AEPAM Research Study No. 10

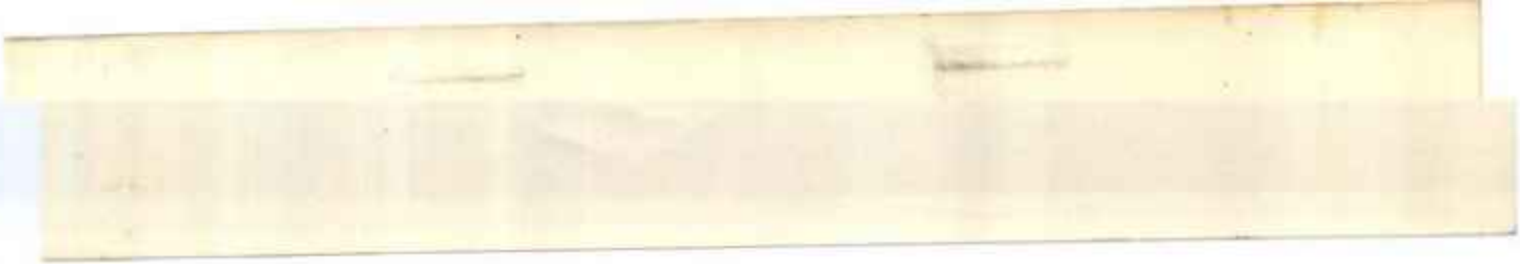
STATISTICAL PROFILE

OF THE

SCHOOL SYSTEM IN PAKISTAN

Academy of Educational
Planning and Management
ISLAMABAD

1984



The Academy has recently been designated as the national centre for the development of computerised Educational Management Information Services (EMIS). It will assist in the identification of data requirements for planning and management, provide specialised training programmes in the area of computers and EMIS, develop systems and programmes relating to desired output formats, and initiate work in the fields of trends analysis, input and cost projections, and factors promoting pupil retention, as the necessary data becomes available. In the interim, some simplified computerised analyses are envisaged, using data from the District level.

The encouragement and guidance of the Federal Minister of Education and the Education Secretary in the development of the Academy's programmes are gratefully acknowledged.

I hope the report will be of great use to all concerned with the development of education and the implementation of the Education Plans in the country.

(Dr. Tahir Husain)
Director General

for attention here. The lack of data on repetition rates in the various grades, and the inclusion of 'kacha' pupils in first grade enrolment figures serve together to prevent any satisfactory computation of internal efficiency or drop-out. The required data has been collected for certain Tehsils by MUST Peshawar, which suggests that some 37% of pupils entering the system there complete the cycle of primary education

There has been a massive expansion in the school system from 11 thousand schools in 1947 to over 80 thousand schools in 1983-84. The number of pupils and teachers has increased accordingly. The pupil teacher ratio has remained constant in the range 29-34. The pattern of expansion has been approximately linear. The need for an improved system of data collection emerges from every section of the study, and work is in hand to develop guidelines in this respect.

This report represents a first attempt to review the data in this field. Any errors or omissions noted by the readers may kindly be brought to the authors attention, so that necessary corrections/amendments are made in the subsequent issue of this study.

We are grateful to the Director General of the Academy, Dr. Tahir Husain, for his constant encouragement and guidance. The specialist advice of Dr. Abdul Ghafoor and Mr. L. Habib Khan, who have been of great assistance, and the support and help of other faculty members, are much appreciated.

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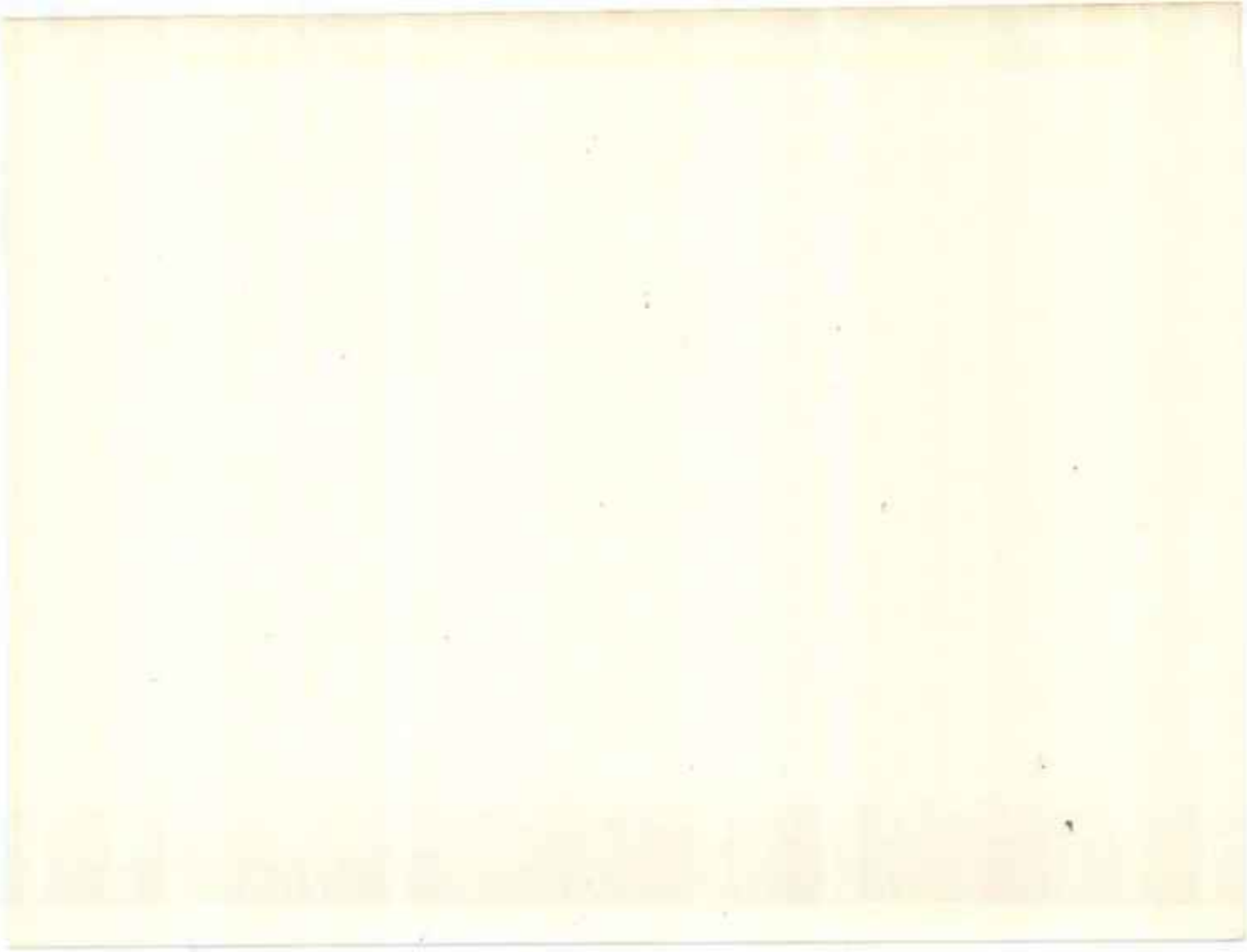

1. OVERVIEW AND SUMMARY

The present study represents an attempt to construct a quantitative model of the school system, using presently available data from various sources. The data was known from the outset to be limited. Nevertheless the exercise seemed worthwhile, as the quantitative aspects of the system have received insufficient attention in recent times. As is well known, there are various estimates of the most basic system parameters. A further consequence is the lack of information required to quantify problems such as wastage and stagnation at the different stages of education.

One function of the study is thus to highlight the need for improved systems of data collection and processing. These improved systems would operate in the years ahead, however. Only to a limited extent would they be retrospective. Hence the present volume indicates the data position for the period up to the present. Time-series analyses will use this data, unless a special research is carried out to consult original records on a particular topic. In other words, the pages which follow summarise the quantitative context in terms of which educational planning and management activities will be conceived and conducted for some years to come.

Changing definitions of literacy obscure the pattern of progress in this area, but a figure of 26% is now accepted. This represents a modest level of literacy in urban areas and a very low level of literacy in rural areas (some 23% of males and 5% of females). Due to population growth, the absolute number of illiterates cannot be brought down until participation and retention of rural children, especially girls, in primary schooling is improved. The high proportion of illiterate parents has important implications, moreover, for the method and content of schooling (Section 2.4). Data on the educational attainments of the population lead to similar conclusions. (Section 2.5)

Census data relating to the economic activities performed by persons aged 10 and above underlines the useful contribution made by children of the age-group 10 to 14 years to the household activities. 40% of rural boys of this age are recorded as working, while 88% of rural girls are recorded as housekeeping. There is a real case for undertaking experimental studies of time-tabling arrangements which permit the children to continue their studies in addition to helping with household duties or income. (Section 2.6)

The data on linguistic structure of the population brings out the need for a thorough study of teaching method and teacher training at primary level. The majority of children undertake their school studies in a second-language situation and teaching methods need to be developed accordingly. (Section 2.7)

The proportion of girls to boys is much lower in rural than in urban areas. (Section 3.1).

The teacher inputs to the school system, as of 1983-84, comprised 250 thousand male teachers and 101 thousand female teachers or just over 350 thousand in total. There is no published information on their qualifications since 1976-77. Figures for NWFP indicate that about 15% to 20% of rural primary school teachers are untrained. (Section 3.2).

The number of schools as of 1983-84 has been estimated at 82409 or with corrections added by the Planning Commission, at 86,167. Some 87% of the boys' schools are at primary level, while for girls the figure is 88% in the year 1982-83.

The estimation of participation rates is subject to errors due to several factors:-

i) Nursery or 'Kacha' pupils inflate the primary level enrolment figures which supposedly cover grades 1 to 5 only.

ii) Enrolment figures are inflated by repetition where pupils spend additional years in a particular stage of education;

-- --- age group. About one third of the successful candidates are girls. (Section 3.7).

Dimensions of the functional units

Published data is not available regarding the size of schools, in terms of numbers of pupils. This is because the published figures for enrolments in the primary grades include a large number of pupils in primary units attached to secondary schools, - with a similar limitation in respect of the middle school level. Data for Punjab, 1979-80, indicates that the average size of a boys' primary school is 75 pupils, whereas primary level units in middle and high schools have an average enrolment of 157 and 356 pupils respectively. For girls these figures were 61, 187 and 432 respectively. The

same report showed the existence of many schools with very small enrolments (Section 4.1)

The average number of teachers per school is about 3 for primary schools, 10 for middle schools and 20 for high schools. However, many rural schools had only one teacher (Section 4.2)

There is little information on physical inputs but the survey conducted by the Bureau of Education Planning and Management in 1976 probably remains valid, with its implications that the administrative structures are inadequate to keep school buildings in good condition. (Section 4.3)

Internal efficiency of the school system

Cohort flow charts cannot be constructed in the absence of time-series data on the number of pupils repeating each grade. Even time-series data for apparent cohort flow charts (in which repetition is ignored) is available only for the period 1973-74 to 1977-78 (the latter figures being estimates). Apparent cohort flow charts using this time series, as well as charts computed using the grade retention ratio method, are presented in the report. They indicate completion of primary schooling by 59% (or 57%) of males and 42% (or 43%) of females. Fuller data from M.U.S.T., Peshawar, covering five rural Tehsils of NWFP indicates that 37% of pupils completed the cycle of primary schooling. A total input of 9 pupil-years was required to 'produce' one pupil in grade 5. (Section 5.1)

Expansion of the school system, 1947-84

Enrolment in the school system has increased from just over one million pupils in 1947 to almost 9 million in 1983-84. Since 1960, there has been an average addition of some 200 thousand pupils per year in the primary grades, some 50 thousand per year at middle level, and some 20 thousand per year in grades 9 and 10 (recently, more). Since 1970, the average annual expansion has been of the following order:-

Stage	Boys	Girls	% increase	
			Boys	Girls
Primary	1,00,000	80,000	3	5
Middle	55,000	19,000	4	7
High	50,000	8,000	12	8

The irregularities of the statistics, which for recent years are given as estimates, make it impossible to discern precise trend in the underlying rate of increase.

The number of teachers has risen from 37 thousand in 1947 to some 356 thousand in 1983-84. Since 1970, the average annual net increase in the number of teachers has been as below (Section 7.2)

Schools	Boys	Girls	% increase	
			Boys	Girls
Primary	8000	2500	6	6
Middle	1100	700	4	6
High	2400	1000	6	6

Participation rates are estimated by the Planning Commission to have risen from 42% and 9% for boys and girls respectively in 1959-60 to 66% and 33% in recent years. At middle level the corresponding figures for 1959-60 are 22% and 4% respectively, with improvement to 35% and 14% in recent years. At high school level, the participation rates for boys and girls rose from 13% and 2% respectively in 1959-60 to 22% and 8% in recent years (section 7.4).

The output of matriculates has risen from 55 thousands in 1960 to 213 thousands in 1983-84, in line with the increased enrolment at secondary level. (Section 7.5)

The recurrent expenditure on primary schooling has risen from Rs. 191 million in 1970-71 to Rs. 1521 million in 1981-82 at current prices. At constant 1970-71 prices, this represents an increase from Rs. 191 million to Rs. 410 million. Per pupil recurrent expenditure rose from Rs. 48 in 1970-71 to Rs. 265 in 1981-82. In real terms (in 1970-71 prices), per pupil expenditure appears to have increased slightly, from Rs. 48 in 1970-71 to Rs. 71 in 1981-82.

The recurrent expenditure on secondary schooling has risen from Rs. 83 million in 1970-71 to Rs. 855 million in 1981-82 at current prices. At constant 1970-71 prices, this represents an increase from Rs. 83 million to Rs. 230 million. Per pupil recurrent expenditure rose from Rs. 64 in 1970-71 to Rs. 428 in 1981-82. In real terms (in 1970-71 prices), per pupil expenditure appears to have risen, from Rs. 64 in 1970-71 to Rs. 114 in 1981-82.

The development expenditure on primary schooling has risen from Rs. 31 million in 1970-71 to Rs. 308 million in 1981-82 at current prices. At constant 1970-71 prices, this represents an increase from Rs. 31 million to Rs. 83 million. The development expenditure on secondary education has risen from Rs. 10 million in 1970-71 to Rs. 132 million in 1981-82 at current prices. At constant 1970-71 prices, this represents an increase from Rs. 10 million to Rs. 36 million.

