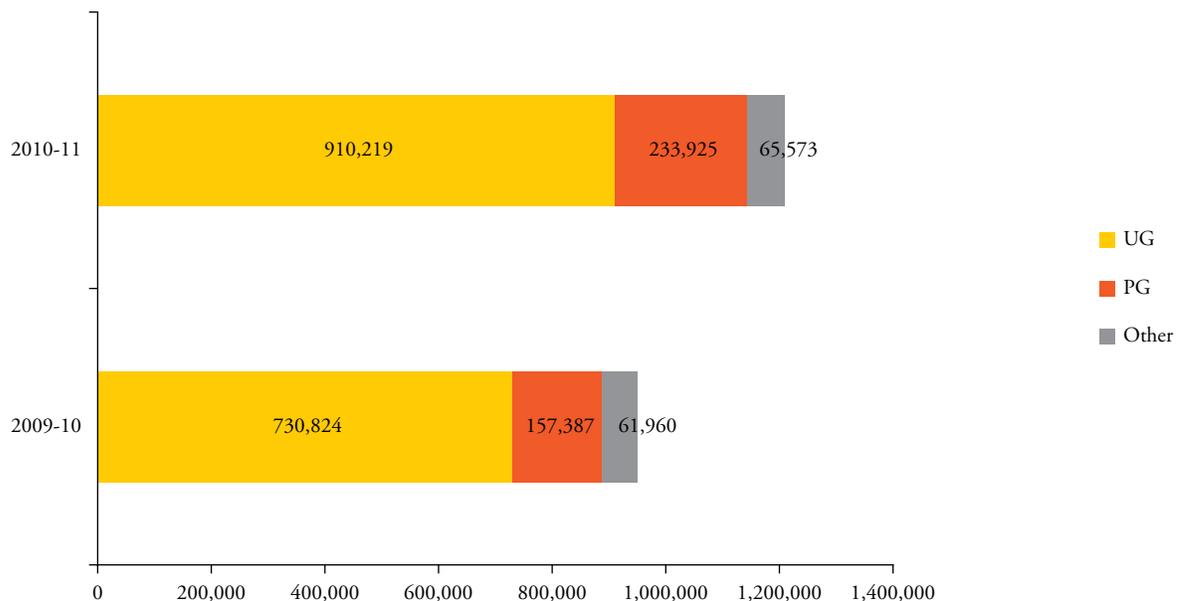
Source: NSS Reports of 61st and 64th Rounds.

Figure 3 Number of college and universities in India, 1950-51 to present



Source: Higher Education in India at a Glance, March 2012.

Table 5 Total Enrollments in MP in different levels of courses



Source: Authors' calculation on data taken from buhe.mpnet.in.

Note: Includes only students in government universities and their affiliating colleges.

period of time are not available) (Table 5).¹² As of 2009-10 the GER as calculated from NSS data in MP was recorded as 14.9 percent which is as good as the national level.

Enrollments in undergraduate and post-graduate courses are encouraging and point towards increasing reach of state sponsored institutions. However, the total number of enrollments in research programmes— i.e., MPhil and PhD – is much less than in undergraduate courses; less than one half of one percent of total enrollments. This indicates that there is only a very small pool of potential faculty resources in the State (see below for further discussion of this issue).

In terms of overall enrollments, Madhya Pradesh is in fact doing slightly better than expected, given its socio-economic position. There is

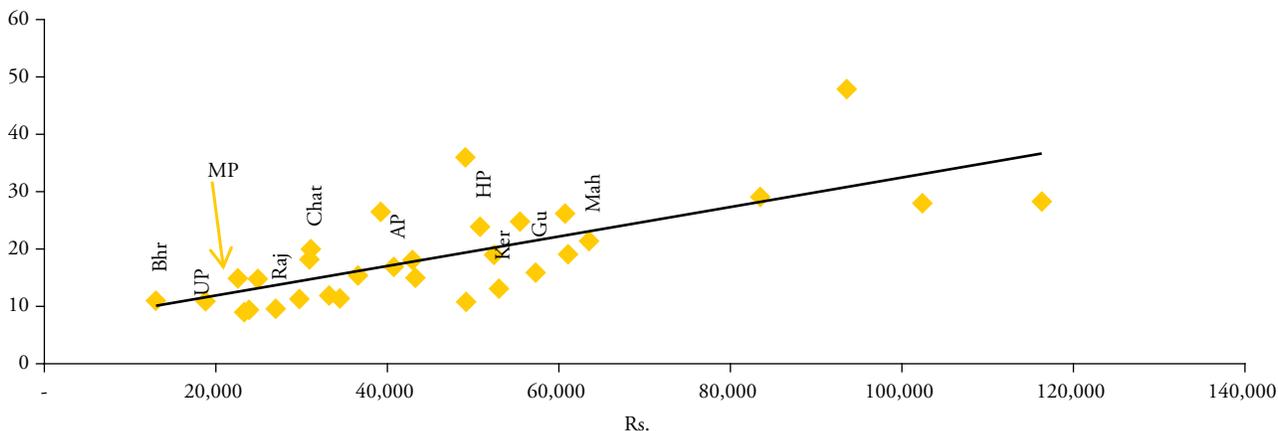
quite a strong correlation between economic performance at the state level and the gross enrollment ratio in higher education. States are clustered closely to the line of regression (Figure 4). Madhya Pradesh is slightly above the line, indicating slightly better than expected enrollment levels.

At the overall level, Madhya Pradesh is doing fairly well but a closer look into the enrollment rates across various socio-economic groups within the state reveals some major problems in the context of access and equity. Enrollment in Madhya Pradesh shows that girls, those living in rural areas, and those from disadvantaged groups have lower rates of enrollment than boys, those in urban areas and those from more affluent families, respectively. This pattern is common across states (and indeed countries).

Girls constitute only 40 percent of students in higher education. The number of girls enrolling in Higher Education in the year 2009-10 was 341,621 and in 2010-11 was 452,370 which

¹² These enrollment figures include students studying through distance mode. Enrolment in MP Bhoj (Open) university was 93,178 in 2009-10 of which 36 percent were girls, 18 percent students were SCs and 12 percent were STs (Ministry for Human Resource Development, India, 2011).

Figure 4 Gross Enrollment Ratio and Per Capital State Domestic Product, 2009-10



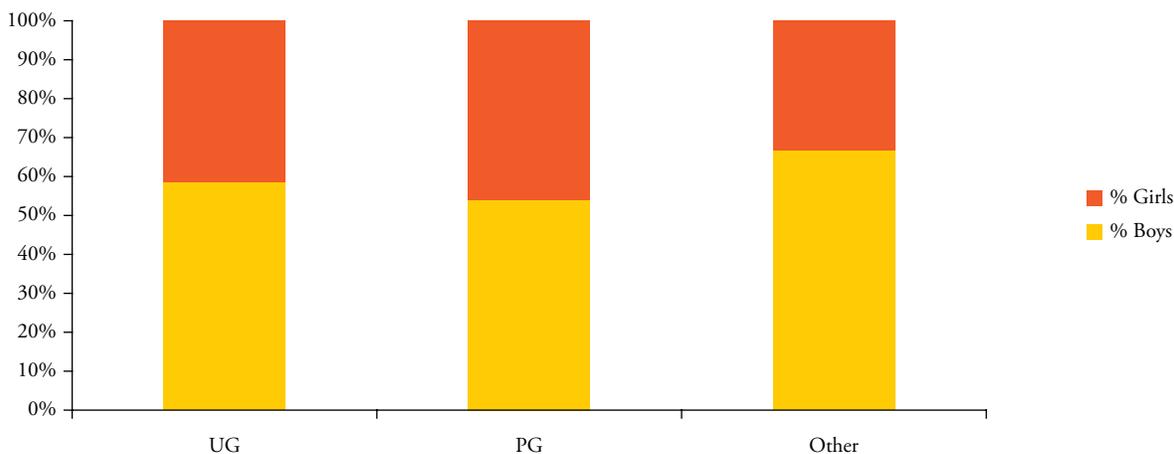
Source: Lok Sabha unstarred question no. 4593, December 2011 regarding cost of higher education and technical education.

is 39.7 percent and 40.7 percent of the total number enrolled, respectively (Figure 5). Girls were less-well represented in MPhil and PhD programmes.

There is a significant disparity in enrollments in rural and urban areas of Madhya Pradesh. In the age group of 18-23 years, while 29 percent in urban areas are enrolled for higher education, the corresponding figure in rural areas was only 9 percent. It should be remembered, however, that some young people who attended

secondary education in rural areas would have migrated to the urban areas to attend a higher education institution; these students would count as 'urban' students in the National Statistical Survey (on which this analysis was based). In fact, the urban advantage is so marked that urban females have much higher enrollment rates than rural males (33.6 percent as against 12.7 percent) (Table 6). Moreover, young urban ST people enroll at higher rates than the general category in rural areas – and at ten times the rate of young ST people in rural areas (Table 7).

Figure 5 Percentage of enrollment of boys and girls in different levels of courses in 2010-11



Source: Based on Author's calculations from the data given on buhe.mpnet.in.

Note: Here "dip-cert" is inclusive of enrollment of students in MPhil and PhD programmes.

Only a meager percentage of socially disadvantaged students are enrolled in higher education. The number of students in the category of Scheduled Caste (SC) and Scheduled Tribes (ST) in the year 2010-11 was 102,671 and 50,144 respectively, as against 1,209,717 of enrollments of students in the general category. As noted above, there was a sharp rise in overall enrollments between 2009-10 and 2010-11. It is not clear from the available data whether the number and proportion of socially disadvantaged students is increasing or decreasing.

Particular sub-populations face multiple disadvantages, especially girls and ST/SC in

rural areas. In rural areas, less than four percent of young SC and ST are in higher education (Table 7) and less than five percent of girls (Table 6).

There are lower proportions of people with higher education across poorer households of MP. Those who are at higher levels of economic well being have higher proportions of people with tertiary education in the age group 25-29 years (Figure 6). Also in MPCE quintiles 4 and 5 higher proportions of individuals in the age group 18-23 attend any educational institution.

In particular, economic well being of a household affects access to private institutions, which

Table 6 Status of current attendance (18-23) 2009-10, by gender and location, %

	Rural Male	Rural Females	Urban Males	Urban Females	All
Never attended education	12.58	31.39	7.05	5.68	18.09
Have attended but currently not	62.18	54.72	47.17	48.81	55.90
School	11.30	9.12	13.91	7.57	10.35
Diploma/certificate below graduate level	0.79	0.10	4.29	1.67	1.08
Diploma/certificate graduate and above	0.49	0.48	3.76	2.68	1.16
Graduate & above	12.67	4.18	23.82	33.60	13.43

Source: Authors, constructed using 66th round of NSS 2009-10.

Table 7 Status of current attendance (18-23) 2009-10, by socio-economic status and location, %

	Rural				Urban			
	ST	SC	OBC	Others	ST	SC	OBC	Others
Never attended education	35.22	19.21	19.79	6.98	16.36	9.68	7.29	2.56
Ever attended but currently not	56.1	67.34	57.11	51.91	33.39	56.66	57.24	34.62
School	6.41	8.6	12.17	14.67	9.07	18.27	9.96	7.6
Diploma/certificate below graduate level	0.13	0.15	0.45	1.59	6.57	2.53	0.77	5.49
Diploma/certificate graduate and above	0.08	0.8	0.03	2.06	2.33	1.91	2.64	4.7
Graduate & above	2.07	3.91	10.45	22.79	32.27	10.96	22.1	45.03
Totals	100	100	100	100	100	100	100	100

Source: Authors, constructed using 66th round of NSS 2009-10.

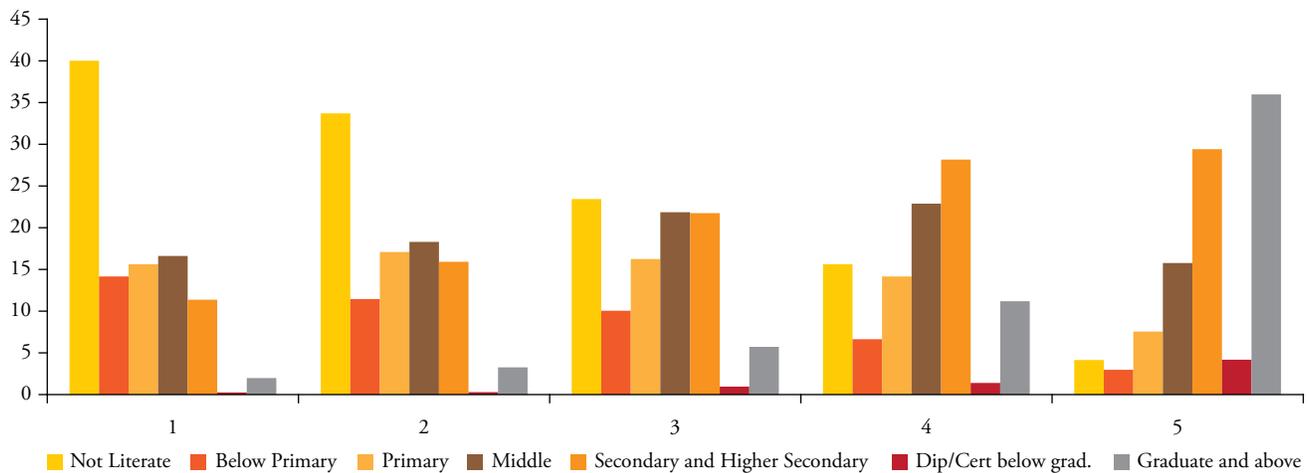
have higher fees. A person with at least senior secondary education and attending an educational institution is more likely to study in a private institution if she comes from a high income household. This holds true for India as a whole as well as for MP. This divide is wider in MP: 80 percent of the students in the lowest quintile go to a government institution

(Figure 7) and around 70 percent do so for India as a whole.

ADDRESSING EQUITY GAPS

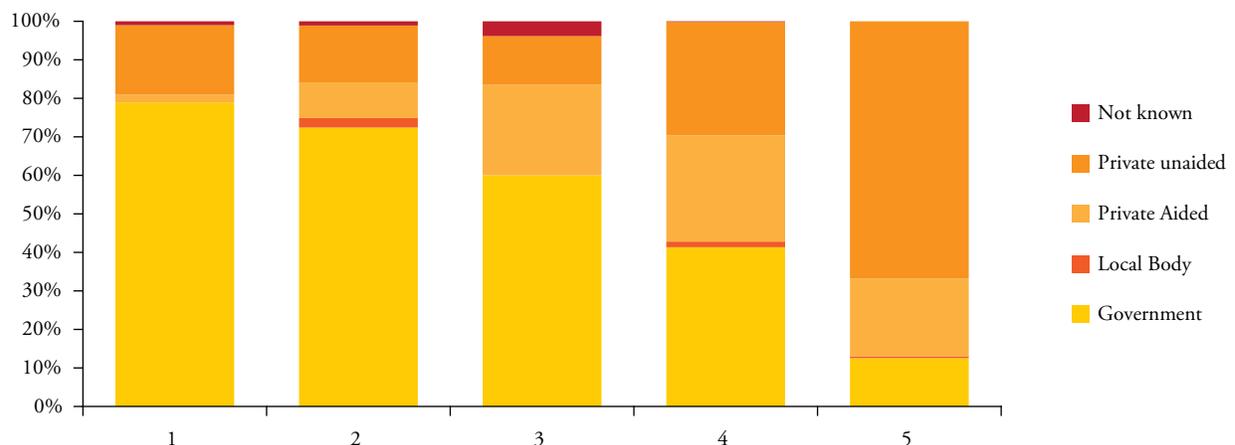
Poor attendance in earlier phases of education is a very important factor in explaining low enrolment in higher education of girls and disadvantaged

Figure 6 Education by MPCE Quintiles, 25-29 yrs



Source: Authors (constructed using 66th round of NSS, 2009-10).

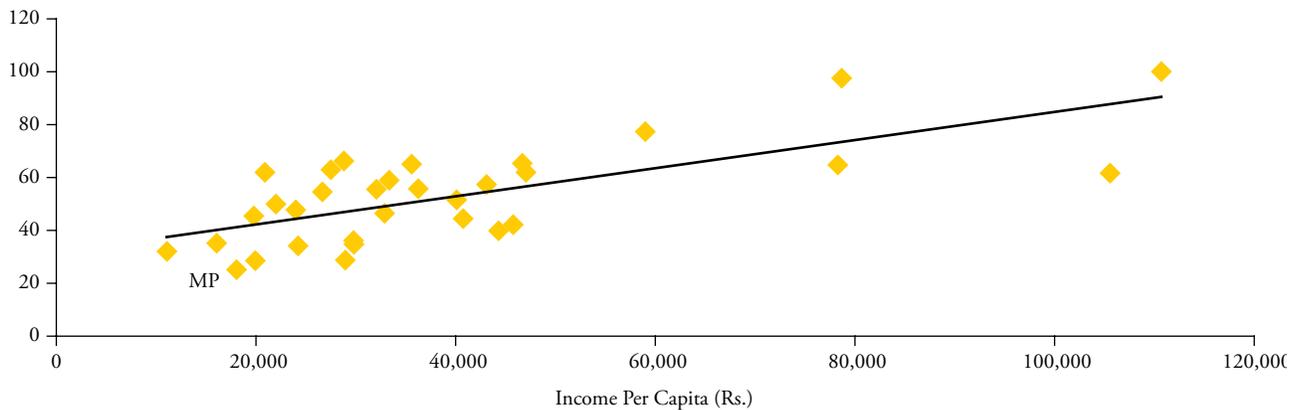
Figure 7 Types of institution attended, by economic quintiles, percent



Source: Graph constructed using NSS 66th round. MPCE quintiles are based on only the section of people attending education after class 12 and are below 30 years of age.

Note: 1=poorest; 5= richest quintile.

Figure 8 Access to secondary schools in Rural areas vs Income 2007-08



Source: Authors (NSS 2007-08).

Note: Due to lack of availability of data the graph does not have Dadra & Nagar Haveli, Lakshadweep and Daman & Diu.

groups. MP had the highest gross enrolment ratio¹³ in the country, for the age group 6 to 13 years, in primary and middle/basic schools. However, for the age group 14-17 years (classes IX through XII), 30 states/UTs ranked higher than MP in 2007-08, in terms of age-specific ratios: the ratio was 59 percent¹⁴ for MP and 63 percent for the country. This can also be explained partly by **poor access to secondary schools in rural areas of MP.** 77 percent of the people of MP live in rural areas. Only 25 percent of rural households of MP could access a secondary school at a distance less than 2 kms in 2007-08. For India as a whole 47 percent rural households had such access. MP falls below the trend line and looks like it is performing below what should be expected given its per capita income (Figure 8). MP lies at the bottom as far as access to secondary schools in rural areas is concerned in 2007-08.

It is striking the high proportions of the young people in certain populations that have never attended an educational institution at all. Twenty-five percent of females aged 18-23 never

attended an educational institution; 22 percent of 18-23 year olds in rural areas never attended an educational institution, compared to less than 7 percent in urban areas; one third (31.5 percent) of rural girls never attended an educational institution; and ST – 34 percent; SC – 17 percent (Table 6 and Table 7). Clearly these numbers represent a major constraint to enrollment in higher education.

