REPORT ON
POST ENUMERATION SURVEY
(5% Sample Check of DISE 2011 of Maharashtra)

Submitted to

State Project Director,
Maharashtra Prathamik Shikshan Parishad
Govt. of Maharashtra

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Acronyms

SSA – Sarva Shiksha Abhiyan

DISE – District Information system for Education

PES - Post Enumeration Survey

DCF - Data Collection/Capture Format

GoI – Government of India

NUEPA - National University of Educational Planning and Administration

NIRD - National Institute of Rural Development

SC – Scheduled Castes

ST – Scheduled Tribes

OBCs – Other Backward Classes

MDM - Mid day meal programme

MIS - Management Information System

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Glossary of Terms

Class Size: Average number of students together in a class enrolled.

Completion rate: The percentage of pupils/students enrolled at the beginning grade/year of the level of education that finished or graduated from the final grade/year at the end of the required number of years of that level of education.

Data: Refers to the smallest unit or item, which represents a fact e.g. name, standard, age etc.\

Database: Refers to all related filed compiled or put together as one group.

Drop-out rate: Refers to the percentage of pupils/students who for any reason leave educational institutions during the school years (in any given grade or level) and did not come back to finish the grade or level during that school year to the total number of pupils/students enrolled during the previous school year.

Education Management Information system: Refers to an organized group of information and documentation services that collects stores, processes, and analyses and disseminates information for educational planning and management. It is a collection of component parts that include inputs, process, outputs and feedback that are integrated to achieve a specific objective. Its main purpose is to integrate information related to the management of educational activities, and to make it available in comprehensive yet succinct ways to a variety of uses.

Education system: Refers to the entirely organized and sustained process of providing education to groups of people regardless of age according to their learning needs.

The activities, structure and hierarchy may differ from one setting to another. The process of delivery to the learners comes in such basic forms as formal and non-formal by either a public/government entity or a private organization.

Educational Management: A process of creating conditions or situations necessary for maintaining quality of education.

Gross enrollment Ratio: Refers to the total enrolment of students in a grade or level of education, regardless of age, expressed as percentage of the corresponding eligible official age-group population in a given school year.

Net enrollment Ratio: Refers to the number of students enrolled in the official specific age group expressed as a percentage of the total population in that age group.

Repetition Rate: Percentage of pupil/Students /who enroll in the same grade/year more that once to the number of pupils/ students enrolled in that grade/year during the previous year.

Rural Area: Refers to areas out side of the municipal and city corporation areas.

Transition Rate: Percentage of students who graduated from one level of education e.g. primary, secondary, etc. and moved on or enroll to the next higher level.

Urban Area: Refers to the area covered by municipalities and city corporations in the country irrespective of locality.

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Executive Summary

Free and compulsory education to all children up to the age of fourteen years is our constitutional commitment. The Government of India has initiated a number of programmes to achieve the goal of Universalisation of Elementary Education (UEE). Among the several programmes launched, Sarva Shiksha Abhiyan (SSA) is the most recent one in this regard. The Sarva Shiksha Abhiyan (SSA) is a historic stride towards achieving the long cherished goal of Universalisation of Elementary Education (UEE) through a time bound integrated approach, in partnership with States. SSA, which promises to change the face of the elementary education sector of the country, aims to provide useful and quality elementary education to all children in the 6-14 age groups by 2010. Unlike the previous programmes of this nature, SSA is quite distinct in terms of implementation through mission as well as partnership mode.

In the context of implementation of Sarva Siksha Abhiyan (SSA), a massive programme undertaken in the realm of education sector, what assumes greater significance is proper implementation of the programme itself to derive appropriate results? For effective implementation of such large-scale programme, collecting information, analyzing the results, identifying the corrective course, deriving instructions based on the actual situation, the Sarva Shiksha Abhiyan (SSA) is implemented throughout the country with the help of project authorities of state government concerned. An elaborate MIS mechanism has been laid to monitor the implementation of the programme, gauge the results and identify course of action from time to time. At the project authority level i.e. State level, the District Information System for Education (DISE) collects data pertaining to various aspects of education system through a structured schedule consisting of information on school education. At district level regular monitoring reports are being prepared and submitted to Ministry of HRD, Govt. of India at

periodical intervals. In addition, with a view to establishing the veracity of information provided by the project authorities concerned, an external institution conducts similar survey i.e. DISE, based on a 5% sample survey. Thus, appropriate MIS in essence properly guards the SSA.

As per the desire of the MHRD, GoI the 5% sample check of the DISE data by an external research agency has been asked by the State Project Director, SSA, The National Institute of Rural Development has taken up the study in 8 Districts of Maharashtra i.e Amaravathi , Nagpur, Aurangabad, Nasik, Mumbai, Pune,Lathur and Kolhapur. The report is aimed at verification of data collected through DISE and verifies data similarities as well as fluctuations, if any. In essence, thus report is solely aimed at verification of actual data collected and submitted and thus leading to refining and also to maintain internal consistency of data to facilitate decision-making process in educational management.

The 5% sample check of DISE data was based on data collected in Eight districts viz. Amravati, Nagpur, Aurangabad, Nasik , Mumbai, Pune, Lathur and Kolhapur. Eight Education regions of the state. Data for the study was collected from 1405 schools spread over eight districts selected for the study. Comparison between DISE and PSE data could be established for all the 1405 schools. Further, in reference to certain variables there was no commonality between formats canvassed for DISE and PSE data. Hence, the report has not only the limitation of comparison among 1405 schools but also in reference to certain common variables. However, the data on independent variables, for which there was a provision in PSE data format, description on findings was presented separately.

Findings of the Study

1. Overall deviations of data from PES data within the comparable items are 10.74% and thereby giving a precision level of 89.26%. The highest deviation of data is noticed in status of school buildings, type of schools, condition of boundary wall, and management of schools, source of drinking and children enrollment. This is because of the respondents in ability to interpret the item and under reporting the items with in accurate figures in DISE data. Within the available comparable data, few schools did not provide the information on some of the items.
2. The highest deviation of data is observed in respect of items which are based on respondent's interpretation i.e. In Category of schools, status of school buildings, No. of Class rooms, condition of boundary wall, management of schools, drinking water facility, Part of shift schools, separate toilet for girls and in position of teachers and children enrollment.
3. The items like type of management, number of blocks in schools, teacher posts sanctioned, teachers in position, disability, repetition rate, availability of computers have not been reported properly. Hence, it was felt difficult to establish deviation on such an important variables.
4. As much as seven per cent of schools among 7% schools were not open at the time of survey causing lot of inconvenience while collecting data for these schools investigators visited second time.
5. It is found that among the sample schools 68.1% percentage of schools the teachers come on time to school where as in 32%

schools it is reported that teachers are not attending the school in time.

6. As much as 49.6% of Head Masters concerned could not able to provide requisite information pertaining to his/her school though records are available.
7. 50.9% of the schools even do not have photocopy of DISE format though requisite instructions were in vogue.
8. In as much as 47.6% of schools Display Boards were not available. Even in case of the schools where the display boards are available the information was not written on the boards.
9. Still considerable number of schools was not having exclusive toilets for girl children. Even in case of schools the toilets are available running water facility is not available.
10. Enrolment of girls lower that the boys among the SC, ST and OBC communities.

Based on the results of the survey some of the **recommendations** were arrived at for improving MIS, and these are as follows:

- More emphasis should be laid on issues like **enrolment, retention, and dropout and attendance rate** in the data capture format resulting in effective enumeration of vital statistics.
- Collection of DISE Information and 5% sample checking may be undertaken simultaneously so that timely submission of reports can be ensured.
- The field experience reveals that the headmasters/teachers feel that it is an additional burden to them and sometimes found it

difficult in providing of the required data. Therefore, the headmasters/teachers need to be given an understanding that supplying of educational data of the school is mandatory and it is a part of their job. Therefore, they are to be serious and sincere in providing the data.

- The formats canvassed for Post Enumeration Survey (DCF) and the District Information System of Education (DISE) were quite different in terms of certain variables/aspects. This has been resulting difficulty in establishing similarities or confirmation of data through Five Percent Check.
- The Cluster school Head Masters, Block Educational Officers, Officers of District project (SSA)and DIET faculty should be given training on collection and utilization of DISE data and it's all related software applications for proper planning and implementation of Educational activities.
- The investigators faced the problem in getting the data about previous academic year as the records are not maintained properly, therefore, the headmasters need to be advised to maintain a single register which contains year wise data of the school and the required data of any year becomes easy to be supplied.

- All the teachers must be given proper orientation and awareness regarding the importance of DISE data and its utility.
- The school has to mandatorily conduct community reading of draft DISE data before submitting the final copy to the block.
- Effective supervision and monitoring should be ensured at all levels for quality data cross checking of filled in DISE format may be undertaken to improve the quality of information.
- ***MIS Units should be strengthened by appointing properly trained professionals to maintain and manage the information system.***

These are the certain suggestions based on field observations of the investigators. In case, the above cited points are taken care, it is hoped that the next year DISE data will definitely improve qualitatively. Further it is put on record that the DISE data of this year seems to be better than the previous years and it is hoped that it will improve in its quality in years to come.

Summing up, variance of DISE data in reference to 5% sample check through PSE survey data is slightly deviant (10.74%) from the permissible data variance of 10%. Based on the visits to schools concerned and physical verification of DISE formats, it appears that the deviation of data is perhaps due to certain level of lack of awareness in terms of providing actual data. Had there been extra care of supervision and a little more efforts in the area of capacity-

building for teachers, the variance in terms of DISE data would have been much lesser.

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Chapter I
Introduction

1.0 Introduction

Sarva Shiksha Abhiyan (SSA) is a comprehensive and integrated flagship programme of Government of India to attain Universal Elementary Education (UEE), covering the entire country in a mission mode. SSA has been launched in 2001-2002 in partnership with the State Governments and Local Self Governments. The programme aims to provide useful and relevant, elementary education to all children in the 6 to 14 age group by 2010. It is an initiative to universalize and improve quality of education through decentralized and context specific planning and a process based, time bound implementation strategy. The programme lays emphasis on bridging all gender and social category gaps at elementary education level with time bound objectives. On one hand, SSA is a programme with its own targets, norms and processes and on the other it is an umbrella programme covering other programmes like District Primary Education Programme (DPEP), Lok Jumbish, Operational Blackboard, etc. The gigantic dimensions of the programme and the financial implications call for a meticulous planning and a rigorous appraisal.

India has made long strides in the last 50 years in the field of education. The National Policy on Education 1986 and Programme of Action 1992 also accorded top priority for achieving the goals of Universal Elementary Education. A number of programmes / schemes were launched during the last four decades for Universalisation of elementary education. Some of these efforts have been in the field of primary education and a few also covering upper primary sector. Due to these interventions, initiated by Government of India and the respective state Governments, there has been considerable progress in providing access, improving retention and the quality improvement in primary education sector.

However, much needs to be done for the special focus groups, and the upper primary sector. Quality improvement still remains a major concern, especially for upper primary sector. Sarva Shiksha Abhiyan is an attempt to fill this vacuum and covers all the districts in the country unlike the earlier programmes on elementary education. The programme covers the whole gamut of elementary education sector and is flexible enough to incorporate new interventions like specific interventions for girls, e.g., NPEGEL, Kasturba Gandhi Programme.

SSA adopts, “the bottom-up” process of planning, wherein the felt needs of the served communities and educational needs of learners are well taken care of and the plan fits into the broad framework of SSA. In view of the fact that the desired improvement and sustenance of the improved efficiency level can not be achieved without the active involvement of the community in the schooling system, SSA has emphasized the involvement of local people & stakeholders in planning. This also ensures reflection of local specificity, which is essential for achieving the goals of the programme.

1.1 Education: the Scenario

Though India has the rich tradition of having one of the oldest education system i.e. Gurukul, yet the present scenario is quite tardy in terms of spread of education among all sections of people as well as level of education. Whatever the historical reasons may be the backwardness in terms of spread of education was taken up as a great challenge by the time of Independence. Accordingly Constitutional measures were taken up to provide compulsory education among all sections of population. However, given the population growth on one side and the physical constraints like difficult terrain, habitations in remote areas, tribal dialect etc on the other hampered the progress in terms of spread of education. Given the tardy progress in education new programmes have been taking shape to further education across the country from time to time.

Free and compulsory education to all children up to the age of fourteen years is our constitutional commitment. The Government of India has initiated a number of programmes to achieve the goal of Universalisation of Elementary Education (UEE). Among the several programmes launched, Sarva Shiksha Abhiyan (SSA) is the most recent one in this regard. The Sarva Shiksha Abhiyan (SSA) is a historic stride towards achieving the long cherished goal of Universalisation of Elementary Education (UEE) through a time bound integrated approach, in partnership with States. SSA, which promises to change the face of the elementary education sector of the country, aims to provide useful and quality elementary education to all children in the 6-14 age groups by 2010. Unlike the previous programmes of this nature, SSA is quite distinct in terms of implementation through mission as well as partnership mode.

1.2 Effective Implementation of Programmes: Role of Management Information System (MIS)

In the context of implementation of Sarva Shiksha Abhiyan (SSA), a massive programme undertaken in the realm of education sector, what assumes greater significance is proper implementation of the programme itself to derive appropriate results? For effective implementation of such large-scale programme, collecting information, analyzing the results, identifying the corrective course, deriving instructions based on the actual situation assume much of significance.

Further, recent trends in programme implementation demand make the availability of timely and accurate information of the utmost importance to organizations engaged in education activities. Information is a critical resource in the operation and management of organizations. Timely availability of relevant information is vital for effective performance of managerial functions such as planning, organizing, leading, and control. An information system in an

organization is like the nervous system in the human body: it is the link that connects all the organization's components together and provides for better operation and survival in a competitive environment. Indeed, today's organizations run on information.

In a programme of the magnitude of Sarva Shiksha Abhiyan (SSA), MIS thus play vital role in ensuring proper implementation of the programmes, assess corrective course of action, realign strategies and activities, and measure the results and so on.

1.3 Sarva Shiksha Abhiyan (SSA) and the MIS in vogue

Sarva Shiksha Abhiyan (SSA) is implemented throughout the country with the help of project authorities of state government concerned. An elaborate MIS mechanism has been laid to monitor the implementation of the programme, gauge the results and identify course of action from time to time. At the project authority level i.e. state level, through District Information System for Education (DISE) data pertaining to various aspects of education system is collected through a structured schedule consisting of information on school education at district level. Regular monitoring reports are being prepared and submitted to Ministry of HRD, Govt. of India at periodical intervals. In addition, in order to establish the veracity of information provided by the project authorities concerned, an external institution conducts similar survey i.e. DISE, based on a five per cent sample survey. Thus, appropriate MIS in essence properly guards the SSA.

1.4 Education System in Maharashtra: A Glimpse

The value of education has been well-appreciated in Maharashtra and the state is making progress every day in this regard. Maharashtra’s literacy rate is higher than the national average and second highest among major states in the country as per Census 2011. Male literacy rate has reached almost 90% and female literacy rate has crossed 75%.Gender gap in literacy rate is also reducing.

The number of educational institutions, teachers and enrolment figures has increased between 2001 and 2010. The gender gap in enrolment at elementary level is less than 6%, but is more than 15% at secondary and higher secondary levels.

Sarva Shiksha Abhiyan (SSA) has strengthened basic infrastructural facilities in most schools. Pupil Teacher Ratio is also less than 1: 40 in about 95%schools. However, improving learning achievement level is a greater challenge for the state.

Literacy Rate:-

Literacy Rate (in %) (7 yrs & above)			Pupil Teacher Ratio	% of female teacher	% of single teacher school	Gender gap in enrollment (in %) primary level	Gender gap in enrollment (in %) upper primary level
Person	Male	Female					
82.91	89.82	75.48	30.13	44.42	3.31	5.75	6.42

1.5 District Information System for Education and Sample Check

As cited, effective implementation of programmes heavily depends on information system inbuilt in the programme implementation. In this regard, **District Information System for Education** made a provision for strengthening the Educational Management. A number of Government and Quasi Government Institutions were involved in collection information on important educational variables from the schools concerned to provide inputs for formulation of district elementary education plans under Sarva Shiksha Abhiyan and also for five year plans. Further this intervention will also be useful to decentralized framework programme implementation.

Since DISE data provides the basic information provided by the project authority concerned, it is also quite essential to verify the data based on a sample check. The present report is based on data collected through five per

cent sample of the actual DISE data in Maharashtra. The report is aimed at verification of data collected through DISE and to observe the similarities as well as fluctuations, if any. In essence, the report is solely aimed at verification of actual data collected and submitted for which not only leading to refining but also to maintain internal consistency of data to facilitate decision-making process in educational management.

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Chapter- II
Study area and Design

In a study of qualitative check and sample analysis of DISE data and confirming the results there of, the methodology of the study needs to be precision oriented. Hence, carefully drawn sampling method and appropriate care for other related aspects with regard to methodology were emphasized in this study. This chapter provides brief description about methodology.

Objectives

The main objectives of the study are:

i. Evaluate the quality check of the DISE data
ii. Measure the precision levels as well as deviation of DISE data
iii. Suggest measures for strengthening data base on information pertaining to SSA in Maharashtra.

2.1 Sampling

The universe of the study is all the schools covered under SSA programme in Maharashtra. As the DISE data consists of information on all the schools covered under SSA in Maharashtra, five per cent of the schools appropriately representing schools across the state were selected for deriving sample for the study. While confining to the five percent sampling and even care has been taken to emphasis on type of schools as well as management by ensuring the representation of both rural and urban were, different types of management of schools namely Government, Private, Aided and recognized etc. Due representation was also given to the schools located in SC/ST area.

The sample selected for the present study was 1405 schools and the below table furnishes the information:

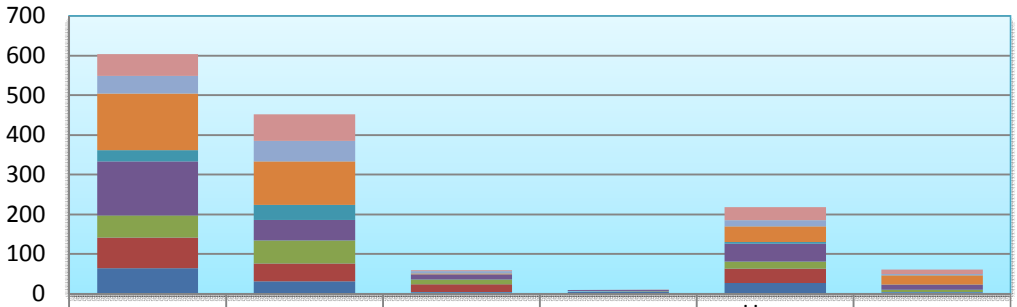
Table: 2.1 DISTRIBUTION OF SAMPLE BY SCHOOL CATEGORY AND DISTRICT

District	Category of Schools						Total
	Primary	Primary with Upper Primary	Primary with Up. Pr. & Sec. / H.Secondary	Upper Primary only	Upper Primary with Secondary or Higher Secondary	Sec. & Sec. with Higher Secondary	
Amaravathi	64	31	4	5	27	4	135
Nagpur	78	45	20	1	36	0	180
Aurangabad	55	58	12	1	18	6	150
Nasik	136	52	12	2	45	13	260
Mumbai	28	38	0	0	4	0	70
Pune	144	110	3	0	40	23	320
Latur	44	51	6	1	15	3	120
Kolhapur	55	67	2	1	33	12	170
Total	**604**	**452**	**59**	**11**	**218**	**61**	**1405**

The above table gives a clear view of district-wise and school category wise distribution of the sample. Out of total sample (1405 schools) 604 (43.6%) schools were selected from Primary schools , 452 (32.1%) schools from Primary with Upper Primary and 59 (4%) from primary with secondary or higher secondary sections,11 from Upper primary only,218 from Upper primary with secondary or Higher secondary sections and 61 from secondary and secondary with Higher secondary respectively.