2.2. Population.

The Population of Pakistan, as of 1 March 1981, was estimated by the census authorities as 84 million. This comprised a count of 44 million males and 40 million females (90 females per 100 males). The distribution of Population by Province and the proportion of population in each province is given in Table 2.2.I.

n, by Province and area (in thousands)

male	Total	Proportion
828	83781	100
,363	47,116	56
,012	18.966	23
,225	10,884	13
,029	4,305	5
,046	2,175	3
153	335	

an, 1981, Bulletin No.7.
from this Bulletin, or the
2, unless otherwise noted.

ed Northern Areas (FANA) and
s not included in the Census tables.

2.3. Rates of population growth and age-structure of the population.

The increase in population from 65 million in 1972 to 84 million in 1981 represents an annual growth rate, calculated in a compound interest formula, of about 3%. Growth rates by Province were also at this level (Table 2.3.1.). Due to uncertainties regarding possible mis-reporting, especially under-reporting in 1961, it is not possible to identify precise trends in population growth.

Table 2.3.2. Population of Pakistan, 1901 to 1981

	Million	Inter-census annual compound growth rate
1901	16.6	-
1911	19.4	1.6
1921	21.1	0.9
1931	23.5	1.1
1941	28.3	1.8
1951	33.8	1.8
1961	42.9	2.4
1961*	46.1 (adjusted for under enumeration)	3.2
1972	65.3	3.2 (from adjusted total).
1981	83.8	2.8

Source: Pakistan Economic Survey of 1982-83

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The rate of population growth, with a birth-rate of 41 per thousand and a mortality rate of 11 per thousand leads to a situation where a high proportion of the population is dependent. The population of working age-taken as 15 to 64 years, is about the same as the population of dependent children and the elderly (taken as those under 15 years and 65 and over). The Province-wise distribution of gross-Dependency ratio is given below:-

Table 2.3.3. Gross dependency ratio by Province 1981.

	Percent
Pakistan	97.0
N.W.F.P.	105.8
Punjab.	95.0
Sind	95.7
Baluchistan.	110.1

The demands placed upon the community by this age structure, in relation to the scale of desirable educational provision, are indicated by the 'school-age dependency ratios' (-the ratio of children aged 5 to 14 years to the population of 15-64 years).

Table-7.3.5 : AGE STRUCTURE OF POPULATION AT NATIONAL AND PROVINCIAL LEVELS 1981

(In thousands)

	Population			Percentage		
	Total	Male	Female	Total	Male	Female
Pakistan	81,607	42,824	38,783	100	52.5	47.5
Punjab	47,116	24,753	22,363	100	52.5	47.5
Sind	18,966	9,954	9,012	100	52.5	47.5
N.W.F.P.	10,885	5,659	5,225	100	53.0	48.0
Baluchistan	4,305	2,276	2,029	100	52.9	47.1

AGE STRUCTURE

		0-4	5-9	10-12	13-14	15-19	20-24	25 & above	Total
Pakistan	T.	13094	13200	6334	4232	7711	6339	30707	81607
	%	16.0	16.2	7.8	5.2	8.7	7.8	37.6	100
	M.	6469	6866	3446	2297	4139	3300	16306	42824
	%	15.1	16.0	8.0	5.5	9.6	7.7	38.0	100
	F	6624	6334	2888	1925	3572	3039	14401	38783
	%	7.0	16.3	7.4	5.0	9.2	7.8	37.1	100
Punjab	T.	7305	7227	3680	2454	4656	3674	18120	47116
	%	15.5	15.3	7.8	5.2	9.8	7.8	38.5	100
	M	3702	3809	1988	1326	2445	1897	9586	24753
	%	15.0	15.4	8.0	5.3	9.9	7.6	38.7	100
	F	3604	3418	1692	1128	2211	1777	8534	22363
	%	16.1	15.3	7.6	5.0	10.0	8.0	38.1	100

in individual age groups, as, for example in Table 2.3.6

Table 2.3.6 : Population by single year age group, 1972 (upto age 15 years).

Age (Years)	Males	Females
Under 1 year	885500	725114
1	646889	695107
2	1031451	1072806
3	1087149	1135341
4	1074336	1059794
5	1178275	1084684
6	1182462	1099017
7	944272	874384
8	1356930	1168611
9	654922	587929
10	1407797	1109087
11	492021	408699
12	1235390	902915
13	563951	455768
14	684900	574652

The lack of records relating to birth dates especially in rural areas means, one may note, that even a conscientious school headmaster/headmistress would be unable to supply accurate data on the age of pupils

Year	TOTAL (in millions)		Increase (in million)		Percentage compound annual increase	
	Primary	Secon-dary	Primary	Secon-dary	Primary	Secon-dary
1951	4.2	5.2	-	-	-	-
1961	6.5	3.8	2.3	-1.4	4.4	
1972	10.1	7.8	3.6	4.0	5.0	
1981	13.2	10.6	3.1	2.7	3.0	3.3

Source: Children and youth in Pakistan: a statistical profile (Federal Bureau of Statistics, Karachi, 1983).

Note: The apparent decrease in 1961 suggests some anomaly in the statistics.

2.4. Literacy status, by sex and age-group.

The census tabulations for 1981 initially indicated a literacy level of 23%. This may be compared with literacy figures from previous censuses:-

Table 2.4.1: Literacy status of population aged 10 and above, 1961 to 1981, by sex.

	Percent literacy		
	Males	Females	Both sexes
1961	26.9	8.2	18.4
1972	30.2	11.6	21.7
1981	31.8	13.7	23.3

The census authorities have indicated that the figure for 1981 may be an underestimate, and a revised figure of 26% is now accepted.

It may be noted that there has been some change in the definition of literacy between censuses, which renders comparison difficult. The definition in 1972 was ability to read and write with understanding, while in 1981 the definition was ability to read a newspaper and write a simple letter. Completion of primary education was also taken as indicator of literacy.

/ sex, 1981

e

Both Sexes	Urban		Both Sexes		Rural		Both Sexes	
	M	F	M	F	M	F	M	F
23.3	51.5	33.7	43.4		23.1	5.5	14.8	
22.2	41.9	38.0	40.1		20.6	7.5	14.6	
34.1	60.5	51.3	56.2		33.6	11.3	23.3	
32.1	62.4	44.6	54.4		32.3	8.7	20.6	
27.5	60.1	37.4	49.6		28.6	6.0	17.4	
24.0	57.8	30.7	45.2		25.4	4.3	14.9	
22.4	55.5	26.9	42.2		24.0	3.4	13.8	
.9.2	50.2	21.5	37.4		20.6	2.5	11.7	
.7.6	47.9	19.3	35.4		18.6	2.	10.6	
.3.8	39.6	14.8	29.0		13.8	1.5	8.2	
4.6	45.1	13.6	31.5		15.3	1.1	8.6	
9.5	30.7	7.4	20.8		10.0	0.7	6.0	

.kistan, 1981, Census Baluchistan No.7.

Literacy levels of different age-groups, by sex, are shown in Table 2.4.2. It is interesting to note that the age-group 10-14 is consistently recorded at national level and in all tabulations of sub-groups, both in 1972 and 1981, as having a lower level of literacy than the age-group 15-19. This may reflect the wording of the questions or the attitude of respondents, more than the effect, also present, of late enrolment for primary eduation by some pupils and perhaps slow progress due to repetition.

It may be noted that the level of literacy over-all is held back by the low level of literacy among rural females. The peak level of literacy among rural females is 6%, for the age-going 15-19, and the average for rural females aged 10 and above is 5.5%.

The absolute numbers of literates and non-literates in 1981 (computed from the published literacy rates) may be compared with the figures for 1972 (Table 2.4.3).

still low. The magnitude of the task facing the Literacy and Mass Education Commission is also self-evident.

It may be noted further that many children entering the school system come from families where the parents persons are illiterate. The rural mother , at least, cannot assist her children in acquiring the basic skills of literacy and numeracy . Where the mother or both parents are illiterate, there may be a weaker impulse to get children admitted to school ,and retention in school may be diminished if parents cannot help their children over the particular difficulties they may experience.

Urban	5	6	5
Rural	2	4	1
TOTAL	3	4	2

Primary

Urban	13	14	11
Rural	7	10	3
TOTAL	9	11	5

MIDDLE

Urban	9	10	7
Rural	3	4	1
TOTAL	4	6	2

MATRICULATION

Urban	8	10	5
Rural	2	3	-
TOTAL	4	5	2

	Both Sexes	Male	Female
INTERMEDIATE AND ABOVE			
Urban	6	8	4
Rural	1	1	-
TOTAL	2	3	1
OTHERS			
Urban	-	-	-
Rural	-	-	-
TOTAL			
Sub-TOTALS			
Urban	41	48	32
Rural	15	22	5
TOTAL	22	29	12
No Education recorded			
POPULATION AGED 5 AND ABOVE			
Urban	59	52	68
Rural	85	78	95
TOTAL	78	71	88
	100	100	100

their contribution to household income/duties and in the case of girls, to cultural factors also.

Table 2.6.1: Economic activities of males aged 10-24, by urban/rural location, 1981

Urban	Working	Looking for work	Students	Others	Total
10-14	14	4	48	34	100
15-19	42	6	35	17	100
20-24	63	4	14	19	100
Rural					
10-14	40	2	25	33	100
15-19	61	2	17	15	100
20-24	79	2	4	15	100

2.7. Linguistic structure of the population.

It may be noted here that the linguistic structure of the population has major practical implications for education. Schooling is mainly in the national language, Urdu. This is a second language for many children, related linguistically to their first language.

Table 2.7.1: Language spoken in households, 1981.

Punjabi.	48
Sindhi.	12
Urdu.	8
Pushto.	13
Sariki.	10
Baluchi.	3
Other.	6
	100

Source: Census of Population, 1981.

2.8. Spatial concentration or dispersion of population.

As of 1981, about 29% of the population resided in urban areas and 71% in rural areas. The incidence of large towns ensured a higher percentage of urban population in Sind and Punjab. The province wise distribution of urban population is given in the following Table:

Lahore.	2953
Faisalabad.	1104
Rawalpindi.	795
Hyderabad.	752
Multan.	732
Gujranwala.	601
Peshawar.	506
Sialkot.	302
Sargodha.	291
Quetta.	286
Islamabad.	224

The incidence of large towns in certain of the administrative Divisions leads to widerdiscrepancies in population density which arise also from differences in terrain and climate. Population density in 1981 thus varied from 2944 persons per sq. mile in Karachi District to 204 in Chagai District, Baluchistan. Excluding Baluchistan, population density was lowest in Bahawalpur (59), Chitral (14) and Sukkur (43) (data from 1981 Census).

The problems of meeting educational needs where population density is low and communications poor need little emphasis. In a Census of primary education in 4 talukas of rural Sind, the following sizes of various villages were reported:-

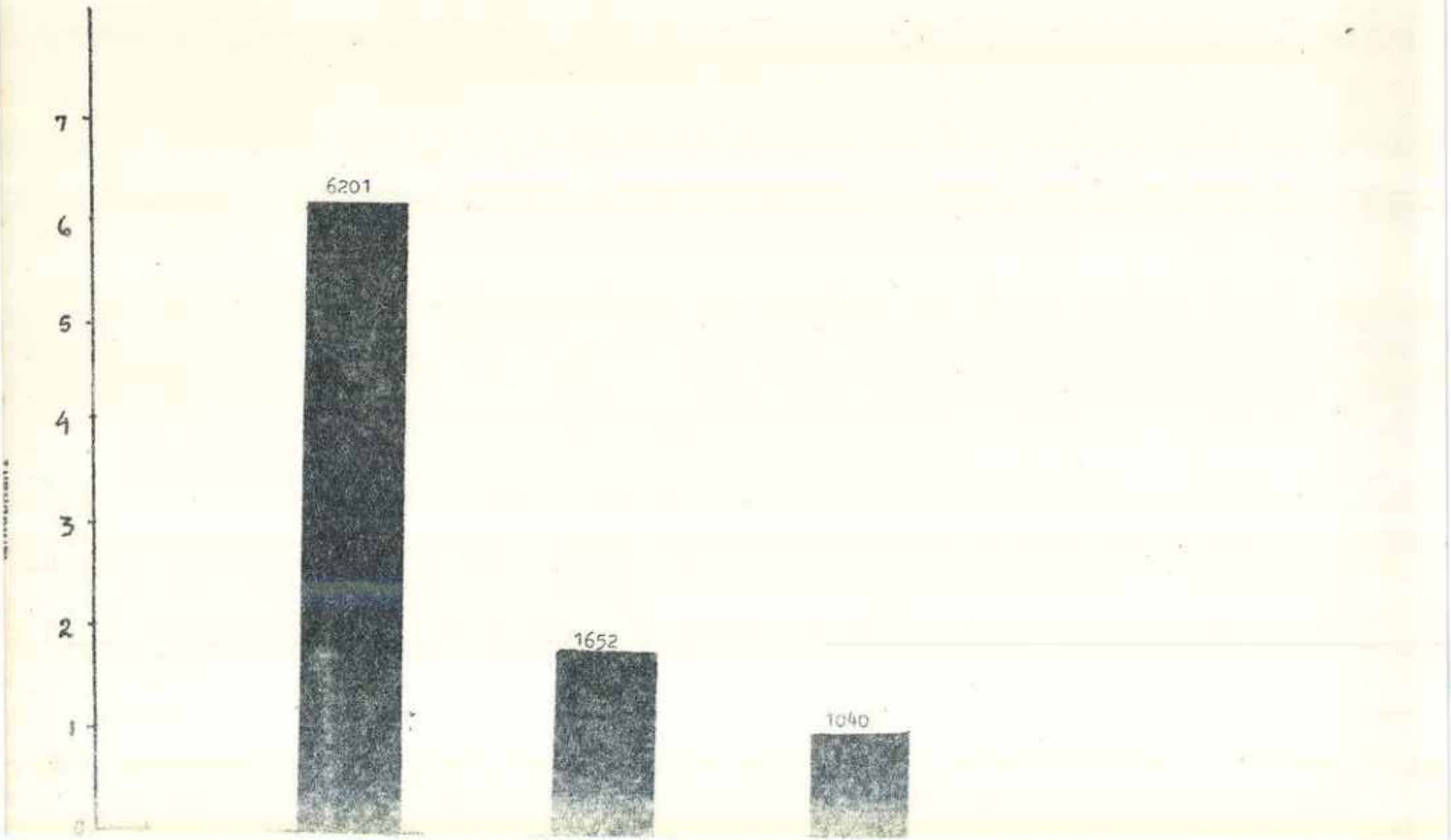
Table 2.8.3: Size of villages in 4 talukas of rural Sind

Population Size	No. of villages
Under 200.	2885
200-499	340
500-999	64
1000-1999	25
2000 + 5	5

Source: Pilot Census of Primary schools in Sind 1980-81 (Bureau of Statistics, P&D Department, Sind).