The first approach to addressing the overall equity gaps in higher education, therefore, must be to increase the numbers of those from disadvantaged groups who enroll in and complete primary and secondary education. Here too, the higher education sector has a role to play. Clearly there are some specific issues to address in primary and secondary education. However, most obviously, higher education provides teachers for secondary (and to a lesser extent elementary) schools and so higher education institutions should look for ways to attract more young people to become teachers. Moreover, the pedagogical and inter-personal skills that teachers acquire, and curriculum and materials often developed in higher education, are important factors in making girls and disadvantaged children feeling welcome in school. Finally, higher education institutions can reach out to secondary schools in order to increase the aspirations of young people to attend higher education, and provide teachers and schools with the latest

13 Gross enrolment ratio: Total enrolment at an educational level irrespective of age as a percentage to the population in the normative age group; e.g. 18-23 years for higher education. GER is not the best way of measuring spread of education since enrolment does not guarantee attendance. So there are alternative concepts of Net Attendance Ratio and Gross Attendance Ratio. There is another measure called Age-specific attendance ratio.

14 NSS 2007-08, Report 532, Table 17.

research to heighten interest in post-secondary education.

This is especially important since, of those young people who have completed grade 12, girls and boys and those from disadvantaged groups enroll into higher education in roughly equal proportions.

Large proportions of those with senior secondary education in the age group 18-23 studied in 2009-10 in MP, about two-thirds of both boys and girls (Table 8). There is a similar picture for backward classes, though only slightly more than one-quarter of Scheduled Castes went on to higher education once completing secondary education. The major challenge, therefore, is to get these young people to complete secondary education.

Girls in rural areas face the greatest equity gaps.

It is likely that an important part of the explanation of the additional disadvantage is the general negative attitude towards girls' admission in higher education. So finding a safe environment, such as dormitories and gender-sensitive faculty, for girls is critical.

They also need help with finding employment, since large proportions of girls with higher education qualifications have withdrawn from the labor market.

The Government of Madhya Pradesh has three main scholarships for girls.

The *Gaon Ki Beti* Scheme provides scholarships of Rs. 5,000 to girls in rural areas who got first division in higher secondary and are enrolled in government colleges (the amount per beneficiary is Rs. 7,500/- p.a. for girls studying in engineering and medical colleges). The number of beneficiaries was **33,532** in 2011-12, which is **slightly higher** than the previous two years (Table 9). In 2011-12 distribution of beneficiaries by caste: SC 9.8 percent, ST 7.5 percent, OBC 47.5 percent and others 35.2 percent. The *Pratibha Kiran* Scheme provides scholarships of Rs. 5,000 to girls from households living below poverty line, in urban areas who got first division in higher secondary and who are enrolled in government/aided colleges. The number of beneficiaries has been rising since 2008-09, reaching 2,406 in 2011-12.

Table 8 Percentages of young people who are working, studying or doing neither, MP 2009-10

	Total	Male	Female	Rural	Urban	ST	SC	OBC	Others
Class 12 only & 18-23 years old									
LFP	19.87	28.06	8.28	27.44	11.7	33.24	24.97	20.62	15.49
Studying	66.23	66.66	65.61	60.76	72.12	55.00	58.87	61.01	75.18
Neither	13.91	5.28	26.11	11.8	16.18	11.75	16.16	18.37	9.33
"Graduate and Above" & below 30 yrs									
LFP	42.46	56.99	18.92	39.58	43.80	54.90	52.24	48.46	35.86
Studying	34.67	36.50	31.71	41.14	31.67	31.97	27.67	33.09	37.31
Neither	22.87	6.51	49.37	19.28	24.53	13.13	20.09	18.45	26.83

Source: Authors calculations from NSS data.

Note: If someone is studying and working then this person is under "studying" since such cases are few.

Table 9 Beneficiaries of scholarship schemes for girls

	2009-10	2010-11	2011-12
<i>Gaon Ki Beti</i>	28,141	32,238	33,532
<i>Pratibha Kiran</i>	2,034	2,309	2,594
<i>Vikramaditya</i>	1,597	2,118	2,013
Total	31,772	36,665	38,139

Source: Administrative Report 2011-12, Department of Higher Education.

The *Vikramaditya* Scheme provides a tuition waiver for girls from low-income families. However, the increase in beneficiaries overall has been modest - about 4 percent from 2010-11 to 2011-12 - at a time when the numbers of students and girls attending higher education have been rising rapidly. Ways need to be found to ensure these schemes can reach all those in need more effectively.

There are several options for improving rural access. One response that has been tried is to establish more institutions of higher education in rural areas, either through government or private institutions. However, rural colleges tend to be of much poorer quality in terms of infrastructure and availability of faculty (and their smaller size makes them hard to make educationally and economically viable). The affiliation model is also at its weakest in its support to rural colleges, especially with respect to making the curriculum locally-relevant, getting faculty from the university to spend time in rural areas and generally supporting professional development. This suggests that other options beyond establishing new institutions need to be considered.

- An existing university could establish campuses in rural areas: by establishing constituent units of the university, the university could deploy its own faculty to the rural areas (by providing incentives or contractual obligations to do so). The increased tuition fee revenue would go directly to the university (rather than being mediated by an affiliating college), so there is some incentive for the university under this model.
- Distance learning courses or technology could be used to reach out to the remote areas of the state, in an attempt to bring higher quality materials and lectures to these areas.
- Many students who attending secondary schools in rural areas are studying in urban areas; and the state could also provide supportive measures to students who do decide to enroll in an urban area. This option has the advantage that young people from rural areas study in

larger, better-equipped institutions where the quality of education is generally higher. It also helps promote greater diversity at (urban) institutions, with resulting benefits for all students.

- Finally, the state might consider establishing education centers with recognized degree courses training the local population in skills that they are more likely to use, for instance courses in agriculture and watershed management.

CONCLUSION

The Government of Madhya Pradesh is rightly concerned that there should be equal access to higher education for all sub-populations within the State. This chapter has shown that a key constraint is the relatively few young people from disadvantaged populations that are able to complete secondary education. This demonstrates the need for policy makers to take a holistic approach to the education system, with the higher education system also able to promote better outcomes in elementary and secondary education. Once students reach the end of secondary education, in broad terms they pass on to higher education at similar rates.

It is of concern therefore, that the sharp rise in enrollments in the last year actually coincided with a drop in enrollments from girls and from disadvantaged groups. This drop was in absolute terms with a resulting large drop in the percentage represented in higher education. This is an unexpected and unwelcome surprise; and further investigation is warranted to understand what happened and to ensure that as the system continues to expand it remains equally accessible to all.

The next two chapters look in more detail at governance and financing issues and how reforms in these areas can address the shortcomings in terms of the effectiveness of the system identified in this chapter.

ANNEXURE: RETURNS TO TERTIARY EDUCATION

India, 2009-10				Madhya Pradesh, 2009-10			
Selection Equation		Returns to tertiary education		Selection Equation		Returns to tertiary education	
	LFP		Log Wage		LFP		Log Wage
Age	0.926***	Age	-1.160	Age	10.28***	Age	7.303*
Age Squared	-0.0160***	Age Squared	0.0239	Age Squared	-0.190***	Age Squared	-0.133*
Female	-4.166***	Female	-3.015***	Female	-4.600***	Female	-4.700***
ST	0.898***	Tertiary Education	0.679***	ST	1.309***	Tertiary Education	0.351*
SC	0.396***	Casual	-0.640***	SC	0.824***	Casual	-0.495*
OBC	0.189***	Participation Index	-3.999***	OBC	0.562***	Participation Index	-5.015**
Below Primary	0.0569***	Constant	22.84	Below Primary	-0.378***	Constant	-90.20*
Primary	0.0947***	* p<0.05, ** p<0.01, *** p<0.001		Primary	-0.227***	* p<0.05, ** p<0.01, *** p<0.001	
Middle	-0.0707***	R ² = .28		Middle	-0.688***	R ² = .5285	
Secondary and Higher Secondary	-0.413***			Secondary and Higher Secondary	-1.183***		
Diploma/ Certificate below grad	1.001***			Diploma/ Certificate below grad	-1.323***		
Graduate and above	0.0562***			Graduate and above	-1.340***		
Urban	-0.731***			Urban	-1.357***		
Constant	-9.737***			Constant	-134.4***		
***p<0.001				***p<0.001			

Source: Authors.

In the above table we have given the results from regression analysis. The models are built for India and Madhya Pradesh using the NSS data of 2009-10. In order to control for selection bias in the labor market we first run the selection equation (using the Logit model) and the predicted values, "Participation Index", are incorporated in the regression showing returns to tertiary education.

Regression of log of average daily earnings (log wage) on age, age-squared, female (dummy),

tertiary education (dummy), casual (dummy) and the participation index. The pool of observations included those with higher secondary level of education and those with at least graduate level education in the age group 25 to 29 (2009-10). Since the objective is to see whether there are any premiums on moving into a college or a university we do not include people from lower levels of education. However, predicting the participation index does require including all levels of education in the selection equation.

It is clear from the results that in India and MP regular workers earn more than casual workers and women earn lesser than men do (within the set of those with either senior secondary education or graduate and above levels of education). Casual workers earn around 40 (47) percent lesser than regular workers in MP (India). Women with at least senior secondary level of education earn lesser than what men do in MP and India.

Keeping other characteristics unchanged those with tertiary education earn 42(97) percent more than what those with only senior secondary education do in MP (India). In the regression for India we see that signs of age and age-squared are unexpected but the two coefficients are statistically insignificant, also we have considered a very short range of ages i.e. 25 to 29. However, the signs fall in line with our expectations in the model for MP and the two coefficients are significant.

Improving System Performance through Governance Reform

CHAPTER 2

The Chapter discusses the need for governance reform of state universities Madhya Pradesh within the broader context of governance reform in Indian higher education. It argues for re-thinking the role for the state away from a state-controlled system towards a “state-steered” system with a light touch on regulation, but combined with strong financial commitments, and accountability. Further, the reform should address governance, both of the institutions themselves and the system as a whole. The chapter discusses the central structural feature of the higher education sector – the affiliation system – and argues for reform in order to improve governance and improve the quality of education provided. The chapter also reviews the Madhya Pradesh University Act of 1973, as revised in 2000. The analysis reveals an ungovernable structure of the State Universities in the State. There are multiple layers of administration and internal committees where government agencies and politicians control university policies and/or appointments. This prevents the Vice-Chancellor and the institutional leadership team from exercising effective administration. Further, the highest body of the university, the Senate, is unmanageably large, which inhibits effective decision making and implementation, and a number of other aspects reduce accountability and autonomy of the universities. The chapter recommends a re-drafting of the Act taking into account the national recommendations for university reforms as well as reform initiatives from other State governments.

THE NATIONAL CONTEXT

The role and importance of State Universities cannot be understated in the rapid expansion of higher education in India. Roughly, 95 percent

of the student population goes to the State Universities rather than national institutions (and state institutions represent 70 percent of the number of higher education institutions). Therefore, one of the major thrusts during the 12th Plan (2012-17)¹⁵ is to find effective ways to rejuvenate the public universities in the States, some of which are unfortunately in a state of disrepair¹⁶.

The State Universities urgently require higher levels of financial support, financial autonomy and accountability for expanding equitable access to higher education. The governance structures require fundamental transformation – to become more efficient, transparent, democratic, and student focused. The nature and extent of funding available to state universities is poor. The allocations made to State Universities by State Governments need to be increased, especially for plan allocations, since most of allocation made by State Governments are towards Non-Plan allocation (Salary Grants), leaving very little resources for development initiatives. It is also observed that, over time the State Governments share of public expenditure on higher education has declined from 3.58 percent of GDP (1999-2000) to 2.73 percent (2006-07), while over the same period the Central Governments share of expenditure has increased from 0.61 percent to 0.84 percent. While the increasing contribution of the Central Government is amply visible, there is a case for increase resources

15 Draft Chapter on Higher Education in the 12th Plan document (see <http://planningcommission.nic.in/> accessed on 5th August, 2012).

16 Prime Minister Dr. Manmohan Singh address at the 150th Anniversary of the University of Mumbai, 22nd June, 2007. <http://pib.nic.in/newsite/erelease.aspx?relid=28780> accessed on 5th August, 2012.

allocation to be made by the State Government, if India is to achieve the goals set out in the National Education Policy of 6 percent expenditure on education as a percentage of out GDP. Further, during the 11th Plan (2007-12) a conscious attempt was made by the Central Government to improve the condition of State Universities by making a dedicated allocation of Rs. 25,000 crores. Unfortunately, of that only Rs. 10,000 crore was spent¹⁷. This brings to the fore key issues pertaining to effective and timely utilization of resources, funds flow mechanisms, lack of absorptive capacity on the part of State Universities and finally governance reforms. Going forward, it is not only important to address the issues highlighted above, but to also to ensure that all future allocations are norm based and linked to certain indicators (which can be bench marked), where there is effective participation by various stakeholders (those who fund and those who receive).¹⁸ Clearly, a partnership mode (Central and State Governments), is desirable for addressing emerging issues of *access*, *equity* and *quality* through an improved programme design, rather than the discrete GoI sponsored schemes.

A comprehensive university reform programme needs to be designed and implemented jointly by Central and State Governments for promoting strategic planning and recognizing performance at the University level for accessing resources. It is, therefore, pertinent for the each State to prepare a comprehensive State Higher Education Plan, which will effectively assess the needs and requirements of States for a better, equitable and balanced allocation of resources. Currently no State has such a plan.

THE AFFILIATION SYSTEM

The financial survival of State Universities depends heavily on fees from the affiliation system¹⁹, either from fees from affiliating colleges or examination

fees from students. In Madhya Pradesh, for example, funding from the state government constitutes roughly 10-20 percent of the budgets of individual universities. Alternative funding models are therefore needed if the affiliation system is to change.

There are a number of weaknesses of the affiliation system. First, the relationship between State University and affiliated colleges is one of administration – affiliation, course recognition, syllabus prescription, and examination. The University departments as a source of academic-strengthening of college teachers are generally very weak and unstructured. Second, since a typical affiliating university caters to hundreds of colleges, so it cannot provide a curriculum to meet the local needs of colleges, but instead offers the same curriculum to all. In such a context, syllabus remains minimalistic and static. Moreover, the academic condition of affiliated colleges prompts resistance to curriculum revision: inadequate teaching-learning facilities at the affiliated colleges and very limited access to current literature – books and journals – means colleges cannot support much academic diversity (nor do they have an incentive to do so). In addition, in most affiliated colleges, faculty strength is inadequate and mostly filled with ad-hoc contract faculty. This does not facilitate quality enhancement and continuity. The University departments and affiliated colleges are then reduced to common, minimal curriculum, improvement and innovation.

There two other fundamental weaknesses: the affiliation model also separates student assessment from teaching and separates research from teaching. A teacher needs to use student assessment in order to adjust his or her teaching to the needs to students and to provide feedback to students on their performance; but the affiliation system means that the assessment is done away from the college (and the teaching process) at the affiliating university. These features significantly reduce the accountability for results. The affiliation system also means that research is done at the university while teaching is done at the colleges, so the latest knowledge is not available to those teaching undergraduates, except through the laborious process of curriculum reform.

17 Chapter on Higher Education, 12th Plan document, Planning Commission.

18 These issues will be discussed in more detail in the Madhya Pradesh context in the next chapter.

19 Most institutions, and almost all colleges, are not approved (either by national or state organs) to awarded degrees. So colleges affiliate to a university. The university is responsible for setting the curriculum and conducting examinations; colleges are responsible for teaching. A student therefore studies at the college, but takes the examination at the university, which in turn awards the degree to the successful students.

Moreover, the State University departments are not in a good position to support and strengthen the quality of curriculum and teachers in affiliated colleges. Since University departments are short of regular faculty appointments, they have to manage with minimum faculty – a few senior and the rest are contract faculty. Quality teaching and research is not possible in such a context.

Finally, the lack of mobility, differentials in salary, retirement age and benefits between affiliated colleges and State Universities in relation to centrally-funded Universities and the private sector institutions is drawing out the best faculty from State Universities. In such an academic environment, the economically blessed and bright students enroll in Central Universities and private institutions leaving a large mass of students from rural, tribal and underprivileged communities to enroll in State Universities (Kumar & Parasuraman, 2011). Thus, generally, the condition is not conducive to producing high quality students capable of contributing to scientific, economic and social development. A key element of state higher education reform, therefore, must be to address the affiliation system.

INSTITUTIONAL AND SECTOR GOVERNANCE

There are in particular two strands of governance that must be improved:

- Institutional governance: The structures and processes within which institutions are given autonomy to plan and manage their affairs so as to achieve both the state and their own local/regional objectives.
- Sector governance: Managing the higher education system with a strategic framework and appropriate accountability so that institutions achieve the state objectives.

These two aspects of governance have been subject of extensive debate since independence. While sectoral governance was discussed in the initial reports of committees set up by the Government of India - the Radhakrishnan Commission (1948), the Kothari Commission (1968), which laid the basic framework for the National Education Policy in 1986, signifying the five cardinal principles on the basis of which Higher Education in India needs to be viewed – Greater Access,

Box 2 Key reports on Indian higher education governance

Kothari Commission (1968) on the Importance of Autonomy

- “Only an autonomous institution, free from regimentation of ideas and pressure of party or power politics, can pursue truth fearlessly and build up in its teachers and students, habits of independent thinking and a spirit of enquiry unfettered by the limitations and prejudices of the near and the immediate which is so essential for the development of a free society”.

National Policy on Higher Education (1986) – 5 key principles

- Greater Access requires an enhancement in the education institutional capacity to provide opportunities to all who deserve and desire higher education.
- Equity involves fair access to the poor and the socially disadvantaged groups.
- Quality and Excellence involve provision of education by accepted standard so that students receive available knowledge of the highest standard and help them to enhance their human resource capabilities.
- Relevance involves promotion of education so as to develop human resources keeping pace with the changing economic, social and cultural development of the country; and
- Value Based Education involves inculcating basic moral values among the youth.

National Knowledge Commission on Autonomy (2008)

- “the autonomy of universities is eroded by interventions from government and intrusions from political processes.”
- “experience suggests that implicit politicization has made governance of our universities exceedingly difficult much more susceptible to entirely non-academic intervention from outsiders. The problem needs to be recognized and addressed in a systematic manner within universities but also outside particularly in governments, legislatures and political parties”.

Yash Pal Committee on Governance (2010)

- Governance Structures are archaic and have not changed with changing environment.
- Need to improve governance by developing expertise in ‘education management’ and avoid burdening good academics with administrative chores.
- State Governments should avoid appointing civil servants as University Administrators.
- Changes in Governance structure should be aimed at autonomy.
- Need to prevent political or commercial interest from interfering in the functioning of Universities.
- Governance structure should consist of eminent persons, excluding politicians including limited representation from the Government.

Source: Authors' compilation from various reports.

Equal Access (or Equity), Quality and Excellence, Relevance and Value Based Education, more recently several Government of India committees have debated around both these aspects in governance through the National Knowledge Commission (2008), the Yashpal Committee (2010), and the Madhava Menon Committee report on reforms in Centrally Funded Institutions (2011). This chapter will first and principally focus on the institutional governance of the State Universities in Madhya Pradesh as laid out in the act, and, secondly, on the appropriate “steering” role of the state government to achieve good sector governance.