It is evident from the above table that majority of schools are from Primary i.e 604 and within this belongs to Nasik (136) and Pune (144)districts.

FIG.2: DISTRICT-WISE SELECTION OF SAMPLE SCHOOLS



	Primary	Primary with Upper Primary	Primary with Up. Pr. & Sec. / H.Secondary	Upper Primary only	Upper Primary with Secondary or Higher Secondary	Sec. & Sec. with Higher Secondary
Kolhapur	55	67	2	1	33	12
Latur	44	51	6	1	15	3
Pune	144	110	3	0	40	23
Mumbai	28	38	0	0	4	0
Nasik	136	52	12	2	45	13
Aurangabad	55	58	12	1	18	6
Nagpur	78	45	20	1	36	0
Amaravathi	64	31	4	5	27	4

It is clear from fig-2 that the majority of primary schools are in Pune district i.e. (144 schools), primary with upper primary (110 schools) in Nasik district, primary with Upper Primary schools i.e. 52 schools followed by Aurangabad 58, Nagpur 45 and Latur 51 district respectively.

2.2 Study Area

The area chosen for the present study is Maharashtra which consists of Eight Education regions one each region one district is selected, A representative

sample of eight districts were randomly selected for the present study. They are Kolhapur, Lathur, Aurangabad, Nasik, Nagpur, Amravati, Pune and Mumbai. In each district, the schools were randomly selected from all the regions representing urban, rural, SC and tribal and areas. Thus, a total of 1405 schools were covered in the present. The following Table-2.2 shows the district wise distribution of schools.

Table 2.2 District wise distribution of schools

S.No.	Education Region	Name of the District	Number of Schools
1	Amaravathi	Amravati	135
2	Nagpur	Nagpur	180
3	Aurangabad	Aurangabad	150
4	Nashik	Nashik	260
5	Mumbai	Mumbai	70
6	Pune	Pune	320
7	Lathur	Lathur	120
8	Kolhapur	Kolhapur	170
Total			**1405**

As shown in the above table,320 schools from Pune, 260 schools were selected as sample from Nasik district, 180 schools from Nagpur district and 170 from Kolhapur district as the sample for the present study.

2.3 Instruments for Data Collection

A prescribed 'schedule' designed by National University of Educational Planning and Administration (NUEPA), New Delhi consisting of information on various aspects of school information was administered for the purpose of the study. It covers the aspects like school enrolment, dropouts, stagnation, physical and teaching facilities and so on.

2.4 Collection of Data

For the purpose of data collection, the study team made physical visit to all the schools for preliminary interaction with teaching staff and appraising themselves with the physical and academic conditions prevailing there of. Since the data collection is to be covered in a span of less time and the task is of gigantic proportion, required number of research investigators were identified and trained thoroughly in terms of appropriate data collection methods. Specific care has been taken to identify the research investigators keeping in view the requirement of exposure to school education. Hence, Post Graduates having B.Ed, M.Ed, and M.Phil qualification were specifically drafted as research investigators for the purpose of the study. They were in turn given a two-day orientation on data collection and then placed for actual data collection. The school management concerned was informed in advance to keep the records ready for secondary data collection as well. On the day of visit to the schools, the structured schedule was administered for primary data collection under the supervision of research team.

2.5 Reference period

The DISE data pertains to the year 2011 with 30th September as reference date. The post enumeration survey was also of the same period. Though the

MoU was signed in the month of January 2012, the study was launched in June 2012 and completed in November 2012, because of certain administrative reasons.

2.6 Data Analysis and Presentation

Collected data, after scrutiny of both the sets of formats, already filled up DISE formats and special DCF, were subjected to comparison by using simple deviation method. The school-wise and category-wise data was analyzed by using the simple deviation analysis tools in reference to all the comparable items of the survey. The overall deviation of data has been calculated as per following formula.

$$\frac{(d1+d2+d3+d4+d5\ldots\ldots\ldots dx)}{a+b+c+d+\ldots\ldots\ldots\ldots+x} \times 100$$

*Where **d1, d2.d3…** stands for deviation of items of DISE data from Post Enumeration Survey data ignoring + or - signs and **a, b, c**, denote items of Post Enumeration Survey data*.

Based on the above cited formula, information pertaining to 555 schools, where commonality of data exists, is presented variable-wise providing actual data obtained through PES and DISE and deviation observed there of.

2.7 Chapterization

The present report is divided into four chapters. Chapter I deal with the general introduction pertaining to the importance of education, role of MIS for effective discharge of programme activities and the mandate of the report etc. Chapter II deals with methodology adopted for the present study, this chapter also depicts the limitations the study experienced and the reasons there of.

Chapter III deals with comparative data between the outcome of PES and DISE data in reference to various variables where commonality exists. Chapter IV deals with interpretation of data analyzed pertaining to additional data collected through PES survey format and information on which data is not available through DISE format. The final chapter, Chapter V, deals with summary of report and suggestive measures/recommendations derived through the survey for effective course of action in future for improvement of DISE under SSA.

2.7 Limitations of the Study:

The study has drawn carefully keeping in view of all the parameters and confronted the following limitations.

- Difference in Formats for post enumeration survey and DISE Data.
- Coverage of all types of school Managements
- Unfilled columns in prescribed formats of DISE data.

National University of Educational Planning and Administration, Government of India designed the format of DCF and is used for collecting the DISE data. The format is too lengthy and most of the items were self-explanatory. It is noticed that there is no point of collecting data on certain items again and again which were already available with concerned department. Some of the information is not available in the school instantly, for which they have to search the old records. Difference in formats for post enumeration survey with additions and with expanded items was made difficult as a result comparison could be under taken. Some of the DISE formats were not filled properly, particularly important items like type of management, number of blocks, class rooms, computer facility etc. Consequently, these aspects were kept outside the purview of this survey report presentation.

Since the prime objective of Post Enumeration Survey (PES) is to evaluate the quality check of the DISE data and it is an important database for planning and strategy development, improvement of education on the whole, the construction of items in the format should be appropriate and should seek the information on what actually intended for. However, in several aspects, there is no similarity of the items on which PES and DISE formats were designed and as a result these aspects were not comparable. A few of the examples are detailed below:

- The details of the Head Master i.e. Name and educational Qualifications.
- Experience of Principal
- Number of years of working as HM in the present school
- Children enrollment in the last Academic Year
- Enrollment and Attendance details of children on the date of survey
- Grade wise Examination details for which Annual Examinations conducted in Last Academic Year.
- Investigators feed back on certain items like Attributes pertaining to the principal
- Filling up of attendance registers etc.

Apart from these, quite a good number of items on which information usually collected on regular basis under DISE data were missing in the DCF i.e. PES format. Such items are indicated below:

- Particulars of pre primary classes
- Teacher training activities
- Academic inspections
- Visits by the coordinators of different levels
- School development
- maintenance grants

- Infrastructure availability in the class rooms
- Library facilities
- Arrangements for disable students
- Enrolment details
- School information on the whole. etc.

In some cases, after scrutiny of DISE formats it has been noticed that some of the sample schools have not provided the information on certain items, which other wise could be, compared with the Post Enumerations survey formats. Consequently, some more items could not be compared and the details are as follows:

- Year of establishment of the school
- Number of teacher posts sanctioned and positioned
- Sex wise teacher details
- Number of Blocks and classrooms in the schools

To sum up, the study was confined to 480 schools drawn from three districts across different regions of Andhra Pradesh. However, as the DISE data did not have the component of private and un-aided schools information, thus data of 480 common schools were used for comparative analysis. The schools selected for the study consists of various category of school education and also different managements. The data were collected for the study through a structured schedule prescribed for the purpose. As the study findings were devoted to establish the comparison with DISE data already collected, a specific prescribed formula was adopted for comparable items of data. The study encountered certain limitations due to differential formats prescribed for DISE and PES survey. However, as most of the items were comparable, a genuine attempt has been made to arrive at confirmation and deviation of survey results.

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Chapter III
Comparative Data Analysis
Between PES and DISE Data

The mandate of the report is to establish the accuracy of DISE survey in respect of various components of SSA in Maharashtra. However, the Data Collection Formats (DCF) used for PES survey consists of additional information than the Data Collection Formats (DCF) through which data were collected for DISE survey. However, given the mandate of the study and the methodology followed, each and every category of schools was covered under PES survey. As a result, 1405 schools were selected randomly for the study and survey was carried out through trained and qualified research investigators. The data of 1405 schools were compared with PES data and conclusions were arrived. Further, as the PES data format has additional information than DISE survey data, the additional components were also presented separately and for the purpose of comparison only common variables were taken up.

In essence, this chapter contains a comparative analysis of common variables existing between PES and DISE survey data among the common schools covered.

As the report is aimed at confirming the data collected through DISE survey the common variables where deviation were established is furnished below:

- Location of Schools;
- Type of Schools
- Category of Schools;
- Lowest Class in Schools;
- Highest Class in Schools;
- Management of Schools;
- Residential status of Schools;
- Part of Shift Schools;
- Sanctioned Teachers;
- In Position Teachers;
- Status of School Building;
- Condition of Class Rooms;
- Electricity in Schools;
- Common Toilets in Schools;
- Separate Toilets for Girls in Schools;
- Condition of Boundary Walls in Schools;
- Source of Drinking Water in Schools;
- Availability of Play Ground in Schools;
- Availability of Computers in Schools;
- Availability of Furniture in School; and
- Children's Enrolment in 2011-12.

For each component of comparable variables, as cited above, the analyzed data is presented against PES and DISE data actual and then deviation, if any, irrespective of positive or negative trends is presented. Wherever, possible and felt necessary, the analyzed data is also presented in graphical form for better elucidation.

COMPARATIVE ANALYSIS OF DISE DATA WITH PES DATA

TABLE NO.3.1: COMPARISON OF PES DATA WITH DISE DATA ON SCHOOL CATEGORY

Category of Schools

DISTRICT	Sample size	Primary			Primary with Upper Primary			Primary with Up. Pr. & Sec. / H.Secondary			Upper Primary only			Upper Primary with Secondary or Higher Secondary			Sec. & Sec. with Higher Secondary		
		PES	DISE	Devia -tion	PES	DISE	Devia-tion	PES	DISE	Devia-tion	PES	DISE	Devia-tion	PES	DISE	Devia-tion	PES	DISE	Devia-tion
Amaravathi	135	64	63	1	31	28	3	4	1	3	5	0	5	27	37	10	4	6	2
Nagpur	180	78	74	4	45	52	7	20	5	15	1	0	1	36	40	4	0	9	9
Aurangabad	150	55	62	7	58	60	2	12	2	10	1	0	1	18	20	2	6	6	0
Nasik	260	136	134	2	52	57	5	12	7	5	2	0	2	45	49	4	13	13	0
Mumbai	70	28	22	6	38	46	8	0	1	1			0	4	1	3			0
Pune	320	144	146	2	110	108	2	3	3	0			0	40	35	5	23	28	5
Latur	120	44	38	6	51	51	0	6	4	2	1	0	1	15	22	7	3	5	2
Kolhapur	170	55	55	0	67	69	2	2	0	2	1	0	1	33	28	5	12	18	6
Total	1405	604	594	28	452	471	29	59	23	38	11	0	11	218	232	40	61	85	24

a) Quantitative Value of items as per DISE Data - 1405

b) Quantitative Value of items as per PES Data - 1405

c) Quantitative Value of deviations ignoring $\pm$ signs - 170

d) Percentage deviation of DISE Data with PES Data - 12.10%

e) Precision level of DISE data with relation to PES Data - 87.90%

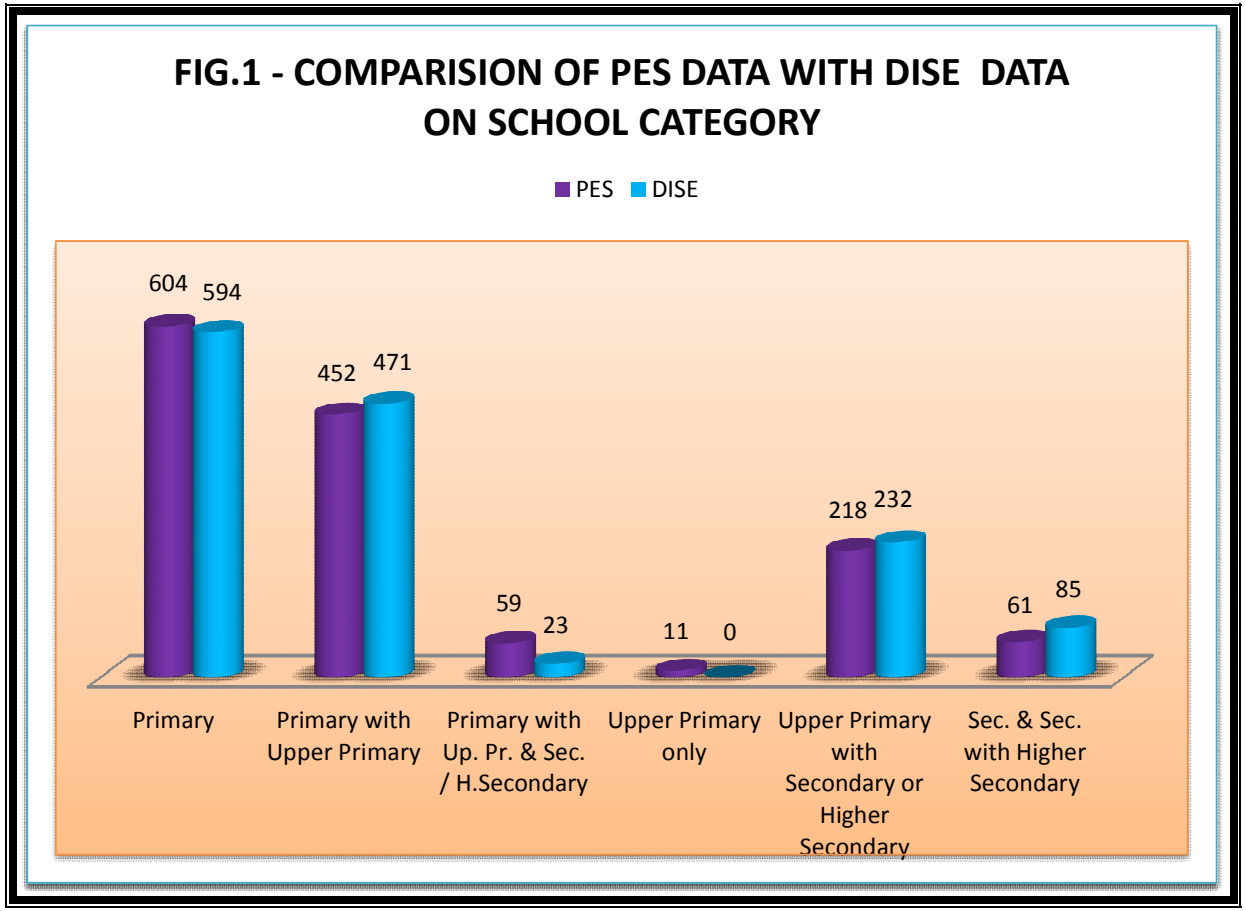


FIG.1 - COMPARISION OF PES DATA WITH DISE DATA ON SCHOOL CATEGORY
PES
DISE
604
594
452
471
59
23
11
0
218
232
61
85
Primary
Primary with Upper Primary
Primary with Up. Pr. & Sec. / H.Secondary
Upper Primary only
Upper Primary with Secondary or Higher Secondary
Sec. & Sec. with Higher Secondary

TABLE NO.3.2: COMPARISON OF PES DATA WITH DISE DATA ON SCHOOL LOCATION

Location of Schools

DISTRICT	Sample size	Rural			Urban		
		PES	DISE	Deviation	PES	DISE	Deviation
Amaravathi	135	124	126	2	11	9	2
Nagpur	180	130	125	5	50	55	5
Aurangabad	150	125	138	13	25	12	13
Nasik	260	195	192	3	65	68	3
Mumbai	70	4	0	4	66	70	4
Pune	320	205	205	0	115	115	0
Latur	120	32	35	3	88	85	3
Kolhapur	170	128	100	28	42	70	28
Total	1405	943	921	58	462	484	58

a) Quantitative Value of items as per DISE Data - 1405

b) Quantitative Value of items as per PES Data - 1405

c) Quantitative Value of deviations ignoring $\pm$ signs - 116

d) Percentage deviation of DISE Data with PES Data - 8.26%

e) Precision level of DISE data with relation to PES Data - 91.74%

TABLE NO.3.3: COMPARISON OF PES DATA WITH DISE DATA ON TYPE OF SCHOOL

Type of Schools

DISTRICT	Sample size	Boys only			Girls only			Co-educational		
		PES	DISE	Deviation	PES	DISE	Deviation	PES	DISE	Deviation
Amaravathi	135	12	6	6	12	11	1	111	118	7
Nagpur	180				12	3	9	168	177	8
Aurangabad	150	2	1	1	9	3	6	139	146	7
Nasik	260	6	5	1	5	5	0	249	250	1
Mumbai	70						0	70	70	0
Pune	320	26	26	0	20	18	2	274	276	2
Latur	120	0	2	2	3	2	1	117	116	1
Kolhapur	170	8	9	1	15	16	1	147	145	2
Total	1405	54	49	11	76	58	20	1275	1298	28

a) Quantitative Value of items as per DISE Data - 1405

b) Quantitative Value of items as per PES Data - 1405

c) Quantitative Value of deviations ignoring $\pm$ signs - 59

d) Percentage deviation of DISE Data with PES Data - 4.20%

e) Precision level of DISE data with relation to PES Data - 95.80%

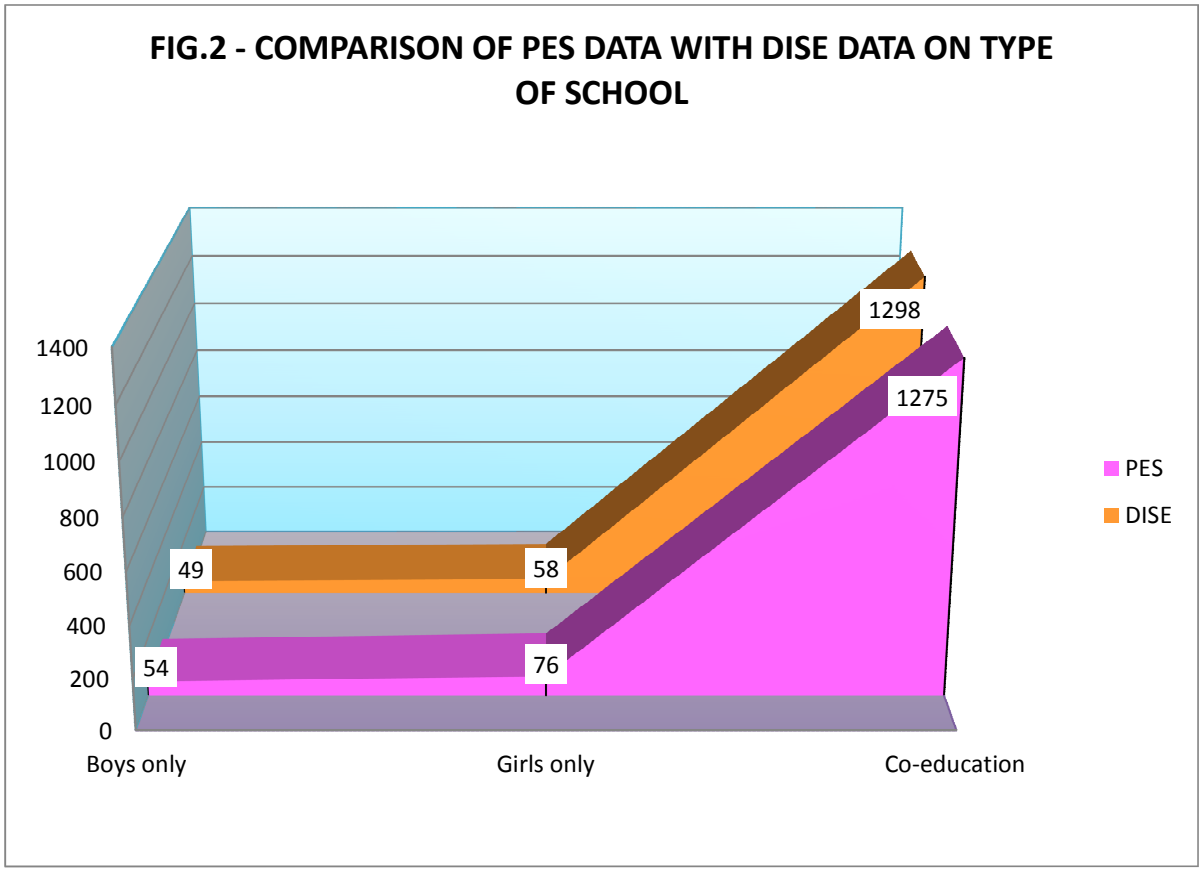


FIG.2 - COMPARISON OF PES DATA WITH DISE DATA ON TYPE OF SCHOOL
1400
1200
1000
800
600
400
200
0
49
58
54
76
1298
1275
Boys only
Girls only
Co-education
PES
DISE

