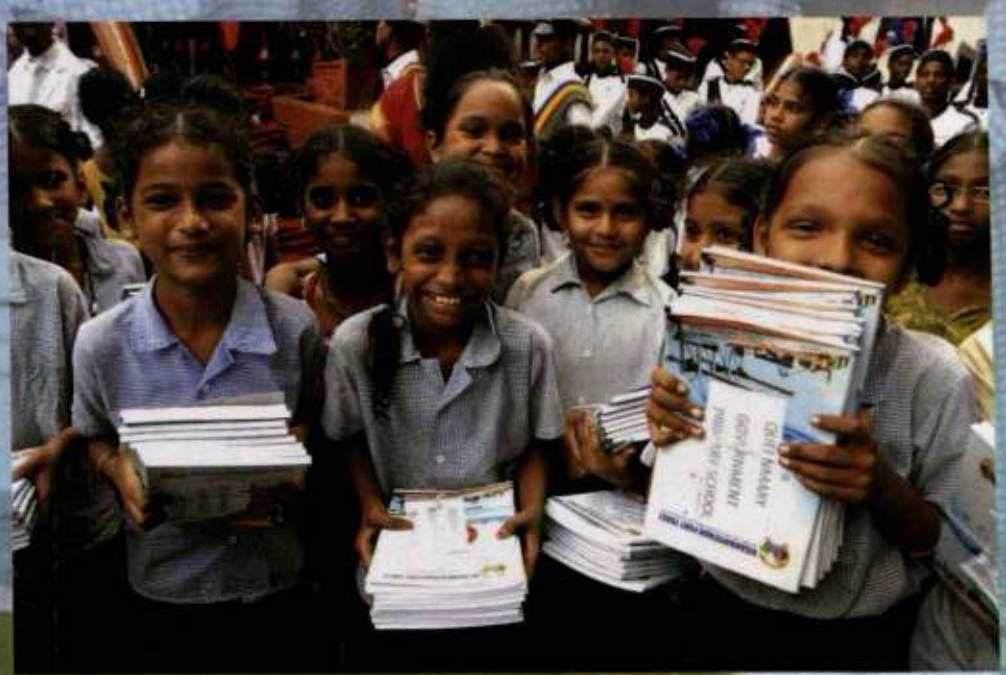
Government of Kerala

Report on Education in Kerala

Based on
NSS 71st Round (January – June 2014)



Central and State
Sample Pooled Data

N.S.S. Division
Department of Economics & Statistics

Government of Kerala

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Preface

The surveys on social consumption relating to education conducted by National Sample Survey Office (NSSO) the primary source of various indicators of education scenario of the Nation. Since the sample size of these surveys are not adequate to generate reliable district level estimates, Department of Economics and Statistics Kerala (DES) has been participating in these surveys from the very beginning to provide more disaggregated results at district level. Main objective of state participation in the NSS programme is to provide a mechanism by which sample size will be increased and the pooling of the two sets of data would enable better estimates at lower sub state level, particularly at district level.

NSSO and DES conducted a survey on education with equal matching ratio sample size basis as a part of NSS 71st round during January to June 2014. Based on central and state sample pooled data, statistical indicators of education at district level are brought out in this report as per the methodology approved by National Statistical Commission (NSC). I am so delighted to introduce this report as this one is a result of endeavour of DES for pooling of central and state sample data of National Sample Surveys at its own level. What's more, the state constituted an expert committee for pooling of central and state sample NSS data under the chairmanship of Shri Raveendran G,Additional Director General(Rtd) , Central Statistical Office and pooling of this survey has been performed completely under the guidance of the committee using STATA software. I am highly thankful to the chairman and members of the committee for providing their valuable guidance in this regard.

The main difference of the report from other official educational statistics is that its results are based on the current attendance status while most of the official educational statistics are based on enrolment. Poolability of two sets of data has been examined through statistical tests and the results are presented in chapter 3. The main findings related to the pooled estimates are presented in chapter 4 and Relative Standard Errors of estimates are given in chapter 5.

This report is prepared by Shri Preeth V.S., Assistant Director in the Directorate under the leadership of Smt. Sheela P. Sankar ,Additional Director (State Income) and Smt C.P. Resmi, Nosologist . Work done by the supervisors and field staff who worked tirelessly to make the survey a success, the devoted services of all others who may have contributed in diverse ways to the success of the survey and the subsequent production of the report is duly acknowledged. I would thank heartily to all those respondents who actively participated in this survey by giving their valuable time in responding answers to our questions.

I hope that this report will be useful to the planners, policy makers, academicians and researchers. The Department expects suggestions and comments from readers for further improvement in the future operations of this kind.

Ramachandran V

V. Ramachandran
Director General

Place: Thiruvananthapuram
Date: 19.05.2018

Preface

V. Ramachandran
Director General

Place: Thiruvananthapuram
Date: 19.05.2018

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Highlights

The report is based on central and state sample pooled data of a household survey on "Social Consumption: Education" carried out during January-June 2014.

1. Attendance status of persons in age-group 5-29 years

- In rural areas of Kerala, 65.6% of persons in 5-29 years age-group were currently attending educational institution. Among districts it varied from 58.8% (Kozhikkode) to 71.6% (Kollam).
- In urban areas of Kerala, 63.3% of persons in the 5-29 years age-group were currently attending educational institution. Among districts it varied from 58.1% (Kozhikkode) to 88.2% (Idukki).

2. Attendance ratios

- Gross Attendance Ratio (GAR) at primary and upper primary level was seen highest in Pathanamthitta (106) and lowest in Palakkad (92)
- Kottayam had highest GAR (121) and Pathanamthitta had lowest GAR (89) at secondary and higher secondary levels of education.
- After higher secondary, GAR was seen highest in Thrissur district (28) and lowest in Wayanad (11).
- Net Attendance Ratio(NAR) for primary and upper primary levels of education varied across districts from 74 (Alappuzha) to 93 (kannur).
- Kollam had highest NAR (92) and Pathanamthitta had lowest NAR (66) at secondary and higher secondary levels of education.
- Thrissur had highest NAR (28) and Wayanad had lowest NAR (11) for education levels after higher secondary.
- In whole Kerala, it is seen that almost all in the lower age groups (6-17) were participating in education. No prominent variation was observed among districts. In higher age groups (18-29) AAR was seen less than 40 in all districts. Thrissur and Kottayam were forerunners in AAR of age group 18-29 with AAR of 37 and 35 respectively.

3. Current attendance of students by type of education

- 88.4 % of students in Kerala were attending general education and the rest, 11.6%, were attending technical/professional education.
- Almost same pattern can be viewed in all districts.
- Percentage of students attending technical/professional education was seen highest in Thrissur district (18.7%) and lowest in Kasaragode district (5.8%).

4. Attendance by type of institution

- In Ernakulam 43.2% of students were reported that they were attending in private unaided schools, which was highest among the districts.
- Percentage of students attending unaided schools was seen lowest in Kasargode district, 15%.

5. Private Expenditure on Education

- Average expenditure per student on general education varied among districts from Rs.5553 (palakkad) to Rs.12809 (Pathanamthitta).
- Average expenditure per student on Technical/professional education was seen highest in Idukki (Rs.89506) and lowest in Wayanad (Rs. 46133).

6. Drop outs and Discontinuance

- At the state level, around 35% of persons in the age group 5-29 were either dropped out or discontinued education.
- Among the districts it varied from 30.16% (Kottayam) to 41.34% (Kozhikkode).

7. Access to computer and internet

- 30.1% of the households in the state possessed computer.Among the districts, combining rural and urban areas, Kasaragode had highest percentage (54.1%) of households having computer while Palakkad had the lowest (11.4%).
- More than half of the households (51.9%) in the whole Kerala had access to internet facility. Among the districts, Kottayam topped in percentage of households having access to internet facility with 76.3% while Palakkad had lowest (26.2%) percentage of households having access to internet facility.

Abbreviations

List of Abbreviations used in the Report

Abbreviation	Description
DES	Department of Economics and Statistics
NSSO	National Sample Survey Office
NSS	National Sample Survey
DPD	Data Processing Division
NSC	National Statistical Commission
MOSPI	Ministry of Statistics and Programme Implementation
GAR	Gross Attendance Ratio
NAR	Net Attendance Ratio
AAR	Age Specific Attendance ratio
TVM	Thiruvananthapuram
KLM	Kollam
PTA	Pathanamthitta
ALP	Alappuzha
KTM	Kottayam
IDK	Idukki
EKM	Ernakulam
TSR	Thrissur
PKD	Palakkad
MLP	Malappuram
KKD	Kozhikkode
WND	Wayanad
KNR	Kannur
KSD	Kasaragode

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AAR	Age Specific Attendance ratio
TVM	Thiruvananthapuram
KLM	Kollam
PTA	Pathanamthitta
ALP	Alappuzha
KTM	Kottayam
IDK	Idukki
EKM	Ernakulam
TSR	Thrissur
PKD	Palakkad
MLP	Malappuram
KKD	Kozhikkode
WND	Wayanad
KNR	Kannur
KSD	Kasaragode

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Introduction

1.1 Background

The National Sample Survey Office (NSSO) has been conducting nationwide multi-subject, integrated large scale sample surveys in the form of successive rounds covering various socio-economic aspects since 1950. Due to the constraint of limited physical and financial resources, sample sizes of these surveys are adequate only to generate reliable estimates at national and state level.

Considering the demands for district level estimates state governments were invited to participate in National Sample Surveys with matching samples so as to enable the preparation of estimates at district level. Accordingly Kerala state has been participating in these surveys from the very beginning by adopting the same sample design based on independently drawn sample as that of NSSO. These two field operations are generally referred as central and state samples of National Sample Survey.

The main objective of state participation is to provide a mechanism by which sample size will be increased and pooling of central and state sample data would enable better estimates at district level. DES Kerala has been enjoying this benefit of pooling of central and state sample data from 66th round onwards, which was one of the milestones to be achieved under 13th finance commission's grant to the state. One can get the idea about the way which DES Kerala achieved this milestone by referring its publication "Report on Household Consumer Expenditure & Employment Unemployment situation in Kerala based on NSS 66th round central and state sample pooled data."

In order to publish district level estimates within a reasonable time limit DES decided to perform the pooling exercise its own level using STATA software. Accordingly Education Survey data of 71st round has been pooled and district level estimates are presented in this report.

1.2 Recommendation of 23rd Conference of Central and States Statistical Organizations (COCSSO)

The 23rd COCSSO held during 4-5 november 2015 at Guwahati under the chairmanship of Prof.T.C.A. Anant, Chief Statistician of India (CSI) and Secretary MoSPI recommended that state DES should constitute an expert committee to validate results of state sample and pooled results of central and state sample data.

1.3 Expert Committee formed by the state for Pooling of NSS data

Theoretically speaking, Pooling of central and state sample data should result more dependable estimates at district level. But, looking from the application point of view,

there are several problems and bottlenecks that must be addressed before generating the estimates. Parameters to be pooled, appropriate statistical test to check the pre conditions of pooling, appropriate method of pooling are matter of debate. Moreover validation of results by an expert group is inevitable. Considering the recommendation of 23rd conference of COCSSO an expert committee for pooling of central and state sample data of National Sample Surveys has been constituted under the chairmanship of Shri. G.Raveendran , Additional Director general (Rtd.), CSO, as per Government order number G.O.(Rt) No.363/17/plg dated 17.06.2017 with an aim to perform pooling exercise within a reasonable time limit. Details of other members of the committee are placed in the below table.

1. Additional Director (State income), Directorate of Economics and Statistics, Vikas Bhavan, Thiruvananthapuram - Convener
2. Deputy Director General, National Sample Survey Office (FOD), Thiruvananthapuram, Kerala - Member
3. Director General , Directorate of Economics and Statistics, Vikas Bhavan, Thiruvananthapuram - Member
4. Director (SDP), Directorate of Economics and Statistics, Vikas Bhavan, Thiruvananthapuram - Member
5. Shri. M. Somasekara Pillai, HOD(Statistics), University College , Thiruvananthapuram - Member
6. Dr. Vinesh Kumar B.,Assistant Professor(Statistics), Govt.Arts college, Thiruvananthapuram - Member

Terms of reference of the committee are:

i) To suggest the Parameters of a survey to be pooled.

ii) To suggest appropriate statistical test to check the poolability of central and state sample data

iii) To suggest appropriate method of estimation on the lights of guidelines provided by NSSO

iv) To validate the results of the survey

1.4 Suggestions of the Expert committee on pooling of Education Survey data of 71st round NSS

DES had taken initiatives for pooling of Education survey of 71st round National Sample Survey even before the constitution of the expert committee on pooling formed by the state. Considering the sample size at district level DES selected certain broad parameters for pooling and performed poolabilty test for each parameter as per the

general guidelines for pooling provided by NSSO. Chi-square tests and Run tests were used to check the poolability of two sets of data. For generating estimates 'matching ratio' and 'pooling by inverse variance' methods were used. 'Pooling by inverse variance' method was used for generating continuous parameter like 'average expenditure per student' while for the rest of the parameters 'matching ratio' method was used. The whole estimates generated accordingly and results of poolability tests were placed before the committee on its first meeting held on 22.08.2017.All the members of the committee except DDG, NSSO (FOD), Kerala attended the meeting.

The committee reviewed the pooling undertook by DES on 71st round and made the following suggestions.

i) The committee suggested to consider the broad parameters viz. 'Participation in Education' and "average expenditure per student for education' for pooling

ii) The committee suggested that poolability should be tested only for broad parameters instead of testing each and every parameter. It is also suggested chi-square test for 'Participation in Education' and run test for 'average expenditure per student for education' to test the poolability of two sets of data.

iii) As mentioned earlier DES used two pooling methods for generating estimates; generated some estimates by 'matching ratio' method and some by 'pooling by inverse variance' method. The expert committee suggested that all the estimates should be generated by 'matching ratio' method and 'pooling by inverse variance' method is not necessary.

As per the suggestions DES reworked the pooling exercise and results are presented in this report.

1.5 Objective of Education survey of 71st round

The foundation of the society is based on education. It brings economic and social prosperity. One can appositely say, a strong nation can be built by ensuring that each citizen of that nation is educated. In most of the countries, the government spends substantial amount on the creation as well as the functioning of the educational infrastructure. But to avail such facilities individuals too have to incur expenditure in the form of course fees, examination fees, cost of books and stationery etc. While information on the expenditure incurred by governments is available from budget documents, there is an increasing role of nongovernment organizations as well as individuals in the education sector. The generation of information on education and the expenditure by individuals through a specialized survey, therefore, has special significance in the contemporary context.

The purpose of the survey was to collect information on participation of persons aged 5-29 years in pursuit of education in the country; the extent of use of educational infrastructure, facilities and incentives provided by the government and private sectors and its impact on current attendance status of population in the educational institutions;

private expenditure incurred by households on education and the extent of educational wastage in terms of dropping-out and discontinuance, and its causes.

Increasing use of information technology in every sphere of day-to-day life at present seems to be one giant leap for the country. So it stands to reason that more importance has to be placed on computer literacy as education and computer now go with hand-in-hand. This survey also captured some information on various facets of ability to operate computer along with possession of computer in the household and access to internet facility for a 14 plus aged member of a household.

1.6 Geographical Coverage

The survey covered the whole of the state.

1.7 Population Coverage

The following rules were adhered to determine population coverage:

1. Under-trial prisoners in jails and indoor patients of hospitals, nursing homes etc., were excluded, but residential staff therein was listed. The persons of the first category were considered as members of their parent households and were counted there. Convicted prisoners undergoing sentence were outside the coverage of the survey.

2. Floating population, i.e., persons without any normal residence were not listed. But households residing in open space, roadside shelter, under a bridge, etc., more or less regularly in the same place, were listed.

3. Neither the foreign nationals nor their domestic servants were listed, if by definition the latter belonged to the foreign national's household. If, however, a foreign national became an Indian citizen for all practical purposes, he or she was covered.

4. Persons residing in barracks of military and paramilitary forces (like police, BSF, etc.) were kept outside the survey coverage due to difficulty in conduct of survey therein. However, civilian population residing in their neighbourhood, including the family quarters of service personnel, was covered.

5. Orphanages, rescue homes, *ashrams* and vagrant houses were outside the survey coverage. However, persons staying in old age homes, *ashrams/hostels (other than students)* and the residential staff (other than monks/ nuns) of these ashrams were listed. For orphanages, although orphans were not listed, the persons looking after them and staying there were considered for listing.

6. In this particular survey, students residing in the students' hostels were excluded from the hostel as they were considered as members of the household to which they belonged before moving to the hostel. However, residential staff was listed in the hostel.

1.8 Sample Size

A total of 158 villages were surveyed in rural Kerala and the number of urban blocks surveyed was 160 as First-stage units (FSUs) in NSS 71st round for the state sample. Number of FSUs surveyed for central sample was 150 in rural and 160 in urban. District wise number of FSUs surveyed for central, state and pooled sample was given in following table.

Table 1.6.1 District wise number of FSUs surveyed

District	cenral			State			Pooled		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
KSD	7	6	13	8	6	14	15	12	27
KNR	8	16	24	8	16	24	16	32	48
WND	8	2	10	8	2	10	16	4	20
KKD	8	18	26	10	18	28	18	36	54
MLP	18	18	36	18	18	36	36	36	72
PKD	16	8	24	16	8	24	32	16	48
TSR	9	20	29	10	20	30	19	40	59
EKM	7	20	27	8	20	28	15	40	55
IDK	10	2	12	10	2	12	20	4	24
KTM	12	6	18	14	6	20	26	12	38
ALP	10	10	20	10	10	20	20	20	40
PTA	10	4	14	10	4	14	20	8	28
KLM	14	12	26	14	12	26	28	24	52
TVM	13	18	31	14	18	32	27	36	63
ALL	**150**	**160**	**310**	**158**	**160**	**318**	**308**	**320**	**628**

1.9 Layout of the Report

This report contains five chapters and three appendices including the present chapter giving the introduction and background of this report. The concepts and definitions of some important terms used in the survey and relevant to this report are explained in chapter two. Results of poolability test are presented in chapter three. Pooled estimates of selected indicators of education are given in chapter four and relative standard errors of estimates are presented in chapter five. Detailed tables at district level generated from the pooled data are given in Appendix A. Sample design and estimation procedure for central/state sample is presented in Appendix B. Schedule 25.2 used for collecting information on Education are given in Appendix C.

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Chapter 2

Concepts and Definitions

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CONCEPTS AND DEFINITIONS

In order to ensure that uniform concepts are followed while collecting data of survey on 'Social Consumption: Education', concepts and definitions for the items of enquiry were formulated. Important terms which are used in this document are explained below.

Students' Hostel: A hostel is meant for providing accommodation to students, irrespective of whether run by any educational institution or not. A hostel, as distinct from a mess, is not managed by the students on a cooperative basis.

Household: A group of persons normally living together and taking food from a common kitchen constitutes a household. It includes temporary stay-aways (those whose total period of absence from the household is expected to be less than 6 months) but excludes temporary visitors and guests (expected total period of stay less than 6 months).

Exceptions

(a) Students residing in students' hostels are considered as members of the household to which they belonged before moving to the hostel irrespective of the period of absence from the household they belonged. Hence, they are not regarded as forming single-member households unlike previous rounds.

(b) Any woman who has undergone childbirth during last 365 days is considered a member of the household which incurred the cost of childbirth irrespective of her place of residence during the last 365 days.

(c) A child aged less than 1 year is considered a member of the household to which its mother belongs.

Even though the determination of the actual composition of a household was left to the judgment of the head of the household, the following procedures were adopted as guidelines.

(i) Each inmate (including residential staff) of a hostel, mess, hotel, boarding and lodging house, etc., constitutes a single-member household except students residing in students' hostels. If, however, a group of persons among them normally pool their income for spending, they together are treated as forming a single household.

(ii) More emphasis is given on 'normally living together (with the exception of students staying in students' hostels)' than on 'ordinarily taking food from a common kitchen'. In case the place of residence of a person is different from the place of boarding, he or she is treated as a member of the household with whom he or she resides.

(iii) A resident employee, or domestic servant, or a paying guest (but not just a tenant in the household) is included in the employer's/host's household. However, in special case of a person taking food with his family but sleeping elsewhere (say, in a shop or

a different house) due to space shortage, he has to be counted as a member of the household formed by other members of his family.

(iv) If a member of a family (say, a son or a daughter of the head of the family) stays elsewhere for reasons other than study (i.e. other than student staying in students' hostel), he/she is not be considered as a member of his/her parent's household.

Household size: The size of a household is the total number of persons in the household, keeping in mind the exception for member of the household residing in a students' hostel for the purpose of study and any woman who has undergone childbirth during last 365 days. A child aged less than 1 year is considered a member of the household to which its mother belongs.

Household's usual consumer expenditure (₹) in a month: Household's usual consumer expenditure is the sum total of monetary values of all goods and services usually consumed (out of purchase or procured otherwise) by the household on domestic account during a month. This has the following components which are given below:

A. Usual expenditure for household purposes in a month.
B. Purchase value of any household durables (mobile phones, TV sets, fridge, fans, cooler, AC, vehicles, computers, furniture, kitchen equipment, etc.) purchased during the ***last one year*** and the expenditure ***per month*** obtained by dividing by 12.
C. If any household consumption (usually) from (a) wages in kind (b) home-grown stock (c) free collection was there, then the approximate monthly value of the amount usually consumed in a month was imputed.

Then the sum of A+B+C is taken as household's usual consumer expenditure in a month in whole number of rupees. Usual monthly per capita consumer expenditure (UMPCE) for a household is the household's usual consumer expenditure in a month divided by that household size.

Quintile class of UMPCE: A single set of UMPCE distribution (separately for rural and urban) was generated for each State/UT and at all-India level based on all the members of the household. UMPCE quintile distribution, for a part of the population, say, persons with age group 5-29, 14 years and above, students etc. in a particular State/UT in rural/urban sector, was assumed to be same as the UMPCE distribution of the entire population of that State in rural/urban sector. UMPCE distribution of households is same as the UMPCE distribution of the persons belonging to those households.

Education: The term 'education' generally refers to developing knowledge, skill or character of individuals through a process of learning such as self-study, attendance in formal or informal educational institutions, etc. For the purpose of this survey, 'education' covered the following:

I. School education commencing from class I to X or XII, as the case may be, irrespective of the recognition status of the educational institution,

II. Higher secondary / Pre-university education leading to certificate/ diploma/ degree etc. It also included enrolment in private unrecognised institutions, which had regular classes and following the syllabus and pattern of the education as in recognised schools or colleges and which sponsored students for public examinations as private or external candidates,

III. General University education, whether full time or part time, leading to certificate/ diploma/ degree etc. The Universities not recognised by University Grant Commission were not covered,

IV. Correspondence courses conducted by Universities, Deemed Universities or Institutions authorised by competent authorities for awarding regular degrees or diplomas or certificates,

V. Higher secondary / Pre-university / Under-graduate/ Post-graduate / Professional/ Technical education leading to certificate/diploma/degree etc. conducted by recognised open university/schools,

VI. Technical or Professional courses, leading to degree/diploma/certificates, conducted by Universities, Deemed Universities or institutes like, National Institute of Fashion Technology, National School of Drama, Satyajit Ray Film and Television Institute, Film and Television Institute of India, LokNayakJayaprakash Narayan National Institute of Criminology and Forensic Science, etc. or Institutions, authorised by competent authorities like All India Council of Technical Education (AICTE), Medical Council of India (MCI) etc.,

VII. Professional courses conducted by Institutes like The Institute of Chartered Accountants of India, The Institute of Cost and Works Accountants of India, The Institute of Company Secretaries of India, Actuarial Society of India, etc.,

VIII. All types of courses of duration three months or more, conducted by Institutions like Industrial Training Institute (ITI), National Vocational Training Institute, Regional Vocational Training Institutes, etc., authorised by competent authorities,

IX. All the courses at primary level and above, whether recognised or not, conducted by recognised educational institutions and not covered under above-mentioned categories.

The following courses were specifically excluded from detailed canvassing:

- *Art, music and similar type of courses conducted by individuals in their houses or unrecognised/ unaffiliated institutions,*
- *Classes taken by Private tutors,*
- *Education in Nursery/Kindergartens/Preparatory levels except for their enrolment status and dropout / discontinuance status,*

- *The non-formal system of education being implemented through various programs by government or other agencies except for their enrolment statuses and dropout / discontinuance status.*

Computer: For this survey, a computer meant any of the following devices *viz.* desktops, laptops, notebooks, netbooks, palmtops, smart phones, tablets etc. The following categories are defined basically for the convenience of identifying a 'computer' for capturing appropriate information while eliminating the chance of missing out.

I. **Desktop:** A desktop computer (or desktop PC) is a computer that is designed to stay in a single location without portability. Generally, the monitor, keyboard and mouse in a desktop computer are separate units.

II. **Laptop:** A laptop computer is a portable personal computer light and small enough to sit on a person's lap. A laptop computer can be powered by battery or plugged into the unit. The main utility of a laptop computer is that it allows a person to travel with its computing resource.

III. **Notebook:** A notebook is an extremely lightweight personal computer, a portable computer *smaller than a laptop model*, capable of being run on batteries and electrical current. Technically and traditionally, the difference between a laptop and a notebook is the matter of size only; functionally they are the same.

IV. **Netbook:** A netbook is a portable computer that is about half the size of a traditional laptop. These computers are a great solution for users who just want a basic computer to get onto the Internet with and do basic applications such as a word processing. The main difference between netbook and notebook is its functionality. Netbook is used for content consumption such as listening to music or watching movies while Notebook is used for content making.

V. **Palmtop:** A small computer that literally fits in the palm of one's hand is called a Palmtop. Other names for Palmtops are 'hand-held computers' or 'Personal Digital Assistants (PDAs)'.

VI. **Smartphone:** A smartphone is a mobile phone with built-in applications and internet access with more advanced computing capability and connectivity than an ordinary mobile phone.

VII. **Tablet:** A tablet computer, or simply tablet, is a one-piece mobile computer. Devices typically have a touch screen, with finger or stylus gestures replacing the conventional computer mouse. An on-screen concealable virtual keyboard is usually used for typing.

Educational level: It refers to the different stages of educational attainment. It is the highest level a person has completed successfully. The levels with codes are: not literate, literate without any schooling, *literate without formal schooling*: through NFEC, though TLC/AEC, others; *literate with formal schooling*: below primary, primary, upper primary/middle, secondary, higher secondary; diploma/certificate course (up to secondary), diploma/certificate course (higher

secondary), diploma/certificate course (graduation & above), graduate, postgraduate and above. If a person has successfully passed the final year of a given level, then and only then he/she was considered to have attained that level of education. For example, for a person studying in Class IX the educational level will be upper primary and not secondary.

Level of current attendance: In this case, the current educational level where a student is pursuing his current education is considered. Here the levels are: never attended, ever attended but currently not attending, currently attending in: NFEC, TLC/AEC, other non-formal education, pre-primary (nursery/ Kindergarten, etc., primary (class I to V), upper primary/middle, secondary, higher secondary, diploma/certificate course (up to secondary), diploma/certificate course (higher secondary), diploma/certificate course (graduation & above), graduate, postgraduate and above.

Literate: A person is considered literate if he/she can read and write a simple message in at least one language with understanding.

School education levels: A uniform pattern across the country for the number of years of schooling at primary level, upper primary/middle level, secondary level and a higher secondary level is yet to be achieved. However, for this survey, the primary level refers to Classes I-V, the upper primary/middle to Classes VI-VIII, the secondary to Classes IX-X and the higher secondary to Classes XI-XII.

Type of Education: Education was broadly divided into two categories: (i) general education and (ii) technical / professional education.

General education: In this survey, it included general school education from the primary to the higher secondary level, normal university education for a degree.

Technical/professional education: Technical/professional courses involve the hands on training in addition to theoretical classes. Education in engineering, medicine, agriculture, management, chartered accountancy, cost accountancy, art, music, driving, pilot training etc are examples of technical/ professional courses.

Vocational Courses: For the purpose of this survey, vocational courses were not defined separately from the technical/professional courses. Any technical/ professional course with the *level of current attendance* as *secondary* or below or *diploma/certificate course (up to secondary)* was considered as vocational course. However, courses offered by Industrial Training Institute (ITI), National Vocational Training Institute, Regional Vocational Training Institutes etc. were considered as vocational courses.

Student: For the purpose of this survey, a household member was considered as student if he was aged between 5 to 29 years and currently attending a course at primary level and above.

Course: A course is (i) a structured educational programme having a specified syllabus, duration, level, etc. and (ii) necessarily involves appearing in some kind of examination/performance appraisal for getting the degree/diploma/certificate or advancing to the next class/level. Depending upon the subjects covered and the mode of instruction, the courses were categorised broadly as (a) general and (b) technical/professional. For the purpose of this survey, only those courses covered under the definition of 'education' in earlier paragraph were considered.

Basic course: When a particular student was undertaking more than one course, the basic course was identified as per following criteria –

- If an individual was pursuing more than one course then the course, which was in the highest level, was considered as the basic course.
- If all the courses simultaneously pursued currently were in the same level then the course of the general education was the basic course
- In absence of any general education, the course, which involved higher cost, was taken as the basic course.
- If a person was enrolled both in regular course and course through distance learning then regular course was treated as the basic course irrespective of the cost involved.

Academic session: The academic session was defined in relation to the duration of the basic course in which he/she was enrolled and attending in the following manner –

i) If duration of the course was less than one year, the academic session covered full duration of the course,

ii) If duration of the course was equal to or more than one year, then the academic session was considered as one-year.

iii) For the educational institutions pursuing three to six months semester system, academic session was still taken as one year if the duration of the course was equal to or more than one year.

Current academic session: This referred to the academic session relating to the basic course, the student was currently attending.

Type of institution: This referred to the type of management by which the institution was run. It may be run by Government (Central/State/Local) or a private body either receiving or not receiving government aid. Thus, the types were: (a) Government, (b) Private aided and (c) Private unaided. It may be noted that a government institution may be run either by the government directly or through a governing body/managing committee, etc. set-up by the government. A private aided institution was one, which was run by an individual or a private organisation and received maintenance grant from a government. A private unaided institution

was one, which was managed by an individual or a private organisation and was not receiving maintenance grant either from a government.

Free education: Education is free of tuition fee in government schools in most of the States and also in private schools in some States up to certain education levels. There are some schools where students up to a certain level are not required to pay tuition fees. Nevertheless, a fixed sum of money has to be paid such as development fee, library fee, etc. Education in such schools was still considered to be free. This applied to the institution as a whole and not to the specific situation obtaining for the student.

