ELEMENTARY EDUCATION IN INDIA

Progress towards UEE

ELEMENTARY EDUCATION IN INDIA

Analytical Report

As a part of its efforts towards strengthening Educational Management Information System in India, NIEPA developed a computerized information system, namely District Information System for Education (DISE).

The Analytical Report presents comprehensive information on different aspects of Elementary Education in India on hundreds of variables for 2004-05 in case of 29 States & UTs of the country.

For this and other publications visit the DISE web site at :
http://www.dpepmis.org

The National Institute of Educational Planning and Administration is an apex institution in this field in South Asia. An autonomous organization registered under Societies Registration Act of 1860, it is fully funded and sponsored by the Government of India. With specialisations in policy, planning and management in education, NIEPA is the professional wing of the Government of India.

NATIONAL INSTITUTE OF EDUCATIONAL PLANNING AND ADMINISTRATION
17-B, Sri Aurobindo Marg, New Delhi-110016, India

and

DEPARTMENT OF ELEMENTARY EDUCATION AND LITERACY
Ministry of Human Resource Development, Government of India

सत्यमेव जयते

ELEMENTARY EDUCATION IN INDIA
Progress towards UEE
ANALYTICAL REPORT 2004-05
Arun C. Mehta

NIEPA

ELEMENTARY EDUCATION IN INDIA

Progress towards UEE

Analytical Report 2004-05

Arun C. Mehta

सर्व शिक्षा अभियान
सब पढ़ें सब बढ़ें

National Institute of Educational Planning and Administration

17-B, Sri Aurobindo Marg, New Delhi 110016

Phone: 26962120, 26962335, 26967780, 26962126

Fax: 91-11-26853041, 26865180

Email: niepa@niepa.org

Website: http://www.niepa.org

For detailed information on DISE, please visit

http://www.dpepmis.org

NIEPA

ELEMENTARY EDUCATION IN INDIA

Progress towards UEE

Analytical Report 2004-05

Arun C. Mehta

सर्व शिक्षा अभियान
सब पढ़ें सब बढ़ें

The data presented and indicators constructed in the document are entirely based upon the data as received from the states as on 30th September 2005. The views expressed and conclusions reached are that of the author and should not be attributed to the Government of India or to NIEPA.

Published in 2006 by

National Institute of Educational Planning and Administration
17-B, Sri Aurobindo Marg
New Delhi – 110016
India

and

Department of Elementary Education and Literacy
Ministry of Human Resource Development
Government of India

Design, Layout and Printing

Tara Art Printers Private Limited
B 4, Hans Bhawan
B. S. Zafar Marg
New Delhi – 110002
Phone: 23378626
E-mail: tara.artprinters@sify.com
tara.artprinters@yahoo.co.in

CHAMPAK CHATTERJI
Secretary

भारत सरकार
मानव संसाधन विकास मंत्रालय
प्रारम्भिक शिक्षा और साक्षरता विभाग
नई दिल्ली - 110 001
Government of India
Ministry of Human Resource Development
Department of Elementary Education & Literacy
124 'C' Wing, Shastri Bhavan, New Delhi –110 001
Tel.: 23382587, 23381104, Fax: 23387859
E-mail: secy.eel@hub.nic.in

FOREWORD

Development of a sound information system is critical for successful monitoring and implementation of any programme, particularly in social sectors. Design of a school information system was, therefore, accorded priority from the very beginning of the District Primary Education Programme (DPEP) in 1994, as a result of which the District Information System for Education (DISE) was developed by the National Institute of Educational Planning and Administration (NIEPA).

Importance of an Educational Management Information System (EMIS) was reiterated when *Sarva Shiksha Abhiyan* (SSA) was launched in 2001. SSA guidelines envisage development of a community-owned and transparent EMIS, and preparatory activities of the programme included substantial strengthening of MIS infrastructure in the States and UTs of the country.

Twenty-nine States & UTs have now adopted DISE and it is proposed to cover all the States and UTs completely in a year or so. District and State Elementary Education Report Cards: 2004-05 have already been made available to users. The present volume presents *Elementary Education in India: Analytical Report* for the year 2004-05. Information presented in the volume is particularly valuable for implementing educational programmes like SSA in the decentralized context. Transition, Graduation, Survival and Grade-to-Grade Repetition rates based on the DISE data are being made available through the publication. I am confident that this data will be used in planning for good quality elementary education at different levels, and that data users, researchers and development planners interested in the Indian education system will find the volume useful.

I must take this opportunity to thank UNICEF, Delhi, for consistently supporting EMIS activities since 1994, as well as NIEPA, especially Dr Arun C. Mehta, Senior Fellow, and his team, for bringing out the present publication.

(Champak Chatterji)

राष्ट्रीय शैक्षिक योजना और प्रशासन संस्थान
NATIONAL INSTITUTE OF EDUCATIONAL PLANNING AND ADMINISTRATION

17-बी, श्री अरविंद मार्ग, नई दिल्ली-110016
17-B, Sri Aurobindo Marg, New Delhi-110 016
Tel. : Off. : 26515472, 26853038
Fax : +91-11-26853041, 26865180
E mail : pved@niepa.org

Prof. Ved Prakash
Director

From The Director's Desk

I am happy to present *Elementary Education in India: Where Do We Stand: Analytical Report,* which is based upon the DISE 2004-05 data. Recently, NIEPA brought out *Elementary Education in India: Where Do We Stand: District Report Cards, 2004-05,* and *State Report Cards, 2004-05* which contain a large number of indicators spread over different aspects of universalisation of elementary education. The amount of data that is being disseminated through the present publication is enormous and very rich in contents. The *Analytical Report 2004-05* presents a variety of state-specific indicators in case of 29 States and UTs, many of which are being made available for the first time.

NIEPA is committed to provide professional and technical support to all the States and UTs. This has helped in improving the capabilities of both state and district level MIS officers to a great extent. We plan to further intensify our capacity building activities in the years to come.

I am confident that all the remaining States and UTs that could not be covered till now, would also be covered under DISE in a year or two.

I thank the DISE team led by Dr Arun C. Mehta, Senior Fellow for bringing out the publication, which is of great significance. I hope that the researchers, policy makers, administrators and planners will find the publication informative and useful.

New Delhi
July 2006

(Ved Prakash)

ACKNOWLEDGEMENTS

For the last several years, NIEPA has been actively involved in strengthening the Educational Management Information System (EMIS) in the country. The *Analytical Report : 2004-05* is based on the data received from twenty-nine States and Union Territories. The publication presents not only the data up to elementary level but also brings in many new dimensions of elementary education into focus. It incorporates data on children with disabilities, examination results, mediums of instruction, students' flow including transition and retention rates, teachers, utilization of school development and TLM grants, and many other parameters on which not much information was available so far.

The *Analytical Report* is based on the data received from as many as 1.04 million schools spread over 581 districts across 29 States & UTs. The study of this magnitude cannot be completed without the active involvement and participation of the EMIS professionals at the national and sub-national levels. I am extremely thankful to all the State Project Directors, the state level EMIS coordinators and district level programmers and data entry operators for timely supply of data.

I take this opportunity to thank UNICEF, Delhi, for consistently supporting EMIS activities ever since the inception of DISE and Ms Vrinda Sarup, Joint Secretary, Department of Elementary Education & Literacy, Government of India, who played a crucial role in facilitating the implementation of DISE in various states. The contribution of Shri Dhir Jhingran, Director (EE & L), is also gratefully acknowledged.

I am thankful to Prof Ved Prakash, Director NIEPA, for his encouragement.

I am also thankful to Shri M. K. Talukdar, Chief Consultant (MIS), TSG, for providing professional support to states. The contribution of Shri Naveen Bhatia, Computer Programmer and Shri Shalender Sharma, Project Associate Fellow, in database management, is gratefully acknowledged.

I also express thanks to Shri Pramod Rawat, Deputy Publication Officer and his colleagues in the Publication Unit, especially Shri Amit Singhal for extending help. I am also thankful to Shri S. A. Siddiqui for creating graphs and Ms Alka Mishra for efficient assistance.

I hope that this publication will be of value to education planners, policy formulators and researchers. Any suggestions for improvement are most welcome.

Arun C. Mehta
arunmehta@niepa.org

CONTENTS

List of Tables

Section III: Facilities in Schools

Section IV: Enrolment-Based Indicators

List of Figures

ABBREVIATIONS

AS	:	Alternative Schooling
Avg	:	Average
BAS	:	Baseline Assessment Studies
BRC	:	Block Resource Centre
CR	:	Completion Rate
CRC	:	Cluster Resource Centre
DIET	:	District Institute of Education and Training
DISE	:	District Information System for Education
DOR	:	Dropout Rate
DPEP	:	District Primary Education Programme
DRC	:	District Report Cards
Ed. CIL	:	Educational Consultants India Limited
EGS	:	Education Guarantee Scheme
EMIS	:	Educational Management Information System
GER	:	Gross Enrolment Ratio
GOI	:	Government of India
Govt.	:	Government
GPI	:	Gender Parity Index
M.A.	:	Master of Arts
M. Phil.	:	Master of Philosophy
MHRD	:	Ministry of Human Resource Development
NCERT	:	National Council of Educational Research and Training
NER	:	Net Enrolment Ratio
NIEPA	:	National Institute of Educational Planning and Administration
No Res	:	No Response
No.	:	Number
NSSO	:	National Sample Survey Organisation
OBC	:	Other Backward Castes
ORC	:	Other Reserved Castes
Ph.D	:	Doctor of Philosophy
P + Sec./Hs.	:	Primary with Upper Primary & Secondary/ Higher Secondary
P + UP	:	Primary with Upper Primary
P. Only	:	Primary Only
Pop.	:	Population
PR	:	Promotion Rate

Pr.	:	Primary
Pr./Prim.	:	Primary
PTR	:	Pupil-Teacher Ratio
Pvt.	:	Private
Recd	:	Received
RR	:	Repetition Rate
SC	:	Scheduled Caste
SCERT	:	State Council of Educational Research and Training
SCR	:	Student-Classroom Ratio
SDG	:	School Development Grant
Sec.	:	Secondary
SRC	:	State Report Cards
SSA	:	Sarva Shiksha Abhiyan
ST	:	Scheduled Tribe
Tch	:	Teachers
TLM	:	Teaching-Learning Material
TLM Grant	:	Teaching-Learning Material Grant
TR	:	Transition Rate
TSG	:	Technical Support Group
U. Prim.	:	Upper Primary
U.Prim./U.P	:	Upper Primary
U.P. Only	:	Upper Primary Only
UEE	:	Universalisation of Elementary Education
UP + Sec	:	Upper Primary with Secondary/ Higher Secondary
UPE	:	Universalisation of Primary Education
KBGB	:	Kasturba Gandhi Bal Vidhayalaya

Executive Summary

Introduction

For successful implementation of any educational programme, effective monitoring, coupled with efficient information system, is essential. While monitoring framework under SSA is developed separately, concerted efforts have been made towards strengthening of Educational Management Information System (EMIS) in India. A number of Government and semi-government agencies are involved in the collection of information on educational variables. Keeping in view its size, the information system has a few limitations. Sporadic attempts have been made in the past to develop a computerized educational management information system in India. Of these, efforts made under the District Primary Education Programme (DPEP) and *Sarva Shiksha Abhiyan* (SSA) Programme are apparently among the sincerest ones.