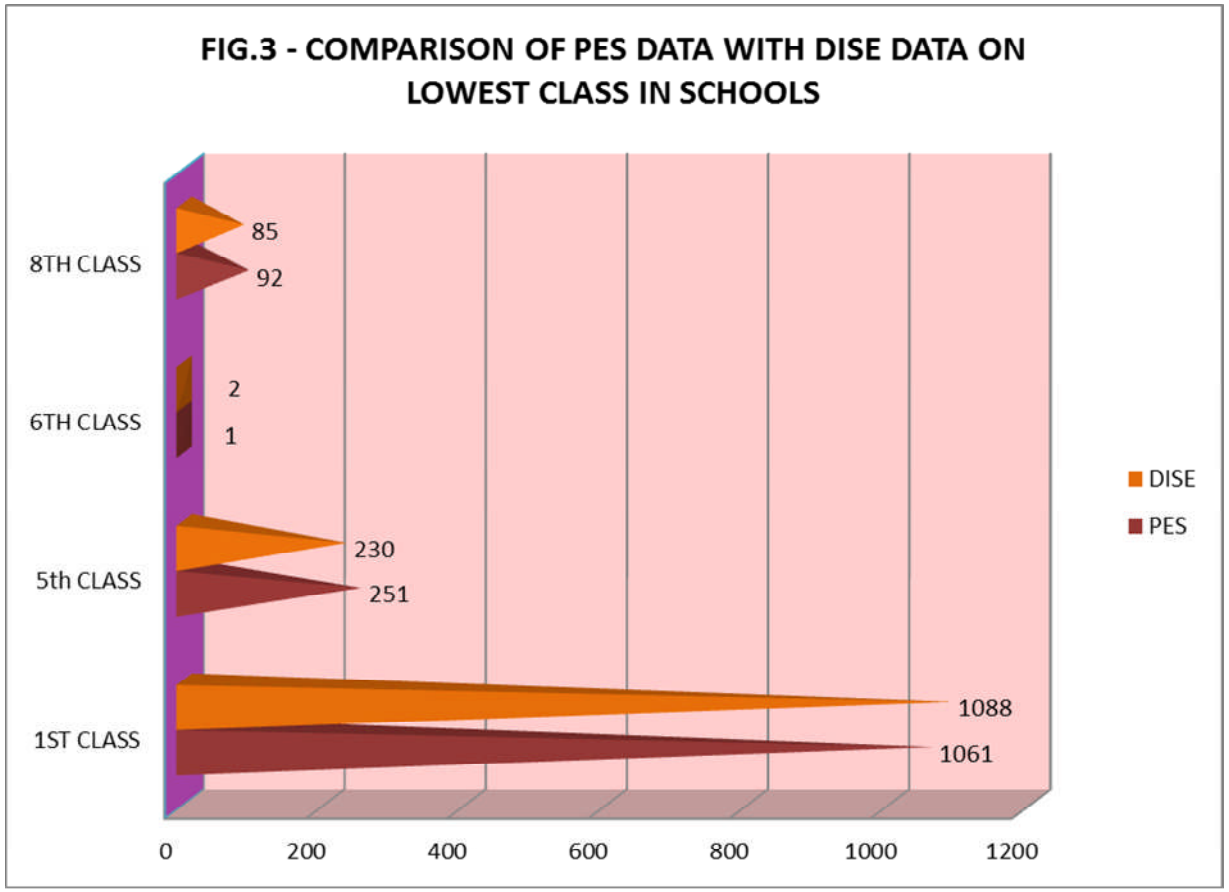


FIG.3 - COMPARISON OF PES DATA WITH DISE DATA ON LOWEST CLASS IN SCHOOLS
8TH CLASS
6TH CLASS
5th CLASS
1ST CLASS
85
92
2
1
230
251
1088
1061
0
200
400
600
800
1000
1200
DISE
PES

TABLE NO.3.4: COMPARISON OF PES DATA WITH DISE DATA ON LOWEST CLASSES IN SCHOOLS

Lowest Class in Schools

DISTRICT	Sample size	1			5			6			8		
		PES	DISE	Deviation	PES	DISE	Deviation	PES	DISE	Deviation	PES	DISE	Deviation
Amaravathi	135	90	92	2	39	37	2			0	6	6	0
Nagpur	180	127	131	4	49	40	9			0	4	9	5
Aurangabad	150	109	124	15	26	20	6			0	15	6	9
Nasik	260	196	198	2	50	48	2	1	1	0	13	13	0
Mumbai	70	66	69	3			0	0	1	1	4	0	4
Pune	320	257	257	0	35	35	0			0	28	28	0
Latur	120	94	93	1	22	22	0			0	4	5	1
Kolhapur	170	122	124	2	30	28	2			0	18	18	0
Total	1405	1061	1088	29	251	230	21	1	2	1	92	85	19

a) Quantitative Value of items as per DISE Data - 1405

b) Quantitative Value of items as per PES Data - 1405

c) Quantitative Value of deviations ignoring $\pm$ signs - 70

d) Percentage deviation of DISE Data with PES Data - 4.98%

e) Precision level of DISE data with relation to PES Data - 95.02%

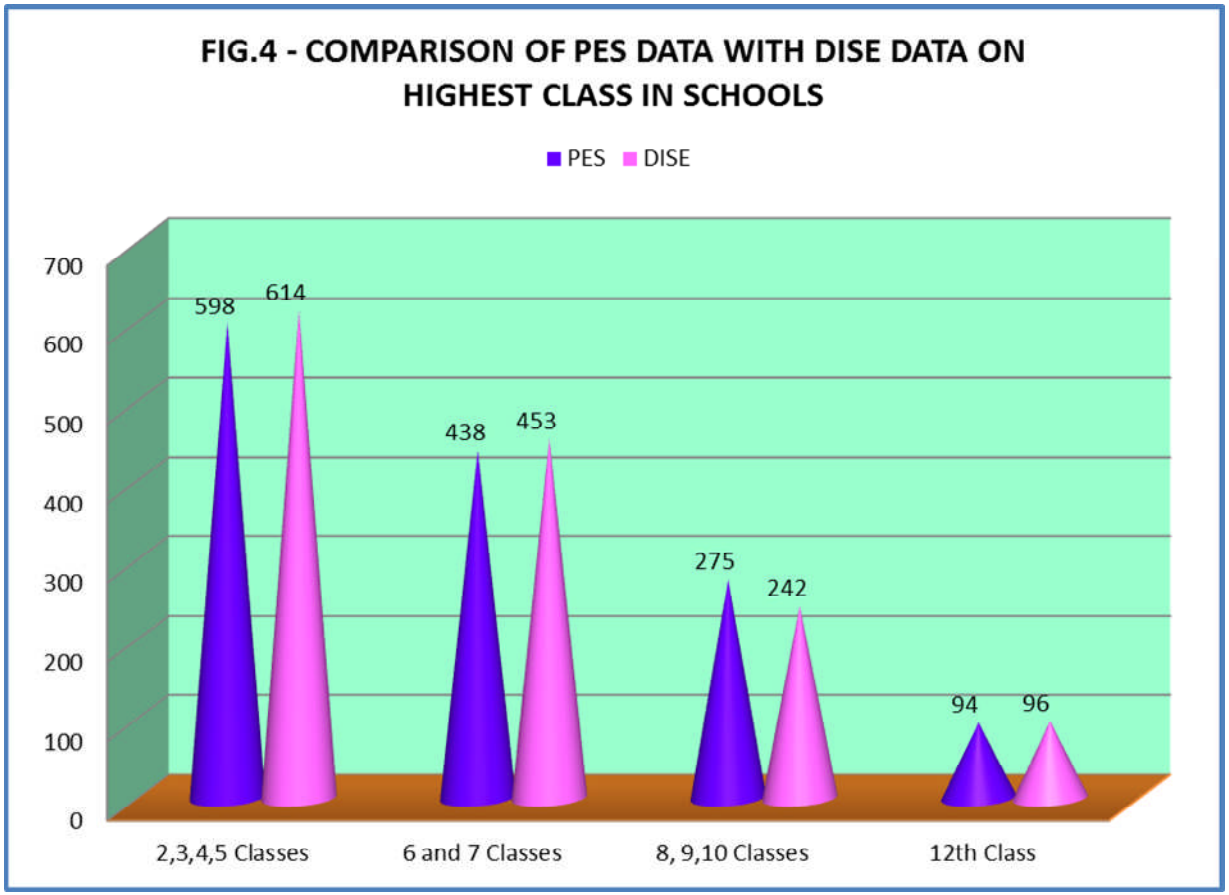


FIG.4 - COMPARISON OF PES DATA WITH DISE DATA ON HIGHEST CLASS IN SCHOOLS
PES
DISE
700
600
500
400
300
200
100
0
598
614
438
453
275
242
94
96
2,3,4,5 Classes
6 and 7 Classes
8, 9,10 Classes
12th Class

TABLE NO 3.5: COMPARISON OF PES DATA WITH DISE DATA ON HIGHEST CLASSES IN SCHOOLS

Highest Class in Schools

DISTRICT	Sample size	1,2,3,4,5			6 & 7			8,9,10			12		
		PES	DISE	Deviation	PES	DISE	Deviation	PES	DISE	Deviation	PES	DISE	Deviation
Amravati	135	62	65	3	27	26	1	30	29	1	16	15	1
Nagpur	180	78	76	2	42	50	8	40	33	7	20	21	1
Aurangabad	150	51	65	14	54	57	3	37	24	13	8	4	4
Nasik	260	136	136	0	52	55	3	59	55	4	13	14	1
Mumbai	70	28	25	3	38	45	7	3	0	3	1	0	1
Pune	320	145	148	3	109	106	3	48	47	1	18	19	1
Latur	120	41	42	1	51	47	4	21	21	0	7	10	3
Kolhapur	170	57	57	0	65	67	2	37	33	4	11	13	2
Total	1405	598	614	26	438	453	31	275	242	33	94	96	14

a) Quantitative Value of items as per DISE Data - 1405

b) Quantitative Value of items as per PES Data - 1405

c) Quantitative Value of deviations ignoring $\pm$ signs - 104

d) Percentage deviation of DISE Data with PES Data - 7.40%

e) Precision level of DISE data with relation to PES Data - 92.60%

TABLE NO 3.6: COMPARISON OF PES DATA WITH DISE DATA ON SCHOOL MANAGEMENT

Management of Schools

	Managed by Education Department			Tribal / Social Welfare Department			Local body			Private Aided			Other / Unrecognized			Unaided / Private Unaided		
	PES	DISE	Devia-tion	PES	DISE	Devia-tion	PES	DISE	Devia-tion	PES	DISE	Devia-tion	PES	DISE	Devia-tion	PES	DISE	Devia-tion
Amaravathi	23	0	23	3	5	2	55	80	25	51	43	8				3	7	4
Nagpur	6	0	6	3	4	1	92	105	13	55	49	6				24	22	2
Aurangabad	39	1	38	7	5	2	66	118	52	30	20	10	1	0	1	7	6	1
Nasik	31	0	31	14	15	1	137	159	22	55	63	8	1	1	0	22	22	0
Mumbai	1	0	1			0	43	49	6	20	15	5				6	6	0
Pune			0	5	4	1	207	207	0	56	55	1	2	2	0	50	52	2
Latur	24	0	24	3	5	2	18	33	15	68	72	4				7	10	3
Kolhapur			0	3	3	0	91	90	1	54	54	0				22	23	1
Total	124	1	123	38	41	9	709	841	134	389	371	42	4	3	1	141	148	13

School Management

a)	Quantitative Value of items as per DISE Data	-	1405
b)	Quantitative Value of items as per PES Data	-	1405
c)	Quantitative Value of deviations ignoring $\pm$ signs	-	322
d)	Percentage deviation of DISE Data with PES Data	-	22.92%
e)	Precision level of DISE data with relation to PES Data	-	77.08%

TABLE NO 3.7: COMPARISON OF PES DATA WITH DISE DATA ON RESIDENTIAL STATUS OF SCHOOL

Residential Status of Schools

DISTRICT	Sample size	Yes			No		
		PES	DISE	Deviation	PES	DISE	Deviation
Amaravathi	135	5	6	1	130	129	1
Nagpur	180	3	5	2	177	175	2
Aurangabad	150	6	7	1	144	143	1
Nasik	260	14	13	1	246	247	1
Mumbai	70	0	1	1	70	69	1
Pune	320	9	8	1	311	312	1
Latur	120	11	4	7	109	116	7
Kolhapur	170	3	3	0	167	167	0
Total	1405	51	47	14	1354	1358	14

a) Quantitative Value of items as per DISE Data - 1405

b) Quantitative Value of items as per PES Data - 1405

c) Quantitative Value of deviations ignoring $\pm$ signs - 28

d) Percentage deviation of DISE Data with PES Data - 1.99%

e) Precision level of DISE data with relation to PES Data - 98.01%

TABLE NO 3.8: COMPARISON OF PES DATA WITH DISE DATA ON PART OF SHIFT SCHOOL

Part of Shift School

DISTRICT	Sample size	Yes			No		
		PES	DISE	Deviation	PES	DISE	Deviation
Amaravathi	135	25	17	8	110	118	8
Nagpur	180	46	32	14	134	148	14
Aurangabad	150	27	19	8	123	131	8
Nasik	260	37	36	1	223	224	1
Mumbai	70	24	42	18	46	28	18
Pune	320	91	69	22	229	251	22
Latur	120	15	19	4	105	101	4
Kolhapur	170	19	21	2	151	149	2
Total	1405	284	255	77	1121	1150	77

a) Quantitative Value of items as per DISE Data - 1405

b) Quantitative Value of items as per PES Data - 1405

c) Quantitative Value of deviations ignoring $\pm$ signs - 154

d) Percentage deviation of DISE Data with PES Data - 10.96%

e) Precision level of DISE data with relation to PES Data - 89.04%

TABLE NO 3.9: COMPARISON OF PES DATA WITH DISE DATA ON TEACHER POSTS SANCTIONED AND IN POSITION

Sanctioned and In-Position Teachers

DISTRICT	Sample size	Sanctioned Teachers			In-Position Teachers		
		PES	DISE	Deviation	PES	DISE	Deviation
Amaravathi	135	975	794	181	439	323	116
Nagpur	180	1687	1293	394	739	542	197
Aurangabad	150	1269	902	367	679	541	138
Nasik	260	1960	1864	96	965	845	120
Mumbai	70	627	715	88	357	359	2
Pune	320	2414	2301	113	1268	1198	70
Latur	120	1056	985	71	569	485	84
Kolhapur	170	1263	1189	74	684	561	123
Total	1405	11251	10043	1384	5700	4854	850

			Sanctioned	In-Position
a)	Quantitative Value of items as per DISE Data	-	10043	4854
b)	Quantitative Value of items as per PES Data	-	11251	5700
c)	Quantitative Value of deviations ignoring ± signs	-	1384	850
d)	Percentage deviation of DISE Data with PES Data	-	12.30%	14.91%
e)	Precision level of DISE data with relation to PES Data	-	87.70%	85.09%

TABLE NO. 3.10: COMPARISON OF PES DATA WITH DISE DATA ON STATUS OF SCHOOL BUILDING

Status of School Building

DISTRICT	Sample size	Private			Rented			Government			Government school in rent free building			No Building			Dilapidated			Under construction		
		PES	DISE	Deviation	PES	DISE	Deviation	PES	DISE	Deviation	PES	DISE	Deviation	PES	DISE	Deviation	PES	DISE	Deviation	PES	DISE	Deviation
Amaravathi	135	18	14	4	45	40	5	70	80	10	1	1	0							1	0	1
Nagpur	180	56	26	30	42	48	6	81	102	21	0	2	2							1	2	1
Aurangabad	150	22	9	13	31	22	9	88	113	25	4	1	3	3	2	1				2	3	1
Nasik	260	50	44	6	44	46	2	153	156	3	6	7	1							7	7	0
Mumbai	70	10	6	4	17	16	1	42	48	6	1	0	1									
Pune	320	62	64	2	52	52	0	197	194	3	4	3	1				4	4	0	1	3	2
Latur	120	43	17	26	44	69	25	24	33	9	6	0	6				0	1	1	3	0	3
Kolhapur	170	30	27	3	53	56	3	86	85	1			0				1	1	0	0	1	1
Total	1405	291	207	88	328	349	51	741	811	78	22	14	14	3	2	1	5	6	1	15	16	9

a) Quantitative Value of items as per DISE Data - 1405

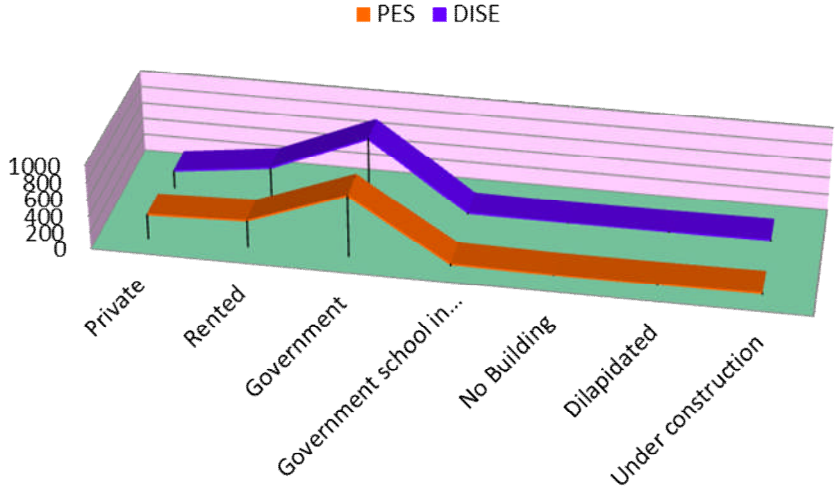
b) Quantitative Value of items as per PES Data - 1405

c) Quantitative Value of deviations ignoring $\pm$ signs - 242

d) Percentage deviation of DISE Data with PES Data - 17.22%

e) Precision level of DISE data with relation to PES Data - 82.78%

FIG.6 - COMPARISON OF PES DATA WITH DISE DATA ON STATUS OF SCHOOL BUILDING



	Private	Rented	Government	Government school in rent free building	No Building	Dilapidated	Under construction
PES	291	328	741	22	3	5	15
DISE	207	349	811	14	2	6	16