Expenditure on education: All the private expenditures (item-wise) incurred and/or to be incurred during the ***current academic session*** on the education of the student on the *basic course* were considered. If duration of the course was more than one year, then **current academic session** was taken as of one-year even if the course followed three to six months semester system and accordingly the expenditure was recorded. For the expenditure, which was incurred for the remaining part of the current academic session, imputation was done on an objective basis. All the expenditures incurred and/or to be incurred during the current academic session on the education of household members were considered irrespective of the source of expenditure, i.e. whether the expenditure had been incurred and/or to be incurred by the sample household or not.

In case, academic session had not started for a student as on date of survey and it was not possible to obtain information for the coming academic session, expenditure information was collected with reference to the last academic session.

Other compulsory payments: These were the payments, besides tuition fee, examination fee, development fee, which were obligatory for a course, usually at the beginning of the academic session. A receipt is given for such payments. A special fee for getting admission under management quota is an example of such payment. Any payment made voluntarily such as donation, bribes, etc. were not considered as compulsory payments.

Attendance and enrolment: The current attendance status refers to whether a person is currently attending any educational institution. It may so happen that a person, who is enrolled, is not currently attending the institution. ***While most of the official educational statistics are based on enrolment, the NSSO Survey, because of its household approach, bases its analysis on the current attendance status.***

Age at first enrolment in school/Age at entry in school: It is the age in completed years when a person started attending the primary level class. If a person was admitted for the first time at a higher class in the primary level, then the age at the entry was considered.

Dropout/ Discontinuance: An ever-enrolled person currently not attending any educational institution may be due to either: (i) he/ she has discontinued after completing the last level of education for which he/ she was enrolled or (ii) he/ she has discontinued education before

attaining a specific level. For the first category, for example, if a person had completed the middle level but did not enrol for the next higher level of education, he/ she was **not** considered as a dropout. It was considered as a case of discontinuation. However, if the person enrolled for the secondary level but did not complete it, then he/ she was considered a dropout. For the purpose of this survey, both the types were treated alike for recording information.

In block 7 of the schedule, the level refers to the last enrolment level of the household member.

Some concepts/ indicators used in the KI document:

Literacy rate: Percentage of literates in a population is taken as its literacy rate.

Gross attendance ratio (GAR): For each class-group, this is the ratio of the number of persons in the class-group to the number persons in the corresponding official age-group. For example, for Class group I-V the ratio (in %), corresponding to normative age-group of 6-10, is

$$= \frac{\text{Number of persons attending Classes I-V}}{\text{Estimated population in the age-group 6-10 years}} \times 100$$

For the remaining class-groups of school education, i.e. VI-VIII, IX-X and XI-XII, the corresponding official age-groups were taken as 11-13, 14-15 and 16-17 respectively.

Age-specific attendance ratio: For each age-group this measure gives an idea of proportion of persons of a particular age-group currently attending educational institutions, irrespective of the level or class in which they are studying. For example, for age-group 6-10, this attendance ratio is

$$= \frac{\text{Number of persons in age-group 6-10 currently attending educational institutions}}{\text{Estimated population in the age-group 6-10 years}} \times 100$$

Net attendance ratio: For each education class-group, this is the ratio of the number of persons in the official age-group attending a particular class-group to the total number persons in the age-group. For example, for Class group I-V the ratio (in %) is

$$= \frac{\text{Number of persons of age 6-10 years currently attending Classes I-V}}{\text{Estimated population in the age-group 6-10 years}} \times 100$$

Similarly it can be obtained for the remaining class-groups of school education, i.e. VI-VIII, IX-X and XI-XII, with the corresponding official age-groups as 11-13, 14-15 and 16-17 respectively.

Chapter 3

Testing Poolability of Central and State Sample

Chapter 3

Testing Probability of Central and State Sample

Chapter 3

Testing Poolability of Central and State Sample

3.1 Introduction

As mentioned in chapter 1, the main objective of state participation in National Sample Surveys is to generate district level estimates by pooling of central and state sample data. Theoretically speaking, pooling of central and state sample data will definitely increase the sample size and should result in relatively more dependable estimates at district level. But, looking from application point of view, there are several problems and bottlenecks that must be addressed before generating the district level estimates.

Though the central sample and state sample are drawn independently following identical sampling design with same concepts, definitions and instructions to collect the data, different non-sampling errors may be occurred due to different reasons like lack of adequate training to field staff and data processing staff, agency bias etc. If so, the effort of pooling of central and state data to generate district level estimates will not be fruitful. Therefore before pooling one need to examine the magnitude of divergence between central and state estimates and to test that the samples are coming from identical distribution.

Since the parametric distribution of the sample mean is unknown, non-parametric tests such Run test and chi-square test have been adopted to test that the samples are coming from identical distribution function. Moreover, Z-test has been performed to test the equality of means. Instead of testing each and every parameter, parameters such as average expenditure for education per student and participation in Education were tested as per the suggestion of Expert Committee formed by the state for Pooling of central and state sample NSS data. The results of such tests and magnitude of divergence between central and state estimates are presented in this chapter.

3.2 Parameters considered for pooling

Considering the small sample size at district level the following broad parameters were considered for pooling.

- Participation in Education
- Average Expenditure for education per student

In addition to the above parameters , district level estimates of some more parameters like distance to the nearest school, proportion of households having computer and internet etc. which have adequate sample size at district level have been generated and presented in this report.

3.3 Poolability Test for the parameter 'Participation in Education'

Since there may be different non-sampling errors, central and state sample data cannot be merged for generating pooled estimates without testing that the samples are realized form identical distribution. Therefore before pooling one need to test that the samples are coming from identical distribution function. That is, if $x_1, x_2, \ldots, x_m$ be iid observation from state sample with distribution function F_s and $y_1, y_2, \ldots, y_n$ be iid observation from central sample with distribution function Fc then before pooling one should test the Null hypothesis H0: Fc = Fs. For the discrete data, participation in education, a relevant chi-square test was used to test the poolability of two sets of data after grouping the total number of students into different levels of education. A brief note on chi-square test is given below.

For discrete data such as educational level and categorical variable such as land possessed etc, standard tests of equality of sample proportions of two sets of data based on multinomial distributions, relevant chi-square tests may be used after grouping the attributes/categorical variables in to a suitable number of classes so that each class contains adequate number of sample observations. To test the null hypothesis H0: Fc=Fs, construct 2 X k contingency table for k classes at the domain where two sets of data are to be pooled as below and use chi-square test if State sample and Central sample have identical distribution.

Sample-type	no of sample observation					Total
	Class-1	Class-2	...	Class-k-1	Class-k	
State Sample	N_{11}	N_{12}	...	N_{1k-1}	N_{1k}	$N_{1.}$
Central Sample	N_{21}	N_{22}	...	N_{2k-1}	N_{2k}	$N_{2.}$
Total	$N_{.1}$	$N_{.2}$	...	$N_{.k-1}$	$N_{.k}$	$N_{..}$

Observed frequency of each cell $O_{ij} = N_{ij}$ where i= 1 to 2, j= 1 to k.

Expected frequency of each cell $E_{ij} = (N_{i.} * N_{.j})/N_{..}$ Where i= 1 to 2, j= 1 to k.

$$\chi^2 \text{ Value} = \sum_{i=1}^{2}\sum_{j=1}^{2}(O_{ij} - E_{ij})^2/O_{ij}$$

with degrees of freedom = (2-1)*(k-1) = k-1

Decision rule is accept Ho if $\chi^2 \le \chi^2_{\alpha,(k-1)}$ and reject H0 if $\chi^2 > \chi^2_{\alpha,(k-1)}$ where χ^2 is the calculated value of chi-square and $\chi^2_{\alpha,(k-1)}$ is the table value of chi-square for (k-1) degree of freedom and level of significance α.

As such chi-square test at 1% level of significance has been performed to understand whether the distribution of students over different levels of education viz. Primary, Upper primary, Secondary, Higher secondary, Diploma/certificate course (up to secondary), Diploma/certificate course (higher secondary), Diploma/certificate course (graduation & above), Graduate and Postgraduate and above in the two samples are same or not and the district wise chi-square values, degrees of freedom and 'p' values are presented in table 3.3.1. 'p' value, value between 0 and 1, recorded in the table will help one to determine the significance of the test. Since the test was performed at 1% level of significance, 'p' value less than .01 indicates evidence against null hypothesis. So it is clear from table 3.3.1 that the test is significant in the rural areas of Alappuzha and Pathanamthitta and urban areas of Kannur, Thrissur and Ernakulam. When rural and urban areas are taken together, 'p'values shows that test accepted the poolability of data in all districts except Thrissur, Ernakulam and Pathanamthitta.

Table 3.3.1. District wise chi_square value of distribution of students over different levels of Education

sl no	District	Rural			Urban			Rural + Urban		
		chi-square value	degrees of freedom	p-value	chi-square value	degrees of freedom	p-value	chi-square value	degrees of freedom	p-value
1	KSD	5.24	8	0.73	4.65	8	0.79	1.97	8	0.98
2	KNR	11.28	8	0.19	21.18	7	0.00	28.39	8	0.00
3	WND	11.65	8	0.17	6.01	5	0.31	15.07	8	0.06
4	KKD	9.81	8	0.28	8.52	8	0.38	5.53	8	0.70
5	MLP	13.97	8	0.08	13.35	8	0.10	14.59	8	0.07
6	PKD	17.26	8	0.03	6.95	8	0.54	18.62	8	0.02
7	TSR	16.88	8	0.03	28.95	8	0.00	38.26	8	0.00
8	EKM	9.81	8	0.28	22.53	8	0.00	19.50	8	0.01
9	IDK	6.16	8	0.63	10.44	6	0.11	8.17	8	0.42
10	KTM	2.99	8	0.94	5.63	8	0.69	6.47	8	0.59
11	ALP	23.10	8	0.00	7.16	8	0.52	14.36	8	0.07
12	PTA	20.85	7	0.00	11.88	7	0.10	27.43	7	0.00
13	KLM	6.94	8	0.54	13.52	8	0.10	8.52	8	0.38
14	TVM	8.55	8	0.38	12.40	8	0.13	7.21	8	0.51

3.4 Poolability Test for the parameter 'Average Expenditure for Education per student'

Since the characteristic 'Average Expenditure for Education per student' which are less prone to ties is a continuous variable and the parametric distribution of sample mean is unknown we can adopt Wald-Wolfowitz run test, a non parametric test, to test that the samples are coming from identical distribution. A brief note on Wald-Wolfowitz run test is given below.

Suppose X and Y are two independent state and central samples respectively with cumulative distribution function (CDF) Fs(x) and Fc(y).we want to test the null hypothesis H_0: Fs(x) = Fc(x) for all x against alternative hypothesis H_1: fs(x)<=Fc(x) for all x and Fs(x) < Fc(x) for some x. Let $x_1, x_2, \ldots, x_m$ be iid observation from state sample with CDF Fs and $y_1, y_2, \ldots, y_n$ be iid observation from central sample with CDF Fc. Let U be the total number of runs observed where run is a sequence of adjacent equal symbols

when we pool the data and order them with respect to MPCE and put '+' for X and'-'for Y.The number of runs U , a random variable, is *'the test statistic'* whose distribution of large samples can be treated as normal with:

$$Mean: \frac{2mn}{m+n} + 1$$

$$Variance: \frac{2mn(2mn-m-n)}{(m+n)^2(m+n-1)}$$

After normalizing the variable U one may use Z-test to test the Null hypothesis. Then the *test statistic* becomes

$$z = \frac{U - (\frac{2mn}{m+n} + 1)}{\sqrt{\frac{2mn(2mn-m-n)}{(m+n)^2(m+n-1)}}} \sim N(0,1) \text{ when } H_0 \text{ is true}$$

The test procedure is: reject H_0 if $Z < -Z_\alpha$, α is the level of significance. For given level of significance α, we can find Z_α from N(0,1) table.

Table 3.4.1 District wise Z values of run test of Average Expenditure for Education per student

sl no	District	Z value					
		Rural		Urban		Rural+ Urban	
1	KSD	✔	-0.14	✔	-0.24	✔	-0.14
2	KNR	✔	2.01	✔	-0.43	✔	2.01
3	WND	✔	0.65	✔	0.63	✔	0.65
4	KKD	✔	-2.20	✔	-0.82	✔	-2.20
5	MLP	✔	0.10	✔	1.29	✔	0.10
6	PKD	✔	-0.41	✔	0.31	✔	-0.41
7	TSR	✔	-2.20	✔	-2.25	✔	-2.20
8	EKM	✔	2.15	✔	0.97	✔	2.15
9	IDK	✔	-0.16	✔	-1.80	✔	-0.16
10	KTM	✔	2.02	✔	1.19	✔	2.02
11	ALP	✔	0.26	✔	0.28	✔	0.26
12	PTA	✔	0.08	✔	0.73	✔	0.08
13	KLM	✔	1.12	✔	-1.08	✔	1.12
14	TVM	✔	2.22	✔	0.61	✔	2.22

As such run test has been performed for Average Expenditure per student at 1% level of significance and the results are presented in Table 3.4.1. The test is seen significant in any of the districts as Z_α = -2.33 at 1% level of significance. Thus the estimates related to Average Expenditure per student can be generated after pooling of central and state sample data as the test accepted poolability of two sets of data.

3.5 Parametric test for poolability (Z-test)

Since Average expenditure per education is the main parameter, one may also use parametric test of equality of means (Z-test) to check the poolabilty of the two sets of samples with the assumption that the sample observations are independently and identically distributed(iid) from Normal distribution. Since this ratio estimate is in nonlinear form and was prepared as per sampling weights, the assumption of iid and normal distribution may not hold. However considering the large sample size we may use Z-statistic to test equality of ratios estimated from central and state sample to see whether they are convergent in conjunction with their variances and to see if estimates are poolable. A brief note on Z- test is given below.

Let rc and rs be the estimate of population rates Rc and Rs ie Y/X based on central and state sample respectively with corresponding mean square error MSE(rc) and MSE (rs). For large sample, making all assumption of parametric test, one may use Z-Statistic to test the null hypothesis H0 E(rc)=E(rs) where E stands for expectation.

The test statistic $Z = \dfrac{(r_c - r_s)}{\sqrt{(MSE(r_c) + MSE(r_s))}}$

MSE(r_c) and MSE(r_s) are estimated as follows:

$$mse(r_c) = (\hat{V}(t_{yc}) - 2 * r_c \hat{Cov}(t_{yc}, t_{xc}) + r_c^2 * \hat{V}(t_{xc}))/ t_{xc}^2$$

$$mse(r_s) = (\hat{V}(t_{ys}) - 2 * r_s \hat{Cov}(t_{ys}, t_{xs}) + r_s^2 * \hat{V}(t_{xs}))/ t_{xs}^2$$

where

$$\hat{V}(t_{yc}) = \sum_l (t_{yd} - t_{yc2})^2 /4 \quad , \quad \hat{V}(t_{ys}) = \sum_l (t_{ysl} - t_{ys2})^2 /4$$

$$\hat{V}(t_{xc}) = \sum_l (t_{xd} - t_{xc2})^2 /4 \quad , \quad \hat{V}(t_{xs}) = \sum_l (t_{xsl} - t_{xs2})^2 /4$$

$\hat{Cov}(t_{yc}, t_{xc}) = \sum_l (t_{yd} - t_{yc2})(t_{xd} - t_{xc2})/4$ based on sub-sample 1 & 2 estimates.

where $\sum_l$ stands for summing over stratum x sub-stratum level variance, covariance at the domain of pooling.

The critical value of test statistic at level of significance α for a two tailed test is given by z_α, where z_α is determined by the equation $P(|Z| > z_\alpha) = \alpha$. Thus the decision rule is: reject the null hypothesis if the computed value of test statistic is greater than critical value.

For parametric test of equality of means, one should see whether the RSE of the estimates are within reasonable limit. If variances of estimates are very high, even for larger divergence between the two estimates, parametric test may not reject the null hypothesis of equality of means. Under the above assumptions and limitations, Z-test for equality of Average Expenditure per student in two samples has been performed separately for general education and technical/professional education at 1% level of significance and the results are presented in table 3.5.1. It is seen from the table that the test is not significant in almost all districts as calculated value of z of those districts were less than 2.575 (z_α).

Table 3.5.1 District wise Z value for equality of Average Expenditure for Education per Student

District	Z-values								
	Type of Education								
	General			technical/professional			All		
	Rural	Urban	Rural+ Urban	Rural	Urban	Rural+ Urban	Rural	Urban	Rural+ Urban
KSD	✓ 0.78	✓ 1.11	✓ 0.28	✓ 1.19	✓ 1.23	✓ 0.88	✓ 0.90	✓ 0.50	✓ 0.11
KNR	✓ 1.97	✓ 0.00	✓ 0.63	✓ 0.09	✓ 0.57	✓ 0.23	✓ 0.99	✓ 0.37	✓ 0.18
WND	✓ 1.21	✓ 1.69	✓ 1.25	✓ 0.37	✓ 1.95	✓ 0.19	✓ 1.34	✓ 1.68	✓ 1.27
KKD	✗ 2.67	✓ 0.90	✓ 1.51	✓ 0.18	✓ 0.73	✓ 1.02	✓ 1.04	✓ 0.61	✓ 1.56
MLP	✓ 0.72	✓ 1.21	✓ 1.78	✓ 0.71	✓ 1.46	✓ 1.60	✓ 0.94	✓ 1.71	✓ 2.23
PKD	✓ 0.23	✓ 1.21	✓ 0.32	✓ 1.07	✓ 0.36	✓ 0.56	✓ 0.20	✓ 1.23	✓ 0.51
TSR	✓ 1.88	✗ 3.17	✗ 2.90	✓ 0.64	✓ 0.60	✓ 0.23	✓ 0.69	✗ 3.38	✓ 2.50
EKM	✓ 1.43	✓ 1.81	✗ 3.19	✓ 0.84	✓ 0.76	✓ 0.85	✓ 1.62	✓ 1.27	✓ 1.81
IDK	✓ 0.59	✓ 1.73	✓ 1.13	✓ 1.79	✓ 0.72	✓ 0.64	✓ 0.43	✓ 1.43	✓ 0.90
KTM	✓ 0.19	✓ 0.06	✓ 0.01	✓ 0.55	✓ 1.70	✓ 0.13	✓ 0.47	✓ 1.11	✓ 0.28
ALP	✓ 1.38	✓ 0.22	✓ 0.75	✓ 0.86	✗ 2.81	✓ 0.53	✓ 1.99	✓ 1.20	✓ 0.42
PTA	✓ 1.25	✓ 1.30	✓ 0.02	✓ 0.21	✓ 1.29	✓ 0.66	✓ 1.33	✓ 0.78	✓ 0.49
KLM	✓ 1.25	✓ 0.97	✓ 2.37	✓ 1.18	✓ 0.29	✓ 0.85	✓ 1.45	✓ 0.67	✓ 1.76
TVM	✓ 2.14	✓ 0.36	✓ 2.35	✓ 1.50	✓ 1.02	✓ 0.90	✓ 0.65	✓ 1.12	✓ 1.39
ALL	✓ 0.04	✓ 1.82	✓ 1.42	✓ 0.78	✓ 0.64	✓ 0.33	✓ 0.71	✓ 1.26	✓ 0.79

From table 3.4.1 and 3.5.1 we can examine the acceptance of poolability of two sets of data at district level to generate district level estimates of Average expenditure for education per student. Table 3.5.2 provides the number of districts for which poolability test was accepted at 1% level of significance. It is seen that both the run test and Z test was accepted in rural sectors of all districts. Like in rural sector, acceptance prevalence has been observed in urban sector too. Rejection can be seen against only one district in urban sector for testing poolability by Z test. When both the sectors are taken together, all the districts accepted both run test and Z test for pooling. Thus the prevalence of acceptance in the tests for poolability, both parametric and nonparametric, will provide statistical confidence to users of the estimates related to average expenditure for education per student.

Table 3.5.2Number of districts for which poolability test was accepted

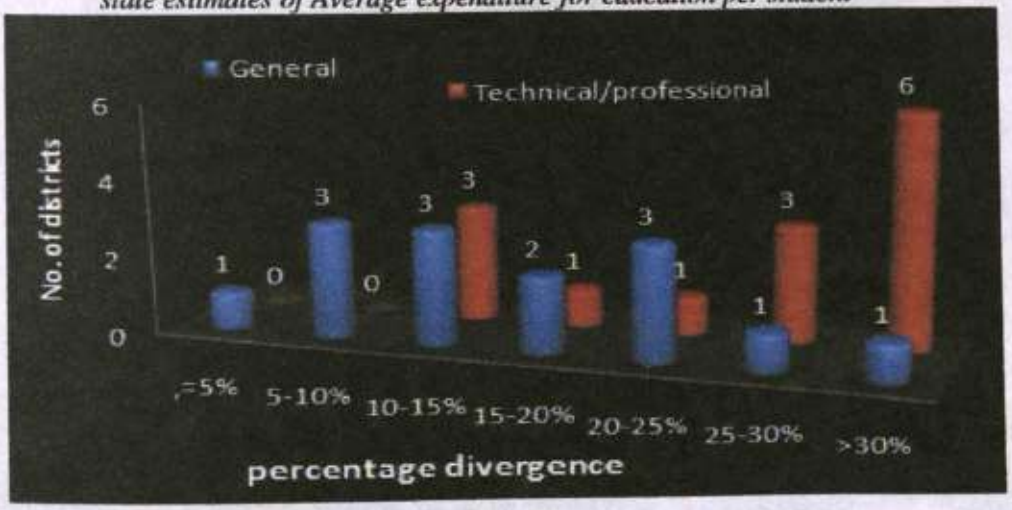
Acceptance by the test	Number of districts accepted at 1% level of significance		
	Rural	Urban	Rural+Urban
Run test	14	14	14
Z-test	14	13	14
Both the tests	14	13	14
At least one test	14	14	14
Total number of districts	14	14	14

3.6 Divergence between central and state estimates

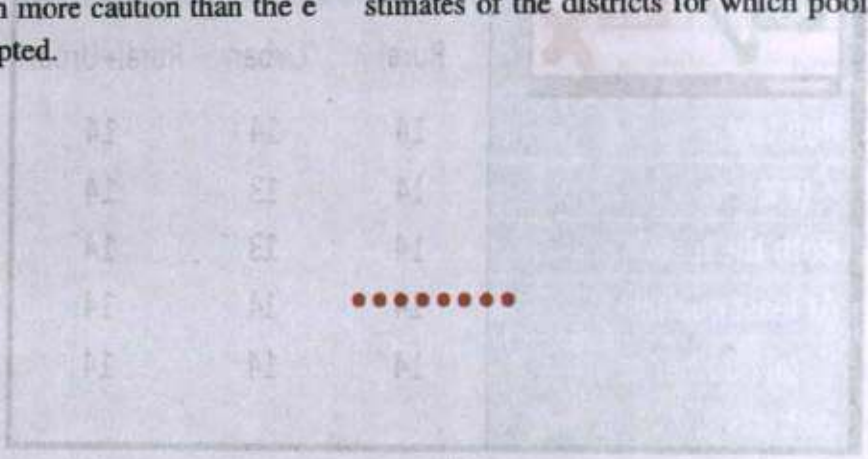
Before going to use pooled estimates one may be interested to know the divergence between central and state estimates as wide divergence between the estimates raising doubts about the unknown magnitude of non-sampling error as well as its agency bias. In such cases pooling may not result in better estimate. On the other hand, even though both the estimates lie on the same side of true value may result in a small loss of information in respect of relative standard error of estimates. Divergence between central and state estimates of Average expenditure per student without considering their relative standard errors are presented in this section. Relative standard error of estimates is presented in chapter 5.

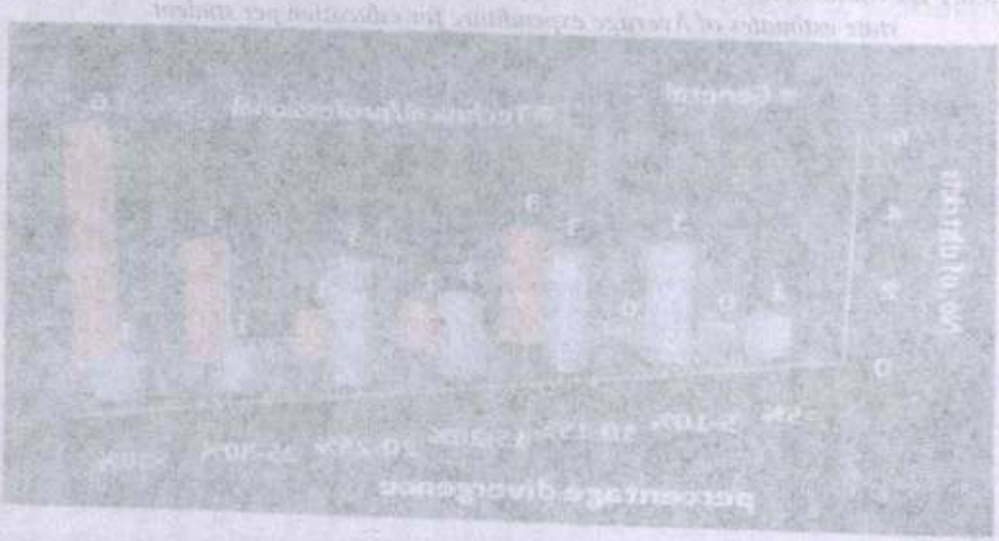
Distribution of districts by the percentage divergence between central and state estimates of average expenditure per student are summarised in chart 3.5.1. For general education, it is seen that most of the districts occupied in the classes below 30 per cent divergence between central and state estimates. But in case of technical/professional education, high divergence (>30%) observed in 6 districts.

Chart 3.6.1 Distribution of districts by the % of divergence (in absolute) between central and state estimates of Average expenditure for education per student



As poolability conditions were accepted for most of the districts, estimators of parameters mentioned in section 3.2 for each district are presented in chapter4.The estimates of the districts for which poolability test was rejected should obviously be used with more caution than the e stimates of the districts for which poolability test was accepted.





Chapter 4

Major Indicators of Education in Kerala

Chapter 4

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Major Indicators of Education in Kerala

4.1 Introduction

As Education plays an integral role in individual's lives as well as society as a whole, it is important to know how a society deals with education. The summary of findings of major indicators of Education survey of NSS 71st round presented in this chapter will give an overview about how Keraliates consumes education during the reference period of the survey. The discussion in the summary of findings is mainly centred on the district level estimates of various indicators of education, mainly participation in education and expenditure incurred by individuals for education. The results presented here are based on central and state sample pooled data. While using the estimates, results of the poolability test and Relative Standard Error (RSE) of the estimates may also be considered. Results of the poolability tests are presented in chapter 3 and RSE of the estimates are given in chapter 5.It should be kept in mind that rural and urban figures presented in this document are related to persons/students from rural and urban areas respectively; and not relating to the places where the students studied.

4.2 Methodology of Pooling

As per the recommendation of expert committee formed by the state for pooling of central and state sample data, weighing by matching ratio method is used to generate district level estimates. For any characteristic, state sample(s) is considered in the form of two independent sub-sample s1 and s2 and the central sample (c) in the form of two independent sub-sample c1 and c2. Based on this the respective estimates for state and central are;

$$t_s = (t_{s1} + t_{s2})/2 \text{ and } t_c = (t_{c1} + t_{c2})/2$$

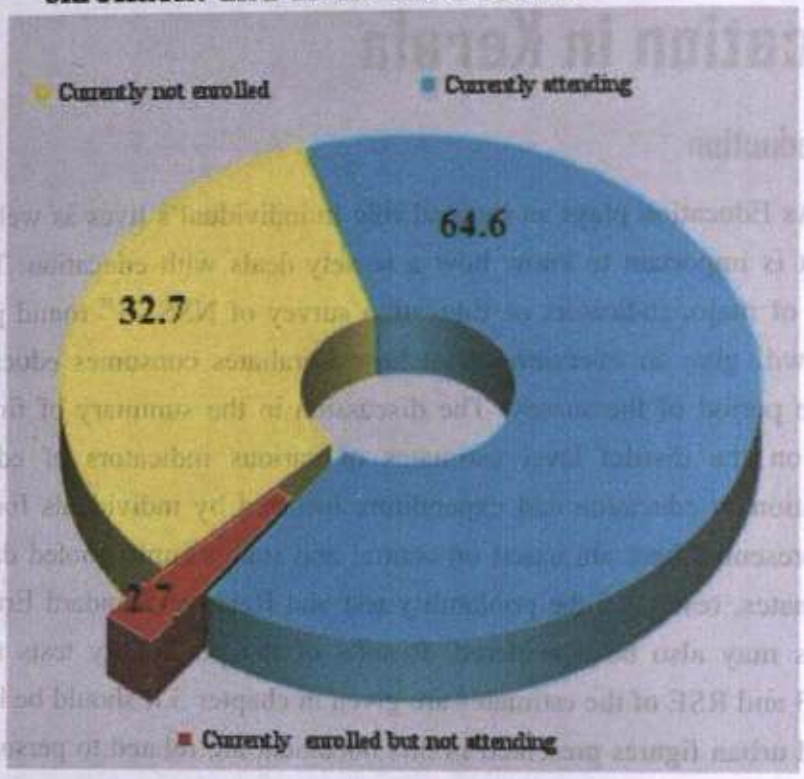
As the state participation is of equal matching of central samples, the matching ratio of central and state is 1: 1. Now, the pooled estimate of ts and tc with matching participation rate 1: 1 is ;

$$t_p = \frac{(t_c + t_s)}{2} \quad \text{and } V(t_p) = \frac{V(t_c) + V(t_s)}{4}$$

Using the above procedure, estimates related to participation in Education and expenditure incurred by individuals have been generated and presented in this report.

4.3 Attendance and Enrolment Status

Chart 4.3.1 Percentage distribution of persons of age 5-29 years by current enrolment and attendance status



In this survey, information about current attendance was obtained from all sample household members aged between 5 and 29. Current attendance refers to whether a person is currently attending any educational institution or not.Current attendance necessarily implies current enrolment but not the vice versa. Persons, who were temporarily not attending due to reasons like illness, vacation etc. were treated as currently attending in this survey. Same treatment was applicable for the persons, who were awaiting their results after completing a particular course and certain to take admission in any further course during the current year (2014). While every person, who is attending an educational institution, is necessarily enrolled in that institution it may so happen that a person, who has enrolled in current academic session/year, is not currently attending the institution. In order to identify those persons, who were enrolled but currently not attending or never attended, their latest enrolment status was noted.

Chart 4.3.1 revels that 32.7 % of the persons in Kerala aged between 5 and 29 were currently not enrolled in any educational institution. It also displays that 64.6% persons in the age group 5-29 years were currently attending in educational institutions and a very small proportion of the persons aged 5-29 years (2.7%) were currently enrolled but not attending any educational institutions. District wise percentage

distribution of age 5-29 years by current enrolment and attendance status were presented in chart 4.3.2.