(in thousand)

Fig. 3.1.1 ENROLMENT IN SCHOOL BY LEVEL, 1983-84



Baluchis-tan	164.8	40.2	8.3	213.3
FATA	77.3	8.6	2.4	88.3
FANA	23.4	10.4	9.3	43.1
Islamabad PCA	26.1	5.2	5.1	36.4

Source: Central Bureau of Education.

Education is a Provincial subject. However, the Federal Ministry of Education has responsibility for matters such as education policy, planning, curriculum and syllabi, and standards of education. Likewise the Planning & Development Division of the Federal Government has responsibility for preparation of the Five Year, Annual Development Plans and allocation of development funds, The Provincial Governments however provide recurring expenditure for School education.

Table 3.1.3: School enrolment by level, females & Province, 1982-83

(in thousands)

	Primary level	Middle level	High School level	Total
Pakistan	2010.2	413.3	167.1	2590.6
Punjab	1350	235	84	1669
Sind	444	126	50	620
N.W.F.P.	125.0	22.3	20.6	167.9
Baluchistan	35.6	11.9	2.4	49.9
FATA	5.0	0.2	0.06	5.26
FANA	2.1	0.9	1.6	4.6
Islamabad FCA	18.0	4.0	2.2	24.2

Source: Central Bureau of Education

oth Sexes and Provinces, 1982-83

(in thousands)

ddle vel	High School level	Total
143	946.6	8740.3
987	544	5109
367	161	2047
150.7	197.9	1011.5
52.1	10.7	263.2
8.8	2.5	93.6
11.3	10.9	47.7
9.2	7.3	60.6

It may be noted here that these estimates of pupil numbers may include some of the pupils in privately run schools but not all. Corrections for this factor and use of different sources lead to discrepancies between these figures originating in the Federal Ministry of Education and the figures cited in the 6th Five Year Plan. The same types of discrepancy exist with respect to the number of schools. The installation of an improved system of collection and processing of educational statistics is clearly a basic requirement for system management. Full coverage of statistical information of the private sector is also essential.

The administration of the school system is made more difficult because each sub-system includes a high proportion of rural schools and pupils. For boys in Punjab 73% of primary level pupils, 51% of middle level pupils and 32% of pupils in grades 9 and 10 are studying in rural areas. The comparable figures for girls are much lower (Table 3.1.4). Data for NWFP shows the same pattern (Table 3.1.5).

Table 3.1.6: Distribution of enrolment between rural and urban areas, by level, by sex, NWFP, 1981-82.

	Enrolment			Rural pupils as percentage of total.
	Rural	Urban	Total	
Stage.				
Primary				
Boys.	412610	77123	489733	84
Girls.	85787	48505	134292	64
Total:	498397	125628	624025	80
Middle.				
Boys.	93393	32873	126196	74
Girls.	2961	5309	8270	36
Total:	96284	38182	134466	72
High.				
Boys.	16122	49551	65673	25
Girls.	857	5824	6681	13
Total:	16979	55375	72354	23

Source: Directorate of Education, NWFP.

at high school level, for example, to be qualified at the level d e e m e d appropriate for grades 9 and 10. The fact that 352 of high school teachers were qualified M.Ed. or B.Ed. level must be interpreted in this context.

Province wise untrained Teachers

It may be noted that the numbers of untrained teachers recorded in the publication Educational Statistics in Punjab, 1979-80 were slightly lower than the comparable figures for 1976-77 published in Pakistan Education Statistics, 1947-1979 The proportions of untrained teachers in 1979-80 were 1.8% of male teachers and 7.2% of female teachers. From Table 3.2.2 it will be observed that the percentage of untrained male teachers in Punjab was 3% and that of females 10%. The overall untrained teachers percentage was 6.

From Table 3.2.2, it will be observed that the percentage of untrained teachers in the Province of Sind was the highest i.e. 26% of which male constituted 12 and female 5%. Similarly, is the case of NWFP where the overall percentage of untrained teachers was 9% out of which 7% were male and 17% were female.

Table 3.2.2: Percentage of primary school teachers recorded as untrained, by Province, 1976-77

	% of male teachers untrained	% of female teachers untrained	% of all teachers untrained.
Pakistan.	7	19	11
Punjab.	3	10	6
Sind.	12	5	21
N.W.F.P.	7	17	9
Baluchistan.	N.a.	N.a.	N.a.

Source: Pakistan Education Statistics, 1947-1979.

Table 3.3.2: Number of schools by level, sex and Province, 1982-83

	Primary			Middle			High			Total		
	Male	Female	Male & Female	Male	Female	Male & Female	Male	Female	Male & Female	Male	Female	Male & Female.
Punjab.	27189	15427	42616	2339	1216	3555	1432	661	2093	30960	17304	48264
Sind.	13287	2452	15739	974	190	1164	612	252	864	14873	2894	17767
N.W.F.P.	6128	1851	7979	478	112	590	526	103	629	7132	2066	9198
Baluchistan.	2665	447	3112	310	43	353	128	43	171	3103	533	3636
FATA.	1106	154	1259	191	11	202	94	8	102	1390	173	1563
FANA.	377	47	424	57	5	62	29	4	23	463	56	519
Islamabad.FCA	72	89	161	19	9	28	25	15	46	116	113	229
Pakistan.	50851	20507	71358	4384	1595	5979	3925	1122	4037	59160	23224	82384

Source: Central Bureau of Education.

Recent figures for Punjab indicate that over 90% of its primary schools are located in rural areas. For boys' middle schools the population is again 90%, but for boys' high schools it is 59%. Only 77% of girls' middle schools and 33% of girls' high schools were located in rural areas (Table 3.3.4). In NWFP the proportion of rurally-located high schools was substantially higher (Table 3.3.5).

Pending results from the nationwide school-mapping exercise of 1983, it is not possible to determine the geographical coverage represented by the rural schools. Broadly speaking, however, and excepting Baluchistan, there is almost parity between the number of 'villages' (enumerated on the basis of traditional usage of the term by the Ministry of Local Government) and the numbers of boys' primary and middle schools in rural areas (Table 3.3.6). The tendency to have more than one school in a given village means in practice that these figures do not correspond to complete coverage. Nor does the traditional usage of the term 'village' cover the smallest settlements. Nevertheless the figures indicate that primary education is to a considerable degree accessible as far as boys are concerned. If their families do not press forward to ensure admission and retention of the boys, the fault may be in the lack of suitable content and presentation of the primary school curriculum (and in various out-of-school factors) more than in the lack of schools.

As far as girls are concerned, even the recognised 'villages' often lack schools (42% in Punjab, 78% in NWFP and 91% in Baluchistan).

Table 2.3.4: Distribution of schools between rural and urban areas, by level, by sex, Punjab, 1983 (June).

	Number of schools			Rural schools as percentage of total.
	Rural	Urban	Total	
Primary.				
Boys.	17132	1887	19019	90
Girls.	12511	1518	15029	90
Total:	30643	3405	34048	90
Middle.				
Boys.	2079	255	2334	90
Girls.	948	276	1224	77
Total:	3027	531	3558	85
High.				
Boys.	840	595	1434	59
Girls.	219	453	672	33
Total:	1068	1038	2106	51

Source: Directorate of Education, Punjab.

Note: The following rural schools are not included above: Mosque Schools (I-V): 9533; Mosque Schools (I-III): 1500; Primary Schools (IV-V) 1600.

High.

Boys.	416	78	494	84
Girls.	36	60	96	37
Total:	452	138	590	77

Source: Directorate of Education, NWFP.

Note: The following schools are not included above: Mosque (54 urban, 561 rural), Maktab (37 urban, 129 rural).

Table 3.3.6: Number of "Villages" as usually defined, compared to numbers of rural primary and middle schools, by sex and province.

Province	No. of "Villages"	No. of Primary and middle schools in rural areas.		Apparent/minimum estimate of "villages" without school.			
		Boys	Girls	Boys	Girls	Percentage Boys	Girl
Punjab.	25000	23236	14459	1764	10541	7	42
N.W.F.P.	7442	5791	1637	1651	5805	22	78
Baluchistan.	5761	3075	490	2686	5271	47	91
Sind.	5760	20252 (boys+ girls)	-	-	-	-	-
(Hyderabad Division)	n.a.	(4472)	(739)				

Sources:

i. No. of villages, as traditionally defined: Ministry of Local Government.

ii. No. of primary and middle schools in rural areas derived as below:

a. Punjab: 1983 data, from Education Department, Punjab.
b. Sind: 1982-83 data, from Education Department, Sind.
c. N.W.F.P. 1981-82 data, from Education Department, NWFP.
d. Baluchistan. 1982 data, including urban as well as rural schools.
e. FATA. 1983 data, from Directorate.
f. Hyderabad Division. Directorate of School Education, Hyderabad (Sind) 1981-82.

level of schooling, to the size of the population in the corresponding age-group. The participation rate in primary education, for example, is calculated by the formula:

$$\frac{\text{Enrolment in grades I to V}}{\text{Population aged 5 to 9}} \times 100 \text{ per cent.}$$

Using this formula the dimensions of the student enrolment may be compared with the dimensions of the population.

Table 3.4.1: Participation rates in different levels of schooling, 1981-82

(per cent)

Participation rates.	Primary	Middle	High
Males.	56	31	18
Females.	30	13	7
Both sexes.	43	23	13

Source: Enrolment from Central Bureau of Education; population from 1981 Census, Bulletin 7.

It may be seen that according to these figures just over half the boys of primary school age are in school, and less than a third of the girls. Participation rates at middle and high school level are correspondingly low.

Estimates prepared by the Planning Commission for the 6th Five Year Plan give slightly more favourable rates.

Table 3.4.2: Participation rates at different levels of schooling, 1982-83, 6th Five Year Plan.

(Per cent)

Participation rates.	Primary	Middle	High
Males.	63	35	21
Females.	32	14	9
Both sexes.	48	26	16

by level of education, sex and [illegible],
Province 1981-82

(Per cent)

Sind	NWFP	Baluchistan
57	59	32
30	16	6
26	22	9
17	4	3

To what extent do these participation rates reflect the situation in the country as a whole? Table 3.4.3 indicates that the participation rates for boys are quite similar in the three largest Provinces of Punjab, Sind and NWFP. Participation rates for Baluchistan are substantially less. For girls,however, there is a gradation. At primary level, Punjab and Sind have female participation rates of 36% and 30% respectively, followed by NWFP with only 16% and Baluchistan with 6%. At secondary level, Sind is ahead of Punjab on the female side, while NWFP has low participation rates not much greater than Baluchistan.

It should be stressed that the participation rate thus calculated is a very crude instrument of measurement. Weaknesses include the following:

i) 'Nursery' or 'Kacha' pupils are included with class I enrolments by some respondents and perhaps omitted by others.

ii) Some pupils spend more than the specified number of years in a particular stage of education e.g. taking 6 to 7 years tocomplete classes 1 to 5, or 4 years to complete middle school etc.

iii) Accurate figures are not available for enrolment in private schools.

iv) There are general errors of data collection in both the educational figures and the age-group totals of the population censuses.

3.5. Output of the system.

As noted earlier, the education statistics do not permit a measurement of the output of the system, in terms of numbers of grades, or years of schooling, completed. The number of matriculates passing the grade 10 matriculation examination is estimated at just over 200 thousand per year, or 10% of the age-group. Approximately one-third of the successful candidates are girls (see also section 7.5).

more than one level of schooling e.g. middle + high. Table 4.1.1. shows this situation as illustrated for boys' schools in the Punjab. Some 78% of the primary level pupils were enrolled in primary schools and as such the remainder in middle and high schools. The average size of a boys' primary level unit rose from 75 in primary schools to 157 in units attached to middle schools and 356 in units attached to high schools (Table 4.1.2.). The situation for girls' schooling was similar. At primary level, the average size of

Table 4.1.1: Enrolment in boys' schools, by level and by type of school, Punjab, 1979-80.

(In thousands)	Primary schools	Middle schools	High schools	Total
Primary level.	1591	354	91	2036
Middle level.	-	238	421	659
High level.	-	-	202	202
Total:	1591	592	714	2897

Source: Educational Statistics in Punjab, 1979-80: (Bureau of Education, Lahore).

Table 4.1.2 Average enrolment in boys' primary level units, by level and type of school, Punjab, 1979-80.

	Primary unit			
	Primary schools	Middle schools	High schools	Total
i. Enrolment in primary level units (in '000s).	1591	354	91	2036
ii. Number of primary level units.	21080	2253	255	23588
(i)÷(ii) (average enrolment per primary level unit).	75	157	356	86

Source: as table 4.1.1.

a boys' primary school was in the range 101-200 pupils and for girls this figure was 201-250 (Table 4.14).

The incidence of small schools in rural areas was likewise evident in the census of primary schools in 4 talukas of rural Sind, where population density is low. The report states that "37 urban schools situated in T.C. areas account for 25% of the enrolment of 4 talukas against 514 rural schools which have an enrolment of 19093 or 37 students per school on average. 56 schools have an enrolment of less than 20".

Source: (Pilot census of Primary Schools in Sind, 1980-81).

Table 4.1.3: Average enrolment in girl's primary level units, by level and type of school, Punjab, 1979-80.

	Primary Unit is in			
	Primary School	Middle School	High School	Total
i. Enrollment in primary level units (in '000s).	834.5	198.3	133.8	1166.6
ii. Number of primary level units.	13612	1058	310	14980
(i) ÷ (ii) (average enrolment per primary level unit).	61	187	432	78

Source: As Table 4.1.1.

imary schools by number of students,
al area and sex, Punjab, 1981.

