INTERNAL EFFICIENCY OF PRIMARY EDUCATION
IMPACT OF DROPOUTS

DR. Pervez Aslam Shami
Izaz-e-Fazeelat
Mirza Tauhiduddin Ahmad
Ms. Fahmeeda Khanam

ACADEMY OF EDUCATIONAL PLANNING AND MANAGEMENT
MINISTRY OF EDUCATION
ISLAMABAD

2007

INTERNAL EFFICIENCY OF PRIMARY EDUCATION
IMPACT OF DROPOUTS

PREFACE

Education is critical for economic and social development. It is crucial for building human capabilities and for opening opportunities. The most valuable of all capital is the human capital which need proper nurturing in the society.

Basic education has nowadays emerged as a powerful force for accelerating economic growth, particularly in the context of a rapidly globalizing world. In this regard, efforts towards access to education and improvement in quality of education to fulfill the constitutional obligations for free, compulsory and universal education for all have witnessed a substantial increase. One of the persistent problems which has held back universalization of primary education is the early dropping-out of children from the schools and repetitions. This represents enormous wastage of resources and contributes directly to the number of illiterates.

Due to lack of data it was not possible to make pertinent analysis to assess the extent of dropouts. Availability of data on repeaters and dropouts was a problem in the past. However, this document brings together the experiences of National Education Census efforts and district data collected through the collaboration of UNICEF. The analysis concentrates on NEC data to determine the impact of dropout rates and degree of internal efficiency of primary education system.

This document is useful for educational planners, administrators, and information management specialists concerned with computing indicators and its utilization for decision-making. Its emphasis on concepts and analysis on dropouts makes it appropriate as a handy note for users.

Efforts made by Ms. Fahmeeda Khanam in developing this document is highly appreciated. The services of Mr. Zulfiqar Ali Joya, Stenographer and Akhtar Hussain, Computer Operator are also duly acknowledged.

Dr. Pervez Aslam Shami
Izaz-i-Fazeelat
Director General

CONTENTS

	Preface	(i)
	Executive Summary	(v)-(x)
SECTION I		
1.	**Introduction**	1
1.1	The nature of the problem	2
1.2	Objectives	2
1.3	Methodology	2
1.4	Some factors responsible for dropouts	2
1.5	Action to prevent dropouts	4
1.6	Effects of dropouts	10
1.7	General causes of dropouts	10
1.8	Broad Causes of dropouts	11
2.	**Dynamics of Children in School**	12
2.1	Flow of children through educational cycle	12
2.2.	Situation of children at the final grade of educational cycle	13
2.3	Efficiency Versus Wastage in Education at Primary Level.	13
2.4	Methodologies for determining the degree of dropouts in primary education	14
2.4.1	Apparent Chohort Method	14
2.4.2	Reconstructed Chohort Method	14
2.4.3	Some related definitions	15
SECTION II		
3.	**Case Studies**	17
3.1	**National**	**18**
3.1.1	Literacy and Education situation	19
3.1.2	Data Analysis and Findings	20
3.1.3	Indicators of Retention by grades	20
3.1.4	Indicators of Retention by years of study	21
3.1.5	Indicators of average duration of study	22
3.1.6	Indicators of Internal Efficiency	22
3.1.7	Wastage contributed due to dropouts and repetition	22
3.1.8	Education expenditure	22
3.2	**Mirpurkhas District**, Sindh	23

3.2.1	Literacy and education situation	23
3.2.2	Data Analysis and findings	24
3.2.3	Indicators of Retention by grades	25
3.2.4	Indicators of Retention by years of Study	26
3.2.5	Indicators of average duration of study	27
3.2.6	Indicators of Internal Efficiency	27
3.2.7	Wastage contributed due to dropout and repetitions	27
3.28	Education expenditure	27
3.3	**Upper Dir District**, NWFP	28
3.3.1	Literacy and education situation	28
3.3.2	Data Analysis and findings	29
3.3.3	Indicators of Retention by grades	30
3.3.4	Indicators of Retention by years of study	31
3.3.5	Indicators of average duration of study	32
3.3.6	Indicators of Internal Efficiency	32
3.3.7	Wastage contributed due to dropout and repetitions	32
3.38	Education expenditure	32
4	Recommendations	33
5.	Conclusion: The dropout rate and its impact	33
	Bibliography	34
	Annexures	35

EXECUTIVE SUMMARY

The problems of dropouts and repetitions are more pronounced in the early stage of schooling. These are the technical jargons which contributes the wastage in education. The wastage and stagnation in primary schools has been a major concern of educators for the past several years. The government has given special emphasis to eradicate this serious menace which is a hurdle in the educational development. Obviously, wastage due to dropout has adverse impact on the internal efficiency of education system. This also, results in obstructing the planned progress in education which in turn leads to retarded attainment of social targets.

Wastage due to dropout and repetition of students like fever and headache, are not disease themselves; they are really symptoms of other diseases in educational system, the major among which are the lack of proper articulation between education and life and the unattractive capacity of schools to hold students, further, the parental ignorance and poverty. In the past, no regular studies have been taken to assess the trend and the degree of internal efficiency. However, an attempt has been made to utilize the available data of districts for the year 2003-04 and 2004-05.It was therefore, imperative to compute the necessary internal efficiency indicators to assess the situation.

Objectives:

The following are the objectives:

- To assess the extent of wastage at national level and in districts during 2004-05.
- To provide basic concepts and methods of determining dropouts.
- To identify some of the major factors causing dropouts in primary education.

DISCUSSION OF RESULTS

Dropout situation:

At National level: The incidence of dropout rate was about 31 percent (public sector only) from grade I to V. However, the male situation was noted higher (40 percent) as compared to female about 19 percent.

In **Mirpurkhas district,** the incidence of dropout rate was 51 percent in grade I, almost the same situation was noted for males and females.

In **Upper Dir district**, the maximum dropout rate was 29.6 percent in grade II of which, about 25 percent was noted for males and about 39 percent for females.

Survival of Children to Grad V:

At National level: The survival rate to grade V was noted about 71 percent. The male and female situation were about 64 and 81 percent respectively.

In **Mirpurkhas district,** the survival rate of children to grade V was 33.6 percent of which, about 31 percent were males and 39 percent were females.

In **Upper Dir district,** the survival rate of children to grade V was 34.6 percent of which, about 43 percent were males and 21 percent were females. Conclusively, in both the districts the situation was not encouraging.

Average duration of study by Graduates:

Note: In ideal situation, a student has to complete primary cycle of education in 5 pupil-years.

At National level: A student completed primary education in 5.2 pupil-years. The males completed consuming the same period but female took 5.1 pupil-years

In **Mirpurkhas district,** a student completed primary school education in 5.1 pupil- years on the average. The male and female completed in 5.1 and 5 pupil- years respectively.

In **Upper Dir district,** a student on the average completed primary education in 5.4 pupil-years. The male and female completed during the same period.

Average duration of study of dropouts:

At National level: On the average a student who dropped out took 2.2 pupil-years. The male took the same period but female consumed lesser i.e. 2.1 pupil-years.