Chart 4.3.2 District wise percentage distribution of persons of age 5-29 years by current enrolment and attendance status

District	Percentage distribution of persons of age 5-29 years by status		
	Currently not enrolled	attending	Currently enrolled but not attending
KSD	36.7	60.5	2.8
KNR	34.3	62.4	3.3
WND	35.7	59.5	4.8
KKD	40.5	58.3	1.2
MLP	28.2	67.1	4.7
PKD	27.7	63.3	9
TSR	33.3	65.5	1.2
EKM	34.6	63.7	1.7
IDK	31.3	66.5	2.2
KTM	30.2	69.6	0.2
ALP	33.5	64.8	1.7
PTA	31	67.1	1.9
KLM	31.3	68.3	0.4
TVM	32.2	65.6	2.2
All	32.7	64.6	2.7

Percentage distribution of persons of age 5-29 years by current enrolment and attendance was seen more or less similar to state pattern in all districts. Kottayam district tops the table in case of percentage of currently attending persons (69.6%) while Kozhikkode occupied the bottom spot in the same. It is noticed that 40.5% of persons aged between 5 and 29 in Kozhikkode district were currently not enrolled in any of the educational institutions. Chart 4.3.2 also displays that Palakkad district had only 27.7% of its persons of age group 5-29 years were currently not attending any educational institutions. Further, percentage of currently enrolled but not attending in any educational institutions was seen little bit higher (9%) in Palakkad district compared to the rest. Sector wise difference in percentage distribution of persons of age 5-29 can be observed in chart 4.3.3.

Chart 4.3.3 Sector wise percentage distribution of persons of age 5-29 years by current enrolment and attendance status

District	Percentage distribution of persons of age 5-29 years by status					
	Currently not enrolled		attending		Currently enrolled but not attending	
	Rural	Urban	Rural	Urban	Rural	Urban
KSD	36.7	36.9	58.9	63	4.4	0.1
KNR	36.4	32.7	62.7	62.1	0.9	5.2
WND	35.8	32.6	59.2	67.4	5	0
KKD	41.1	40.1	58.8	58.1	0.1	1.8
MLP	27.5	29.9	67.9	65	4.6	5.1
PKD	29.3	22.3	63	64.5	7.7	13.2
TSR	33.3	33.3	65.7	65.3	1	1.4
EKM	30.7	36.2	68.3	61.7	1	2.1
IDK	32.7	11.8	64.9	88.2	2.4	0
KTM	31.9	25	67.9	75	0.2	0
ALP	34.7	32.4	62	67.5	3.3	0.1
PTA	30.9	31.8	67	68.2	2.1	0
KLM	27.6	35.4	71.6	64.6	0.8	0
TVM	27.1	37.1	69	62.3	3.9	0.6
All	31.4	34.4	65.6	63.3	3	2.3

Chart 4.3.3 displays that share of currently attending persons did not differ much between rural and urban sectors of all districts except Idukki. In Idukki district, percentage of currently attending persons in urban (88.2%) was 13.3 points greater than that of its rural counterpart. Further, any person in the age group 5-29 in the urban sector of Idukki district was not seen as currently enrolled but not attending. Similar situation was observed in urban sectors of Wayanad, Kottayam, pathanamthitta and kollam districts. All other districts except Palakkad had a negligible share for currently enrolled but not attending among the age group of 5-29 years. In the urban sector of palakkad, the share of currently enrolled but not attending education was 13.2%.

4.4 Attendance Ratios

While most of the official educational statistics are based on enrolment, this survey, because of its household approach, bases its analysis on the current attendance status. Attendance ratios are taken as important indicators for providing insight about the proportion of a population currently attending educational institutions. Gross Attendance Ratio, Net Attendance Ratio and Age specific Attendance ratio are taken as three principal indicators. Attendance ratios for primary, middle or upper primary, secondary and higher secondary were presented in this document. In this survey the above mentioned divisions of school education refer to classes I-V,VI-VIII, IX-X and XI-XII respectively for which the corresponding official age-groups are taken as 6-10,

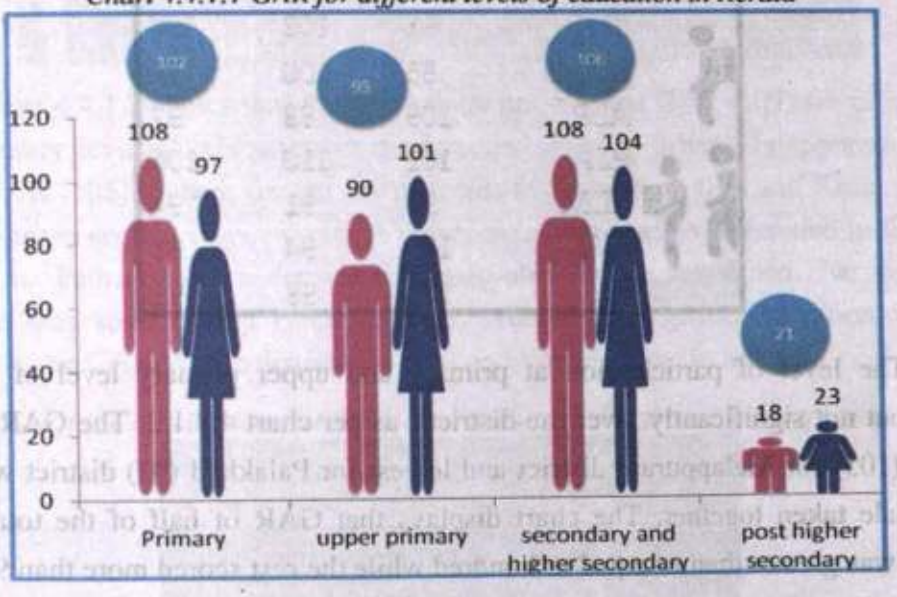
11-13, 14-15 and 16-17 years respectively. District wise sample sizes of above age-groups are presented in detailed tables.

It may be noted that estimates based on few sample persons presented here are only for the sake of completeness of the report. The estimates should obviously be used with more caution than the estimates based on substantial number of sample persons.

4.4.1. Gross Attendance Ratio (GAR)

GAR is the ratio of the number of persons in the class-group to the number persons in the corresponding official age-group. For a particular level of education, denominator consists of all persons in the official age-group for that level, whether attending or not, while the numerator consists of the persons who are studying in that particular level including persons outside the official age-group. Therefore, it can work out to be **more than 100 as well in some cases**.

Chart 4.4.1.1 GAR for different levels of education in Kerala



Figures exhibited in the oval shapes of chart 4.4.1 shows the GAR for different levels of education in Kerala without considering the gender of student. GAR for primary, upper primary, secondary and higher secondary and above higher secondary levels of education in whole Kerala was 102, 95, 96 and 21 respectively. It is not surprising to see high GAR for educational level up to higher secondary and low GAR for further levels. Gender differences in GAR can also be obseved in chart 4.4.1.1. Though no much high gender disparity was noticed in any level of education, it is quite impressive to see female dominance in upper primary level and post higher secondary levels. District wise GAR for different levels of education was shown in the following charts in this section. Considering the smaller sample size at district level, GAR for different levels were computed by combining primary and upper primary levels, secondary and higher secondary levels, and levels after higher secondary. District wise GAR for primary and upper primary levels are shown in chart 4.4.1.2.

Chart 4.4.1.2 District wise GAR for primary and upper primary levels

District	Gross Attendance Ratio		
	Male	female	Male+ Female
KSD	104	103	104
KNR	102	100	101
WND	94	110	101
KKD	101	97	99
MLP	107	103	105
PKD	95	91	92
TSR	99	107	103
EKM	92	97	94
IDK	98	103	100
KTM	95	100	98
ALP	109	83	97
PTA	102	110	106
KLM	96	91	94
TVM	101	94	98
All	100	98	99

The level of participation at primary and upper primary level of education varied, but not significantly, over the districts, as per chart 4.4.1.2. The GAR was seen highest (105) for Malappuram district and lowest for Palakkad (92) district when male and female taken together. The chart displays that GAR of half of the total number districts was greater than or equal to hundred while the rest scored more than 90. This is a clear indication that almost all in the age group of 6-13 were attending in Primary and upper primary level of education. While analysing the rates separately for male and females, a lower rate compared to the rest was observed in Alappuzha district (83) for females. To identify the *whys and wherefores* of lower rates of GAR, unit level data had been explored and found that share of children of age 5 and 6 not yet enrolled in any educational institution was greater than that of the districts which have higher Values of GAR. Substantial difference in the rate between male and female was seen in Wayand, Alappuzha and Pathanamthitta districts. In Alappuzha district, GAR for males was ahead of its female counterpart by 26 percentage points. While in Wayand and Pathanamthitta female dominance was observed. The degree of variation of GAR for primary and upper primary levels between rural and urban sectors can be seen in chart 4.4.1.3.

Chart 4.4.1.3 Sector wise GAR for primary and upper primary levels

District	Gross Attendance Ratio					
	Rural			Urban		
	Male	Female	Male+ Female	Male	Female	Male+ Female
KSD	106	105	106	101	99	101
KNR	101	103	102	104	98	100
WND	94	109	101	94	116	103
KKD	94	99	96	105	96	101
MLP	105	104	105	114	100	106
PKD	96	89	92	90	94	93
TSR	103	107	105	95	106	101
EKM	90	88	89	92	102	97
IDK	98	101	100	94	109	105
KTM	94	98	96	95	108	102
ALP	103	83	93	115	83	99
PTA	103	112	107	94	88	91
KLM	93	102	98	100	76	89
TVM	104	95	99	98	93	96
All	100	100	100	101	97	99

Chart 4.4.1.3 shows that Pathanamthitta had highest GAR (107) for primary and upper primary level of education in rural sector while in urban Malappuram had the highest GAR (106). Search for the lowest leads to Ernakulam (89) and Kollam (89) in rural and urban sectors respectively. A perceptible rural- urban difference in GAR was observed in Pathanamthitta district for male and female combined. No significant difference was seen in any other districts. Note-worthy gender variation was also observed in the GAR of five districts in rural and nine districts in urban.

Chart 4.4.1.4 District wise GAR for secondary and higher secondary levels

District	Gross Attendance Ratio Rural+Urban		
	Male	Female	Male+ Female
KSD	↓ 87	→ 97	→ 92
KNR	↑ 107	↓ 88	→ 97
WND	↑ 105	↑ 107	↑ 105
KKD	↑ 100	↑ 102	↑ 101
MLP	↑ 105	→ 99	↑ 102
PKD	↑ 113	↑ 106	↑ 109
TSR	↑ 121	→ 99	↑ 108
EKM	↑ 150	→ 96	↑ 117
IDK	↑ 119	→ 99	↑ 106
KTM	↑ 114	↑ 130	↑ 121
ALP	→ 95	↑ 125	↑ 106
PTA	↓ 82	→ 97	↓ 89
KLM	↑ 115	↑ 111	↑ 113
TVM	↑ 100	↑ 121	↑ 108
All	↑ 108	↑ 104	↑ 106

Chart 4.4.1.4 displays district wise GAR for secondary and higher secondary levels of education which gives an idea about the level of participation in these educational levels from the age group 14-17. Green arrow marks placed in the chart highlights the districts which have 100 or more GAR, Yellow arrows indicates GAR less than 100 but greater than 90 and red arrows reveals the districts which have lower GAR , less than 90. Prevalence of green arrows in the chart points out that there were good participation in secondary and higher secondary levels of education in most of the districts. While arranging the districts in ascending order of GAR without considering the gender of persons, Kottayam district tops the table and Pathanamthitta district went to the bottom. Perceptible gender differences in GAR were observed in most of the districts. Gender disparity in GAR was seen high in Ernakulam district followed by Alappuzha and Thrissur. For males, Ernakulam (150) had highest GAR while in case of females Kottayam (130) toped. The high value of GAR in Ernakulam district will definitely cause some raised eyebrows among readers. To identify the cause of high values, unit level central and state sample pooled data have been explored and found that share of 'under ages' and 'over ages' to the official age group 14-17 years who were attending in secondary and higher secondary levels of education included in the sample was higher than that in the rest of districts. Lowest GAR was reported in Pathanamthitta for males and in Kannur for females. Sector wise GAR for secondary and higher secondary levels of education were portrayed in chart 4.4.1.5.

Chart 4.4.1.5 sector wise GAR for secondary and higher secondary levels of education

Though no rural-urban difference in GAR for secondary and higher secondary levels of education for the state as a whole, significant sector disparities was observed in nine districts. Sector disparity was seen highest in Kasaragode followed by Ernakulam, Pathanamthitta and Wayanad. Chart 4.4.1.5 also reveals that rural GAR of Wayanad was 21 percetage points greater than its urban GAR which is against expectation. Noteworthy

gender variation was also observed in the GAR of almost all districts in rural and for nine districts in urban. Female GAR was seen higher than male GAR in seven districts in rural and nine districts in urban.

Chart 4.4.1.6 District wise GAR for educational levels after higher secondary

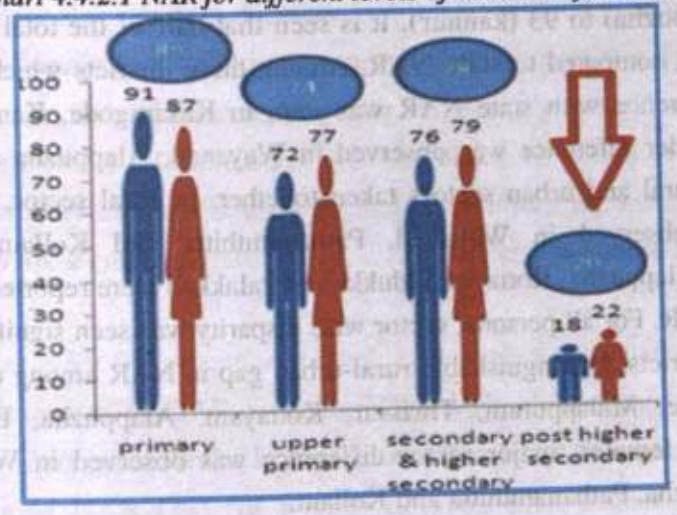
Gross Attendance Ratio

	Rural			Urban			Rural+Urban		
District	M	F	M+F	M	F	M+F	M	F	M+F
KSD	24	19	21	17	4	11	20	15	17
KNR	9	29	18	14	18	17	11	22	17
WND	11	10	10	41	20	28	11	11	11
KKD	28	14	19	18	19	19	26	17	19
MLP	15	14	15	12	11	11	14	13	14
PKD	10	28	17	21	16	18	12	24	17
TSR	22	34	29	21	29	26	22	32	28
EKM	11	35	21	21	25	23	15	27	22
IDK	28	25	21	54	65	62	38	28	23
KTM	17	27	22	39	32	36	24	28	26
ALP	20	29	24	29	33	26	20	31	25
PTA	22	21	22	39	33	35	24	23	23
KLM	23	28	26	15	23	20	19	26	23
TVM	28	21	24	29	26	28	23	23	23
All	17	23	20	19	23	21	18	23	21

Chart 4.4.1.6 elaborates the GAR at post higher secondary level of education. As expected, a dip in GAR was seen at the levels after higher secondary. Without considering the gender and sector, the GAR was seen highest in Thrissur district (28) and lowest in Wayanad (11). Ten or more percentage point difference between male and female GAR was observed in Kannur, Palakkad, Thrissur, Idukki and Alappuzha. For all persons in the age group 18-29, a high value of rural-urban disparity was observed in idukki district. In Idukki, urban GAR (62), highest among the districts, was 41 percentage points greater than its rural GAR. The chart also displays that Wayanad district had lowest rural GAR (10) and Kasaragode district had lowest urban GAR (11) for all persons in the age group 18-29. Moreover Female GAR was also seen lowest in the urban sector of Kasaragode district.

4.4.2 Net Attendance Ratio (NAR)

Chart 4.4.2.1 NAR for different levels of education for Kerala



NAR is the ratio of the number of persons in the official age-group attending a particular class-group to the total number persons in the age group. This ratio cannot be exceeding 100. NAR for primary, upper primary, secondary & higher secondary and above higher secondary levels of education in whole Kerala was 89, 7 4, 78 and 20 respectively, says the figures exhibited in the oval shapes of chart 4.4.2.1. Like GAR, a sharp decline can be observed in NAR for above higher secondary level. No Significant gender difference in NAR was observed for all levels of education. However, females were little bit ahead of males in NAR at all levels of education except at primary level. District wise NAR for different levels of education was shown in the following charts in this section. Considering the smaller sample size at district level, NAR for different levels were computed by combining primary and upper primary levels, secondary and higher secondary levels, and levels after higher secondary. District wise NAR for primary and upper primary levels are shown in chart 4.4.2.2.

Chart 4.4.2.2 District wise NAR for Primary and Upper primary levels of education

NAR for primary and upper primary levels of education varied across districts from 74 (Alappuzha) to 93 (kannur). It is seen that half of the total number of districts had higher NAR compared to state NAR. Among these districts which had higher NAR, perceptible difference with state NAR was seen in Kasaragode, Kannur and Wayanad. Noteworthy gender diference was observed in Wayanad, Alappuzha and Pathanamthitta districts when rural and urban sectors taken together. In rural sector, remarkable gender disparity was observed in Wayanad, Pathanamthitta and Kollam while Kollam , Pathanamthitta,Alappuzha, Kottayam, Idukki and Palakkad were reported noticeable gender difference in NAR. For all persons, sector wise disparity was seen significant in Wayanad and Thrissur districts. Distinguishable rural-urban gap in NAR among males was reported from Kasaragode, Malappuram, Thrissur, Kottayam, Alappuzha, Pathanamthitta and Kollam. Among females, major sector difference was observed in Wayanad, Palakkad, Thrissur, Alappuzha, Pathanamthitta and Kollam.

Chart 4.4.2.3 District wise NAR for secondary and higher secondary levels of education

Net Attendance Ratio

District	Rural			Urban			Rural+Urban		
	M	F	M+F	M	F	M+F	M	F	M+F
KSD	59	85	72	94	92	93	75	88	81
KNR	91	71	80	71	83	77	80	77	78
WND	67	71	69	46	63	50	66	70	67
KKD	69	90	82	60	82	72	62	84	74
MLP	76	77	77	57	88	72	70	80	75
PKD	72	75	73	86	87	86	75	77	76
TSR	93	54	69	83	94	89	88	73	79
EKM	84	84	84	86	65	72	86	69	76
IDK	73	87	83	87	51	81	75	87	83
KTM	84	83	84	85	71	79	85	80	83
ALP	83	63	77	69	72	70	77	68	74
PTA	62	70	65	91	60	77	64	69	66
KLM	88	91	90	95	96	95	91	93	92
TVM	70	90	78	79	72	76	75	81	77
All	76	78	77	76	81	78	76	79	78

Chart 4.4.2.3 gives district wise NAR for secondary and higher secondary levels of education. Without considering the gender and sector, NAR for secondary and higher secondary levels of education was less than NAR for primary and upper primary levels of education in all districts except Kollam. In Kollam, NAR for secondary and higher secondary levels of education was 9 percentage points higher than NAR for primary and upper primary levels of education. Among the districts of Kerala, Kollam ranked first in NAR with 92 followed by Kottayam (83) and Idukki(83). Pathanamthitta recorded the lowest NAR, 66, for secondary and higher secondary levels of education. Wayanad also posted low NAR of 67. Kollam had also done very well in terms of male and female NAR figures for secondary and higher secondary levels of education. Female dominance in NAR can be seen in nine out of fourteen districts. Gender disparity was seen highest in Kozhikkode where female NAR was 22 percent points greater than male NAR. Ernakulam and Thrissur districts were just behind to Kozhikkode in case of gender gap in NAR. But the two districts, unlike Kozhikkode, showed higher male NAR compared to female NAR. Thrissur reported highest gender gap in rural with 39 percent points while in urban Idukki topped with 36 percent points. For male and female together, perceptible sector difference in NAR was observed in half of the total number of districts. Noteworthy sector disparity in male NAR was reported from11 districts while for female NAR significant rural-urban difference was observed in 10 districts.

District wise NAR for educational levels after higher secondary was presented in chart 4.4.2.4. Like in case of GAR, a dip in NAR was also seen at levels after higher secondary compared to prior levels. It is seen that Thrissur had highest NAR (28) and Wayanad had lowest NAR (11) for education levels after higher secondary. Chart

4.4.2.4 reveals that northern districts except Thrissur lagged in NAR as NAR of these districts were less than the state figure. Gender disparity in NAR was seen highest in Palakkad district followed by Thrissur. Number of districts which showed perceptible gender difference in NAR for educational levels after higher secondary was seen more in rural compared to urban. Again Thrissur and wayanad occupied top and bottom positions in the rank list of all districts in terms of rural NAR. In urban, Idukki topped with NAR of 57 followed by Kottayam(35). The districts reported lower NAR in urban were Kozhikkode (17), Malappuram (11), Kannur (15) and Kasaragode (11). Chart 4.4.2.4 also displays that Wayanad had lowest NAR (10) in rural. Noteworthy sector disparity in NAR was observed in Idukki, Wayand, Kottaym, Pathanamthitta and Kasaragode districts. Female dominance in NAR for post higher secondary levels of education was observed in both rural and urban sectors of almost all districts.

Chart 4.4.2.4 District wise NAR for educational levels after higher Secondary

Net Attendance Ratio

	Rural			Urban			Rural+Urban		
District	M	F	M+F	M	F	M+F	M	F	M+F
KSD	24	19	21	17	4	11	20	15	17
KNR	9	24	16	13	16	15	11	19	15
WND	10	10	10	43	20	28	11	11	11
KKD	28	14	19	16	17	17	19	16	17
MLP	15	14	14	12	11	11	14	13	13
PKD	10	26	16	20	16	18	12	23	16
TSR	22	34	29	21	29	26	22	32	28
EKM	11	35	21	21	23	22	18	26	22
IDK	18	22	19	54	57	57	18	24	21
KTM	17	27	22	37	32	35	23	28	25
ALP	20	29	24	20	29	24	20	29	24
PTA	22	19	21	35	33	33	24	21	22
KLM	23	28	26	15	23	20	19	26	23
TVM	28	21	24	20	25	22	23	23	23
All	17	22	20	19	21	20	18	22	20

4.4.3 Age specific Attendance Ratio (AAR)

GAR and NAR presented in previous sections of this chapter gave an idea about participation of students in particular level of education. But from these indicators we cannot say that a person not attending a particular level of education was not attending in any level of education. An indicator, Age specific Attendance Ratio (AAR) lights on this area. For each age-group this measure gives an idea of proportion of persons of a particular age-group currently attending educational institutions, irrespective of the level or class in which they are studying.

Chart 4.4.3.1 District wise Age specific Attendance Ratio

District	Age specific Attendance Ratio											
	6-10.			11-13.			14-17.			18-29		
	M	F	M+F	M	F	M+F	M	F	M+F	M	F	M+F
KSD	90	99	95	100	100	100	97	99	98	25	18	21
KNR	98	96	97	100	100	100	97	96	97	24	24	24
WND	88	100	94	100	100	100	98	100	99	19	20	20
KKD	97	95	96	100	100	100	96	99	98	25	20	22
MLP	99	94	96	100	100	100	96	99	98	28	17	22
PKD	100	94	97	100	100	100	95	90	92	16	33	23
TSR	99	96	97	100	100	100	96	100	98	34	38	37
EKM	91	95	93	100	99	99	97	100	99	29	30	30
IDK	99	100	100	100	100	100	100	100	100	25	30	27
KTM	98	99	98	100	100	100	100	100	100	32	38	35
ALP	95	92	94	100	95	97	99	97	98	32	34	33
PTA	98	100	99	100	100	100	88	100	93	34	30	31
KLM	100	92	96	100	100	100	98	99	99	27	32	30
TVM	98	100	99	100	100	100	93	100	96	32	28	30
All	97	96	96	100	100	100	96	98	97	28	28	28

District wise AAR for different age groups was presented in chart 4.4.3.1. In whole Kerala, it is seen that almost all in the lower age groups (6-17) were participating in education. No prominent variation was observed among districts. In higher age groups (18-29) AAR was seen less than 40 in all districts. Thrissur and Kottayam were forerunners in AR of age group 18-29 with AAR of 37 and 35 respectively. Northern districts except Thrissur were lagged in AAR at higher age groups. Perceptible gender difference in AAR was seen in Wayand district at age group 6-10 and in Pathanamthitta at age group 14-17. In higher age group, 18-29, noticeable gender difference was observed in Palakkad and Malappuram districts. Sector wise difference in AAR for different age groups can be viewed in tables 13 to 16 of appendix A.

4.5 Attendance by type of Education

Chart 4.5.1 describes the district wise distribution of students by type of education for rural and urban sector separately.It is seen that 88.4 % of students in Kerala were attending general education and the rest, 11.6%, were attending technical/professional education. Almost same pattern can be viewed in all districts. Percentage of students attending technical/professional education was seen highest in Thrissur district (18.7%) and lowest in Kasaragode district (5.8%). No perceptible sector disparity in percentage of students attending general education was observed among districts.

Chart 4.5.1 Percentage distribution of students by type of education

District	Type of eucation					
	Rural		Urban		Rural+urban	
	General	Technical /professional	General	Technical /professional	General	Technical /professional
KSD	94.7	5.3	93.4	6.6	94.2	5.8
KNR	87.7	12.3	88.7	11.3	88.2	11.8
WND	91.6	8.4	91.7	8.3	91.6	8.4
KKD	87.2	12.8	86.4	13.6	86.6	13.4
MLP	95.2	4.8	93.8	6.2	94.8	5.2
PKD	92.4	7.6	92.3	7.7	92.4	7.6
TSR	79.1	20.9	84.1	15.9	81.3	18.7
EKM	84.3	15.7	85	15	84.8	15.2
IDK	92.1	7.9	87.4	12.6	91.6	8.4
KTM	87.7	12.3	78.4	21.6	85.3	14.7
ALP	86	14	83.7	16.3	84.7	15.3
PTA	86.2	13.8	83.6	16.4	85.9	14.1
KLM	86.2	13.8	87.3	12.7	86.7	13.3
TVM	89.6	10.4	88.1	11.9	88.9	11.1
ALL	89.2	10.8	87.1	12.9	88.4	11.6

4.6 Attendance by type of management

Different types of institutions, on the basis of their management are government, private body receiving aid from government, i.e. private aided and private body not receiving aid from government, i.e. private unaided. In this survey, aided schools of Kerala were treated as government schools.

District wise percentage distribution of students of primary to higher secondary levels of education by type of management is presented in chart 4.6.1.

Chart 4.6.1 District wise percentage distribution of students of primary to higher secondary levels of education by type of institution

District	Percentage distribution of students					
	Rural		Urban		Rural+ Urban	
	Govt	Unaided	Govt	Unaided	Govt	Unaided
KSD	90.8	9.2	77.1	22.9	85	15
KNR	87.2	12.8	74.1	25.9	79.7	20.3
WND	74.8	25.2	69.3	30.7	74.5	25.5
KKD	77.8	21.7	74.9	24.7	75.8	23.8
MLP	82.3	17.7	75.5	24.5	80.4	19.6
PKD	81.1	18.9	69.2	30.8	78.4	21.6
TSR	51.8	48.2	67.4	32.6	59.2	40.8
EKM	62.6	37.4	54.1	45.9	56.8	43.2
IDK	73.5	26.5	54	46	71.8	28.2
KTM	60.8	39.2	62.9	37.1	61.3	38.7
ALP	69.8	30.2	60.6	39.4	64.9	35.1
PTA	69.3	30.7	39.7	60.3	66.7	33.3
KLM	73.6	26.4	58	42	67	33
TVM	73.7	26.3	50.4	47.9	62.8	36.4
ALL	74.3	25.7	65	34.8	70.5	29.4

It is seen in all districts that majority of students were attending in government schools. Percentage of students attending in government schools was seen higher in Idukki and northern districts except Thrissur compared to the rest. In Ernakulam 43.2% of students were reported that they were attending in private unaided schools, which was highest among the districts. Percentage of students attending unaided schools was seen lowest in Kasargode district, 15%. Percentage of students attending in government schools was more in rural compared to urban in all districts except Thrissur and Kottayam.

4.7 Reasons for preferring private institutions

Chart 4.7.1: Percentage distribution of students studying in private institutions by reason for preferring private instituions for primary , upper primary , secondary and higher secondary levels of attendance

District	reason for preferring private instituions					
	Govt. institution is not avilable nearby	better environment of learning	can learn english better	Quality of education in govt. institutions is not satisfactory	tried for govt. institution but could not get admission	can not say
KSD	14.36	50.79	28.68	0	2.21	3.96
KNR	32.2	41.79	9.74	4.81	5.57	5.88
WND	17.42	48.12	13.07	8.81	9.15	3.42
KKD	18.14	36.42	24.29	5.45	12.06	3.64
MLP	17.14	46.48	12.97	2.31	10.75	10.35
PKD	49.11	40.77	0.45	1.77	7.89	0
TSR	5.49	38.36	18.04	18.6	10.48	9.03
EKM	10.21	63.17	6.07	7.76	7	5.8
IDK	19.58	58.52	13	2.81	5.88	0.2
KTM	7.22	81.19	6	1.38	3.31	0.89
ALP	31.09	39.91	12.77	9.65	6.27	0.3
PTA	26.82	62.59	2.96	0.59	7.04	0
KLM	11.28	74.9	3.86	0.68	6.18	3.11
TVM	1.71	72.67	16.77	6.13	1.56	1.16
ALL	18.98	51.79	11.87	5.58	7.48	4.3

Why students preferring private institutions for education? The survey quizzed about this from sample household members who were attending education in private institutions and the results are presented in chart 4.7.1 and 4.7.2. Chart 4.7.1 gives an account of different reasons for preferring private institutions at levels of education from primary to higher secondary. More than half of students in Kerala who were studying different levels from primary to higher secondary reported that the main reason for attending private schools was "better environment of learning". The same reason was reported as main reason for attending private schools from students of all districts except

Palakkad who were studying in private schools. In Palakkad , the most important reason was "Govt institution is not available nearby", about 50% of students attending private schools were reported this reason. Kannur and Alappuzha districts also reported higher values for the reason "Govt institution is not available nearby". About 29% of students in Kasaragode and about 25% of students in Kozhikkode were attending private schools with the reason "can learn English better" while in other districts percentage of students reported this reason was less than 20. Only a small percentage of students in all districts reported that they were attending private schools as they could not get admission in government schools.