AS		SCHOOLS IN URBAN AREAS		
) Total	Range of Enrolment.	Schools for Boys	Schools for Girls	Total
1966	Upto 50 Students.	211	240	451
950	51-60	83	71	154
1640	61-70	75	80	155
2091	71-80	53	68	121
2215	81-90	69	70	139
2097	91-100	46	56	102
2146	101-120	116	96	212
1903	121-140	120	110	230
1974	141-160	98	81	179
1751	161-180	100	76	176
2737	181-200	97	83	180
2202	201-250	193	159	352
1697	251-300	134	103	237
1307	301-350	124	99	223
1045	351-400	94	53	147
1363	401-450	72	59	131
755	451-500	32	42	74
466	501-above	156	122	278
268				
201				
377				
31151	Total	1873	1668	3541

The size distribution of schools in 5 Tehsils of WWP is shown in Table 4.1.5. There were 281 schools with up to 30 pupils, in a total of 1983 schools (14%). The median size of boys' primary school was just over 60 pupils, while for girls it was just under 60. A majority of middle and high schools had over 200 pupils.

of schools by number of pupils,
sex, in 5 Tehsils of NWFP, 1981.

schools with the following number of students							
31-60	61-100	101-200	201-350	351-600	Over 600	Total	No. of Schools
25	21	21	7	2	1	100	1176
27	14	11	4	1	1	100	527
4	11	25	30	22	6	100	115
12	9	23	32	9	3	100	34
6	17	17	17	18	20	100	109
14	18	23	9	27	9	100	22

om MUST Peshawar.

4.2. Teacher inputs.

The management of the education system is made more difficult by the existence of so many scattered schools staffed by only one or two teachers. This makes access to the teachers difficult. It means that the operation of the school is disturbed whenever a single teacher is on leave or the transport service runs late. And it means that schools are often headed by teachers with little training or relevant experience.

Table 4.2.1: shows the national average for the number of teachers per school: 3.0 per primary school, 10 per middle school and 20 per high school. The Pilot Census of Primary Schools in rural Sind showed average ratios of less than 2 for each taluka studied, however (Table 4.2.2.). Similarly the data from the Management Unit for Study and Training, Peshawar, shows that over 60% of the primary schools in the 5 Tehsils studied had only a single teacher (Table 4.2.3.) though the situation may have improved since the survey was conducted. More recent data for Abbottabad District showed a typical staffing pattern of two teachers per primary school in the rural areas.

Table 4.2.2 Number of teachers per primary school in 4 talukas of rural Sind, 1981.

Taluka.	No. of teachers (i)	No. of schools (ii)	(i)÷(ii)
Male.			
Male			
Rato dero.	231	121	1.9
Miro Khan.	154	114	1.4
Sujawal.	124	77	1.6
N. Bathoro.	190	155	1.2
Total:	699	467	1.5
Female.			
Rato dero.	20	14	1.4
Miro Khan.	9	8	1.1
Sujawal.	1	1	1.1
N. Pathoro.	23	24	1.0
Total.	53	47	1.1

:: Pilot Census of Primary Schools.

:eachers per school in 5 Tehsils of NWFP by level and sex, 1981.

age of schools with the following number of teachers.

3	4	5	6	7	Over 7	Total	Total No. of schools.
8	4	2	1	1	2	100	1118
7	4	2	2	1	3	100	554
-	2	4	2	4	86	100	115
3	3	11	8	8	53	100	36
-	-	-	-	-	100	100	99
-	7	-	3	3	87	100	30

MUST, Peshawar

Table 4.2.4: Distribution of boys' primary schools in Abbottabad District by number of teachers, 1982 - 83.

No. of teachers	No. of schools
1	207
2	390
3	60
4	25
5-9	33
10 & above:	5
	720

	more than 1 untrained teacher.			
3.	No. of primary schools with all trained teachers.	3	3	1
4.	No. of primary schools with all untrained teachers	--	3	-
5.	No. of primary schools with any graduate teachers.	-	4	-

4.3. Physical inputs.

There is limited data on the level of physical inputs to the schools. At primary school level the problem is acute. Most schools overflow into verandahs and open space. There are typically one or two class-rooms per school (Table 4.3.1) and one of these may be used as office/store. As against this, there are five classes to be taught.

Table 4.3.1: Number of classrooms in the boy's schools of Abbottabad District, 1982-83.

No. of classrooms per school.	Primary	Middle	High
0	16	-	-
1	191	-	
2	329	1	
3	84	9	
4	24	4	
5-9	33	51	33
10-14	21	7	21
15-19	15	-	8
20 & above.	7	-	7
Total:	720	71	70

Source: District Education Office , Abbottabad.

A box containing a National Teaching Kit was supplied to many primary schools in the late 1970's, to overcome the dearth of equipment. Utilisation was disappointing, however, and the possibility of re-designing the kit is under consideration. of the Ministry of Education.

STATUS OF PRIMARY SCHOOL BUILDING, 1976.

(Extracted from The Status of Primary School Buildings in the Rural Vi-lages of Pakistan, 1976, Hussain, F. and Eastmond, J.N., Bureau of Educational Planning and Management, Islamabad, 1977).

Status of boys' primary schools in the rural villages of Pakistan, 1976.

Based on extensive data gathered in a nation-wide sample of more than 400 boys primary schools in rural Pakistan, an attempt is made in the following paragraphs, to provide a composite picture of a typical rural boys schools.

The typical village boys school is housed in a government owned building (84%) which is not considered attractive, as it has not been maintained in good condition (58%) structurally, the building has sagging walls or roof (42%) and its veranda, steps, and basic structure are considered safe (57%). The classrooms have dirt floors (52%). The roof of the building is makeshift or leaking (57%). The windows are partly safe (48%) or usafe(38%).

There is no school farm or garden (85%) and the compound is unclean or partly clean (77%). There is no recreation area and the school grounds cannot be used for this purpose at any time (43%). There are no recreation materials for the pupils (76%).

ting influences (such as noise, smell etc), in the vicinity.

There is a school building for both sexes in the area (62%).

Status of girls primary schools in the rural villages of Pakistan, 1976.

The following description was abstracted from the same data on 400 villages used in the description of the boys schools. The typical girls schools in a rural area Pakistan can be described as below:

The building is government owned (70%) and is not attractive to look at. The walls or roof are sagging (46%) but the veranda, steps and basic structure are safe (61%). The classrooms have dirt floors (53%) and makeshift or leaking roofs (51%). The windows are mostly broken or missing (32%) or in partly good condition (43%).

Furniture in the classrooms is very scanty. There is either no furniture for teachers (26%) or the needs are partly met (44%). For the pupils too there is either no furniture at all(not even a mat to sit on - 25%) or very little furniture (50%). Of this, 21% is in bad condition and another 56% is in partly good repair. There are no electric lights (70%) in the schools, no fans or other cooling systems (88%). The girls school has no sanitary toilet (66%) and piped water is generally absent (62%).

The grounds of the Girls Primary School cannot be used as a recreation area at any time (47%). There are no recreation materials for the pupils (84%) and a school farm is also absent (85%). The compound too is unclean(55%).

If all the school-going age group girls of the area were to attend the school, the building would not be able to accomodate them, even if double shifts were taken (72%). There is an insufficient number of rooms in the building (25%) or the rooms are partly sufficient (38%). There is

5. INTERNAL EFFICIENCY OF THE SCHOOL SYSTEM.

5.1. Internal Efficiency.

Internal efficiency would be considered as 100% if the children who entered grade I in year 'n' all completed grade V in year 'n+4'. This is the situation, for example, in countries where school attendance is compulsory and there is 'automatic promotion'. Such a situation implies, however, a flexibility of curriculum and /or grouping of pupils so that children at different levels of attainment can be promoted on the basis of their age alone. In the Third World situation, these conditions do not usually hold. There is a fixed curriculum for each grade and pupils who fall behind have to repeat a grade or drop out. This leads to an apparently lower internal efficiency. (The appearance may be deceptive, however, in that the 'real costs' of putting a pupil through five grades in 7 years, say, in Asia, may be less than those of putting a pupil through five grades in 5 years in a developed country= 'real-costs' measured in terms of buildings, equipment, materials, teacher numbers and teacher training, etc).

The statistical data in Pakistan do not permit any satisfactory calculation of internal efficiency, as will be noted below. It is clear, however, that the situation is most unsatisfactory, in that a high proportion of the children entering the school syster do not complete even the primary

Table 5.1.1: Grade retention rates 1975-76 to 1976-77.
Enrolment in each grade ('000)

	1	2	3	4	5
1975-76	1624.3	1130.3	946.8	835.0	
1976-77		1186.6	1021.3	909.4	753.3
Grade-retention ratios.		0.73	0.90	0.96	0.96

Grade retention rates for the year 1973-74 to 1976-77 are shown in Tables 5.1.2. to 5.1.6 and used to construct the apparent cohort charts in Figures 5.1.4. to 5.1.8 .

Table 5.1.2. Grade retention rates, grades I to V, by sex, 1973-74 to 1976-77.

Both sexes

	Grade I&III	Grade II&III	Grade III&IV	Grade IV&V
1974-75	69.5	86.2	90.4	86.2
1975-76	71.1	86.9	95.3	90.5
1976-77	70.3	90.3	96.0	90.2
Average.	71.2	87.8	93.9	88.9
		Males		
1974-75	72.9	84.6	90.9	88.7
1975-76	74.8	85.8	95.8	90.5
1976-77	79.4	91.0	98.5	91.9
Average.	75.7	87.1	95.0	90.3
		Females		
1974-75	61.9	90.4	89.3	79.7
1975-76	63.2	89.8	94.0	90.6
1976-77	60.1	88.7	89.9	86.1
Average.	61.7	89.6	91.1	85.5

Source: Pakistan Education Statistics, 1947-79. Grade retention ratio computed as ratio of enrolment in grade G in year T to enrolment in grade G-1 in year T-1.

ades I to V, by sex, 1973-74
b.

Grade III&IV	Grade IV&V.
90.5	86.3
100.3	95.3
101.9	92.6
97.6	91.4
93.4	90.3
105.6	100.1
107.1	96.2
102.0	95.5
84.7	77.6
89.3	84.4
89.8	83.6
87.9	81.9

Table 5.1.4: Grade retention rates, grades I to V, by sex, 1973-74 to 1976-77, Sind.

Year	Grade I&II	Grade II&III	Grade III&IV	Grade IV&V.
Both Sexes				
1974-75	70.8	87.0	87.7	89.6
1975-76	72.2	83.2	85.3	95.9
1976-77	71.6	83.6	86.9	96.8
Average.	71.5	84.6	86.6	94.1
Males				
1974-75	69.9	83.5	83.2	94.7
1975-76	70.3	79.2	82.1	95.0
1976-77	70.9	79.9	83.7	96.9
Average.	70.3	81.0	83.0	95.5
Females				
1974-75	73.8	97.4	100.3	78.2
1975-76	78.2	95.3	93.2	98.0
1976-77	73.6	69.4	65.8	63.5
Average.	75.2	87.4	86.4	79.7

Source: As Table 5.1.3.

rades I to V, by sex, 1973-76
76-77, NWFP.

th sexes

Grade III&IV	Grade IV&V.
92.1	77.8
101.1	75.4
87.6	70.3
93.6	74.5

lales

91.3	74.0
93.5	66.7
88.8	68.2
91.2	69.6

males

97.4	108.2
146.7	132.0
83.4	78.3
109.2	106.2

Table 5.1.6: Grade retention rates, grading I to V, by sex, 1973-44 to 1976-77, Baluchistan.

Both sexes

Year	Grade I&II	Grade II&III	Grade III&IV	Grade IV&V
1974-75	45.9	82.2	82.2	80.5
1975-76	47.0	82.4	79.4	79.5
1976-77	53.3	89.0	92.0	90.6
Average.	48.7	84.5	84.5	83.5

Males

1974-75	46.7	80.9	81.8	81.5
1975-76	46.4	80.4	81.3	80.0
1976-77	53.7	95.0	99.6	92.7
Average.	48.9	81.6	87.6	84.7

Females

1974-75	43.4	87.5	83.7	76.6
1975-76	49.5	90.1	72.4	77.4
1976-77	51.3	67.2	65.6	81.4
Average.	48.1	81.6	73.9	78.4

Source: As Table 5.1.3.