THE MADHYA PRADESH UNIVERSITIES ACT, 1973

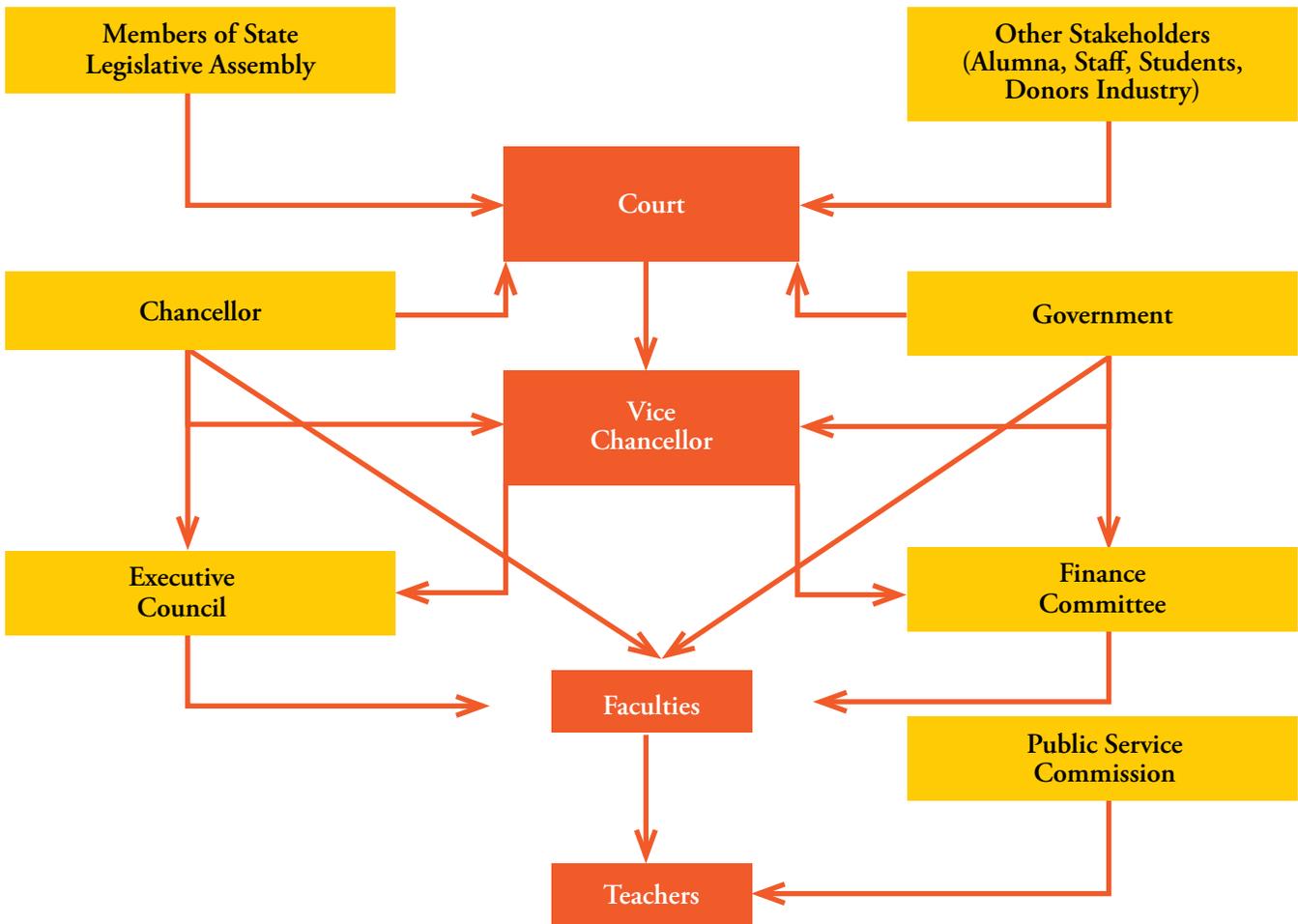
An analysis of the MP Public Universities Act, 1973²⁰ (Figure 9) brings out the following specific points:

- There is a heavy administrative and managerial role of the Chancellor.
- There are multiple points of influence of external people in internal bodies of the universities, notably in the executive council and the finance committee. These external people are nominated by the Chancellor or representatives of the State Government. This implies a lack of administrative power of the Vice Chancellor in two critical bodies, notably the executive council and the finance council and thus hinders implementation. Further, it creates multiple points where consensus between external stakeholders (Chancellor and government) needs to be reached.
- The lack of accountability of the Vice Chancellor towards the Governing body (Court), since the Vice Chancellor is principally hired by the Chancellor, but with important inputs from the Government.

²⁰ This section draws heavily on the relevant chapter to World Bank (2012).

- The dominating role of the public service committee hiring teachers, which removes the university’s authority over the most important input into the learning process: Teachers.
- The highly unclear and overlapping division of powers and duties between the court and the Senate.
- The size and functioning of the Court. It is very large (>65 people), which makes it difficult to generate consensus and have efficient procedures. Further, it is required only to meet once a year
- and mainly has an advisory and review role with little decision making.
- The absence of a true governing body that is the university’s principal governing body that sets out one strategy and issues one set of policy and administrative guidelines for the VC to implement (without further need for external consensus making within the University).
- State Government’s role in appointing the Registrar and Finance and Accounts Officer without necessarily taking the consent of the Vice-Chancellor.

Figure 9 “Influence” Chart – MP Universities Act 1973



Source: Author

Note: Academic council and boards of studies not shown.

As a consequence, the Act risks leading to four main concerns: rigid, ambiguous, and outdated governance framework; political interference; ineffective and non-transparent teacher selection practices; and a crisis of internal governance.

The first concern is the rigidity of the current governance framework for the state universities in MP. A Vice Chancellor (VC) has very little freedom and flexibility to make key management decisions. For example, the Chancellor (the State Governor), more often his office, decides on several administrative decisions. In addition, the VC has very little say over the appointment of the Registrar and the Finance and Accounts Officer, who are appointed by the State Governments and often times results in a stalemate in the University. Finally, any new curriculum has to be approved by the State Government when the university should have academic autonomy subject to well-defined parameters.

Second, the existing provisions of the Act provide an opportunity for large scale political interference in the appointment of the Vice-Chancellor and other key functionaries such as members of the governing bodies. Additionally, the *janbhagidar*²¹, which was introduced to manage the affairs of the college in the absence of a proper collegium to aid and assist the Principals of colleges has also resulted in excessive political interference.

Third, the current practice is that the Public Service Commission selects and appoints teachers in the Government funded and aided colleges but this is ineffective, non-transparent and goes against the basic principle of autonomy. Unfortunately, there is a large number of vacant positions in these institutions. The selection of the faculty should be devolved to the individual institution to administer as per the norms laid by the University Grants Commission.

Lastly, given the archaic nature of the Act with all powers (over-centralization) vested with the Vice-Chancellor and Governing bodies, there is

time and cost over run on a number of matters, which can be addressed at the levels of Deans or Department Chairs. Unfortunately, in the absence of decentralization with due accountability mechanisms, universities and colleges are plagued with internal crisis of governance.

LEARNING FROM OTHER STATES

Given that quality improvement has come to be the focus of higher education, there is now a growing desire in states to reduce the burden of affiliation of the existing universities and reform internal governance of the affiliating universities. A few states like Maharashtra (Kumar, 2009) and West Bengal have embarked on comprehensive legislative reforms in higher education. States such as Karnataka are devising strategies of addressing the affiliation model through a single university dual system in which a pro-vice chancellor is responsible for affiliation and a different pro-vice chancellor for the academic affairs of the university itself. While, in some States there is a good reason to look at a single university affiliating all colleges. It is therefore important to note **that, while** a single template for the legislative framework and governance structure at the state level may not be desirable, there is an opportunity for cross-learning between States. Another interesting reform that is being witnessed in States is to have a buffer body - State council for higher education –an important goal of which is to assist the states' higher education departments to re-think the role of the university. In states such as Kerala, Andhra Pradesh and West Bengal there already exists a robust and effective State Council. There has been a less positive experience in Maharashtra, where the Council has not met for two years (Kumar, 2010). However, a committee constituted by the Government of Maharashtra chaired by Dr. **Anil** Kakodkar has recently recommended in its report, the setting up of the Maharashtra State Council for Higher Education and Development (MAHED). It has also suggested that MAHED should be made a stand-alone independent statutory body with appropriate and adequate autonomy to help develop higher education right from funding to appointing vice-chancellors.

21 This was introduced by the Government of MP in 2003, where by each college has to have a society formed, which takes care of the overall development of the colleges and local problems are solved locally.

POLICY OPTIONS FOR MP

Introduce more autonomy in universities. There are generally three main forms of autonomy: academic, financial, administrative/human resources. While the universities currently have some level of administrative autonomy, there is a need to devolve more authority to the universities in the areas of academic, finance and human resources. For example, the universities should be recognized as experts in academic matters and be given the authority to take all decisions including curriculum and examinations. In the areas of finance, the universities could be given autonomy to manage their own budgets including sourcing for their own funds and being allowed to keep them subject to well-defined policy and reporting parameters. In the areas of human resources, the proposal is that universities should be allowed to select and recruit their own staff (both academic and non-academic). This gives the university more flexibility, and enhances their effectiveness and competitiveness; leading to an overall improvement in the quality of education.

Enhancing accountability through the establishment of a Board of Governors. As the universities are given more flexibility and autonomy, it is important to put in place a sustainable and independent framework to guide the university

senior management in key decisions. There is a need to develop models of governance along the lines of governance framework which exists in some of the premier institutions of higher learning, namely, Indian Institutes of Technology (IITs), Indian Institutes of Management (IIMs), Indian Institutes of Science (IISc) and the Tata Institute of Social Science (TISS). In the subsequent discussion on the proposed model for higher education system in MP, certain key features from these institutions have been adapted and the most recent recommendation made by the Madhava Menon Committee (2011) on 'Governance Restructuring in Central Universities' have also been incorporated (see Box 3). There are all the reasons to believe that this key reform would lead to better governance and better education in the State of Madhya Pradesh.

More specifically, it is proposed that a Board of Governors (BoG) be established which will be the final approving authority on key matters of the university. The BoG will be responsible for setting the university's strategic directions and development, and will be the final approving authority for key matters including finance and human resources (within approved policy parameters and guidelines), and making and reviewing statutes and ordinances. The BoG will also be given the flexibility to decide on the internal governance structures of the university.

Box 3

Madhava Menon Committee (2011) on Evolve a Comprehensive Policy for Autonomy of Central Educational Institutions

Key recommendations:

- Concept of office of the visitor in central universities should be removed.
- Powers of the visitor (currently President of India) be transferred to the Chancellor.
- Establishing an office of ombudsman in each central university to intervene in crisis situations.
- Membership of academic bodies is strictly restricted to eminent academicians and independent experts.
- Providing autonomy in academic issues, all central universities adopt a system of choice-based credit courses along with semester system.
- All central universities undergo a comprehensive review of their functioning once every 10 years by an external agency.

Source: Authors.

Akin to international practices found in the US and Europe as well as that adopted by the IITs and IIMs, it is recommended that the size of the BoG is kept small to enable effective decision meeting. The BoG could be a 10-15 member committee chaired by an eminent individual well respected in society and industry. The Chairman need not be an academic but must have prior experience in a similar capacity (whether in the educational sector or industry). Similarly, the Board members should comprise reputable individuals from the institution, State Government, society, industry as well as academia. It is recommended that at least 50 percent of the board members should be external to the institution and have significant interest in the higher education sector in Madhya Pradesh.

Role of the Chancellor. Under the existing Act, the Governor is given a lot of control over the university, including the power approve the composition of university bodies. It is recommended that these responsibilities be devolved to the BoG as they are administrative in nature. The Visitor (as is proposed as a new role for the Governor) should continue in his role as the Head of the University to preside at important university events such as convocations and commencements. This is analogous to the shift in the role of the President with respect to Centrally-Funded Institutions. In addition, the Visitor should continue to have the powers to call for a report or explanation on matters in the university for which the BoG should be given a time limit to respond to the Chancellor.

Selection Committee for the Vice-Chancellor (VC). Akin to international practices as well as local ones found in the States of Karnataka, Maharashtra, Rajasthan and West Bengal, it is recommended that the VC be selected via a transparent, objective and competitive selection process. A selection committee comprising three to five independent well-respected representatives from the Board, society, industry, government and academia could be formed and tasked with the responsibility of selecting the candidates. The BoG should be the final approving authority who appoints the VC. Key selection criteria should include academic credentials, management experience and expertise, leadership potential, integrity and values.

Accountability Framework for the Universities.

With autonomy and greater responsibility given to both the BoG and university senior management, there is a need to put in place an accountability framework to ensure the proper usage and accountability of public funds. This accountability can take varied forms as follows:

- Establish key performance indicators such as student attrition and transition rates, graduate employment survey results etc which are reviewed on a yearly basis between the State Government and universities.
- Put in place a system of regular monitoring and updates of the university's development and performance.
- Develop and implement a Quality Assurance and Accreditation (QAA) mechanism and process to ensure the delivery of quality education.
- Ensure information transparency via requiring key information and documents (such as the results of graduate employment surveys, summaries of the QAA reports, ranking of colleges etc) to be published.

Establish a State Council for Higher Education:

It would be desirable for Madhya Pradesh to establish a State Council for Higher Education for planned and coordinated development of higher education in the State and to foster sharing of resources between universities, benefit from synergy across institutions, lead academic and governance reforms at the institution level, **establish** principles for funding institutions, maintain a databank on higher education and conduct research and evaluation studies. Only a handful of states in India have a functioning State Council for Higher Education. A perusal of the composition of the State Councils highlights some interesting facets. While Andhra Pradesh and West Bengal clearly stand out in the way the Chairman is selected on merit, other states have political appointees as Chairpersons. One important thing to learn from other states is that State Councils should be manageable and not unwieldy as in case of some states like Kerala and Karnataka. The Kerala model is however considered to be an interesting

Chairman of the Council

- Distinguished academician/public intellectual with proven leadership qualities.
- Appointed by a search committee – two committee members are by the Council, one by the State – three member committee will recommend three names to government who will appointment; OR Chief Minister, Leader of Opposition and Education Minister appointed by three names suggested by the Council.
- 3+3 years or 5 years non extendable.

Chief Executive of the Council

- Eminent academic administrator with proven record.
- Must be the rank of Vice Chancellor.
- Search committee should be panel of three names: Chairman of the council, plus two members nominated by the Council.
- Appointed for a period of 5 years.

Members of the Council

- 9 individuals representing fields of Arts, Science and technology, culture, civil society and industry: 6 members should be from outside the state; 3 members must be individuals of national eminence (outside the State).
- Each member will have a term of 6 years, 1/3rd will retire every 2 years.
- The existing council will nominate 3 new members every 2 years.

Secretariat and Administrative Staff

- The council must have its own Secretariat and Administrative Staff.
- Brought on deputation from other institutions and State government.
- Suitable talent drawn from the system or the labour market and compensated adequately.

Appointing/Establishing the First Council

- First Council will be appointed by a five member selection committee to be appointed by State, whose the members must be: 2 eminent scientists/social scientists; 1 former VC of a State University; 1 former director of Institute of National repute within or outside the State; 1 former VC of a central University.
- When the Council is constituted for the first time, one-third of the Board members (i.e. six members) should be given one non-renewable term of six-years. Another one-third should be given a four-year term and the remaining one-third would be given a term of two years.

Source: Authors.

model in the way that many of its powers and functions are executed. Going forward, a proposed model for the State Council for Higher Education in Madhya Pradesh **based on the lessons from these states both in terms of the composition of the Council (Box 4) as well as in terms of powers and functions (Box 5)** (a summary of the state councils in other States is at annexure).

There are two other issues which could be considered as functions of the State Higher Education Council: regulation of private institutions and redressal or tribunal mechanisms. There are advantages to having the Council deal with both private and government institutions, as this would create a more level playing field across the sectors, when planning for the sector it is important that the Council take into consideration the presence (and likely future presence) of the private institutions, and the central issue of quality improvement is equally relevant for all parts of the sector. However, the relationship between the Council and private institutions will inevitably be somewhat different from its relationship to government institutions (not least with respect of funding). With respect to tribunal mechanisms, there clearly is a lack of

effective redressal mechanisms, which are manageable for institutions and the government, and keep all but the most fundamental cases out of formal legal redress. This lack means that many administrative actions by the institutions and by the Department are delayed. There is pending legislation at the national level to address the need for educational tribunals, which would include requirements at the state level. However, constructing an effective tribunal system (which balances the needs and rights of all parties) is complex as well as sensitive. In the short run, therefore it would add significant complications to the functioning of the Council for it to take on responsibilities for private institutions and for tribunals from the beginning of its operation, especially given the major tasks it would be responsible for.

Box 5 Proposed Powers and Functions of the MP State Higher Education Council

1. Strategy and planning

- Preparing the State Higher Education Plan.
- Providing State Institutions inputs for creating their Plans and implementing them.
- Coordination between apex bodies, regulatory institutions and government.

2. Monitoring & evaluation

- Monitoring the implementation of State Higher Education Plan.
- Creating and maintaining the Management Information Systems.
- Compiling and maintaining periodic statistics at State and Institutional level.
- Evaluating state institutions on the basis of norms and **key performance indicators**.

3. Quality assurance & academic functions

- Faculty quality enhancement initiatives.
- Accreditation (in collaboration with national regulatory agencies).
- Quality of examinations.
- Maintaining quality of Curriculum.
- Promoting innovation in research.
- Protecting the autonomy of State institutions.

4. Advisory functions

- Advising state government on strategic investments in higher education.
- Advising universities on statute and ordinance formulation.

5. Funding functions

- Funds managed by the State Higher Education Council will come from GoI as well as the State government:
 - ◆ Determine the methodology for timely transfer of funds.
 - ◆ Disburse funds to State universities and colleges on the basis of the State Higher Education Plan and transparent norms.