Chart 4.7.2: Percentage distribution of students studying in private institutions by reason for preferring private institutions for diploma, graduation and post-graduation levels of attendance

	reason for preferring private instituions					
District	Govt. institution is not avilable nearby	better environment of learning	can learn english better	Quality of education in govt. institutions is not satisfactory	tried for govt. institution but could not get admission	can not say
KSD	27.67	23.67	0	1.13	44.7	2.84
KNR	15.43	13.06	1.38	0.48	68.43	1.21
WND	22.95	7.09	0	0	63.05	6.91
KKD	10.28	14.41	0	4.13	69.32	1.87
MLP	6.24	11.53	0.2	0	78.39	3.63
PKD	15.28	9.86	0	2.59	72.26	0
TSR	2.08	10.95	0	0	78.62	8.35
EKM	10.41	17.51	4.04	2.08	64.7	1.27
IDK	54.37	23.27	0	0	17.53	4.83
KTM	17.96	13.72	0	0	65.73	2.59
ALP	32.02	11.13	0	0	52.78	4.08
PTA	25.74	13.71	0	0.9	58.37	1.28
KLM	9.32	3.27	0	1.25	84.93	1.23
TVM	5.58	21.29	0	0.22	70.97	1.94
ALL	14.35	13.29	0.57	1.02	67.72	3.05

Chart 4.7.2 shows percentage of students attending private institutions for diploma, graduation and post-graduation levels of education by reasons for preferring private institutions. It is observed that most of the students in all districts except Idukki were attending private institutions as they could not get admission in government institutions. In Idukki , the main reason was "Govt institution is not available nearby". Prevalence of these two reasons among students in private institutions indicates that students were preferring government institutions for higher levels of education. We can also find that a small portion of students in all districts attending private institutions reported they were attending private institutions due to better environment of learning.

4.8 Private expenditure on Education

Considering the importance of education every government spends substantial amount on the creation as well as effective functioning of educational infrastructure. Nevertheless, individuals attending educational institutions incur expenditure in the form of course fee,(including tuition fee, examination fees etc.), purchase of books, stationery and uniform, expenses on conveyance, private coaching, etc. This is referred to as private expenditure on education in this survey. All private expenditure incurred and /or to be incurred during the current academic section on the basic course attended by all sample household members had been obtained in this survey and the results were summarized in this section.

Chart 4.8.1 Average expenditure per student by type of education

District	Avereage expenditure(Rs) per student in current Type of education General	technical/professional
KSD	8258	56577
KNR	7331	61051
WND	5672	46133
KKD	8005	85828
MLP	5851	62594
PKD	5553	66896
TSR	10347	68268
EKM	12544	84345
IDK	9468	89506
KTM	12556	81258
ALP	9968	60767
PTA	12809	72492
KLM	11340	57377
TVM	11738	51746

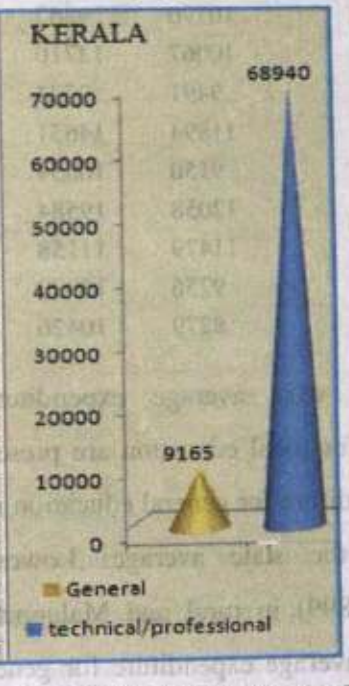


Chart 4.8.1 shows average expenditure per student by type of education for the whole state and its districts. It is seen that average expenditure per student attending Technical/professional education in the whole kerala was about eight times that on general education (Rs.9165). Average expenditure per student on general education varied among districts from Rs.5553 (palakkad) to Rs.12809 (Pathanamthitta). Northern districts reported higher values and southern region districts reported higher values for average expenditure per student on general education compared to the state average. Average expenditure per student on Technical/professional education was seen highest in Idukki (Rs.89506). Kozhikkode , Ernakulam and Kottayam also reported higher values for average expenditure per student on Technical/professional education.

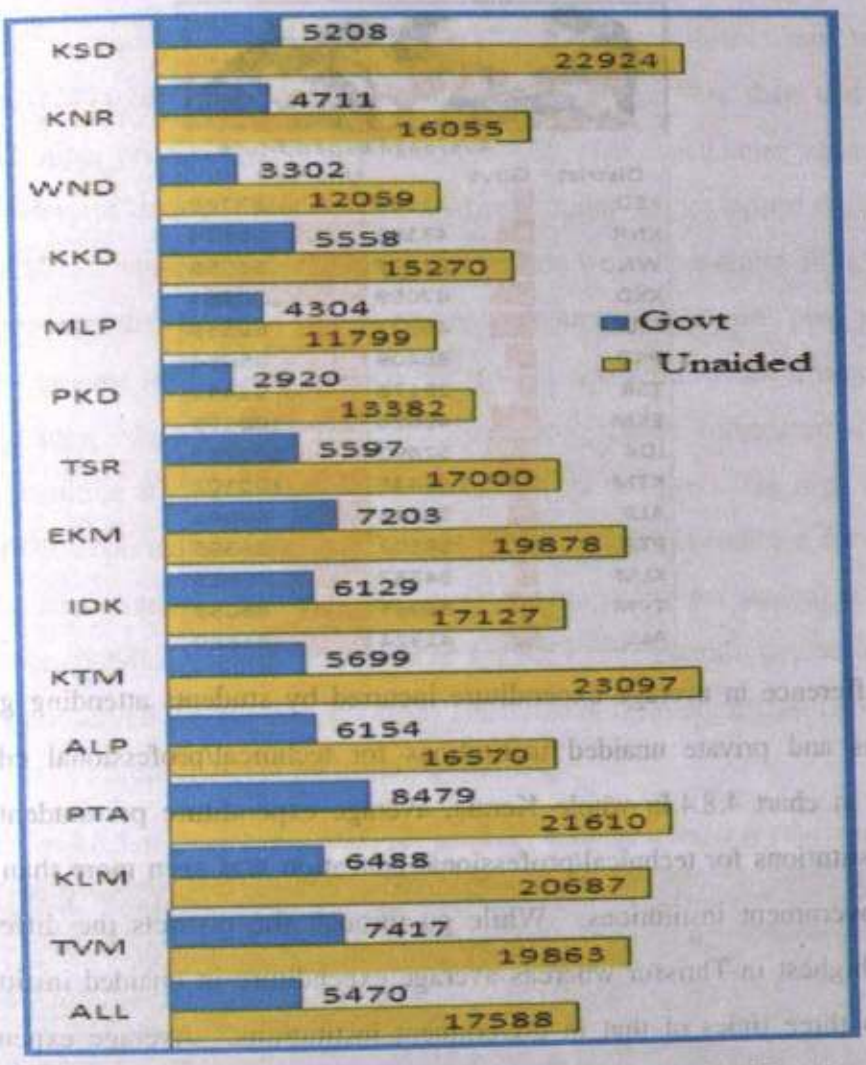
Wayand had registered lowest average expenditure for technical/professional education (Rs. 46133).

Chart 4.8.2 Sector wise average expenditure per student by type of education

	Avereage expenditure(Rs) per student in current academic session			
	Type of education			
	General		technical/ professional	
District	Rural	Urban	Rural	Urban
KSD	7750	9018	53973	59685
KNR	6497	7983	55700	65638
WND	5445	10245	44699	75350
KKD	6691	8618	52017	100532
MLP	5754	6114	65990	55528
PKD	4899	7788	72604	47800
TSR	10770	9867	64140	74810
EKM	10067	13710	76207	88388
IDK	9491	9223	78633	157963
KTM	11894	14651	79407	84231
ALP	9150	10654	76870	49487
PTA	12058	19584	67555	108952
KLM	11479	11158	56068	59247
TVM	9756	13929	58400	45474
ALL	8279	10426	65296	73175

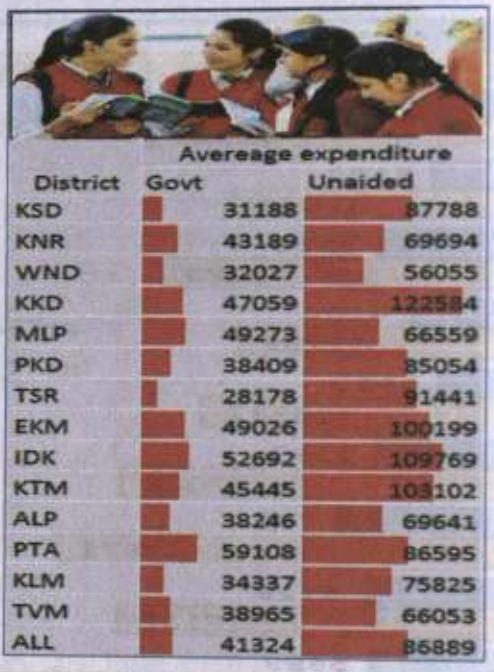
Sector wise average expenditure per student for general education and Technical/Professional education are presented in chart 4.8.2. Pathanamthitta had highest average expenditure for general education in both rural and urban sectors, which was much higher than the state average. Lowest average expenditure reported was from Palakkad(Rs.4899) in rural and Malappuram(Rs.6114) in urban. No perceptible sector difference in average expenditure for general education was observed in Kollam, Idukki, Thrissur and malappuram districts. Sector difference in average expenditure for general education was seen highest in wayanad distict where the average expenditure in urban was almost double of that in rural.Palakkad had also registered high rural-urban difference in average expenditure for general education. Moving to Technical/ Professional education sector disparity in average expenditure was seen highest in Idukki district. In Idukki, average expenditure for Technical/Profeesional education in urban sector (Rs. 157963), which was highest among the districts, was double of that in rural sector. Kozhikkode distict had also shown almost cent percentage sector difference in average expenditure for Technical/ Professional education.

Chart 4.8.3 Average expenditure per student for general education by type of institution



As type of education is an important factor which decisively affect the expenditure for both general education and technical/Professional education, average expenditure per student for the two type of education by type of institution has been estimated and presented in chart 4.8.3 and chart 4.8.4. Chart 4.8.3 displays average expenditure per student for general education by type of institutions. It may be kept in mind that aided schools in Kerala included in government schools as per the definition of government schools for this survey. A huge difference is noted in average expenditure incurred by students attending institutions run by government and private ones. Average expenditure per student attending private unaided institutions for general education in Kasaragode and palakkad were almost 5 times that in government institutions. Average expenditure per student form Kannur , Wayanad and kottayam for general education in government institutions was seen one-fourth or nearly one-fourth of that in private unaided institutions. The proportion in other districts was observed as one-third or nearly one-third.

Chart 4.8.4 Average expenditure per student for technical/professional by type of institution



Difference in average expenditure incurred by students attending government institutions and private unaided institutions for technical/professional education is presented in chart 4.8.4.In whole Kerala, average expenditure per student attending private institutions for technical/professional education was seen more than double of that in government institutions. While go through the districts the difference was observed highest in Thrissur whereas average expenditure in unaided institutions was more than three times of that in government institutions. Average expenditure per student attending unaided institutions for technical/professional in the remaining districts was more than two times or about two times that of private unaided institutions.

Average expenditure on different levels of education irrespective of the type of institution they were attended is presented in chart 4.8.4. Average expenditure per student in the state for primary level of education was 8259. Districts which had average expenditure for primary education above the state average were Ernakulam (12656), Pathanamthitta (12448), Thiruvananthapuram (11202), Kottayam (10035), Thrissur (10034) and Kollam (10007). Lowest average expenditure for primary level education was reported from Malappuram (5127). Moving to upper primary level of education a dip in average expenditure was seen at state level and also in all districts except Idukki, Kottayam and Alappuzha. At state level the average expenditure was 7528. It varied among districts from 4728(Malappuram) to 11059 (kottayam). At secondary level, average expenditure per student in the state was 9024. Highest expenditure (13916)

among the districts was observed for the students from Thiruvananathapuram. Pathanamthitta (13653), Kottayam (13311), Idukki (11290) and Ernakulam(11243) also reported high expenditure for secondary education. Palakkad district reported lowest expenditure (3677) for secondary educationwhich was seen less than that for both primary and upper primary levels of education. Average expenditure per student for higher secondary at state level was 10270. Pathanamthitta district topped the table with expenditure 17192 while Palakkad went to the bottom with expenditure 4871. It is seen that average expenditure did not vary much between graduate and 'post graduate& above'levels at state level but differences exist in almost all districts. It may be noted that both general education and technical education were considered to estimate average expenditure at graduate and 'post graduate& above' levels. The high values, mo re than 50000, reported at these levels were due to huge expenditure for technical/ profeesional education. At diploma level average expenditure per student estimated in the state was 39290. Lowest expenditure (16905) or diploma courses among the districts was observed for the students from Thiruvananthapuram. Ernakulam registered the highest expenditure (52041) for diploma courses.

Chart 4.8.5 Average expenditure per student on different levels of education

District	Average expenditure (Rs) per student						
	Primary	Upper Primary	Secondary	higher secondary	Graduate	Post-graduate and above	diploma
KSD	5763	4912	6709	7860	37751	38578	36984
KNR	5773	5754	7348	9310	38517	52757	48285
WND	5311	4798	5093	6388	39265	20115	37053
KKD	7483	6323	7248	9304	72977	27899	38148
MLP	5127	4728	5982	7402	31244	63331	35425
PKD	5843	5812	3677	4871	38875	42407	40730
TSR	10034	9668	8279	13240	53163	33028	46848
EKM	12656	10680	11243	12635	66131	67510	52041
IDK	6571	8545	11290	9779	57428	39808	38100
KTM	10035	11059	13311	12741	66798	101320	41833
ALP	8525	8948	9081	9028	45764	52752	29907
PTA	12448	9381	13655	17192	43956	207089	51064
KLM	10007	7780	13321	11680	50523	55402	29793
TVM	11202	9534	13918	13626	38425	24947	16905
ALL	8259	7528	9024	10270	50622	49861	39290

Average expenditure per student attending classes from I to X was estimated by sector and type of institution and is presented in chart 4.8.6. It is seen that the average expenditure was varied much between government and unaided schools both in rural and urban sectors.

Chart 4.8.6 Average expenditure per student on classes I to X by type of institution

District	Avereage expenditure(Rs) per student in current academic session					
	Rural		Urban		Rural + urban	
	Govt	Unaided	Govt	Unaided	Govt	Unaided
KSD	3251	15072	3845	18891	3469	17627
KNR	3799	10690	3977	17156	3892	15357
WND	2849	12079	2156	15489	2826	12263
KKD	3143	14646	4871	15615	4303	15340
MLP	3319	12480	3618	11316	3396	12106
PKD	2167	14993	4284	13992	2576	14649
TSR	4437	17123	4877	16279	4669	16827
EKM	4172	17651	6987	18993	5981	18604
IDK	5431	17525	6498	11987	5504	16586
KTM	4784	19636	4139	25295	4640	20909
ALP	4138	16584	4989	14402	4585	15300
PTA	6678	20381	5076	26440	6594	21279
KLM	4822	23482	5517	15990	5084	19363
TVM	5182	18294	7146	19917	5865	19261
ALL	3907	16887	5008	17166	4317	17022

At the state level, the average expenditure in government and unaided schools were 4317 and 17022 respectively when rural and urban sectors taken together. The average expenditure in government schools for the combined sector varied from 2576 (Palakkad) to 6594 (Pathanamthita) whereas in private unaided schools this expenditure was lowest in Malappuram (12106) and highest in Pathanamthitta(21279). Perceptible sector disparity in the average expenditure in government schools was seen in all districts except Kannur and Malappuram. Noteworthy rural-urban difference in the average expenditure was also seen in private unaided schools but not in all districts.

4.9 Drop outs/ Discontinuance

This section focuses on persons of age 5 - 29 years who were ever enrolled but not currently attending any educational institution according to the current survey. An ever enrolled person currently not attending any educational institution may be due to either: (i) he/she has discontinued after completing the last level of education for which he/ she was enrolled or (ii) he/ she has discontinued education before attaining a specific level. For the purpose of this survey, both the types were treated alike for recording information.

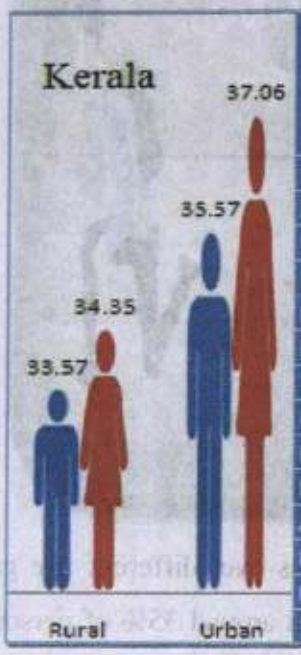
Chart 4.9.1 Percentage of persons aged 5 to 29 who dropped out/ discontinued education

District	Percentage of persons (age 5-29 years) who dropped out/discontinued education				
	age group				
	5-15	16-17	18-24	25-29	5-29
KSD	0.00	4.08	66.72	98.08	38.39
KNR	0.00	6.80	60.04	98.78	37.30
WND	0.00	2.75	69.76	99.54	39.66
KKD	0.00	4.16	62.16	96.09	41.34
MLP	0.00	5.55	66.05	95.82	32.47
PKD	0.00	14.80	63.03	99.27	36.68
TSR	0.00	3.38	42.79	96.77	34.44
EKM	0.28	0.00	51.42	95.01	35.79
IDK	0.00	0.00	49.90	90.97	32.30
KTM	0.00	0.00	48.65	91.33	30.16
ALP	0.00	0.00	48.85	97.41	34.29
PTA	0.00	7.96	43.59	98.49	30.16
KLM	0.00	1.45	54.28	97.15	31.54
TVM	0.19	6.17	47.59	96.82	34.35
ALL	0.05	4.77	55.52	96.43	34.98

Percentages of dropped out/discontinued persons over different age group are presented in chart 4.9.1. At the state level it is seen that around 35% of persons in the age group 5-29 were either dropped out or discontinued education. No wide divergence from the state figure can be observed in any districts, highest for Kozhikkode (41.34%) and lowest for Kottayam (30.16%). Further, on age-group wise analysis on state figures it is found that dropped/discontinued rate for age group 5-15 was very low (0.05%) indicating that only a few students were dropped out/discontinued from classes I to X. While go through the district figures it can be seen that Thiruvananthapuram and Ernakulam were reported drop out/ discontinued figures for the age group 5-15. A small hike in the dropped out/ discontinued rate was seen in the official age group of higher secondary level of education (16-17) compared to the previous levels. Dropped out/ discontinued rate for the age group16-17 reported from Thiruvananthapuram, Pathanamthitta, Palakkad and Kannur were greater than that of the state rate (4.77%). Palakkad had highest dropped out /discontinued rate (14.80) for the age group 16-17 whereas no dropped out/disco ntinued cases for the age group 16-17 were reported from Alappuzha, Ernakulam, Idukki and Kottayam. Dropped out/Discontinued rate in the age group 18-24 varied among the districts from 42.79% (Thrissur) and 69.76 % (Wayanad) while the figure at the state level was 55.75. The highest incidence of drop out/ discontinuance was observed for persons in the age group 25-29, not so surprising

because most of the persons in that age group perhaps did not study further after completing graduation/Post graduation levels.

Chart 4.9.2 Percentage of persons aged 5 to 29 who dropped out/ discontinued education by sector and gender



District	Rural			Urban		
	M	F	M+F	M	F	M+F
KSD	32.43	45.61	40.06	34.08	38.08	35.80
KNR	40.41	32.73	36.74	35.64	39.32	37.74
WND	38.66	41.42	39.97	21.14	44.51	32.83
KKD	28.09	47.18	40.48	40.40	43.09	41.74
MLP	26.71	36.53	31.66	33.86	35.25	34.59
PKD	46.12	26.33	37.02	38.10	33.31	35.51
TSR	33.35	35.00	34.31	34.78	34.48	34.61
EKM	37.26	24.08	31.31	37.96	37.37	37.66
IDK	40.41	27.12	33.78	8.35	13.91	11.81
KTM	35.07	28.88	32.06	27.58	20.67	24.28
ALP	36.82	38.48	37.51	28.32	34.28	31.28
PTA	27.06	32.83	29.97	25.79	37.45	31.85
KLM	30.31	26.49	28.18	33.37	37.15	35.40
TVM	25.93	35.90	30.97	36.87	38.28	37.54

Chart 4.9.2 portrays sector wise dropped out/discontinued rate in the age group 5-29 separately for male and female. Perceptible sector disparity in dropped out/discontinued rate for all persons in the age group was observed only in Idukki district where the rate in rural was 21.97 percentage points greater than that in urban. For males, noteworthy rural-urban difference was observed not only in Idukki but also in Wayanad, Kozhikkode and Thiruvananthapuram districts while the difference for female was seen significant in Ernakulam, Kollam and Idukki. Though no gender disparity was observed at state level both in rural and urban sectors, more than ten percentage points difference in dropped out/ discontinued rate between male and female was seen for 6 districts in rural and 2 districts in urban. It is also observed that incidence of drop out/ discontinuance of females in the age group 5-29 was greater than that of males in most of the districts both in rural and urban. Percentage of dropped out/ discontinued persons by gender and sector for different age group was available in detailed tables.

4.10 Reasons for discontinuance or dropping out

The survey quizzed the major reason for dropped out/ discontinued from the persons of age 2-29 who had ever been enrolled but was currently not attending. The district wise findings are summarized in the following tables.

Percentage distribution of dropped out/ discontinued males aged 5-29 years by reasons for dropping out/ discontinuance is presented in chart 4.10.1.

Chart 4.10.1 Percentage distribution of dropped out/ discontinued males aged 5-29 years by reasons for dropping out/discontinuance

percentage distribution of dropping out/discontinuance (for persons (male) aged 5-29 years) by reasons for dropping out/discontinuance

District	not interested in education	financial constraints	engaged in domestic activities	engaged in economic activities	unable to cope up with studies/ failure in studies	completed desired level/class	preparation for competitive examination	others
KSD	29.9	11.3	0	38.3	0	15.6	0	4.9
KNR	20.6	14.3	21.2	31.9	2.3	6.3	0	3.4
WND	37.8	18.7	1	25	8.5	1	0.5	7.5
KKD	9.8	14.4	1.8	19.4	28.2	11.7	0	14.7
MLP	16.7	14.9	3.9	21.7	15.7	24.6	1.2	1.3
PKD	31.3	23.4	6.9	7.6	2.6	9.1	0.2	18.9
TSR	27.1	9.5	0	29.6	6.2	19.9	6.1	1.6
EKM	26.1	16.9	0.6	15.5	11.9	23.5	1.9	3.6
IDK	6.7	44.7	2.2	42.2	4.2	0	0	0
KTM	26.8	5.8	4.7	44	11.7	2.1	3.9	1
ALP	24.1	10.1	2.8	32.2	12.3	18.5	0	0
PTA	3.1	7.4	1.9	80.5	0.8	3.4	2.2	0.7
KLM	17.5	27.6	0	26.1	5.1	16.6	2.2	4.9
TVM	16.4	27.5	0.8	29	10.5	13.2	1	1.6
ALL	21.1	17.6	3.6	26.3	10.5	14.2	1.4	5.3

At the state level 'engaged in economic activities' (26.3%) was the most common reason among dropped out/discontinued males. The other major reasons for dropping out/discontinuance among males seen at state level were 'not interested in education' (21.1%), 'financial constraints' (17.6%), 'completed desired level of education' (14.2%) and 'unable to cope up with studies' (10.5%). Moving to district wise figures it can be seen that 'engaged in economic activities' was the most common reason reported from more than half of the total number of districts. In Wayand, Palakkad and Ernakulam, the major reason came out as 'not interested in education'. The dominant reason seen in Idukki was 'financial constraints'. It is seen that 28.2 % of drooped out/discontinued males in Kozhikkode district quit from education as they could not cope up with studies. The major reason reported from Malappuram district was 'completed desired level of education'.

Chart 4.10.2 Percentage distribution of dropped out/discontinued females by reasons for dropping out/discontinuance

District	Percentage distribution of dropping out/discontinuance (for persons (female) aged 5- 29 years) by reasons for dropping					
	not interested in education	financial constraints	engaged in domestic activities	completed desired level/class	marriage	others
KSD	8.7	16.6	17.7	7.1	47.8	2.1
KNR	9.5	19.7	22.2	8.6	24.7	15.3
WND	14.6	9	10.3	6.9	41	18.2
KKD	9.9	7.5	9	13.8	29	30.8
MLP	6.6	5.4	7.1	19.4	42.8	18.7
PKD	25	13	17.7	3.9	25.9	14.5
TSR	9	13.1	4.6	8.4	41.2	23.7
EKM	13.4	8.2	4.3	33.6	26.6	13.9
IDK	11.1	23.6	35.5	0	16.5	13.3
KTM	24.7	6.3	1.5	18.4	1.5	47.6
ALP	15.4	10.4	14.5	31.8	11.9	16
PTA	9.3	0.5	35.2	1.4	22.4	31.2
KLM	21.8	16.9	7.8	14.8	24.8	13.9
TVM	5.8	8.8	10.4	20	19	36
ALL	11.7	10.5	11.1	15.6	29.3	21.8

Chart 4.10.2 shows the percentage distribution of dropped out/discontinued females by reasons of dropping out/ discontinuance. Marriage is the most common reason for dropping out / discontinuance of females from education in all districts except Thiruvananthapuram, Pathanamthitta, Alappuzha, Kottayam, Idukki and Ernakulam. The most common reason reported from Thiruvananthapuram, Alappuzha and Ernakulam was 'completed desired level of education'. It is seen that 35.2% of dropped out/discontinued females in Pathanamthitta and 35.5% of dropped out/discontinued females in Idukki were quit from education as they were engaged in domestic activities. It is interesting to note that the most common reason among dropped out/discontinued females in Kottayam was 'not interested in education'.

4.11 Possession of Computer and access to internet facilities

The survey captured information on possession of computer and access to internet facilities for household members aged 14 years and above. In this survey any of the desktops/laptops/notebooks/netbooks/ palmtops/smart phones etc. were considered as computers.

A household possessing any of the devices mentioned in pre Para were considered as household possessing computer. If any member of the household aged 14 years and above had access to use internet facility, then the household was considered to have internet facilities. The access may be within the household or outside the

household. It may be noted that Possession of the computer devices by the household was not mandatory for internet access.

Chart 4.11.1 Percentage of households having computer and percentage of households having access to internet facility

District	Percentage of households having computer			Percentage of households having access to internet facility		
	Rural	Urban	Rural-Urban	Rural	Urban	Rural-Urban
KSD	52.2	56.8	54.1	67.3	76.5	70.9
KNR	28.5	40.4	35.4	35.6	51.2	44.7
WND	17.9	19.6	17.9	34.1	44.1	34.7
KKD	28	34.2	32.3	45.4	57.5	53.8
MLP	31.3	37.7	33.2	50	55	51.4
PKD	10.1	16	11.4	24.4	32.6	26.2
TSR	33.7	35.1	34.4	69.1	62.4	65.9
EKM	28.6	41.3	37.3	63.1	71.6	68.9
IDK	15.2	38.6	16.8	41.7	65.4	43.3
KTM	36.3	51.8	40.9	74.8	79.9	76.3
ALP	17.8	28.7	23.5	36.9	46.6	42.1
PTA	19.7	40.1	22.1	46.9	57.1	48.1
KLM	32.6	27.7	30.5	51.5	62.1	56
TVM	21.4	29.8	25.7	34.7	39.9	37.4
ALL	26	35.3	30.1	47.8	57.2	51.9

Chart 4.11.1 shows the percentage of households having computer and access to internet facilities in rural and urban areas of each district. It is seen that 30.1% of the households in the state had computer. Among the districts, combining rural and urban areas, Kasaragode had highest percentage (54.1%) of households having computer while Palakkad had the lowest (11.4%). Wayanad (17.9%) and Idukki (16.8%) also had lower percentage of households having computer compared to the state average. It is seen that percentage of households having computer in urban area of every district was greater than that of in rural areas. Sector disparity in percentage of households having computer was seen highest in Idukki where the percentage in urban was 23.4 percetage points greater than that in rural. Kannur, Ernakulam, Kottayam and Alppauzha distrcts also shows perceptible sector disparity in percentage of households having computer. Moving to accessibility of internet facility, it is seen that more than half of the households (51.9%) in the whole Kerala had access to internet facility. Among the districts, Kottayam topped in percentage of households having access to internet facility with 76.3% while Palakkad had lowest (26.2%) percentage of households having access

to internet facility. Again, sector disparity in percentage of households having internet facility was seen highest in Idukki. The other districts which exhibited noticeable sector disparity in percentage of households having internet facility were Kannur, Kozhikkode, Pathanamthitta and Kollam.

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Chapter 5

Relative Standard Error of estimates

Chapter 5

Relative Standard Error of estimates

Chapter 5
Relative Standard Error of estimates

5.1 Introduction

The Estimates of Education survey presented in the previous chapter are based on information from sample households rather than all households.Hence the estimates produced may differ from those that would have been produced if the entire population had been included in the survey. The sampling error of the estimates were measured and presented in this chapter in terms of Relative Standard Error. The standard error indicates the extent to which a survey estimate is likely to deviate from the true population and is expressed as a number. The Relative Standard Error (RSE) is the standard error expressed as a fraction of the estimate and is usually displayed as a percentage. Estimates with higher RSE (30% or more) are subject to high sampling error and should be used with caution. RSE of major parameters are presented in this chapter.