In **Mirpurkhas,** on the average a student who dropped out contributed wastage of 1.4 pupil- years whereas the male wasted the same period but the female took 1.3 pupil- years.

In **Upper Dir,** on the average a student who dropped out contributed wastage 2.2 pupil-years. Male and female consumed 2.3 and 2.1 pupil-years respectively.

Wastage ratio:

At National level: The wastage ratio was calculated as 1.2 whereas for male it was 1.3 and for female it was noted as 1.1.

In **Mirpurkhas district**, the wastage ratio was calculated as 1.5. The male situation revealed 1.6 and female 1.4.

In **Upper Dir district,** the wastage ratio was 1.9 of which, 1.7 was for male and 2.6 was for female. The female situation is highly alarming.

Wastage contributed due to dropouts:

.**At National level:** The pupil-years wasted due to dropout was 83.1 percent of which, about 85.9 percent was for males and 75.6 percent was for females.

In **Mirpurkhas district**, the pupil- years wasted due to dropout was 97 percent of which, 96.6 percent was for male and 96.3 percent was for female.

In **Upper Dir district,** the pupil –years wasted due to dropout was 84 percent of which, 82 percent was for male and 87 percent was for female.

Wastage contributed due to repetitions:

At National level: Again the wastage contributed due to repetition was about 17 percent out of which about 14.1 percent was for males and about 24 percent was for females.

In **Mirpurkhas district,** the wastage due to repetition was 3 percent of which, 3.4 percent was for male and 3.7 percent for female.

In **Upper Dir district,** the wastage contributed due to repetition was 15.7 percent of which, 18 percent was for male and 13 percent for female.

Coefficient of Efficiency:

At National level: The Coefficient of Efficiency was determined to asses the effectiveness and efficiency of the education system. It was noted that the overall Coeff. of Effecincy was 82.6 percent of which, about 78 percent was for males and 88.6 percent was for females.

In **Mirpurkhas district,** it is emerged that the Coeff. of Efficiency was 64.0 percent of which, 61 percent was for male and 71 percent for female institutions.

In **Upper Dir district**, it is revealed that the Coeff. of Efficiency was about 52 percent of which, 59 percent was for male institutions and 38 percent for females.

Nature of dropouts:

- A student who leaves the country is a dropout regardless of whether that student continues his/her schooling in that country
- A student who moves from one province or district to another within the country is not a dropout: the dropout rate for the country is calculated as a whole.
- A student who leaves one sub-sector/sector (say public sector schooling) to another sub sector/sector (say private sector) is not a dropout.
- A student who comes to the end of the schooling cycle (say grade V) and leaves the system is not a dropout.
- A student who dies is a dropout.

SUMMARY
Basic Indicators on Internal Efficiency of Primary Education
2004-05

Region	Survival to Grade V (Percentage)	Average duration of study by a graduate	Average duration of time taken by a dropout	Wastage ratio	Pupil years wasted (%) by		Coefficient of Efficiency (Percentage)
					Dropout	Repetition	
National (based on NEC data)							
Total	**70.9**	**5.2**	**2.2**	**1.2**	**83.1**	**16.9**	**82.6**
Male	64.1	5.2	2.2	1.3	85.9	14.1	78.4
Female	81.2	5.1	2.1	1.1	75.6	24.4	88.6
Mirpurkhas (Sindh)							
Total	**33.6**	**5.1**	**1.4**	**1.5**	**96.5**	**3.4**	**64.0**
Male	31.3	5.1	1.4	1.6	96.6	3.4	61.0
Female	39.0	5.0	1.3	1.4	96.3	3.7	71.1
Upper Dir (NWFP)							
Total	**34.6**	**5.4**	**2.2**	**1.9**	**84.3**	**15.7**	**51.8**
Male	43.2	5.4	2.3	1.7	82.0	18.0	58.8
Female	21.3	5.4	2.1	2.6	87.0	13.0	38.0

National education Census

Enrolment Ratios by level, gender and areas

Level/Areas	Sindh		Mirpurkhas		NWFP		Upper Dir	
Literacy 10	Total	Female	Total	Female	Total	Female	Total	Female
Total	56	41	44	29	45	26	29	28
Rural	33	18	32	14	41	23	10	09
GER (5-9) (Primary)								
Total	75	65	66	52	80	65	63	41
Rural	58	44	50	33	78	62	62	40
NER (5-9) (Primary)								
Total	48	42	42	34	47	40	34	23
Rural	38	29	31	21	45	37	34	23
GER (10-12) Middle								
Total	42	35	36	32	47	31	28	07
Rural	25	13	24	14	44	27	28	06
NER (10-12) Middle								
Total	18	15	15	14	16	11	6	02
Rural	10	5	9	6	14	9	6	02
GER (13 & 14) High								
Total	47	37	29	24	43	24	21	05
Rural	25	10	17	07	40	19	19	04
NER (13-14)								
Total	12	11	03	04	07	05	01	02
Rural	06	03	03	03	06	04	01	02

Source: Pakistan Social and Living Standards Measure and –Survey (PSLM), 2004-05

National Education Census at a Glance

Status of Coverage

Area	No. of Institutions Covered	Number of Institutions Including Deeni Madaris			
		Data Collected	Non-Functional	Refusal	Out of Reference New Institutions
Pakistan	245,682	227,791	12,737	4,126	1,028
Punjab	115,311	110,459	2,742	1,679	431
Sindh	59,312	51,006	7,442	659	205
NWFP	40,706	37,761	1,781	1,005	159
Balochistan	11,492	10,986	306	181	19
ICT	1,348	1,189	23	129	7
FATA	5,344	5,145	123	69	7
FANA	4,366	3,977	128	80	181
AJK	7,803	7,268	192	324	19

Number of Institutions, Enrolment and Teaching Staff

Area	No. of Educational Institutions	Enrolment	Teaching Staff
Pakistan	227,791	33,379,578	1,356,802
Punjab	110,459	18,298,608	716,768
Sindh	51,006	6,552,795	290,749
NWFP	37,761	5,206,932	198,893
Balochistan	10,986	1,110,162	50,893
ICT	1,189	390,888	19,387
FATA	5,145	605,437	22,079
FANA	3,977	354,962	15,196
AJK	7,268	859,794	42,837

IMPACT OF DROPOUTS ON INTERNAL EFFICIENCY OF PRIMARY EDUCATION CONCEPTS AND CASE STUDIES

INTRODUCTION

Planners require a diagnostic technique that helps them explain where students come from, highlights many different ways in which they move through the educational system, and shows the directions in which they are likely to go. Students flow analysis is precisely such a technique.

Student flow analysis views an educational institution which receives inputs in the form of new entrants, and transform them into output of graduates as a production system. The diagnostic technique of student flow analysis allows planners to determine the degree of efficiency of a given educational cycle. The analysis of student flows, logically starts at the point where students enter an educational cycle in the initial stage i.e grade I.
The students flow analysis yields three basic rates namely promotion rate, repetition rate and dropout rate. These rates are the educational planners key instruments in analyzing students flows from grade to grade within the educational cycle.