TABLE NO 3.11: COMPARISON OF PES DATA WITH DISE DATA ON CONDITION OF CLASS ROOMS

No. of Class Rooms and their Condition

DISTRICT	Sample size	No. of Class Rooms			Good condition			Minor repairs			Major Repairs		
		PES	DISE	Deviation	PES	DISE	Deviation	PES	DISE	Deviation	PES	DISE	Deviation
Amaravathi	135	857	754	103	670	599	71	105	51	54	68	16	52
Nagpur	180	920	1279	359	1347	1090	257	80	57	23	78	29	49
Aurangabad	150	1165	842	323	864	589	275	117	121	4	74	56	18
Nasik	260	1980	1753	227	1496	1410	86	97	59	38	26	32	6
Mumbai	70	656	481	175	438	417	21	37	29	8	1	21	20
Pune	320	2341	2200	141	2050	1983	67	104	93	11	47	42	5
Latur	120	1131	970	161	908	807	101	41	49	8	35	18	17
Kolhapur	170	1364	1216	148	1126	1094	32	54	44	10	22	38	16
Total	1405	10414	9495	1637	8899	7989	910	635	503	156	351	252	183

			No. of Rooms	Condition
a)	Quantitative Value of items as per DISE Data	-	9495	8744
b)	Quantitative Value of items as per PES Data	-	10414	9885
c)	Quantitative Value of deviations ignoring ± signs	-	1637	1249
d)	Percentage deviation of DISE Data with PES Data	-	15.72%	12.64%
e)	Precision level of DISE data with relation to PES Data	-	84.28%	87.36%

TABLE NO 3.12: COMPARISON OF PES DATA WITH DISE DATA ON AVAILABLITY OF ELECTRICITY IN SCHOOLS

Electricity in Schools

DISTRICT	Sample size	Yes			No		
		PES	DISE	Deviation	PES	DISE	Deviation
Amaravathi	135	106	113	7	29	22	7
Nagpur	180	165	167	2	15	13	2
Aurangabad	150	106	93	13	44	57	13
Nasik	260	169	163	6	91	97	6
Mumbai	70	70	70	0			0
Pune	320	294	285	9	26	35	9
Latur	120	103	100	3	17	20	3
Kolhapur	170	157	156	1	13	14	1
Total	1405	1170	1147	41	235	258	41

a) Quantitative Value of items as per DISE Data - 1405

b) Quantitative Value of items as per PES Data - 1405

c) Quantitative Value of deviations ignoring $\pm$ signs - 82

d) Percentage deviation of DISE Data with PES Data - 5.84%

e) Precision level of DISE data with relation to PES Data - 94.16%

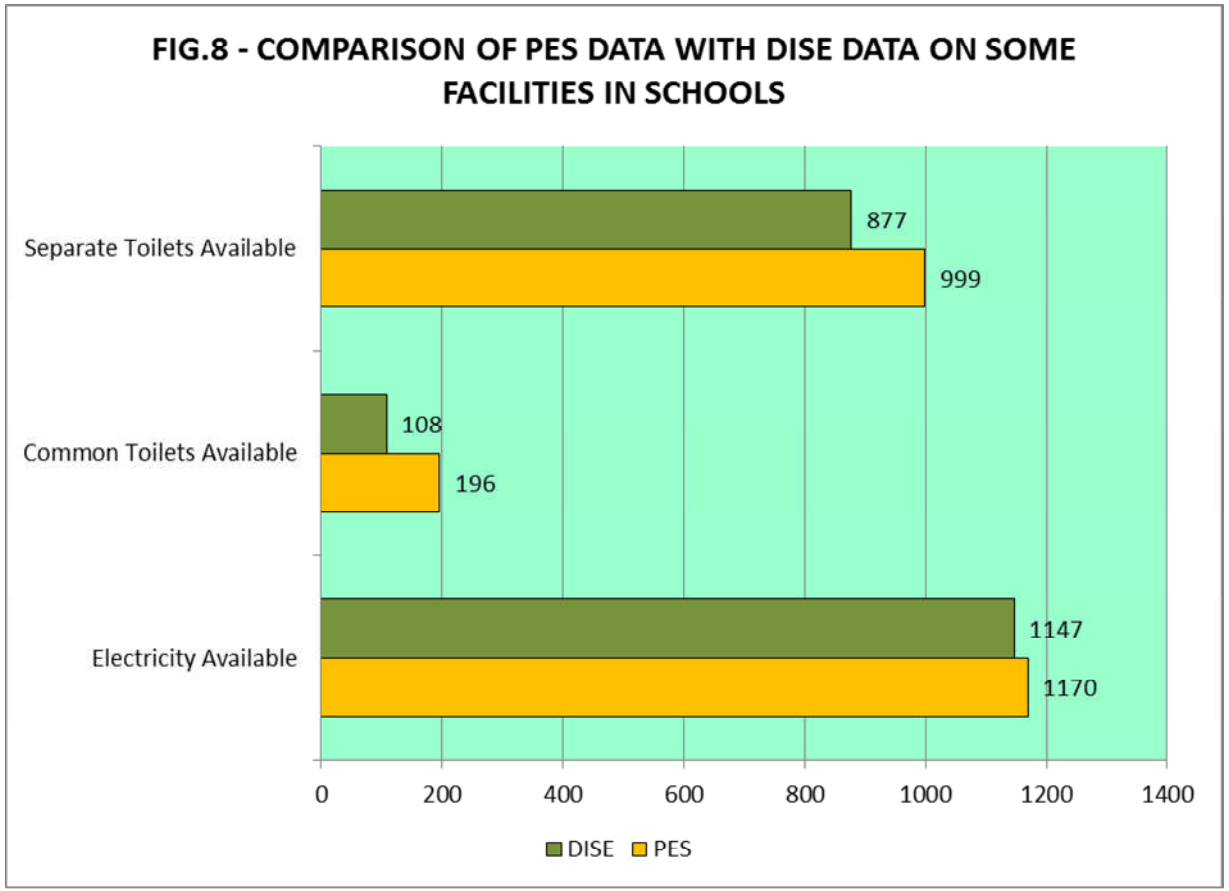


FIG.8 - COMPARISON OF PES DATA WITH DISE DATA ON SOME FACILITIES IN SCHOOLS
Separate Toilets Available
877
999
Common Toilets Available
108
196
Electricity Available
1147
1170
0
200
400
600
800
1000
1200
1400
DISE
PES

TABLE NO 3.13: COMPARISON OF PES DATA WITH DISE DATA ON AVAILABILITY OF COMMON TOILETS

Common Toilet in Schools

DISTRICT	Sample size	Yes			No		
		PES	DISE	Deviation	PES	DISE	Deviation
Amaravathi	135	17	10	7	118	125	7
Nagpur	180	24	0	24	156	180	24
Aurangabad	150	19	6	13	131	144	13
Nasik	260	33	27	6	227	233	6
Mumbai	70	8	4	4	62	66	4
Pune	320	50	39	11	270	281	11
Latur	120	21	22	1	99	98	1
Kolhapur	170	24	0	24	146	170	24
Total	1405	196	108	90	1209	1297	90

a) Quantitative Value of items as per DISE Data - 1405

b) Quantitative Value of items as per PES Data - 1405

c) Quantitative Value of deviations ignoring $\pm$ signs - 180

d) Percentage deviation of DISE Data with PES Data - 12.81%

e) Precision level of DISE data with relation to PES Data - 87.19%

TABLE NO 3.14: COMPARISON OF PES DATA WITH DISE DATA ON AVAILABILITY OF SEPARATE TOILETS FOR GIRLS

Separate Toilet for girls in Schools

DISTRICT	Sample size	Yes			No		
		PES	DISE	Deviation	PES	DISE	Deviation
Amaravathi	135	83	48	35	52	87	35
Nagpur	180	159	142	17	21	38	17
Aurangabad	150	109	107	2	41	43	2
Nasik	260	141	122	19	119	138	19
Mumbai	70	68	50	18	2	20	18
Pune	320	202	208	6	118	112	6
Latur	120	107	80	27	13	40	27
Kolhapur	170	130	120	10	40	50	10
Total	1405	999	877	134	406	528	134

a) Quantitative Value of items as per DISE Data - 1405

b) Quantitative Value of items as per PES Data - 1405

c) Quantitative Value of deviations ignoring $\pm$ signs - 268

d) Percentage deviation of DISE Data with PES Data - 19.07%

e) Precision level of DISE data with relation to PES Data - 80.93%

TABLE NO 3.15: COMPARISON OF PES DATA WITH DISE DATA ON CONDITION OF BOUNDARY WALL OF SCHOOLS

Condition of Boundary Wall in Schools

DISTRICT	Sample size	Pucca			Pucca but broken			Barbed wire fencing			Heges			No boundary wall			Other			Partially built		
		A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
Amaravathi	135	48	53	5	14	2	12	34	34	0	2	1	1	20	20	0	1	1	0	16	24	8
Nagpur	180	74	69	5	25	8	17	39	42	3	5	3	2	24	29	5	1	1	0	12	28	16
Aurangabad	150	46	36	10	18	10	8	18	15	3	2	1	1	54	70	16	6	3	3	6	15	9
Nasik	260	89	88	1	10	12	2	55	55	0	4	4	0	80	78	2	8	8	0	14	15	1
Mumbai	70	64	63	1	1	2	1			0				4	2	2	1	1	0	0	2	2
Pune	320	164	161	3	11	7	4	21	23	2				94	90	4	3	4	1	27	35	8
Latur	120	74	62	12	11	8	3	11	12	1	2	3	1	19	26	7	1	2	1	2	7	5
Kolhapur	170	70	72	2	8	2	6	10	12	2	2	2	0	66	57	9	3	3	0	11	22	11
Total	1405	629	604	39	98	51	53	188	193	11	17	14	5	361	372	45	24	23	5	88	148	60

A - PES, B - DISE, C - Deviation

a) Quantitative Value of items as per DISE Data - 1405

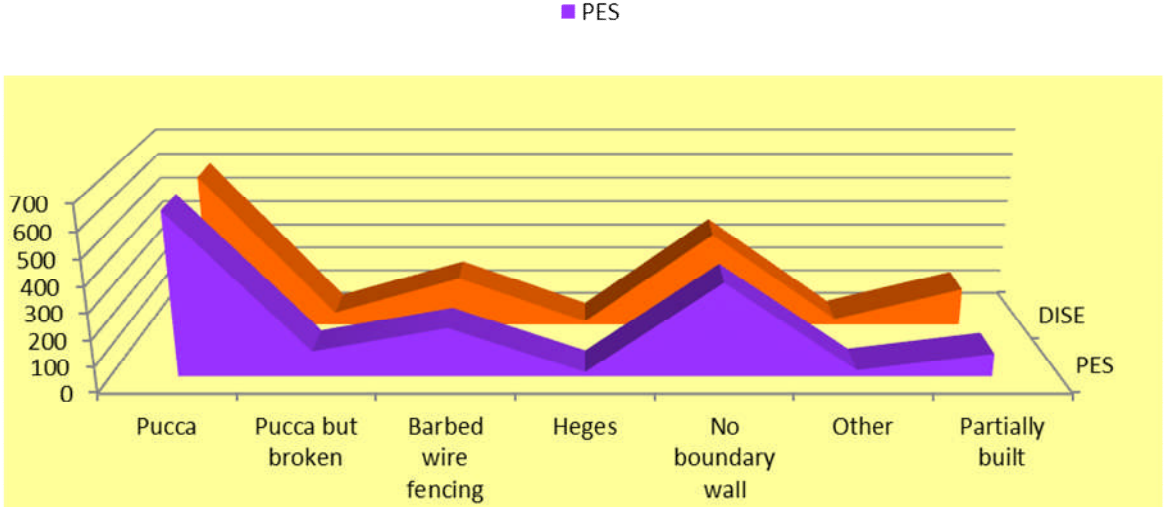
b) Quantitative Value of items as per PES Data - 1405

c) Quantitative Value of deviations ignoring $\pm$ signs - 218

d) Percentage deviation of DISE Data with PES Data - 15.52%

e) Precision level of DISE data with relation to PES Data - 84.48%

FIG.9 - COMPARISON OF PES DATA WITH DISE DATA ON CONDITION OF BOUNDARY WALL IN SCHOOLS



	Pucca	Pucca but broken	Barbed wire fencing	Heges	No boundary wall	Other	Partially built
PES	629	98	188	17	361	24	88
DISE	604	51	193	14	372	23	148

TABLE NO 3.16: COMPARISON OF PES DATA WITH DISE DATA ON SOURCE OF DRINKING WATER

Source of Drinking Water in Schools

DISTRICT	Sample size	Hand pump			Well			Tap Water			Others			No drinking water facility available		
		A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
Amaravathi	135	16	15	1	24	14	10	86	97	11	8	9	1	1	0	1
Nagpur	180	6	6	0	31	27	4	130	136	6	13	11	2			0
Aurangabad	150	38	42	4	15	12	3	56	48	8	24	26	2	17	22	5
Nasik	260	38	42	4	36	17	19	140	158	18	43	43	0	3	0	3
Mumbai	70				9	0	9	60	69	9	0	1	1	1	0	1
Pune	320	26	29	3	15	2	13	237	236	1	19	29	10	23	24	1
Latur	120	40	46	6	11	2	9	55	45	10	9	23	14	5	4	1
Kolhapur	170	17	12	5	11	5	6	133	139	6	8	14	6	1	0	1
Total	1405	181	192	23	152	79	73	897	928	69	124	156	36	51	50	13

A - PES, B - DISE, C - Deviation

a)	Quantitative Value of items as per DISE Data	-	1405
b)	Quantitative Value of items as per PES Data	-	1405
c)	Quantitative Value of deviations ignoring $\pm$ signs	-	214
d)	Percentage deviation of DISE Data with PES Data	-	15.23%
e)	Precision level of DISE data with relation to PES Data	-	84.77%

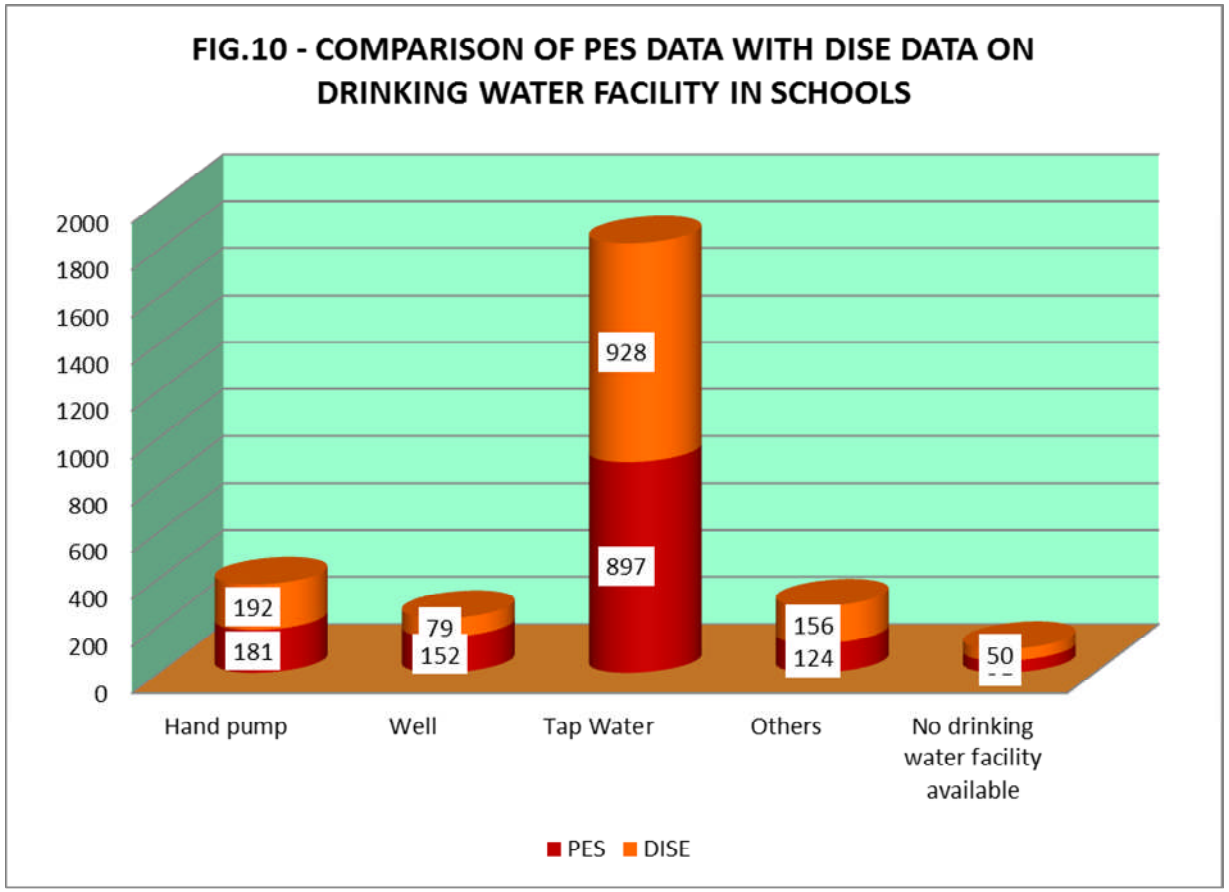


FIG.10 - COMPARISON OF PES DATA WITH DISE DATA ON DRINKING WATER FACILITY IN SCHOOLS
2000
1800
1600
1400
1200
1000
800
600
400
200
0
192
181
79
152
928
897
156
124
50
Hand pump
Well
Tap Water
Others
No drinking water facility available
PES
DISE