5.2. RSE of Average expenditure per student

Chart 5.2.1 RSE of Average expenditure per student in current academic session

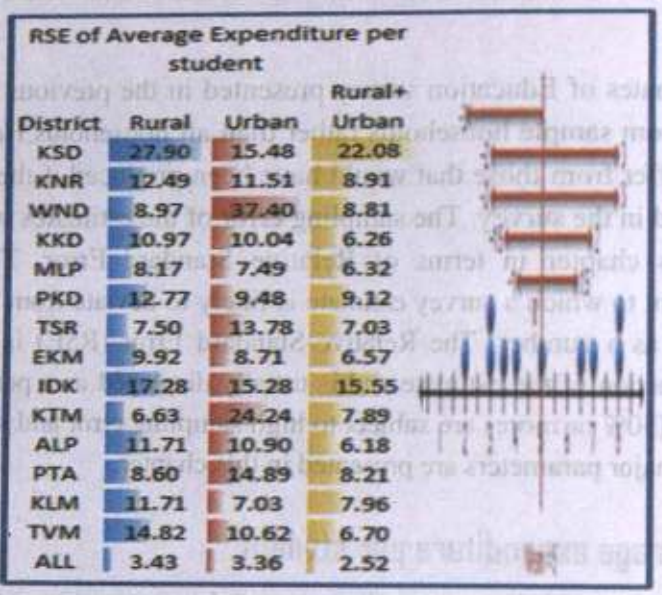
RSE of Average Expenditure per student

District	Rural	Urban	Rural+ Urban
KSD	24.08	14.89	17.43
KNR	17.41	10.83	11.10
WND	13.69	23.09	13.06
KKD	13.80	40.97	20.85
MLP	11.86	8.17	8.55
PKD	18.09	17.06	14.19
TSR	14.63	10.24	9.92
EKM	10.13	12.94	9.85
IDK	16.44	26.66	15.11
KTM	8.42	14.52	7.57
ALP	15.14	8.81	7.27
PTA	9.38	15.82	8.35
KLM	8.26	15.83	9.67
TVM	14.77	14.01	6.34
ALL	3.91	7.06	3.37

District wise relative standard error (RSE) of Average expenditure per student in current academic session by sector was presented in chart 5.2.1. In rural sector, the RSE was seen less than 25 in all districts. Further, it is seen that Kollam, pathanamthitta and Kottayam districts fall within 10% level of the RSE. While in urban sector, more than 25 % level of RSE were observed in Idukki and Kozhikkode districts. Combining both the sectors it can be seen that all the districts fall within 20% level of RSE of average expenditure per student except Wayanad district where the RSE was slightly greater than the 20% level. It is quite impressive to note that more than half of the total number of districts fall within 10% level of RSE of average expenditure per student.

RSE of average expenditure per student in current academic session for General Education and Technical/professional education was presented in chart 5.2.2 and 5.2.3 respectively.

Chart 5.2.2 RSE of Average expenditure per student for General Education



RSE of Average Expenditure per student

District	Rural	Urban	Rural+ Urban
KSD	27.90	15.48	22.08
KNR	12.49	11.51	8.91
WND	8.97	37.40	8.81
KKD	10.97	10.04	6.26
MLP	8.17	7.49	6.32
PKD	12.77	9.48	9.12
TSR	7.50	13.78	7.03
EKM	9.92	8.71	6.57
IDK	17.28	15.28	15.55
KTM	6.63	24.24	7.89
ALP	11.71	10.90	6.18
PTA	8.60	14.89	8.21
KLM	11.71	7.03	7.96
TVM	14.82	10.62	6.70
ALL	3.43	3.36	2.52

In rural sector, RSE of average expenditure per student for general education in Kasragode district exceeded 25% level of RSE while the rest of the districts were fell within 20% level of the RSE. A high value of RSE (37.40) was observed in urban sector against Wayanad district. The remaining districts except Kottyam fell within 20% level of the RSE while the figure for Kottayam was 24.24. More than 20% level of RSE was observed in Kasaragode when rural and urban sectors taken together. RSE of all other districts except Idukki fall within 10% . In Idukki it was 15.55.

Chart 5.2.3 RSE of Average expenditure per student for technical/professional Education

RSE of Average Expenditure per student

District	Rural	Urban	Rural+ Urban
KSD	28.27	27.13	13.76
KNR	26.41	18.22	17.53
WND	19.29	11.24	17.53
KKD	13.60	41.01	30.64
MLP	21.46	9.33	13.56
PKD	27.89	29.49	22.45
TSR	19.05	15.68	13.61
EKM	13.53	15.51	11.93
IDK	12.71	10.72	9.97
KTM	11.96	12.36	8.77
ALP	15.94	10.48	12.23
PTA	17.77	17.10	15.77
KLM	10.87	24.20	13.23
TVM	15.73	17.20	7.55
ALL	7.63	5.48	4.90

RSE of average expenditure per student for technical/professional education in every district was greater than that for General education. In rural sector, RSE of all districts was greater than 10 but any of them exceeded 30. More than 25% RSE observed in rural sector of Kasargode , Kannur and Palakkad. Moving to urban it is seen that 9 districts out of 14 exceeded 15% RSE level. It is also observed that RSE exceeded 30% in Kozhikkode district (41.01). Palakkad district also had high RSE in urban sector (around 30). When both the sectors taken together, we can see that RSE of all districts fell within 30% level of RSE, except for Kozhikkode district where the RSE was slightly greater than 30%.

RSE of Average expenditure per student, combining both rural and urban sectors, had been calculated separately for central and state sample and the results are summarized in the chart 5.2.4 for comparison. It is seen that all the districts fell within 30% level of RSE for central, state and pooled sample. Distribution of districts by range of RSE was seen more or less same for central and state sample. For central sample no district was occupied in the range 25-30 while 2 districts were fell in the same range for state sample. Less than 5% RSE was observed in one district for state sample while no district was fall in such range of RSE for central sample. It may be seen from the chart 5.2.4 that the estimated RSE at district level has marginal improvement by pooling the central and state samples compared to either of them. Thus we can say that the precision of estimate of average expenditure per student increased by pooling.

Chart 5.2.4 Distribution of districts by range of RSE of average expenditure per student

Sample	Level of RSE						
	<=5	5-10%	10-15%	15-20%	20-25%	25-30%	>30%
central	0	3	5	5	1	0	0
state	1	1	5	4	1	2	0
pooled	1	9	4	0	0	0	0

RSE of Average expenditure (Rs) per student in current academic session by type of education and nature of institution was presented in chart 5.2.5. For general education RSE of all districts fall within 30% level of RSE except Pathanamthitta. In Pathanamthitta district, RSE of average expenditure per student in Government school exceeds 30%. Moving to technical/professional education, RSE of average expenditure per student in unaided institutions in all districts found to be within 30% except in Wayanad and Kozhikkode. Very high values of RSE were observed in many districts for technical/professional education in government institutions.

Chart 5.2.5 : RSE of Average expenditure(Rs) per student in current academic session by type of education and nature of institution

District	Average expenditure(Rs) per student in current academic session					
	Type of education					
	General		technical/ professional		All	
	Govt	Unaided	Govt	Unaided	Govt	Unaided
KSD	12.11	10.72	179.87	25.68	15.09	10.34
KNR	19.95	10.42	132.84	13.57	20.05	12.42
WND	26.99	8.55	315.21	33.66	24.14	15.95
KKD	21.23	7.54	134.42	34.42	11.80	32.44
MLP	8.91	6.37	212.18	17.82	11.28	10.00
PKD	18.43	7.52	190.53	17.75	15.99	11.52
TSR	24.91	6.78	92.07	13.19	18.09	12.01
EKM	7.16	7.65	30.98	13.62	7.65	11.53
IDK	15.96	12.46	234.79	17.37	16.45	11.16
KTM	6.98	4.04	56.87	8.74	15.63	5.27
ALP	17.02	9.59	187.20	12.31	13.96	12.47
PTA	30.01	6.18	90.31	14.83	24.61	7.21
KLM	13.62	9.03	50.79	14.09	14.38	9.53
TVM	14.91	8.90	39.17	6.78	16.28	7.31
ALL	**3.75**	**2.22**	**15.47**	**4.32**	**3.86**	**3.58**

Appendix A

Detailed Tables

Table 1: Displays the results of the test of significance of the difference between the means of the two samples at 1% level of significance

District	Rural		Urban		Rural + Urban	
	Calculated chi-square value	Table value	Calculated chi-square value	Table value	Calculated chi-square value	Table value
KSD	8.20	13.28	4.65	9.21	0.79	5.99
KNR	11.28	13.28	2.15	9.21	0.00	5.99
WD	11.63	13.28	6.01	9.21	3.15	5.99
KKD	9.52	13.28	0.55	9.21	0.38	5.99
MLP	13.90	13.28	8.13	9.21	0.10	5.99
PKD	12.20	13.28	6.95	9.21	0.54	5.99
WR	16.88	13.28	28.90	9.21	35.26	5.99
TEKM	9.52	13.28	82.19	9.21	50.00	5.99
IDK	8.10	13.28	6.10	9.21	0.11	5.99
KTM	2.99	13.28	5.63	9.21	0.69	5.99
WP	23.10	13.28	71.60	9.21	52.14	5.99
PTA	7.21	13.28	71.27	9.21	30.10	5.99
KTM	6.90	13.28	8.13	9.21	0.10	5.99
TVM	8.50	13.28	12.40	9.21	0.13	5.99

Table 2: Displays the Number of Pairs of Observations and Z value at 1% level of significance of significance

Sl no	District	Number of runs		Z value	
		Rural	Urban	Rural	Rural + Urban
1	KSD	56	47	-0.84	-0.24
2	KNR	64	47	1.82	0.43	2.01
3	WD	3	44	0.68	0.65	0.65
4	KKD	100		-2.40	-0.80
5	MLP	119	120	0.102	0.30
6	PKD	51	98	1.42	0.34	-0.41
7	WR	1	85	1.05	2.22	2.20
8	EKM	129		2.15	0.95
9	IDK	9	60	-0.18	-0.80
10	KTM	142	89	1.31	1.19	2.02
11	WP	101	128	0.28	0.26	0.26
12	PTA	97		0.08	0.08
13	KTM	67	80	1.120	-1.08
14	TVM	144	94	2.22	0.62	2.22

Appendix 4

Table 1: Displays the results of the test of significance of the difference between the means of the two samples at 1% level of significance

Table 2: Displays the Number of Pairs of Observations and Z value at 1% level of significance of significance

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Table 3: District wise enrolment, current academic year, Education sector

District	Z-values						
	Education level						
	General		technical/professional		All		
	Rural		Rural+ Urban		Rural		Rural+ Urban
	Rural	Urban	Rural	Urban			
KSD	0.78	0.28	1.1	7.19	0.88	2.50	0.90
KNR	1.97	0.00	0.63	0.28	0.87	0.90	0.18
WND	1.69	2.37	1.25	1.95	1.30	1.19	1.68
KKD	1.90	2.67	1.54	0.73	0.18	4.02	0.61
MLP	0.72	1.78	1.21	0.71	1.60	1.40	7.10
PKD	0.23	1.21	1.07	2.50	1.16	0.20	0.81
TSR	2.38	1.15	1.36	2.90	0.60	0.69	1.23
EKM	1.81	1.43	2.19	0.76	1.04	0.85	1.27
IDK	0.59	1.13	1.73	7.19	0.68	2.14	0.43
KTM	0.19	1.70	1.06	0.58	0.18	0.70	0.42
ALP	0.38	2.22	1.28	0.60	1.75	2.86	1.94
PTA	0.49	1.30	1.25	0.02	1.20	1.21	0.66
KLM	1.26	1.25	2.32	0.97	1.18	0.88	2.06
TVM	2.14	1.70	1.36	1.50	2.90	0.02	0.65
ALP	0.04	0.11	0.78	0.42	0.64	0.70	0.83

Sample size by district, age groups

District	sector: Rural				sex: Male			
	population							
	age group							
	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44
KSD	230	15	34	11	3	14	2	1
KNR	21	132	40	14	21	134	1	1
WND	28	1	134	15	17	51	139	1
KKD	7	2	154	9	9	18	45	135
MLP	525	8	13	117	4	349	54	1
PKD	38	2	50	76	2	34	1	22
TSR	22	6	132	1	11	134	5	120
EKM	15	2	19	1	14	9	92	92
IDK	26	25	12	9	4	3	133	15
KTM	25	20	16	5	31	7	3	24
ALP	18	1	120	4	16	17	4	136
PTA	22	3	136	24	1	104	3	135
KLM	12	2	188	22	3	55	154	15
TVM	21	9	12	62	5	180	19	1
ALP	389	2	218	74	34	278	2	215

Appendix A

Table 3: District wise enrolment, current academic year, Education sector

Z-values

Education level

General technical/professional All

Rural Rural+ Urban Rural Rural+ Urban

Sample size by district, age groups

sector: Rural sex: Male

population

age group

District 5-9 10-14 15-19 20-24 25-29 30-34 35-39 40-44

KSD 230 15 34 11 3 14 2 1

KNR 21 132 40 14 21 134 1 1

WND 28 1 134 15 17 51 139 1

KKD 7 2 154 9 9 18 45 135

MLP 525 8 13 117 4 349 54 1

PKD 38 2 50 76 2 34 1 22

TSR 22 6 132 1 11 134 5 120

EKM 15 2 19 1 14 9 92 92

IDK 26 25 12 9 4 3 133 15

KTM 25 20 16 5 31 7 3 24

ALP 18 1 120 4 16 17 4 136

PTA 22 3 136 24 1 104 3 135

KLM 12 2 188 22 3 55 154 15

TVM 21 9 12 62 5 180 19 1

ALP 389 2 218 74 34 278 2 215

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Table 4.6: Sample size for different age-groups

sector: Rural sex: Female

population

District	age group 5-9	10-14	15-17	18-24	25-29
KSD	134	10	9	54	127	15
KNR	48	114	47	3	16	12
WND	20	143	3	6	184	115
KKD	20	2	42	714	3651	142
MLP	9	467	3041	107	346	567
PKD	335	20	68	2711	21
TSR	27	138	53	9	21	142
EKM	25	5	62	7	825	88
IDK	2	140	1518	1730	122
KTM	230	1620	58	178	18
ALP	20	76	41	9	12	102
PTA	18	1	139	12	1836	119
KLM	25	3	25	2720	2352	175
TVL	230	1313	54	164	2074
AMP	7802	269	72006	54299

Table 4.6: Sample size for different age-groups

sector: Rural sex: Female

population

District	age group 5-9	10-14	15-17	18-24	25-29
KSD	134	10	9	54	127	15
KNR	48	114	47	3	16	12
WND	20	143	3	6	184	115
KKD	20	2	42	714	3651	142
MLP	9	467	3041	107	346	567
PKD	335	20	68	2711	21
TSR	27	138	53	9	21	142
EKM	25	5	62	7	825	88
IDK	2	140	1518	1730	122
KTM	230	1620	58	178	18
ALP	20	76	41	9	12	102
PTA	18	1	139	12	1836	119
KLM	25	3	25	2720	2352	175
TVL	230	1313	54	164	2074
AMP	7802	269	72006	54299

Table 4.7: Sample size for different age-groups

sector: Rural sex: Male + Female

population

District	age group 5-9	10-14	15-17	18-24	25-29
KSD	39	266	8821	129	240
KNR	36	8	2488	27	3787	257
WND	8	2	274	2127	3544	254
KKD	257	23	96	277	54	695
MLP	115	7498	22451	110
PKD	68	5	462	54	5944	433
KR	1512	289	2036	196	262
EKM	340	10	57	18	180	17	55
IDK	5	240	7327	32	255
KTM	67	6	48	3730	4213	351
ALM	338	2574	85	238	29	25
PTA	90	30	8146	28	29
KLM	56	5	334	49	3801	329
TVM	77	5	44	3825	3916	344
AMP	5828	1930	146442	4369	577

Table 4.7: Sample size for different age-groups

sector: Rural sex: Male + Female

population

District	age group 5-9	10-14	15-17	18-24	25-29
KSD	39	266	8821	129	240
KNR	36	8	2488	27	3787	257
WND	8	2	274	2127	3544	254
KKD	257	23	96	277	54	695
MLP	115	7498	22451	110
PKD	68	5	462	54	5944	433
KR	1512	289	2036	196	262
EKM	340	10	57	18	180	17	55
IDK	5	240	7327	32	255
KTM	67	6	48	3730	4213	351
ALM	338	2574	85	238	29	25
PTA	90	30	8146	28	29
KLM	56	5	334	49	3801	329
TVM	77	5	44	3825	3916	344
AMP	5828	1930	146442	4369	577

Table 1: Children in different age groups

sector: Urban sex: Male

population

District	age group 5-9	10-14	15-19	20-24	total 25-29	
KSD	122	15	38	14	11	
KNR	28	251	72	9	20	210
WND	4	35	5	1	1	28
KKD	6	304	22	20	295	256
MLP	455	42	120	36	43	
PKD	17	116	45	4	8	111
TSR	49	2	230	20	206	223
EKM	46	8	46	19	6	40
IDK	38	3	5	4	24	
KTM	911	6	29	6	46	5
ALP	23	141	40	13	126	
PTA	6	6	4	5	2	41
KLM	5	247	13	6	48	150
TVM	264	16	75	26	229	35
AKP	380	2029	743	271	2167	

Table 2: Children in different age groups

sector: Urban sex: Female

population

District	age group 5-9	10-14	15-19	20-24	total 25-29	
KSD	18	151	5	11	91	
KNR	43	3	40	30	21	40
WND	2	3	1	8	22	3
KKD	30	2850	87	25	47	258
MLP	70	12	360	24	5100	333
PKD	8	2	26	6	9	140
TSR	3348	31	115	23	203	36
EKM	49	2990	96	21	37	261
IDK	6	1	5	2	310	27
KTM	12	12	3	20	23	8
ALP	20	14	43	8	15	110
PTA	8	3	3	5	18	40
KLM	21	1	20	15	23	1064
TVM	2540	6	82	20	229	35
AKP	346	2302	782	00	325	2240

Appendix A

Table 1: Children in different age groups

sector: Urban sex: Male

population

Table 2: Children in different age groups

sector: Urban sex: Female

population

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1f: Sample numbers by district and age-group

sector: Urban sex: Male+ Female

district	population age group					
	5 DAI	6-10	11-15	16-17	18-24	25-29
KSD5	340	304	68	17	22	205
KNR	71	46	71	49	69	51
WND	8	1	7	8	4	3
KKD8	608	748	182	514	89	
MLP9	125	68	85	220	58	94
PKD	65	2	742	234	22	85
TSL	9	63	96	52	54	183
EKM7	789	5	45	162	40	14
IDK 2	14	5	8	4	5	3
KTM	23	6	31	18	9	1349
ALP 5	264	21	28	93	244	28
PTA 0	314	84	30	7	10	
KLM	48	0	394	28	37	2
TVM	64	16	516	48	32	70
ALL05	5977	443	1528	1457	596	

1f: Sample numbers by district and age-groups

sector: Urban sex: Male+ Female

population age group

district | 5 DAI | 6-10 | 11-15 | 16-17 | 18-24 | 25-29

KSD5 | 340 | 304 | 68 | 17 | 22 | 205

KNR | 71 | 46 | 71 | 49 | 69 | 51

WND | 8 | 1 | 7 | 8 | 4 | 3

KKD8 | 608 | 748 | 182 | 514 | 89 |

MLP9 | 125 | 68 | 85 | 220 | 58 | 94

PKD | 65 | 2 | 742 | 234 | 22 | 85

TSL | 9 | 63 | 96 | 52 | 54 | 183

EKM7 | 789 | 5 | 45 | 162 | 40 | 14

IDK 2 | 14 | 5 | 8 | 4 | 5 | 3

KTM | 23 | 6 | 31 | 18 | 9 | 1349

ALP 5 | 264 | 21 | 28 | 93 | 244 | 28

PTA 0 | 314 | 84 | 30 | 7 | 10 |

KLM | 48 | 0 | 394 | 28 | 37 | 2

TVM | 64 | 16 | 516 | 48 | 32 | 70

ALL05 | 5977 | 443 | 1528 | 1457 | 596 |

1g: Sample numbers by district and age-groups

sector: Rural+ Urban sex: Male

District	population age group					
	5 DAI	6-10	11-15	16-17	18-24	25-29
KSD	387	234	70	22	227	25
KNR	349	384	112	83	14	50
WND	34	16	9	20	17	167
KKD	78	8	405	314	604	391
MLP	907	55	65	237	685	911
PKD	460	36	121	86	333	42
TSR	70	364	111	40	36	343
EKM	61	10	206	7	30	4908
IDK	12	4	29	15	14	1547
KTM	348	37	34	84	239	29
ALP	41	31	30	94	29	30
PTA	28	3	225	68	15	176
KLM	58	7	42	35	30	03
TVM	48	53	28	137	409	54
ALP6	1789	416	1483	65	782	549

1g: Sample numbers by district and age-groups

sector: Rural+ Urban sex: Male

population age group

District | 5 DAI | 6-10 | 11-15 | 16-17 | 18-24 | 25-29

KSD | 387 | 234 | 70 | 22 | 227 | 25

KNR | 349 | 384 | 112 | 83 | 14 | 50

WND | 34 | 16 | 9 | 20 | 17 | 167

KKD | 78 | 8 | 405 | 314 | 604 | 391

MLP | 907 | 55 | 65 | 237 | 685 | 911

PKD | 460 | 36 | 121 | 86 | 333 | 42

TSR | 70 | 364 | 111 | 40 | 36 | 343

EKM | 61 | 10 | 206 | 7 | 30 | 4908

IDK | 12 | 4 | 29 | 15 | 14 | 1547

KTM | 348 | 37 | 34 | 84 | 239 | 29

ALP | 41 | 31 | 30 | 94 | 29 | 30

PTA | 28 | 3 | 225 | 68 | 15 | 176

KLM | 58 | 7 | 42 | 35 | 30 | 03

TVM | 48 | 53 | 28 | 137 | 409 | 54

ALP6 | 1789 | 416 | 1483 | 65 | 782 | 549

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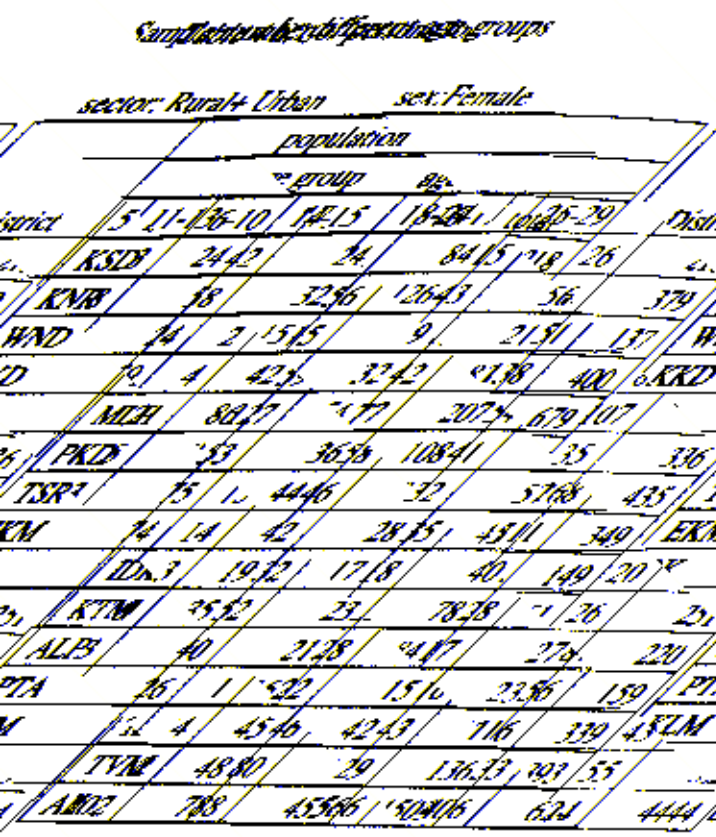
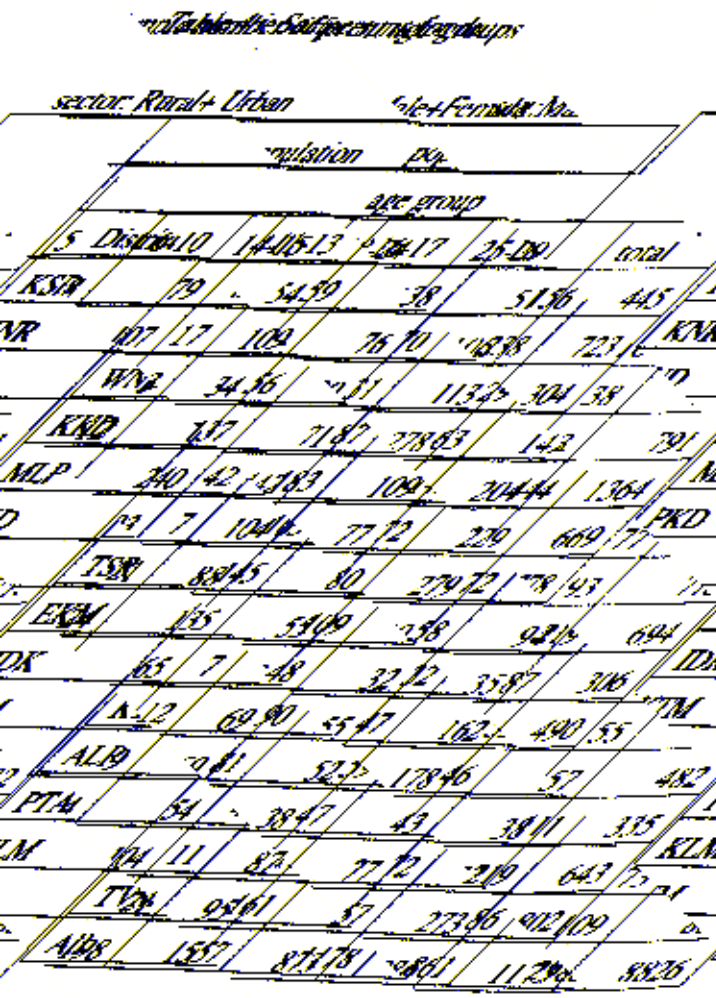
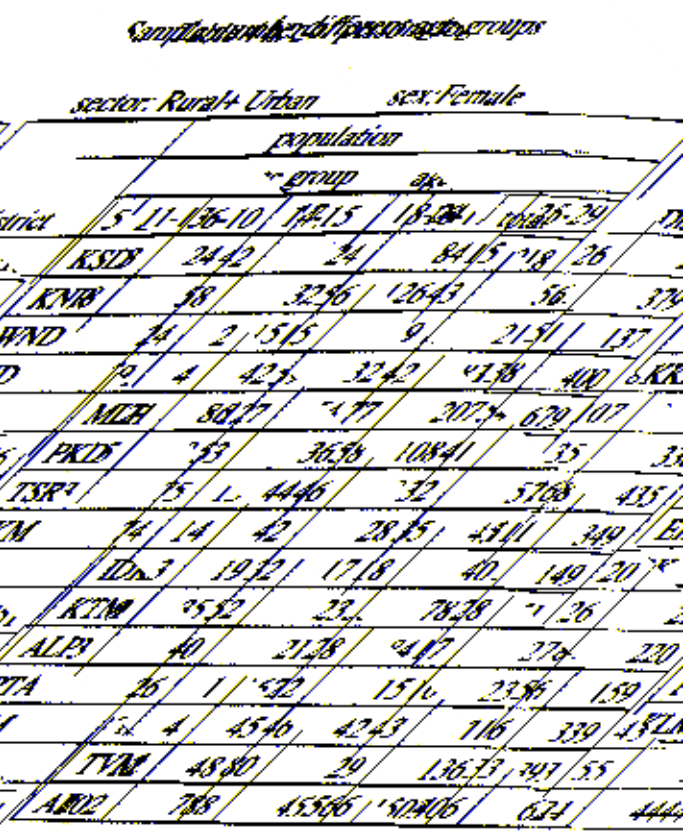




Appendix A



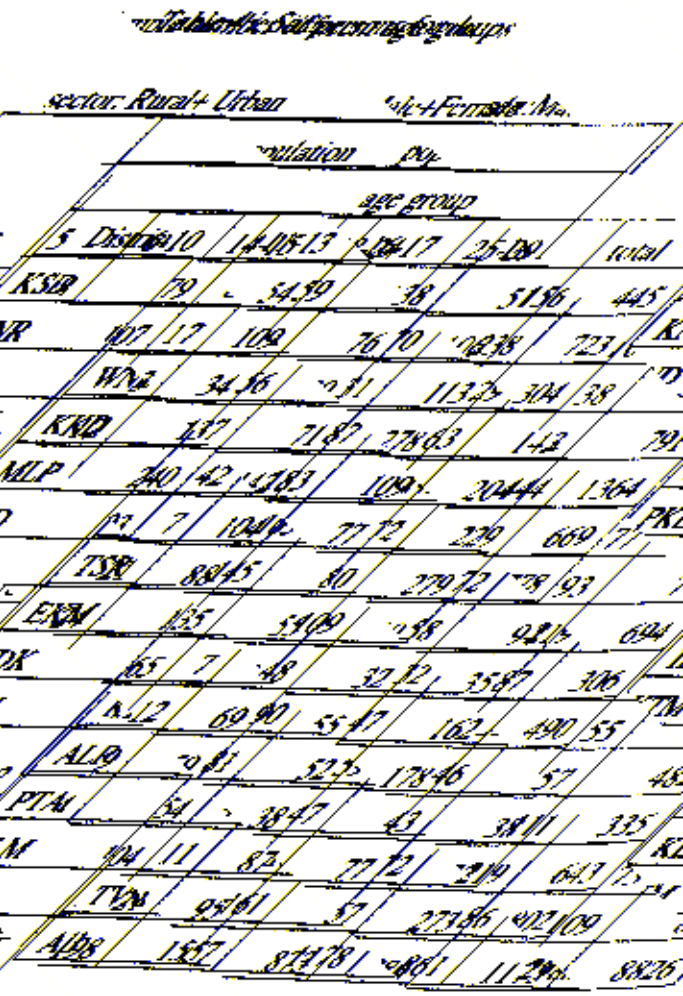


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Table A: Population (000) by district and age-groups

sector: Rural sex: Male

population (000)

District	age group 5	11-13	14-15	16-24	10 & 25-29	total
KSD	19	27	7	6	9	92
KNR	51	19	15	51	7	155
WND	7	3	1	2	0	12
KKD	56	4	2	5	1	17
MLP	20	34	10	16	6	88
PKD	51	6	3	9	4	23
TSR	61	4	1	8	4	18
EKM	29	4	2	9	1	22
IDK	4	4	2	1	0	11
KTM	3	6	3	4	2	19
ALP	3	2	1	5	2	13
PTA	9	3	1	2	1	16
KLM	3	7	2	7	2	21
TVM	2	4	2	7	2	17
All	63	16	8	94	29	239

Table A: Population (000) by district and age-groups

sector: Rural sex: Male

population (000)

District	age group 5	11-13	14-15	16-24	10 & 25-29	total
KSD	19	27	7	6	9	92
KNR	51	19	15	51	7	155
WND	7	3	1	2	0	12
KKD	56	4	2	5	1	17
MLP	20	34	10	16	6	88
PKD	51	6	3	9	4	23
TSR	61	4	1	8	4	18
EKM	29	4	2	9	1	22
IDK	4	4	2	1	0	11
KTM	3	6	3	4	2	19
ALP	3	2	1	5	2	13
PTA	9	3	1	2	1	16
KLM	3	7	2	7	2	21
TVM	2	4	2	7	2	17
All	63	16	8	94	29	239

Table B: Population (000) by district and age-groups

sector: Rural sex: Female

population (000)