Wastage (dropout and repetition) is a problem in many of the systems. Its intensity varies from region to region. It is most prevalent and usually associated with non- enrolment, and a lower percentage of girls than boys in the school system. It is also closely associated with socio-economic conditions where poverty is greatest, wastage will be highest. .The ideal situation is 100 percent enrolment of both boys and girl, and 100 percent retention at least up to the end of the primary school stage of education, usually a minimum of five years. The drive for universal primary education (UPE) can only be successful if the dropout is either eliminated or reduced. The dropout is perhaps the most critical from wastage point of view.

UPE is not possible in an educational system where drop out exist. By its presence, it proclaims that UPE has not been attained. There were 19.6 million children of age (5-9) years in 2004-05 of these, 15.9 million were enrolled. This means that about 3.7 million children were out of school. According to the report of Trends and Patterns of Transition and Retention of Children, 2004-05 the total number of dropouts from primary education was estimated as 39 percent. But according to the latest data of National Education Census, an improvement has been noted. The dropout is reduced from about 39 percent to 31 percent from grade I-V. Considering the existing situation, it can be concluded that in all there are about 8.6 million children out of school.

Dropout represents a staggering loss. It is found at both primary and secondary levels, it is more crucial at the primary level. An early school dropout soon lapses to illiteracy. A secondary school dropout has at least acquired literacy and some other educational skills and knowledge. He or she may more easily resume schooling, or take up training outside the system. The primary school dropout will remain locked into the closed world of the illiterate and thus have further restriction placed upon a background of poverty and ignorance. Dropout has been recognized as a menace problem particularly at primary level of education.

The nature of the problem

An attempt is made to explore through analysis the extent of dropout situation considering the National Education Census (NEC) data and cases of some UNICEF districts. The prevailing situation is that 10.135 million children are enrolled in primary schools in public sector. Out of this cohort, the reported dropout rate is about 31 percent. Though the coverage is limited, because of two districts, it may be inferred that the results will provide a general trend relating to dropouts in other districts working under similar conditions. The period of the case studies is 2003-04 and 2004-05.

A drop-out can be defined as a child who enrolls in school but fails to continue the relevant level of the educational cycle. At the primary level this means that the drop-out fails to reach the final grade, usually grade V.

A repeater is a child who has to repeat the same grade, due to examination failure, low attendance record, or for any other reason. A repeater may or may not become a drop-out, but there is a high probability that he or she will. The drop-out may or may not re-enter the school at a later date, but there is more probability that he or she will remain lost to the educational system. Both represent wastage. Whereas the repeater may stay on and eventually repeat the primary cycle, but the drop-out is very frequently lost to the system and may also fail to retain.

1.2 Objectives:

The following are the objectives:

- To assess the extent of wastage at national and in districts during 2004-05.
- To provide basic concepts and methods of determining dropouts.
- To identify some of the major factors causing dropouts in primary education.

1.3 Methodology

The first section of the report is comprised of the attempts made to compile basic concepts of dropouts and wastage. The Second Section is the case studies which consists data of NEC and UNICEF on enrolment by grade of two consecutive years 2003-04 and 2004-05 along with the repeaters data of preceding year. A detailed analysis is done using Reconstructed Cohort Method. The data is analyzed class- wise and the ratios indicating both wastage and Coeff. of Efficiency were calculated. Four sets of indicators of Internal Efficiency comprising three each were computed. In all 12 indicators are presented in each case study.

1.4 Some factors responsible for drop-out

Reasons for drop-out may be classified into those "internal" and those "external" to the educational system. Neither group should be treated in isolation. An educational system reflects the values and priorities of the society it serves. It can rarely be more advanced than the general cultural matrix which supports it. Interaction between internal and external factors is continual and the inter-relationship should be borne in mind considering various factors:

i) **Internal factors affecting drop-out.**

The primary school itself, its facilities, and pedagogical methods, all affect the child's learning experience and exert an influence upon retention or drop-out. In some countries, The facilities available are inadequate for the number of students who attend the schools. There are not enough benches, desks, or chalkboards and other basic equipment available in many schools across the country.

The actual provision of one teacher per grade is slightly better than it appears. One teacher schools may be very good, particularly in situations where there are few children and a wide variety of learning materials are available, and the teachers have been adequately trained for the purpose. The school situation then resembles an upgraded classroom, and the teacher becomes a resource person to all his or her pupils. Unfortunately, the best conditions for one teacher schools are rarely available and the need to change them has also been recognized. The upgrading of many of the single teacher schools to accommodate all the primary school students seems a necessary condition in helping to prevent drop-out. Provision of sufficient basic facilities would be a major factor in preventing drop-out.

Provision of basic physical facilities is not only enough but a sufficient number of trained teachers must also be provided. It is acknowledged that number and quality of the teaching force has an effect upon retention or drop-out of students. Apart from inadequate facilities and trained teachers, organizational practices within the school also have an impact on drop-out or retention.

The practice of automatic progression through the grades is not free from problems, it poses far less than those which result from repetition and it appears to be a major factor in the elimination of drop-out. It is significant that the educational systems of Malaysia and the Republic of Korea have automatic promotion and virtually no drop-out at the primary level of education.

The three measures: provision of sufficient schools and teaching/learning materials and equipment, enough teachers who are adequately trained, and abolition of repetition, are of major importance in increasing the holding power of the school and in preventing drop-out. Other measures used include primary education free of fees payment, provision of free textbooks and uniforms, and use of the mother tongue as the medium of instruction. In addition, it is recognized that pre-schooling for the socially deprived child may be a necessity in the drive to prevent drop-out. The school situation and environment may be so alien to the young child that the child does not wish to stay in it.

A pre-school class or kindergarten would help to prepare the child for the formal school experience in grade I and help in the adjustment to the discipline and needs of a school routine. It would also provide a "head start" for the disadvantaged groups by improving in particular, the child's language and other cognitive skills before entering the first grade.

(ii) **External factors affecting drop-out.**

The external factors are those within the child's socio-cultural milieu. Of these, the economic and social condition of the family is the single most crucial variable affecting drop-out.

Although many apparent external causes may be cited, such as parental illiteracy, malnutrition, parents' land holding, rural or urban residence and so on, all spring from the one main cause, the parental socio-economic condition. Many such parents have little understanding of the need to enroll and ensure attendance of their children, and such children become the first drop-outs. Moreover, in a situation of extreme poverty where the family struggles at the margin of survival, education has no immediate significance. The contribution of the child's labour to the family welfare is the only reality.

The child's age and sex also affect drop-out. In societies where less attention is given to women and girls, fewer girls enroll in school and more girls than boys drop out of school. Many children enter school late. In grade I, children may be 7,8,9, or even 10 years of age. This is not in itself particularly important, especially in an upgraded school where each child progresses at his or her own rate. It may be withdrawn from school and boys when they are strong enough to help agricultural tasks.

The importance of enrolling the child at the correct age in order to begin the primary school cycle, is little understood in most rural areas. Another major factor affecting both enrolment and drop-out is geographical location. Mountainous areas experience higher drop-out rates. Provision of primary school and of teachers in these regions can be very difficult and traveling to school poses a problem for many school attenders.