TABLE NO 3.17: COMPARISON OF PES DATA WITH DISE DATA ON AVAILABILITY OF PLAYGROUND AT SCHOOLS

Availability of Play Ground in Schools

DISTRICT	Sample size	Yes			No		
		PES	DISE	Deviation	PES	DISE	Deviation
Amaravathi	135	96	98	2	39	37	2
Nagpur	180	131	142	11	49	38	11
Aurangabad	150	124	107	17	26	43	17
Nasik	260	209	212	3	51	48	3
Mumbai	70	45	40	5	25	30	5
Pune	320	223	236	13	97	84	13
Latur	120	109	102	7	11	18	7
Kolhapur	170	109	114	5	61	56	5
Total	1405	1046	1051	63	359	354	63

a) Quantitative Value of items as per DISE Data - 1405

b) Quantitative Value of items as per PES Data - 1405

c) Quantitative Value of deviations ignoring $\pm$ signs - 126

d) Percentage deviation of DISE Data with PES Data - 8.97%

e) Precision level of DISE data with relation to PES Data - 91.03%

TABLE NO 3.18: COMPARISON OF PES DATA WITH DISE DATA ON AVAILABILITY OF COMPUTERS IN SCHOOLS

Availability of Computers in Schools

DISTRICT	Sample size	Availability of Computers in Schools		
		PES	DISE	Deviation
Amaravathi	135	272	274	2
Nagpur	180	691	572	119
Aurangabad	150	405	322	83
Nasik	260	1062	1005	57
Mumbai	70	300	336	36
Pune	320	2717	2682	35
Latur	120	327	320	7
Kolhapur	170	615	601	14
Total	1405	6389	6112	353

a) Quantitative Value of items as per DISE Data - 6112

b) Quantitative Value of items as per PES Data - 6389

c) Quantitative Value of deviations ignoring $\pm$ signs - 353

d) Percentage deviation of DISE Data with PES Data - 5.53%

e) Precision level of DISE data with relation to PES Data - 94.47%

TABLE NO 3.19: COMPARISON OF PES DATA WITH DISE DATA ON AVAILABILITY OF FURNITURE IN SCHOOLS

Availability of Furniture in Schools

DISTRICT	Sample size	Furniture for all students			Furniture for some students			No furniture - children sit on the floor		
		PES	DISE	Deviation	PES	DISE	Deviation	PES	DISE	Deviation
Amaravathi	135	43	42	1	38	36	2	54	57	3
Nagpur	180	89	84	5	41	40	1	50	56	6
Aurangabad	150	49	34	15	42	47	5	59	69	10
Nasik	260	112	104	8	58	58	0	90	98	8
Mumbai	70	68	68	0	2	2	0			
Pune	320	167	163	4	63	63	0	90	94	4
Latur	120	81	75	6	19	26	7	20	19	1
Kolhapur	170	86	96	10	59	58	1	25	16	9
Total	1405	695	666	49	322	330	16	388	409	41

a) Quantitative Value of items as per DISE Data - 1405

b) Quantitative Value of items as per PES Data - 1405

c) Quantitative Value of deviations ignoring $\pm$ signs - 106

d) Percentage deviation of DISE Data with PES Data - 7.54%

e) Precision level of DISE data with relation to PES Data - 92.46%

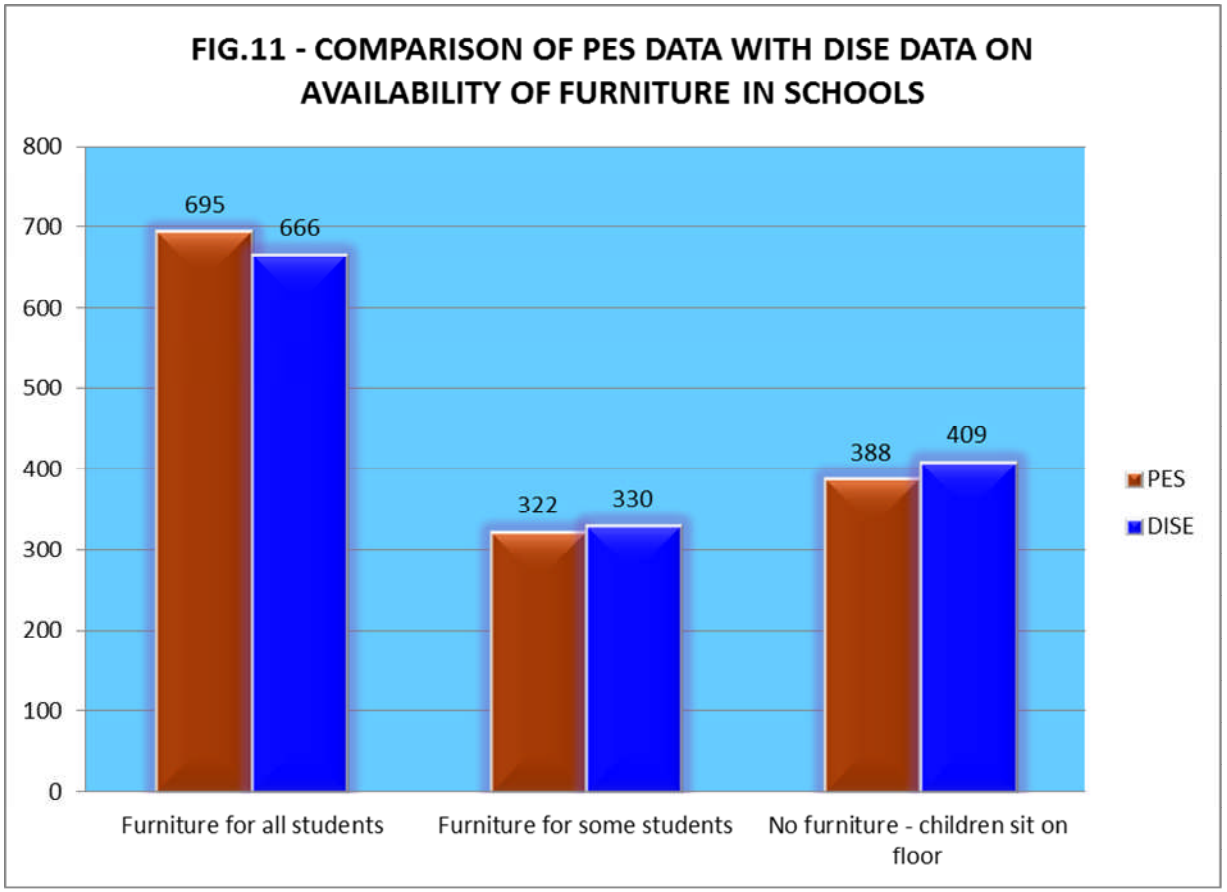


FIG.11 - COMPARISON OF PES DATA WITH DISE DATA ON AVAILABILITY OF FURNITURE IN SCHOOLS
800
700
600
500
400
300
200
100
0
695
666
322
330
388
409
Furniture for all students
Furniture for some students
No furniture - children sit on floor
PES
DISE

TABLE NO 3.20: COMPARISON OF PES DATA WITH DISE DATA ON ENROLMENT OF CHILDREN IN 2011-12 – BOYS & GIRLS

	Total - Boys			Total - Girls			Total - Enrollment (Boys & Girls)		
DISTRICT	PES	DISE	Deviation	PES	DISE	Deviation	PES	DISE	Deviation
Amaravathi	11024	11191	167	11665	10886	779	22689	22077	612
Nagpur	21867	19934	1933	19524	17842	1682	41391	37776	3615
Aurangabad	15256	12989	2267	13439	12532	907	28695	25521	3174
Nasik	34694	34370	324	30747	30319	428	65441	64689	752
Mumbai	11329	10425	904	10398	10286	112	21727	20711	1016
Pune	41583	41431	152	33725	34031	306	75308	75462	154
Latur	20504	19184	1320	17413	15951	1462	37917	35135	2782
Kolhapur	20025	19881	144	18110	18155	45	38135	38036	99
Total	176282	169405	7211	155021	150002	5721	331303	319407	12204

a) Quantitative Value of items as per DISE Data - 319407

b) Quantitative Value of items as per PES Data - 331303

c) Quantitative Value of deviations ignoring $\pm$ signs - 12204

d) Percentage deviation of DISE Data with PES Data - 3.68%

e) Precision level of DISE data with relation to PES Data - 96.32%

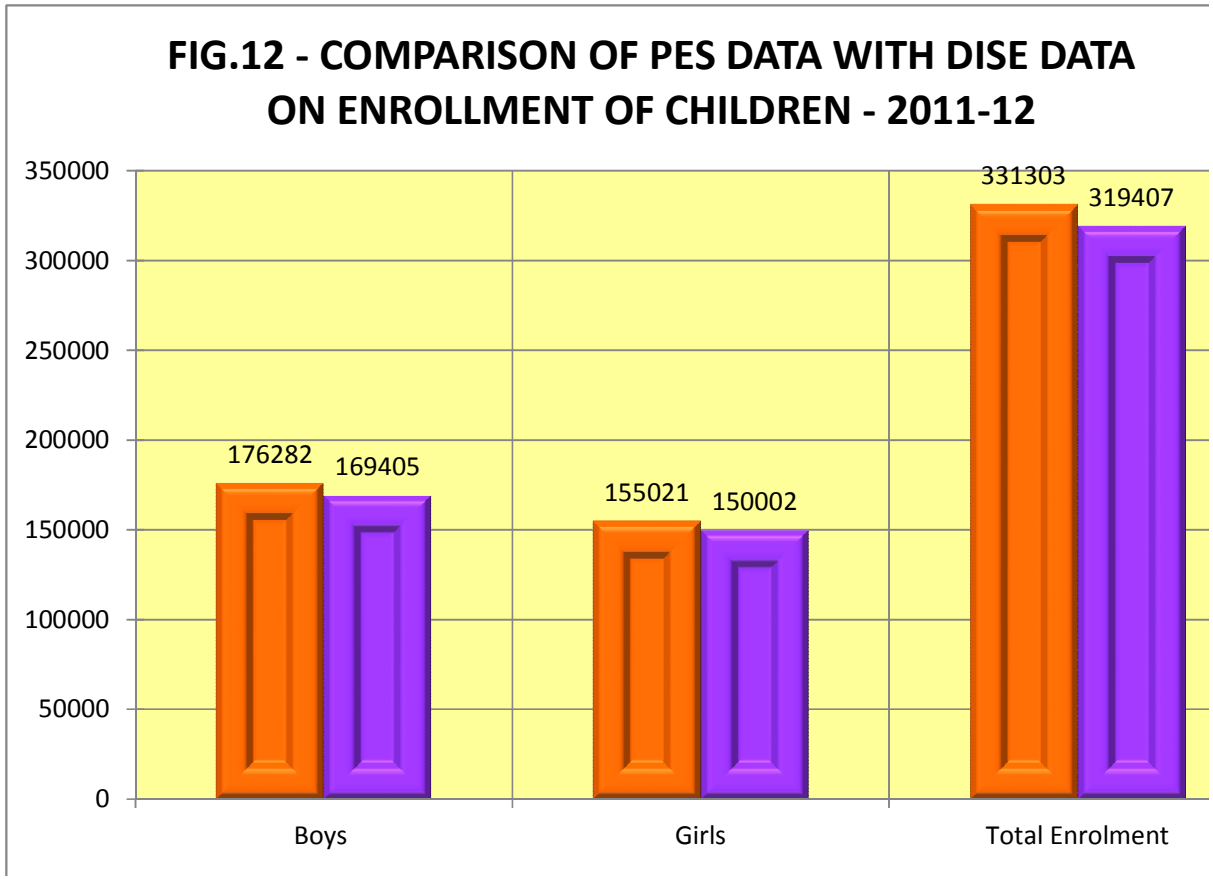


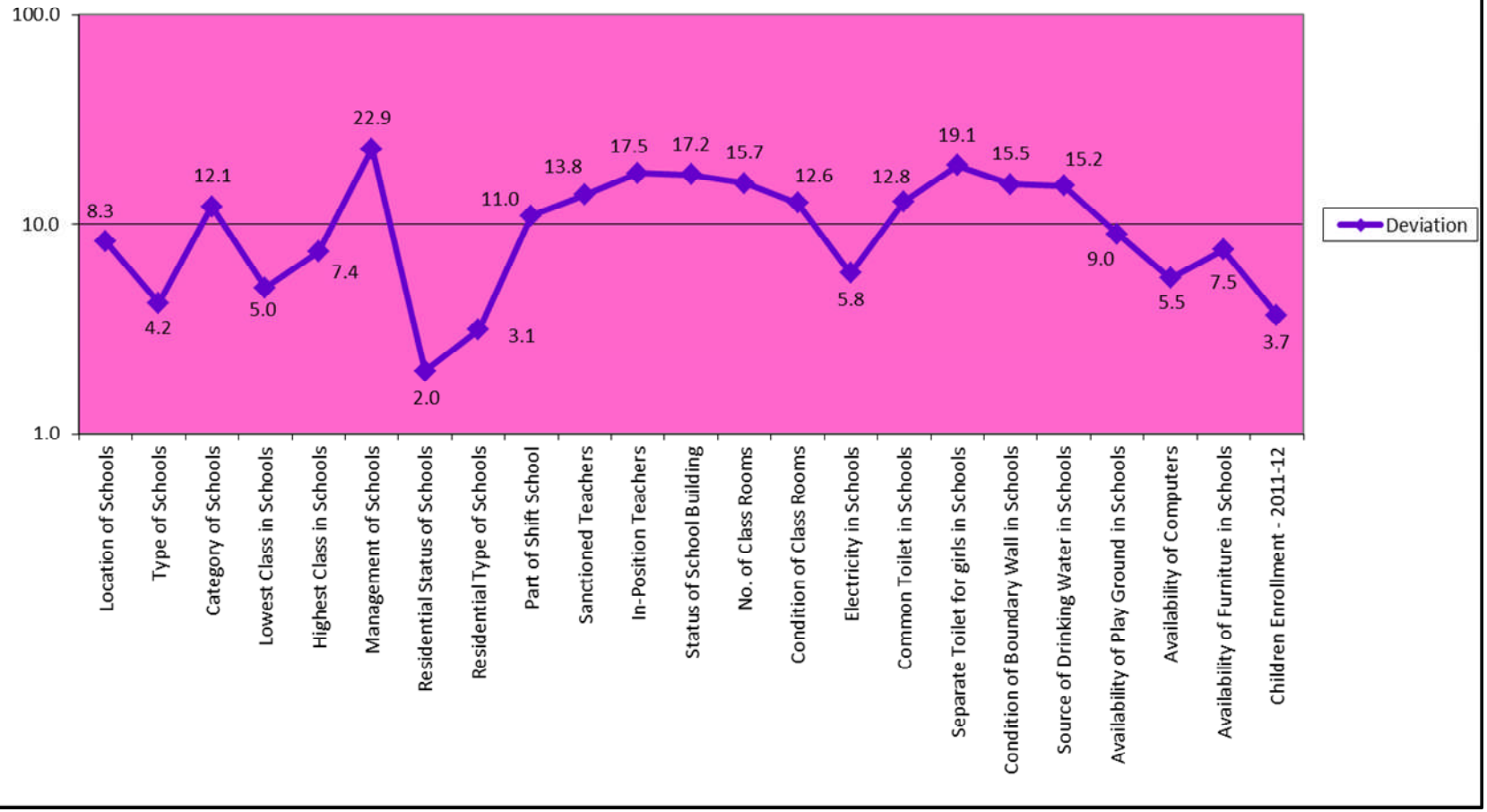
FIG.12 - COMPARISON OF PES DATA WITH DISE DATA ON ENROLLMENT OF CHILDREN - 2011-12
350000
300000
250000
200000
150000
100000
50000
0
176282
169405
155021
150002
331303
319407
Boys
Girls
Total Enrolment

TABLE NO: 3.21

PERCENTAGE DEVIATION AND PRECISION LEVEL OF DISE DATA WITH THE PES DATA FOR ALL COMPARABLE ITMES

Sl. No.	Description of Comparable items	Quantitative Value under			Percentage	
		DISE	PES	Deviation ignoring ± within Sub-items	Deviation	Precision
1	2	3	4	5	6	7
1	Location of Schools	1405	1405	116	8.26	91.74
2	Type of Schools	1405	1405	59	4.20	95.80
3	Category of Schools	1405	1405	170	12.10	87.90
4	Lowest Class in Schools	1405	1405	70	4.98	95.02
5	Highest Class in Schools	1405	1405	104	7.40	92.60
6	Management of Schools	1405	1405	322	22.92	77.08
7	Residential Status of Schools	1405	1405	28	1.99	98.01
8	Residential Type of Schools	1405	1405	44	3.13	96.87
9	Part of Shift School	1405	1405	154	10.96	89.04
10	Sanctioned Teachers	10043	11251	1384	13.78	86.22
11	In-Position Teachers	4854	5700	850	17.51	82.49
12	Status of School Building	1405	1405	242	17.22	82.78
13	No. of Class Rooms	9495	10414	1637	15.72	84.28
14	Condition of Class Rooms	8744	9885	1249	12.64	87.36
15	Electricity in Schools	1405	1405	82	5.84	94.16
16	Common Toilet in Schools	1405	1405	180	12.81	87.19
17	Separate Toilet for girls in Schools	1405	1405	268	19.07	80.93
18	Condition of Boundary Wall in Schools	1405	1405	218	15.52	84.48
19	Source of Drinking Water in Schools	1405	1405	214	15.23	84.77
20	Availability of Play Ground in Schools	1405	1405	126	8.97	91.03
21	Availability of Computers	6112	6389	353	5.53	94.47
22	Availability of Furniture in Schools	1405	1405	106	7.54	92.46
23	Children Enrollment - 2011-12	319407	331303	12204	3.68	96.32
	Total	**382543**	**398831**	**20185**	**10.74**	**89.26**

Fig.13: PERCENTAGE DEVIATION OF DISE DATA FROM/WITH PES DATA TAKEN TOGETHER ALL COMPARABLE ITEMS



The above table 3.21 and fig.13 infers that the overall deviations of data from PES data within the comparable items are 10.74% and thereby giving a precision level of 89.26%. The highest deviation of data is noticed in status of school buildings, type of schools, condition of boundary wall, and management of schools, source of drinking and children enrollment. This is because of the respondents in ability to interpret the item and under reporting the items with in accurate figures in DISE data. This demands the effective supervision and monitoring at different levels and proper awareness generation among the teachers and Head Masters to fill the schedules or Formats with accurate information for this, it is necessary for them to maintain proper school records. Apart from this it also requires attention of scruitinsation at the cluster school level and block level with full involvement of Block Educational Officers, Head Masters and Educational Department experts after giving proper orientation training.

The overall deviation is 10.74%, which is slightly higher than the range of permissible limit i.e. 10%. As far as non-comparable items are concerned due to non-availability of information of DISE, the following items left out without comparison.

- Data on disability
- Working condition of the computers
- Repetition data

However, the independent analysis is made with PES data to show the existing situation or trend. On the whole, it may conclude that more precaution should be taken right from the school level while canvassing and administrating the DISE format and data should be collected from all the schools functioning under different managements then only the accuracy of data will be ensured.

*****

Chapter IV

Post Enumeration Survey Results

The inadequacy, up-to-date and comprehensive data about the state of school education, especially the primary education, render it difficult for the Planners, Policy and Decision Makers to identify appropriate measures and action on how to improve the quality of education and make it more accessible and available to the people. The Post Enumeration Survey envisioned assessing the quality check, verifying the accuracy, consistency of data and actual coverage of schools. Accordingly, the analyzed data was presented in the following manner:

A. Distribution of Sample

As per the details presented in Table 4.1 and also in fig 4.1 the total number of schools covered under the study was 1405 under Post Enumeration Survey. Out of total sample (1405 schools) 604 (43.6%) schools were selected from Primary schools , 452 (32.1%) schools from Primary with Upper Primary and 59 (4%) from primary with secondary or higher secondary sections,11 from Upper primary only,218 from Upper primary with secondary or Higher secondary sections and 61 from secondary and secondary with Higher secondary respectively.