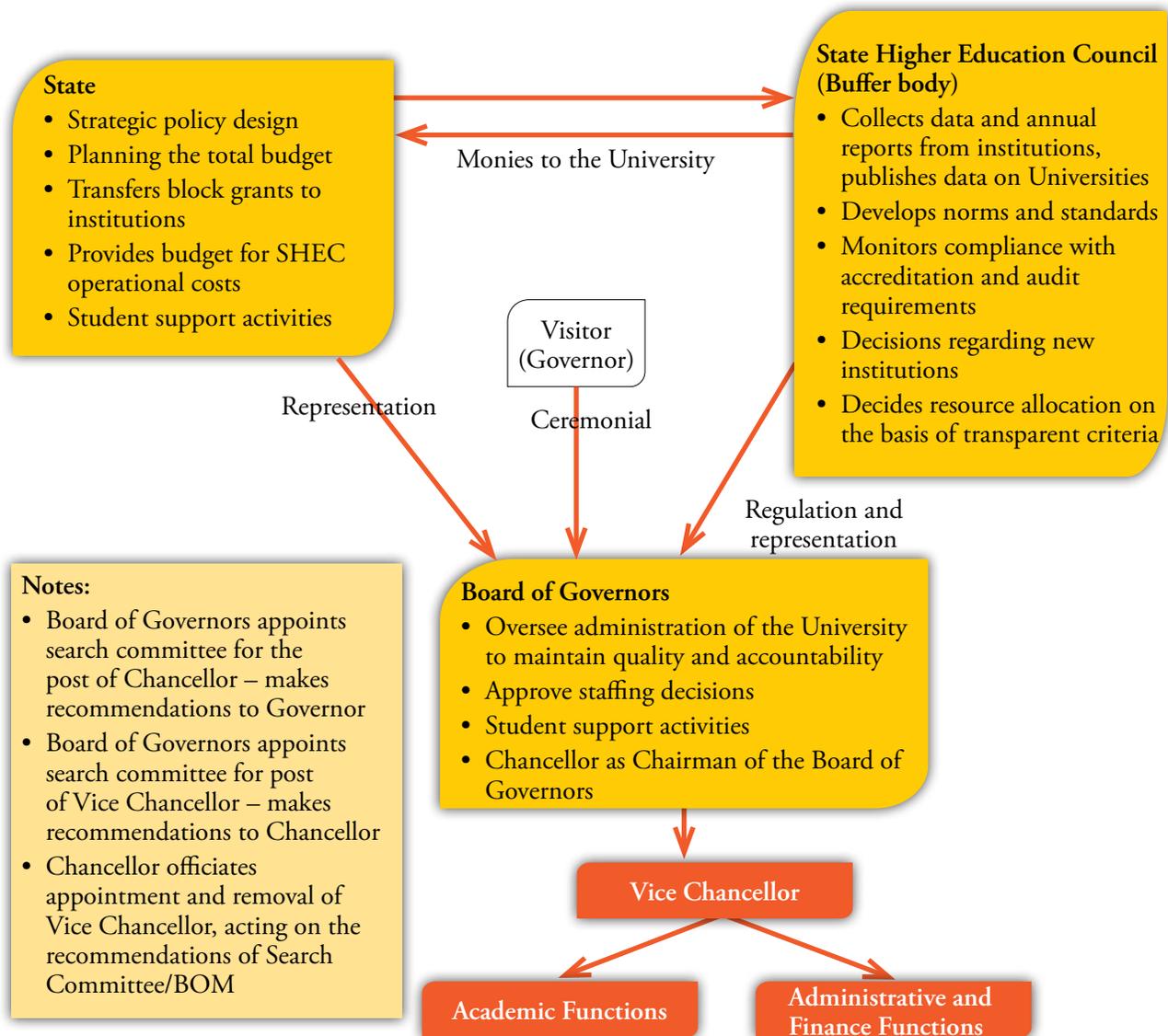
Source: Authors

More autonomy should be given to universities and colleges. Linked to the above two issues, there were calls for greater autonomy in the areas of academic, finance, administration and human resources to the state universities and better-performing colleges. It is well recognized by the University Grants Commission (University Grants Commission) now that for the affiliated colleges, they should be groomed and, when adequate capacity was present, the college should be made academically autonomy. This would allow the college to design their curriculum, rather than having to depend on the affiliating university. There is certainly a need

to put good internal governance practices in place in colleges so that there is minimalistic interference from external agencies.

With the MP state of higher education and the national and international key messages in mind, there is a need to relook at the Madhya Pradesh State University Act –may be to re-write the Act. A robust, enabling act should be based upon acts that have demonstrated its worth over time in India, notably the IIT/IIM model and the National Law School, while possibly taking into account new national proposals and if need be international examples.

Figure 10 Proposed Institutional Relationships



Source: Authors

It has come to be clearly recognized that the number of colleges affiliated to a single university is quite large in case of State Universities and over the years there has been an increase as the number of colleges has risen much faster than the number of affiliating universities (University Grants Commission, 2012). Currently, the average number of affiliated colleges per University is approximately 500 for the country as a whole. It is imperative that some serious policy options are looked at going forward. However, given the number of affiliating colleges in Madhya Pradesh (Table 10), the affiliation system will take some time to reform and a number of different approaches will need to be considered, tested and evaluated.

The first option is to reduce the total number of affiliating colleges by encouraging the better performing colleges to become autonomous. By becoming ‘autonomous’, a college would gain academic autonomy – and so become responsible for curriculum and assessment issues – as well as administrative autonomy over its budget, including being eligible to receive funds directly from UGC. An autonomous college does not, however, have the right to award a degree. One possibility in Madhya Pradesh is to identify colleges that have performed well based on certain indicators may be encouraged to move for autonomy (there are a number of colleges (perhaps 25) which are well-established and seem likely candidates to become autonomous.) It would also be possible to provide incentives to the affiliating universities to encourage some of their colleges to become autonomous.

The bigger task however is to improve the quality of education provided in the larger number of colleges. One option is establishing a specific unit of the higher education council or the affiliating university to monitor and built capacity in these colleges. Similarly, it would be possible to establish one University exclusively for affiliations, or a dual Model for a few Universities as is being proposed in Karnataka with the remaining become exclusively teaching/research institutions. **One of the other models of managing the problem of affiliation is to have the University divided into several campuses with each having colleges around its vicinity affiliated to those campuses. This model is being currently discussed in Maharashtra in the case of University of Mumbai.** The unit could also oversee the establishment of new colleges, ensuring that they met minimum standards before they were allowed to be established, and also regularly accredit and conduct quality assurance for existing colleges to ensure that quality was maintained. A possible suggestion that the more advanced colleges could “mentor” the newer ones could also be examined.

An additional option would be to limit the number of colleges to be affiliated to any University to 100, as recommended by the Report of the UGC-Affiliation Reforms Committee in 2011. However, in MP this would mean establishing more affiliating universities than the present seven in MP, since there are over 1000 affiliated colleges (with several thousand more unaffiliated colleges in the system).

Table 10 Number of affiliating colleges of different types in MP (2011-12)

Traditional Universities	Number of Colleges			Total
	Government	Private Aided	Private Unaided	
Jiwaji University, Gwalior	46	14	164	224
Barkatullah University, Bhopal	63	11	139	213
Devi Ahilya University, Indore	54	13	103	170
Rani Durgawati, Jabalpur	58	19	90	167
Awadhes Pratap Singh University, Rewa	51	12	60	123
Vikram University, Sagar	38	5	45	88
Dr. Hari Singh Gaur University, Sagar	32	3	35	70
Total	342	77	636	1055

Source: Annual Report, 2011-12.

It would also be possible to create College Cluster Universities by clustering a minimum of 50 colleges in the area surrounding a city or district giving the university its own independent establishment and relevance.

A way to get larger, better-quality, institutions with more faculty and students would be for a number of colleges to merge, to create a larger, integrated institution. It is likely that larger institutions would have the capacity to become autonomous. State funding could be provided to promote such mergers.

Lastly, it is possible to establish new constituent colleges where there is a large population of youth people. A number of constituent colleges can be under a University like the case of Jawaharlal Nehru Technological University in Hyderabad. Unlike the affiliated colleges which are managed by college management committee, the administrative control of the constituent colleges will be managed by the University. Recently Punjab University has followed this model in setting up four constituent colleges in collaboration with the State Government.

As noted above, a key constraint on reform of the affiliation system is that affiliating universities receive a significant proportion of their revenues from affiliating colleges. This means that the issue of financing of state universities also needs to be considered alongside structural reforms which would affect the funding of colleges. These issues will be discussed further in the next chapter.

CONCLUSION

The above analysis and recommendation pertain to good governance at the institutional level; they should also be seen in the light of a redefinition of the State's role within higher education, consisting of:

- **A need to move from “state control models” to “state steering models,” or expressed in other words “rise of the evaluative state”** (Enders, 2004).
- **Legislation** that establishes universities as autonomous independent entities.

- Withdrawal of the state from certain detailed control and management functions and the **devolution of responsibility to universities themselves.**
- Need to re-organize a suitable institutional structure through legislative enactment – State Council for Higher Education – whose composition should be merit-based, acts as a think tank and helps in policy formulation and implementation.
- A potential creation of a **funding agency** to carry out the implementation as per funding policies established by the government and ensure the financial monitoring and impact of funding on educational outcomes.
- Increased use of **external agencies** to monitor the quality of all courses.
- The development of **new forms of accountability and mandatory disclosure of all information in the public domain** through reporting on **performance and outcomes** in achieving nationally set goals for the sector, as well as institutionally set targets.
- Gradual withdrawal of the state from decisions on the **appointment of the chair** of the board or president and members of the board.
- Expectations of managerial competence by the board and the president.

Clearly, given the size and scope of the affiliating system, a number of different approaches will need to be taken forward and tested to see what has the greatest impact. It may also be possible that different approaches will work better in different parts of the state, given the distribution of institutions. In any case, there is some urgency in tackling the weaknesses of the affiliation system.

It should also be mentioned that despite the imminent analysis and recommendations existing in India on the subject of higher education reform, insufficient progress has taken place. Clearly, the problem is not at the conceptual and knowledge level, but rather at the implementation and operation level. There is an urgent need to address this implementation gap.

While the agenda for reform is quite long, it is recognized that all steps forward are worth taking. Excellence in higher education requires sustained improvements, evaluation, and re-strategizing, and new initiatives. However, it is absolutely fundamental

as mentioned earlier in this paper that the reform process starts in Madhya Pradesh by revisiting its Public Universities Act and providing an enabling framework for improving the quality of higher education in the state.

Annexure: Summary of State Councils for Higher Education

Structure	Qualification	Powers & Responsibilities
Andhra Pradesh		
Full time members <ul style="list-style-type: none"> Chairman Vice Chairman 	Eminent educationists appointed by government	Planning <ul style="list-style-type: none"> State plans – short and long term Implementation of plans Monitoring of plans Coordination amongst state institutions Curriculum quality and updation Academic <ul style="list-style-type: none"> Quality of Examination Facilitate teacher training Promote sports and extracurricular activities Send reports on Universities to UGC Advisory <ul style="list-style-type: none"> On the basis and quantum of block maintenance grants Promoting research, setting up Research Board On statues and ordinances passed by Universities On setting up new institutions
Ex officio members <ul style="list-style-type: none"> The Secretary to Government, Education Department The Secretary to Government, Finance Department The Secretary to Government, Labour, Employment and Technical Department The Secretary or any other office of the University Grants Commission not below the rank of a joint Secretary nominated by the Chairman, University Grants Commission 		
Other Members <ul style="list-style-type: none"> Four persons to be appointed by the Government One person appointed by the Government Three persons nominated by the State Government 	<ul style="list-style-type: none"> Eminent educationists “Industry” representative 1 Technical expert 2 Other members 	
West Bengal		
Members <ul style="list-style-type: none"> Chairman 	<ul style="list-style-type: none"> Reputed academician appointed by Government 	<ul style="list-style-type: none"> Act as a liaison between UGC, State and Universities for quality, service related matters (teaching and non teaching staff), interpretation and formulation of rules and statues Development of plans and control unplanned expansion Curricular development, exam forms etc Examine proposals for new institutions, self-financing courses and institutions Consider affiliation requests sent to each University Monitor quality through State quality Assurance Cell
<ul style="list-style-type: none"> Vice Chairman 	<ul style="list-style-type: none"> Reputed academician 	
<ul style="list-style-type: none"> Member Secretary 	<ul style="list-style-type: none"> IAS Officer 	
Karnataka		
Ex Officio Chairman	<ul style="list-style-type: none"> Minister of Education 	<ul style="list-style-type: none"> Promoting academic excellence and social justice by obtaining academic input for policy formulation and perspective planning Ensuring autonomy and better accountability of all institutions of Higher Education in the State and Guiding the growth of Higher Education in accordance with the Socio-economic requirement of the State Decisions on policy matters on behalf of the Council subject to the concurrence of the Council, it is also the responsibility the committee to deal with certain administrative matters and also preparing the Annual Academic Financial Audit report.
Vice Chairman	<ul style="list-style-type: none"> Eminent educationist who is or has been the Vice-Chancellor of a University or member of any apex body of Higher Education nominated by the Govt 	
Member Secretary	<ul style="list-style-type: none"> Eminent educationist 	

Structure	Qualification	Powers & Responsibilities
<ul style="list-style-type: none"> 16 eminent educationists as nominated members 17 Vice Chancellors of the State Universities Secretary of Higher Education Secretary of Medical Education Secretary of Finance Secretary of Law Secretary of Parliamentary affairs Chief Minister's Adviser on Education <p>Executive Committee</p> <ul style="list-style-type: none"> Vice Chairman of the Council is its Chairman The Executive Director is the Member Secretary 2 Vice Chancellors of the Council nominated by rotation by the Council 4 of the 10 eminent educationists of the Council nominated by rotation by the Council as members The Principal secretaries to the Govt. Higher Education Dept., Medical Education Dept. are its Ex-officio members. 		
Kerala		
<ul style="list-style-type: none"> Patron Visitor Chairman Vice Chairman 		<ul style="list-style-type: none"> Coordinate the roles of the Government, Universities and apex regulatory agencies Make State HE plans Provide to inputs academic and research institutes on making and implementing plans Undertake independent research for the generation of new ideas for the promotion of social justice and academic excellence in higher education Improving the existing and creating new rules/statutes Develop human resources in education Develop linkages between HE institutions and other govt agencies
<p>Advisory Council</p> <ul style="list-style-type: none"> 33 members 	<ul style="list-style-type: none"> Political representatives such as Chief Minister, Education Minister, Representatives of Members of Parliament, Members of Panchayats, Municipalities and Eminent personalities 	<ul style="list-style-type: none"> Changes in curriculum Evolve general guidelines for the release of grants by the Government to Universities and other institutions of higher education To provide common facilities for the entire State by establishing centers, namely: <ul style="list-style-type: none"> Centre for Research on Policies in Higher Education Curriculum Development Centre Centre for Capacity Building in respect of faculty and educational administrators State Council for Assessment of Higher Education Institutions Examination Reforms Cell; Human Resources Development, Employment and Global Skills Development Cell
<p>Governing Council</p> <ul style="list-style-type: none"> 35 members chaired by Minister for Education 	<ul style="list-style-type: none"> All Vice Chancellors of State Universities Educationalists (with reservation for SC/ST and woman) Elected representatives of the Academic Councils of State Universities Nominated student union representatives (with reservation for woman) Officials of the State (not below Secretaries and Directors) 	
<p>Executive Council</p> <ul style="list-style-type: none"> 9 members chaired by Vice Chairman of Council 	<ul style="list-style-type: none"> One full time member secretary Five part-time members One Vice-Chancellor Secretary, Higher Education. 	<ul style="list-style-type: none"> Coordinate between various state institutions and councils

Structure	Qualification	Powers & Responsibilities
Tamil Nadu		
<ul style="list-style-type: none"> • Chairman • Vice-Chairperson • Member-Secretary <p>Ex-Officio Members</p> <ul style="list-style-type: none"> • Secretary Governor of Tamil Nadu • Additional Chief Secretary, Higher Education Department • Principal Secretary, Finance Department • Secretary, University Grants Commission • Director of Collegiate Education • Commissioner of Technical Education • One Research Officer • One Accounts Officer • One Superintendent 	<ul style="list-style-type: none"> • Minister for Higher Education 	<p>Planning functions</p> <ul style="list-style-type: none"> • To develop State Higher Education Plan and see monitor its implementation <p>Academic functions</p> <ul style="list-style-type: none"> • To maintain examination standards • Identify Centers of Excellence in Universities for growth in particular disciplines • Training and development of teachers • Set up State Center of Research and coordinate activities between Universities <p>Advisory functions</p> <ul style="list-style-type: none"> • Develop norms and guidelines regarding block grants • To evaluate proposals for new institutes • Suggest improvements and changes in existing Statutes and ordinances <p>Administrative functions</p> <ul style="list-style-type: none"> • Administer grants-in-aid from government • Administer research Grants received from national and international agencies • To identify and administer innovative programmes for sustainable growth through self-generated funds from consultancy services to industries

Improving System Performance through Financing Reform

CHAPTER 3

This chapter addresses three sets of issues. First, relates to overall spending; how much does Madhya Pradesh spend on higher education and how does this compare with other states; and what are the contributions of public and private resources? The main messages are that MP spends about what one would expect on higher education from public resources given its economic development, but private resources far outweigh public spending. Second, since public spending is relatively small in the system as a whole it is important to maximize the impact of that spending. So, this chapter considers how public money is allocated and what it is spent on. Third, the chapter analyses how policies for public spending can improve the performance of the higher education system and support the reform agenda outlined in the previous chapters. The main messages are to simplify the distribution of public funds, but align the allocation mechanisms more closely with reforms at the institutional level.

There are multiple sources of funding for higher education in Madhya Pradesh. The main sources are: the state government; the national government mainly through two sources (direct from UGC and through the UGC Regional Office); and through tuition fees in both government and private aided/unaided institutions.²² The chapter looks at each source of financing in turn.

PUBLIC SPENDING

As expected, given its stage of economic development, public spending on all education levels in Madhya Pradesh is less than the Indian average. Public spending was 2.4 percent of its State Domestic Product (SDP) in 2007-08. This compares to an average of 4 percent and median figure of 3.1 percent for India. The total public expenditure by the central government and state governments on education is still below 4 percent of the GDP in India. It was 3.4 percent of the GDP in 2007-08²³. Many major states like Maharashtra, Delhi, Gujarat, Haryana, Punjab, Andhra Pradesh and Goa spend less than 2 percent of their State Domestic Product (SDP) on education. Tamil Nadu, Sikkim and Mizoram spent close to 10 percent of their SDP.

Total enrolment across all education levels in India was 33.5 crores in 2010²⁴. So, in that year, public expenditure per student was Rs. 7,000. Total budget spending on education and training by all departments in Madhya Pradesh was 3.4 percent of the state's domestic product at current prices in 2009-10. Total enrolment in education at all levels during 2009-10 in MP was around 21 million. So the estimated annual public expenditure per student across all levels of education was Rs. 3,500, that is, half of the country level per student public expenditure.

²² In addition, some institutions raise fees through providing consultancy and other services, but this is not a significant source across the sector and is not considered further in this report.

²³ India Human Development Report 2011, IAMR, Planning Commission, Government of India.

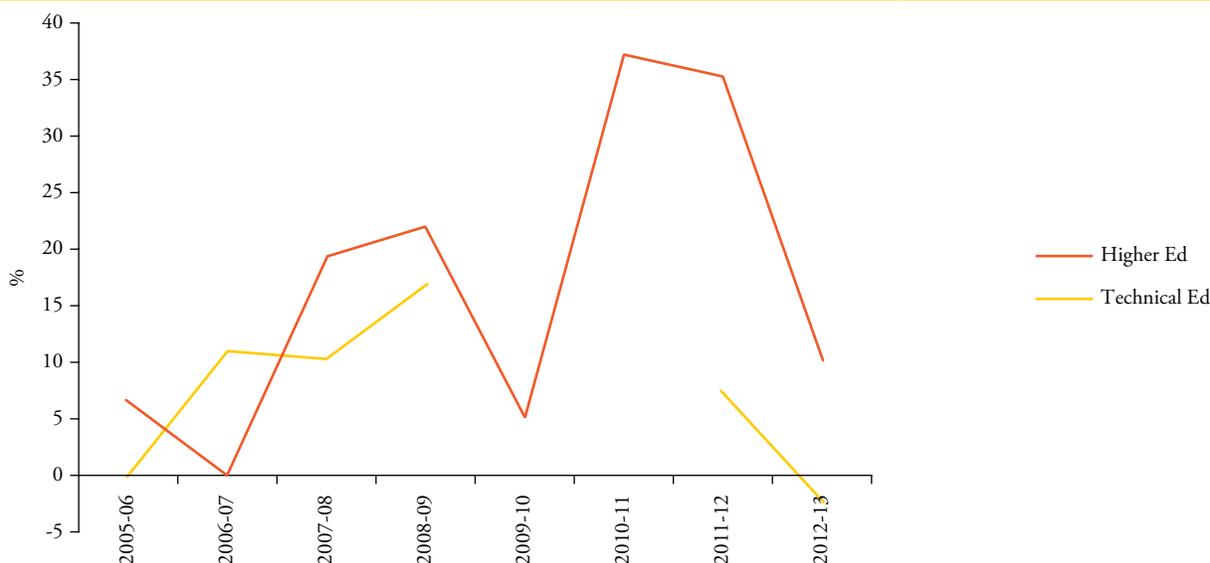
²⁴ Calculated using NSS 2009-10 (Status of current attendance) and census provisional population.