The MHRD in 1994, as a part of the DPEP national endeavour, decided to design and develop a school based computerized information system, the main responsibility for which was entrusted to National Institute of Educational Planning and Administration (NIEPA), New Delhi. In this background, a pilot project for revitalization of educational statistics in India was initiated at NIEPA during 1995 with financial assistance from UNICEF. In tune with the spirit of the DPEP, district was selected as a nodal point for collection, computerisation, analysis and use of school level data. Accordingly, NIEPA designed the software for implementation at the district level and provided the necessary technical and professional support to DPEP districts. The first version of the software, named as 'District Information System for Education' (DISE) was released during the middle of 1995. The software was later redesigned in 2001 in the light of requirements of the SSA. Not only the coverage of DISE was extended to non-DPEP states but it was also extended from primary to the entire elementary level of education.

Through the concerted efforts, MIS Unit is now operational both at the district and state levels and is equipped with necessary hardware and software. The DISE software is now operational in 581 districts in 29 States & UTs of the country and is providing vital information for policy formulation and preparation of district elementary education plans. DISE has completely eliminated time-lag in educational statistics. At the national level, time-lag in educational data is reduced to less than one year from the earlier 7-8 years. Gap between collection and dissemination of data stands reduced dramatically. Time-lag within the state is reduced to few months. DISE has also eliminated data gaps as comprehensive information is now available on all aspects of universal elementary education across the country.

The Present Publication

Variety of schools and school-related indicators by school categories along with the average of 581 districts covered under DISE in 2004-05, together with selected indicators for previous years are presented in the present publication. The indicators analyzed and tables presented in the document are divided into the following four parts: School-Related Indicators; Facilities in Schools; Enrolment-Related Indicators; and Teacher-Related Indicators. Brief summary each of these parts is presented below.

School-related Indicators

- The total number of schools imparting elementary education covered under DISE increased impressively over a period of time. Data from 1.04 million schools is received during 2004-05.
- The percent share of schools in the rural areas during the period 2003 to 2005 has remained almost stagnant. Nearly 86.90 per cent schools are located in the rural areas.
- Because of its size, Uttar Pradesh has the highest number of schools (1,42,856) which is 13.77 per cent of the total schools across 29 States and UTs.
- About 91 per cent of the total 6,93,030 primary schools are located in rural areas.
- The distribution of schools by management in rural areas does not show any significant deviation from the distribution of schools by management in all areas.
- Majority of schools (66.78 per cent) are independent primary schools. Only two out of every ten schools imparting elementary education across 581 districts are independent elementary schools.
- The percentage of independent upper primary schools increased from 5.96 in 2003 to 6.85 in 2004 and further to 6.93 per cent in 2005.
- Only 17.75 per cent primary schools are located within one km from the CRC, while 50.46 per cent schools are located 2 to 5 km from CRC.
- More than half the primary schools are located beyond 10 km from the Block HQ which is also true for independent elementary and upper primary schools.
- Nearly 63 per cent of the total schools were visited by the CRC Coordinators during the previous academic year.
- About 84.85 per cent of the total 10,37,813 schools are Government run schools.
- During 2004 and 2005, the number of private schools reported data under DISE operations increased by 31,426 schools which is 24.97 per cent of the private schools during the previous year.
- As many as 59,339 and 97,929 schools are being managed by the Private Aided (5.75 per cent) and Private Unaided (9.44 per cent) managements respectively.
- Within the private managed schools, 37.73 per cent are Private Aided and the remaining 62.27 per cent are Private Unaided schools.
- On an average 65.97 per cent of the total primary schools in the country are being run by the Department of Education itself.
- The percentage of schools being run by the Tribal and Social Welfare Department is only 4.34 compared to 19.39 per cent schools under the Local Body managements.
- The ratio of Primary to Upper Primary schools/sections reveals an upper primary school/section for every set of 2.68 primary schools/sections at the national level. However, the ratio is still high at 2.93 in rural areas compared to only 1.64 in urban areas.
- Arunachal Pradesh, Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Meghalaya, Orissa, Punjab, Sikkim, Tamil Nadu, Uttar Pradesh and West Bengal still has average number of primary schools/ sections per upper primary school/section well above two.

- As many as 2,50,718 new schools are opened since 1994. Of the total new schools opened, 88 per cent are located in the rural and the balance 12 per cent in the urban areas. It is heartening to note that most of the new schools (88.07 per cent) have a building.
- Of the total schools opened since 1994, about 1,74,311 (69.52 per cent) are primary schools, most of which also had their school building (87.45 per cent).
- The highest number of 34,595 primary schools opened in Uttar Pradesh works out to 31.28 per cent of the total primary schools in the state.
- In Andhra Pradesh (27,826), Chhattisgarh (12,120), Karnataka (11,362), Madhya Pradesh (43,290), Maharashtra (10,101), Rajasthan (42,630) and Uttar Pradesh (49,021), a large number of new schools opened since 1994, majority of which have their school building.
- Distribution of schools without building reveals that as many as 41,079 schools did not have building which is 4.37 cent of total schools from which DISE 2004-05 data was collected.
- About 73.67 per cent of the total 1.04 million schools have Government buildings and 11.19 per cent schools have private buildings. Another 7.04 per cent schools have rented buildings. About 2.40 per cent Government schools also run in rent-free buildings.
- All schools together in rural areas have *pucca* building in case of 70.07 per cent schools against 74.30 per cent in urban areas.
- Percentages of schools having *pucca* building reveals that none of the states have provided a *pucca* building to all of its primary schools.
- Irrespective of the schools type, a school imparting elementary education has an average of 3.7 rooms. However, a significant difference is noticed in case of schools located in rural (3.3 rooms) and urban areas (6.6 rooms).
- Primary schools have an average of 2.6 instructional rooms. A significant difference is noticed in average number of instructional rooms in primary schools located in rural (2.4 rooms) and urban (4.3 rooms) areas.
- On an average an elementary school has 5.7 rooms compared to 3.2 rooms in an independent Upper Primary school.
- The average of all the districts shows that irrespective of school type, a good number of schools (10.90 per cent) are still without classroom.
- The percentage of primary schools having one classroom is 14.60, having two 35.26; and of those having three and more classrooms 39.96.
- As many as 1,07,842 schools had only single classroom which is 10.39 per of the total 1.04 million schools/sections imparting elementary education across 29 States and UTs.
- As many as 94.73 per cent of the total 1,07,842 single-classroom schools are located in rural areas. Urban areas have only 5.17 per cent of such schools.
- Only 0.14 per cent primary schools in Delhi and 2.95 per cent in Kerala are single-classroom schools compared to 66.22 per cent primary schools in Assam and 17.55 per cent in Jammu and Kashmir.
- About 68.48 per cent classrooms are of good condition and remaining 31.52 per cent needed either major or minor repairs. The percentage of schools that needed repairs is a bit higher in rural areas than the same in urban areas.

- More than 70 per cent classrooms in primary schools in Andhra Pradesh, Chandigarh, Delhi, Gujarat, Maharashtra, Pondicherry, Tamil Nadu and Uttar Pradesh are of good condition as compared to only 20.43 per cent such classrooms in Nagaland and 24.81 per cent in Meghalaya.
- All schools together have an average of 41 students per classroom (rural 43 and urban 37 students per class). Government schools have a classroom ratio of 42 against 30 in case of schools managed by Private managements.
- The classroom-ratio in primary schools in Assam (59 students per classroom), Bihar (91), Haryana (45), Jharkhand (55), Uttar Pradesh (65) and West Bengal (57) is very high compared to other states.
- About 20 per cent schools have the student-classroom ratio 60 and above compared to 22 in the previous year. Irrespective of the type of schools, the percentage of such schools is much higher in case of Government run schools compared to Private managed schools.
- More than 44 per cent schools have enrolment up to 100. In rural areas, the percentage of such schools is 47.29 compared to 26.17 per cent schools in urban areas.
- About 54.97 per cent of the total primary schools in 2005 have enrolment up to 100 compared to 56.69 per cent primary schools in rural areas.
- There is need to evolve planning methodology for small schools. DISE data can be further probed to know more about small schools and their problems.
- All schools together have an average enrolment of 150. Schools located in urban areas have higher average of 239 compared to only 140 in rural areas.
- The north-eastern region sates have very low enrolment. It varies from 51 in Sikkim to 88 in Tripura and 94 in Arunachal Pradesh.
- The percentage of schools without a teacher is higher in urban areas (2.64 per cent) than in rural areas (1.49 per cent). Not only Primary schools, but many other types of schools also are without a teacher.
- A fairly good number of schools, both in rural (1,38,606 schools) and urban areas (5,487 schools) had only one teacher.
- Of the total 1,37,704 single-teacher schools, 96.02 per cent are located in the rural areas.
- As many as 1,25,786 primary schools (18.15 per cent) have only one teacher of which 1,20,691 schools (95.95 per cent) are located in the rural areas.
- Rationalization of teachers across states may help improve number of teachers both in single-teacher and no-teacher schools. This should be supported by filling-up of all the existing teachers' position.
- A little more than half of the 1.04 million schools are yet to be provided regular Head Masters. Rural areas have a fewer number of schools (46.68 per cent) having Head Masters, compared to schools in the urban areas, of which 53.79 per cent do have the Head Masters.
- On an average a school imparting elementary education in 2004 functioned for about 206 days compared to 208 days in 2003.
- All Government schools functioned for 207 days compared to 199 days working in schools run by Private managements.