TABLE- 4.1: DISTRIBUTION OF SAMPLE SCHOOLS BY SCHOOL CATEGORY

District	Category of Schools						Total
	Primary	Primary with Upper Primary	Primary with Up. Pr. & Sec. / H.Secondary	Upper Primary only	Upper Primary with Secondary or Higher Secondary	Sec. & Sec. with Higher Secondary	
Amaravathi	64	31	4	5	27	4	135
Nagpur	78	45	20	1	36	0	180
Aurangabad	55	58	12	1	18	6	150
Nasik	136	52	12	2	45	13	260
Mumbai	28	38	0	0	4	0	70
Pune	144	110	3	0	40	23	320
Latur	44	51	6	1	15	3	120
Kolhapur	55	67	2	1	33	12	170
Total	**604**	**452**	**59**	**11**	**218**	**61**	**1405**

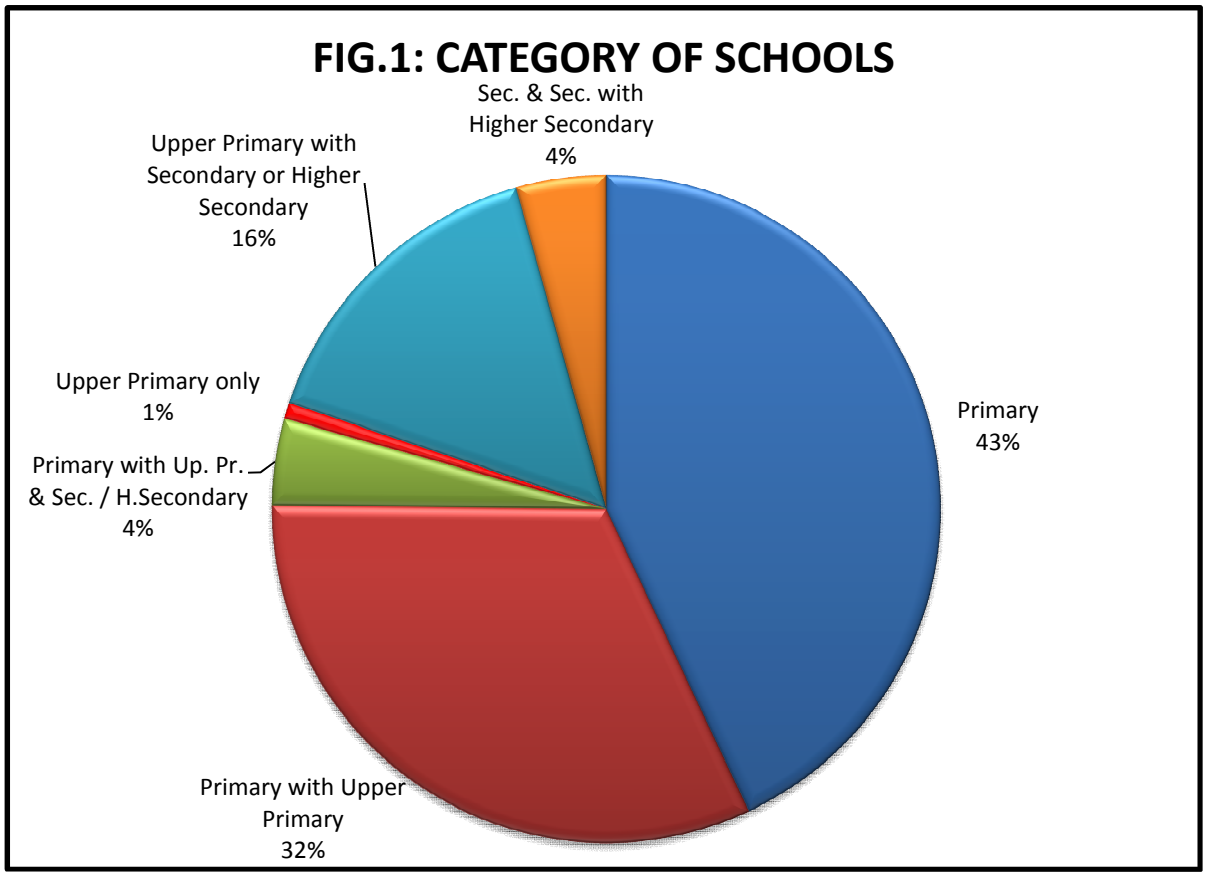


Fig.No.4.1. Category of Schools

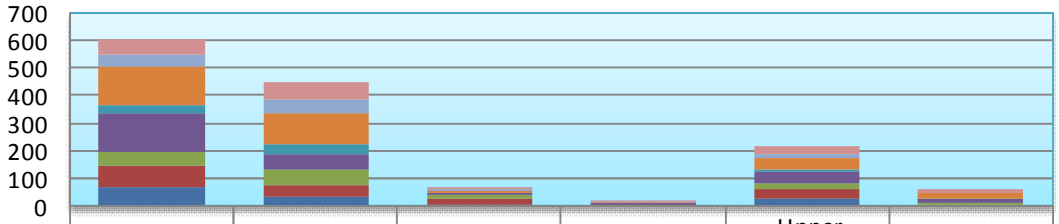
The above graph indicates that out of the total sample schools majority i.e. 43% are Primary schools followed by 16% are Upper Primary with secondary or Higher Secondary schools and 32% are Primary with Upper Primary schools.

B.Sample Distribution across Districts

In reference to distribution of sample schools by district the details are presented in Fig.4. 2.

Figure-4.2: DISTRIBUTION OF SAMPLE BY SCHOOL CATEGORY AND DISTRICT

FIG.2: DISTRICT-WISE SELECTION OF SAMPLE SCHOOLS



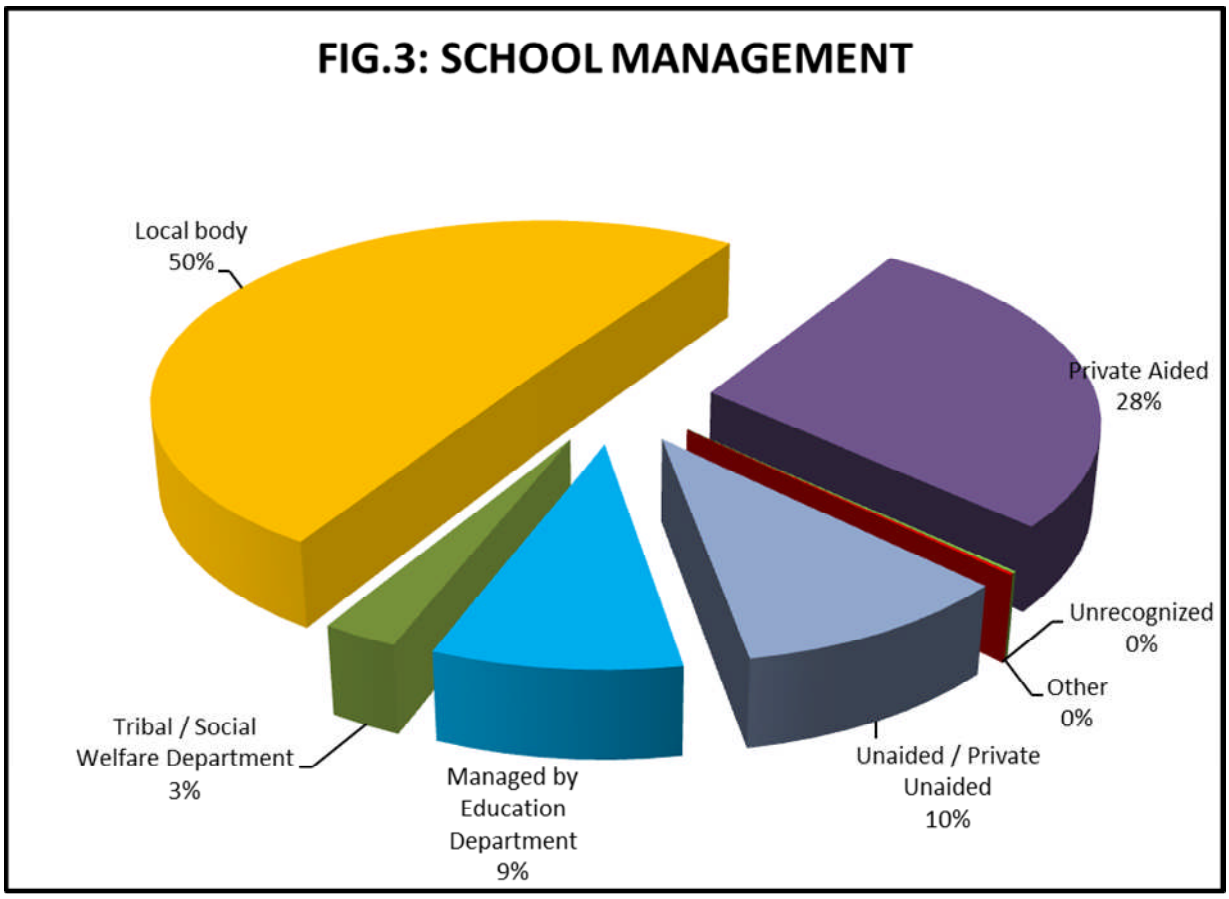
	Primary	Primary with Upper Primary	Primary with Up. Pr. & Sec. / H.Secondary	Upper Primary only	Upper Primary with Secondary or Higher Secondary	Sec. & Sec. with Higher Secondary
Kolhapur	55	67	2	1	33	12
Latur	44	51	6	1	15	3
Pune	144	110	3	0	40	23
Mumbai	28	38	0	0	4	0
Nasik	136	52	12	2	45	13
Aurangabad	55	58	12	1	18	6
Nagpur	78	45	20	1	36	0
Amaravathi	64	31	4	5	27	4

Among the eight districts selected for the survey, Pune district 320 has more coverage of schools than other districts and then followed by Nasik 260 and the remaining 180 from Nagpur and other districts.. The variation in terms of number of schools was occurred due to sampling procedure based on revenue divisions and number of schools thereof from the particular district.

C. Sample Distribution by School Management

The distribution of sample by School Management is presented in Figure 4.3

Fig 4. 3: Sample Distribution by School Management



As per the details presented in Figure 4.3, it reveals that out of total 1405 schools, 50% are run under Local Body and 9% managed by education department are 3% from Social/Tribal welfare Department,10% from unaided and private and the remaining 28% are Private aided.

D. Distribution of Sample by Location

TABLE-4.3: DISTRIBUTION OF SCHOOLS BY SCHOOL LOCATION

Category of Schools	Location of Schools		Total
	Rural	Urban	
Primary	464	140	604
Primary with Upper Primary	267	185	452
Primary with Up. Pr. & Sec. / H.Secondary	31	28	59
Upper Primary only	8	3	11
Upper Primary with Secondary or Higher Secondary	144	74	218
Sec. & Sec. with Higher Secondary	29	32	61
Total	943	462	1405

It is observed from the above Table that 943 schools were located in rural areas while 462 schools were located in urban areas. Within rural area schools, majority of schools (464) were Primary schools and 267 primary with upper primary. In reference to urban area, majority of them were 140 Primary and followed by 185 PrimarywithUpper schools.

E. Distribution of Sample by Type of Schools

The following table 4.4 furnishes the information of distribution of sample by type of schools.

TABLE-4.4: DISTRIBUTION OF SCHOOLS BY TYPE OF SCHOOLS

Category of Schools	Type of Schools			Total
	Boys only	Girls only	Co-educational	
Primary	17	22	565	604
Primary with Upper Primary	29	30	393	452
Primary with Up. Pr. & Sec. / H.Secondary	1	5	53	59
Upper Primary only	0	2	9	11
Upper Primary with Secondary or Higher Secondary	7	17	194	218
Sec. & Sec. with Higher Secondary	0	0	61	61
Total	54	76	1275	1405

It is evident from the Table-4.4 that out of 1405 schools, 1275 schools adopted co-education type schools and then followed by 76 exclusively girls only and 54 for boy's only.out of these schools majority are Primary schools.

F. Detail of Sample by Type of School Building

The following Table 4.5 furnishes the details of the status of school buildings.

TABLE-4.5: DISTRIBUTION OF SCHOOLS BY STATUS OF SCHOOL BUILDING

Category of Schools	Status of School Building							Total
	Private	Rented	Govern-ment	Government school in rent free building	No Building	Dilapi-dated	Under construction	
Primary	89	84	413	6	1	0	11	604
Primary with Upper Primary	63	73	301	10	0	2	3	452
Primary with Up. Pr. & Sec. / H.Secondary	22	21	9	4	1	1	1	59
Upper Primary only	4	4	2	0	1	0	0	11
Upper Primary with Secondary or Higher Secondary	89	112	13	2	0	2	0	218
Sec. & Sec. with Higher Secondary	24	34	3	0	0	0	0	61
Total	291	328	741	22	3	5	15	1405

It is evident from the above table that the majority of the schools i.e. 291were being run in Pucca and private buildings,741 in Government school building and followed by 328 schools in rented buildings. Whereas it is noticed that 3 schools were not having buildings and 5 in dilapidated condition..

G. Condition of Boundary Wall among Sample School

Particulars of sample schools in reference to condition of boundary wall are presented in Table 4.6.

TABLE4.6: CONDITION OF BOUNDARY WALL IN THE SAMPLE SCHOOL

Category of Schools	Condition of Boundary Wall in Schools							Total
	Pucca	Pucca but broken	Barbed wire fencing	Heges	No boundary wall	Other	Partially built	
Primary	227	38	81	9	200	12	37	604
Primary with Upper Primary	241	34	48	3	82	7	37	452
Primary with Up. Pr. & Sec. / H.Secondary	33	12	7	0	5	0	2	59
Upper Primary only	6	0	3	1	1	0	0	11
Upper Primary with Secondary or Higher Secondary	100	13	39	3	53	2	8	218
Sec. & Sec. with Higher Secondary	22	1	10	1	20	3	4	61
Total	629	98	188	17	361	24	88	1405

The above table indicates the conditions of boundary wall in the sample schools. Out of 1405 schools, 361 schools were not having the boundary wall, followed by 629 schools having Pucca boundary wall, whereas 98 schools having pucca boundary wall but broken. Besides this, in 188 schools compounds were barbed with fencing and 17 schools with Heges.

H. Source of Drinking Water in Sample Schools

The table provides detailed information of Drinking Water source in sample schools can be seen in Table 4.7 as well as Figure 4.7.

TABLE 4.7: SOURCE OF DRINKING WATER FACILITY IN SCHOOLS

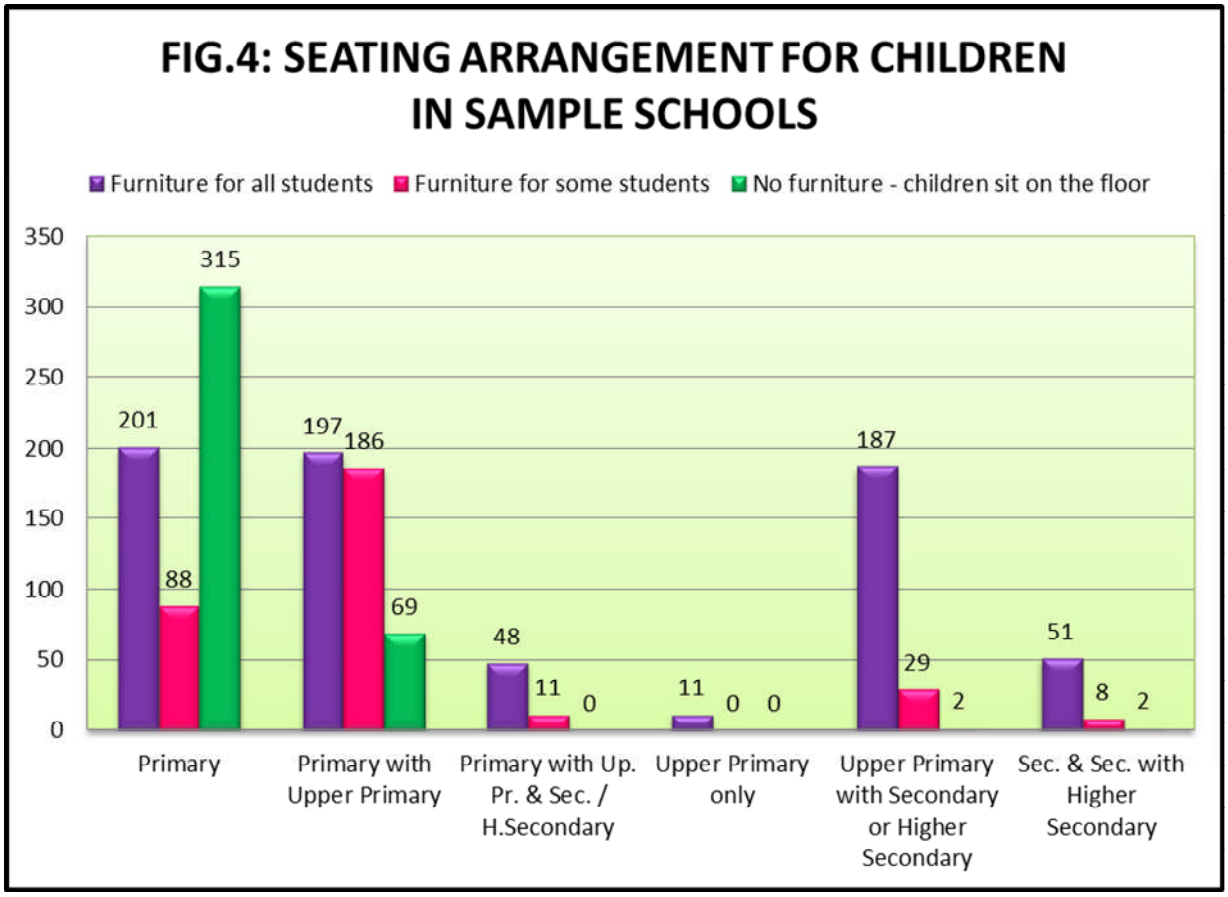
Category of Schools	Source of Drinking Water in Schools					Total
	Hand pump	Well	Tap Water	Others	No drinking water facility available	
Primary	88	59	360	64	33	604
Primary with Upper Primary	61	36	311	30	14	452
Primary with Up. Pr. & Sec. / H.Secondary	6	10	37	5	1	59
Upper Primary only	1	2	8	0	0	11
Upper Primary with Secondary or Higher Secondary	21	40	138	18	1	218
Sec. & Sec. with Higher Secondary	4	5	43	7	2	61
Total	181	152	897	124	51	1405

It is evident from the above Table 4.7, majority of the schools 897 were having Tap water as source of drinking water. However, considerable number of schools 51 was not at all having drinking water facility. Hand pump as drinking water facility is found only in 181 schools and Well Water in 152 schools and the remaining 124 schools depend on other sources for drinking water.

I. Seating Arrangement for Children in Schools

The figure-4 furnishes detailed information about the seating arrangement for children in schools.

Figure 4: Seating Arrangements for Children in Sample Schools



The graph on seating arrangements for children in the schools reveals that out of 1405 schools, 201 primary, 197 Upper primary, 48 primary with secondary and 03 upper primary schools are having full furthinture for all the students. Whereas in 315 primary schools, 69 primary with upper primary there is no for children to sit, they are sitting on the floor and this includes majority of primary and upper primary schools.

J. Number of Teacher Posts Sanctioned and in Position

The table provides detailed information on number of teacher posts sanctioned in sample schools and the actual position of teachers.