wise apparent cohort flow
th sexes) during the years
1973-78

III. IV. V

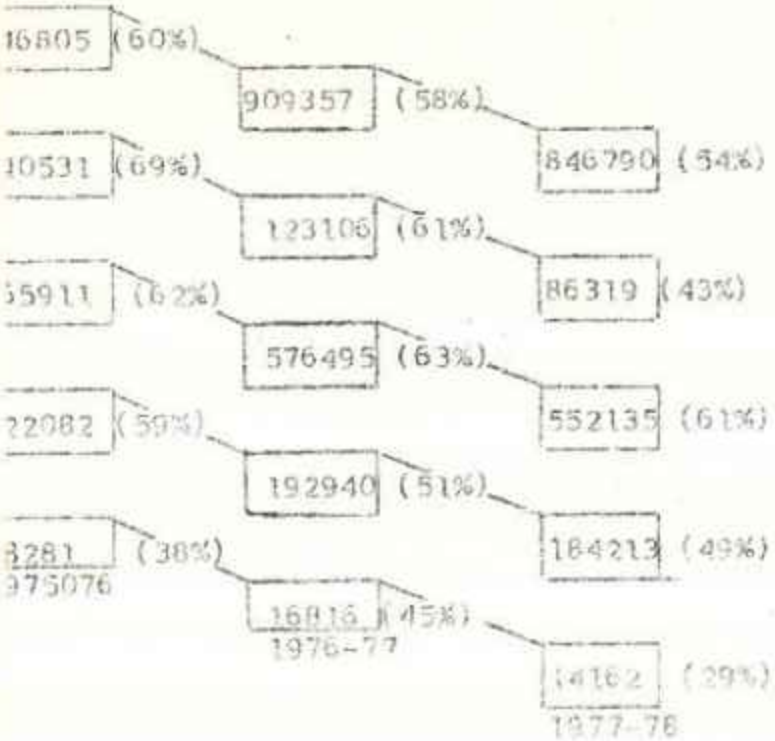
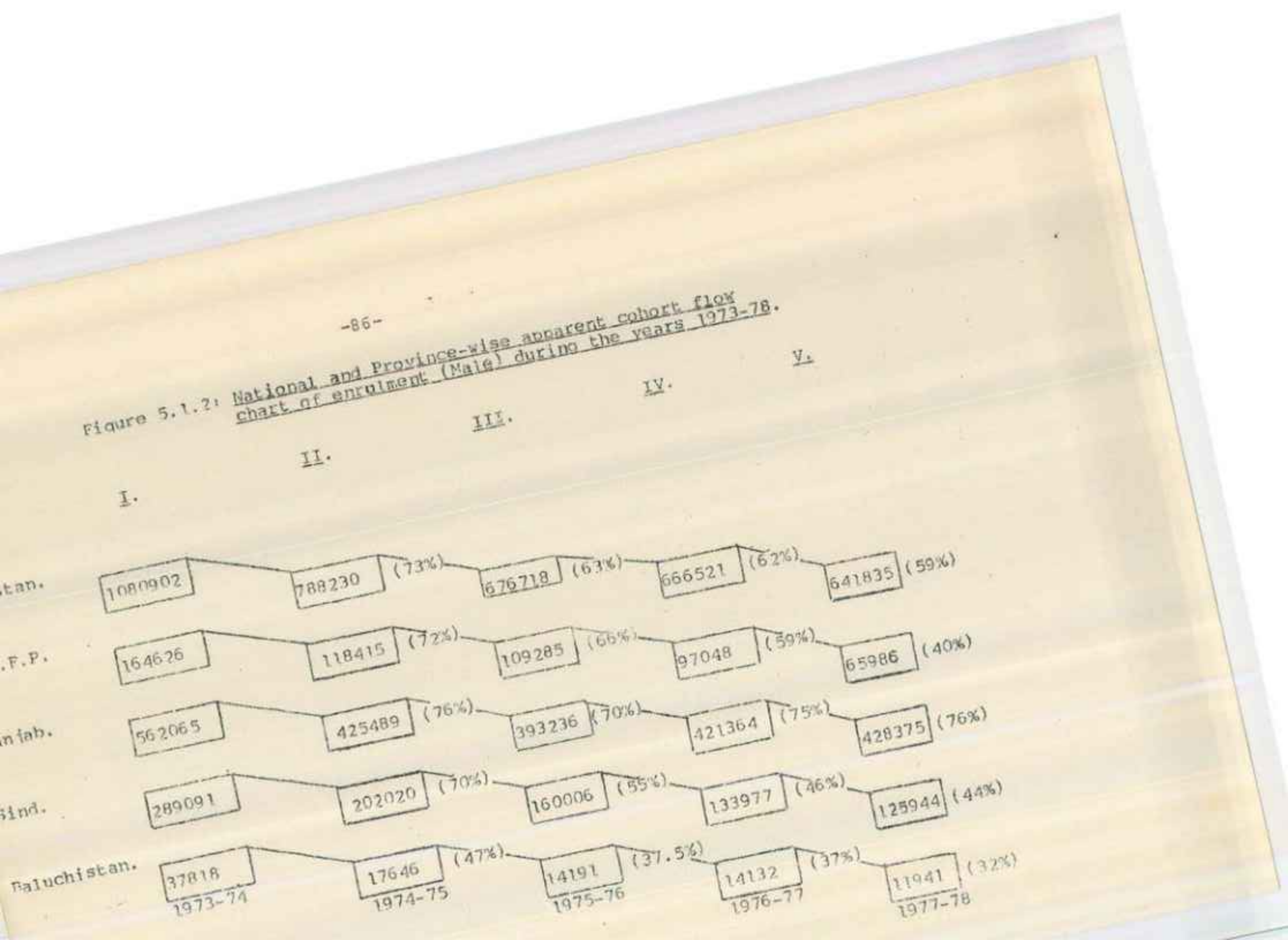


Figure 5.1.2: National and Province-wise apparent cohort flow chart of enrolment (Male) during the years 1973-78.



nt cohort flow chart
years 1973-78

V. V.

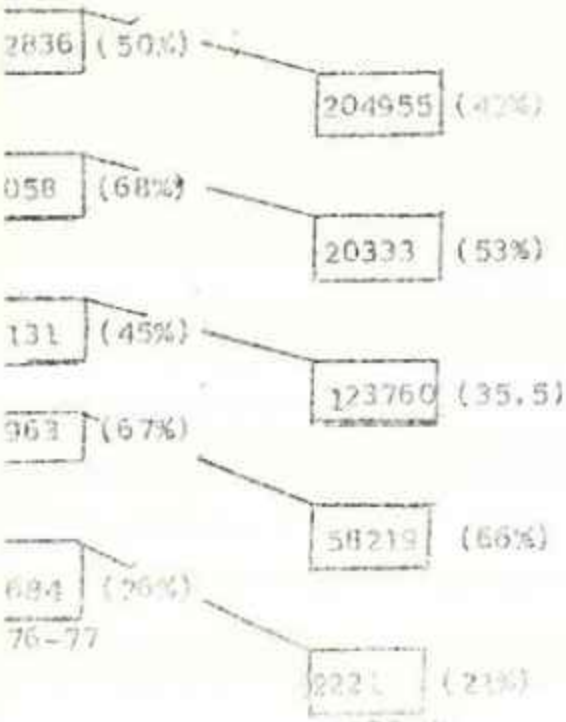
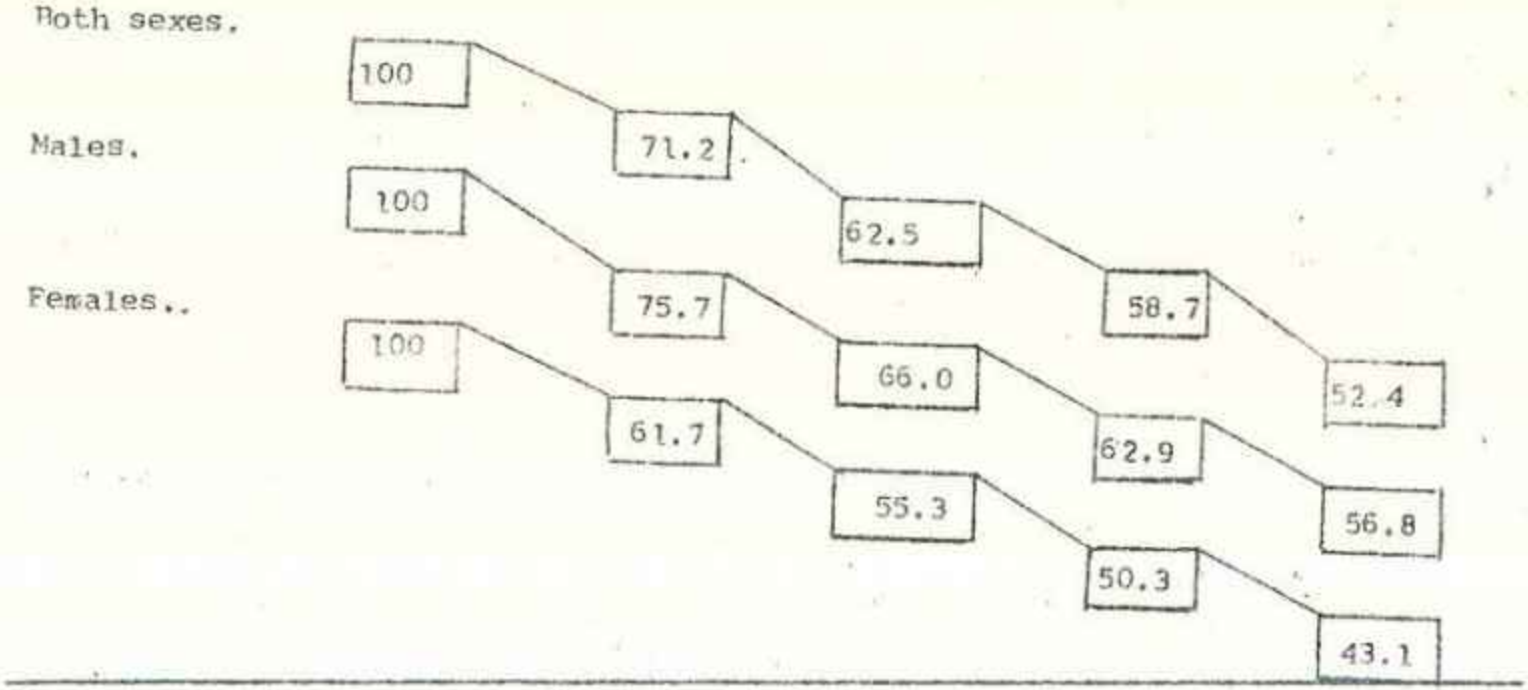
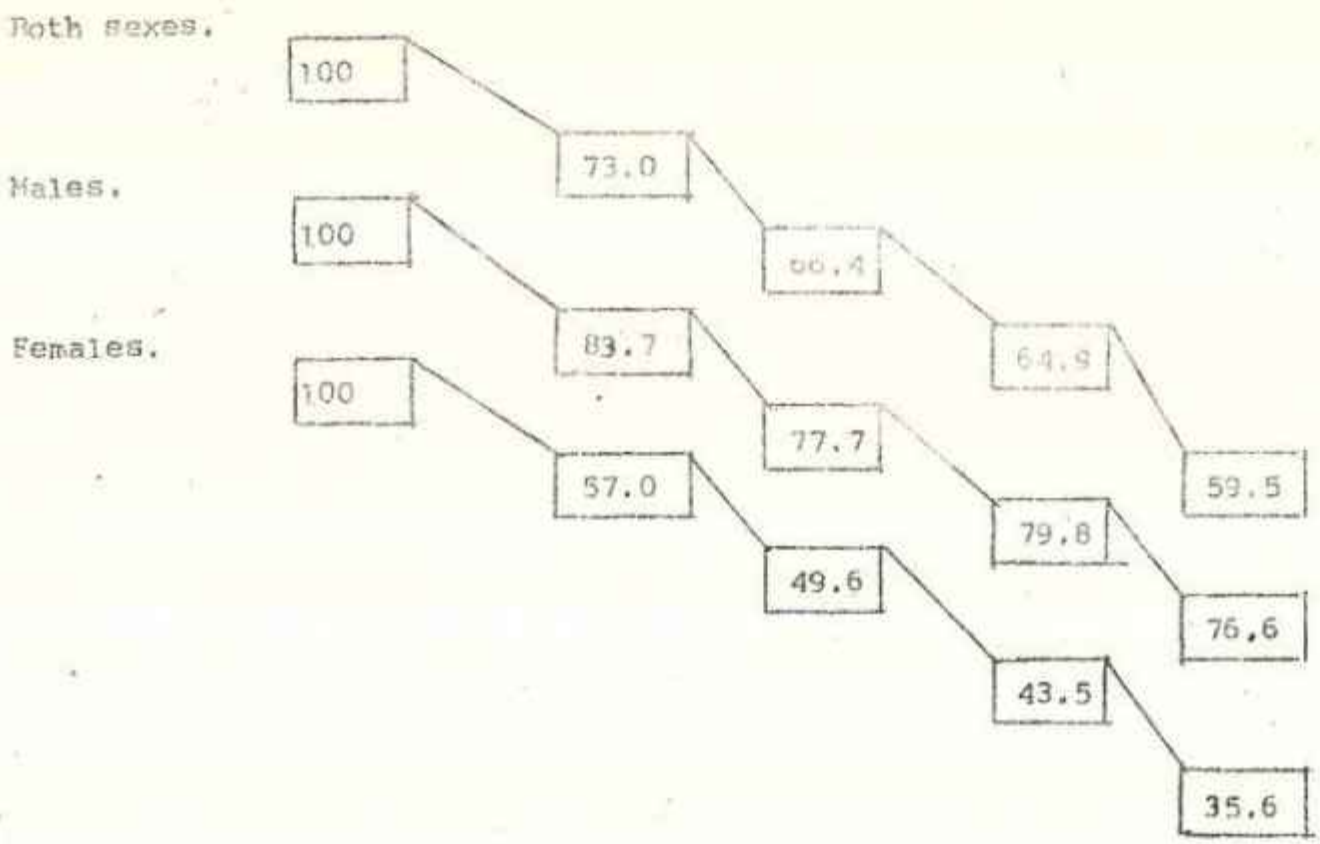


Figure 5.1.4: Apparent cohort flow chart, males, females and both sexes, based on average grade retention rates, 1973-74 to 1976-77