Table 11 State funding of general higher education since 2004-05

		2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12 (RE)	2012-13 (BE)
General higher education	<i>Expenditure</i>	305.3	325.0	324.5	387.1	471.8	495.3	679.5		
	<i>Budget</i>				420.0	502.0	551.5	846.2	919.5	1015.5
	<i>YoY Inc.</i>		6.5	-0.1	19.3	21.9	5.0	37.2	35.3	10.4
Technical higher education	<i>Expenditure</i>	83.8	83.8	93.0	102.6	119.8	n.a.	218.1	233.9	228.8
	<i>Budget</i>	n.a.	n.a.							
	<i>YoY Inc.</i>		0.0	11.0	10.3	16.8			7.3	-2.2

Source: Finance Department, Government of Madhya Pradesh.

Note: The budget figures for technical education over the years are not available, nor is the figure for expenditure in 2009-10.

Figure 11 Year-on-year increases in budget allocations for general and technical higher education

Source: Authors' calculations from data given by Department of Higher Education, Madhya Pradesh.

Note: A budget figure for 2009-10 was not available, so no calculations of year-on-year increases were possible for the year to 2009-10 or for the year to 2010-11.

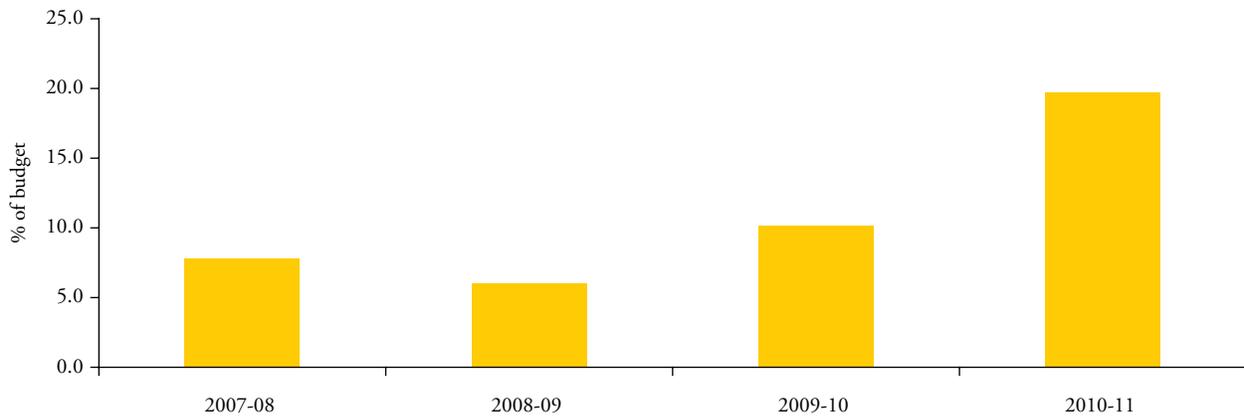
In India, the share of total budgeted expenditure on higher education and technical education in the GDP was 0.91 percent and 0.34 percent respectively in 2009-10. Of the total revenue expenditure incurred by education departments of all states/UTs 13 percent went into “University, Distance Learning and Scholarships” and 5 percent into funding “Technical Education”²⁵ (2009-10, Budget estimates).

Madhya Pradesh spent 1,064 Rs. Crores on higher and technical education in 2010-11 (Table 11). Almost 80 percent of that expenditure (846 Rs. crores) went on higher education. For both higher and technical education, total budget spending doubled in nominal terms between 2007-08 and 2010-11, with projected increases for the following years too (Figure 11). Budget allocations have in fact increased every year since 2005-06, sometimes by as much as 35 percent (for 2010-11 and 2011-12) over the previous years for higher education.

In recent years, the proportions of the budget that are not being actually spent during a year have been rising. In 2010-11, actual spending

25 Caveat: Technical Education data might be including ITIs. These figures have been estimated using the data given under MHRD reports on Analysis of Budgeted Expenditure on Education for various years.

Figure 12 Proportions of public budget for higher education not spent



Source: Authors' calculations from data given by Department of Higher Education, Madhya Pradesh.

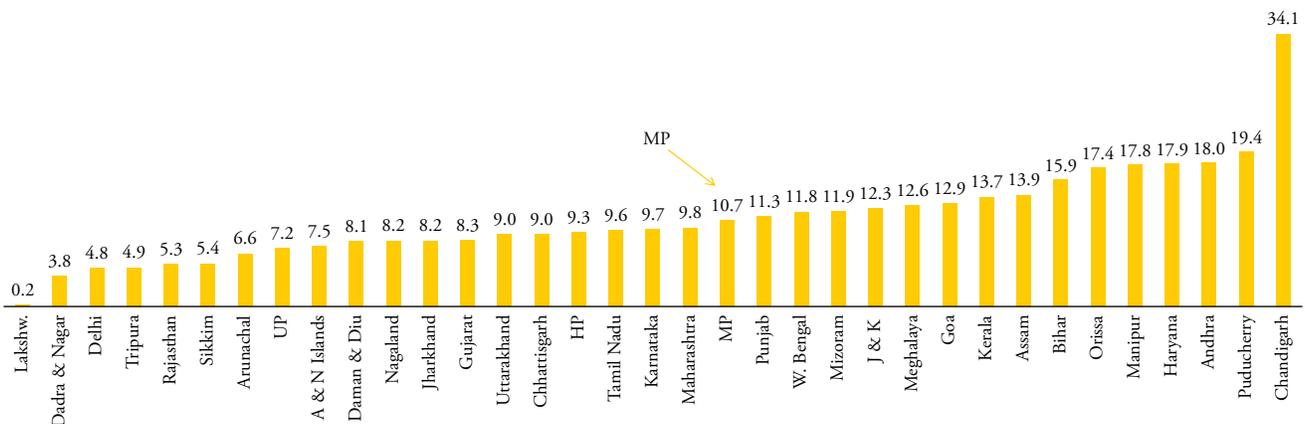
was around 80 percent of the budget estimates (Figure 12). There can be many reasons for differences between budget and actual expenditure: if a lecturer retires/quits her salary would not be spent, estimate of number student beneficiaries for a proposed scholarship may not match with the actual number of beneficiaries, plans to construct a building may not materialize for an unforeseen reason or a college might not be able to use the money if it is released close to the end of the financial year.

Madhya Pradesh spent a slightly higher percentage of public spending on higher education than the Indian average. The shares of higher and technical education in spending on all levels of education were

12.76 percent and 4.87 percent respectively (budget estimates). MP spent 10.7 percent of total education expenditure on higher education in 2007-08 (Actual); it was more than the median value of 9.7 percent. Interestingly, Bihar spent around 16 percent and UP spent around 7 percent only. Chandigarh spent the most at 34 percent on higher education during 2007-08, though the state was a clear outlier as the next placed state (Puducherry) spent 19.4 percent (Figure 13).

Curiously, there is not a very strong relationship between economic status and spending on higher education as a proportion of total public spending on education. Generally, one would expect spending

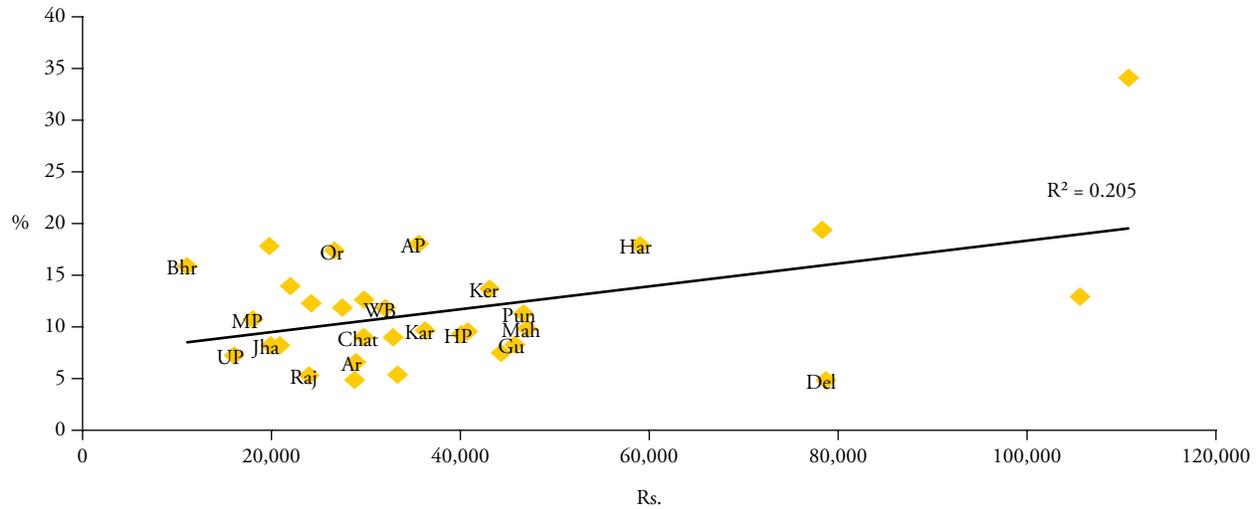
Figure 13 Proportion of higher education spending in total education spending by states, 2007-08



Source: Constructed by authors using data from MHRD.

Note: These figures do not include technical education.

Figure 14 Higher education spending as a ratio of total education spending vs PC NSDP, 2007-08



Source: Constructed by authors using data from MHRD and MOSPI.

Note: 2007-08 is the last year for which comparable figures across states are available. Expenditure does not include technical education.

Table 12 University Grants Commission Grants to MP (Head Office and Regional Office)

	2005-06 Rs. Cr.	2007-08 Rs. Cr.	2008-09 Rs. Cr.	2009-10 Rs. Cr.
Plan Grants to Universities	12.0	38.0	80.3	53.1
Plan Grants to Colleges	11.0	26.4	n/a	84.5
Non-Plan Grants to Universities	2.9	8.9	23.7	69.9
Non-Plan Grants to Colleges	0.0	0.1	0.2	0.1
Total	25.9	73.9	104.2	207.6

Source: Compiled by authors from UGC Annual Reports.

on higher education to rise as economic level increases, since richer states have higher enrollment ratios (as was illustrated earlier). The presence of private spending, which is likely to differ across different states, perhaps plays a role here. However, richer states generally spend a higher proportion, though the slope of the line of correlation rises only gently which indicates that the correlation is not very strong (Figure 14).

There were increasing amounts of public funds for higher education coming from the central level, through the University Grants Commission (UGC). UGC provided additional about Rs. 200 crores in 2009-10 (the last year for which data is available) (Table 12). In 2010, 385 colleges of MP were included eligible to receive funds from UGC (under Sections 2(f) and 12(B) of the University Grants Commission Act, 1956, as amended)

and 75 colleges were under 2(f) only. In August 2011, the following university level institutions in Madhya Pradesh were recognized by the UGC: 2 central universities, 16 state universities, 3 private universities, 3 deemed universities, 2 institutions of national importance and 1 other institution²⁶. Private unaided affiliated colleges can get grants from UGC on fulfilling the criteria of a scheme. 22 autonomous colleges get some additional grants for infrastructure development from the UGC. Between 2005-06 and 2009-10 non-plan grants to universities paid by the UGC rose by 24 times and plan grants to universities increased by less than 5 times only (Table 12). Grants were received both from the UGC head office in Delhi and from the Regional Office in Bhopal, with each

²⁶ <http://www.ugc.ac.in/pub/12FYF.pdf>.

office making its own decisions about funding. There is no coordination between the UGC processes and the State Department of Higher Education budget allocation processes.

The overall picture of public spending on higher and technical education shows significant increases over the past few years, with a doubling of spending on both in the past four years. The overall budget is projected to continue to grow. Sources of public spending include both State and national resources, and in both cases, there have been significant increases. However, the budgetary allocations have been rising even faster than spending, indicating that there is a lack of absorptive capacity for funds.

PRIVATE SPENDING

The main source of private income is from tuition fees charged by institutions. These fees are levied by all types of institutions, i.e., government, government aided and private unaided institutions. Different regulatory regimes apply to the institutions with different management structures and between technical and general higher education. Unfortunately, comprehensive data is not available about the amount of money raised by tuition fees. This section attempts, for the first time, to do such a calculation. In addition to tuition fees, institutions levy other charges such as for dormitories and admission fees, and though these precise amounts are unknown they are believed to be relatively small compared to tuition fees.²⁷

An estimate of the fee income in government universities and their affiliated government colleges is 100 Rs. Crores per year (Table 13). For general higher education we took a sample of 6 colleges affiliated to government universities, for which comprehensive information is available, and used the fee information of these colleges given on their websites. (Please refer to the table in the annexure.) The annual fee for undergraduate

courses like B.A., B.Com., and BSc. Math/Biology generally hover around Rs. 1000/-. Rates are lower for women/SC/ST students. If a course is combined with computers, the fee is much higher, at around Rs. 5,000 per annum. The fees charged for self-financing courses at government institutions are much higher than traditional courses, in the range Rs. 1,000 to Rs. 15,000 per annum. Self-financing courses, as the name suggests, must meet all of their costs (including the salaries of faculty) from the fee income. In our calculations, we have assumed an average fee of Rs. 1,000 p.a. for traditional and UGC funded courses; and Rs. 14,000 for self-financing courses.

Table 13 Estimated Fee Collection from 342 Government Colleges

Courses in Government colleges	Number of Students	Fee Estimates (Rs.)
Traditional	200,118	200,118,000
Self-financing	56,526	791,364,000
UGC Funded	11,026	11,026,000
Total	267,670	1,002,508,000

Source: Authors' calculations.

Note: The number of students in the three categories of colleges taken from administrative reports.

An estimate of the fee income in private institutions is Rs. 1,000 crores. The number of remaining students studying in private colleges and university teaching departments (aided and unaided) is estimated to be 4,94,326 (i.e., 7,61,996 minus 2,67,670). Average fee paid by them is assumed to be Rs. 20,000. So the total fee receipts are 9,88,65,20,000. (Caveat: we don't know how many students study in aided colleges and how many went to unaided. For Private aided colleges fee for traditional courses is Rs. 5,600 and for self-financing courses is it Rs.16,000. Fee for courses offered by unaided colleges is around Rs. 25,000. Also fee paid to University departments will be higher but we are assuming it to be similar to what is paid to colleges.)

So, total private expenditure within the traditional universities and their affiliated colleges (both government and private) for higher education courses is estimated to be Rs. 1,100 crores. This is almost twice the Department's expenditure in 2011.

²⁷ Also, all the colleges have Public Participation Committees, popularly known as "Janbhagidari Samiti". Admission fee paid by students has a component called Janbhagidari fee and this money is added to the funds available to colleges for paying various salary and non-salary expenditures. Some other sources of funds for technical education are the Department of Tribal Welfare, MP Council of Vocational Training etc. Some Technical Institutes offer consultancy services and meet around 10 percent of their expenditure in this way.

FEE PAID BY STUDENTS OF TECHNICAL EDUCATION

There are 3 private aided institutes supported by the government of MP (Indore, Gwalior and Vidisha). Their fee structures are decided by the government. Fee structures of self-financing university institutions are decided by the universities.²⁸ Fee for government institutes is around Rs. 22,000/- per annum. There are institutes not approved by AICTE. The Admission and Fee Regulatory Committee (AFRC), a statutory body set up in 2007-08, determines the fee²⁹ structure of private (unaided) professional institutes (AICTE Approved) in Madhya Pradesh.

There is no reported data on the total amount of fees paid by students of technical education. We have made three separate estimates because there are different possible approaches and different institutions charge different fees. First, an arithmetic mean was taken of the sanctioned fees, as per the government website. AFRC makes sure that fee charged is the same across a set of comparable institutes. AFRC determines an upper and a lower bound of fee. If number of students is less than 60 percent of sanctioned strength by AICTE, then AFRC asks the institutions to charge an average fee collected by all the private unaided professional institutions. The average fee charged in these institutes was Rs. 47,600³⁰ per annum during 2010-12. The average was Rs.45,600 per student per year between 2007 and 2009.

In a second approach, we took a sample of 31 technical education colleges offering courses in BE, B/M/D Pharmacy, MBA, MCA and M Tech.³¹ This dataset is the information submitted by institutions to AFRC when they seek approval of their fees (on a 3 year cycle). Tuition fee is the main part of funding student education in these institutions of professional education. The magnitude of tuition fees collected

was 23 crores in 2008-09 for 31 institutes attended by 6097 students across 7 courses. The average tuition collected was Rs. 53,000 per student per year.

The third method was to use data from the National Sample Survey. Average annual private expenditure per student on general education above higher secondary level was Rs. 7,360 for India and Rs. 7,031 for MP. Expenditure on technical education was Rs. 32,112 for India and Rs. 27,114 for MP in 2007-08. Standard deviations across states/UTs for per student expenditure on higher education and technical education are Rs. 2,645 and Rs. 12,658 respectively.

Estimates of average annual tuition fees paid by students attending private unaided technical institutions therefore range from Rs. 27,000 to Rs. 53,000. Part of these differences may be accounted for by the fact that there are different reference years, even though AFRC approves fees on a three-year cycle. The exact number of students in private unaided institutions is not known as it is not presently collected at the level of the State. So, we have estimated this figure from the National Sample Survey. This yields a figure of 200,000³² students. **Therefore, the estimated total spending on tuition by students in technical higher education is between Rs. 543 crores and Rs. 1,060 crore (from the 3 data sources). Total spending on higher education from all sources was approximately Rs. 2,800 crore (Table 15).**

The most significant fact to emerge from this analysis is that private spending is approximately (and probably more than) three times public spending. Before we examine this in more detail and its implications, it is necessary to look at the composition and quality of public spending.

ALLOCATION OF PUBLIC SPENDING

Madhya Pradesh does not currently report its spending by functional categories. In order to identify the ways in which money was spent, we have therefore constructed categories of spending into four broad categories

28 8 private universities have come up recently and they offer technical education. They have their own fee structures. There is a conflict since they have not come under AFRC yet.

29 Fee structure of private technical institutes given here <http://www.mpachedu.org/FeeStructure.asp>

30 Personal oral communication to the authors, by Mr. Sunil Gupta of AFRC on 29.2.2012.

31 The institutions used in this analysis were those for which the most complete data was available. The total database included information from 225 institutions.

32 Students of engineering and technology in private unaided is estimated to be 1,74,000. We do not know about courses like MBA, MCA. A figure of 200,000 could be a reasonable approximation.

Table 14 Estimated tuition fees collected by a sample of technical colleges

Year	Total Tuition Fee Collection	Number of colleges in the sample	Total Students (All Courses)	Average Per Student Tuition Fee Collection
	Rs.			Rs.
2005-06	9,00,00,000	14	2,594	39,509
2006-07	10,50,00,000	18	3,584	31,908
2007-08	15,80,00,000	25	4,809	42,788
2008-09	23,30,00,000	31	6,097	53,364

Source: Authors' calculations based on data provided by AFRC.

Note: Institutions included in the sample vary across years.

Table 15 Sources of funds for higher education

Source of funds	Amount (Rs. Crore)
State government	495 (2009-10)
Central government (UGC Head Office)	131 (2009-10)
Central government (UGC Regional Office)	77 (2009-10)
Fees paid to private unaided technical colleges	1,060
Fees paid to government, aided and unaided colleges of general education (within 7 traditional universities)	1,1001

Source: Authors.