District	age group 5	11-13	14-15	16-24	10 & 25-29	total
KSD	19	27	7	6	9	92
KNR	51	19	15	51	7	155
WND	7	3	1	2	0	12
KKD	56	4	2	5	1	17
MLP	20	34	10	16	6	88
PKD	51	6	3	9	4	23
TSR	61	4	1	8	4	18
EKM	29	4	2	9	1	22
IDK	4	4	2	1	0	11
KTM	3	6	3	4	2	19
ALP	3	2	1	5	2	13
PTA	9	3	1	2	1	16
KLM	3	7	2	7	2	21
TVM	2	4	2	7	2	17
All	63	16	8	94	29	239

Table B: Population (000) by district and age-groups

sector: Rural sex: Female

population (000)

District	age group 5	11-13	14-15	16-24	10 & 25-29	total
KSD	19	27	7	6	9	92
KNR	51	19	15	51	7	155
WND	7	3	1	2	0	12
KKD	56	4	2	5	1	17
MLP	20	34	10	16	6	88
PKD	51	6	3	9	4	23
TSR	61	4	1	8	4	18
EKM	29	4	2	9	1	22
IDK	4	4	2	1	0	11
KTM	3	6	3	4	2	19
ALP	3	2	1	5	2	13
PTA	9	3	1	2	1	16
KLM	3	7	2	7	2	21
TVM	2	4	2	7	2	17
All	63	16	8	94	29	239

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Table A: Population (000) by District and age-groups

sector: Rural sex: Male + Female

District	population (000)				
	age group				
	All ages	0-4	5-9	10-14	15-19
KSD	424.463	261	86015	78306.9	
KNR	404	353.401	97.836	631	3498
WND	705.28	318.368	161	59004	3135
KKD	869.03	374	228.233	98017	38104
MLP	2223.638	99471	334.84	132810	
PKD	39151	6700	17581.3	7290	681.6
TSR	1043.6	516.529	344	13827	6303
EKM	573.25	685	287.167	408.92	3437
IDK	398.606	349.462	768	33882	
KTM	682.047	408	135.456	65891	
ALP	508	331.412	73403	736	3496
PTA	554.82	317.364	379.6	50892	3116
KLM	704.45	665	640.456	1171	45036
TVM	889.428	406	160.864	59380.57	
ARP	12683	6389.239	3571.3	1251.4	68380

Table A: Population (000) by District and age-groups

sector: Rural sex: Male + Female

Table B: Population (000) by District and age-groups

sector: Urban sex: Male

District	population (000)				
	age group				
	All ages	0-4	5-9	10-14	15-19
KSD	190	114.6	402	17.296	1036
KNR	265.57	295	191.23	109.87	1907
WND	14.3	13	9	21.6	70.6
KKD	972	208.6	124.283	926	4134
MLP	462.6	226.75	234	207.56	3412
PKD	171	0	133.6	114.87	93.7
TSR	312.66	160	472.46	207.98	
EKM	706	186.24	93.62	123.6	4107
IDK	28	4	15.8	11.6	0.17
KTM	5.1	0	98.26	71.65	227
ALP	183.69	203	618.65	830	
PTA	20	21.30	18	40.82	161
KLM	348.85	244	131.177	108.65	1820
TVM	1693	423.68	97.146	750.6	3318.63
ARP	4807	4824	1985.4	1482.13	5230

Table B: Population (000) by District and age-groups

sector: Urban sex: Male

Table A1: Population (000) by district and age-groups

sector: Urban sex: Female

population (000)

District	age group 5	11-16	10	14-15	15	18-24	total	25-29
KSUM	93	78	4	105	258	4+	783	00
KNR	7	31	19	04	65	37	4	562
WND	1	2	_	3	6	5	11	28
KKD	682	15	442	32	39	1	85	59
MLP	30	52	4	17	22	39	7	47
PKD	19	65	8	13	9	34	2	58
TSR	45	6	24	89	2	4	21	52
EKM	79	0	60	7	04	26	4	95
IDK	1	2	8	3	2	8	0	30
KTM	14	2	4	9	19	17	2	63
ALP	29	6	16	8	7	12	21	30
PTA	2	5	_	16	8	14	39	62
KLM	9	5	9	24	9	16	2	48
TVM	33	8	7	24	5	1	86	5_
All	40	9	26	23	6	80	8	98

Table A1: Population (000) by district and age-groups

sector: Urban sex: Female

population (000)

District	age group 5	11-16	10	14-15	15	18-24	total	25-29
KSUM	93	78	4	105	258	4+	783	00
KNR	7	31	19	04	65	37	4	562
WND	1	2	_	3	6	5	11	28
KKD	682	15	442	32	39	1	85	59
MLP	30	52	4	17	22	39	7	47
PKD	19	65	8	13	9	34	2	58
TSR	45	6	24	89	2	4	21	52
EKM	79	0	60	7	04	26	4	95
IDK	1	2	8	3	2	8	0	30
KTM	14	2	4	9	19	17	2	63
ALP	29	6	16	8	7	12	21	30
PTA	2	5	_	16	8	14	39	62
KLM	9	5	9	24	9	16	2	48
TVM	33	8	7	24	5	1	86	5_
All	40	9	26	23	6	80	8	98

Table A1: Population (000) by district and age-groups

sector: Urban sex: Male+ Female

population (000)

District	age group 5	11-16	10	14-15	15	18-24	total	25-29
KSUM	93	78	4	105	258	4+	783	00
KNR	7	31	19	04	65	37	4	562
WND	1	2	_	3	6	5	11	28
KKD	682	15	442	32	39	1	85	59
MLP	30	52	4	17	22	39	7	47
PKD	19	65	8	13	9	34	2	58
TSR	45	6	24	89	2	4	21	52
EKM	79	0	60	7	04	26	4	95
IDK	1	2	8	3	2	8	0	30
KTM	14	2	4	9	19	17	2	63
ALP	29	6	16	8	7	12	21	30
PTA	2	5	_	16	8	14	39	62
KLM	9	5	9	24	9	16	2	48
TVM	33	8	7	24	5	1	86	5_
All	40	9	26	23	6	80	8	98

Table A1: Population (000) by district and age-groups

sector: Urban sex: Male+ Female

population (000)

District	age group 5	11-16	10	14-15	15	18-24	total	25-29
KSUM	93	78	4	105	258	4+	783	00
KNR	7	31	19	04	65	37	4	562
WND	1	2	_	3	6	5	11	28
KKD	682	15	442	32	39	1	85	59
MLP	30	52	4	17	22	39	7	47
PKD	19	65	8	13	9	34	2	58
TSR	45	6	24	89	2	4	21	52
EKM	79	0	60	7	04	26	4	95
IDK	1	2	8	3	2	8	0	30
KTM	14	2	4	9	19	17	2	63
ALP	29	6	16	8	7	12	21	30
PTA	2	5	_	16	8	14	39	62
KLM	9	5	9	24	9	16	2	48
TVM	33	8	7	24	5	1	86	5_
All	40	9	26	23	6	80	8	98

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Table 8: Population (00) by district and age-groups

sector: Rural+ Urban sex: Male

District	age group					
	0-4	5-9	10-14	15-19	20-24	25-29
KSDS	389	356	253	568	99	228
KNR	502	371	570	446	818	374
WND	364	171	223	153	272	122
KKD	1298	82	728	442	367	1062
MLP	1716	628	1407	2388	8080	29
PKD	36	713	414	264	47	171
TSR	860	341	541	404	971	885
EKM	932	812	1053	348	346	449
IDK	180	224	22	99	165	441
KTM	464	380	265	988	99	264
ALP	631	441	404	780	738	3925
PTA	350	73	240	241	168	74
KLM	728	12	565	423	382	1105
TVM	881	210	413	1518	837	6278
ABD	107	19	463	854	82	1176

Table 8: Population (00) by district and age-groups

sector: Rural+ Urban sex: Male

District	age group					
	0-4	5-9	10-14	15-19	20-24	25-29
KSDS	389	356	253	568	99	228
KNR	502	371	570	446	818	374
WND	364	171	223	153	272	122
KKD	1298	82	728	442	367	1062
MLP	1716	628	1407	2388	8080	29
PKD	36	713	414	264	47	171
TSR	860	341	541	404	971	885
EKM	932	812	1053	348	346	449
IDK	180	224	22	99	165	441
KTM	464	380	265	988	99	264
ALP	631	441	404	780	738	3925
PTA	350	73	240	241	168	74
KLM	728	12	565	423	382	1105
TVM	881	210	413	1518	837	6278
ABD	107	19	463	854	82	1176

Table 9: Population (00) by district and age-groups

sector: Rural+ Urban sex: Female

District	age group					
	0-4	5-9	10-14	15-19	20-24	25-29
KSDS	475	227	243	162	448	246
KNR	688	91	609	455	385	792
WND	165	166	159	521	155	340
KKD	764	87	552	404	842	157
MLP	1996	2	1020	287	660	1685
PKD	717	63	770	538	492	1778
TSR	597	104	579	228	407	163
EKM	1134	52	1660	388	1135	1
IDK	364	2	217	169	122	357
KTM	1215	456	2	1127	865	3114
ALP	413	842	257	1234	209	813
PTA	249	180	241	170	418	12
KLM	666	67	643	515	599	1291
TVM	1180	266	484	340	1708	7
ABD	1431	4	587	860	247	1175

Table 9: Population (00) by district and age-groups

sector: Rural+ Urban sex: Female

District	age group					
	0-4	5-9	10-14	15-19	20-24	25-29
KSDS	475	227	243	162	448	246
KNR	688	91	609	455	385	792
WND	165	166	159	521	155	340
KKD	764	87	552	404	842	157
MLP	1996	2	1020	287	660	1685
PKD	717	63	770	538	492	1778
TSR	597	104	579	228	407	163
EKM	1134	52	1660	388	1135	1
IDK	364	2	217	169	122	357
KTM	1215	456	2	1127	865	3114
ALP	413	842	257	1234	209	813
PTA	249	180	241	170	418	12
KLM	666	67	643	515	599	1291
TVM	1180	266	484	340	1708	7
ABD	1431	4	587	860	247	1175

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Estimated population by district and age-group

sector: Rural+Urban sex: Male+Female

District	population ('00) age group 5-10	11-15	16-17	18-24	total 5-24
KSD	3187	6334	3614	8014	14744
KNR	2187	4390	2156	7221	11768
WND	1640	3308	1653	5621	8582
KKD	2284	4203	2184	7820	12069
MLP	3826	7603	3744	13408	18288
PKD	2714	5384	2985	9405	14439
TSR	3386	6720	3320	11886	16280
EKM	2069	4107	2341	7236	11690
IDK	1386	2754	1528	4728	6631
KTM	1827	3620	2104	6537	8432
ALP	2312	4617	2589	8098	12404
PTA	1249	2479	1374	4286	6087
KLM	1417	2812	1583	4906	7386
TVM	2498	4964	2780	8630	12328
All	31938	63421	35163	109410	162439

Estimated number of children (5-14) by school attendance status

sector: Rural+Urban sex: Male+Female

District	Currently not attending	Currently attending but not enrolled	estimated total (5-14)	Persons aged 5-24 estimated total
KSD	3687	5400	27863	27863
KNR	3641	6218	34891	34891
WND	2658	5980	31254	31254
KKD	4386	10000	37403	37403
MLP	6218	14000	52706	52706
PKD	2931	6370	24163	24163
TSR	3331	6370	24163	24163
EKM	1863	10000	34363	34363
IDK	1126	3200	13748	13748
KTM	1827	6200	24583	24583
ALP	3471	6200	34901	34901
PTA	1249	6200	31054	31054
KLM	1417	2812	45023	45023
TVM	2498	10000	59904	59904
All	3140	6300	68240	68240
est. persons	31938	63421	68240	68240
sample	314	630	6824	6824

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Estimated population by district and age-groups

sector: Rural+Urban sex: Male+Female

population ('00) age group

Estimated number of children (5-14) by school attendance status

Percentage of persons age 5-29 yrs. by status

Persons aged 5-24

Currently not attending

Currently attending but not enrolled

estimated total

sample

est. persons

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Table 6 Unemployment duration by gender and current attendance status

Disp.	Currently not enrolled	Currently enrolled (attending or not attending)	Estimated (000)	Est. sample
Kb.	6869	11000	2880	[illegible]
KNR	327	62152	444100	466
W.	6826	01000	630.78	ND
KKD	401	58118	823000	513
ML	6890	51000	6890.2	QP
PKD	223	64932	958000	246
[illegible]	6883	14000	4822.0	TQR
EKM	362	61721	821000	513
[illegible]	8828	01000	286.72	JDK
KTM	250	7500	1571067	139
[illegible]	6824	11000	3025.6	ALP
PTA	318	6820	1351000	81
[illegible]	6868	01000	3843.2	KLM
TVM	371	6236	630000	457
[illegible]	6884	23000	4800	All
est. persons aged 5–29	38	32202	5083	
sample persons	1861	30450		

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Table 6 Unemployment duration by gender and current attendance status

Disp. | Currently not enrolled | Currently enrolled (attending or not attending) | Estimated (000) | Est. sample

Kb. 6869 | 11000 | 2880 | [illegible]

KNR 327 | 62152 | 444100 | 466

W. 6826 | 01000 | 630.78 | ND

KKD 401 | 58118 | 823000 | 513

ML 6890 | 51000 | 6890.2 | QP

PKD 223 | 64932 | 958000 | 246

[illegible] 6883 | 14000 | 4822.0 | TQR

EKM 362 | 61721 | 821000 | 513

[illegible] 8828 | 01000 | 286.72 | JDK

KTM 250 | 7500 | 1571067 | 139

[illegible] 6824 | 11000 | 3025.6 | ALP

PTA 318 | 6820 | 1351000 | 81

[illegible] 6868 | 01000 | 3843.2 | KLM

TVM 371 | 6236 | 630000 | 457

[illegible] 6884 | 23000 | 4800 | All

est. persons aged 5–29 | 38 | 32202 | 5083

sample persons | 1861 | 30450

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Table 6 Rural Estimated distribution of persons by current attendance status

district	sample persons	estimated all persons aged 5-29 attending	Currently enrolled but not attending	Currently enrolled	Percentage distribution of persons aged 5-29 by current attendance status
ISD	368	3000	106.506		42
ANR	824	3000.981		722	
UND	398	4000	000.446		38
NKD	883	000.37		289	
MLP	381	4000	000.48		
TKD	883	000.688		669	
TSR	884	1000	000.69		
MKM	537	0006		693	
IDK	363	2000	000.615		
TM	596	000.449		490	
ALP	838	1000	000.005		
TA	871	000.7		334	
KLM	883	4000	000.554		
VM	836	0000.27		801	
All	836	3000	2.8	18306.	
3 persons aged 5-29		000.88	11908.		
sample persons	6000	8008			

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Table 6 Rural Estimated distribution of persons by current attendance status

district | sample persons | estimated all persons aged 5-29 attending | Currently enrolled but not attending | Currently enrolled | Percentage distribution of persons aged 5-29 by current attendance status

ISD 368 3000 106.506 42
ANR 824 3000.981 722
UND 398 4000 000.446 38
NKD 883 000.37 289
MLP 381 4000 000.48
TKD 883 000.688 669
TSR 884 1000 000.69
MKM 537 0006 693
IDK 363 2000 000.615
TM 596 000.449 490
ALP 838 1000 000.005
TA 871 000.7 334
KLM 883 4000 000.554
VM 836 0000.27 801
All 836 3000 2.8 18306.
3 persons aged 5-29 000.88 11908.
sample persons 6000 8008

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Table [illegible] Gross Attendance Ratio by Level of Educa...

	Gross Attendance Ratio								
	Rural			Urban			Rural+Urban		
	Male+			Male+			Male+		
	Male	Female	Female	Male	Female	Female	Male	Female	Female
KSD	105	101	106	99	104	104	99	103	
KNR	103	104	102	98	102	100	100		101
WND	99	94	101	116	94	103	110	94	101
[illegible]	96	99	105	101	96	101	99		
MLP	104	114	105	100	107	100	105	103	
PKD	89	96	92	94	95	93	91		92
TSR	107	103	105	106	95	101	107	99	103
[illegible]	89	88	92	97	102	92	94		
[illegible]	101	94	100	109	98	104	100	103	
KTM	98	99	96	108	95	102	100		98
ALP	83	103	93	83	115	99	87	109	97
[illegible]	107	112	94	91	88	102	106	107	
[illegible]	102	100	98	76	96	85	94	91	
TVM	95	108	99	93	101	96	94		98
	100	100	100	97	101	99	98	100	99

Table [illegible] Gross Attendance Ratio by Level of Educa...

	Gross Attendance Ratio								
	Rural			Urban			Rural+Urban		
	Male+			Male+			Male+		
	Male	Female	Female	Male	Female	Female	Male	Female	Female
KSD	105	101	106	99	104	104	99	103	
KNR	103	104	102	98	102	100	100		101
WND	99	94	101	116	94	103	110	94	101
[illegible]	96	99	105	101	96	101	99		
MLP	104	114	105	100	107	100	105	103	
PKD	89	96	92	94	95	93	91		92
TSR	107	103	105	106	95	101	107	99	103
[illegible]	89	88	92	97	102	92	94		
[illegible]	101	94	100	109	98	104	100	103	
KTM	98	99	96	108	95	102	100		98
ALP	83	103	93	83	115	99	87	109	97
[illegible]	107	112	94	91	88	102	106	107	
[illegible]	102	100	98	76	96	85	94	91	
TVM	95	108	99	93	101	96	94		98
	100	100	100	97	101	99	98	100	99

Gross [illegible] Ratio [illegible] Higher than Education

	[illegible] Ratio								
	Rural			Urban			Rural+Urb...		
	Male+			Male+			Male+		
	Male	Female	Female	Male	Female	Female	Male	Female	Female
KSD	87	71	79	114	105	109	97	87	92
KNR	163	94	79	102	99	96	107	97	85
WND	77	109	94	106	63	105	105	107	
KKD	100	97	105	102	100	100	102		101
MLP	94	110	101	115	93	103	99	105	102
PKD	145	107	100	106	118	130	113	109	100
TSR	96	109	105	101	121	108	99		
[illegible]	138	162	135	83	150	110	96		117
IDK	100	121	107	51	106	96	99	119	106
KTM	145	124	135	110	111	111	114	121	150
ALP	85	133	96	106	119	95	106	125	
PDA	95	104	87	117	82	110	97		89
KLM	99	121	107	132	108	122	111	115	113
TVM	92	103	122	108	113	121	100	108	121
	108	102	108	107	107	108	106	104	

Gross [illegible] Ratio [illegible] Higher than Education

	[illegible] Ratio								
	Rural			Urban			Rural+Urb...		
	Male+			Male+			Male+		
	Male	Female	Female	Male	Female	Female	Male	Female	Female
KSD	87	71	79	114	105	109	97	87	92
KNR	163	94	79	102	99	96	107	97	85
WND	77	109	94	106	63	105	105	107	
KKD	100	97	105	102	100	100	102		101
MLP	94	110	101	115	93	103	99	105	102
PKD	145	107	100	106	118	130	113	109	100
TSR	96	109	105	101	121	108	99		
[illegible]	138	162	135	83	150	110	96		117
IDK	100	121	107	51	106	96	99	119	106
KTM	145	124	135	110	111	111	114	121	150
ALP	85	133	96	106	119	95	106	125	
PDA	95	104	87	117	82	110	97		89
KLM	99	121	107	132	108	122	111	115	113
TVM	92	103	122	108	113	121	100	108	121
	108	102	108	107	107	108	106	104	

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Table 8.1 Gross Attendance Ratio for Pre-degree Schools of Education

District	Gross Attendance Ratio								
	Rural			Urban			Rural+Urban		
	Male	Female	Male+ Female	Male	Female	Male+ Female	Male	Female	Male+ Female
KSD	71	19	17	11	4	20	17	15	
KNR	29	14	18	18	11	17	22		
WND	10	11	10	20	43	28	11	11	11
KKD	19	14	18	19	197	20	19	17	
MLP	14	12	13	11	14	14	13		
PKD	28	107	17	16	12	18	24		
TSR	24	22	29	29	21	26	32	22	28
EKM	21	35	21	23	25	18	22	27	
IDK	25	54	21	65	18	623	28		
KTM	37	17	22	32	394	36	28		
ALP	20	20	24	233	30	26	31	20	25
PTA	22	21	39	35	33	24	23	23	
KLM	28	15	26	23	19	30	26		
TVM	31	28	24	26	20	23	23	23	
ALL	27	20	23	19	21	233	18	21	

Table 8.1 Gross Attendance Ratio for Pre-degree Schools of Education

District	Gross Attendance Ratio								
	Rural			Urban			Rural+Urban		
	Male	Female	Male+ Female	Male	Female	Male+ Female	Male	Female	Male+ Female
KSD	71	19	17	11	4	20	17	15	
KNR	29	14	18	18	11	17	22		
WND	10	11	10	20	43	28	11	11	11
KKD	19	14	18	19	197	20	19	17	
MLP	14	12	13	11	14	14	13		
PKD	28	107	17	16	12	18	24		
TSR	24	22	29	29	21	26	32	22	28
EKM	21	35	21	23	25	18	22	27	
IDK	25	54	21	65	18	623	28		
KTM	27	17	22	32	394	36	28		
ALP	20	20	24	233	30	26	31	20	25
PTA	22	21	39	35	33	24	23	23	
KLM	28	15	26	23	19	30	26		
TVM	21	28	24	26	20	23	23	23	
ALL	20	20	23	19	21	233	18	21	

Table 8.2 Net Attendance Ratio for Pre-degree Schools of Education

District	Net Attendance Ratio								
	Rural			Urban			Rural+Urban		
	Male	Female	Male+ Female	Male	Female	Male+ Female	Male	Female	Male+ Female
KSD	92	87	90	91	97	94	92	91	91
KNR	92	89	93	94	95	94	93	93	
WND	98	82	92	83	87	837	97		
KKD	83	90	87	88	847	86	87		
MLP	91	75	78	86	87	86	83	78	80
PKD	76	72	78	84	88	80	78	76	
TSR	83	92	82	93	86	937	88		
EKM	75	739	74	80	78	80	78		
IDK	97	83	85	91	76	87	88	82	85
KTM	85	86	74	83	90	82	84	87	
ALP	71	89	73	59	82	734	65		
PTA	95	81	87	80	82	87	94		
KLM	90	78	84	71	92	82	82	85	83
TVM	80	78	81	80	79	81	80	78	
ALL	83	86	82	84	83	883	83		

Table 8.2 Net Attendance Ratio for Pre-degree Schools of Education

District	Net Attendance Ratio								
	Rural			Urban			Rural+Urban		
	Male	Female	Male+ Female	Male	Female	Male+ Female	Male	Female	Male+ Female
KSD	92	87	90	91	97	94	92	91	91
KNR	92	89	93	94	95	94	93	93	
WND	98	82	92	83	87	837	97		
KKD	83	90	87	88	847	86	87		
MLP	91	75	78	86	87	86	83	78	80
PKD	76	72	78	84	88	80	78	76	
TSR	83	92	82	93	86	937	88		
EKM	75	739	74	80	78	80	78		
IDK	97	83	85	91	76	87	88	82	85
KTM	85	86	74	83	90	82	84	87	
ALP	71	89	73	59	82	734	65		
PTA	95	81	87	80	82	87	94		
KLM	90	78	84	71	92	82	82	85	83
TVM	80	78	81	80	79	81	80	78	
ALL	83	86	82	84	83	883	83		

Table 11: Net Attendance Ratio by Residence and by Levels of Edn.

District	Net Attendance Ratio							
	Rural		Urban		Rural+Urban			
	Male	Female	Male	Female	Male	Female		
KSD	85	94	72	92	75	92	91	88
KNR	71	91	80	83	71	80	77	77
WND	67	69	53	46	50	70	66	67
KKD	82	90	60	72	82	62	74	84
MLP	77	57	77	88	70	72	80	
PKD	75	72	73	87	86	86	77	75
TSR	93	69	54	83	89	94	73	88
EKM	84	86	84	65	86	76	69	
IDK	87	92	83	51	75	81	87	83
KTM	83	84	84	71	85	79	80	85
ALP	77	63	69	70	72	77	74	68
PTA	70	91	65	60	64	77	56	69
KLM	91	88	90	96	95	91	95	93
TVM	70	78	90	79	76	81	75	77
ADR	77	78	76	78	81	76	78	79

Table 12: Net Attendance Ratio for Scheduled Castes by Residence and by Levels of Edn.

District	Net Attendance Ratio							
	Rural		Urban		Rural+Urban			
	Male	Female	Male	Female	Male	Female		
KSD	24	21	19	17	11	4	20	17
KNR	24	13	165	16	11	15	19	
WND	10	43	10	20	11	28	11	
KKD	14	28	19	17	16	17	16	19
MLP	15	14	14	12	11	11	13	14
PKD	16	26	20	18	16	12	16	23
TSR	34	21	29	29	22	26	32	
EKM	35	11	21	23	21	22	36	16
IDK	22	18	19	57	54	57	24	18
KTM	22	27	37	35	32	23	25	28
ALP	29	30	34	29	20	24	34	29
PTA	19	35	21	33	24	33	21	
KLM	28	23	26	23	15	20	26	19
TVM	28	24	21	20	22	25	23	23
ADR	20	22	19	200	21	18	20	22

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Table 11: Net Attendance Ratio by Residence and by Levels of Edn.

Table 12: Net Attendance Ratio for Scheduled Castes by Residence and by Levels of Edn.

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Table 13 Age specific Attendance Ratio (Age group 6-)

District	Age specific Attendance Ratio							
	Rural		Urban		Rural+Urban			
	Male	Female	Male+ Female		Male	Female	Male+ Female	
KSD	98	97	98	100	99	95	99	
KNR	91	99	94	99	98	99	96	97
WND	100	88	94	100	100	100	88	94
KKD	99	96	97	98	96	97	97	96
MLP	97	93	95	96	99	96	96	
PKD	92	100	96	100	100	100	94	97
TSR	92	100	96	100	98	99	96	99
EKM	97	99	100	99	91	95	91	93
IDK	100	100	100	100	100	99	100	100
KTM	100	100	99	94	98	97	99	98
ALP	100	88	94	85	100	98	92	93
PTA	98	99	100	100	100	100	98	99
KLM	100	100	100	92	82	100	96	92
TVM	100	95	100	100	98	97	100	99
All	97	97	97	95	97	96	96	96

Table 14 : District wise Attendance Ratio (age group 11-13 years)

District	Age specific Attendance Ratio							
	Rural		Urban		Rural+Urban			
	Male	Female	Male+ Female		Male	Female	Male+ Female	
KSD	100	100	100	100	100	100	100	100
KNR	100	100	100	100	100	100	100	100
WND	100	100	100	100	100	100	100	100
KKD	100	100	100	100	100	100	100	100
MLP	100	100	100	100	100	100	100	100
PKD	100	100	100	100	100	100	100	100
TSR	100	100	100	100	100	100	100	100
EKM	100	100	100	98	100	100	99	99
IDK	100	100	100	100	100	100	100	100
KTM	100	100	100	100	100	100	100	100
ALP	100	95	89	100	100	100	97	98
PTA	100	100	100	100	100	100	100	100
KLM	100	100	100	100	100	100	100	100
TVM	100	100	100	100	100	100	100	100
All	100	100	100	100	100	100	100	100

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Table 13 Age specific Attendance Ratio (Age group 6-)

Table 14 : District wise Attendance Ratio (age group 11-13 years)

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Table 15: District-wise Age-specific Attendance Ratio (Age Group 14-17)

District	Age-specific Attendance Ratio					
	Rural		Urban		Rural+Urban	
	Male	Female	Male	Female	Male	Female
KSD	99	100	97	100	97	100
KNR	94	96	93	97	93	96
WND	99	100	100	100	87	90
KKD	94	100	100	99	99	96
MLP	99	97	97	100	96	99
PKD	88	96	91	100	93	96
TSR	99	100	100	100	93	97
EKM	97	100	100	100	100	97
IDK	100	100	100	100	100	100
KTM	100	100	100	100	100	100
ALP	99	100	98	99	98	99
PTA	93	100	100	100	100	88
KLM	99	96	99	100	98	98
TVM	100	95	97	99	97	99
All	99	99	97	99	97	98

Table 16: District-wise Age-specific Attendance Ratio (Age Group 18-23) for 3rd year

District	Age-specific Attendance Ratio					
	Rural		Urban		Rural+Urban	
	Male	Female	Male	Female	Male	Female
KSD	70	25	62	44	25	70
KNR	25	66	31	25	62	19
WND	20	43	20	20	19	28
KKD	17	30	24	22	25	22
MLP	17	30	23	18	23	21
PKD	14	22	30	24	26	27
TSR	40	29	39	36	34	33
EKM	42	20	33	26	30	28
IDK	27	24	26	27	54	27
KTM	25	61	37	51	49	45
ALP	23	42	27	34	32	38
PTA	29	33	30	46	34	39
KLM	43	30	32	31	24	29
TVM	34	41	25	27	29	30
All	28	28	28	27	28	28

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Table 15: District-wise Age-specific Attendance Ratio (Age Group 14-17)

Table 16: District-wise Age-specific Attendance Ratio (Age Group 18-23) for 3rd year

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Per cent distribution by type of education

	Type of education			
	Rural	Urban	Rural-Urban	
	Technical/ Vocational	Technical/ Vocational	Technical/ Vocational	
KSL947	923	967	58	
KNW77	923	883	418	
WND	996	907	996	
KK.823	886	886		
MLP92	908	968	52	
PKD924	928	924	76	
TSR	209	849	883	
KM	883	850	948	
IDK927	874	916	84	
KTM77	789	886	147	
ALP	890	883	853	
PTA	888	886	849	
KLM888	823	887		
TVM896	884	889	111	
ALL892	908	899	916	

Per cent distribution by type of education

	Type of education			
	Rural	Urban	Rural-Urban	
	Technical/ Vocational	Technical/ Vocational	Technical/ Vocational	
KSL947	923	967	58	
KNW77	923	883	418	
WND	996	907	996	
KK.823	886	886		
MLP92	908	968	52	
PKD924	928	924	76	
TSR	209	849	883	
KM	883	850	948	
IDK927	874	916	84	
KTM77	789	886	147	
ALP	890	883	853	
PTA	888	886	849	
KLM888	823	887		
TVM896	884	889	111	
ALL892	908	899	916	

Per cent distribution of primary, upper primary and higher sec

type of institution

	Rural			Urban			Rural+ Urban		
	Government		Govt./ Unaided	Government		Govt./ Unaided	Government		Govt./ Unaided
	Govt.	Aided		Govt.	Aided		Govt.	Aided	
KSD	0	92	771	0	229	850	0	150	
KNR	128	741	07	259	797	0	203		
WND	252	493	0	307	745	0	255		
KKD	217	778	4	247	749	4	238	758	4
ALP	823	0	1775	155	0	2456	804	0	
IDK	9	189	692	0	308	784	0	216	
TSR	482	674	0	326	592	0	408		
EKM	374	626	0	459	541	0	432	568	0
IDK	5735	0	2650	340	0	4282	718	0	
KTM	0	392	629	0	371	613	0	387	
ALP	302	606	0	394	649	0	851		
PTA	307	693	7	0	603	3667	0	3330	
KLM	764	736	0	4220	580	0	3306	770	0
TVM	0	263	504	16	479	628	8	3664	
ALL	257	650	07	348	705	2	1	294	

Per cent distribution of primary, upper primary and higher se

type of institution

	Rural			Urban			Rural+ Urban		
	Government		Govt./ Unaided	Government		Govt./ Unaided	Government		Govt./ Unaided
	Govt.	Aided		Govt.	Aided		Govt.	Aided	
KSD	0	92	771	0	229	850	0	150	
KNR	128	741	07	259	797	0	203		
WND	252	493	0	307	745	0	255		
KKD	217	778	4	247	749	4	238	758	4
ALP	823	0	1775	155	0	2456	804	0	
IDK	9	189	692	0	308	784	0	216	
TSR	482	674	0	326	592	0	408		
EKM	374	626	0	459	541	0	432	568	0
IDK	5735	0	2650	340	0	4282	718	0	
KTM	0	392	629	0	371	613	0	387	
ALP	302	606	0	394	649	0	851		
PTA	307	693	7	0	603	3667	0	3330	
KLM	764	736	0	4220	580	0	3306	770	0
TVM	0	263	504	16	479	628	8	3664	
ALL	257	650	07	348	705	2	1	294	

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Table 19: Percentage of students interviewed giving various reasons for preferring private institutions for primary, secondary and higher levels of education.