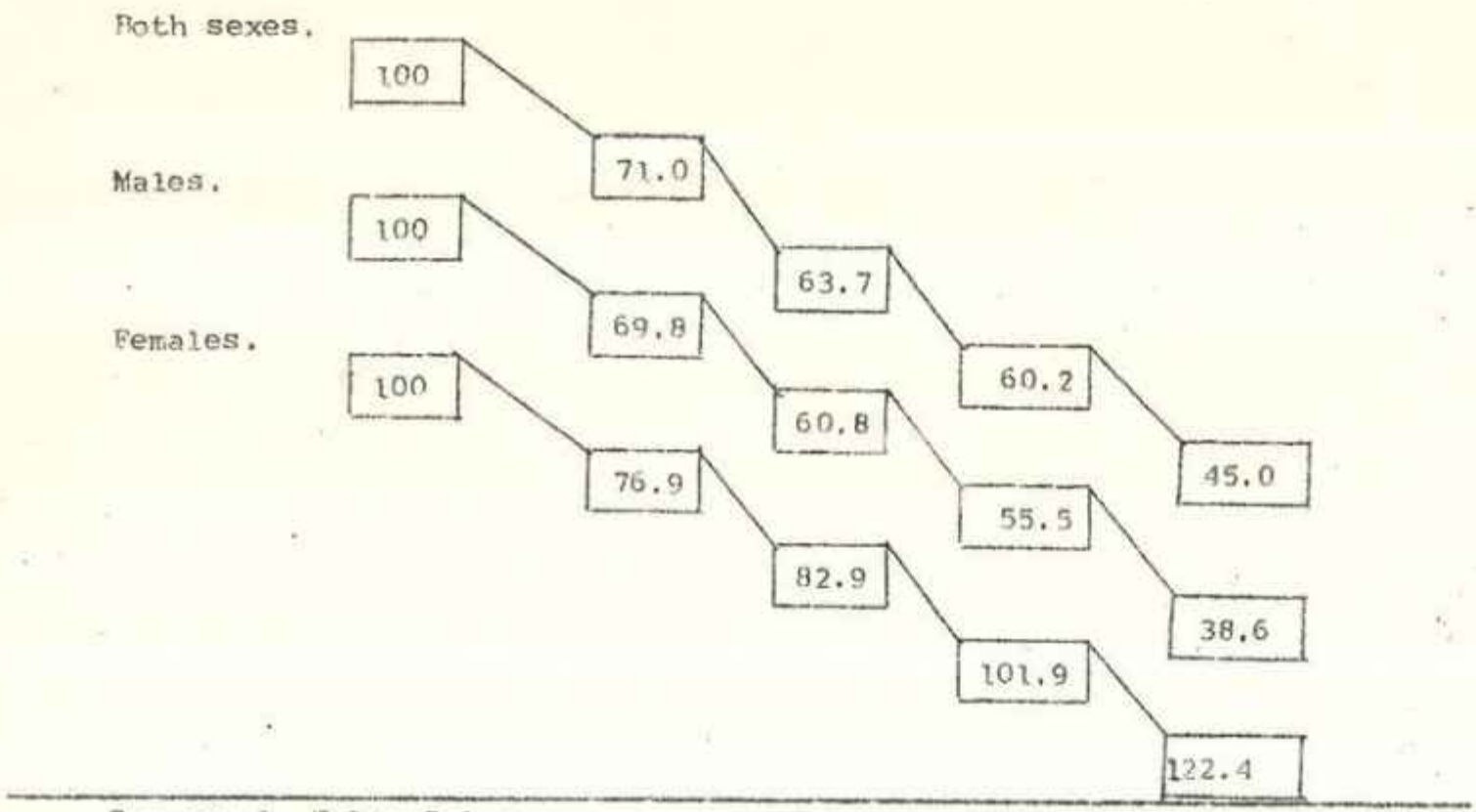
Source: As Table 5.1.3.

Figure 5.1.5: Apparent cohort flow chart, males, females, and both sexes, based on average grade retention rates 1973-74 1976-77, Punjab.



Source: As Table 5.1.4.

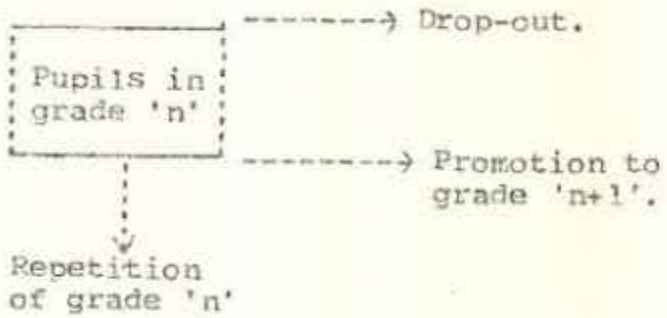
Figure 5.1.7: Apparent cohort flow chart, male, female and both sexes, based on average grade retention rates 1973-74 to 1976-77, N.W.F.P.



Source: As Table 5.1.6.

Note: Certain figures appear anomalous.

These cohort flow charts of the two types just illustrated are basically unsatisfactory because no data are available at national level on the proportion of repeaters in each grade. The actual flow process comprises the three components of promotion, repetition and drop-out and calculations of this type are not possible at present.



The base line figure for the cohort flow charts, the number of children entering the system in a given year, is the least certain figure of all. It is approximated by the grade 1 enrolment but this includes both repeaters and also nursery or 'kacha' pupils included in the returns by an unknown proportion of headmasters and headmistresses.

Full data is, however, available for 5 Tehsils of KWFP from the survey conducted by NUST, Peshawar (Table 3.1.7). It may be seen from the data that there is a ratio of about 1:2 between the number of pupils in Kacha and grade 1 classes. In other words, conventional 'grade 1' enrolments may need to be downgraded by a factor of 2/3 to get the number of genuine grade 1 pupils. The proportion of repeaters in each grade was

of the order of magnitude of 10%. As the data is only available for one year, it is not possible to construct an accurate flow model. Using a steady state approximation, however, one could compare the 46082 non-repeaters in the real grade 1 class with the 16961 non-repeaters in grade 5. This would indicate that 37% of pupils complete the cycle of primary education. Similar calculations would indicate that 52% of entrants to grade 6 would complete the course of secondary education up to grade 10.

Another way of looking at these figures is to calculate the total years of study or tuition required for one student to graduate from a particular cycle of education. The MUST data correspond to a total effort of 8.95 pupil years, for each pupil completing the 5-year primary cycle. (This high figure arises from the combined effects of repetition and drop-out). For the 5-year secondary cycle the input of 7.99 pupil-years is required.

These calculations refer only to 5 particular Tehsils in one Province. A very different picture might emerge in Karachi or Lahore.

Data from a survey of primary education in 4 Talukas of rural Sind is shown in Figure 5.1.9. Repetition rates in this study were substantially higher than those from the NWFP Survey.

5.2. Drop-out. National level data does not permit the computation of drop-out rates. A figure of 50% for drop-out between grade 1 and grade 5 has been widely quoted, based largely on the apparent cohort flow data, the weaknesses of which have just been mentioned. The MUST data imply a higher figure of over 60%.

In terms of the grade-wise enrolment as a percentage of the age-group, this declines to about 36 % in grade 5 for boys and girls combined or to 50% for boys and 22% for girls. (See Table 5.2.1 for particulars of the crude methods of estimation used to arrive at these figures.)

Table 5.2.1: Estimate of grade-wise enrolment in the primary stage as a percentage of the corresponding age-group, 1981-82

Grade	Age-group	Approx.population in age-group (both sexes) (in million)	Enrolment as % of age-group		
			Boys	Girls	Both sexes
1	5	2.8	76	44	59
2	6	2.7	69	24	44
3	7	2.6	63	22	40
4	8	2.5	62	21	39
5	9	2.4	50	22	36

Note:- The average grade-wise structure of school enrolment 1973 - 74 to 1976 - 77 was applied to the enrolment totals for primary schooling in 1981 - 82 to obtain an estimate of gradewise enrolment in 1981 - 82. This was compared with a crudely-smoothened age-structure based on the population totals of 13.2 million for age-group 5 - 9 and 10.6 million for age-group 10 -14 in the 1981 Census of population.

and Training, Peshawar. They further administer the implementation of Federally-funded projects of various kinds.

The Organisation Charts for the Provincial Education Departments are shown in Figures 6.1.1. to 6.1.4. The schools come under a Directorate of Schooling at Provincial level, and are administered at field level through Divisional or Regional Education Directorates under which come District Education Offices. There is further decentralisation to Tehsil (or Sub-Divisional) Offices, except in Punjab.

According to recent Government Policy, the planning and management of education at District level is guided by or conducted in consultation with the Chairman of the elected District Council.

The total numbers of administrative units at each level of the system are shown in Table 6.1.1.

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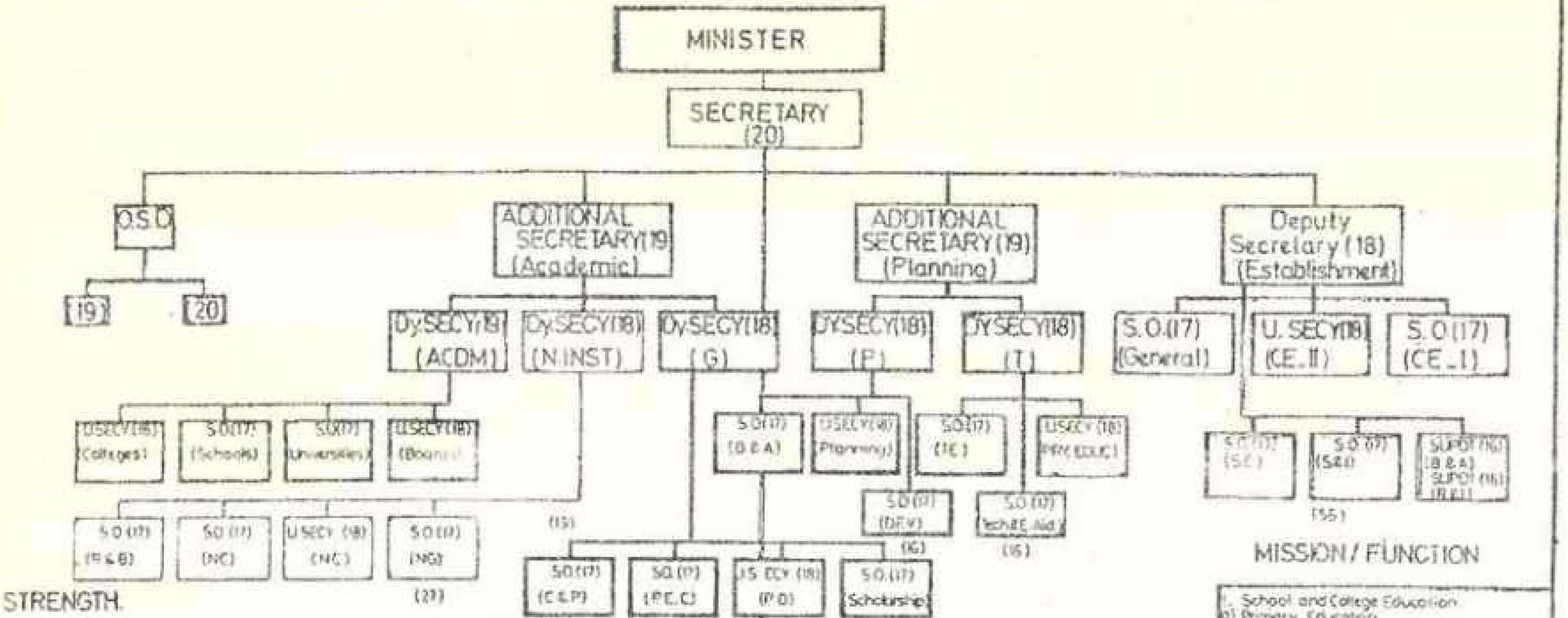
ORGANIZATION CHART OF THE EDUCATION DEPARTMENT CIVIL SECRETARIAT LAHORE AS ON 1.12.1982



STRENGTH.

NPS.	SECT	FIELD.	TOTAL.
20	2	10	12
19	3	308	311
18	6	1924	1930
17	26	7733	7759
16	2	668	670
15	-	161	161
14	4	12080	12084
13	-	3	3
12	6	11	17
11	27	144	171
10	25	738	[illegible]
9	-	23	23
8	-	35792	35792
7	-	15	15
6	25	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]
[illegible]			[illegible]

ATONOMOUS BODIES

1. Punjab Text Book Board Lahore.
2. Board of Technical Education, Lahore
3. Board of Intermediate & Secondary Education, Lahore
4. Rawalpindi
5. Sargodha
6. Multan
7. Bahawalpur
8. Govt. College Ghazi Khan
9. Punjab University Lahore.
10. University of Engineering & Technology, Lahore
11. Bahauddin Zakria University Multan
12. Islamia University Bahawalpur
13. Institute of education and Research, Lahore
14. Cadet College Hassanabdal

ATTACHED DEPARTMENT

1. Director of public Instructions (Schools)
2. Director of public Instructions (Colleges)
3. Director of Technical Education
4. Director sports and Physical Education
5. Director General Punjab (Libraries)
6. Director Curriculum Research & DEV. Centre

OTHER INST.

1. Director Curriculum Research Centre
2. Director Bureau of Education

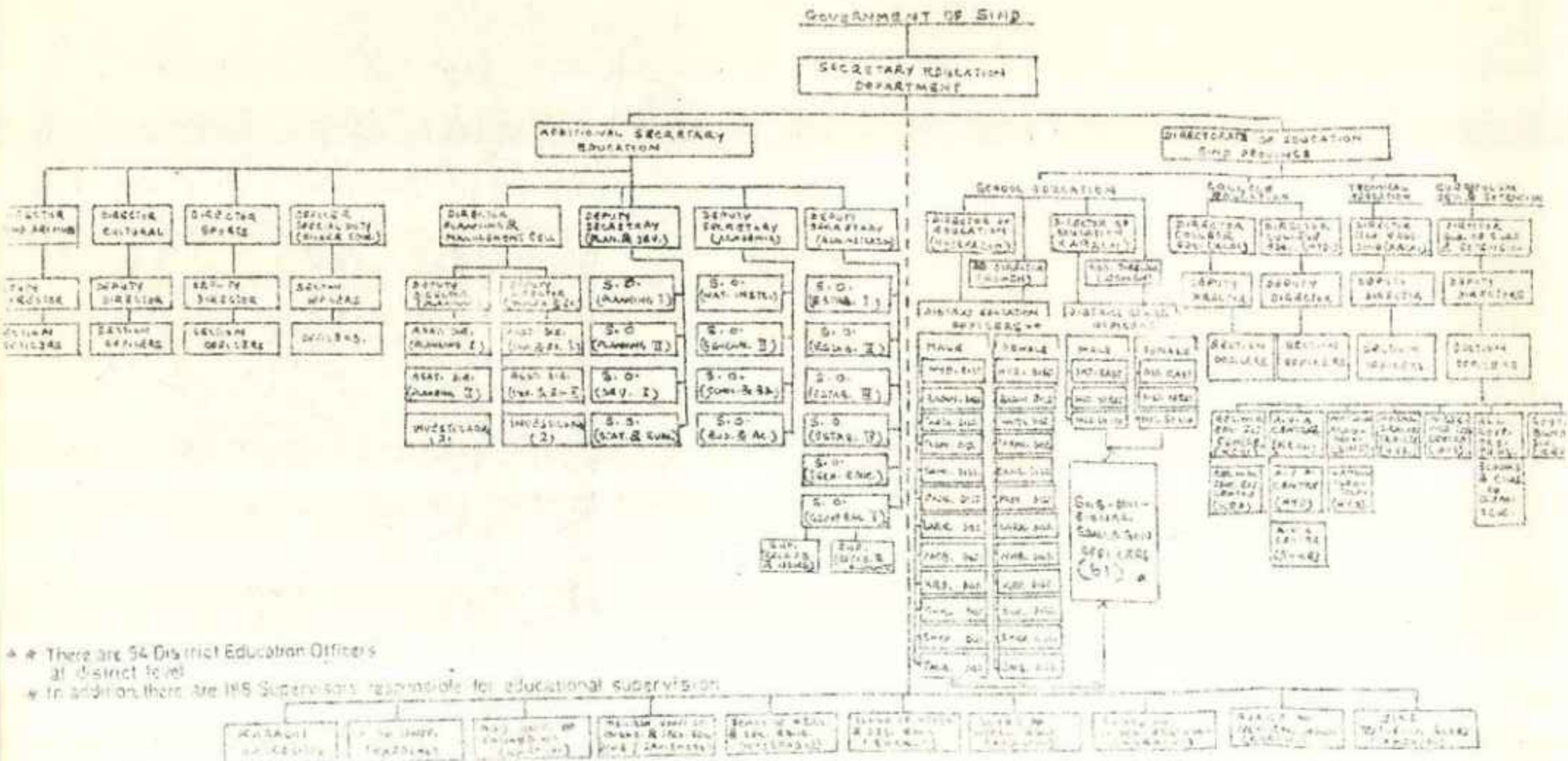
MISSION / FUNCTION

1. School and College Education
(a) Primary Education
(b) Secondary Education & Technical EDUC
(2) Universities and University Education
3. Coordination of schemes for higher studies abroad
4. Grant of scholarships
5. Education of handicapped children specially deaf dumb and blind
6. Production and distribution of educational and scientific films
7. Production of scientific research
8. Libraries
9. Promotion of sports