Facilities In Schools

- As many as 1,24,244 primary schools have attached pre-primary section compared to 43,431 such elementary schools. Schools located in urban areas (23.94 per cent) have more such schools than located in rural areas (17.34 per cent).
- The percentage of primary schools with attached pre-primary sections is much higher in schools under Private managements (33.22 per cent) compared to 16.42 per cent such schools under Government managements.
- Only 4.06 per cent of the total schools use school building as a shift school. About 3.34 per cent Government schools used school building as shift schools compared to 8.11 per cent Private managed schools.
- A little less than two per cent (1.95 per cent) of the total schools are residential in nature. Not much difference is noticed between rural (1.62 per cent) and urban areas (3.00 per cent).
- A little less than half of the total schools in the country did not have boundary walls in 2004-05. A significant difference is noticed in schools (with boundary wall) located in rural areas (47.50 per cent) and urban areas (75.87 per cent).
- About 81 per cent schools have the drinking water facility available in 2004-05 compared to 77.89 per cent in 2003-04. A significant difference is noticed in schools located in rural (80.56 per cent) and urban areas (87.05 per cent).
- The percentage of schools with drinking water facility is low in Arunachal Pradesh (58.36 per cent), Jammu and Kashmir (58.93 per cent), Meghalaya (39.14 per cent), Nagaland (46.94 per cent) and Tripura (66.32 per cent).
- Majority of schools did not have tap water facility in their premises. Much difference is noticed in schools with tap water facility located in rural (17.71 per cent) and urban areas (50.20 per cent).
- About 47 per cent schools across 581 districts had common toilets in school, while 32.70 per cent schools had separate toilet for girls in 2005.
- Only a few primary schools have common toilet facilities (41.43 per cent) and a few separate toilets for girls (24.27 per cent).
- About 28.37 per cent schools had electricity connection in 2005 compared to 25.23 per cent in the previous year. Majority of schools in urban areas (67.78 per cent) had electricity connection compared to only 23.20 per cent schools located in rural areas.
- As many as 81,617 schools did not have blackboard in school, which is 7.86 per cent of the total schools that impart elementary education across 581 districts.
- Not only primary and upper primary schools are without a blackboard but a good number of other types of schools also did not have blackboard in school. The highest number of schools without blackboard is observed to be in the case of primary schools (48,989; 7.07 per cent).
- About 47 per cent schools have blackboard at ground level in the classroom. More such classrooms are in rural areas (48.35 per cent) than in urban areas (41.43 per cent).
- Not much difference is noticed in the availability of Book-Bank in schools located in rural (43.12 per cent) and urban areas (49.76 per cent); it is true for all school types.

- During 2003 to 2005, the number of schools with computers increased impressively. More than 93 thousand (8.99 per cent) schools imparting elementary education in the country in 2005 had computers in place in school.
- In absolute terms, Maharashtra has the highest number of schools (14,021) that have computer in schools.
- Only a few schools across the country had the provision of a ramp in school. Percentage of primary schools with ramp is as low as 11.21 compared to 14.48 per cent in case of independent elementary schools.
- Altogether, 5,58,965 schools arranged medical check-up in 2004-05 compared to 4,07,737 schools in 2003-04.
- About 50 per cent schools (all categories) had playground in school. The percentage of such schools in rural areas was 49.69 compared to 61.70 in urban areas.
- A marked increase in the number of schools that received school development grant is noticed during the period from 2003 to 2005.
- The number of schools that received development grant in 2004 was as high as 7,24,682 which works out to 69.83 per cent of the total schools.
- The number of schools that received TLM grant has been a bit lower than the number of schools that received development grant.
- The number of schools that received TLM grant has been as many as 6,41,519, that is, 61.81 per cent of all types of schools that impart elementary education in the country.
- Utilization pattern suggests that, barring a few states, above 95 per cent of the grants received under school development and TLM was utilized during the previous year.

Enrolment-based Indicators

- The average of 581 districts indicates a GPI of 0.91 in primary classes and 0.83 in case of enrolment in upper primary classes compared to 0.90 and 0.82 in 2004.
- Meghalaya had the highest GPI of 1.01. Among the rest of the states, Andhra Pradesh, Sikkim and West Bengal had the highest (0.98) GPI and Bihar the lowest (0.78).
- North-Eastern states showed a high GPI also in case of upper primary enrolment. Meghalaya had more girls in upper primary classes (GPI, 1.08) than their counterpart boys.
- The share of girls' enrolment also indicates that it is lower than the share of boys' enrolment, both at primary (47.52 per cent) and upper primary (45.32 per cent) levels of education.
- The percentage of enrolment in rural areas reveals that it is significantly lower when considered with respect to share of the total number of schools in these areas.
- Of the total 1.04 million schools that impart elementary education in the country, 86.90 per cent are located in rural areas whereas percentage of enrolment in elementary classes that is, Classes I-VII/VIII is found to be only 83.15.
- About 94 per cent of total enrolment in primary classes in Bihar is located in the rural areas followed by Assam (91.86 per cent) and Himachal Pradesh (92.69 per cent).

- Irrespective of the type of school, the percentage share of enrolment in Government run schools has been lower than their share in the number of schools. About 91 per cent primary schools in 2005 were under Government managements with an enrolment of only 85.03 per cent.
- About 189 districts reported decline in primary (Grades I to V) enrolment. If all Government managements are considered together, as many as 236 districts saw a decline in primary enrolment during 2004 to 2005.
- A detailed study on declining enrolment in selected districts may reveal reasons of decline as well as quantum of decline and transfer of enrolment from Government to Private schools and vice-versa.
- At the primary level, the share of SC and ST enrolment with respect to total enrolment works out to be 20.73 and 10.69 per cent, respectively which is in tune with their per cent share in total population. All Elementary classes together have 20.58 per cent SC and 10.18 per cent ST enrolment.
- Three states from the north-eastern region, namely Meghalaya, Mizoram and Nagaland have above 90 per cent ST enrolment which matches well with the percentage share of ST to the total population in these states.
- Notably, at all levels Government has been the main provider and caterer of the educational needs of both the SC and ST children.
- Percentage in case of SC enrolment in primary classes is as high as 86.58. Schools under Private management had only 13.42 per cent of the total SC primary enrolment, and only 10.04 per cent in case of upper primary enrolment.
- About 1.40 million disabled children are enrolled in elementary classes across the country, of which 1.02 million are in primary and 0.38 million in upper primary classes.
- The percentage of children with disability, both in primary (0.86 per cent) and upper primary classes (1.01 per cent) is around 1 per cent of total enrolment in these classes.
- Almost one in every three disabled students in elementary classes has been found to be having some problem in moving.
- The percentage of enrolment in pre-primary classes is as low as 7.69 and 17.04 respectively in the case of elementary and higher secondary schools, percentage being a bit higher in case of urban areas compared to the same in the rural areas.
- About 18.15 per cent of the total primary schools are found to be single-teacher schools, which have 12.58 per cent of the total enrolment in primary classes.
- Barring elementary schools, all other school types located in rural areas reported lower enrolment in schools without building compared to the same in urban areas.
- About 7.86 per cent of the total 1.04 million schools that impart elementary education in the country did not have blackboard compared to 5.00 per cent enrolment in these schools.
- Of the total elementary enrolment, about 32 per cent is located in schools having student-classroom ratio of 60 and above. The percentage of enrolment in such schools in case of Bihar is as high as 63.09 compared to 50.58 in Jharkhand.
- The average of 581 districts reveals that a large number of children drop out from the system before reaching Grade V which is true both for boys and girls and rural and urban areas.

- The retention rate at primary level improved from 53.43 per cent in 2003-04 to 58.11 per cent in 2004-05, thus showing an improvement of 5 percentage points. But, it is still too low to help achieve the goal of universal primary education.
- Tamil Nadu, Kerala, Himachal Pradesh and Madhya Pradesh are a few states which have above 80 per cent retention rate at primary level. With a little more push, these states can easily move towards achieving the goal of universal retention at the primary level of education.
- The repetition rate in Grade I is noticed to be the highest (12.34 per cent) among primary grades. In rest of the primary grades, repetition rate varies between 5 to 7 per cent.
- As many as 11.83 million students repeated Grades I-VIII, of which 53.75 per cent (6.36 million) were boys and remaining 46.25 per cent (5.57 million) were girls.
- The majority of repeaters across Grades I to VIII repeated because of failure (59.46 per cent) and the rest repeated because of long absenteeism (25.77 per cent) and re-admissions (14.77 per cent).
- During 2003-04 and 2004-05, an average of 10.64 per cent children enrolled in Grades I to V dropped out from the system before completion of a primary grade against 11.27 per cent during 2002-03 and 2003-04.
- Among major states, Rajasthan had a very high (24.97 per cent) drop-out rate in Grade I and Uttar Pradesh, a low repetition rate of 2.45 per cent, the second lowest in the country.
- Primary education system is efficient to the tune of only 87.8 per cent. In Bihar (48.8) and Rajasthan (59.5), the coefficient of efficiency is much lower than the average of all states.
- More than 78.01 per cent children in 2004 transited from primary to upper primary level of education against 74.15 per cent during the previous year. No significant difference in transition rate is noticed in case of boys and girls.
- As against a low transition rate of 57.62 per cent in Uttar Pradesh, the same is reported to be very high in Himachal Pradesh, Assam, Kerala, Mizoram, Rajasthan, Tamil Nadu, Uttaranchal and Andhra Pradesh.
- The root cause of high drop-out can be identified by calculating grade-to-grade flow rates. By just quantifying drop-out rate, the situation is not expected to improve unless reasons of low promotion and high drop-out and repetition are known and appropriate strategies formed.
- The percentage of over-age and under-age children in case of upper primary level (19.76 per cent) is much higher than in case of the primary level of education (14.26 per cent).
- GER and NER based on the DISE data at the primary level improved significantly in 2005 from its previous rates in 2004.
- The percentage of enrolment in the formal I-V Grades in the recognized schools to total 6-11 year projected population comes out to be 97.82 compared to 81.90 in case of the enrolment of age group 6-11 year in I-V Grades.
- A few states are almost near achieving the goal of universal primary enrolment. Chhattisgarh, Himachal Pradesh, Karnataka, Madhya Pradesh, Nagaland, Orissa, Tamil Nadu and Uttar Pradesh are such states.