District	Govt. institution is not available	Quality of education in govt. institution is better	Tried to get admission in govt. institution but could not	Cannot say
KSD	30.30	28.68	3.96	
KNR	6.79	4.84	5.83	
WND	7.42	48.02	9.85	3.42
KKD	18.14	26.32	12.46	3.64
MLP	46.48	12.95	10.55	
PKD	40.77	0.47	7.59	
TSR	5.39	18.86	10.68	
EKM	10.21	68.07	7.76	5.8
IDK	8.8	38.93	2.88	3.02
KTM	5.82	1.36	0.89	
ALP	37.00	19.65	6.03	
PTA	26.82	62.98	0.32	
KLM	11.28	3.88	10.68	3.11
TVM	72.67	16.73	11.36	
ALL	18.88	16.88	7.48	

Table 20: Distribution of pupils per institution by type of institution and reason for preferring private institutions (grouped districts and grand totals of all districts).

District	Govt. institution is not available	Quality of education in govt. institutions is better	Tried to get admission in govt. institution but could not get admission	Cannot say
KSD	27.67	23.68	14.7	2.64
KNR	4.3	13.86	0.48	68.42
WND	24.05	0	6.59	
KKD	10.48	14.18	66.67	
MLP	6.24	11.03	78.89	3.63
PKD	15.28	9.86	72.86	0
TSR	28	10.95	0	78.65
EKM	9.94	4.06	64.25	
IDK	34.57	21.49	17.89	
KTM	17.96	13.78	65.26	2.59
ALP	32.02	11.18	5.08	5.4.08
PTA	4.1	25.76	0.91	58.23
KLM	9.72	1.24	84.05	
TVM	3.39	21.49	70.23	1.5
ALL	14.35	18.49	64.02	3.05

Appendix A

Table 19: Percentage of students interviewed giving various reasons for preferring private institutions for primary, secondary and higher levels of education.

Table 20: Distribution of pupils per institution by type of institution and reason for preferring private institutions (grouped districts and grand totals of all districts).

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Table 3.1: Number of Registered Learners in Basic Education by Type of Education

Type of education	General			Technical Professional			All		
	Rural	Peri-Urban	Urban	Rural	Peri-Urban	Urban	Rural	Peri-Urban	Urban
KSD	90,185	97,382	98,857	1,665	722	530	91,850	98,104	99,387
KNR	78,316	49,723	26,638	5,701	1,985	1,425	84,017	51,708	28,063
WND	54,456	72,246	90,335	1,755	1,358	1,240	56,211	73,604	91,575
KRD	66,725	61,780	78,128	5,325	1,358	1,621	72,050	63,138	79,749
MLP	61,450	58,525	28,678	2,549	894	881	64,000	59,419	29,559
PKD	78,849	95,587	60,726	6,489	3,689	2,437	85,338	99,276	63,163
TSR	107,200	47,986	48,268	8,121	935	590	115,321	48,921	48,858
KRA	100,654	47,176	20,127	5,468	2,384	922	106,122	49,560	21,049
KLM	92,238	33,468	16,780	3,895	1,394	1,016	96,133	34,484	17,796
KTM	14,651	8,402	3,231	2,410	1,287	780	17,061	9,689	4,011
ALP	91,500	68,765	38,701	6,344	2,836	1,877	97,844	71,601	40,578
EMB	12,087	9,955	7,552	1,800	920	532	13,887	10,875	8,084
NYR	14,520	11,358	5,408	1,456	816	377	15,976	12,174	5,785
TVM	13,209	7,365	3,854	1,394	1,001	746	14,603	8,366	4,600
ALL	82,779	61,426	52,569	4,031	1,784	1,185	86,810	63,210	53,754

Table 3.2: Number of Registered Learners in Basic Education by Type of Education

Type of education	General			Technical Professional			All		
	Rural	Peri-Urban	Urban	Rural	Peri-Urban	Urban	Rural	Peri-Urban	Urban
KSD	90,185	97,382	98,857	1,665	722	530	91,850	98,104	99,387
KNR	78,316	49,723	26,638	5,701	1,985	1,425	84,017	51,708	28,063
WND	54,456	72,246	90,335	1,755	1,358	1,240	56,211	73,604	91,575
KRD	66,725	61,780	78,128	5,325	1,358	1,621	72,050	63,138	79,749
MLP	61,450	58,525	28,678	2,549	894	881	64,000	59,419	29,559
PKD	78,849	95,587	60,726	6,489	3,689	2,437	85,338	99,276	63,163
TSR	107,200	47,986	48,268	8,121	935	590	115,321	48,921	48,858
KRA	100,654	47,176	20,127	5,468	2,384	922	106,122	49,560	21,049
KLM	92,238	33,468	16,780	3,895	1,394	1,016	96,133	34,484	17,796
KTM	14,651	8,402	3,231	2,410	1,287	780	17,061	9,689	4,011
ALP	91,500	68,765	38,701	6,344	2,836	1,877	97,844	71,601	40,578
EMB	12,087	9,955	7,552	1,800	920	532	13,887	10,875	8,084
NYR	14,520	11,358	5,408	1,456	816	377	15,976	12,174	5,785
TVM	13,209	7,365	3,854	1,394	1,001	746	14,603	8,366	4,600
ALL	82,779	61,426	52,569	4,031	1,784	1,185	86,810	63,210	53,754

Table 3.3: Average RSE per Student by Region and Academic Year by Type of Education

Type of education	General			Technical Professional			All		
	Rural	Peri-Urban	Urban	Rural	Peri-Urban	Urban	Rural	Peri-Urban	Urban
KSD	427	903	1,084	1,278	2,763	3,924	1,087	1,494	1,084
KNR	12,498	9,111	5,264	1,417	5,538	2,237	4,461	1,180	0.83
WND	3,409	2,968	1,811	2,437	691	2,523	1,109	13.06	
KRD	10,040	6,250	6,281	1,011	5,830	6,640	977	3,...	20.85
MLP	749	1,176	1,329	1,321	463	1,569	1,171	1,868	1,554
PKD	12,779	12,948	7,892	4,524	9,498	11,084	11,197	1,06	
TSR	7,358	7,789	9,005	1,681	5,684	6,318	6,370	1,24	9,2
KRA	8,771	5,657	3,510	1,311	1,932	2,944	9,...	0.85	
KLM	15,287	2,285	1,580	1,721	2,719	2,926	1,686	1,445	1,1
KTM	6,637	8,924	2,541	1,968	1,772	1,328	1,842	7,574	3,...
ALP	1,...	ALP	1,800	903	947	2,300	1,485	1,411	2,278	1,881
EMB	14,897	7,782	1,212	1,093	1,815	1,715	1,...	8,35	
NYR	7,031	1,771	1,984	2,001	1,818	2,235	1,838	2,...	9,67
TVM	9,624	1,826	1,707	2,006	1,737	1,591	1,014	1,776	3,...
ALL	1,432	1,352	1,367	1,634	1,905	1,483	1,911	1,377	1,06

Table 3.4: Average RSE per Student by Region and Academic Year by Type of Education

Type of education	General			Technical Professional			All		
	Rural	Peri-Urban	Urban	Rural	Peri-Urban	Urban	Rural	Peri-Urban	Urban
KSD	427	903	1,084	1,278	2,763	3,924	1,087	1,494	1,084
KNR	12,498	9,111	5,264	1,417	5,538	2,237	4,461	1,180	0.83
WND	3,409	2,968	1,811	2,437	691	2,523	1,109	13.06	
KRD	10,040	6,250	6,281	1,011	5,830	6,640	977	3,...	20.85
MLP	749	1,176	1,329	1,321	463	1,569	1,171	1,868	1,554
PKD	12,779	12,948	7,892	4,524	9,498	11,084	11,197	1,06	
TSR	7,358	7,789	9,005	1,681	5,684	6,318	6,370	1,24	9,2
KRA	8,771	5,657	3,510	1,311	1,932	2,944	9,...	0.85	
KLM	15,287	2,285	1,580	1,721	2,719	2,926	1,686	1,445	1,1
KTM	6,637	8,924	2,541	1,968	1,772	1,328	1,842	7,574	3,...
ALP	1,...	ALP	1,800	903	947	2,300	1,485	1,411	2,278	1,881
EMB	14,897	7,782	1,212	1,093	1,815	1,715	1,...	8,35	
NYR	7,031	1,771	1,984	2,001	1,818	2,235	1,838	2,...	9,67
TVM	9,624	1,826	1,707	2,006	1,737	1,591	1,014	1,776	3,...
ALL	1,432	1,352	1,367	1,634	1,905	1,483	1,911	1,377	1,06

Table 23: Average Expenditure per student per annum in each district by type of education

District	General			Professional			All
	Govt	Govt Dis.	Unaided	Govt	Govt Dis.	Unaided	Unaided
BAGU	3118.94	6209.88	31946	5000	3118.94	6209.88	31946
KNR	4085	4588.94	6760.64	KNR	4085	4588.94	6760.64
WND	3500.54	3508.65	4758.53	WND	3500.54	3508.65	4758.53
KSGD	4706.96	9228.20	41...	KSGD	4706.96	9228.20	41...
KMR	4917.99	5603.59	19528	KMR	4917.99	5603.59	19528
PKD	3500.82	3800.54	4288.58	PKD	3500.82	3800.54	4288.58
TSR	5300.00	2807.61	8862.05	TSR	5300.00	2807.61	8862.05
EKM	7205.56	4918.62	10078.55	381...	EKM	7205.56	4918.62	10078.55	381...
IDK	6209.27	8098.69	32153	IDK	6209.27	8098.69	32153
KTM	5300.87	4308.62	9468.77	KTM	5300.87	4308.62	9468.77
ALP	6165.70	3830.81	8824.05	ALP	6165.70	3830.81	8824.05
PLK	6495.71	5918.85	14868.59	3429...	PLK	6495.71	5918.85	14868.59	3429...
KKD	6488.84	4388.87	9708.26	31693	KKD	6488.84	4388.87	9708.26	31693
MLP	7000.63	3800.53	10089.03	MLP	7000.63	3800.53	10089.03
ALL	5800.08	4.800.89	7805.42	ALL	5800.08	4.800.89	7805.42

Table 24: Average Expenditure per student per annum in each district by type of education

District	General			Professional			All
	Govt	Govt Dis.	Unaided	Govt	Govt Dis.	Unaided	Unaided
BAGU	3118.94	6209.88	31946	5000	3118.94	6209.88	31946
KNR	4085	4588.94	6760.64	KNR	4085	4588.94	6760.64
WND	3500.54	3508.65	4758.53	WND	3500.54	3508.65	4758.53	WN...
KSGD	4706.96	9228.20	41...	KSGD	4706.96	9228.20	41...
KMR	4917.99	5603.59	19528	KMR	4917.99	5603.59	19528
PKD	3500.82	3800.54	4288.58	PKD	3500.82	3800.54	4288.58
TSR	5300.00	2807.61	8862.05	TSR	5300.00	2807.61	8862.05	TSR
EKM	7205.56	4918.62	10078.55	381...	EKM	7205.56	4918.62	10078.55	381...
IDK	6209.27	8098.69	32153	IDK	6209.27	8098.69	32153
KTM	5300.87	4308.62	9468.77	KTM	5300.87	4308.62	9468.77
ALP	6165.70	3830.81	8824.05	ALP	6165.70	3830.81	8824.05	ALP
PLK	6495.71	5918.85	14868.59	3429...	PLK	6495.71	5918.85	14868.59	3429...
KKD	6488.84	4388.87	9708.26	31693	KKD	6488.84	4388.87	9708.26	31693
MLP	7000.63	3800.53	10089.03	MLP	7000.63	3800.53	10089.03
ALL	5800.08	4.800.89	7805.42	ALL	5800.08	4.800.89	7805.42	ALL

Table 25: Average Expenditure per student per annum in each district by type of education

District	RSE per student per academic session			
	Type of education			
	General		Professional	All
	Govt	Unaided	Unaided	Unaided
BAGU	1800.37	1738.88	15.03.94	1050
KNR	1800.86	1320.842	20.03.57	12.42
WND	1900.00	2658.15	31.38.65	245.95
KKD	21.2.54	1384.27	1680.94	
MLP	8.9.87	212.782	11.0830	
TSR	1800.37	190.592	15.99.03	11.52
PKM	1800.86	920.078	4.09.19	1.12.01
EKM	7.1.65	30.962	7.1653	
IDK	13.9.96	234.793	1645.16	
KTM	6.8.84	56.8.24	15.68.17	5.21
ALP	1800.37	1872.89	13.98.31	12.47
PTA	3.0.6.18	904.63	24.6.21	
KLM	13.6.03	50.4.99	14.9.65	
TVM	14.9.90	39.4.78	16.2.81	
ALL	1800.37	15.4.22	3.84.82	3.58

Table 26: Average Expenditure per student per annum in each district by type of education

District	RSE per student per academic session			
	Type of education			
	General		Professional	All
	Govt	Unaided	Unaided	Unaided
BAGU	1800.37	1738.88	15.03.94	1050
KNR	1800.86	1320.842	20.03.57	12.42
WND	1900.00	2658.15	31.38.65	245.95
KKD	21.2.54	1384.27	1680.94	
MLP	8.9.87	212.782	11.0830	
TSR	1800.37	190.592	15.99.03	11.52
PKM	1800.86	920.078	4.09.19	1.12.01
EKM	7.1.65	30.962	7.1653	
IDK	13.9.96	234.793	1645.16	
KTM	6.8.84	56.8.24	15.68.17	5.21
ALP	1800.37	1872.89	13.98.31	12.47
PTA	3.0.6.18	904.63	24.6.21	
KLM	13.6.03	50.4.99	14.9.65	
TVM	14.9.90	39.4.78	16.2.81	
ALL	1800.37	15.4.22	3.84.82	3.58

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Table 25: Average expenditure per student by level of education

District	Upper primary	Secondary	Higher secondary	Graduate	Post-graduate and diploma
KSD	5763	4918	7802	38578	36984
KNR	5754	9330	38917	48285	
WND	11739	8083	39263	37881	
KKD	7463	6068	72093	27899	
MLP	5127	6823	7402	63312	35425
PKD	43	5818	48807	12880	40330
TSR		9668	8079	53163	
EKM		2656	10540	66120	
IDK	6571	18258	9829	39908	38100
KTM	9035	11058	12783	101680	41533
ALP		8948	9008	45764	
PTA		8248	19054	43008	
KLM		10007	13720	60830	29795
TVM		1202	9588	13526	16905
ALL		7528	10300	39840	

Table 25: Average expenditure per student by level of education

District	Upper primary	Secondary	Higher secondary	Graduate	Post-graduate and diploma
KSD	5763	4918	7802	38578	36984
KNR	5754	9330	38917	48285	
WND	11739	8083	39263	37881	
KKD	7463	6068	72093	27899	
MLP	5127	6823	7402	63312	
PKD	43	5818	48807	12880	40330
TSR		9668	8079	53163	
EKM		2656	10540	66120	
IDK	6571	18258	9829	39908	
KTM	9035	11058	12783	101680	41533
ALP		8948	9008	45764	
PTA		8248	19054	43008	
KLM		10007	13720	60830	55402
TVM		1202	9588	13526	24984
ALL		7528	10300	39840	

Table 26: RSE of Expenditure per student during current academic levels of education

District	Upper primary	Secondary	Higher secondary	Graduate	Post-graduate and diploma
KSD	12.37	16.38	20.86	39.07	
KNR	7.41	16.98	19.63	14.82	40.30
WND	18.90	24.85	12.04	96.13	63.49
KKD		15.08	10.80	9.83	22.34
MLP		12.25	11.99	11.99	33.83
PKD	17.18	12.18	22.46	10.63	40.61
TSR	10.88	19.85	16.07	45.82	55.61
EKM	9.91	10.79	15.04	12.78	33.08
IDK		25.18	9.68	11.56	39.83
KTM		10.20	12.92	10.34	19.82
ALP		10.00	10.85	9.70	65.89
PTA	4.09	24.91	12.12	54.63	23.46
KLM		11.63	29.10	65.39	30.86
TVM		30.39	16.58	9.96	22.65
ALL	2.59	4.98	6.80	26.69	

Table 26: RSE of Expenditure per student during current academic levels of education

District	Upper primary	Secondary	Higher secondary	Graduate	Post-graduate and diploma
KSD	12.37	16.38	20.86	39.07	
KNR	7.41	16.98	19.63	14.82	
WND	18.90	24.85	12.04	96.13	63.49
KKD		15.08	10.80	9.83	22.34
MLP		12.25	11.99	11.99	33.83
PKD	17.18	12.18	22.46	10.63	
TSR	10.88	19.85	16.07	45.82	55.61
EKM	9.91	10.79	15.04	12.78	33.08
IDK		25.18	9.68	11.56	39.83
KTM		10.20	12.92	10.34	19.82
ALP		10.00	10.85	9.70	65.89
PTA	4.09	24.91	12.12	54.63	23.46
KLM		11.63	29.10	65.39	30.86
TVM		30.39	16.58	9.96	22.65
ALL	2.59	4.98	6.80	26.69	

Table 27: [illegible] of Institu[illegible]

[illegible]	Rural	Urban	Rural + urban
District	[illegible]	[illegible]	[illegible]
KSD 3258072	3468891	3469627	
KNR 3799	3978656	3882057	163[illegible]
WND 849	2158079	2285469	12263
[illegible]	3106546	4826515	4305340
ML 3[illegible]	3608816	3398106	
PKD 216793	4[illegible]	2508549	
TSR 4437	4877123	4[illegible]	16827
[illegible]	4[illegible]	6[illegible]	5[illegible]
[illegible]	5[illegible]	6[illegible]	5[illegible]
KTM 4[illegible]	4[illegible]	4[illegible]	
ALP 4138	4[illegible]	4[illegible]	15300
PTA 678	6[illegible]	5[illegible]	6521279
[illegible]	4[illegible]	5[illegible]	5084363
[illegible]	7[illegible]	7[illegible]	5869761
ALL 3907	5[illegible]	4[illegible]	17[illegible]

Appendix A

Table 27: [illegible] of Institu[illegible]

[illegible]	Rural	Urban	Rural + urban
District	[illegible]	[illegible]	[illegible]
KSD 3258072	3468891	3469627	
KNR 3799	3978656	3882057	163[illegible]
WND 849	2158079	2285469	12263
[illegible]	3106546	4826515	4305340
ML 3[illegible]	3608816	3398106	
PKD 216793	4[illegible]	2508549	
TSR 4437	4877123	4[illegible]	16827
[illegible]	4[illegible]	6[illegible]	5[illegible]
[illegible]	5[illegible]	6[illegible]	5[illegible]
KTM 4[illegible]	4[illegible]	4[illegible]	
ALP 4138	4[illegible]	4[illegible]	15300
PTA 678	6[illegible]	5[illegible]	6521279
[illegible]	4[illegible]	5[illegible]	5084363
[illegible]	7[illegible]	7[illegible]	5869761
ALL 3907	5[illegible]	4[illegible]	17[illegible]

Table 28a Persons aged 5-29 years by whether dropping out/discontinua[illegible]

of dropping out/discontinua[illegible]

Sector : Rurals	Persons : Male		
[illegible]	[illegible]	[illegible]	[illegible]
education			
5-15	16[illegible]4	25-29 total	
KSD	1[illegible]	58[illegible]2.43	
[illegible]	7[illegible]	5[illegible]11	40.41
[illegible]	1[illegible]31	10[illegible]8.66	
[illegible]	24[illegible]1	82[illegible]8.09	
MLP	12[illegible]	5[illegible]3	[illegible]
[illegible]	[illegible]	[illegible]	46.12
[illegible]	[illegible]	[illegible]	[illegible]
EKM	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
PTA	14[illegible]	5[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]

Table 28a Persons aged 5-29 years by whether dropping out/discontinua[illegible]

of dropping out/discontinua[illegible]

Sector : Rurals	Persons : Male		
[illegible]	[illegible]	[illegible]	[illegible]
education			
5-15	16[illegible]4	25-29 total	
KSD	1[illegible]	58[illegible]2.43	
KNR	7[illegible]	5[illegible]11	40.41
[illegible]	1[illegible]31	10[illegible]8.66	
[illegible]	24[illegible]1	82[illegible]8.09	
MLP	12[illegible]	5[illegible]3	[illegible]
[illegible]	[illegible]	[illegible]	46.12
[illegible]	[illegible]	[illegible]	[illegible]
EKM	[illegible]	[illegible]	[illegible]
IDK	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
PTA	14[illegible]	5[illegible]	[illegible]
KLM	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]

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Table 28b: Percentage of persons aged 5-25 years by level of education and group of dropping out/discontinuance

Sector: Rural Persons: Female			
District	Percentage of persons who have dropped out/discontinued education		
	5-15	16-24	25+	Total
KSD	0.000	6.89	12	100.00	61
KNR	0.000	12.62	1	100.00	73
WND	0.000	6.86	83	42	41.4
KKD	0.000	0.69	58	51.18
MLP	0.000	1.98	71	95	46.53
PKD	0.000	1.56	91	99	46.33
TSR	0.000	0.00	00	0.00
EKM	0.000	4.92	83	24.08
IDK	0.000	0.84	86	81	27.12
KTM	0.000	0.83	31	93	88.88
ALP	0.000	0.00	65	100	00.48
PTA	0.000	0.00	02	93	32.0
KLM	0.000	0.69	04	26.49
TVM	0.000	0.60	34	94	35.90
ADK	0.000	5.84	50	96	34.35

Table 28c: Percentage of persons aged 5-25 years by level of education and group of dropping out/discontinuance

Sector: Rural Sex: Persons: Male+Female			
District	Percentage of persons who have dropped out/discontinued education		
	5-15	16-24	25+	Total
KSD	0.000	6.89	03	100.00	06
KNR	0.000	13.80	10	86.74
WND	0.000	1.72	07	99	89.97
KKD	0.000	1.36	89	93	90.48
MLP	0.000	6.09	01	100	00.66
PKD	0.000	1.90	80	98	73	97.02
TSR	0.000	0.00	59	99	84.31
EKM	0.000	0.88	78	92	81.31
IDK	0.000	0.00	23	100	33.78
KTM	0.000	0.90	25	97	32.06
ALP	0.000	0.88	31	99	37.51
PTA	0.000	0.68	51	99	89.97
KLM	0.000	0.00	08	100	00.18
TVM	0.000	1.08	5	98	59	80.94
ADK	0.000	5.58	08	96	83.96

Table 28d Percentage of persons aged 5-29 years who never attended school and who dropped out of education

Sector : Urban Persons : Male

State	Age group	Percentage who never attended school	Percentage who dropped out of education	Total
KSO	5-15	9.0000	6.0000	25.29
KNR	15-20	1.0000	5.0000	35.64
	20-25	0.0000	2.0000	21.14
	25-29	0.0000	0.0000	40.40
MLP	5-15	5.0000	0.0000	33.86
PKD	15-20	1.0000	0.0000	38.10
	20-25	0.0000	0.0000	34.78
	25-29	0.0000	0.0000	37.96
IDK	5-15	0.0000	0.0000	8.35
KTM	15-20	0.0000	0.0000	27.50
	20-25	0.0000	0.0000	28.32
	25-29	0.0000	0.0000	25.79
KLM	5-15	1.0000	0.0000	33.37
TVM	15-20	1.0000	0.0000	36.80
	20-25	0.0000	0.0000	35.57

Table 28e Percentage of persons aged 5-29 years who never attended school and who dropped out of education

Sector : Urban Persons : Female

State	Age group	Percentage who never attended school	Percentage who dropped out of education	Total
KSO	5-15	0.0000	0.0000	38.08
KNR	15-20	0.0000	0.0000	36.32
WND	20-25	0.0000	0.0000	19.51
KKD	25-29	0.0000	0.0000	43.09
	5-15	0.0000	0.0000	35.25
	15-20	0.0000	0.0000	31.31
TSR	20-25	0.0000	0.0000	48.48
EKM	25-29	0.0000	0.0000	37.31
	5-15	0.0000	0.0000	13.91
	15-20	0.0000	0.0000	20.67
ALP	20-25	0.0000	0.0000	34.28
PTA	25-29	0.0000	0.0000	37.15
KLM	5-15	0.0000	0.0000	37.15
	15-20	0.0000	0.0000	38.28
	20-25	0.0000	0.0000	37.06

Appendix A

Table 28d Percentage of persons aged 5-29 years who never attended school and who dropped out of education

Sector : Urban Persons : Male

Table 28e Percentage of persons aged 5-29 years who never attended school and who dropped out of education

Sector : Urban Persons : Female

Table 28: Percentage of dropout children by age group of dropping out and education

Sector: Pakistan; Male+Female

Age group of dropping out	Percentage of children who dropped out in education		
	5-13	14-15	25-Total
KSD	0.00	0.00	95.80
KNR	4.06	6.83	87.74
WND	16.00	6.19	32.83
	0.00	1.62	91.74
	10.00	1.89	98.59
PKD	9.02	6.92	85.51
TSR	5.60	4.81	34.61
	0.00	0.63	93.66
	0.00	0.89	82.81
KTM	0.00	3.60	84.28
ALP	0.00	4.85	31.20
	0.00	0.84	31.85
KLD	4.56	3.30	97.40
TVM	8.89	4.96	87.54
ALL	8.89	5.46	36.2

Table 28: Percentage of dropout children by age group of dropping out and education

Sector: Pakistan; Male+Female

Age group of dropping out	Percentage of children who dropped out in education		
	5-13	14-15	25-Total
KSD	0.00	0.00	95.80
KNR	4.06	6.83	87.74
WND	16.00	6.19	32.83
	0.00	1.62	91.74
	10.00	1.89	98.59
PKD	9.02	6.92	85.51
TSR	5.60	4.81	34.61
	0.00	0.63	93.66
	0.00	0.89	82.81
KTM	0.00	3.60	84.28
ALP	0.00	4.85	31.20
	0.00	0.84	31.85
KLD	4.56	3.30	97.40
TVM	8.89	4.96	87.54
ALL	8.89	5.46	36.2

Table 28: Percentage of dropout children by age group of dropping out and education

Rural: Sindh; Male+Female

Age group of dropping out	Percentage of children who dropped out in education		
	5-13	14-15	25-Total
KSD	0.00	1.58	33.20
KNR	5.96	7.11	10
WND	3.20	7.2	10
KKD	6.85	6.89	5.92
MLP	0.00	6.92	28.6
	0.00	0.78	44.54
	15.00	6.48	94.03
ERK	0.00	6.92	87.74
IDK	0.00	4.98	28.74
KTM	0.00	6.58	33.21
	10.00	0.63	96
KTD	1.56	1.70	98.26
KLM	3.00	6.88	91.78
TVM	8.09	4.85	31.6
	10.09	5.98	34.41

Table 28: Percentage of dropout children by age group of dropping out and education

Rural: Sindh; Male+Female

Age group of dropping out	Percentage of children who dropped out in education		
	5-13	14-15	25-Total
KSD	0.00	1.58	33.20
KNR	5.96	7.11	10
WND	3.20	7.2	10
KKD	6.85	6.89	5.92
MLP	0.00	6.92	28.6
	0.00	0.78	44.54
	15.00	6.48	94.03
ERK	0.00	6.92	87.74
IDK	0.00	4.98	28.74
KTM	0.00	6.58	33.21
	10.00	0.63	96
KTD	1.56	1.70	98.26
KLM	3.00	6.88	91.78
TVM	8.09	4.85	31.6
	10.09	5.98	34.41

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Table 28b Percentage of persons aged 5-24 years who dropped out of school by age group, sex and level of education

Sector : Rural/Urban Persons : Female

Age group	Percentage of persons who dropped out of school by level of education		
5-15			

Table 29: Per 1000 dispensing events (for persons 16 years and over) by reasons for stopping and discontinuance

Age	Reason for stopping and discontinuance								
KSD	3	299	0	1	0	883	0	0	156	49
	ANK	232	143	319	0	23	63	34	0
	WND	187	250	103	85	10	25	5	
KRD	144	394	18	282	117	0	0	147	
MLP	149	167	39	157	217	0	12	246	13
KD	313	69	2346	76	0	1	2	91	189
	TSR	0	95	296	0	62	198	16	61
36	ZKM	169	155	6	119	235	05	19	
0	IDK	447	677	22	42	1	0	0	0
KTM	58	268	47	117	440	10	39	21	0
P	MKI	28	101	322	0	123	9	185	0
	PTA	19	74	805	1	0	8	34	7	22
49	KDM	276	261	0	51	165	0	22	
5	TVM	275	164	7	8	105	290	7	0	10	1	16
ALL	36	211	36	1	105	263	1	1	14	142	52

Table 30: Per 1000 dispensing events (for persons 16 years and over) by reasons for stopping and discontinuance

Age	Reason for stopping and discontinuance								
87	KSD	168	177	0	0	3	179	6	4
425	KNR	97	222	60	0	34	86	0	17	247
1	WND	30	168	84	0	38	59	0	0	610
KKD	99	63	153	0	0	10	139	61
P	68	58	71	0	0	15	4	8	2
250	PKD	30	177	0	0	2	4	39	119	259
41	TSR	31	46	45	0	11	5	84	0	35	412
33	EKM	92	168	69	89	0	0	336	5
DK	199	238	3	0	0	0	0	185	0
M	247	KTM	38	150	0	0	0	84	5	98
	154	ALP	04	145	0	0	12	0	18	40	119
102	PTA	5	39	198	0	2	14	0	0	224
0	KLM	7	28	169	0	7	0	5	136	9	0
VM	58	98	104	99	42	0	7	200	92
	117	ALL	105	111	6	0	4	1	82	563	49	2

Table 29: Per 1000 dispensing events (for persons 16 years and over) by reasons for stopping and discontinuance

Table 30: Per 1000 dispensing events (for persons 16 years and over) by reasons for stopping and discontinuance

Table 31 :Proportion (per 1000) of households having computer and Proportion (per 1000) of households(with at least one member of age 14 years and above) having access to internet facility

District	Proportion (per 1000) of households having computer			Proportion (per 1000) of households(with at least one member of age 14 years and above) having access to internet facility		
	Rural	Urban	Rural+ Urban	Rural	Urban	Rural+ Urban
KSD	522	568	541	673	765	709
KNR	285	404	354	356	512	447
WND	179	196	179	341	441	347
KKD	280	342	323	454	575	538
MLP	313	377	332	500	550	514
PKD	101	160	114	244	326	262
TSR	337	351	344	691	624	659
EKM	286	413	373	631	716	689
IDK	152	386	168	417	654	433
KTM	363	518	409	748	799	763
ALP	178	287	235	369	466	421
PTA	197	401	221	469	571	481
KLM	326	277	305	515	621	560
TVM	214	298	257	347	399	374
ALL	260	353	301	478	572	519

Appendix B

Sample Design and Estimation Procedure

Appendix B

Sample Design and Estimation Procedure

NOTE ON SAMPLE DESIGN AND ESTIMATION PROCEDURE

1. Introduction

1.1 **Subject Coverage**: The 71st round (January 2014 – June 2014) of NSS was devoted to the subject of Social Consumption and earmarked for surveys on 'Health' and 'Education'. The last survey on education was conducted during 64th round of NSS (July 2007 - June 2008).