Box 6 Categories of spending

“Equity and Access” includes expenditure on special coaching classes for students, SC/ST grants for stationery and drawing, special coaching scheme, scholarships and endowments to poor students, *Vikramaditya* free education scheme for the poor, fee concession to children of green card holders, scheme for SC/ST and technical education encouragement scheme for SC/ST.

“Grants” includes grants from AICTE for payment of arrears, grant to *Rustamji* Technical Institute BSF Academy, World Bank Grants (TEQIP), grants to IITM, Gwalior, RGPV, Autonomous Technical Institutes, Non-governmental technical colleges and institutes.

“Infrastructure” includes expenditure on establishment of book-bank, construction for technical education, maintenance of buildings, establishment of NIFT, establishment of IIT Indore, new faculties/subjects commenced in polytechnics, capital expenditure on education, arts and culture, construction of an integrated complex for the directorate, establishment of polytechnics under PPP mode, establishment of centres of excellence, up gradation of polytechnics under an Indo-German project, IT related work and construction of buildings.

“Others” consists of these heads: drawing material given, establishment of a committee for determining fee, technical and industrial institutes outside MP.

“Quality” includes expenditure on training of trainers of technical institutes, encouragement for outstanding work in TE, training program and World Bank TEQIP loans. “Salaries ” are paid to engineering colleges, the directorate of TE, polytechnics, pre-vocational training centre, intermediate craft/industry/architecture school, youth vocational centre, *Eklavya* polytechnic institutes and B.S. *Ambedkar* polytechnic institutes.

Note: Categories have been made by authors'

Table 16 Expenditure on general higher education, by category

Category	Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
									(RE)	(BE)
Equity and Access (Student Benefits)	<i>Expenditure</i>	1.9	3.5	5.3	10.8	20.5	18.1	20.8	34	49.2
	<i>Share (%)</i>	0.6	1.1	1.6	2.8	4.3	3.7	3.1	3.7	4.8
Student Centered	<i>Expenditure</i>	2.3	2.2	2.7	4	3.9	4.7	5.8	7.5	7.1
	<i>Share</i>	0.8	0.7	0.8	1	0.8	0.9	0.9	0.8	0.7
Infrastructure	<i>Expenditure</i>	16.4	17.8	16.8	27.7	53.9	40.2	64.9	27.6	48
	<i>Share</i>	5.4	5.5	5.2	7.2	11.4	8.1	9.6	3	4.7
Salaries	<i>Expenditure</i>	274.5	289.9	293.5	336.5	383.3	416.8	573.6	832.7	890.3
	<i>Share</i>	89.9	89.2	90.4	86.9	81.2	84.1	84.4	90.6	87.7
Others	<i>Expenditure</i>	10.2	11.6	6.2	8.1	10.3	15.5	14.4	17.9	20.9
	<i>Share</i>	3.3	3.6	1.9	2.1	2.2	3.1	2.1	1.9	2.1
Total	<i>Expenditure</i>	305.3	325	324.5	387.1	471.8	495.3	679.5	919.5	1015.5
	<i>Budget</i>				420	502	551.5	846.2	(RE)	(BE)
	<i>Share</i>	100	100	100	100	100	100	100	100	100
	<i>YoY Inc.</i>		6.5	-0.1	19.3	21.9	5	37.2	35.3	10.4

Source: Department of Higher Education, Madhya Pradesh.

Note: Categories have been made by authors.

Shares of various salary and non-salary expenditures in general higher education have not changed in a big way. Expenditure on scholarships and other benefits to students increased by more than 10 times in 2008-09 from its level in 2004-05, but stagnated afterwards till 2010-11. Expenditure on infrastructure rose by more than 12 times between 2004-05 and 2010-11 but estimates seem to be falling after that. Benefits to students show an increase in its share over time.

Ninety percent of the public expenditure goes into funding salaries in both higher and technical education. Nominal expenditure on salaries in

2010-11 was twice as much as it was in 2004-05 and has been rising over time. The big jumps happened in 2010-11 and 2011-12 (Table 16). The reason could be the approval of the Sixth Pay Commission by the Government of MP, though the Government has not fully implemented the Pay Commission provisions. It should also be noted that these increases in allocations still do not, according to reports from universities, cover all the salary costs (as the allocations are meant to). There is similar story in technical education. The share of salaries has been increasing over time. It rose from 57.9 percent to 76.1 percent between 2004-05 and 2010-11. Expenditure on infrastructure has not gained much importance (Table 17).

Table 17 Expenditure on technical higher education, by category

Category	Year	2004-05	2005-06	2006-07	2007-08	2008-09	2010-11	2011-12	2012-13
								(RE)	(BE)
Equity and Access	<i>Expenditure</i>	1.0	0.9	1.0	1.7	2.5	5.2	5.6	6.6
	<i>Share</i>	1.2	1.1	1.1	1.6	2.1	2.4	2.4	2.9
Grants	<i>Expenditure</i>	25.0	22.0	32.7	27.6	21.8	29.3	44.7	58.5
	<i>Share</i>	29.8	26.2	35.1	26.9	18.2	13.4	19.1	25.6
Infrastructure	<i>Expenditure</i>	5.0	8.1	11.4	6.6	9.2	17.0	5.7	7.6
	<i>Share</i>	6.0	9.6	12.3	6.5	7.7	7.8	2.4	3.3
Quality	<i>Expenditure</i>	3.7	6.3	0.8	0.2	0.2	0.2	1.1	1.0
	<i>Share</i>	4.5	7.5	0.9	0.2	0.2	0.1	0.5	0.4
Salary	<i>Expenditure</i>	48.5	46.0	46.6	66.0	85.6	165.9	175.6	153.7
	<i>Share</i>	57.9	54.9	50.1	64.3	71.4	76.1	75.1	67.2
Others	<i>Expenditure</i>	0.6	0.6	0.5	0.5	0.6	0.6	1.3	1.4
	<i>Share</i>	0.7	0.7	0.6	0.5	0.5	0.3	0.5	0.6
Grand Total	<i>Expenditure</i>	83.8	83.8	93.0	102.6	119.8	218.1	233.9	228.8
	<i>Share</i>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	<i>YoY Inc.</i>		0.0	11.0	10.3	16.8		7.3	-2.2

Source: Finance Department, Madhya Pradesh.

Note: 1. Categories have been made by authors and are not comparable with those in Table 18.

2. Expenditure in Rs. Crores.

What these figures indicate too is the impact of filling sanctioned faculty positions. The cost of an additional 1,000 teaching staff members is Rs. 78 crores per annum. This is based on the assumption that the ratio of Professors to Readers to Lecturers is 1 : 2 : 5 and the salaries are Rs. 80,000, Rs. 60,000 and Rs. 40,000 per month (plus 30 percent house rent allowance) respectively (as per UGC norms).

IMPROVING THE ALLOCATION OF FUNDING

In MP, the department of higher education mainly funds 7 traditional universities, 342 government colleges, in that 100 percent of the salary expenditure is paid and some other expenses like telephone charges, postage stamps, travel expenses, uniform of class 4 workers, stationery, electricity (not 100 percent) and water etc. are also paid by the department. Funds going to 77 private aided colleges fund 50 percent salary expenditure only.

“Block grants” going (Box 7) to the universities have remained almost unchanged for quite a few years. On showing the utilization certificate to the department the universities get block grants for the next year. For e.g. Devi Ahilya University has been getting around Rs. 2 crores for the past fifteen years. The block grants are used to meet salary expenditures. Universities are supposed to fund any expenditure over and above the block grants on their own by offering self-financing courses.

There are no clearly declared funding mechanisms when it comes to central and state funding bodies. State governments mostly take decisions on untold parameters or on ad hoc basis. Essentially,

allocations made by the department of HE are dependent on inflation, enrolments, staff members and most importantly historical trends. The result is that there are quite different allocations per student across the state institutions. For example, Jabalpur, Indore, Jiwaji, Vikram, and Bhopal Universities are expected to receive exactly the same allocation in 2011-12 and 2012-13 as they did in 2010-11. In each case, the figure for 2010-11 was higher for the previous year; but by strikingly different amounts: while the allocation to Indore went from 6.49 to 6.95 Rs. crore (a 7 percent increase), Jabalpur’s allocation went from 6.42 to 9.02 Rs. crore (a 39 percent increase).

This ad hoc approach is common to many states. A national level conference with key stakeholders, organized by the Planning Commission, NUEPA and the World Bank reported their main message as the need to adhere to the principles of transparency, predictability and objectivity (Planning Commission, NUEPA, World Bank, 2011).

In Madhya Pradesh, the expenditure table for general higher education identifies 64 headings (or line items), ranging from Rs. 778 crore for ‘Art, Science and Commerce Colleges’ to Rs. 0.01 for ‘Establishment of a new university’ (see annexure table). In addition, 14 heads were not used in the latest budget but were used in one or more of the last five years. The picture is slightly simpler in technical higher education, with 32 heads, plus 5 which have been used at some point in the previous five years. The largest line item is for ‘Polytechnics’ (at Rs. 101.68 crores) while the smallest amount was in the line for ‘Technical and industrial institutes outside MP’ (at Rs. 0.01 crores).

Box 7 What is a Block Grant?

It should be noted that ‘block grant’ is the term used in Madhya Pradesh to describe the grant given by the State government to institutions. However, this money must be used for, and only for, prescribed expenditure items, usually salaries. In international discourse, ‘block grant’ refers to the amount of money given to an institution which is untied, i.e., the money is allocated by the university through its internal processes to activities which it determines are its priorities. The university then reports on that spending each year.

Source: Authors.

Box 8 Norm-based funding: Examples from Denmark and France

Two concrete examples of norms-based funding are Denmark and France. In Denmark, funding is based on the number of students who pass an exam. Institutions receive 30% to 50% of their funding based on this indicator. For instance, universities receive around \$19,000 per completed bachelor degree graduate within higher technical education (which is classified as medium cost). The disadvantage of this indicator is that institutions may artificially increase pass rates of the exams to receive more funding. The model requires a strong quality assurance mechanism, professional standards among university staff, and/or other funding incentives. In France, funding is based on the number of students enrolled and 50% of the total budget for tertiary education is invested via formula-based funding. The advantage of the French model is that it is easy to track spending and funding allocation information. The funding criterion is also easy to understand for everyone. On the other hand, the disadvantage for this indicator is the weak incentives for universities to provide quality education and ensure efficiency by avoiding drop outs during the school year and delays in student completion.

Source: Planning Commission, NUEPA, World Bank, 2011, p. 32

Given that the current amounts of public money is a minority of funding for institutions, and that the amounts given to each institution are relatively small, this suggests that the process for allocating grants should be simple and transparent. It is desirable to move away from the more traditional negotiations of budgets between governments and public institutions and toward funding formulas that aim to insulate allocation decisions from excessive political pressures and encourage positive institutional behaviours. Different funding formulas have different effects on access, equity and quality. A funding formula could be input-based (staff members or enrolment), based on cost per student (actual, average or normative), priority-based and performance based (Salmi & Hauptman, 2006).

Under **funding formulas** based on normative costs per student efficiency measures like optimal staff/student ratios are used to calculate what costs per student ought to be, rather than what they are on an actual or average basis. Thus, formulas using normative costs have the potential for improving efficiency by tying how much institutions will be paid for their expenses to a more efficiency-based standard. This requires the collection of accurate data on what the actual and true costs are. Cost figures could be pegged at institutional benchmarks, and there could be variations based on levels and courses of study (Box 8).

Under **priority based funding** the fields of study designated as being of greatest relevance tend to receive the highest level of funds. For example if MP seeks a workforce trained in software development (or another area identified by policy makers where MP lags) the department of higher education may pay a higher 'price' per seat in the priority subject as compared to what is paid per seat in the other subjects. It also covers mechanisms where some institutions are given preference. For example, in order to promote women education, MP government might pay a premium over and above actual costs per student to those institutions for each female student enrolled.

Performance based direct transfer of funds to institutions involves funding based on institutional performance measures. It represents one of the more recent and growing innovations in tertiary education allocation mechanisms. The advantage here is that performance indicators that reflect public policy objectives, rather than simply the individual needs of institutions, form the basis of funding. They typically include incentives for institutional improvement. Performance indicators could be student-based (e.g. exam scores of students) or institution-based (e.g. completion rates). Usually, performance based funding mechanisms are used only to allocate a proportion of the available resources, and are therefore typically combined with other funding approaches (Boxes 9 and 10).

Changing the allocation mechanism for institutions is desirable and should be carried out in phases. Any effective policy decision needs to be based on concrete evidence, and the same is true of a funding formula. This suggests that the following phases might be used. **In Phase I, grants to institutions would be done on the basis of the numbers of students enrolled.** The State government would decide the total amount of money to allocate to higher education. The total amount of money available would be divided by the total number of students in institutions eligible to receive money

to yield a 'per student' amount. Each institution would then receive money equal to the per student amount multiplied by the number of students at the institution. Given that a key goal of public policy is to increase the number of students accessing higher education, this approach would promote this goal. There is a danger that institutions might enroll students simply to receive more money, perhaps by weakening their entry standards and without any intention of ensuring they are able to complete a course of higher education. This danger could be overcome by taking the student numbers from

Box 9 Types of performance-based allocation mechanisms

1. Performance contracts - governments enter into regulatory agreements with institutions to set mutual performance-based objectives.
2. Performance set asides - a portion of public funding for tertiary education is set aside to pay on the basis of various performance measures.
3. Competitive funds, which support peer-reviewed proposals designed to achieve institutional improvement or national policy objectives. This is seen in the way a part of UGC funds reach some institutions/colleges/universities in India. There are various schemes of the UGC which are based on national objectives of equity, access and quality in higher education. Institutions fulfilling the eligibility criteria of a scheme send proposals to the UGC. After a careful review of the proposals selected institutions get the funds. International experience with competitive funds has shown the need to consider three operational questions when designing a new fund: (i) How to create a level playing field in diversified systems with strong and weak tertiary education institutions? (ii) Should private institutions be eligible? (iii) Is it desirable to closely link access to funding with accreditation or similar quality assurance requirements?
4. Payments for results - output or outcome measures are used to determine all or a portion of the funds that institutions receive either through a formula or as a separate set of payments.

Source: Salmi & Hauptman, 2006.

Box 10 Performance-based funding: Example from the USA

One example is the state of Colorado, USA, operates performance-based contracts with public universities. Institutions are rewarded as and when they meet the negotiated standards. All the performance indicators are aligned with state goals and university goals to make sure that the implementation of performance-based funding will eventually achieve the government's goals. The first goal was increasing access, one indicator out of four measured access and completion of students from minority groups of the population. The second goal was quality and success, of which one result was high level of student achievement on national Standardized Tests. The third goal was efficiency, of which for instance committed the university to annual increase external revenue from licensing and commercialization by 5 percent. The fourth and final goal was addressing the State's needs, which, inter alia, rewarded the universities for expanding education programs in specific careers agreed to strategic for the State's economic and social development.

Source: Planning Commission, NUEPA, World Bank, 2011, p. 33

a previous year. Note that the number of enrolled students **is** key; it is not enough that an institution has a certain number of approved places, it must actual be enrolling students in those courses.

It would be important also, in this first phase, to link funding directly to some key building blocks of the new governance system. For example, funding would only be released when an institution has completed a data return for its institution (using, for example, the AISHE survey) and/or some other management information system. This first phase could be implemented immediately. Not only would this be a more transparent process but it would enable allocations to be made more quickly.³³

In Phase II, the actual cost of providing certain courses would be calculated and the government would move increasingly to meet a higher and higher proportion of these actual costs per student. It would also be important at this stage to have an effective system for recording how money was spent, so that the identification of course costs can **be tracked** reliably. Differentiation could be made between different types of courses which have different cost structures – clearly arts and humanities courses cost less than laboratory science courses. However, simplicity would suggest that only a small number of distinctions between groups of courses (perhaps two to four) should be made.

Also, this Phase would give the opportunity to link funding to other aspects of the governance agenda. For example, an institution could get a

33. It would likely also be necessary to ensure that an individual institution's allocation does not change too dramatically from year to year, especially down; as this can be difficult to cope with in the short run. This buffering transition period might last two or three **but no longer** years.

higher ('weighted') per pupil amount if it obtained autonomous status, a certain proportion of its courses were accredited, and it had carried out certain institutional reforms to do with decision making and financial decentralization, with appropriate accountability. Funding could also increase for those affiliating universities **which** enable some number of colleges to obtain autonomy; this would prompt governance reform and improve quality, while also offsetting the loss of revenue from the affiliating college and its students.

In Phase III, increased amounts of funding could be targeted to good performers. The measures of performance would be directly related to key policy outcomes; for example, retention and graduation rates (overall and for specified sub-populations). Attention should be paid here to improved performance as well as the actual level of performance – to encourage all institutions to strive towards the State's policy goals.

CONCLUSION

Funding is a key instrument of government policy; as a mechanism for promoting government goals. This chapter has outlined some ways in which shifts in funding mechanisms and approaches could help the state address the issues in equity and governance that have been identified in previous chapters.

A phased approach to change is important. These shifts in funding approaches will also require open consultation with the sector. This will have multiple benefits: it will enable the exact mechanisms to be tested and refined as necessary, it will alert the sector to the forthcoming changes, and it will generate a stronger consensus and therefore positive response.

Consultations

CHAPTER 4

As a part of the process of understanding the MP Higher Education system, the Department of Higher Education and the World Bank conducted four conclaves in Indore, Rewa, Jabalpur and Gwalior in **July and August** 2012. These consultations were held with an aim of getting regional perspectives on the problems faced in the higher education system and to engage in discussions regarding possible solutions.

The conclaves were held with the help of four local State Universities; Devi Ahilya Vishwa Vidyalaya in Indore, Awadhesh Pratap Singh University in Rewa, Rani Durgavati University in Jabalpur and Jiwaji University in Gwalior. Each of the conclaves were attended by about 60-100 people, the delegates consisted of a mix of college principals from the cities and remote areas under the University, University administration, college professors, representatives of private colleges, constituent colleges, private universities and executive councils. In addition, representatives of the state government participated in each conclave.

For discussions a similar format was followed in all the conclaves; the delegates were first oriented with the context of the conclave and then **one session each was dedicated to discussing the broad areas of governance, equity & access and finance.** For each session, two or three brief presentations were made to prompt the discussions: these presentations were made by the World Bank team and one or two local experts. The main sessions were followed by an interaction with students (chosen by the concerned University) to understand their perspective as the prime beneficiaries of the education system.

An innovative feature was to ask participants to identify good practice in higher education in Madhya Pradesh. While a reform process necessarily implies change, that process must engage the sector as it is. And those aspects of the system which are working well should be built upon by the reform process. The experience of the consultation events was that the exercise to identify good practice proved the most difficult part of the events – participants have significant experience with pointing out problems; much less so with identifying solutions.

The broad themes that came out of the discussion included the strongly felt need for reforms in internal and sectoral governance and greater autonomy for Universities and colleges; the urgent need to fulfill vacant faculty positions, improvement of the affiliation system, changes in the criteria for allotment of block grants and improvement of quality of colleges in remote areas.

The detailed discussions and suggestions made during the four conclaves are summarized below. These points were raised by different participants and this summary should not be taken to represent a consensus of all the participants.

BEST PRACTICES

- Increasing use of technology is seen as a positive step – online registration and admission has helped many students.
- Introduction of semester system is a positive change.