- Barring a few small states, above 80 per cent children passed the terminal Grades IV/V and VII/VIII.
- A steep decline both in Grades IV/V and VII/VIII is observed when pass percentage is compared with the children who passed with 60 per cent and above marks.

Teacher-related Indicators

- Number of teachers suggests that about 4.17 million teachers are engaged in teaching in schools imparting elementary education in the country.
- About 78 per cent teachers are located in the rural areas and in 87 per cent of schools.
- Primary schools have more than 1.85 million of the total 4.17 million teachers. More than 84 per cent primary school teachers are located in rural areas.
- Uttar Pradesh has the highest number of teachers in primary schools (0.29 million), which is 15.79 per cent of the total primary teachers in the country.
- The all-India average of 581 districts reveals that, on an average, there were 4.02 teachers in a school that imparts elementary education.
- A significant difference is noticed in the availability of teachers (average) in rural (3.61) and urban areas (7.25) and also in schools managed by the Government (3.47) and Private managements (7.10).
- Primary schools have an average of 2.74 teachers in 2005 against 2.72 teachers per school in 2004.
- Schools located in the rural areas have an average of 2.56 teachers compared to 4.63 teachers in schools located in the urban areas.
- All Primary schools managed by the Government have an average of 2.54 teachers per school compared to 4.76 teachers in Private managed schools.
- There are about 128 districts across 29 States & UTs that have more than 50 per cent female teachers. All schools together had 39.78 per cent female teachers.
- Urban areas (64.75 per cent) have much high percentage of female teachers than the rural areas (33.12 per cent), which is true for all school types.
- Above 87 per cent teachers in Private management schools in Chandigarh and 82 per cent in Delhi are female.
- In Kerala (73.88 per cent) and Tamil Nadu (72.59 per cent), majority of primary school teachers are female.
- As many as 33.00 per cent schools (342 thousand schools) that impart elementary education did not have any female teacher in 2005.
- It is observed that in as many as 35.37 per cent primary schools, no female teacher has been posted. The percentage of schools without female teachers is as high as 54.84 in the state of Bihar.
- Irrespective of school types, an improvement in pupil-teacher ratio is observed during the period 2004 to 2005.

- The highest-pupil-teacher ratio is observed in the case of the Primary schools (42: 1), followed by Elementary schools (36: 1), Upper Primary attached to Secondary & Higher Secondary schools (31: 1), integrated Higher Secondary schools(31:1) and independent Upper Primary schools (31:1).
- All schools together show that Bihar with 78 students per teacher had the highest PTR and Mizoram and Sikkim each with 14, the lowest ratio in 2005.
- About 7.61 per cent schools located in the rural areas have PTR above 100 compared to 4.33 per cent in the urban areas.
- The percentage in Government schools (8.51 per cent) having PTR 100 and above is much higher compared to Private managed schools (6.37 per cent).
- The average of 581districts suggests that majority of teachers in primary schools are between the age group of 26-45 years which is also true for other types of schools
- The number of retiring teachers is as high as 334 thousand which is about 8.01 per cent of the total number of teachers.
- About 31 per cent teachers' positions in Bihar and 16 per cent in Jharkhand are yet to be filled up. Even Delhi reported 5 per cent such vacancies and in Chandigarh, the percentage of teachers in position is as high as 100 per cent.
- About 47.59 per cent teachers who impart elementary education are higher secondary and below. A few of them are even below secondary level (3.26 per cent). On the other hand, about 49 per cent male and 48 per cent female teachers are Graduate and above.
- Urban areas have more Graduate and above teachers than the same in the rural areas.
- The distribution of primary school teachers reveals that majority of teachers are higher secondary and below (total 56.88 per cent).
- Only 26.88 per cent primary school male teachers are graduates against 27.90 per cent such female teachers
- About 36.50 per cent male and 44.30 per cent female teachers were imparted in-service training during the previous year i.e. 2004 compared to 33.09 per cent male and 44.70 per cent female teachers in 2003.
- Across the country, as many as 379 thousand *para*-teachers were appointed in 2005 which is 9.09 per cent of the total 4.17 million teachers.
- About 92 per cent of the total *para*-teachers are appointed in the rural areas. Urban areas had only 29 thousand *para*-teachers, compared to 347 thousand in rural areas.
- In as many as 70,820 schools, only *para*-teachers were working in 2005. The number of such schools in Rajasthan, Madhya Pradesh and Chhattisgarh is respectively as high as 17,985, 33,220 and 8,522 schools.
- The percentage of male and female *para*-teachers to total male and female teachers is 10.04 and 8.53 per cent respectively.
- About 30.97 per cent of the total *para*-teachers are appointed alone in the state of Madhya Pradesh.
- The majority of *para*-teachers are appointed in the states of Andhra Pradesh, Bihar, Chhattisgarh, Madhya Pradesh, Rajasthan and Uttar Pradesh which together constitute a total of 321 thousand

para-teachers which is 85 per cent of the total *para*-teachers across 25 States and UTs of the country.

- About 65 per cent of the total 379 thousand para-teachers are posted in the primary schools.
- *Para*-teachers are not confined only to the primary schools. A good number of other types of schools also had *para*-teachers.
- About 51.49 per cent male and 49.09 per cent female *para*-teachers are Graduate and above compared to 49.36 per cent male and 47.58 per cent female regular teachers. In urban areas, the percentage of such para-teachers is much higher at 62.27 compared to 49.62 in the rural areas.
- P*ara*-teachers are better qualified than the regular teachers, but majority of them do not possess any professional qualification.
- As many as 0.83 million SC and 0.94 million ST teachers are engaged in imparting elementary education, which respectively are 20.64 per cent and 23.50 per cent of the total teachers.
- About 84 per cent SC and 79 per cent ST teachers are employed respectively in the Government and Private managed schools.
- The majority of teachers imparting elementary education across 581 districts were not involved in non-teaching assignments in 2004. The percentage of such teachers is low as 19.14 per cent compared to 20.28 per cent in rural and only 10.60 per cent in urban areas.
- On an average a teacher was involved in the non-teaching assignments only for 15 days. In the rural areas, teachers were involved in such assignments for 15 days compared to 17 days in the urban areas.
- Only seven states reported more than 20 days' involvement in non-teaching assignments during the previous academic year.

Page XXXIV

Strengthening EMIS in India

PART I

Introduction

Free and compulsory education to all children up to the age of fourteen years is Constitutional commitment in India. The Government of India initiated a number of programmes to achieve the goal of Universalisation of Elementary Education (UEE) among which the *Sarva Shiksha Abhiyan* (SSA), launched in 2001, is the most recent one. It aims at achieving universal primary education by 2007 and universal elementary education by 2010. For successful implementation of any educational programme, effective monitoring, coupled with efficient information system, is essential. While monitoring framework under SSA is developed separately, concerted efforts have been made towards strengthening of Educational Management Information System (EMIS) in India. This section presents steps initiated in this direction in case of elementary level of education.

A number of Government and semi-government agencies are involved in the collection of information on educational variables. Among them the Department of Secondary & Higher Education of the Ministry of Human Resource Development (MHRD), Government of India is the main agency responsible for the collection of numeric information on regular basis. The MHRD collects information from all the recognized institutions of the country annually with 30th September as its reference date and school being the unit of collection. *Education in India* is the main publication of MHRD in this regard. The latest available volumes of this publication covering various aspects are: 1998-99 - Volume I: Numeric Information; 1996-97 - Volume II: Financial Data; and 1999-2000 - Volume III: Examination Results. However, *Selected Educational Statistics*, a provisional publication is the latest available for the year 2003-04. On the other hand, the National Council of Educational Research and Training (NCERT) also collects information on special variables through its All India Educational Survey, once in every five to eight years with habitation as its unit of data collection. Full results of the Seventh Survey, with September 30, 2002 as its date of reference, are still awaited. The basic purpose of collecting information on special variables through the all-India education survey is to provide inputs so as to formulate five-year plans. The 10th Plan was developed much before the survey data could be disseminated. As of now only flesh statistics covering a few selected variables is disseminated through the all-India survey whereas the process of developing 11th Plan has already been initiated. Neither the MHRD nor NCERT disseminates full set of district-specific data which is required for developing district elementary education plans under SSA.

On the other hand, a number of semi-governmental agencies, like the National Sample Survey Organization (NSSO), Census of India, and the International Institute for Population Studies (National Family Health Survey) also from time to time collect information on a few educational variables as part of their household sample surveys. In addition, recently the Government of India through the Educational Consultants India Limited and Indian Market Research Bureau (IMRB) International has also commissioned a nation-wide survey for estimating the out-of-school children of age group 6-14 years. Similarly, a non-government organization, *Pratham* has also conducted a HH-survey to estimate out-of-school children (6-13 years), facilities in schools and learning ability of children in rural India and decided to conduct similar surveys till 2010. Incidentally 2010 is also the terminal year of SSA.