Health and general nutrition of the individual child may affect drop-out also. If a child is in poor health, school attendance may be affected, leading to repetition or eventually drop-out. Even if a child attends regularly, the child may not be able to give sufficient attention to the classroom situation because of physical or mental fatigue due to hunger or undernourishment. Children from poor homes do not receive the nourishment they require which probably help to determine eventual drop-out of many poor children.

All the above factors, internal and external, act upon the child, upon enrolment and eventual completion of the primary cycle or dropping out from it. Steps have been evolved of dealing with the provision of primary education taking into account, as far as possible, all the variables of a given situation.

1.5 Action to prevent dropouts

Most of the measures taken to prevent dropout are indirect and part of a wider scheme to enhance attainment of UPE. Practically, no data exist to indicate which measures work best to eliminate the dropout. In addition, repeaters data was also not available in the past on the basis of which dropout could be calculated using the Reconstructed Cohort Method. However, five categories of measures may be distinguished namely, (i) organizational (ii) pedagogical (iii)

community participation (iv) incentives and (v) non-formal approaches. They may act together and interact upon the child, the school and the society.

1.5.1 Organizational measures:

Automatic progression between grades, or continuous progression across the primary cycle, is probably the single most important organizational action which may be taken to prevent drop-out. Repetition makes classes far larger than they need to be, discourages children who fail to be promoted.

Special placement tests may enable school drop-outs to gain accreditation and return to the formal school system and this is a practical way to encourage drop-outs to complete their education. Easy re-entry of drop-outs to the education system implies an open system at all levels. Placement tests for accreditation would be useful at the primary level.

1.5.2 Pedagogical measures.

It has long been recognized that a highly qualified and trained teacher is preferred at all educational levels. Sex of the teacher may be as important as training. At the primary level, female teachers are preferred both for their gentle approach to very young children and for the model they present to girls.

The important factors are probably the educational level of the teacher, the quality of pedagogical training imparted, and the working conditions in which the teacher must teach. In many areas grade I enrolment is very high, there is a hidden pre-school class. Whenever possible, head masters of large primary schools have designated one teacher for the pre-school class, knowing well that the younger children were generally unable to make the transition from home environment to grade I successfully. The first few months of school are probably crucial of the child's perceptions. If they are introduced to a school situation earlier, it will encourage them to come to the primary school. For this purpose, efforts should be made to open pre-primary schools, particularly in rural areas, and support such schools which are already in existence. Further, another approach to prevent dropouts is to teach the children in their mother tongue.

It is preferable to institute a system of continuous criterion-referenced evaluation, so that learning problems and difficulties are detected early and the child is helped to overcome these, rather than ignoring problems and failing the child at the examination. The primary level of education should require mastery of skills, not competitive attainment in an annual examination. Improvement of teaching methods and materials is a factor which also may have some bearing on drop-out. These have taken the form of free education, provision of textbooks, provision of mid-day meals, clothes and scholarships.

Free or subsidized transportation facilities may be necessary to enable children to attend school in sparsely populated areas, or in regions of difficult terrain. Where the primary level terminates at grade IV in rural schools, transportation for the students to more distant schools for grades V and VI may be necessary.

1.5.3 Community participation

Involving the community in primary level education may be a means of enhancing enrolment and preventing drop-out. When parents are active in the educational process, it is more likely that their children may stay in school. Community participation may range from the establishment of a parent-teacher association and school open days, to actually building a school.

In some cases, the community needs educating about the importance of education, especially of girls. This may be done by the mass media, by political parties, by district administration, folk media, and by the teachers themselves. Involving the community in primary education may enable governments to share the costs with the community. This may be particularly important in highly populous countries where provision of basic facilities might be prohibitively expensive if the usual formal model is followed.

1.5.4 Non-formal measures

Many new models are being investigated at the primary level involving a non-formal component which supplements the formal school. Non-formal education at the primary level will become a viable and practical supplement to the formal system. Such a system may place stress in one of several ways. As a supplement to the formal system, the non-formal approach would enhance the efficiency of the formal system and thereby help to reduce drop-out. As a complementary system, the non-formal system, usually in a shortened learning cycle, would be concerned with minimum learning competencies rather than the complete primary curriculum. In this way the non-formal system would be helping to attain basic education for all.

The dropout has always posed a big problem for the administration. It drains all the investment made for the improvement of education. The process becomes cost inefficient and the target of universalization of education becomes bleak and distant. Therefore, some times it frustrates the planners and the financiers. Therefore, this aspect always agitates the society.

1.5.5 Loose Management

The management of any organization/institution plays a vital role in its success. That is why almost all the entrepreneurs make endeavors to engage well trained and well qualified managers who know how to promote the cause of their organization so that not only their business flourishes but it also gains popularity among the customers. Unfortunately, some organizations do not pay attention towards this very important aspect but the education management needs specific know how and skills to deliver. The manager must know the objectives of education and the means to achieve them. In some cases the owner of the school himself becomes the manager of the school with out knowing the requirements of an institution. They run the school on the lines of a grocery shop. It results in mismanagement of the organization leading towards deterioration of quality of education. When the parents find that the school does not come up to their requirement, they opt to find a better school. Thus the weak and non-professional management breads failure of the school.

1.5.6 Unskilled Teachers

Teaching is technical profession. It needs persons who are well equipped with content area, methods of teaching and fully know the human psychology particularly the educational psychology. The parents invest on their children to achieve desired results. They can not afford any wastage. In some cases the schools engage untrained young teachers.. They are low paid. Therefore, neither they try to learn the teaching techniques nor they try to learn the teaching techniques nor they feel satisfied with their salary. Thus, their performance remains below the mark. Obviously, there will be unsatisfaction among the students and the parents. It drives the students out of school leaving the institution financially impracticable.

1.5.7 Medium of Instruction

The medium of instruction plays central role in the effectiveness or other wise of the instruction of the teacher and comprehension of the student. Whatever the medium, the teacher should have full command on the language both, oral and written. He should create an atmosphere where the student is provided a chance to listen and speak the language of instruction with out any hesitation or fear. Therefore, the management of the school must ensure that they have introduced a medium of instruction for which the competent teachers are available. Unfortunately, there is a general demand from the parents that their children should be taught through English medium. And it has become almost a symbol of status. Cognizant of the demand, the managers introduce English as medium of instruction particularly in private sector situation but without providing teachers competent to use English effectively and frankly in their teaching. They use a mix of Urdu and English in teaching whereas all the books are in English. The child neither learns Urdu nor English. After some times, when the parents realize the situation they say good bye to the school.

On the contrary, some parents leave the school because it has introduced Urdu as medium and the parents want to shift to English medium. It also adversely effects the success of the school.

1.5.8 High Rates of Tuition Fee and Dues

In some cases the parents get their children admitted in schools who charge high rates of tuition fee and demand financial assistance from the parents time and again. The parents find them selves embarrassed because their financial position does not allow them to come up to the demands of the school. Therefore they search for some comparatively economical institution.

1.5.9 Frequent Change in Staff

Hiring and firing is the prerogative of the school management they appoint or discharge the teaching staff according to their needs in the case of privately managed institutions. However, it is an admitted fact that security of job creates a sense of commitment among the teachers. Their longer stay in a school helps them understand the individual needs of the students. They can deliver better to the students who have spent more time with them. Thus the pace of achievement of the students is also excelled. The parents also like to continue their children in the same school.