- Academic autonomy, wherever it is granted helps in bringing innovation.
- Credit based system that allows choosing different subjects and transferring between Universities.
- Evaluation system for UTD students is based on what is followed in the IITs i.e grading system. Transparency in evaluation.
- Existence of the Coordination Committee.
- Existence of the State University Services.
- Rules and modalities need to be established for Constituent Colleges on the same lines as Central Universities.
- There is a lack of coordination between the various authorities like the State government, UGC, NAAC, NBA, AICTE, coordination between colleges and Universities and coordination between departments. This system needs to be strengthened to avoid free flow of information and quick decision making.

GOVERNANCE

Governance – Sectoral and Internal

- A single regulatory body be established which act as a buffer between the State and the Universities. This body should function as a think tank and not just another regulatory body. An opposing view regarding a buffer body was that it will only burden the system with another super-structure and add to bureaucracy.
- The role of the Governor needs to be limited.
- A more transparent system for appointment of University administrators like Vice Chancellors, registrar etc. In the current system conflicts occur between state-appointed and governor-appointed officers. The appointees must have a strong background in teaching and high academic credibility.
- Formal and Informal political interference needs to be limited.
- Academic and Executive Councils should be made of people of academic background and not political motives.
- Role of *Jan-bhagidari* representatives be limited from influencing or making the decisions to just advising – involving political affiliated persons in College system creates disturbances.
- Strengthening decision making structure (collegiums) in colleges.
- A 5-10 year plan State Higher Education Plan must be formulated.
- Sanctioned teaching & non-teaching positions be filled with immediate effect. In addition, a revision is required for the salary norms for visiting faculty. The use of visiting faculty is very widespread (with many colleges functioning on 100% guest faculty). Very often the visiting faculty is not adequately experienced or qualified and lacks the motivation to teach beyond the number of hours they are employed for. This severely impacts the quality of teaching.
- Examinations should be conducted by colleges and invigilation, evaluation be made a part of teaching duties.
- Academic audit required at a departmental level, college level, the benchmarks defined by UGC must be used.
- Capacity building for department Chairs, non-academic staff and administrators.
- Direct principals must be recruited as in other states. A different pool/cadre be created for principals to maintain quality.
- No specific process of appointing lower level staff, thus bad quality of resources. State level – dedicated Service Cadre for University staff.
- Before announcing changes in the system (like online admission), the State must build adequate infrastructure, especially in rural areas.

Quality

- Device a system for in-donation within colleges, some grant or innovation fund should be given to promote research.
- Colleges (something like lead colleges, in every district) be developed for research in specific areas, akin to centers of excellence.
- Control student activism and politics on campuses as it interferes with administration and teaching.
- Establish a central vigilance body like a Governance Cell in Universities so that investigations and grievance redressal can take place within the system.
- Incentivize research by giving additional scholarships and fellowships to students, make it a financially viable option – Promote culture of research.
- More autonomy in matters of small financial impact such as buying books, small equipment etc.
- Defining detailed job profiles of University Administration, especially for Registrar, Rector, Deputy VC etc to help in delegation of powers and establishing accountability.
- Alternate governance model: Different pro VCs for administration, academic affairs and finance.
- Rules for spending money of the budget be relaxed so that at least time-bound projects can be finished.
- Multiple actors controlling the HE system like the UGC, state government, universities, municipal corporations etc. There is a need to reduce the approvals and permissions required from multiple authorities.

Affiliation system

- Limit number of affiliated colleges, not more than 100 colleges under affiliation for any University.
- Cluster Universities model can be explored-existing Lead colleges be used for their establishment.
- Establish a separate administrative structure to deal with affiliations, including a dedicated faculty for inspections.
- New colleges be given to new universities, established universities should not dilute their quality by more affiliations.
- Stricter systems and rules for granting and continuing affiliations.
- Conditional affiliation should not be given more than twice, after two attempts they must be disaffiliated.

Autonomy and decentralization

- Strong need for giving Universities and colleges autonomy, delegation of powers and setting accountability for quick decision making.
- Universities should be free to design and offer new self-financing courses and freely appoint faculty members.

Cohort Cluster Model of Governance should be adopted within colleges

- Centralization and hierarchical decision need to be simplified.
- Under this system, Dean and faculty member cohorts administer and make decisions on day-to-day matters.
- Issued related to coordination with state government, colleges, affiliation etc are dealt with by the University administration.
- Financial, academic audits take place for all cohorts.

EQUITY AND ACCESS

Improving Access

- Expand number of institutions and number of courses covered by current institutions.
- Rural college empowerment mission must be undertaken Colleges of MP must focus on tribal and backward regions. Instead of improving the already strong institutions, build capacities in the weakest of institutions.

- Open “satellite campuses” of Universities to reach remote areas, use all modes of teaching in addition to the classroom teaching option to increase rural access.
- Incentivize teachers to teach in rural areas, provide basic facilities in rural areas like hostels, living quarters, power etc. Lead colleges can be developed as regional centers and eventually upgrade to Universities to give better quality education in remote areas.

Use of technology to improve access

- State Knowledge Network be established online.
- Intranet dedicated to HE, creation of e-content in Hindi.
- Use of ICT – NPTEL (MHRD) e-lectures, distance education etc.
- Soft copy of lectures should be recorded in CDs and distributed in institutions in remote areas.

Improving equity

- Different kinds of curriculum must be adopted for rural areas, urban areas and tribal areas.
- Offer more courses related to and promoting traditional livelihoods, appropriate subjects that help in improvement of their productivity at the existing livelihood instead of prompting urban immigration.
- In rural/tribal areas, give students flexibility to choose their courses under a credit-based system.
- Establish a Women’s University in MP.
- Build residential facilities for women students and for students in tribal areas, as safe and affordable accommodation is a major deterrent in their opting for higher education.
- Public-private partnership in vocational education be increased.
- Meta-college option can be explored.

FINANCE

Quantum of funds and their allocation

- Per capita expenditure made by the state on students coming from different universities is not uniform- e.g.: central universities are given a higher per capita expenditure on every student and thus, they get more funds. Grants for State Universities be the same as those for Central University.
- Quantum of money given by State must increase. Currently mostly student fee funds the institute.
- Spreading knowledge and awareness about various national and international funding agencies, specially for research.
- More budgets to existing Universities, make them centers of excellence instead of opening more Universities.
- There should be a separate budget for research and teaching.
- The Dept. of Higher Education, Govt. of M.P. has been paying the Govt. aided Teaching and non-Teaching staff of different colleges in Madhya Pradesh only 50% of the UGC designated salary of the Vth pay commission for the last ten years. The rest of the government staff is getting salary as per the recommendation of the VIth pay commission. The staff -whose salary has been reduced and then frozen - had been chosen as per government norms and as per government laid down selection procedures. (Davis George).

Financial control and disbursement mechanisms

- Absence of a systematic proposal for funds from the Universities.
- Granting approvals for utilizing funds needs to be simplified. Multiple approvals dependant on State government and local authorities like municipal corporation or public works department leads to delays in execution of projects and lapse of grants.

- Scholarships, linkage with student bank accounts for faster disbursement.
- Funds disbursement must be timely so that there is proper utilization of funds and they do not lapse.
- Greater access to hostel facilities for female students.
- Students are required to spend a lot of time in following up bureaucratic processes, form-filling etc; minimizing this through online systems, single window policy etc.

INTERACTIONS WITH STUDENTS

Students were consulted separately from other stakeholders and they had different views of the types of changes needed.

Student Support

- More need-based scholarships should be given out, especially to cater to students who are from economically backward classes but not covered under reservations (from General category).
- Faster disbursement of scholarships is needed.
- Stronger market linkages need to be built by Universities and colleges. Placement cells are either non-existent or not very active, linkages in terms of visiting faculties, internships, field visits etc should also be explored.
- More grants and fellowships required for research students, especially those involved in the basic sciences. Greater access to journals, research materials, instruments etc.
- For rural areas, more colleges are required. There are enough students who migrate to bigger towns for higher education, proof enough of existence of demand for Higher Education in such areas.

Quality of education

- Massive infrastructures up-gradation is needed in terms of internet connectivity, hostels, equipment etc.
- Improvement in faculty quality through teacher training, filling vacant faculty positions.
- Excessive dependence on guest faculty should be avoided. Guest faculty cannot give enough time to solve student queries and often are of poor quality.
- Syllabus should be improved and can be made more rigorous and more relevant to the market requirements. The syllabus should also aim at building key skills that will help in employability instead of focusing on theoretical learning.
- Political interference of youth groups disrupts the smooth functioning of the institution.
- There are delays in declaration of results and in conduction of exams. Many degrees that are supposed to get completed in two years can take up to three years, this not only affects the employability of the students but also creates a huge strain for the students from weak financial background.

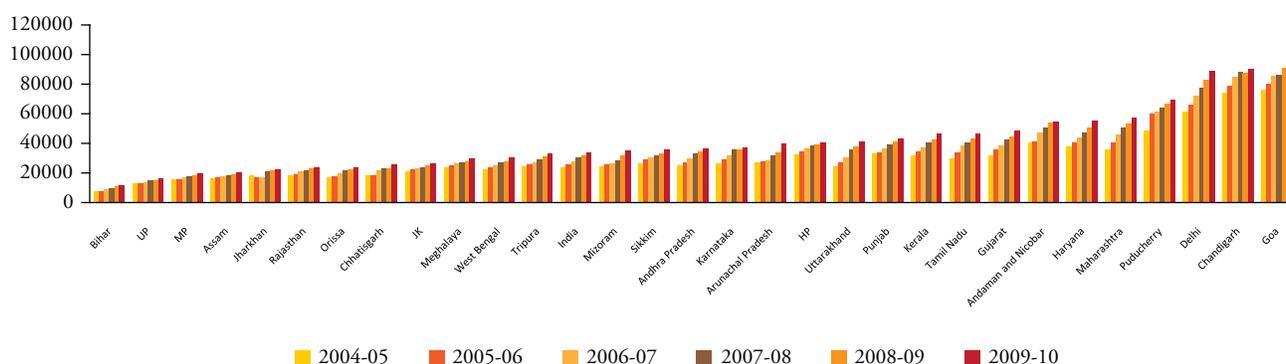
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Annexure: Additional Tables

STATE-WISE PER CAPITA NET STATE DOMESTIC PRODUCT AT FACTOR COST

Per Capita Net State Domestic Product at Factor Cost of states/UTs



EXPENDITURE BY THE DIRECTORATE OF HIGHER EDUCATION UNDER VARIOUS HEADS/SCHEMES

Scheme Code	Name of Scheme	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12 (RE)	2012-13 (BE)
89	Academic Staff College	0.02	0	0	0	0	0	0	0	0
250	Grant to Kasturba Village Rural Institute	0.32	0.29	0.32	0.41	0.31	0.4	0.5	0.6	0.6
298	Awdhesh Pratap Singh University, Rewa	3.02	3.16	3.21	3.21	2.88	2.996	3.46	3.46	3.46
798	Art, Science and Commerce Colleges	201.02	200.52	212.94	235.32	283.74	330.05	481.59	725.49	778.52
1437	Jabalpur University	6.47	7.7	6.88	6.88	6.19	6.42	9.02	9.02	9.02
1561	Indore University	6.54	7.82	6.95	6.95	6.25	6.49	6.95	6.95	6.95
1562	Jiwaji University, Gwalior	3.03	3.62	3.22	3.22	2.89	3.71	4.18	4.18	4.18
1563	Prashikshan College Sagar, Sagar University	0.32	0.3	0.34	0.34	0.3	0	0	0	0
1564	Grant to Madhav College, Ujjain (Vikram University)	3.54	4.13	0	0	0	0	0	0	0
1565	Chitrakoot Gramodaya University	2	2.95	3.5	6.71	3.15	3.27	3.5	3.5	3.5
2194	Natnaagar Research Organization, Seetamau	0.1	0.22	0.31	0.39	0.4	0.54	0.75	0.83	1.14

Scheme Code	Name of Scheme	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12 (RE)	2012-13 (BE)
2304	Direction and Administration	0	0	0	0	0	0	0	0.1	0.5
3178	Bhopal University	3.67	4.08	3.9	3.9	3.51	3.64	3.9	3.9	3.9
3357	Grant to Madhya Pradesh Hindi Granth Academy	0.28	1.51	0.31	0.62	0.27	0.32	0.34	0.4	0.4
3443	Directorate of Higher Education	3.93	3.85	4.17	4.56	5.29	6.57	8.55	12.58	14.38
3444	Maintenance Grant to Colleges	18.01	18.72	16.84	19.02	27.58	26.97	27.55	37	37
3446	Sports Promotion in Colleges	0.09	0.12	0.08	0.16	0.22	0.21	0.36	1.03	0.85
3753	National Service Scheme	2.21	2.08	2.58	3.63	2.98	3.91	5.1	5.6	5.6
3939	Vikram University, Ujjain	6.59	7.7	7	7	6.3	6.53	10.86	10.86	10.86
4120	UGC Development Grant to Colleges	0.05	0.19	0.08	0.2	0.18	0	0.05	0	0
4401	Government Colleges	3.21	6.73	4.69	5.14	6.09	0	0	0	0
4460	Sagar University	12.33	15.32	13.1	13.1	11.79	0	0	0	0
4699	Free Books and Stationery for Students	1.13	1.3	1.06	2.13	7.98	2.43	1.99	3.25	3
4934	Bhoj Open University	0.3	0.3	0.32	0.37	0.26	0.15	0.15	0.15	0.15
5086	Construction of College Buildings	0.98	2	0.27	2.18	3	4.85	17.14	8	8.95
5170	E-library in Sagar	0	0	0	2.5	0	0	0	0	0
5407	Scholarships for Professional Education given to Children of Landless Agricultural Laborers	0	0	0	0	0	0	0	0	0
5449	Loan for Private Colleges Pension Scheme	0	0	0	4	4	4	4	4	4
5476	Pratibha Kiran	0	0	0	0.1	0.3	0.46	0.92	1.5	1.5
5490	Private university establishment and management regulation	0	0	0	0	0	0	0.34	0.8	0.79
5547	Development grant to University	0	0	0	0	0.06	0.07	0.01	0.06	0
5550	Establishment of Libraries	0	0	0	0	5.37	0.5	0.24	0.75	2
5551	Using Modern Technology for Training	0	0	0	0	1.13	0.44	0.37	1.05	1.25
5552	Development of Ideal Colleges in Backward Districts	0	0	0	0	0.22	0.68	3.71	0.1	0
5553	National and International Research Scholarships	0	0	0	0	0	0	0	0.12	0.75
5622	University Pension Scheme	0	0	0	6	8	10.16	2	0	0
5627	Scholarships to Poor Students	0	0	0	0	0	0	0	0.15	0.1
5650	Founding first-class college comparable to Premium National Institutes	0	0	0	0	15	0.12	2.35	0.5	0.5
5674	Vikramaditya Free education scheme for the poor	0	0	0	0	0.27	0.28	0.27	0.75	0.65
5713	Transportation facility for Female Students	0	0	0	0	0	0.05	0.06	0.3	2
5715	Modernization of labs	0	0	0	0	0	0.16	0.23	0.5	1.3
5716	Construction of buildings for Govt. Colleges	0	0	0	0	6.99	0	0	0	0
5760	Transportation facility to Female Students	0	0	0	0	0	0.09	0.19	0.45	0.45
5763	Scholarships to Poor Students	0	0	0	0	0	0.014	0.06	0.05	0.05

Scheme Code	Name of Scheme	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12 (RE)	2012-13 (BE)
5764	Awarding Research Scholarships to Handicap Students	0	0	0	0	0	0.6	0	0.1	0.1
5765	Up-gradation of Labs	0	0	0	0	0	0.51	0.32	1	2.7
5766	Awards given to meritorious students	0	0	0	0	0	0	0	0.1	0.25
5767	Awards given to meritorious professors	0	0	0	0	0	0	0	0.05	0.25
5787	Construction of Staff-room	0	0	0	0	0	2.04	0.24	0.1	1
5870	College of Excellence, Bhopal	0.85	1.02	1.02	1.03	0.69	0.18	0.2	0.8	0.8
5889	Construction of Government College buildings	0	0	0	0	0	20	0	0	0
5890	Establishment of a new university	0	0	0	0	0	0.8	0	0	0
6061	Development of Sports in government colleges	0.01	0.01	0	0.09	0.09	0.13	0.07	0.16	0.2
6064	Arts College	0.13	0.16	0.13	0.15	0.12	0.13	0.05	0.25	0.15
6066	Sanskrit College	1.96	2.24	2.6	2.7	3.3	4.24	5.66	7.8	9.65
6118	Construction of staff-room	0	0	0	0	4.09	0	0.71	0.15	0
6210	Grant to Yoga Propagation Committee	0	0.05	0.05	0.05	0.04	0.06	0.05	0.06	0.06
6283	UGC funds for payment of arrears	0	0	0	0	0	0	0	0.01	1
6371	Founding SrijanPeeth	0.06	0	0	0	0	0	0	0	0
6385	Grant to MP Bhoj University, Bhopal	0.68	0.76	0.74	0.5	0.45	0.09	0	0	0
6411	Establishment of a new university	0	0	0	0	0	0	0	0	0.01
6915	Swami Vivekanand career guidance scheme	0	0	0.12	0.1	0.28	0.25	0.34	0.6	0.5
6916	Gaon Ki Beti Scheme (Daughter of the Village)	0	1.19	2.65	6.74	9.99	11.77	15.25	23.5	31
6938	Grant to establish Hindi University	0	0	0	0	0	0	0	0.51	1
6990	Students Welfare Fund	0	0	0.06	0.1	0.08	0.11	0.11	0.16	0.2
7043	Grants to Public Participation Committees for filling vacant positions (Honorary Basis)	5.5	6.16	5.02	6.92	9.01	14.62	13.57	16	17
7052	8 Government colleges developed into first class institutes of Higher Education	0.87	2	0.24	0.33	0.07	0.116	0.05	0.5	0.8
7134	Grant to establish a new college	0	0	0	0	0	0	0	0	0.25
7135	New faculty/departments establishment – grants	0	0	0	0	0	0	0	0	0.25
7173	Transportation facility to Female Students	0	0	0	0	0	0	0	0	5.55
7174	Chhatrasat University (Founding)	0	0	0	0	0	0	0	0	0.12
7319	Maharishi Panini Sanskrit University, Ujjain	0	0	0	5	0.3	0.3	0.35	0.5	0.8
7643	Construction of Government College Buildings	3.19	5.89	13.48	15.05	17.37	9.8	39.27	13	24.55
7851	Professional training of the Youth	0	0.01	0.01	0.01	0.5	0.3	0.19	0.5	0.25
7981	Lalitkala Academy	0.27	0.52	0.55	0.27	0	0	0	0	0
7982	Music College	0.49	1.25	1.55	0.71	0	0	0	0	0

Scheme Code	Name of Scheme	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12 (RE)	2012-13 (BE)
8236	Financial help to Madhya Pradesh Social Science Research Foundation	0.25	0.48	0.28	0.28	0.25	0.26	0.3	0.3	0.32
8518	National Institute of Technology, Bhopal	11.07	4.85	2.48	7.2	0.33	0	0.04	0.02	1.77
8793	Electronic Library	0	2.7	0	0	0	0	0	0	0
8808	Information and technology work	0	0.05	0.02	0.1	0.04	0.06	0.1	1.23	1.44
8855	Support to PhD Students	0.17	0.26	0.38	0.4	0.45	0.56	0.75	0.85	1
9013	Sanskrit Scholarships	0	0.01	0.01	0.01	0	0.01	0	0.02	0.02
9016	National Scholarship	0.01	0	0.47	0.39	0	0.01	0	0	0
9380	Autonomous colleges	0	0.01	0.01	0.02	0.26	0.3	0.22	1.07	2
9805	Free Books and Stationery for ST Students	0.6	0.76	0.6	0.95	1.18	1.6	0.96	2.25	2.25
	Total (Rs. Cr.)	305.27	324.99	324.54	387.14	471.79	495.326	679.49	919.57	1015.54
	Total USD Million	61.054	64.998	64.908	77.428	94.358	99.0652	135.898	183.914	203.108

Source: Dept. of finance, MP.