PART I

Indian education system is one of the largest education systems in the World; it caters to the needs of more than 1,028 million people. Keeping in view its size, the information system has a few limitations, which can be classified as administrative and non-administrative limitations. Some of these limitations are: (i) multiple data collection agencies; (ii) multiple directorates involved in data collection and lack of coordination among them; (iii) lack of understanding of the concept and definitions of educational statistics; (iv) lack of adequate staff at different levels; (v) lack of qualified and trained staff, specially at the lower levels; (vi) problems in distribution and collection of data-capture formats; (vii) lack of district-specific time-series data; (viii) time-lag in data; (ix) reliability of education data; (x) data gaps; (xi) lack of equipments (computers) at lower levels; (xii) creation of new districts and changes in boundaries of the existing districts; (xiii) poor dissemination and utilization of data; and (xiv) lack of accountability at all levels. Notwithstanding these limitations, the school statistics form the basis of planning, monitoring and evaluation of various aspects of education, in general, and primary and elementary education, in particular. The manual collection of information system under the MHRD even does not have school specific format. Rather it has got consolidated sheets at different levels in the absence of which validation of data is not possible to undertake at any level. The first consolidation of data takes place at the block level and in large blocks, in view of a large number of schools; it is not an easy task to consolidate the data manually especially when officer at this level is generally not properly trained to deal with huge amount of data.

"For successful implementation of any educational programme, effective monitoring, coupled with efficient information system, is essential"

Sporadic attempts have been made in the past to develop a computerized educational management information system in India. Of these, efforts made under the District Primary Education Programme (DPEP) and *Sarva Shiksha Abhiyan* (SSA) Programme are apparently among the sincerest ones. Most of the earlier attempts at the Central and State Governments levels failed to sustain and as such the overall situation remained a matter of concern. At the time of initiating District Primary Education Programme (DPEP) in 1994, it was felt that a sound information system is essential for successful monitoring and implementation of the programme. It was also realized that to strengthen educational statistical database for planning and management in a decentralized framework, an innovative model was needed. It was expressed that DPEP, with a focus on decentralized planning, required up-to-date and reliable school level information soon after it was collected. It reiterated further, in the context of decentralization of primary education, the imperativeness of more efficient and effective school and community databases so that the signals relating to the trends in critical indicators could be tracked at various levels of decision-making. The MHRD in 1994, as a part of the DPEP national endeavour, decided to design and develop a school based computerized information system, the main responsibility for which was entrusted to National Institute of Educational Planning and Administration (NIEPA), New Delhi.

In this background, a pilot project for revitalization of educational statistics in India was initiated at NIEPA during 1995 with financial assistance from UNICEF. The project was to examine issues related to identification of data needs, processes and procedures for data collection, developing a framework for data flows and computerization, and facilitating the use of educational indicators in planning, management, monitoring and evaluation. Such a comprehensive and integrated approach was necessitated by the fact that the then existing system could not provide the school level data in time and that it was highly limited in scope and coverage. Similarly, the use of educational statistics for planning and monitoring in the decentralized framework was also minimal. There

"Full results of Seventh Survey, with September 30, 2002 as its date of reference, are still awaited"

were no systematic checks on the internal consistency of data. Data on many critical variables was either not collected at all or was not processed to facilitate decision-making.

"Neither the MHRD nor NCERT disseminates full set of district-specific data which is required for developing district elementary education plans under SSA"

In tune with the spirit of the DPEP, district was selected as a nodal point for collection, computerization, analysis and use of school level data. NIEPA professionals, with the involvement of other experts, designed and developed the core Data-Capture Formats. Accordingly, NIEPA designed the software for implementation at the district level and provided the necessary technical and professional support to DPEP districts.

The first version (dbase) of the software, named as 'District Information System for Education' (DISE) was released during the middle of 1995. The district level professionals were assisted and trained in the establishment of EMIS units. The first major review of the DISE software was undertaken during 1997-98 (PowerBuilder/SQL Anywhere). The software was later redesigned in 2001 in the light of requirements of the SSA (PowerBuilder/Oracle). Not only the coverage of DISE was extended to non-DPEP states but it was also extended from primary to the entire elementary level of education. In view of the state-specific requirements, NIEPA recently conducted a workshop to seek suggestions about DISE format and software. It is hoped that from the year 2006-07 onwards, revised DISE format as well as software will be made available to users across the country. Information on the following additional variables through DISE will also be made available:

- Schools by Type of Boundary Wall
- Schools by Source of Drinking Water
- Furniture for Teachers and Students and Availability of Kitchen Shed in the School
- Enrolment by Minority
- Distribution of Children by Multiple Disabilities
- Examination Results of SC and ST Students etc.

"A non-government organization, *Pratham* has conducted a HH-survey to estimate out-of-school children (6-13 years), facilities in schools and learning ability of children in rural India"

Efforts are being made to develop DISE as a complete user-friendly menu-driven software. Some of the features that are being incorporated in the modified software are:

- Complete flexibility will be provided to users to add 'n' number of state and district-specific supplementary variables in the Data-Capture Format and generate reports at all desired levels;
- To improve the consistency of data, efforts are being made to highlight schools that reported inconsistent data;
- Export data to popular formats such as Excel, Text etc. will be made available;
- Users will be able to make data entry at Block level and then merge the data into single district level database by using the new improved DISE2001 Export Utility etc.

DISE 2001: Main Features

The main features of DISE 2001 are briefly presented below:

- The system covers eight years of schooling in all primary, upper primary and primary/upper primary sections of the secondary and higher secondary schools.
- The concept and definitions of educational variables involved therein have been standardized at the national level and are uniformally followed by all districts and states.
- Manual aggregation of data at different levels is completely replaced by computerized data entry and report generation system.
- It provides time-series data at school, village, cluster, block and district levels.
- The system defines core data on school location, management, rural-urban, enrolment, buildings, equipment, teachers, incentives, medium of instruction, children with

PART I

disabilities, examination results and student flows.

- Detailed data on individual teachers, *para*-teachers and community teachers and their profile, including data on in-service training received, is collected and made available.
- It eliminates the chances of data manipulation at various levels. The school remains responsible for correctness of the data supplied. States need to ensure correctness of the data supplied on five per cent sample basis.
- The states/districts have flexibility of adding supplementary variables depending upon their specific requirements on year-to-year basis. No additional software for computerization and analysis of state/district specific data is required.
- The states/districts can develop their own large database using 'designer' module and integrate a variety of school/cluster/block level data with it. The software handles multiple databases at various levels and provides tools of data analysis and presentation.
- A large number of standardized reports on school-related variables and performance indicators aggregated at the cluster, block and district levels, are generated by the software.
- DISE ensures two-way flow of information. School summary report for each school is generated for sharing with the school and members of Village Education Committee.
- It provides an easy-to-use dynamic graphics facility to enhance the presentation of various types of graphs and data.
- DISE presents multi-user and modular system of software design for better management and security of databases.
- It responds to pre-defined queries on standard aspects, like school list, list of villages without primary and upper primary schools, single-teacher schools, schools without buildings, schools with high PTR, etc.
- It helps user defined dynamic query on hundreds of variables.
- It provides facilities for basic statistical analysis, including generation of new variables and their analysis.
- The reports can be shared across a large number of users without full software installation.
- Data can be exported to many other formats for statistical and other analyses by users etc.

"Manual collection of information system under the MHRD even does not have school specific format"

Major Outcomes of DISE Efforts

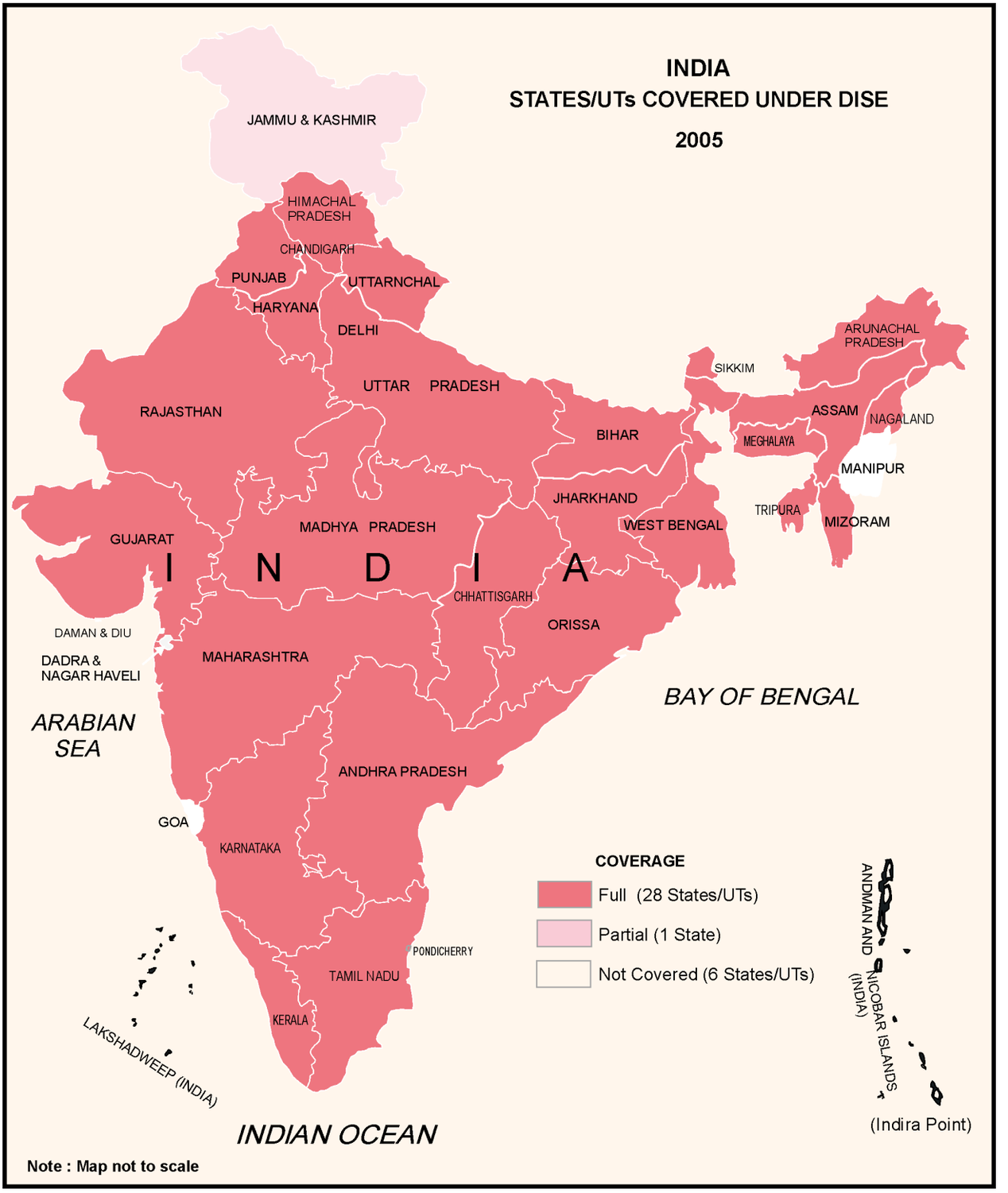
- Through the concerted efforts, MIS Unit is now operational both at the district and state levels and is equipped with necessary hardware and software.
- The DISE software is now operational in 581 districts in 29 States & UTs of the country and is providing vital information for policy formulation and preparation of district elementary education plans.
- DISE has completely eliminated time-lag in educational statistics. At the national level, time-lag in educational data is reduced to less than one year from the earlier 7-8 years. Gap between collection and dissemination of data stands reduced dramatically. Time-lag within the state is reduced to few months. Data (as on September 30, 2005) for 2006 is available in many states in ready-to-use form.
- DISE has also eliminated data gaps as comprehensive information is now available on all aspects of universal elementary education across the country.
- It is for the first time that a time-series data is made available at the school level. The trend analysis of DISE data helps in identifying major block and district-specific issues for being used in developing perspective and annual plans.
- For the first time, a District Report Card on elementary education is being released annually as part of DISE dissemination activities, which