Contrary to the above, some schools keep on transferring and changing the teachers through out the academic year. It has been observed that at least 50% of the staff is generally changed at the end of every year. This frequent change creates doubts in the minds of the parents and they look for a school, which keeps their teaching staff in placed for longer period.

1.5.10 Homework

Homework is a very important part of the programme of almost every school. Homework should be assigned with a specific objective and the teachers should ensure that the homework is checked timely and properly. The volume of homework should not exceed such limits where it becomes a burden for the students. Some times the schools ignore the real objective of the homework and the teachers assign huge volume of work. They expect that the parents will help the child to complete the homework or make some other arrangements to do this. The homework is not properly checked and the students are not given any guidance and counseling in this regard. The whole exercise becomes futile. This situation breads dissatisfaction among the parents who expect that their child will learn from the teacher and will not demand them to help the young mind to do his homework. When the episodes of help in doing homework becomes frequent the parents tend to change the school or get their child back.

1.5.11 School Environment

The parents who send their children to private schools are generally very sensitive about the environment of the school. They expect that the school will provide very healthy atmosphere. The rooms should be airy, tidy, and have adequate space to accommodate the students with out suffocation. The behaviour of the teacher should be motherly and their child should learn good habits. In case all this is available, the parents love to keep their child in the school till its final stage. In case the school does not provide healthy environment and produces a violent individual who does not care to respect others, then the parents make haste to relieve their child out of this in-conducive atmosphere.

1.5.12 Classroom Management

The classroom is the real home of the child where he spends 4 to5 hours every day. He loves to come back to his classroom if it is properly managed which includes seating arrangements, heating and cooling facilities, cleanliness, proper white washing and painting, cooperative learning, friendly relationship with the collogues and encouragement from the teacher for learning. In case, this is not available and the classroom becomes a dull place full of various hazards it makes the child sick of studying. He hesitates to go back to school, pretends to be sick and makes a lot of complaints. When the parents take note of the situation they immediately change the school so that their child is not totally ruined.

1.5.13 Punishment

The parents and the students hate punishment and same is with good teachers. Punishment generates unhealthy personality. Therefore, it is since long that the education system has got rid of all kinds of punishment to the students. The school is expected to be a place full of love and affection, mutual respect and regard for each other. It should demonstrate a high level of tolerance and forgiveness. It should forge a balance personality. However, in some funny institutions punishment still prevails. Though the corporal side has disappeared but other kind of physical punishments are in vogue. The students are insulted, abused and made to stand on the benches with their arms up. This is totally inhuman and humiliating. The parents of the modern age will never allow the school to execute any kind of punishment on their children. Deserted are the schools which still believe in punishment.

1.5.14 Health problems

Some students face health problems like general sickness. Such students need frequent medical care during school hours. They also need special attention of the teachers. They expect that they may be involved in such activities only which do not effect their health and do not bring them tiredness and fatigue. In case, the school does not treat them in accordance with their needs then the students tend to leave the school.

1.5.15 Physical Handicaps

Some students suffer from short sightedness, deafness, stammering and other physical handicaps these students feel difficulty in keeping a pace with the normal students. Therefore, the teachers and the school management should keep a record of these students and every teacher should know the techniques of facilitation to these students. They should be encouraged to take part in the classroom activities. An atmosphere may be created where these students feel themselves as part of the main stream students. The students with physical handicaps are generally very sensitive and they react severally in case they sense that they are being treated in an abnormal manner. They feel humiliated and they leave the school abruptly.

1.5.16 Other Schools Around

The private schools are coming up in an unplanned manner. There are instances that more than one school with the same system and mission are functioning in the same vicinity. The problem with such school are multiple. Some times unhealthy competition of attracting the students takes place leaving very thin enrolment in a school which becomes in-viable . The students in such circumstances are obliged to migrate from one school to the other. Similarly, in case the quality of instruction in a particular school working in the same vicinity is proved to be better it also attracts the students and parents to change the institution.

1.5.17 Co- curricular Activities

The parents are attaching much importance to the co-curricular activities in the school. Such activities not only provide recreation but they help prepare the students for future life. In addition, co-curricular activities create qualities of leadership, self-reliance and make concepts easy to comprehend and apply in the life. Therefore, the schools which do not respond to the needs of the parents lose enrolment as compared to those who arrange co-curricular activities.

1.5.18 The Curriculum

The curriculum of an institution also effects interest of the parents and the students. In case, the curriculum is highly theoretical, jargon oriented and based on rote memorization, it becomes a dull phenomena for the students and the teachers. In case, the curriculum is of practical nature and prepares the students for their future life then it becomes interesting. The textbooks written by foreign authors also create problems for the students because they face difficulty in understanding the alien culture. They simple frustrate the students.

1.5.19 The School Level

The parents prefer to send their children to such schools which cater scholastic needs from Nursery to Secondary Education. They do not like to change the school after every terminal i.e. Primary, Middle and High. The students also develop a belongingness for the school and like to spend all the school life in one institution rat her then changing it. Therefore, the parents change if they find a complete school.

1.6 Effects of Dropout

The dropout of students has far-reaching adverse effects on the education system. Some of them are given as follows:

1. **Bad effect on the prestige of the school.** Obviously the school prestige will suffer badly in case if it faces high dropouts and repetitions.
2. **Repetition and dropout:** The dropout and repetition or migration from school also adversely effects the reputation of the school.
3. **Discouragement:** It brings discouragement among the students and staff who professionally feel humiliated.

1.7 General Causes of Drop Outs

The following factors contribute towards dropping out children in public sector.

- Unattractive school atmosphere
- Unattractive textbooks
- Emphases on rote memorization
- Longer School Timings

- ❖ Lack of awareness among the parents.
- ❖ Overcrowded class rooms
- ❖ Difference in mother tongue and
- ❖ Migration of parents
- ❖ Poor health of the student.
- ❖ Non responsive community
- ❖ Lack of professionalism among the teachers
- ❖ Lack of effective supervision
- ❖ Harsh behavior of the teachers
- ❖ Crude methods of teaching
- ❖ Lack of classroom activities
- ❖ Child Labor
- ❖ Teacher absence
- ❖ Lack of interaction
- ❖ Lack of basic facilities
- ❖ Heavy School bag
- ❖ The climatic condition
- ❖ Long distance from home to school
- ❖ Low standard of instruction/ dissatisfaction of parents
- ❖ Failure and retention in existing
- ❖ Non communication in mother tongue

1.8 Broad Causes of Dropouts

Some broad reasons of dropouts are categorized below:

Economic Causes

- Parents cannot meet expenditure on their children's education (purchasing books, stationery, clothes etc.
- The need of economic participation of children in day-to-day activities of the family leads to absenteeism, stagnation and dropout.

Educational Causes

- School environment not encouraging
- Educational backwardness of community
- Lack of educational facilities for further education
- High enrolment in classes on account of which teachers cannot give adequate individual attention to the students.
- School timings are not appropriate
- Lack of awareness about the gains of education on the part of community

Social Causes

- Backwardness of the community
- Overwhelming feelings of the community that education cannot serve their needs.
- Early marriages particularly these of girls and similar causes.
- Family and tribal barriers.