2. Outline of Survey Programme

2.1 **Period of survey and work programme**: The period of survey was of six months duration starting on 1st January 2014 and ending on 30th June 2014.

2.2 **Sub-rounds:** The survey period of this round was divided into two sub-rounds of three months' duration each as follows:

sub-round 1 : January - March 2014
sub-round 2 : April - June 2014

In each of these two sub-rounds equal number of sample villages/ blocks (FSUs) was allotted for survey with a view to ensuring uniform spread of sample FSUs over the entire survey period. Attempt had been made to survey each of the FSUs during the sub-round to which it was allotted. *Because of the arduous field conditions, this restriction was not strictly enforced in Andaman and Nicobar Islands, Lakshadweep, Leh (Ladakh) and Kargil districts of Jammu & Kashmir and rural areas of Arunachal Pradesh and Nagaland.*

2.3 **Schedules of enquiry**: During this round, the following schedules of enquiry were canvassed:

Schedule 0.0 : List of Houscholds
Schedule 25.0 : Social consumption: Health
Schedule 25.2 : Social consumption: Education

2.4 **Participation of States:** In this round all the States and Union Territories except Andaman & Nicobar Islands, Chandigarh, Dadra & Nagar Haveli and Lakshadweep participated. The following was the matching pattern of the participating States/ UTs.

State/UT	Extent of matching
Nagaland (U)	triple
Andhra Pradesh, Telangana, Jammu & Kashmir, Manipur	double
Maharashtra (U)	one and half
Remaining States/ UTs	equal

3. Sample Design

3.1 **Outline of sample design:** A stratified multi-stage design was adopted for the 71st round survey. The first stage units (FSU) were the census villages (Panchayat wards in case of Kerala) in the rural sector and Urban Frame Survey (UFS) blocks in the urban sector. The ultimate stage units (USU) were households in both the sectors. In case of large FSUs, one intermediate stage of sampling was the selection of two hamlet-groups (hgs)/ sub-blocks (sbs) from each rural/ urban FSU.

3.2 **Sampling Frame for First Stage Units:** For *the rural sector,* the list of 2011 census villages (henceforth the term 'village' would mean Panchayat wards for Kerala) constituted the sampling frame. In case of Kerala, due to non-availability of Panchayat wards based on Census 2011, the available list of Panchayat wards based on Census 2001 was used as the rural frame. For the urban sector, the latest updated list of UFS blocks (phase 2007-12) was considered as the sampling frame.

3.3 **Stratification**: Stratum had been formed at district level. Within each district of a State/UT, generally speaking, two basic strata were formed: (i) rural stratum comprising of all rural areas of the district and (ii) urban stratum comprising of all the urban areas of the district. However, within the urban areas of a district, if there were one or more towns with population of 1 lakh or more as per Census 2011, each of them formed a separate basic stratum and the remaining urban areas of the district had been considered as another basic stratum.

3.3.1**Special stratum in the rural sector**: There are some villages in Nagaland and Andaman & Nicobar Islands which remain difficult to access. As in earlier rounds, a special stratum was formed at State/UT level comprising these villages.

3.4 **Sub-stratification:**

3.4.1 **Rural sector**: If 'r' be the sample size allocated for a rural stratum, the number of sub-strata formed was 'r/2'. The villages within a district as per frame were first arranged in ascending order of population. Then sub-strata 1 to 'r/2' were demarcated in such a way that each sub-stratum comprised a group of villages of the arranged frame and had more or less equal population.

3.4.2 **Urban sector:** If 'u' be the sample size allocated for an urban stratum, the number of sub-strata formed was 'u/2'. For all strata, if u/2 >1, implying formation of 2 or more sub-strata, all the UFS blocks within the stratum were first arranged in ascending order of total number of households in the UFS Blocks as per UFS phase 2007-12. Then sub-strata 1 to 'u/2' were demarcated in such a way that each sub-stratum had more or less equal number of households.

3.5 **Total sample size (FSUs):** 8300 FSUs were allocated for the central sample at all-India level.

3.6 **Allocation of total sample to States and UTs:** The total number of sample FSUs were allocated to the States and UTs in proportion to population as per *Census 2011* subject to a

minimum sample allocation to each State/ UT. While doing so, the resource availability in terms of number of field investigators was kept in view.

3.7 **Allocation of State/ UT level sample to rural and urban sectors**: State/UT level sample size was allocated between two sectors in proportion to population as per *Census 2011* with double weightage to urban sector subject to the restriction that urban sample size for bigger states like Maharashtra, Tamil Nadu etc. did not exceed the rural sample size. A minimum of 16 FSUs (minimum 8 each for rural and urban sector separately) were allocated to each State/ UT.

3.8 **Allocation to strata:** Within each sector of a State/ UT, the respective sample size was allocated to the different strata in proportion to the population as per Census 2011. Stratum level allocation was adjusted to multiples of 2 with a minimum sample size of 2.

For special strata in the rural areas of Nagaland and A & N Islands, 4 FSUs were allocated to each.

3.9 **Allocation to sub-strata:** Allocation for each sub-stratum was 2 in both rural and urban sectors.

3.10 **Selection of FSUs:**

For the rural sector, from each stratum/sub-stratum, required number of sample villages was selected by Probability Proportional to Size With Replacement (PPSWR), size being the population of the village as per Census 2011.

For the urban sector, from each stratum/sub-stratum, FSUs were selected by Probability Proportional to Size With Replacement (PPSWR), size being the number of households of the UFS Blocks.

Both rural and urban samples were drawn in the form of two independent sub-samples and equal number of samples was allocated among the two sub rounds.

3.11 **Selection of hamlet-groups/ sub-blocks - important steps**

3.11.1 **Criterion for hamlet-group/ sub-block formation:** After identification of the boundaries of the FSU, it was determined whether listing will be done in the whole sample FSU or not. In case the approximate present population of the selected FSU was found to be 1200 or more, it was divided into a suitable number (say, D) of 'hamlet-groups' in the rural sector and 'sub-blocks' in the urban sector by more or less equalising the population as stated below.

approximate present population of the sample FSU	no. of hg's/sb's to be formed
less than 1200 (no hamlet-groups/sub-blocks)	1
1200 to 1799	3
1800 to 2399	4
2400 to 2999	5
3000 to 3599	6
.....and so on	-

For rural areas of Himachal Pradesh, Sikkim, Uttarakhand (except four districts Dehradun, Nainital, Hardwar and Udham Singh Nagar),Poonch, Rajouri, Udhampur, Reasi, Doda, Kistwar, Ramban, Leh (Ladakh), Kargil districts of Jammu and Kashmir and Idukki district of Kerala, the number of hamlet-groups were formed as follows:

approximate present population of the sample village	no. of hg's to be formed
less than 600 (no hamlet-groups)	1
600 to 899	3
900 to 1199	4
1200 to 1499	5
1500 to 1799	6
.....and so on	-

3.11.2 **Formation and selection of hamlet-groups/ sub-blocks:** In case hamlet-groups/ sub-blocks are to be formed in the sample FSU, the same was done by more or less equalizing population. Note that while doing so, it was ensured that the hamlet-groups/ sub-blocks formed were clearly identifiable in terms of physical landmarks.

Two hamlet-groups (hg)/ sub-blocks (sb) were selected from a large FSU wherever hamlet-groups/ sub-blocks were formed in the following manner – one hg/ sb with maximum percentage share of population was always selected and termed as hg/ sb1; one more hg/ sb was selected from the remaining hg's/ sb's by simple random sampling (SRS) and termed as hg/ sb2. Listing and selection of the households was done independently in the two selected hamlet-groups/ sub-blocks. The FSUs without hg/ sb formation was treated as sample hg/ sb number 1.

3.12 **Formation of second stage strata and allocation of households:**

Three SSS were formed for Schedule 25.2 as per following criteria:

SSS	composition of SSS within a sample FSU	number of households surveyed	
		FSU without hg/sb formation	FSU with hg/sb formation (for each hg/sb)
SSS 1	households with at least one student receiving technical/professional education	2	1
SSS 2	from the remaining, households having at least one student receiving general education	4	2
SSS 3	other households	2	1

3.13 **Selection of households:** From each SSS, the sample households were selected by SRSWOR.

4. Estimation Procedure

4.1 Notations:

s = subscript for s-th stratum

t = subscript for t-th sub-stratum

m = subscript for sub-sample (m =1, 2)

i = subscript for i-th FSU [village (panchayat ward)/ block]

d = subscript for a hamlet-group/ sub-block (d = 1, 2)

j = subscript for j-th second stage stratum in an FSU/ hg/sb [j = 1, 2 or 3]

k = subscript for k-th sample household under a particular second stage stratum within an FSU/ hg/sb

D = total number of hg's/ sb's formed in the sample FSU

D* = (D – 1) for FSUs with D ≥ 1

Z = total size of a rural/urban sub-stratum (= sum of sizes for all the FSUs of a sub-stratum)

z = size of sample village/UFS block used for selection.

n = number of sample FSUs surveyed including 'uninhabitated' and 'zero cases' but excluding casualty for a particular sub-sample and sub-stratum.

H = total number of households listed in a second-stage stratum of an FSU / hamlet-group or sub-block of sample FSU

h = number of households surveyed in a second-stage stratum of an FSU / hamlet-group or sub-block of sample FSU

x, y = observed value of characteristics x, y under estimation

$\hat{X}$, $\hat{Y}$ = estimate of population total X, Y for the characteristics x, y

Under the above symbols,

$y_{stmidjk}$ = observed value of the characteristic y for the k-th household in the j-th second stage stratum of the d-th hg/ sb (d = 1, 2) of the i-th FSU belonging to the m-th sub-sample for the t-th sub-stratum of s-th stratum.

However, for ease of understanding, a few symbols have been suppressed in following paragraphs where they are obvious.

4.2 Formulae for Estimation of Aggregates for a particular sub-sample and stratum × sub-stratum:

4.2.1 Schedule 25.2:

4.2.1.1 Rural/ Urban:

(i) For j-th second-stage stratum of a stratum × sub-stratum:

$$\hat{Y}_j = \frac{Z}{n_j}\sum_{i=1}^{n_j}\frac{1}{z_i}\left[\frac{H_{i1j}}{h_{i1j}}\sum_{k=1}^{h_{i1j}} y_{i1jk} + D_i^* \times \frac{H_{i2j}}{h_{i2j}}\sum_{k=1}^{h_{i2j}} y_{i2jk}\right]$$

(ii) For all second-stage strata combined:

$$\hat{Y} = \sum_j \hat{Y}_j$$

4.3 Overall Estimate for Aggregates for a sub-stratum:

Overall estimate for aggregates for a sub-stratum ($\hat{Y}_{st}$) based on two sub-samples in a sub-stratum is obtained as: $\hat{Y}_{st} = \frac{1}{2}\sum_{m=1}^{2} \hat{Y}_{stm}$

4.4 Overall Estimate for Aggregates for a stratum:

Overall estimate for a stratum ($\hat{Y}_s$) will be obtained as

$$\hat{Y}_s = \sum_t \hat{Y}_{st}$$

4.5 Overall Estimate of Aggregates at State/UT/all-India level:

The overall estimate $\hat{Y}$ at the State/ UT/ all-India level is obtained by summing the stratum estimates $\hat{Y}_s$ over all strata belonging to the State/ UT/ all-India.

4.6 Estimates of Ratios:

Let $\hat{Y}$ and $\hat{X}$ be the overall estimates of the aggregates Y and X for two characteristics y and x respectively at the State/ UT/ all-India level.

Then the combined ratio estimate ($\hat{R}$) of the ratio ($R = \frac{Y}{X}$) will be obtained as $\hat{R} = \frac{\hat{Y}}{\hat{X}}$.

4.7 Estimates of Error: The estimated variances of the above estimates will be as follows:

4.7.1 For aggregate $\hat{Y}$:

$$\hat{Var}(\hat{Y}) = \sum_s \hat{Var}(\hat{Y}_s) = \sum_s \sum_t \hat{Var}(\hat{Y}_{st})$$ where $\hat{Var}(\hat{Y}_{st})$ is given by

$\hat{Var}(\hat{Y}_{st}) = \frac{1}{4}(\hat{Y}_{st1} - \hat{Y}_{st2})^2$, where $\hat{Y}_{st1}$ and $\hat{Y}_{st2}$ are the estimates for sub-sample 1 and sub-sample 2 respectively for stratum 's' and sub-stratum 't'.

4.7.2 For ratio $\hat{R}$:

$$\hat{MSE}(\hat{R}) = \frac{1}{4\hat{X}^2}\sum_s \sum_t \left[(\hat{Y}_{st1} - \hat{Y}_{st2})^2 + \hat{R}^2(\hat{X}_{st1} - \hat{X}_{st2})^2 - 2\hat{R}(\hat{Y}_{st1} - \hat{Y}_{st2})(\hat{X}_{st1} - \hat{X}_{st2})\right]$$

4.7.3 **Estimates of Relative Standard Error (RSE):**

$$R\hat{S}E\left(\hat{Y}\right) = \frac{\sqrt{V\hat{a}r\left(\hat{Y}\right)}}{\hat{Y}} \times 100$$

$$R\hat{S}E\left(\hat{R}\right) = \frac{\sqrt{M\hat{S}E\left(\hat{R}\right)}}{\hat{R}} \times 100$$

5. **Multipliers:**

The formulae for multipliers at stratum/sub-stratum/second-stage stratum level for a sub-sample and schedule type are given below:

sch type	sector	formula for multipliers	
		hg / sb 1	hg / sb 2
25.2	rural/urban	$\frac{Z_{st}}{n_{stmj}} \times \frac{1}{z_{stmi}} \times \frac{H_{stmi1j}}{h_{stmi1j}}$	$\frac{Z_{st}}{n_{stmj}} \times \frac{1}{z_{stmi}} \times D^{*}_{stmi} \times \frac{H_{stmi2j}}{h_{stmi2j}}$
	(j = 1, 2, 3)		

Note:

(i) For estimating any characteristic for any domain not specifically considered in sample design, indicator variable may be used.

(ii) Multipliers are computed on the basis of information available in the listing schedule irrespective of any misclassification observed between the listing schedule and detailed enquiry schedule.

(iii) For estimating number of villages possessing a characteristic, $D^{*}_{stmi} = 0$ in the relevant multipliers and there is only one multiplier for the village.

Appendix C

Schedule 25.2

Appendix C

Schedule 25.2

RURAL		*
URBAN		

GOVERNMENT OF INDIA
NATIONAL SAMPLE SURVEY OFFICE
SOCIO-ECONOMIC SURVEY

CENTRAL		*
STATE		

SEVENTY-FIRST ROUND: JANUARY TO JUNE, 2014
HOUSEHOLD SCHEDULE 25.2: SOCIAL CONSUMPTION: EDUCATION

[0] descriptive identification of sample household	
1. state/u.t.:	5. hamlet name:
2. district:	6. investigator unit /block:
3. tehsil/town*:	7. name of head of household:
4. village name:	8. name of informant:

[1] identification of sample household

item no.	item	code	item no.	item	code
1.	srl. no. of sample village/block		10.	sub-round	
2.	round number	7 1	11.	sub-sample	
3.	schedule number	2 5 2	12.	FOD sub-region	
4.	sample (*central-1, state-2*)		13.	sample hg/sb number	
5.	sector (*rural-1, urban-2*)		14.	second-stage stratum number	
6.	NSS region		15.	sample household number	
7.	district		16.	serial number of informant # (as in column 1 of block 4)	
8.	stratum		17.	response code	
			18.	survey code	
9.	sub-stratum		19.	reason for substitution of original household	

Codes for Block 1

item 17: ***response code***: informant: *co-operative and capable -1, co-operative but not capable -2, busy -3, reluctant -4, others -9.*

item 18: ***survey code***: *original -1, substitute -2, casualty -3.*

item 19: ***reason for substitution of original household***: *informant busy -1, members away from home -2, informant non-cooperative -3, others -9.*

** tick mark (√) may be put in the appropriate place.*

 # if the informant is not a household member, code 99 will be recorded.

[2] particulars of field operations

srl. no.	item		field investigator (FI)/ asstt. superintending officer(ASO)	field officer (FO)/ superintending officer (SO)
(1)	(2)		(3)	(4)
1(a).	(i) name (block letters)			
	(ii) code			
	(iii) signature			
1(b).	(i) name (block letters)			
	(ii) code			
	(iii) signature			
2.	**date(s) of:**		DD MM YY	DD MM YY
	(i) survey/ inspection			
	(ii) receipt			
	(iii) scrutiny			
	(iv) despatch			
3.	number of additional sheet(s) attached			
4.	total time taken to canvass the schedule by the team of investigators (FI/ASO) (in minutes) [no decimal point]			
5.	number of investigators (FI/ASO) in the team who canvassed the schedule			
6.	whether any remark has been entered by FI/ASO/supervisory officer (yes-1, no-2)	(i) in block 8/9		
		(ii) elsewhere in the schedule		

[8] remarks by investigator (FI/ASO)

[9] comments by supervisory officer(s)

[3] household characteristics					
1. household size			6.	social group (code)	
2. principal industry (NIC – 2008)	description		7.	distance(d) to nearest school having primary level classes(code)	
	code (5-digit)		8.	distance(d) to nearest school having upper primary level classes(code)	
3. principal occupation (NCO-2004)	description		9.	distance(d) to nearest school having secondary level classes(code)	
	code (3-digit)		10.	whether the household has a computer [@] (yes-1, no-2)	
4. household type (code)			11.	whether any member of the household (aged 14 & above) has access to use internet facility (yes-1, no-2)	
5. religion (code)			12.	household's usual consumer expenditure (₹) in a month	

CODES FOR BLOCK 3

item4 : household type:

for rural areas:
self-employed in agriculture-1,
self-employed in non-agriculture-2,
regular wage/salary earning-3,
casual labour in agriculture-4,
casual labour in non-agriculture-5,
others-9.

for urban areas:
self-employed-1,
regular wage/salary earning-2,
casual labour-3,
others-9.

***item 5: religion** : Hinduism-1, Islam-2, Christianity –3, Sikhism-4, Jainism-5, Buddhism-6, Zoroastrianism-7, others-9*

***item 6. social group** : scheduled tribe-1, scheduled caste-2, other backward class-3, others-9*

item 7/8/9: distance(d) to nearest school having primary/upper primary//secondary level classes :

$d<1km$ - 1
$1km \le d < 2$ kms - 2
$2kms \le d < 3$ kms - 3
$3kms \le d < 5$ kms - 4
$d \ge 5$ kms - 5

[@] **computer includes desktop, laptop, palmtop, notebook, netbook ,smartphone , tablets etc.**

[4] demographic and other particulars of household members

srl. no.	name	relation to head (code)	sex (male-1, female-2)	age (years)	marital status (code)	educational level (code)	for persons aged 14 & above				for persons aged 5-29 years		
							able to operate a computer?@ (yes-1, no-2)	if '1' in col.8			status of current educational attendance (code)	for code 7 in col.12 whether resident of students' hostel? (yes-1, no-2)	for code 1 or 2 in col. 12, status of current educational enrolment (code)
								able to use computer for word processing/ typing? (yes-1, no-2)	able to use internet for searching for desired information? (yes-1, no-2)	able to use internet for sending e-mails? (yes-1, no-2)			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)

CODES FOR BLOCK 4

Col. (3): relation to head: *self -1, spouse of head -2, married child -3, spouse of married child -4, unmarried child -5, grandchild -6, father/mother/father-in-law/mother-in-law -7, brother/sister/brother-in-law/sister-in-law/other relatives -8, servants/ employees/ other non-relatives -9*

Col.(6) : marital status: *never married – 1, currently married – 2, widowed – 3, divorced/separated – 4*

Col. (7) : educational level : *not literate -01, literate without any schooling -02, literate without formal schooling: through NFEC -03, literate through TLC/ AEC -04, others -05; literate with formal schooling: below primary -06, primary -07, upper primary/middle -08, secondary -10, higher secondary -11, diploma /certificate course(upto secondary)- 12 diploma/certificate course(higher secondary) -13, diploma/certificate course(graduation & above) -14, graduate -15, post graduate and above -16.*

Col. (12: status of current educational attendance: *never attended -1; ever attended but currently not attending -2; currently attending in: NFEC -3, TLC/AEC -4, other non-formal education -5, pre-primary (nursery/ Kindergarten, etc.) -6, primary level (class I to V) and above -7,*

Col. (14) : status of current educational enrolment : *not enrolled -01, enrolled in NFEC -03, TLC/AEC -04, Other non-formal -05, below primary (nursery/ Kindergarten, etc. -06, primary (class I to V) -07, upper primary/middle -08, secondary -10, higher secondary -11, diploma /certificate course(upto secondary) - 12, diploma or certificate (higher secondary) -13, diploma or certificate (graduation and above)-14, graduate -15, postgraduate and above -16*

@ **computer includes desktop, laptop, palmtop, notebook, netbook ,smartphone , tablets etc.**

[6] particulars of expenditure (₹) for those aged 5-29 years who are currently attending at primary level and above (with code '7' in col. 12 of block 4)						
		(1)	(2)	(3)	(4)	(5)
1.	serial no. [as in col.1,block 4]					
2.	age (years) [as in col. 5,block 4]					
3.	course fee (including tuition fee ,examination fee, development fee and other compulsory payments)					
4.	books, stationery and uniform					
5.	transport					
6.	private coaching					
7.	other expenditure					
8.	**total expenditure [items 3 to 7]**					
9.	if code '1' in col. 13 of block 4, place of hostel (state code)					

[5] education particulars on basic course of those aged 5-29 years who are currently attending at primary level and above (with code '7' in col. 12 , block 4)

				(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	srl no. [as in col.1,block 4]			1						
2.	age (years) [as in col. 5, bl. 4]			2						
3.	age at entry in school (years)			3						
4.	level of current attendance(code)			4						
5.	course (code)			5						
6.	duration of the current academic session of the course (in months)			6						
7.	whether present class/grade/year of study is same as that of previous year (yes-1, no-2)			7						
8.	type of institution (code)			8						
9.	*if '3' in item 8 and '07' or '08' in item 4,* nature of institution (code)			9						
10.	*if '2' or '3' in item 8,* reason for preferring private institution (code)			10						
11.	medium of instruction (code)			11						
12.	language mainly spoken at home (code)			12						
13.	type of course (code)			13						
14.	whether education is free? (yes-1, no-2)			14						
15.	*if '2' in 14,* whether tuition fee waived? (code)			15						
if waived (code 1 or 2 in item 15)		16.	amount waived (₹)	16						
		17.	reason for waiver (code)	17						
18.	received scholarship/stipend/reimbursement (yes-1, no-2)			18						
if received (code 1 in item18)		19.	amount received (₹)	19						
		20.	type of scholarship/stipend/ reimbursement (code)	20						
		21.	agency (*govt-1, others-2*)	21						
22.	received textbooks(code)			22						
23.	received stationery(code)			23						
24.	whether free mid-day meal/tiffin/nutrition is provided by the institution *(yes-1, no-2)*			24						
25.	if provided (*code 1 in item 24*), agency (*govt-1, others-2*)			25						
26.	mode of transport (code)			26						
27.	if (code 3 in item 26), then whether concession received? *(yes-1, no-2)*			27						
28.	distance(d) of institution from place of residence (code)			28						
29.	changed educational institution during last one year?(code)			29						
30.	taking private coaching? *(yes-1, no-2)*			30						
31.	If '1' in item 30, purpose of taking private coaching (code)			31						

CODES FOR BLOCK 5

item 4 : level of current attendance : *primary -07, upper primary/middle -08, secondary -10, higher secondary -11, diploma/certificate course(up to secondary) - 12, diploma/certificate course(higher secondary) -13, diploma/certificate course(graduation & above) -14, graduate -15, postgraduate and above -16.*

item 5: course code:

general: *upto class X - 01, humanities - 02, science - 03, commerce - 04;*

technical/professional: *medicine - 05, engineering - 06, agriculture - 07, law - 08 , management - 10, education - 11, chartered accountancy and similar courses - 12, IT/computer courses- 13, courses from Industrial Training Institute (ITI) , recognised vocational training institute, etc - 14, others -19*

item 8: type of institution: *government -1, private aided -2, private un-aided -3, not known -4*

item 9: nature of institution: *recognised –1; unrecognized -2, not known -3*

item 10: reason for preferring private institution: *government institution is not available nearby - 1, better environment of learning -2, English is the medium of instruction -3, quality of education in govt. institution not satisfactory -4, tried for government institution but could not get admission -5, cannot say - 6.*

items 11&12: medium of instruction / language mainly spoken at home: *Hindi -01, English -02, Assamese -03, Bengali -04, Bodo -05, Dogri -06, Gujarati -07, Kannada -08, Kashmiri -10,Konkani -11, Maithili -12, Malayalam -13, Manipuri -14, Marathi -15, Nepali -16, Oriya -17, Punjabi -18, Sanskrit -20, Santhali -21, Sindhi -22, Tamil -23, Telugu -24, Urdu -2 , others -29*

item 13: type of course: *full time -1, part time -2, distance learning-3*

item 15: whether tuition fee waived : *yes: fully –1, partly-2 ; no-3*

item 17 : reason for waiver: *ST -1, SC -2, OBC -3, handicapped -4, merit -5, financially weak -6, others -9*

item 20: type of scholarship/stipend/reimbursement: *ST -1, SC -2, OBC -3, handicapped -4, merit -5, financially weak -6, others -9*

items 22& 23: received text-books / stationery: *all free -1, some free -2, all subsidised -3, some subsidised -4, some free and some subsidised -5; no-6*

item 26: mode of transport: *on foot -1, school/institution bus -2, public transport -3, bicycle -4, others -9*

item 28: distance(d) of the institution from the place of residence: *$d<1$km -1; $1\text{km} \le d < 2$ kms -2; $2\text{km} \le d < 3$ kms -3; $3\text{km} \le d < 5$ kms -4; $d \ge 5$ kms - 5*

item 29: changed educational institution during last one year? *no-1, yes: govt. to private-2, private to govt -3, govt to govt-4, private to private-5*

item 31: purpose of taking private coaching: *augmenting basic education -1, preparation for exam for getting job -2, preparation for admission to institutes/courses -3, others-9.*

[7] particulars of currently not attending persons aged 5-29 years (with code 1 or 2 in col. 12 , block 4)								
				(1)	(2)	(3)	(4)	(5)
1.	srl no. [as in col.1,block 4]							
2.	age (years) [as in col. 5, block 4]							
3.	whether ever enrolled(*yes-1, no-2)*							
If ever enrolled (code '1' in item 3)		4.	age at first enrolment in school (years)					
		5.	level (code)					
		6.	type of education (code)					
		7.	whether completed? *(yes-1, no-2)*					
		for class X and below	8. grade/class completed before discontinuance/dropping out					
		9.	age when discontinued/dropped out(years)					
		10.	type of institution last attended (code)					
11.	major reason for never- enrolling/ discontinuing/ dropping out (code)							

CODES FOR BLOCK 7

item 5: level: *enrolled in :*
NFEC - 03, TLC/AEC-04, other non-formal –05;
formal schooling:
below primary -06, primary -07, upper primary/middle -08, secondary -10, higher secondary -11, diploma/certificate course(up to secondary) -12, diploma/certificate course(higher secondary) -13, diploma/certificate course(graduation & above) -14, graduate -15, postgraduate and above -16

item 6: type of education: *general-1, professional/technical-2*

item 10: type of institution last attended : *government-1, private aided-2, private unaided –3, not known-4*

item 11: major reason for never- enrolling / discontinuing / dropping out:

applicable for all

not interested in education ...01
financial constraints ...02
engaged in domestic activities ...03
engaged in economic activities ...04
school is far off ...05
timings of educational institution not suitable ...06
language/medium of instruction used unfamiliar ...07
inadequate number of teachers ...08
quality of teachers not satisfactory ...10
others *...19*

applicable for "never- enrolled" cases only

no tradition in the community ...11

applicable for "ever- enrolled" cases only

unable to cope up with studies/ failure in studies ...12
unfriendly atmosphere at school ...13
completed desired level/class ...14
preparation for competitive examination ... 15

applicable for girl students only

non-availability of female teacher ...16
non-availability of girls' toilet ...17
marriage ...11

N.S.S. Division
Department of Economics & Statistics