"At the time of initiating District Primary Education Programme in 1994, it was felt that a sound information system is essential for successful monitoring and implementation of the programme"

PART I

Figure 1.1

States covered under DISE



PART I

Table A1

DISE 2005: COVERAGE

S. No	State/UT	Education Cycle		Number of Districts 2001 Census	Number of Districts Reported Data		
		Primary	Upper Primary		2003	2004	2005
1	Arunachal Pradesh	I-V	VI-VIII	13	-	-	15
2	Andhra Pradesh	I-V	VI-VII	23	23	23	23
3	Assam	I-IV	V-VII	23	23	23	23
4	Bihar	I-V	VI-VIII	37	37	37	37
5	Chandigarh	I-V	VI-VIII	1	-	1	1
6	Chhattisgarh	I-V	VI-VIII	16	16	16	16
7	Delhi	I-V	VI-VIII	9	-	-	9
8	Gujarat	I-IV	V-VII	25	9	25	25
9	Haryana	I-V	VI-VIII	19	9+	17+	19
10	Himachal Pradesh	I-V	VI-VIII	12	12	12	12
11	J & K	I-V	VI-VIII	14	-	-	12+
12	Jharkhand	I-V	VI-VIII	18	22*	22*	22
13	Karnataka	I-IV	V-VII	27	27	27	27
14	Kerala	I-IV	V-VII	14	14	14	14
15	Madhya Pradesh	I-V	VI-VIII	45	45	45	45
16	Maharashtra	I-IV	V-VII	35	30	35	35
17	Meghalaya	I-IV	V-VII	7	-	7	7
18	Mizoram	I-IV	V-VII	8	-	8	8
19	Nagaland	I-IV	V-VIII	8	-	8	8
20	Orissa	I-V	VI-VII	30	30	30	30
21	Pondicherry	I-V	VI-VII	4	-	-	4
22	Punjab	I-V	VI-VIII	17	-	17	17
23	Rajasthan	I-V	VI-VIII	32	32	32	32
24	Sikkim	I-V	VI-VIII	4	-	4	4
25	Tamil Nadu	I-V	VI-VIII	30	29**	29**	29
26	Tripura	I-V	VI-VIII	4	-	4	4
27	Uttar Pradesh	I-V	VI-VIII	70	70	70	70
28	Uttaranchal	I-V	VI-VIII	13	13	13	13
29	West Bengal	I-IV	V-VIII	18	20*	20*	20
	Total Districts	**-**	**-**	**576**	**461***	**539***	**581***

* Including bifurcated districts.
\+ Data for all districts not reported.
** One district was later merged with another district.

contains time-series and cross-sectional data on more than four hundred variables at the district level. State Report Cards have also been developed and are being disseminated for the last four years. The Analytical Report containing detailed analysis of DISE data is also being published annually. Efforts will be made to develop Country Report Card once all the States & UTs get covered under DISE.

- A number of states have come out with their own publications and disseminated district and block-

Figure 1.2

Number of States, Districts and Schools covered under DISE

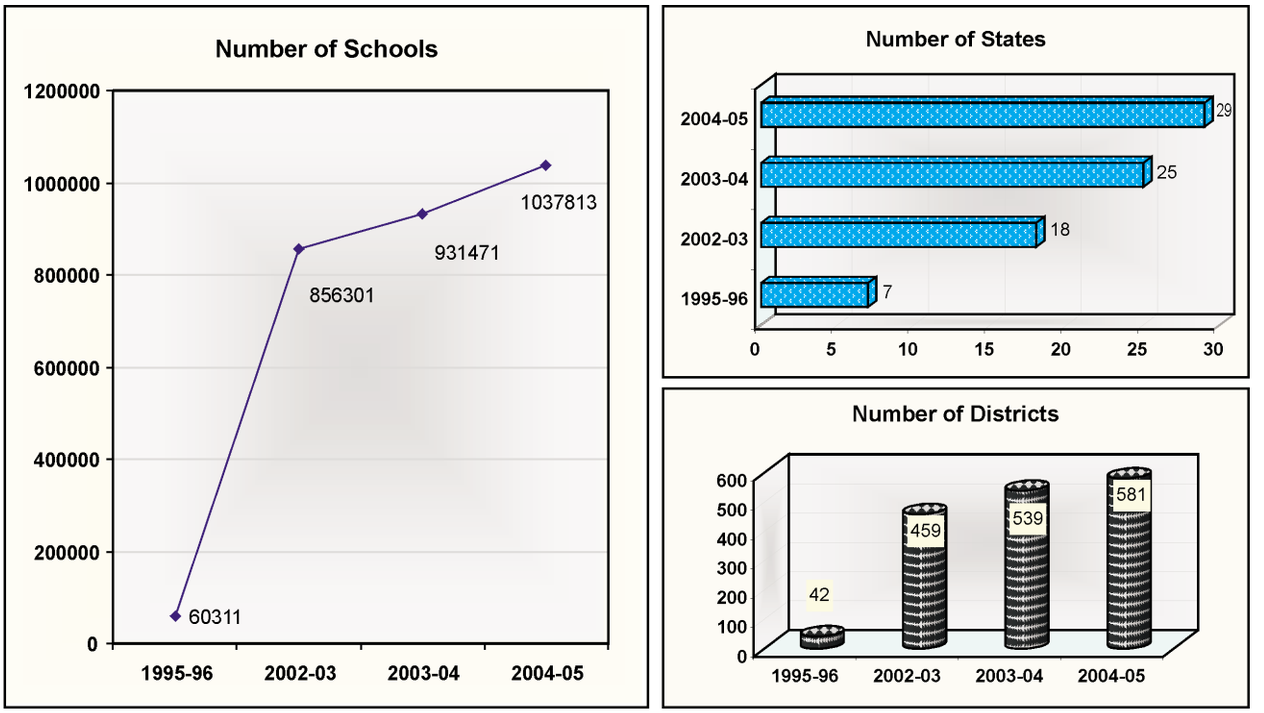


Table A2

States/UTs Yet to be Covered Under DISE

S. No	State/UT	Education Cycle		Number of Districts, 2001 Census
		Primary	Upper Primary	
1	A & N Islands	I-V	VI-VIII	2
2	Daman & Diu	I-IV	V-VII	2
3	D & N Haveli	I-IV	V-VII	1
4	Goa	I-IV	V-VII	2
5	Lakshwadweep	I-IV	V-VII	1
6	Manipur	I-V	VI-VIII	9
	Total Districts*	-	-	**17**

Note: In addition, 2 districts of Jammu & Kashmir are also to be covered.

PART I

specific data on different aspects of UEE. In addition, a few states have extended the coverage of DISE to the unrecognized schools. A study based on the unrecognized schools of Punjab was recently brought out by NIEPA which was well received by the education planners and policy makers.

- DISE helps develop a national level system, which integrates district and state systems into a

Table A3

DISE 2005: State Summary

S. No	State/UT	Data Reported From					
		Districts	Blocks	Villages	Schools	Enrolment**	Teachers
1	Andhra Pradesh	23	1298	27702	92768	11335441	466725
2	Arunachal Pradesh	15	78	1956	2224	208732	8670
3	Assam	23	144	19774	40175	4056996	155897
4	Bihar	37	532	32284	53275	12853348	165309
5	Chandigarh	1	20	20	179	103867	4476
6	Chhattisgarh	16	147	21647	38607	3872360	104495
7	Delhi	9	27	75	4267	2046865	64899
8	Gujarat	25	230	19557	36315	6819906	190955
9	Haryana	19	119	7207	13199	2181447	59905
10	Himachal Pradesh	12	115	9825	15676	1089609	52618
11	Jammu & Kashmir+	12	180	6152	15925	1351862	71181
12	Jharkhand	22	222	18131	22199	3821676	71126
13	Karnataka	27	180	27480	53461	7900129	227665
14	Kerala	14	149	1924	11684	2966380	118948
15	Madhya Pradesh	45	314	53266	111727	12180832	377420
16	Maharashtra	35	366	40355	76581	11636869	450785
17	Meghalaya	7	44	5039	8196	481356	25363
18	Mizoram	8	36	782	2346	196856	12582
19	Nagaland	8	49	1266	2356	400612	18306
20	Orissa	30	381	36619	50849	5815653	158481
21	Pondicherry	4	6	334	563	125339	4650
22	Punjab	17	141	12385	21940	2683975	91484
23	Rajasthan	32	333	36251	87691	9964401	296041
24	Sikkim	4	11	512	1070	115289	7682
25	Tamil Nadu	29	420	19758	50436	9784392	250214
26	Tripura	4	45	924	3456	676836	30441
27	Uttar Pradesh	70	962	85654	142856	27087566	400721
28	Uttaranchal	13	102	11524	18628	1384944	52922
29	West Bengal	20	482	37395	59165	12870492	232311
	All Districts	**581***	**7133**	**535798**	**1037813**	**156014030**	**4172272**

* : Including bifurcated districts.
\+ : Data for all districts not reported.
** : Enrolment as per school structure.

hierarchical database. Every effort is made to promote the use of DISE data for planning, management and monitoring of SSA through case studies, orientation and training workshops of educational planners and administrators. It has now become a regular feature to share the DISE data at different levels every year. A number of states have recently conducted data sharing workshops. At the national level, major findings of DISE data are being shared every year with planners, administrators, policy makers, educationists and other data users.