TABLE-4.8: NUMBER OF TEACHER POSTS SANCTIONED AND IN POSITION

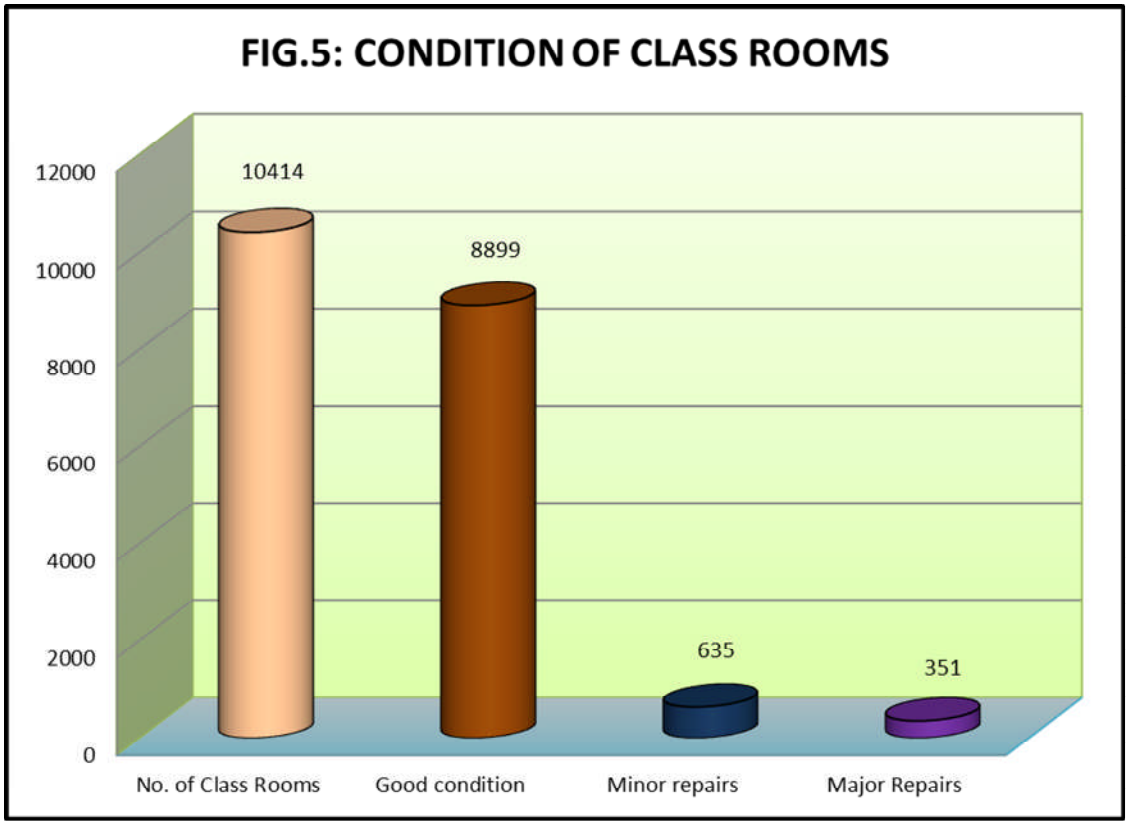
Category of Schools	Sanctioned Teachers	In-Position Teachers
Primary	2753	2073
Primary with Upper Primary	4223	2296
Primary with Up. Pr. & Sec. / H.Secondary	798	382
Upper Primary only	180	69
Upper Primary with Secondary or Higher Secondary	3052	866
Sec. & Sec. with Higher Secondary	245	14
Total	11251	5700

The above cited Table on Number of teacher posts sanctioned and in position shows that a total of 11251 teachers posts were sanctioned in 1405 sample schools and out of this 5700 were in position.

K. Condition of Rooms in Schools

Detailed information on physical condition of classrooms in sample schools is presented in Figure .5

Figure 5: Condition of Class Rooms and Other Rooms in Schools



The above Figure reveals the condition of classrooms and other rooms of the sample schools. Out of total 1405 schools, majority was in Good condition (8899). In reference to remaining schools, 635 of them need minor repairs, (351) need major repair.

L. Availability of Computers in Schools

TABLE-4.9: AVAILABILITY OF COMPUTERS IN GOOD WORKING CONDITION

Category of Schools	No. of Computers
Primary	1099
Primary with Upper Primary	1613
Primary with Up. Pr. & Sec. / H.Secondary	545
Upper Primary only	58
Upper Primary with Secondary or Higher Secondary	2689
Sec. & Sec. with Higher Secondary	385
Total	6389

The above table shows that in sample schools 6389 computers available in good working condition. Out of this 1099 are in primary and 1613 Primary with upper primary schools followed by 545 in primary with upper primary and secondary schools.

M. Facilities in Schools

Detailed information on various facilities in schools is presented in Figure 6. Out of total 1405 sample schools as many as 1354 of them were Day schools. Similarly, only in 284 schools there was a shift system while running the schools. However, in only 1170 schools Electricity facility was available. As far as toilet facilities were concerned 196 schools have common toilets. However, in 939 schools separate toilet facility for girls was available. In reference to play ground facility; only 1046 schools have a playground facility for children.

Thus, in reference to facilities for school children, it is quite significant to observe that majority of the schools were devoid of common toilet facility.

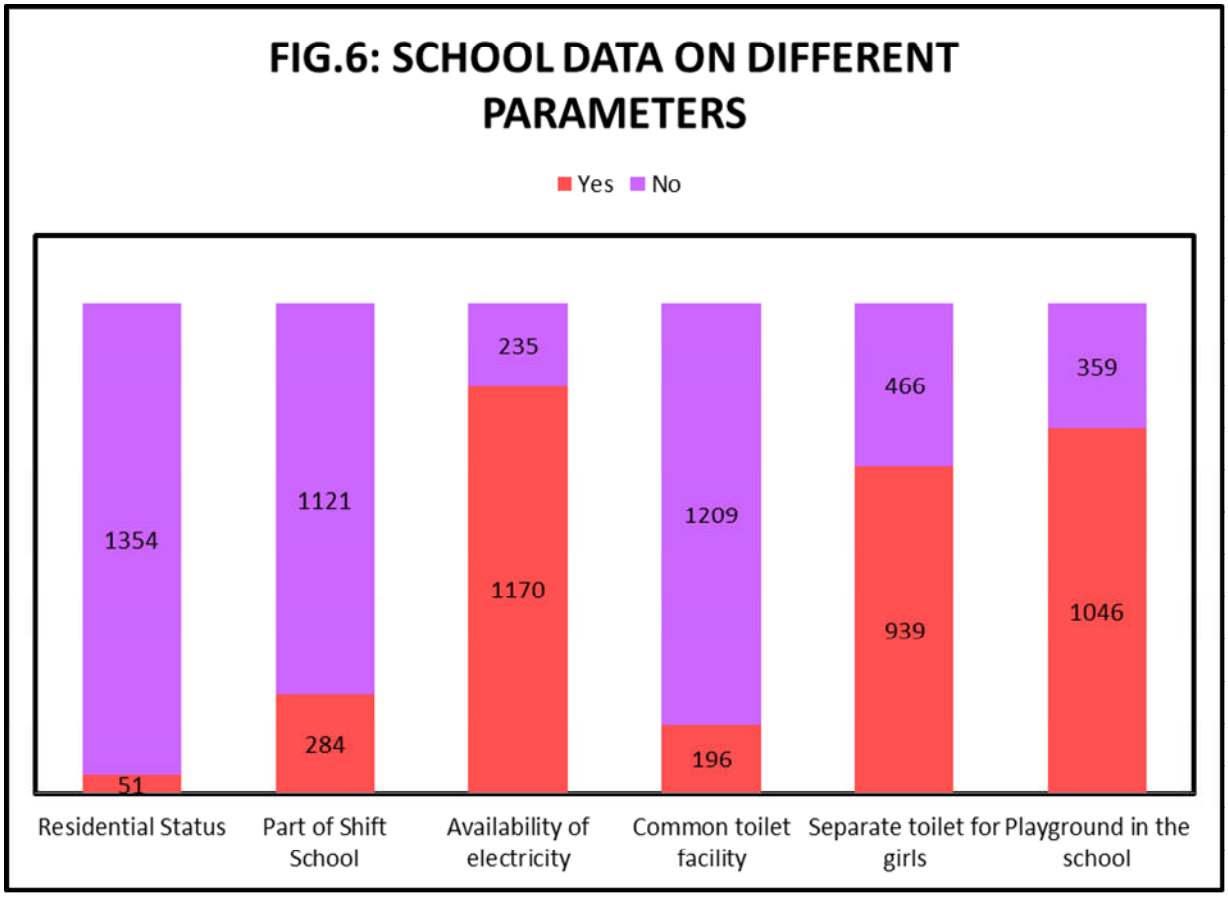
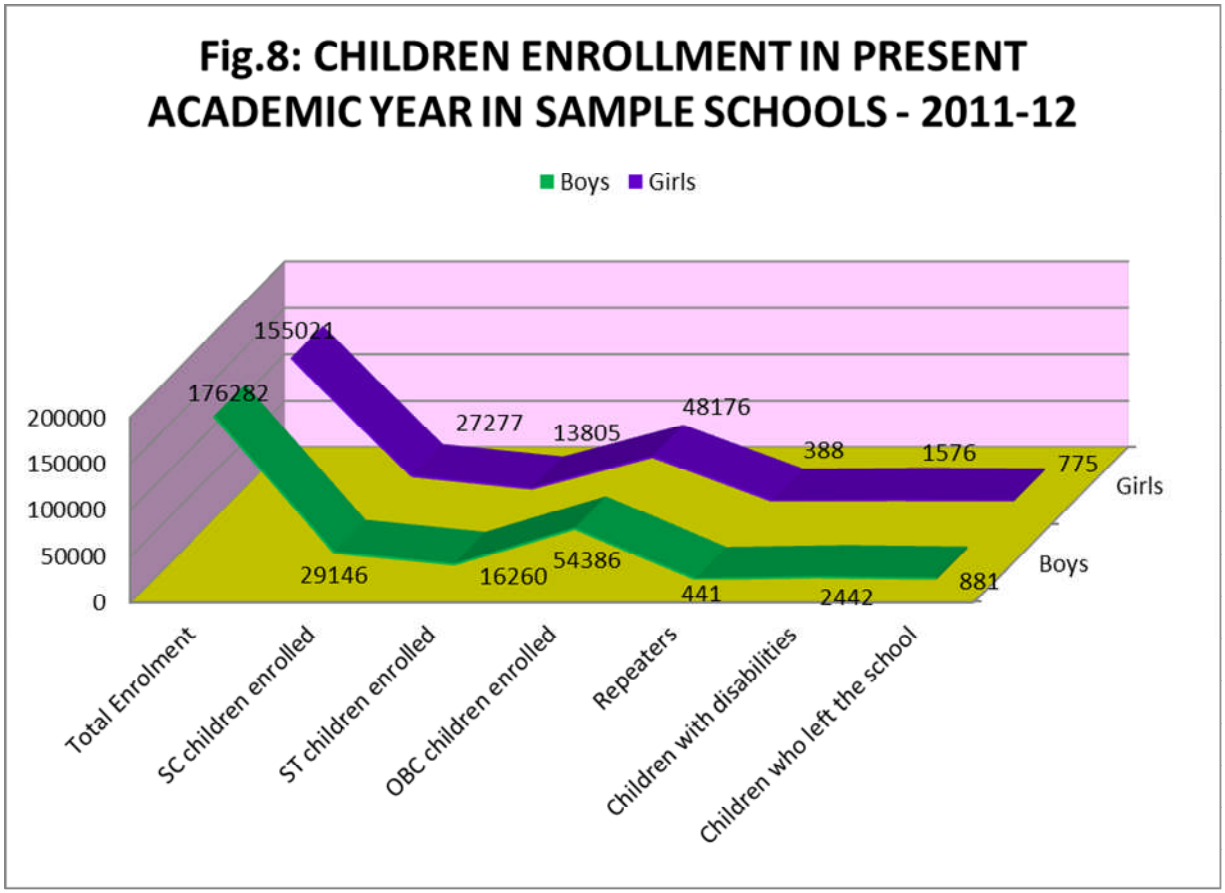


FIG.6: SCHOOL DATA ON DIFFERENT PARAMETERS
Yes
No
1354
51
1121
284
235
1170
1209
196
466
939
359
1046
Residential Status
Part of Shift School
Availability of electricity
Common toilet facility
Separate toilet for girls
Playground in the school

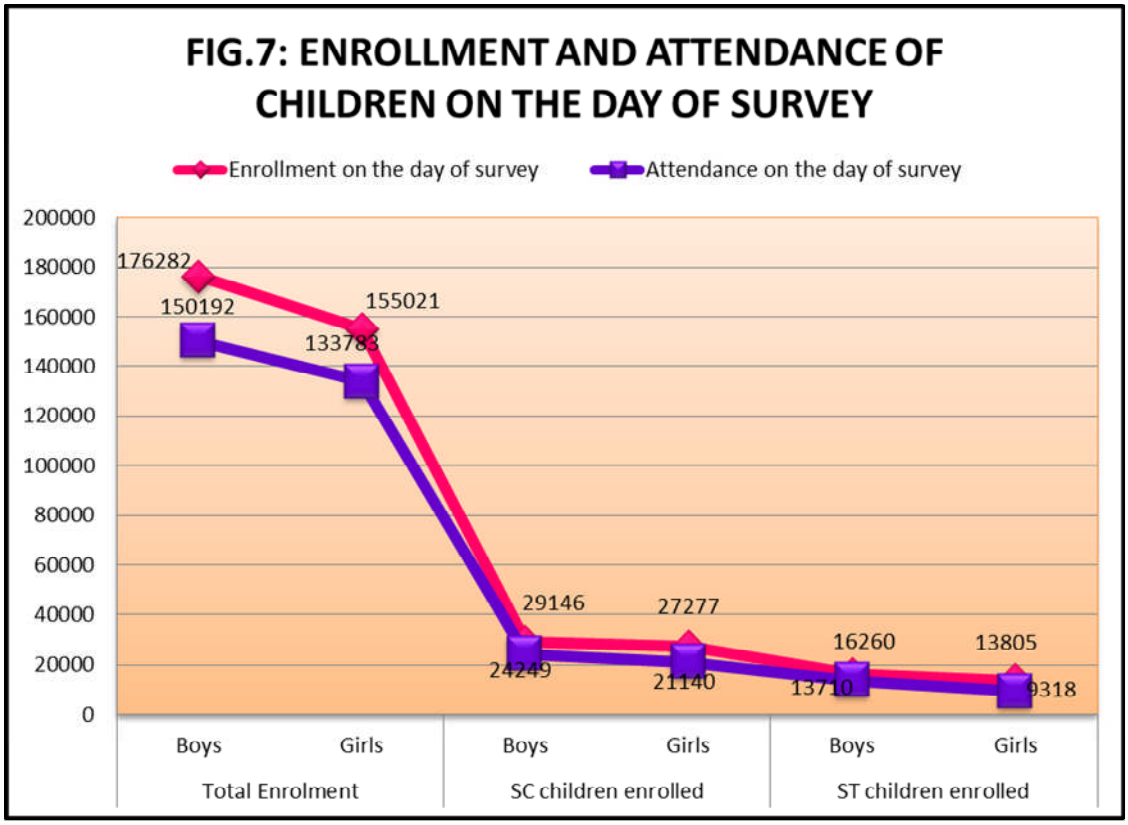
N. Enrolment of Children in sample schools – 2011-12:



The details of enrolment for the academic year 2011-12 were presented in Figure 8. It indicates that enrolment ratio between boys and girls were quite normal with the Boys enrolment is high in the sample schools of 1405. With reference to enrollment of SC, ST, OBC community children Boys enrollment is higher than the Girls.

The number of repeaters, children with disabilities and who left the school due to various reasons Girls number is lesser than that of boys.

O. Attendance profile of students on the day of PES:

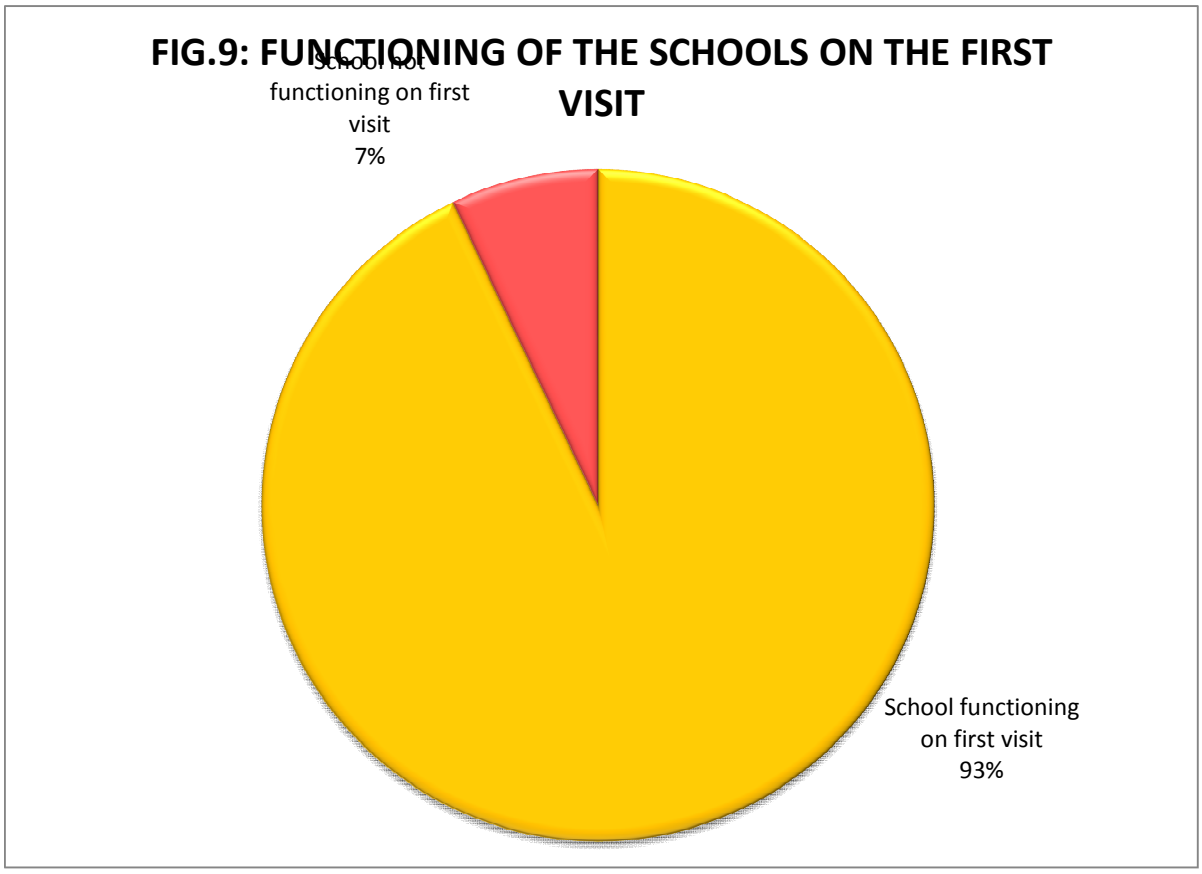


Detailed information on attendance profile of students on the day of PES is presented in Figure 07. The attendance percentage in overall Boys was 85%, where as in girls 86.2%. Attendance percentage in SC Boys, 83.1% in SC Girls is 77.5% quite encouraging. Whereas among the ST Boys the percentage of attendance is 84.3% in girls the attendance percentage is (67.4%) which is quite lesser than the boys.

INVESTIGATOR FEEDBACK ON SCHOOLS DURING POST ENUMERATION SURVEY

P. Functioning of Schools on the Day of Visit for PES

Detailed information on functioning of schools selected for the sample can be seen in Figure 9. The graph reveals that 93% of schools were found opened on the first visit in connection with PES and the remaining 7% schools found closed. To collect the Quality of information and check the data the investigators made a second and third visits to the 7% of schools among the 1405 Schools selected for the survey.