Personal Causes

- Domestic circumstances like shouldering the family responsibilities as no elder member of the family is available to support the family.
- Poor health of the pupil i.e. illness of the child etc.
- Age heterogeneity of pupils in the class.

Dynamics of Children in School

Logically, the analysis of students flows starts with grade I. Students in grade I consist of two categories:

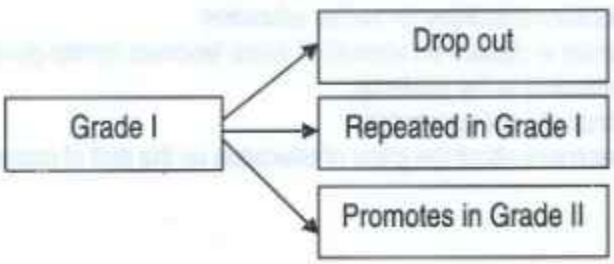
- New entrants into the school system
- Repeaters from last year's grade.

The official entrance age in grade I is 5+ and that the children in fact are supposed to enter at that age. The majority of over-age children in grade I are mixed consisting failures of last year. It is therefore, necessary that data of repeaters of the last year should be available to determine the rate of fresh entrants.

2.1 Flow of Children through an Educational Cycle

In order to trace the movements of students through an educational cycle, it is necessary to determine at the beginning of each year the children enrolled at a particular grade in the previous year. One of the following three possible events could have taken place:

- Children have been promoted to the next higher grade
- Children have to repeat the same grade
- Children have dropped out.



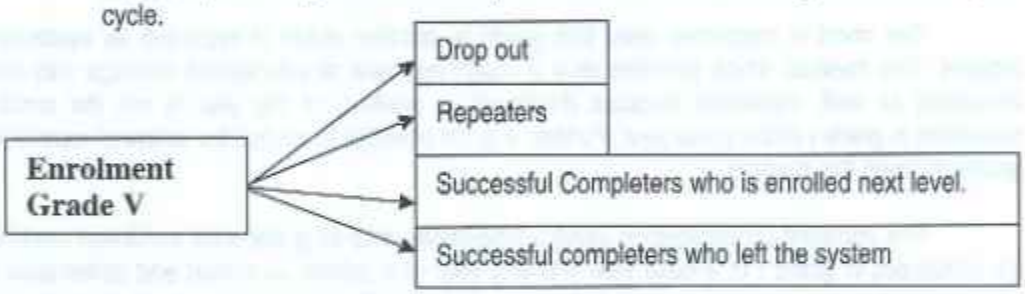
2.2 Situation of Children at the Final Grade of an Educational Cycle

Assessing the existing situation in the educational cycle, it may be observed that there are three final grades which are given below:

Grade V: Last grade of Primary education
Grade VIII: Last grade of Middle School
Grade X: Last grade of High School

At these final grades, there are four possible ways for children to take:

- a child may repeat the same grade
- a child may dropout
- a child may complete the grade successfully and than leave the school system child may complete the grade successfully and than enroll in the first grade of next higher cycle.



All successful completers from the final grade, whether they leave the school system subsequently or continue in the next higher cycle, should be counted as a measure of the final output from the cycle they have completed. However, the planner would be particularly interested in those successful completers who proceeded to the next higher cycle to trace the flow of children from one cycle to the other.

2.3 EFFICIENCY Versus WASTAGE IN EDUCATION AT PRIMARY LEVEL:

In a school cycle of five years, a successful school leaver would require at least five student years to complete the primary cycle of education. The term efficiency has its origin in economic theory and practice. For any activity, it is necessary to set the objectives to be achieved or the outputs which may be expected from that activity. To obtain these objective certain means or inputs must be available to produce the desired outputs with minimum efforts and cost. Efficiency, therefore may be defined as the optimal relation between inputs and outputs. To relate efficiency to educational activities, it is necessary that one should have clear concepts about output from education and inputs into education.

2.4. METHODOLOGIES FOR DETERMINING THE DEGREE OF DROPOUTS IN PRIMARY EDUCATION

A number of methodologies have been evolved for measuring the extent of dropouts which contributes wastage in education. These are largely based on the data available in respect of grade-wise enrolment by gender and location for a series of years and also the number of repeaters by grades.

For measuring the dropouts and assessing the degree of wastage in education, two methods are usually applied i.e i) Apparent Cohort Method and ii) Reconstructed Cohort Method.

2.4.1 APPARENT COHORT METHOD (When data on repeaters not available.):

This method is applied when a grade-wise data on enrolment for a series of years is available, enrolment in grade I is considered as cohort. Enrolment in all other grades in the same year is compared with that in grade I.

The short in enrolment from one grade to another grade is regarded as evidence of dropout. This method which provides only a rough estimate of educational wastage has some limitations as well, especially because enrolment in grade II of the year is not the result of enrolment in grade I of the same year. Further, it is not possible to assess the extent of repetition of grades through this method.

The apparent cohort method using a time-series data on grade-wise enrolment considers the enrolment in grade I in a base year (starting year of a cohort) as cohort and determines the relationship through diagonal analysis between cohort and the enrolment in successive grades in successive years. Two different approaches are generally adopted in this method. The first approach involves the calculation of attrition rate and the second is the progression rate, graduation rate and enrolment output ratio.

2.4.2 RECONSTRUCTED COHORT METHOD (When data on repeaters available).

This method of calculating the flow rates i.e. promotion; repetition and dropout are most commonly used by the educational planners. When the number of promotes and repeaters are known for each grade, the extent of dropout can easily be determined by subtracting the sum of the promotees and the repeaters from the total enrolment. The Reconstructed Cohort Method marks a distinct improvement over the apparent cohort method. This method can not be applied to the school system where there is automatic promotion.

The following are some of the assumptions to be considered:

- All the flow rates will remain the same while reconstructing the cohort diagram.
- No fresh students would be allowed
- As a policy matter, the number of repetition (three) is allowed to a student in the same class.

Note: The application of the Reconstructed Cohort Method can be seen in the case studies.

2.4.3 Some related definitions

Education inputs

All inputs cost money and they can be expressed as expenditures for student over a specific period in respect of place for student in the class room, a teacher, textbooks, furniture, equipment etc. The basic unit of measurement of educational inputs is therefore the student year.

Education outputs

It is obvious that students are participating in educational activities to seek relevant knowledge, attitudes and skills as their objectives; economists will look into some other dimension of human resource development and productivity improvement as the main objective of education. The educational planner, will consider the production of students who successfully complete educational cycles as the most immediate objective of their planning.

When a student who has completed an educational cycle, he has to undergo a number of evaluations. This continuous evaluations of educational activities culminates in the final examination. Whether or not students complete the cycle successful , depends essentially on the final results. Therefore, the output from a given cycle of education is defined as those students who complete the cycle successfully.