"Indian education system is one of the largest education systems in the World; it caters to the needs of more than 1,028 million people"

- Official website of DISE (http://dpepmis.org) has been developed and is being updated frequently. District Report Cards and raw data in case of each of the district covered under DISE are uploaded. Data-Capture Formats, software patches etc. are also made available to users. Analytical Reports are also made available on the Internet. Efforts are being made to make available School Report Cards in case of all one million plus schools through the internet.
- District Report Cards and Analytical Reports have also been made available to users in a Compact Disk.
- As an online help to users, DISE group of users is formed on the Internet, which is very active. Users post problems of common interest to group for their solutions.

Despite all these significant achievements, inadequate utilization of DISE data still remains a major area of concern. Though over time, data utilization has improved, which is reflected in the District Elementary Education Plans developed recently under the aegis of *Sarva Shiksha Abhiyan,* yet there is still scope for further improvement. States have been encouraged to organize sharing workshops at block, district and state levels. During the previous years, efforts have been made to create demand for the DISE data. District Report Cards, State Report Cards, Elementary Education in Rural and Urban India and Analytical Reports have been made available to a large number of university libraries, research and resource institutions, educationists, planners, administrators, policy makers and other data users across the country. This will be further intensified during the current year. In addition, UNICEF has also decided to support studies based on the DISE data. At the international level, to create awareness about DISE and type of data it generates, presentations were recently made at the Oxford and Cambridge Universities (UK). Through concerted efforts, it is hoped that demand for DISE data will be generated in years that follow.

"States need to ensure correctness of the data supplied on five per cent sample basis"

DISE: Coverage

Initially, 42 districts across seven DPEP phase-one states, namely Assam, Haryana, Karnataka, Kerala, Madhya Pradesh, Maharashtra and Tamil Nadu, were covered under DISE. The number of districts covered has gradually increased with the expansion of the DPEP as the districts covered under phase-two and-three have also been covered. At the end of 2001, more than 270 districts spread over 18 states of the country adopted DISE. At the time when the *Sarva Shiksha Abhiyan* was launched in 2001, the scope of DISE was extended to the entire elementary level of education and coverage was also extended to all the districts of the country. It is worth mentioning here that one of the important pre-project activities under the *Sarva Shiksha Abhiyan Programme* was to strengthen the management information system, for which funds were provided to districts covered under SSA. Even prior to SSA, a number of DPEP states expanded the coverage of DISE to the non-DPEP districts of their state. The Government of India intends to gradually replace the manual system of data collection in case of elementary education by the DISE and to accord the statistics generated through it the status of the Official Statistics. In 2002-03, the coverage was further expanded to 461 districts across 18 states. However, the coverage was confined only to DPEP states. During 2003-04, the coverage was further widened to cover as

PART I

many as 539 districts (including bifurcated districts) across 25 States & UTs of the country (Table A1). Except Haryana, the coverage in all other states, in terms of districts, in 2004 was complete. Haryana could supply data of only 17 out of its 19 districts. On the other hand, Punjab submitted data only in case of government schools. It was for the first time that seven non-DPEP states adopted DISE during 2003-04. These states are Chandigarh, Manipur, Meghalaya, Mizoram, Nagaland, Punjab and Tripura. During 2004-05, four more States and UTs i.e. Arunachal Pradesh, Delhi, Jammu & Kashmir and Pondicherry got covered under DISE. Jammu and Kashmir could cover only 12 out of its 14 districts. Information on key indicators in these districts was generated through the DISE, which has been extensively utilized in formulating district elementary education plans. These states have more than 99.56 percent of the total population of the country. However, the system is yet to be adopted by six other non-DPEP States and UTs which together have 17 districts (A2). These States and UTs are Andaman & Nicobar Islands, Daman & Diu, Dadra & Nagar Haveli, Goa, Lakshadweep and Manipur. Except Manipur, all others are Union Territories and hence are small in size, both in terms of population and number of districts. NIEPA is committed to provide professional and software support to all the States and UTs. Accordingly, it has organized a number of Capacity Building Workshops, both in the new and old States. It is expected that all the remaining states and districts will adopt DISE in the year that follows.

"Efforts will be made to develop Country Report Card once all the States & UTs get covered under DISE"

The Present Publication

District Report Cards (2005) in case of 581districts, and State Report Cards 2005 in case of 29 States & UTs, have already been published separately (*Elementary Education in India: Where Do We Stand: District Report Cards: 2005, Volume I & II;* and *Elementary Education in India: Where Do We Stand - State Report Cards: 2005.* NIEPA and Government of India, New Delhi, 2006). With this, the DISE state-wise data is now available for three years and district-wise for more than five years. This data is also available on the official website of DISE i.e. http://dpepmis.org

"Despite significant achievements, inadequate utilization of DISE data still remains a major area of concern"

The previous year's Analytical Report (2004) was based on the data received from 539 districts across 25 States. This year's Analytical Report (2005) presents data from as many as 581districts across 29 States & UTs of the country. While comparing the state-specific indicators and average of all the districts, it may be noted that in case of Gujarat, Haryana and Maharashtra, only partial data was reported in 2003. The 2004 Analytical Report was based on complete data of 24 States and partial data of one State, i.e. Haryana. In case of Gujarat and Maharashtra, complete data was reported for the year 2004. The present publication contains detailed analysis and analytical tables in respect of each of the 29 States & UTs as per data recorded as on September 30, 2004, i.e. for the year 2004-05. The coverage in 2005, except in case of Jammu and Kashmir, is complete as the state as mentioned above could supply data of only 12 out of its 14 districts. In case of the rest of the states, the coverage in terms of number of districts covered is complete. Number of blocks, villages, schools etc, from which data is received is presented in the Table A3. The indicators analyzed and tables presented in the document are divided into the following four parts:

- School-Related Indicators;
- Facilities in Schools;
- Enrolment-Related Indicators; and
- Teacher-Related Indicators.

The Tables contain information on hundreds of variables, mostly presented by School Category and wherever necessary by Rural and Urban areas, and Management Category. Practically, all such indicators on which information is required for formulating reliable elementary education plans are presented 'in ready-to-use form'. Many of these

indicators have been included for the first time. Wherever necessary, time-series data is also presented either at the national and/or state level. Except on quality of education, comprehensive information is presented on all the aspects of universalisation, such as on access, enrolment and retention. Examination results (previous year) in the terminal Grade IV or V and VII or Grade VIII are considered as proxy of achievement levels and the same are presented separately in the case of boys and girls. The percentage of students passed with 60 per cent and above marks is also presented in case of all the 29 States & UTs covered under DISE 2005. An attempt has also been made to compute indicators of internal efficiency of education system.

"DISE has eliminated data gaps as comprehensive information is now available on all aspects of universal elementary education"

The Tables are based on the school level data provided by the State Project/Mission Directors of the Elementary Education Bureau of the MHRD. The data is first cross-checked and validated at the District and then at the State level. After the State is satisfied with the quality and reporting of the data, the data is submitted for final analysis at the national level and reporting to various project management agencies and also for dissemination at the national level. More specifically, the State Tables contain information on the following important areas of elementary education:

a) Data on number of blocks, CRC's, villages and schools in case of all the States.

b) Key data on elementary education in terms of the number of schools, enrolment, and teachers, classified by school category and school management (also in respect of a few variables in case of rural/urban areas).

c) Grade-wise and level-wise enrolment in each State.

d) Examination results for the previous academic session for the terminal classes at primary and upper primary levels of education.

e) Classrooms, categorized into good condition, requiring minor and major repairs by school category.

f) Number of schools by category and by type of buildings.

g) Sex-wise enrolment of children with disabilities at primary and upper primary levels.

h) Gender and caste distribution of regular and *para-teachers* and the proportion of teachers undergoing in-service teacher training during the pervious year.

i) Distribution of regular and *para-teachers* by educational and professional qualifications and by school category.

j) Enrolment by medium of instruction and by school category.

k) Sex-wise number of students benefited by various incentive schemes at primary and upper primary levels.

l) Performance indicators in terms of school category; ratio of primary to upper primary schools/sections; enrolment distribution: total, Scheduled Castes and Scheduled Tribes, percentage female enrolment; gender-parity index; classrooms; single-teacher schools; schools with attached pre-primary classes; percentage of under-age & over-age children in primary and upper primary classes; apparent survival rate (up to Grade V), dropout rate, retention rate, and transition rate from primary to upper primary level.

m) Quality indicators according to category of schools, teacher-pupil ratio; availability of female teachers; schools without female teacher; blackboard and building; percentage schools received and utilized school development and TLM grant; students-classroom ratio; availability of drinking water, common toilet and girl's toilet in school, etc.

The main indicators presented in the Analytical Report have been formulae by using the following illustrative formulae. The derivations are given for schools in the primary category only. The same method is applied for other categories and classification groups.