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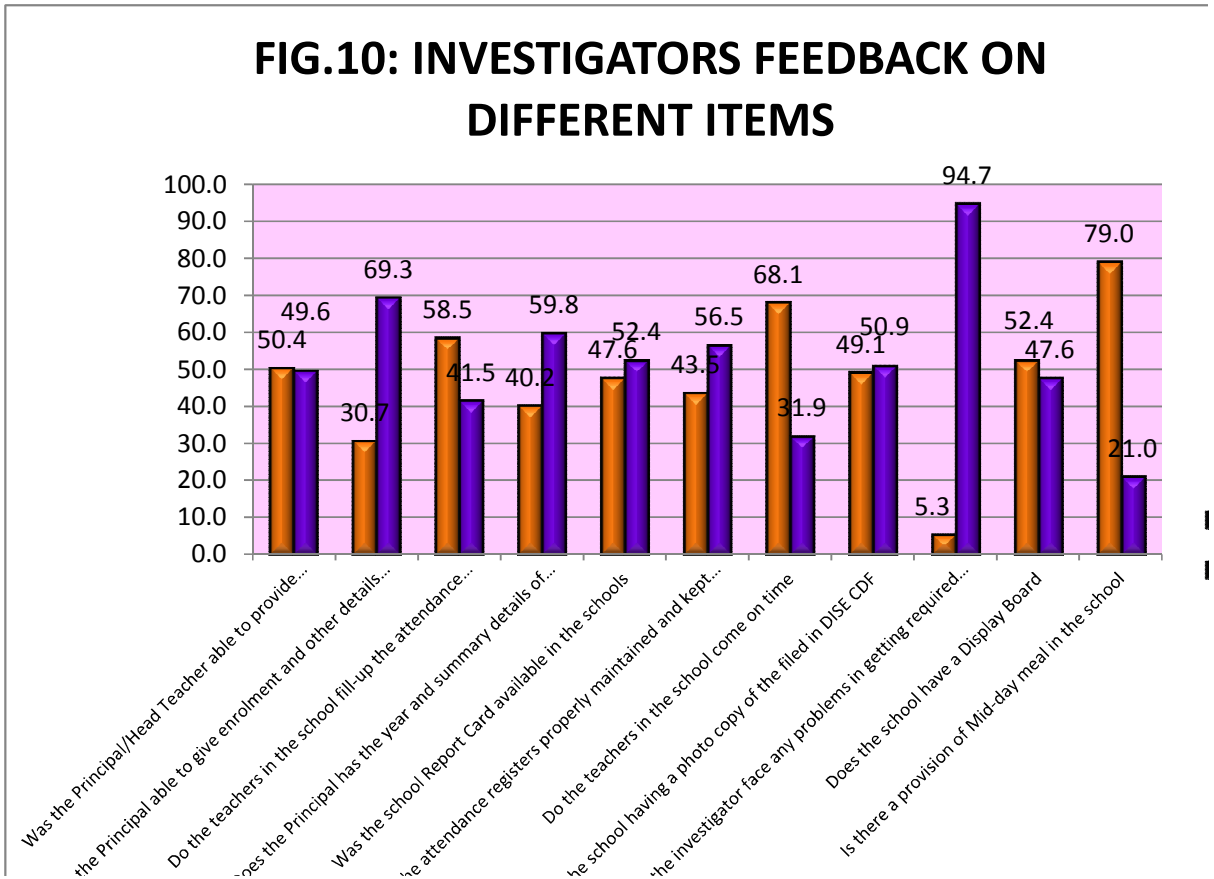
Q. Investigators Feedback on Different Variables of PES



Detailed information in this regard is presented in Figure 10. In reference to providing information, it was noticed that 50.4% of the school HM's could able to provide the needful information and where as 49.6% HM's unable to provide the required information. In reference to maintaining attendance register in schools, it was found that in 58.5% of the schools that teachers were properly filling up the attendance registers and in the remaining 41.5% of the schools there was a lapse in properly filling the registers concerned. Approximately 40.2% sample school HM's were having summary details of children in respective schools as well as habitations. In reference to remaining HM's none of them were having access to needful data. In terms of School Report Cards, 47.6% sample schools were having School report cards and the remaining 52.4% schools do not have the school report card.

Out of 1405 sample schools, only 49.1% of schools posses' photocopy of DISE filled in format whereas the remaining 50.9 % schools do not have the photocopy of DISE format. Similarly, in 52.4% schools display boards were available and whereas 47.6% schools display boards were not available. Where as the provision of mid day meals were found in 79% schools and in 21% mid-day meal provision was not there.

As far as the problems faced by the investigators in collection of information if is found that in (5.3%) schools the investigators faced problems in getting the information from schools.

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Chapter V
Conclusions and Recommendations

The scrutiny of DISE data reveals that some of the Schools have not provided the proper information. It reflects that Head Masters and Teachers concerned do not have proper understanding on items of the DISE Format. Further the teachers are not taking the DISE as serious activity. In PES, the coverage of sample was 1405 schools; for all the 1405 schools data was considered for comparison.

A few of the important conclusions drawn from the survey results are as follows:

1. Overall deviations of data from PES data within the comparable items are 10.74% and thereby giving a precision level of 89.26%. The highest deviation of data is noticed in status of school buildings, type of schools, condition of boundary wall, and management of schools, source of drinking and children enrollment. This is because of the respondents in ability to interpret the item and under reporting the items with in accurate figures in DISE data. Within the available comparable data, few schools did not provide the information on some of the items.
2. The highest deviation of data is observed in respect of items which are based on respondent's interpretation i.e. In Category of schools, status of school buildings, No. of Class rooms, condition of boundary wall, management of schools, drinking water facility, Part of shift schools, separate toilet for girls and in position of teachers and children enrollment.
3. The items like type of management, number of blocks in schools, teacher posts sanctioned, teachers in position, disability, repitation rate, availability of computers have not been reported properly.

Hence, it was felt difficult to establish deviation on such an important variables.

4. As much as seven per cent of schools among 7% schools were not open at the time of survey causing lot of inconvenience while collecting data for these schools investigators visited second time.
5. It is found that among the sample schools 68.1% percentage of schools the teachers come on time to school where as in 32% schools it is reported that teachers are not attending the school in time.
6. As much as 49.6% of Head Masters concerned could not able to provide requisite information pertaining to his/her school though records are available.
7. 50.9% of the schools even do not have photocopy of DISE format though requisite instructions were in vogue.
8. In as much as 47.6% of schools Display Boards were not available. Even in case of the schools where the display boards are available the information was not written on the boards.
9. Still considerable number of schools was not having exclusive toilets for girl children. Even in case of schools the toilets are available running water facility is not available.
10. Enrolment of girls lower that the boys among the SC, ST and OBC communities.

Based on the results of the survey some of the **recommendations** were arrived at for improving MIS, and these are as follows:

- More emphasis should be laid on issues like **enrolment, retention, and dropout and attendance rate** in the data capture format resulting in effective enumeration of vital statistics.

- Collection of DISE Information and 5% sample checking may be undertaken simultaneously so that timely submission of reports can be ensured.
- The field experience reveals that the headmasters/teachers feel that it is an additional burden to them and some times found it difficult in providing of the required data. Therefore, the headmasters/teachers need to be given an understanding that supplying of educational data of the school is mandatory and it is a part of their job. Therefore, they are to be serious and sincere in providing the data.
- The formats canvassed for Post Enumeration Survey (DCF) and the District Information System of Education (DISE) were quite different in terms of certain variables/aspects. This has been resulting difficulty in establishing similarities or confirmation of data through Five Percent Check.
- The Cluster school Head Masters, Block Educational Officers, Officers of District project (SSA)and DIET faculty should be given training on collection and utilization of DISE data and its all related soft ware applications for proper planning and implementation of Educational activities.
- The investigators faced the problem in getting the data about previous academic year as the records are not maintained properly, therefore, the headmasters need to be advised to

maintain a single register which contains year wise data of the school and the required data of any year becomes easy to be supplied.

- All the teachers must be given proper orientation and awareness regarding the importance of DISE data and its utility.
- The school has to mandatorily conduct community reading of draft DISE data before submitting the final copy to the block.
- Effective supervision and monitoring should be ensured at all levels for quality data cross checking of filled in DISE format may be undertaken to improve the quality of information.l
- ***MIS Units should be strengthened by appointing properly trained professionals to maintain and manage the information system.***

These are the certain suggestions based on field observations of the investigators. In case, the above cited points are taken care, it is hoped that the next year DISE data will definitely improve qualitatively. Further it is put on record that the DISE data of this year seams to be better than the previous years and it is hoped that it will improve in its quality in years to come.

(T.Vijayakumar)

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Draft

SAMPLE CHECKING OF DISE DATA

- It is mandatory for all the States and UTs to check the DISE data on sample basis.

- The previous scheme of drawing sample for checking of DISE data is now slightly revised and the same will be applicable from the year 2006-07 onwards.

- Each state has to draw a sample of 10 per cent of Districts with a minimum of at least 2 districts for random checking of data. Within each sample districts schools from 5 per cent from each block is required to be selected.

- The State Project Director will draw a sample of districts. The districts may be selected in such a fashion so that they represent the entire population i.e. the State. Special focus districts, district having literacy rate below and above the state level etc. may be the possible criteria to draw sample.

- It is mandatory for states to engage independent agencies such as monitoring institutions identified for state in sample checking of data.

- Actual sample of schools will be drawn by the agency entrusted the task of data checking. While drawing school sample, it should be ensured that schools located both in rural and urban areas are selected as well as the sample drawn should also include all types of schools across school managements. Due consideration should also be given to school pre-dominantly located in SC, ST and minority areas.

- It is advisable that filled-in school formats should be provided to agency only after completion of field work.

- The district and states are not required to modify the filled-in formats on the basis of outcome of the sample checking of the data.

- The office of the SPD will make all necessary arrangement for smooth conduct of the sample checking of data.

- The agency entrusted the task of sample checking of data would be required to submit detailed report which should be discussed with the state authorities. They should also comment on coverage of schools in the district.

- The agency entrusted the task of sample checking of data is also required to summarize their filed observations regarding training of Head Master in filling-up of DISE formats, infrastructure in the district MIS Unit, feedback to schools in terms of School Report Cards, display of key information on the school display board, availability of DISE data at all levels, dissemination and awareness about DISE data, use of DISE data in planning, evidence of sharing workshops at all levels, data feeding arrangements at the district level, availability of HW and SW and computer professionals for the MIS Unit, etc. They may also provide their suggestions for improving the quality of DISE data.

- It is mandatory for state to submit the final report of the sample checking of data to the national level authorities.

- CD containing DISE 2006-07 data without detailed report of sample checking of data will be returned.

- It is suggested that the sample checking of data be undertaken sometime in the month of October or immediately after completion of data collection.

DISTRICT INFORMATION SYSTEM FOR EDUCATION

Five Percent Sample Check: Special DCF for Post Enumeration Survey

Date of visit to School: ..…../…../…….. Academic Year: ……/…..….

Name of the Person conducting the survey: …….

Name of the organization conducting the survey:...……
……..……
……..……
State: District: Pin Code:

A. School Location Particulars

1. Village Name/Ward No. :_____
2. Block/Municipal Name :_____
3. Rural/Urban (Indicate Code[#]) : ☐
   [#]Rural (1)/Urban (2)
4. DISE School Code : ☐☐☐☐☐☐☐☐☐☐☐

B. School Particulars

1. Name of the School : _____
2. Name of the Principal/Head Teacher Mr./Ms. _____
3. Educational qualification of the Principal: _____
4. Number of year working as Principal/Head Teacher in the present School: ☐☐
5. Total number of year of experience working as Principal/Head Teacher in the schools (Include experience as Principal/Head Teacher from earlier Schools ☐☐
6. Year of Establishment of school: ☐☐☐☐
7. School Category: (Indicate Code *) ☐
   * Primary (1)/ Primary with upper primary (2)/ Primary with Secondary or Higher Secondary (3)/ Upper Primary only (4)/ Upper Primary with Secondary or Higher Secondary (5)
8. Type of School: (Indicate Code **) ☐
   ** School for Boys Only (1)/ School for Girls only (2)/ Co-educational (3)
9. Lowest Class in the school: ☐
10. Highest Class in the school: ☐
11. School Management: (Indicate Code [@]) ☐
    [@]Managed by Education Department (1)/Tribal Welfare Department (2)/ Local body (3)/ Private Aided (4)/ Private Unaided (5)/ Other (6)/ Unrecognized (8)

12. Residential School: (Yes=1/ No=2) ☐

13. If yes: Type (Indicate Code ##) ☐

Ashram (Govt.)(1) / Non Ashram Type (Govt.) (2) / Private (3) / Others (4) Not applicable (5)

14. Is the school building used as a part of shift school? (Yes=1/ No=2) ☐

C. Staff Details (Primary and Upper Primary)

Total number of Teacher posts sanctioned: ☐☐

Total number of Teachers in Position: ☐☐

Teacher Details	Primary		Upper Primary	
	Male	Female	Male	Female
No. of Teachers (Excluding Principal/Head Teacher)				
Para Teacher/Shiksha Karmi/ Guruji/ Community Teacher				
Non-Teaching Staff				
Number of Staff employed for Cooking Mid-day Meals				
Number of personnel employed for cleaning Toilets/Lavatories				
Number of Teachers Present on the day of Survey				

D. Facilities in School

1. Status of School Building: (Enter Code) ☐
   Private (1)/ Rented (2)/ Government (3)/ Government School in rent free building (4) / No Building (5)

2. Type of School Building: (Enter Code) ☐
   Pucca (1)/ Partially Pucca (2)/ Kuccha (3)/ Tent (4)/ No Building (5)

3. Number of Blocks in school: ☐☐

4. Condition of Classrooms and other rooms available in School: Please enter the number of rooms (classrooms/others room) with the given condition

Condition	No. of Classrooms	No. of Other Rooms	Remark if any
Good Condition			
Need Minor Repairs			
Need Major Repairs			
Unfit for use			

5. Availability of Electricity in school: (Yes=1/ No=2) ☐

6. Common Toilet available in the school: (Yes=1/ No=2) ☐

7. Separate Toilet available for Girls: (Yes=1/ No=2) ☐

8. Separate Toilet facility available for staff: (Yes=1/ No=2) ☐

9. Condition of boundary wall in the School: (Enter Code) ☐
   Pucca (1)/ Pucca but broken (2)/ Barbed wire fencing (3)/ Heges (4)/ No boundary wall (5)/ other (6)

10. Source of Drinking water facility in School: (Enter code) ☐
    Hand pump (1)/ Well (2)/ Tap Water (3)/ Others (4)/ No Drinking water facility available (5)

11. Does the School have a Playground? (Yes=1/ No=2) ☐

12. Number of Computers available in good working condition. ☐☐

13. Seating arrangement for children in school: (Enter Code) ☐
    Furniture for all students (1)/ Furniture for some students (2)/ No furniture- children sit on the floor (3)

E. Student Enrolment

1. Children Enrolled in the Last Academic Year

(Academic Year: …….)

Enrolment	Class 1		Class 2		Class 3		Class 4		Class 5		Class 6		Class 7		Class 8	
	B	G	B	G	B	G	B	G	B	G	B	G	B	G	B	G
Total Enrolment																
Repeaters																
SC Children Enrolled																
ST Children Enrolled																
OBC Children Enrolled																
Children with Disabilities																
Number of Children who left the School																

B: Boys G: Girls

2. Enrolment and Attendance Details of Children on the Day of the Survey

Class	Enrolment on the Day of the Survey						Attendance the Day of the Survey					
	Total		SC		ST		Total		SC		ST	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Class I												
Class II												
Class III												
Class IV												
Class V												
Class VI												
Class VII												
Class VIII												

N.B.: 'Enrolment' means, the number of children on rolls as entered in the school register.
'Attendance' means, the number of children physically present in the classroom on the day of the survey.

3. Children Enrolment in the Present Academic Year

(Academic Year: ……)

Enrolment	Class 1		Class 2		Class 3		Class 4		Class 5		Class 6		Class 7		Class 8	
	B	G	B	G	B	G	B	G	B	G	B	G	B	G	B	G
Total Enrolment																
Repeaters																
SC Children Enrolled																
ST Children Enrolled																
OBC Children Enrolled																
Children with Disabilities																
Number of Children who left the School																

B: Boys G: Girls

4. Grade-wise Examination details for which Annual Examination is conducted for the last Academic Year

(Academic Year: ……)

Grade	Enrolment at the end of the Academic Year						Appeared for the Examination						Passed in the Examination					
	Total		SC		ST		Total		SC		ST		Total		SC		ST	
	B	G	B	G	B	G	B	G	B	G	B	G	B	G	B	G	B	G
Class IV/V																		
Class VII/VIII																		

5. Grade-wise Examination details for which Annual Examination is conducted for the Present Academic Year

(Academic Year: ……)

Grade	Enrolment at the end of the Academic Year						Appeared for the Examination						Passed in the Examination					
	Total		SC		ST		Total		SC		ST		Total		SC		ST	
	B	G	B	G	B	G	B	G	B	G	B	G	B	G	B	G	B	G
Class IV/V																		
Class VII/VIII																		

Investigator Feedback Schedule

1. Name of the Person conducting the survey _:_____

2. DISE School Code : ☐☐☐☐☐☐☐☐☐☐☐

3. Date of visit of the School : ……./……./……

4.Was the School open on the first day of the visit: (Yes = 1/ No = 2) ☐

5. If no when was the School visited second time (Date) : ……./……./……

6. Was the school open on the second visit: (Yes = 1/ No = 2) : ☐

7. Number of visits made to the school to get information : _____

(In case the school was closed on both the days, contact the BRC/CRC Coordinators for replacement of the schools to be surveyed. Replacement should be resorted only in exceptional cases.)

Attributes pertaining to the Principal /Head Teacher towards the investigation:

Attribute	Category of Response from the School				
	Very Good	**Good**	**Average**	**Poor**	**Very Poor**
Initial reaction of the Principal/Head Teacher					
Response of the Principal/Head Teacher to provide information					
Availability of Records					

1. Was the Principal /Head Teacher able to provide the information pertaining to enrolment and details of pass percentage easily? (Yes = 1/ No = 2): ☐

2. Was the Principal able to give the enrolment and other details from a single Register? (Yes = 1/ No = 2): ☐

3. Do the teachers in the school fill-up the attendance register properly? (Yes = 1/ No = 2): ☐

4. Does the principal have the year end summery details of Children for all grades available with him? (Yes = 1/ No = 2): ☐

5. Was the School Report Card available in the School? (Yes = 1/ No = 2): ☐

6.Are the attendance registers properly maintained and kept in the Almirahs?

(Yes = 1/ No = 2): ☐

7. Do the Teachers in the school come on time? (Yes = 1/ No = 2): ☐

8. Was the School having a photo copy of filled in DISE DCF? (Yes = 1/ No = 2): ☐

9. Did the investigator face any problem in getting the required information from the School? (Yes = 1/ No = 2): ☐

If yes, briefly mention the kind of problem faced by the investigator in eliciting the information from the school

……
……
……
……
……
……
……
……
……
……
……
(Please use a separate paper if the space provided is not sufficient)-

10. Does the school have a Display Board? (Yes = 1/ No = 2): ☐

11. Is there a provision of Mid-day meal in the School? (Yes = 1/ No = 2): ☐

12. How is the quality of food being served to the children in the Mid-Day Meal Scheme?
(Please write your comments below)
……
……
……
……
……
……..

13. What is the seating arrangement made for children in the school?
(Please write your comments below)
……
……
……
……
……
……