BUDGET 1982_83		
Secretariat	Field	Total

- 2^ -

FIGURE 1.) ORGANIZATIONAL CHART OF THE EDUCATION DEPARTMENT, SIND PROVINCE



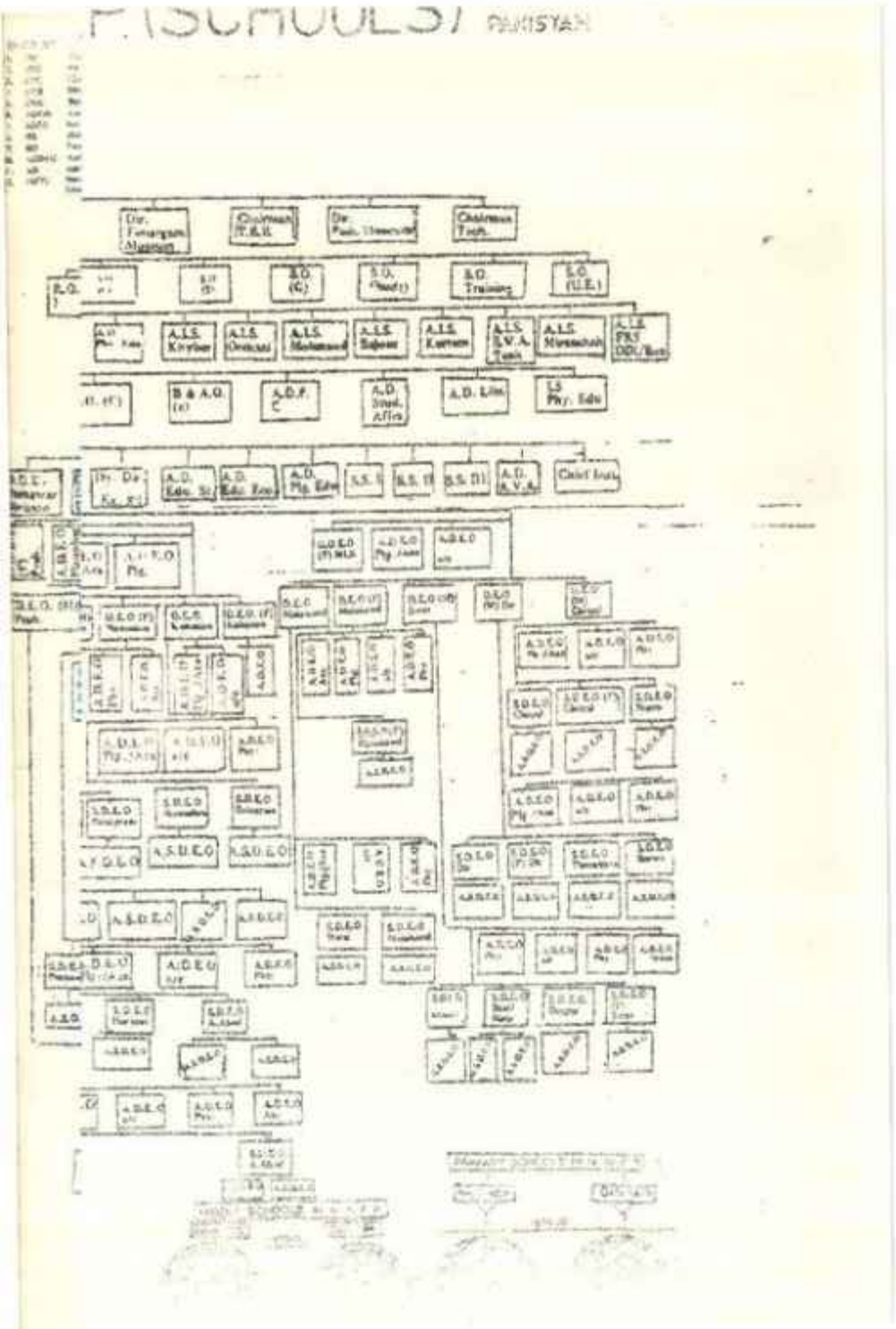
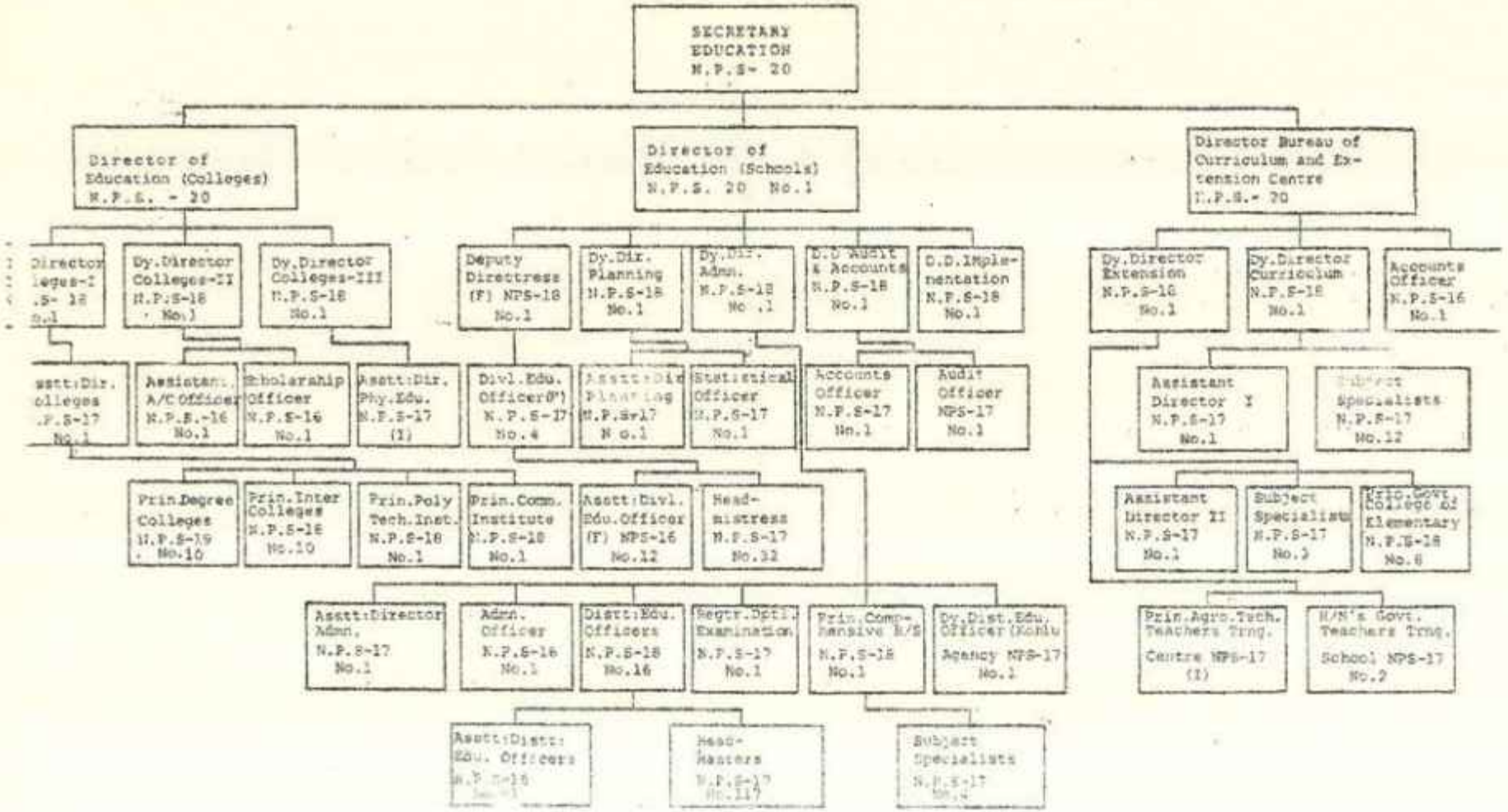


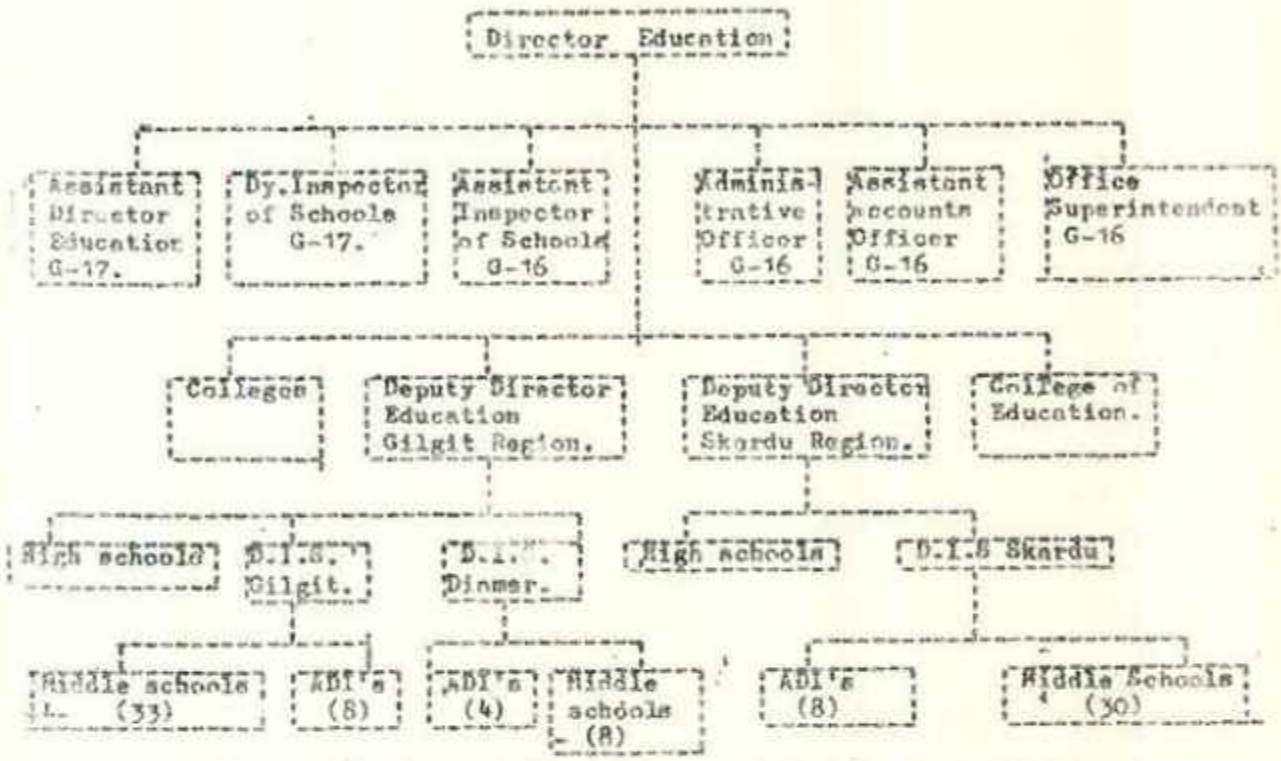
Figure 6.1.4

MANAGEMENT STRUCTURE OF EDUCATION UP TO DISTRICT LEVEL, BALUCHISTAN




REGISTRAR
EPARTMENT
EXAMS.
Dy.Distt.E
Officer
Male & Fem

ORGANIZATIONAL CHART OF NORTHERN AREA, FANA



The supervision of secondary schools is the direct responsibility of the District Education Officer, but he can call in his Deputy or Assistant Education Officers to assist in this work. The number of schools administered by the District Education Officers is shown in Table 6.2.2. Given the very heavy load of office work falling in the District Education Officers, it may be that the responsibility for inspecting at least the high schools remote from his office should be fully delegated to his Deputy.

Table 6.2.2: Approximate work-load of supervision of high schools by District Education Officers, by Province.

	No. of Districts	Average No. of schools per District	
		Male	Female
Punjab	27	53	24
Sind	15	41	17
NWFP	13	40	8
Baluchistan	17	8	3
4 Provinces combined	72	37	15

Source: Provisional Academy estimates

Table 7.1.1: Increase in enrolment at primary level, 1947-48 TO 1983-84

(Enrolment in lacs)

	(i) Enrolment	(ii) Increase in enrolment	(iii) Period (Years)	(ii)÷(iii) Increase per year (Simple average)
1947-48	7.7	-	-	-
1949-50	9.2	1.5	2	0.75
1954-55	15.5	6.3	5	1.3
1959-60	18.9	3.4	5	0.7
1964-65	30.5	11.6	5	2.3
1969-70	39.1	8.6	5	1.7
1974-75	49.8	10.7	5	2.1
1977-78	50.1	0.3	3	0.1
1982-83	60.2	10.1	5	2.0
1983-84	62.0	2.0	1	2.0

Note: Pakistan Education Statistics 1947-79 gives data from 1949-50 to 1959-60 on a 5 year basis. Hence 5 year intervals are given here for these years; likewise for the Plan periods; and also for 1969-70 to 1974-75 for comparability. Data from 1977-78 is from the Central Bureau of Education. The full available time series data is shown in graph form in Figure 7.1.1.