PART I

1. % Single classroom schools = $\frac{\text{Primary schools having single classroom}}{\text{Total primary schools}} \times 100$

2. % Single teacher schools = $\frac{\text{Primary schools with single teacher in position}}{\text{Total primary schools}} \times 100$

3. % Schools with SCR $\geq$ 60 = $\frac{\text{Primary schools having student classroom ratio} \geq 60}{\text{Total primary schools}} \times 100$

4. % Schools with pre-primary sections = $\frac{\text{Primary schools having pre-primary sections}}{\text{Total primary schools}} \times 100$

5. % Schools with common toilet = $\frac{\text{Primary schools having common toilet}}{\text{Total primary schools}} \times 100$

6. % Schools with girl's toilet = $\frac{\text{Primary schools having girls toilet}}{\text{Total primary schools}} \times 100$

7. % Enrolment in Government schools = $\frac{\text{Enrolment in primary schools having Education Department, Local Body, Tribal Welfare Department \& Others as school management}}{\text{Total enrolment in primary schools}} \times 100$

8. % Enrolment in Private schools = $\frac{\text{Enrolment in primary schools having Private Aided and Private Unaided as school management}}{\text{Total enrolment in primary schools}} \times 100$

9. % Enrolment in single-teacher schools = $\frac{\text{Enrolment in primary schools having single teacher}}{\text{Enrolment in total number of schools having primary category}} \times 100$

10. % No female teacher schools (teacher $\geq$ 2) = $\frac{\text{Primary schools having teacher} \geq 2 \text{ but no female teacher}}{\text{Total primary schools}} \times 100$

PART I

11. % Students in schools without building = $\frac{\text{Enrolment in primary schools having no building}}{\text{Enrolment in primary schools}} \times 100$

12. % Students in schools without blackboard = $\frac{\text{Enrolment in primary schools having no blackboard}}{\text{Enrolment in primary schools}} \times 100$

13. % Under-age & over-age children = $\frac{\text{Enrolment in Grades I-V below '6' \& above '11' years}}{\text{Total enrolment in Grades I-V}} \times 100$

14. % SC enrolment = $\frac{\text{Enrolment of SC in primary classes}}{\text{Total enrolment in primary classes}} \times 100$

15. % SC girls to SC enrolment = $\frac{\text{Enrolment of SC girls in primary classes}}{\text{SC enrolment in primary classes}} \times 100$

16. % ST enrolment = $\frac{\text{Enrolment of ST in primary classes}}{\text{Total enrolment in primary classes}} \times 100$

17. % ST girls to ST enrolment = $\frac{\text{Enrolment of ST girls in primary classes}}{\text{ST enrolment in primary classes}} \times 100$

18. Pupil Teacher Ratio (PTR) = $\frac{\text{Total enrolment in schools of primary category}}{\text{Total teachers in schools of primary category}}$

(*Para*-teachers have been included while calculating PTR)

19. Student-Classroom Ratio (SCR) = $\frac{\text{Total enrolment in primary schools}}{\text{Total classrooms in primary schools}}$

20. % Schools with $\leq$ 50 students in Grades I – IV/V = $\frac{\text{Number of primary schools having enrolment} \leq 50 \text{ in Grades I – IV/V}}{\text{Total primary schools}} \times 100$

PART I

21. % Schools with PTR $\geq$ 100 = $\frac{\text{Total primary schools having PTR} \geq 100}{\text{Total primary schools}}$ x 100

22. % Female teachers = $\frac{\text{Total female teachers in primary schools}}{\text{Total teachers in primary schools}}$ x 100

(*Para* teachers have been included while calculating this indicator)

23. % of Primary schools established = $\frac{\text{Total primary schools established since 1994}}{\text{Total primary schools}}$ x 100

(The denominator excludes the schools for which year of establishment is not given)

24. Flow Rates

(a) Promotion Rate

$$(p^t_g) = \frac{P_{g+1}^{t+1}}{E_g^t} \times 100$$

where

P_{g+1}^{t+1} = Number of students promoted to Grade 'g+1' in year 't+1', and

E_g^t = Total number of students in Grade 'g' in year 't'.

(b) Repetition Rate

$$(r^t_g) = \frac{R_g^{t+1}}{E_g^t} \times 100$$

where

R_g^{t+1} = Number of repeaters in Grade 'g' in year 't+1'

(c) Dropout Rate

$$(d^t_g) = \frac{D_g^t}{E_g^t} \times 100$$

where

d^t_g = Number of student's dropping out from Grade 'g' in year 't'

The flow rates have been computed by using the enrolment and repeaters data in schools which are common in both years i.e. 2003-04 and 2004-05.

(d) Transition Rate (TR)

$$TR = \frac{E_{g+1}^{t+1}}{E_{g}^{t}} \times 100$$

where

E_{g+1}^{t+1} = New entrants into Grade V/VI in year 't+1' and

E_{g}^{t} = Enrolment in Grade IV/V in year 't'

(e) Retention Rate (RR)

$$RR = \frac{\text{Enrolment in Grade IV/V in year 't' – Repeaters in Grade IV/V in year 't'}}{\text{Enrolment in Grade I in year 't – 3' / 't – 4'}} \times 100$$

25. Average promotion, repetition and dropout rates present average of these rates in primary classes and are calculated by using the standard methods.

26. Gender Parity Index (GPI) $= \frac{\text{Girl's enrolment in Primary Grades in year 't'}}{\text{Boy's enrolment in Primary Grades in year 't'}}$

27. Ratio of Primary to Upper Primary Schools/Sections $= \frac{\text{Total number of Primary Schools/Sections in year 't'}}{\text{Total number of Upper Primary Schools/Sections in year 't'}}$

28. Gross Enrolment Ratio (GER) $= \frac{\text{Total enrolment in Grades I-V}}{\text{Population of age 6-11 years}} \times 100$

29. Net Enrolment Ratio (NER) $= \frac{\text{Enrolment, Grade I-V/6-11 age group}}{\text{Population of age 6-11 years}} \times 100$

30. Input per graduate presents average number of years a system is taking in producing primary graduate which is based upon the *Reconstructed Cohort Method* by assuming that no child will repeat a grade more than three times.

31. In-service training, school & TLM grants received, incentives in terms of number of beneficiaries, examination results etc. are presented for the previous academic year.

PART I

32. Percentage of teachers in different age groups is presented only for teachers under Government managements.

33. Average number of days teachers spent on non-teaching assignments is applicable to only those teachers who were assigned non-teaching assignments and not to all the teachers.

Major Limitations of the Data

Because of the DISE interventions, the quality of educational data has started showing improvements. However, despite all significant achievements, DISE data may not necessarily be absolutely free from limitations, obviously in view of its large-scale operations. This is largely because of the ad-hoc arrangements that the States have made for the DISE and the MIS Units. Because of the frequent changes in MIS staff, the recently initiated Capacity Building exercises at different levels are of little use. Out-sourcing of data feeding is another major area of concern which has affected quality of data to a large extent.

During 2005, data has been collected from more than 1.04 million schools, with a comprehensive profile of more than 4.17 million teachers also being maintained by DISE. However, it may be noted that in a few States, the coverage may not be complete, despite all efforts to ensure that all the recognized schools imparting elementary education, including the private aided and the unaided ones, are covered under DISE. Schools like *Navodaya Vidyalayas*, *Sainik* Schools, Open Schools, Military Schools, KBGB *Vidyalayas,* Project Schools, *Kendriya Vidyalayas*, Tibetan Schools and other private managed schools are supposed to be covered under DISE but their coverage varies from State to State. A few States have collected data from these schools while others might not have covered all such schools. Similarly, field level functionaries reported that data from a few private recognized schools couldn't be obtained for one or the other reason. We are trying to reach all such schools through the highest level, and are hopeful that these efforts will be reflected in the year that follows. The data presented and indicators constructed in the document are entirely based upon the data as received from the States and UTs.

On the other hand, a few schools have not responded to all the classificatory variables like management, year of establishment, rural/urban classification, school category, building status, academic and professional qualifications of teachers, and caste and sex code for teachers. Wherever possible, efforts were made to analyse the data by excluding the no-response values. In some tables, the no-responses are also shown separately. However, in some cases, the 'no-responses' are explicit from the tables and hence the totals may not match across various tables due to different number of no-responses. In cross tabulation analysis, the no-responses are excluded.

An attempt has also been made to present flow rates in case of States and UTs having DISE data for more than two years. While analysing flow rates, it was noticed that in a few States and UTs the same was incorrect, largely because of the inconsistent data. Flow rates in case of such States and UTs have not been reported. Feedback on data quality was provided at the national level to the majority of States and UTs covered under DISE 2005. States are advised to use consistency module of DISE software to identify and remove inconsistencies in the data. In addition, CRC coordinators are made accountable to ensure that data is consistent and there are no missing values.

A few schools did not report age and grade matrix which is very crucial in knowing the status of elementary education. A few States even did not report enrolment of Grade VIII. Therefore, enrolment in upper primary classes does not present the complete enrolment in Grades VI-VIII. Enrolment presented

"Because of the DISE interventions, the quality of educational data has started showing improvements"

in this publication, if used in estimating GER and NER, may not present the true picture of universalisation in such states. The GER and NER based on DISE data, therefore, presents percentage of children of an age-group enrolled in schools that reported data under DISE. The remaining children may either be out-of-school or are enrolled in unrecognized schools, Education Guarantee Schools (EGS), non-formal education centers and other learning centers not covered under DISE. Irrespective of the school structure, enrolment ratio at the primary level is based on Grades I-V and of the upper primary level, Grades VI-VIII. Enrolment ratio at the upper primary level is not reported in case of States who supplied enrolment data upto Grade VII only.

One of the other important limitations of the data is incomplete reporting of school age population, which is crucial in assessing the progress towards universal elementary enrolment. The single-age projected population (provisional) provided by the Office of the Registrar General of India has been used in estimating child population. The GER and NER presented are based on this set of projected population and are subject to change once final projections are available.

The indicators presented in the document should, therefore, be viewed in the light of above limitations. Needless to mention that the total number of schools covered under DISE 2005 and enrolment reported may not match well with data from the other sources. The limitations are applicable to all indicators, especially enrolment-based indicators and tables presented in the document. However, despite all these limitations, the indicators presented give enough inference about different aspects of UEE in a particular State and UT and also the country as a whole, as it presents the average of 581 of the 600 districts.