Student year : A student year is a unit of measuring the educational inputs. In other words, one unit of output can be produced with no less than five units of input. In a cycle of five years perfect efficiency is achieved if inputs relate to outputs which can be expressed as :

1 unit of output or 1 successful completer: 5 student- years

Usually, perfect efficiency is never possible, because students are repeating the grades, this will add the number of student years. Secondly, students dropout before completing the cycle. They have used a number of student years without contributing to the output from that cycle. Further, the degree of inefficiency or wastage can also be investigated by studying a cohort of students.

Cohort: It is a group of children entering the initial grade of a cycle in a given year

Cohort Analysis : It is defined as an effort to trace the flow of a group of students, who enter grade I in the same year through an educational cycle.

Thus, the cohort helps in tracing the movements of students through the cycle of which, many of them dropping out at various points on the way, others repeat the same grade and perhaps only few completing the final grade in the minimum time of five years.

Cohort Flow Diagram

The diagrammatic representation of movement of students from grade to grade over a number of years in educational cycle is termed as cohort flow diagram .The cohort flow diagram is reconstructed applying the Reconstructed Cohort Method.

For employing the Reconstructed Cohort Method, it is necessary that two consecutive years enrolment by grade and the repeaters by grade for the previous year is available. With this data, the flow rates can be calculated. Once the promotion rate, repetition rate and the dropout rate have been calculated than the reconstruction of cohort diagram may be started.

Progression Rate

It is defined as the ratio of the enrolment in a grade in a given year to the enrolment in the previous grade in the previous year. Progression rates are calculated for all the grades for all the years in a time-series data. These ratios give us an idea of the dynamics of enrolment in the school system. The value of these rates are always less than unity in all grades except in the final grade, where it is higher than unity because of the large number of failures.

Graduation Rate

It is the ratio of the number of graduates after the final grade of the stage/course under study to the enrolment in the same grade in the same year. Sometimes, it is difficult to find trends of increase or decrease in progression as well as graduation rates in a time-series data. In such a situation weighted averages of these measures may be calculated.

Enrolment –Output Ratio

It is an indicator of internal efficiency of the educational system. It is defined as the ratio of the number of graduates after the final grade to the corresponding enrolment in grade I.

Input – output Ratio

It is defined as the ratio of the total number of pupil- years consumed in a cohort expressed as a ratio of the minimum number of pupil-years required by those pupils who completed the stage/course. This is obtained by dividing pupil -years spent per successful completer by the duration of the stage/course.

For example, if the total number of pupil- years spent by a cohort of 1000 pupils before completing or leaving the primary school education (grade I-V) is 4,500 and the number of pupils successfully completing the course is 500. Therefore, the pupil years spent for each successful completer will be 4500/500=9.0. The duration of the primary cycle of education is 5 years. Hence, the input-output ratio will be 9.0/5=1.8 which means that the cohort member is consuming 0.8 pupil-years extra which leads to the contribution of wastage in education. In ideal situation it would have been unity.

3. CASE STUDIES

- **National (NEC Data)**
- **Mirpur Khas (Sindh)**
- **Upper Dir (NWFP)**

3. CASE STUDIES

Introduction

The case study represents a comprehensive description and explanation of many components of a given social situation. It is important to realize that this approach to social research differs radically from the others considered so far in terms of scientific objectives. Whereas most research aims directly at generalized understanding, the case study is directed initially at the comprehensive understanding of a single case. Most research attempts to limit the number of variables considered, the case study seeks to maximize them. Ultimately, the researcher executing a case study typically seeks insights that will have a more generalized applicability beyond the single case under study, but the case study itself cannot assure this. The following districts have been taken as an example of case studies:

3.1. Pakistan: Country Situation

Background

The Islamic Republic of Pakistan came into being on August 14, 1947. It comprises four provinces and four regions namely, Punjab, Sindh, North-West-Frontier-Province (NWFP) and Balochistan, Federal Capital of Islamabad. Federally Administrated tribal areas (FATA), Federally Administrated northern area (FANA) and Azad Jammu Kashmir (AJK). The country is spread over an area of 796,095 sq. km.

The estimated population is about 156.7 million. The average annual growth rate of population is 1.9 percent and the population density was 166 persons per sq.km.

Pakistan has a variety of physical features comprising mountains, plateaus, plains and deserts. Almost all the major rivers and streams of Pakistan are part of the Indus system. The principal tributaries of the Indus River are the Jehlum, Chenal, Ravi and Sutlaj.

An attempt to collect comprehensive data: National Education Census

In the past incomplete data was being collected which had partial information. It was not catering the need at national and international levels.

Therefore, under the directives of the Federal Minister for Education a National Education Census was conducted first time in the history of the country. All categories of educational institutions were included across the country.

In all 245,682 educational institutions were enumerated. Data on 227,791 institutions was collected with a reported enrolment of 33.3 million and 1.3 million teachers.

3.1.1. Literacy and Education situation

The literacy rate is about 54 percent of which, 66.7 percent are males 41.7 percent are females. According to National Education Census, the gross enrolment at primary level of education was 15.96 million of which 9.17 million were males and 6.79 million were females. The private sector contributed 33 percent.

The gross enrolment ratio at primary level was 83.2 percent and the net enrolment ratio was noted as about 66.0 percent

The repetition rate on the average from grade I to V was noted as 3 percent of which, 3.1 was for males and 2.8 percent was for females.

The survival rate of children to grade V was 70. 9 percent. The male and female survival rates were 64.1 and 81.2 percent respectively.

The average duration of study per graduate was 5.2 pupil-years of which, 5.2 and 5.1 pupil years were of males and females respectively.

On the average a child who dropped out from the system was 2.2 pupil-years. The males wasted the same time whereas the females wasted 2.1 pupil-years.

The overall dropout rate from grade I –V was 31.3 percent of which, about 40 percent was for males and 19 percent was for females.

Internal Efficiency of primary education system was calculated. It was noted that the overall coefficient of internal efficiency was 82.6 percent of which, 78.4 percent was for males and 88.6 percent was for females.

The wastage ratios were calculated. It was emerged that the overall ratio was 1.2. It was 1.3 for males and for females it was 1.1.

The wastage contributed due to dropout and repetition were computed. It was observed that the overall wastage due to dropout rate was 83.1 percent of which, 85.9 percent was for males and 75.6 percent was for females.

The wastage due to repetition was 16.9 percent of which 14 .1 percent was males and 24.4 percent was for females.

3.1.2 Data Analysis and Findings

FLOW RATES BY GRADES

In Percentage

Flow rates	I	II	III	IV	V
Promotion					
Total	82.4	93.5	92.4	88.3	97.0
Male	80.3	90.2	89.9	87.0	96.7
Female	85.5	97.4	96.0	90.4	97.4
Repetition					
Total	3.5	2.8	2.6	3.1	3.0
Male	3.6	2.9	2.6	3.1	3.3
Female	3.3	2.6	2.5	3.2	2.6
Dropout					
Total	14.2	3.7	5.0	8.5	0.1
Male	16.2	6.9	7.4	9.9	0.1
Female	11.2	0.0	1.5	6.5	0.1

Source: National Education Census, AEPAM

- The overall dropout rate from grade I-V was 31.3 percent
- Dropout rate was more pronounced in grade I i.e. 14.2 percent
- The male dropouts rate was about 40 percent whereas the female dropout rate was much lower i.e. about 19 percent.
- The maximum dropout rate was for males (16.2 percent) in grade I followed by 9.9 percent in grade IV.
- The maximum dropouts was 11.2 percent in grade I .
- The repetition rate was about 3 percent on the overage fro males and females.
- The promotion rates were better in case females as compared to males in each grade.