The figures here are sums of expenditures under Non-plan, Plan, Tribal Area Sub-plan and SC component plan given in the data from Dept. of HE. Also data for 2009-10 has been entered again from the data given by Dept of HE.

UNIVERSITY GRANTS COMMISSION CENTRAL REGIONAL OFFICE, BHOPAL [M.P.]										
Report Showing Year wise Grant Released & No. of Colleges assisted during 2007-08 to 2010-11										
State: Madhya Pradesh									(Amount in Rs.)	
Sl. No.		Name of the Scheme	2007-08		2008-09		2009-10		2010-11	
			No. of Colleges assisted	Amount Released						
A	Infrastructure	General Development State College	292	74860113.00	298	153223710.00	234	221873797.00	1	1504532.00
B	Grant for 15 Schemes merged under Development Grant as mentioned below:									
1	Infrastructure	Improvement of facilities in existing premises	0	0.00	0	0.00	191	17837500.00	1	100000.00
2	Infrastructure	Rejuvenation of Infrastructure in old colleges	0	0.00	0	0.00	14	7300000.00		0.00
3	Infrastructure	Catch up Grants to Young Colleges	6	398870.00	2	310000.00	9	5900000.00		0.00
4	Equity and Access	Colleges located in Rural/Remote/Border /Hill/Tribal Areas	0	0.00	0	0.00	29	22350000.00		0.00
5	Equity and Access	Colleges with relatively higher proportion of SC/ST/Minorities	0	0.00	0	0.00	91	42400000.00	1	500000.00

UNIVERSITY GRANTS COMMISSION
CENTRAL REGIONAL OFFICE, BHOPAL [M.P.]

Report Showing Year wise Grant Released & No. of Colleges assisted during 2007-08 to 2010-11

State: Madhya Pradesh									(Amount in Rs.)	
Sl. No.		Name of the Scheme	2007-08		2008-09		2009-10		2010-11	
			No. of Colleges assisted	Amount Released						
6	Others	Special Grant for enhancement of initiative for capacity building in colleges	0	0.00	0	0.00	161	86262500.00		0.00
7	Infrastructure	Establishment of Day Care Centre in colleges	0	0.00	0	0.00	20	3600000.00	1	200000.00
8	Equity and Access	Colleges in Backward Areas	4	310000.00	6	612231.00	110	76045982.00		0.00
9	Infrastructure	Establishment of UGC Network Resource Centre	2	65000.00	0	0.00	177	40064400.00	1	257400.00
10	Equity and Access	Equal Opportunity Centre in Colleges			0	0.00	53	3070000.00		0.00
11	Equity and Access	Remedial Coaching of SC/ST/OBC and Minorities	55	34900000.00	110	53084602.00	11	3581154.00		0.00
12	Equity and Access	Coaching for NET for SC/ST/OBC and Minorities	2	1734000.00	3	207999.00	0	0.00		0.00
13	Equity and Access	Coaching classes for entry in services for SC/ST /OBC and Minorities	11	1628000.00	1	268800.00	0	0.00		0.00
14	Equity and Access	Higher Education for persons with special needs (HEPSN)	4	48000.00	4	250432.00	34	19974600.00	1	669600.00
15	Equity and Access	Career and Counselling Cell	0	0.00	0	0.00	162	46460000.00	1	300000.00
16	Infrastructure	Sports facilities in Colleges	3	46338.00	0	0.00	0	0.00		0.00
C	Equity and Access	Women's Hostel	35	86755750.00	45	110887213.00	53	129285700.00		0.00
D	Quality and excellence	Autonomous Colleges	16	13514678.00	17	34472061.00	13	23992763.00		0.00
E	Strengthening research	Minor Research Project- Sc & Social Sc.	126	8238244.00	138	17104138.00	112	13425880.00		0.00
F	Strengthening research	Workshops, Seminar & Conferences	172	6373890.00	59	8212640.00	66	6290846.00		0.00
G	Quality and excellence	Faculty Improvement Programme	20	442994.00	18	1735171.00	10	1149015.00		0.00
H	Others	Committed liabilities of Xth Plan	0	0.00	0	0.00	0	0.00		0.00
				229315877.00		380368997.00		770864137.00		3531532.00

Source: Dept. of finance, MP.

EXPENDITURE BY THE DIRECTORATE OF TECHNICAL EDUCATION UNDER VARIOUS HEADS/SCHEMES

BCO Codes	Scheme Code	Head of Expenditure Rs. Cr.	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12 (RE)	2012-13 (BE)
4203	436	Special Coaching classes for students	0.1	0.07	0.09	0.1	0.21		0.09	0.15	0.7
4203	437	SC/ST grants for stationery and drawing	0.23	0.19	0.21	0.45	0.58		0.37	0.4	1.5
4203	503	Engineering college	10.67	10.09	9.55	9.46	11.46		18.93	28.78	29.48
4203	1853	Drawing material given	0.43	0.55	0.53	0.5	0.6		0.59	1.25	1.4
4203	1869	Directorate of Technical Education	1.68	1.49	1.71	2.24	3.23		4.77	6.81	8.09
4203	1870	Training of trainers of technical institutes	0	0	0	0	0		0	0.01	0
4203	2667	Polytechnics	35.18	33.65	33.98	39.77	58.32		129.58	127.09	101.68
4203	2796	Pre-vocational training centre	0.3	0.28	0.22	0	0		0	0	0
4203	2993	Establishment of Book-bank	0.15	0.11	0.07	0.43	0.36		0.15	0.65	1.5
4203	3500	Intermediate Craft/Industry/Architecture School	0.18	0.12	0.08	0.02	0		0	0	0
4203	3621	Youth Vocational Centre	0.49	0.39	0.28	0	0		0	0	0
4203	4068	Special Coaching Scheme	0.63	0.65	0.68	0.76	0.81		0.8	2	1.4
4203	4945	Construction for Technical Education	3.21	3.72	3.94	4.1	5.54		0.93	0.65	1.2
4203	5175	Maintenance of buildings	0	0	0	0.35	0.57		0.54	0.6	0.7
4203	5423	World Bank - TEQIP - State program	0.33	0.28	0.22	0.19	0.18		0.19	1	0.88
4203	5424	World Bank - TEQIP - Engineering colleges - Loans	2.97	5.46	0.59	0	0		0	0	0
4203	5425	World Bank - TEQIP - Polytechnics - Loans	0.43	0.52	0	0	0		0	0	0
4203	5627	Scholarships and endowments to poor students	0	0	0	0	0.42		0.11	0.15	0.4
4203	5674	Vikramaditya free education scheme for the poor	0	0	0	0	0		1.34	1.5	2
4203	5700	Establishment of NIFT	0	0	0	0	1.04		10	1	0.01
4203	5885	Establishment of IIT Indore	0	0	0	0	0		0	0	0.01
4203	6060	New faculties/subjects commenced in polytechnics	0	0	0	0	0		0	0.5	0.5
4203	6215	Capital Expenditure on Education, Arts and Culture	0.7	3.15	5.45	0.91	0.42		4	1	1
4203	6219	Fee concession to children of green card holders	0	0	0	0	0		2	1.02	0
4203	6285	Grants from AICTE for payment of arrears	0	0	0	0	0		0	0	0
4203	6608	Grant to Rustamji Technical Institute BSF Academy	0	0	0	0	0		0	0.5	0
4203	6723	Construction of an Integrated complex for the Directorate of TE	0	0	0	0	0		0	0	0.25
4203	6724	Establishment of Polytechnics under PPP mode	0	0	0	0	0		0	0	0.02
4203	6786	Establishment of a committee for determining fee	0.12	0	0	0	0		0	0	0

BCO Codes	Scheme Code	Head of Expenditure Rs. Cr.	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12 (RE)	2012-13 (BE)
4203	7180	Encouragement for outstanding work in Technical Education	0	0	0	0	0		0	0	0.02
4203	7562	Establishment of centres of excellence	0	0	0	0	0		0	0	0.2
4203	7869	World Bank - TEQIP - Polytechnics - Grants	0.18	0.22	1.35	0.85	0.27		0	0	0
4203	7870	World Bank - TEQIP - Engg. colleges - Grants	1.27	2.39	14.45	7.9	0.4		0	2.7	12.48
4203	8076	Technical and industrial institutes outside MP	0	0	0	0	0		0	0.01	0.01
4203	8274	Up gradation of polytechnics under the Indo-German Project	0.62	1	0.75	0.25	0.75		0.75	0.4	0
4203	8354	Indian Institute of IT and Management, Gwalior - Grant	0.5	0.75	1	1	1		0.26	0	0
4203	8796	Training Program	0	0	0	0	0		0	0.05	0.12
4203	8808	IT related work	0	0	0.01	0.31	0.05		0.13	0.4	0.5
4203	8884	Rajiv Gandhi Industrial University - Grants	2.52	4.04	1.65	1.57	1.75		0.45	0.45	0.45
4203	8885	Autonomous Technical Institutes - Grants	2.94	2.75	3.16	5.38	7.43		17.45	27.9	33.43
4203	9143	Non-governmental Technical Colleges and Institutes - Grants	17.59	11.83	11.07	10.93	10.93		11.09	13.12	12.15
4203	9152	Scheme for SC/ST	0.03	0.01	0	0	0		0	0	0
4203	9236	Eklavya Polytechnic Institutes	0	0	0.32	7.05	5.14		4.35	3.95	7.75
4203	9237	Technical Education Encouragement scheme for SC/ST	0	0	0.02	0.34	0.46		0.46	0.4	0.55
4203	9238	B S Ambedkar Polytechnic Institutes	0	0	0.44	7.42	7.42		8.29	9	6.7
4203	9978	Construction of buildings	0.33	0.09	1.18	0.27	0.45		0.46	0.5	1.7
		Total	83.78	83.8	93	102.55	119.79		218.08	233.94	228.78
		Total USD Million	16.756	16.76	18.6	20.51	23.958		43.616	46.788	45.756

Source: Dept. of finance, MP.

Scholarship Schemes in Madhya Pradesh	
Name of the Scheme	Description
State and Centrally Sponsored Schemes	
<i>Gaon Ki Beti</i> Scheme	Girls in rural areas who got first division in higher secondary and are enrolled in government colleges are paid Rs. 5000/- according to merit. The amount per beneficiary is Rs. 7500/- p.a. for girls studying in engineering and medical colleges. (Others and OBC + SC + ST).
<i>PratibhaKiran</i> Scheme	Girls, from households living below poverty line, in urban areas who got first division in higher secondary and are enrolled in government/aided colleges are paid Rs. 5000/- according to merit.
<i>Vikramaditya</i> Scheme	Tuition fee waiver for girls coming from households with annual income less than Rs. 42000, belonging to General category, who got first division in Higher Secondary and are enrolled in govt./aided colleges.
Military Scholarships	Pre-determined number of MP students studying in Military college, Dehradun are paid money.
Integrated Scholarships	Awarded according to merit to both boys and girls.
Support to PhD Students (SC/ST)	Rs. 8000 per month paid, for both boys and girls of SC and ST categories.
Scholarships for Professional Education given to Children of Landless Agricultural Laborers	
Sanskrit Scholrships	Quota 200 scholarships.
Transportation facility for female students	Rs. 5 per day paid to girls studying in government colleges and living at a distance of at least 5 km from the college. Money is paid for 200 days.
Free Books and Stationery for ST Students	1. Free books worth Rs. 600 per annum per UG Student 2. Free books worth Rs. 800 per annum per PG student 3. Stationery worth Rs. 50 per student p.a.
Free Books and Stationery for SC Students	1. Free books worth Rs. 600 per annum per UG Student 2. Free books worth Rs. 800 per annum per PG student 3. Stationery worth Rs. 50 per student p.a.
Awards given to meritorious students	
Awards given to meritorious professors	
Awarding Research Scholarships to Handicap Students	

Name of the scheme	Total Expenditure and Number of Beneficiaries									
	2009-10			2010-11			2011-12			
	Total Expenditure (Rs. Lakhs)	Number of Beneficiaries	Average Benefit (Rs.)	Total Expenditure (Rs. Lakhs)	Number of Beneficiaries	Average Benefit (Rs.)	Total Expenditure (Rs. Lakhs)	Number of Beneficiaries	Average Benefit (Rs.)	Total Expenditure (Rs. Lakhs)
State and Centrally Sponsored Schemes										
Gaon Ki Beti Scheme	939.11 + 136.24 + 101.96	28141.00	4183	1263.15 + 152.4 + 121.75	32238	4769		33532		
Pratibha Kiran Scheme	46.34	2034	2278	92.50	2309	4006		2594		
Vikramaditya Scheme	27.88	1597	1746	27.15	2118	1282		2013		
Military Scholarships	1.2	10	12000	1.2	10	12000	1.2	10	12000	12000
Integrated Scholarships	10.92	131	8335	15.72	127	12377.95	2.19	142	1542.25	1542.25
Support to PhD Students (SC/ST)	45.56 + 10.56	59	95119	68.56 + 16.32	52	163230.8		38		
Scholarships for Professional Education given to Children of Landless Agricultural Laborers	0.00			0.00						
Sanskrit Scholarships	1.16			0.71						
Transportation facility for female students	9.18 + 3.46 + 1.53	1417*	1000*	19.66 + 4.03 + 2.44	2613*	1000*				
Free Books and Stationery for ST Students	160.99			114.94	30000	383.13				
Free Books and Stationery for SC Students	242.39			209.09	45000	464.64				
Awards given to meritorious students	0			0						
Awards given to meritorious professors	0			0						
Awarding Research Scholarships to Handicap Students	0.60			0.00						

SCHEMES AND SCHOLARSHIPS FROM OTHER DEPARTMENTS

(The links mentioned after the names of scholarships contain information on Target group, eligibility, amount of money awarded etc.)

Ministry of Social Justice and Empowerment <http://socialjustice.nic.in/>

Central sector scheme of 'Rajiv Gandhi national fellowship' for providing scholarships to scheduled caste students to pursue programmes in higher education such as MPhil and PhD (effective from 01-04-2010) <http://socialjustice.nic.in/Rajiv.php?pageid=1>

Central Sector Scholarship of Top Class Education for SC students (effective from 21st June, 2007) <http://socialjustice.nic.in/topclass.php>

Central Sector Scheme of National Overseas Scholarship for SC etc. candidates for Selection Year 2010-2011 (Plan) <http://socialjustice.nic.in/nos1011.php?pageid=2>

Post-matric scholarships for scheduled castes /scheduled tribes students <http://socialjustice.nic.in/postmatsch.php>

Scheme of post-matric scholarships to the other backward classes for studies in India <http://socialjustice.nic.in/postmatric.php>

Other Schemes

Central Sector Scheme of Free Coaching for SC and OBC Students <http://socialjustice.nic.in/freecoach.php>

Educational Development Programme for Scheduled Castes Girls (Zila Parishads) <http://socialjustice.nic.in/eduscd.php>

Autonomous bodies under the Ministry of social justice and empowerment (schemes/scholarships for promoting HE):

1. Dr. Ambedkar Foundation <http://ambedkarfoundation.nic.in/>
Dr. Ambedkar National Merit Scholarship Scheme for meritorious students, of Higher Secondary Examination belonging to Scheduled Caste <http://ambedkarfoundation.nic.in/html/nmshs.htm>
2. Babu Jagjivan Ram National Foundation
3. National Commission for Safai Karamcharis <http://ncsk.nic.in/index2.asp>
Centrally Sponsored Scheme of Pre Matric Scholarship for Children of those engaged in unclean Occupation (not for HE)
4. National Commission for Scheduled Castes (NCSC) <http://ncsc.nic.in/> (Scholarships are mentioned above)
5. National Safai Karamcharis Finance and Development Corporation (NSKFDC) http://nskfdc.nic.in/financing_programmes.html (read point 5 for education loans given on the website)
6. National Scheduled Castes Finance and Development Corporation (NSCFDC) http://www.nsfdc.nic.in/uniquepage.asp?ID_PK=42
It gives educational loans

Scholarships/Schemes for OBC Students under Ministry of Social Justice and empowerment:

Scheme of pre-matric scholarships to the other backward classes for studies in India <http://socialjustice.nic.in/pre-matric.php>

Scheme of post-matric scholarships to the other backward classes for studies in india <http://socialjustice.nic.in/postmatric.php>

Centrally sponsored scheme of construction of hostels for OBC boys and girls <http://socialjustice.nic.in/pdf/obchostel10.pdf>

2. Ministry of Tribal Affairs <http://tribal.nic.in/index.asp> schemes in short:

<http://tribal.nic.in/index2.asp?sublinkid=430&langid=1> <http://tribal.nic.in/index1.asp?linkid=331&langid=1> (Education)

Scheme of post-matric scholarships to the students belonging to scheduled tribes for studies in India <http://tribal.nic.in/writereaddata/mainlinkFile/File728.pdf>

Scheme of Up gradation of Merit for ST Students <http://tribal.nic.in/writereaddata/mainlinkFile/File729.pdf> (coaching to school students)

Centrally Sponsored Scheme of Hostels for ST boys and ST Girls <http://tribal.nic.in/index2.asp?sublinkid=642&langid=1>

Rajiv Gandhi National Fellowship for ST Students <http://tribal.nic.in/index2.asp?sublinkid=425&langid=1>

Central sector scholarship scheme of top class education for ST students <http://tribal.nic.in/writereaddata/mainlinkFile/File732.pdf>

Facilitate Vocational Training in tribal areas <http://tribal.nic.in/writereaddata/mainlinkFile/File1153.pdf>

Scheme of coaching for scheduled tribes <http://tribal.nic.in/writereaddata/mainlinkFile/File839.pdf>

The scheme of national overseas scholarships for schedule tribes candidates <http://tribal.nic.in/writereaddata/mainlinkFile/File736.pdf>

Schemes of Strengthening education among Scheduled Tribes Girls in a low literacy Districts – seems more to be for school going girls <http://tribal.nic.in/writereaddata/mainlinkFile/File844.pdf>

Sources: Authors' compilation from various web sources.

TEST PROGRAM KNOWLEDGE PLAN
SYSTEM TRANSLATION BOOKS INFORMATION
university CULTURE evidence
COGNITION WISDOM learning
PLAN Reform IDEA BASICS
LEARNING TEST
TRAINING INFORMATION TEST
TRANSLATION KNOWLEDGE
PROGRAM college EXPERIMENT TEACHING
SYSTEM THINK TRANSLATION
evidence PROGRAM learning PLAN
STUDY
INTELLIGENT BOOKS Reform
COLLEGE IDEA university TRAINING
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TEACH
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PLAN learning TEACHER PROGRAM
TEACHING UNIVERSITY COGNITION
college evidence
Reform INFORMATION PROGRAM



THE WORLD BANK