Table: 7.1.3: Expansion of primary level enrolments in relation to age-group, by sex, 1972- 82

(In lacs)

		1972	1981
No. of children aged 5-9			
	Boys	53.2	68.7
	Girls	48.1	63.3
No. of pupils enrolled in primary level			
	Boys	31.0	36.9
	Girls	11.1	17.8
No. of children aged 5-9 apparently out of school.			
	Boys	21.2	31.6
	Girls	37.0	45.5

Source: Population Census 1972 and 1981. Central Bureau of Education

Table 7.1.4: Increase in enrolment at middle level, 1947-48 to 1983-84

(Enrolment in lacks)

	Enrolment	Increase in enrolment	Period (years)	Increase per year
1947-48	2.21	-	-	-
1949-50	2.50	0.29	2	0.14
1954-55	3.32	0.82	5	0.16
1959-60	4.22	0.90	5	0.18
1964-65	6.24	2.02	5	0.40
1969-70	8.99	2.75	5	0.55
1974-75	11.96	2.97	5	0.59
1977-78	13.04	1.08	3	0.36
1982-83	15.93	1.89	5	0.38
1983-84	16.52	0.59	1	0.59

Notes: As for Table 7.1.1. (See also Figure 7.1.2).

Table 7.1.6: Increase in enrolment at high school level, 1947-48 to 1983-84

(Enrolment in lacs)

	Enrolment	Increase in enrolment	Period (years)	Increase per year
1947-48	0.58	-	-	-
1949-50	0.67	0.09	2	0.045
1954-55	1.09	0.42	5	0.08
1959-60	1.49	0.40	5	0.08
1964-65	2.22	0.73	5	0.15
1969-70	3.37	1.15	5	0.23
1974-75	4.62	1.25	5	0.25
1977-78	5.05	0.43	3	0.14
1982-83	9.47	4.42	5	0.88
1983-84	10.40	0.93	1	0.93

Notes: As for Table 7.1.1.-See also Figure 7.1.3.

Table 7.1.8 Index numbers of enrolment at each level of schooling, 1970-84

Year	Primary		Middle		High		Enrolment in Z lacs
	Enrolment	Indices	Enrolment	Indices	Enrolment	Indices	
1970-71	39.6	100	9.33	100	3.36	100	
1971-72	42.10	106.3	9.63	103.2	3.66	109	
1972-73	44.50	112.4	10.41	111.6	3.90	116	
1973-74	48.13	121.5	10.97	117.6	4.18	124.4	
1974-75	49.71	125.5	11.96	128.2	4.62	137.5	
1975-76	53.19	134.3	12.47	133.6	4.93	146.7	
1976-77	56.11	141.7	12.98	139.1	5.09	151.5	
1977-78	50.15	126.6	13 .04	139.8	5.05	150.3	
1978-79	51.31	129.6	13.00	139.3	4.74	142.6	
1979-80	52.13	131.6	13.91	149.0	4.76	141.7	
1980-81	54.74	138.2	14.12	151.3	5.09	151.5	
1981-82	57.41	145.0	14.53	155.7	5.43	161.6	
1982-83	60.23	152.0	15.93	170.7	5.50	163.7	
1983-84	62.01	156.6	16.76	179.0	5.59	166.3	

Source: Central Bureau of Education

7.2. Teacher inputs.

The number of teachers in the school system has increased from 37 thousand in 1947-48 to 356 thousand in 1983-84 or by about 860%. This represents a considerable achievement, especially as most of the teachers have received some professional training. The increase at each level of school is shown in Table 7.2.2 to 7.2.4.

The net annual increase in male teachers since 1970 has averaged 8000 for primary schools; 1100 for middle schools and 2400 for high schools. The net annual increase in female teachers since 1970 has averaged 2500 for primary schools, 700 for middle schools and 1000 for high schools (Tables 7.2.2 to 7.2.4.).

As noted previously, the pupil:teacher ratio cannot be calculated by level from the published statistics as enrolment figures are given by level and teaching force by type of school. The overall change has been noted a little.

Table 7.2.1: Pupil: teacher ratio for school system, 1947-48 to 1983-84

	Pupils per teacher
1947-48	29
1949-50	31
1959-60	32
1969-70	32
1978-79	28
1981-82	27
1983-84	25

Source: Pakistan Education Statistics, 1947-79; Central Bureau of Education.

Table 7.2.3. INCREASE OVER PREVIOUS YEAR IN TEACHING STAFF IN MIDDLE SCHOOLS, BY SEX, 1970-84.

	Number of Teachers		Increase Over previous year		
Year	Male	Female	Male (% in brackets)	Female	(in thousands)
1970-71	25.6	8.6	-	-	
1971-72	26.8	9.2	1.2(5)	0.6(7)	
1972-73	30.1	11.3	3.3(12)	2.1(23)	
1973-74	30.3	11.6	0.2(1)	0.3(3)	
1974-75	30.7	12.8	0.4(1)	1.2(10)	
1975-76	32.8	13.6	2.1(7)	0.8(6)	
1976-77	32.2	13.8	-0.6(-2)	0.2(1)	
1977-78	34.6	14.2	2.4(7)	0.4(3)	
1978-79	36.2	13.7	1.6(5)	-0.5(-4	
1979-80	36.5	14.9	0.3(1)	1.2(9)	
1980-81	37.0	15.2	0.5(1)	0.3(2)	
1981-82	38.1	15.6	1.1(3)	0.4(3)	
1982-83	39.2	17.4	1.2(3)	1.8(12)	
1983-84	39.8	18.1	0.6(2)	0.7(4)	
Average Increase			1.1 (4)	0.7 (6)	

7.3. Number of functional units.

The number of schools has increased from 11011 in 1947-48 to 82409 in 1983-84, an increase of 650%. The founding of over 70 thousand institutions represents a substantial accomplishment in terms of planning and management. The 35 years over which this task was spread may be remembered, however, when an increase in school numbers of similar magnitude is envisaged for the Plan Period 1983-84 to 1987-88.

At the primary level, since 1960, there has been a net addition of about 2000 schools per year (Table 7.3.1.). Taking the period from 1970 to the present there has been a net addition on average of 1500 boys schools and 700 girls schools per year (Table 7.3.2.).

Similarly at middle school level, there has been an average increase of 170 schools per year since 1960 (Table 7.3.3.). Taking the period from 1970 to the present there has been a net addition on average of 124 boys schools and 54 girls schools each year (Table 7.3.4). At high school level, there has been an addition of 160 schools per year since 1960 (Table 7.3.5), since 1970, there has been addition, on average, of 114 boys schools and 49 girls schools each year (Table 7.3.6).

In summary, the recent expansion rate for schools of different levels has been as follows:-

Table: 7.3.1.

NET INCREASE IN NUMBER OF PRIMARY SCHOOLS, 1947-48 TO 1983-84.

Year	Number of Schools	Increase	Increase over period Period (Years)	Increase per year.
1947-48	8413	-	-	-
1949-50	9411	998	2	499
1954-55	14162	4751	5	950
1959-60	17901	3739	5	748
1964-65	32589	14688	5	2937
1969-70	41290	8701	5	1740
1974-75	51744	10454	5	2091
1977-78	53964	2220	3	740
1982-83	69058	15094	5	3019
1983-84	72093	3035	1	3035

Source: Pakistan Education Statistics, 1947-49; Central Bureau of Education

Note: The term 'net increase' is used because some schools are upgraded to a higher level.

Table 7.3.3 NET INCREASE IN THE NUMBER OF MIDDLE SCHOOLS 1947-48 to 1983-84.

Year	Number of Schools	INCREASE OVER PERIOD. Increase	Period(Year)	Increase per Year
1947-48	2190	-	-	-
1949-50	2134	-56	2	- 28
1954-55	1517	-617	5	-123
1959-60	1974	457	5	91
1964-65	2701	727	5	145
1969-70	3560	859	5	172
1974-75	4713	1153	5	231
1977-78	5100	387	3	229
1982-83	5979	879	5	176
1983-84	6136	157	1	157

Source: As table 7.3.1

Table 7.3.5. Net increase in the number of high schools, 1947-48 to 1983-84

Year.	No. of schools	Increase over period		
		Increase	Period(years)	Increase per year
1947-48	408	-	-	-
1949-50	469	61	2	32
1954-55	747	278	5	56
1959-60	1069	322	5	64
1964-65	1622	553	5	111
1969-70	1995	373	5	75
1974-75	2898	903	5	181
1977-78	3239	341	3	114
1982-83	4037	798	5	160
1983-84	4180	143	1	143

Source : As table 7.3.1

as year in number of high schools, 1970-84

Male	Female
(% in brackets)	
-	-
142(9)	42(8)
201(12)	50(9)
147(9)	97(16)
104(5)	52(7)
113(5)	36(5)
113(5)	54(7)
5(1)	20(2)
64(3)	18(2)
14(1)	26(3)
75(3)	43(5)
75(3)	43(4)
328(13)	112(11)
98(3)	45(4)
114(6)	49(7)

Table 7.3.7 Index numbersof schools at each level of education, 1970-84

	Primary		Middle		High	
Year	No.of Schools	Indices	No.of Schools	Indices	No.of Schools	Indices
1970-71	43710	100	3882	100	2063	100
1971-72	45854	105	4110	105.9	2247	109
1972-73	49580	113.4	4406	113.5	2498	121.1
1973-74	50547	115.7	4586	118.1	2742	133.0
1974-75	51714	118.3	4713	121,4	2898	140.5
1975-76	52800	120.8	4783	123.2	3047	147.7
1976-77	53162	121.6	4990	128.5	3214	155.8
1977-78	53964	123.5	5100	131,4	3239	157.0
1978-79	53882	123.3	5194	133.8	3321	161.0
1979-80	57220	131.0	5233	134.8	3361	163.0
1980-81	59168	135.4	5295	136.4	3479	168.6
1981-82	61117	139.8	5362	138.1	3597	174.3
1982-83	69058	158.0	5979	154.0	4037	195.7
1983-84	72093	165.0	6136	158.0	4180	202.6

Source: Central Bureau of Education

7.4. Participation rates.

Weaknesses in the educational statistics and unreliability of the age-wise data in the population census make it difficult to estimate trends in participation rate with any degree of confidence. The time series for primary education computed by the Planning Commission shows a plateau from 1977-78 to 1982-83 with 2/3 of boys and 1/3 of girls in school (Table 7.4.1). This may well be a statistical anomaly. If real, however, it might suggest that socio-economic and cultural factors were at work, holding back the participation of boys and girls from lower socio-economic groups and of girls from more conservative families.

Table 7.4.1: Participation rates in primary schooling from 1950/60, with plan target for 1987/88.

Year	Total	Male	Female
1950-60	96	42	6
1964-65	78	64	11
1960-70	40	60	19
1977-78	50	66	32
1982-83	50	66	33
1987-88 (target)	75	90	60

Source: The Sixth Five Year Plan 1983-88.

1982-83	26	35	14	15	22	8
1987-88 (target).	33	44	19	20	26	12

Source: The Sixth Five Year Plan, 1983-88.

7.5. OUTPUT OF MATRICULATES

The output of matriculates has risen from 139.9 thousand in 1970 to 213.4 thousand in 1984. This corresponds to about 8% of the total enrolment in secondary schools (Table 7.5.1).

Table 7.5.1. Yearly output of matriculates as percentage of total enrolment in Secondary Education 1970-71 to 1983-84

Year	Output of matriculates ('000) (i)	Total enrolment in middle + high levels ('000) (ii)	(i) ÷ (ii) (per cent)
1970-71	139.9	1269	11.0
1971-72	144.7	1329	11.0
1972-73	145.9	1431	10.2
1973-74	153.0	1515	10.1
1974-75	154.2	1658	9.3
1975-76	145.0	1740	8.3
1976-77	164.2	1807	9.1
1977-78	142.1	1809	7.8
1978-79	174.4	1779	9.8
1979-80	184.4	1867	9.9
1980-81	205.8	1921	10.7
1981-82	206.4	1996	10.3
1982-83	206.9	2540	8.1
1983-84	213.4	2692	7.9

Source: Central Bureau of Education

Recurrent expenditure.

The non-development budgetary allocations for the operation of the primary education during the year 1983-84 was 2365.15; and secondary school systems Rs. 1906.38 million. The per pupil allocation at primary and Secondary levels comes to Rs: 381 & 708 respectively.

See also section 7.6 below

Table 7.6.2 BUDGET ALLOCATION, DEVELOPMENT AND NON-DEVELOPMENT, FOR SECONDARY EDUCATION, 1970-71, 1981-82

(in rupees thousand)

	At current prices			At constant prices	
	Development	Non-development	Total	Development	Non-development
1970-71	10368	83450	93818	10368	83450
1971-72	6978	96698	103676	6646	92093
1972-73	10251	103244	113495	8472	85326
1973-74	52383	137284	189667	32536	85270
1974-75	55693	234324	290017	27986	117751
1975-76	86373	344888	431261	39987	159670
1976-77	96500	481356	577856	40208	200565
1977-78	56831	407834	464665	22200	159310
1978-79	81140	650543	731683	29722	238294
1979-80	-	-	-	-	-
1980-81	155816	763029	918845	46099	225748
1981-82	132241	854701	986942	35644	230378

Source: as Table 7.6.1

1979-80	264.15	88.6
1980-81	243.4	72.0
1981-82	265.0	71.4
Secondary		
1970-71	64.2	64.2
1971-72	72.7	69.3
1972-73	72.1	59.6
1973-74	90.6	56.6
1974-75	141.3	71.0
1975-76	198.2	91.7
1976-77	266.4	111
1977-78	225.4	87.9
1978-79	365.7	134.0
1979-80	-	-
1980-81	397.2	117.4
1981-82	428.2	114.5

Source: As Table 7.6.1. Enrolment figures from Central Bureau of Education.