3.1.3 Indicators of Retention by Grade

a. Survival Of Children By Grades

In Percentage

Survival of children by grades	Total	Male	Female
Between grade I and II	85.3	83.2	88.4
Between grade II and III	82.0	77.3	88.4
Between grade III and IV	77.8	71.4	87.0
Between grade IV and V	70.9	64.1	81.2

b. **Dropouts of Children by Grades**

In Percentage

Dropout children by grades	Total	Male	Female
Between grade I and II	14.7	16.8	11.6
Between grade II and III	3.3	5.9	0.0
Between grade III and IV	4.3	5.9	1.4
Between grade IV and V	6.9	7.3	5.8

c. **Number of Graduates from final Grades**

In Percentage

Graduates	Total	Male	Female
With no repetition	61	55	70
With one repetition	9	9	10
With two repetition	8	1	1
With three repetition	0	0	0

- It was noted that in grade V, only 70.9 percent children of primary education could survived where as 64.1 percent were males and 81.2 percent were females.
- The highest dropout of children was 14.6 percent between grades I and II and 16.8 percent were males and no females were dropped
- About 61 percent could pass primary schooling without any repetition of any grade of which, 55 percent were males and about 70 percent were females.

3.1.4. Indicators of Retention by Years Of Study

a. **Enrolment by Years of Study**

In Percentage

Enrolment by years of study	Total	Male	Female
Enrolment in 2005 in grades I and II	85.9	83.8	88.8
Enrolment in 2006 in grades I, II and III	82.4	77.7	88.4
Enrolment in 2007 in grades I, II,III and IV	78.3.	72.0	87.1
Enrolment in 2008 in grades II,III,IV and V	71.7	65.0	81.8
Enrolment in 2009 in grades III,IV and V	10.1	9.4	11.0
Enrolment in 2010 in grades IV and V	0.9	0.9	0.9

b. **Dropout of Children By Years Of Study**

In Percentage

Dropouts by years of study	Total	Male	Female
Dropout in 2004 in grades I	14.2	16.2	11.2
Enrolment in 2005 in grades I, II	3.5	6.1	0.4
Enrolment in 2006 in grades I, II,III	4.1	5.8	1.3
Enrolment in 2007 in grade I,II,III and IV	6.4	6.9	5.3
Enrolment in 2008 in grades II, III,IV and V	0.7	0.8	0.6
Enrolment in 2009 in grades III,IV and V	0.1	0.1	0.1

c. **Graduates by Years of Study** — In Percentage

Graduates by years	Total	Male	Female
Graduation in 5 years	61.0	55.0	70.0
Graduation in 6 years	9.2	9.0	10.0
Graduation in 7 years	0.8	0.1	0.8
Graduation in 8 years	0.1	0.1	0.1

- Out of a Cohort of 1000 children 85.9 percent were found enrolled in grades I and II of which, the 83.8 percentage were for males and 88.8 percent were for females.
- The highest dropout rate was 14.1 percent in grade I. The male dropout was 16.2 percent in grade I and for females it was 11.2 percent in the same grade.
- 61 percent could pass primary cycle of education in five years time of which, about 55 percent were males and 70 percent were females.

3.1.5 **Average Duration of Study** — Pupil- years

Average durations of study	Total	Male	Female
a. Average duration of study by graduate	5.2	5.2	5.1
b. Average duration of study by dropout	2.2	2.2	2.1

- It is revealed that on the average a student took 5.2 pupils- years to complete the primary education. The male situation was the same as that of overall .The female consumed 5.1 years to complete the primary cycle.
- The overall situation of children who dropped out wasted 2.2 pupil- years on the average and the same position was that of male. The female wasted slightly less pupil- years (2.1) as compared to males.

3.1.6 **Indicators of Internal Efficiency**

Degree of Efficiency	Total	Male	Female
a. Wastage Ratio	1.2	1.3	1.1
b. Coeff. of Efficiency (Percentage)	82.6	78.4	88.6

- The overall wastage ratio was computed as 1.2 of which, 1.3 was for males and 1.1 was for females. In ideal situation it must be unity.
- The Coefficient of Efficiency was noted .The overall Coeff. of Efficiency was 82.8 percent of which , 78.4 percent was of male and 88.6 percent was that of females.

3.1.7 **Wastage Contributed Due to Dropout and Repetitions** — In Percentage

Wastage components	Total	Male	Female
a. Wastage due to dropouts	83.1	85.9	75.6
b. Wastage due to repetitions	16.9	14.1	24.4

- The pupil- years wasted due to dropouts was 83.1 percent of which, 85.9 percent was for males and the 75.6 percent was that of females.
- The pupil- years wasted due to repetitions was 16.9 percent as a whole but the male contribution of wastage was 14.1 percent and for female it was 24.4 percent.

3.1.8 **Education Expenditure:** A total amount of Rs.170.7 billion was allocated of which, 41.8 billion was for development and Rs.128.8 billion for recurrent budget.

3.2 Mirpur Khas

Background

Mirpurkhas was a part of the former Tharparkar district. It is bounded on the north by Sanghar district, on the west by Hyderabad district , on the south by Badin and Tharparkar districts and the east by Umerkot and Sanghar districts. The total area of the district is 2925 Sq. Km.

There is no river or stream in the district. However, the town had increased importance since the opening of Jamrao Canal in 1900.

According to 1998 population census , the population of Mirpurkhas was 906 thousands. The annual average growth rate of population was 2.68 in 1998 and the population density was 310 per Sq. Km for the same period.

3.2.1 Literacy and Education Situation

The literacy of the district was 35.97 percent. The male literacy was observed higher, 46 percent as compared to female 25.05 percent according to 1998 census .

The gross enrolment at primary level of education was noted as 164,925 out of which 14,154 were private sector students. The gross enrolment rate was 93.1 percent.

The net enrolment was observed as 131,940 students of which, 87,060 were males and 44,334 females. The net enrolment rate was 74.4 percent. The pupil- teacher ratio was 22.

The repetition rate on the average was 1.0 percent from grade I to V at primary level of education, of which, 1.1 percent were males and 0.8 percent females.

The survival rate of primary school children to grade V was 33.6 percent. The males and females survival rates were 31.3 and 39.0 respectively.

The average duration of study per graduate was 5.1 pupil- years of which, 5.1 pupil- years were taken by males and 5.0 pupil- years by females. In ideal situation they should have consumed 5 pupil- years each.

On the average a child who dropped out from the system wasted 1.4 pupil-years. The males wasted the same pupil-years whereas the females wasted slightly lesser pupil- years i .e 1.3.

Internal Efficiency of primary education was computed. It was observed that the overall Coefficient of Efficiency was 64 percent of which, 61 percent was that of males and 71 percent was of females.

The wastage ratios were calculated. It was emerged that the overall wastage ratio was 1.5. It was 1.6 for males and for females it was 1.4. In ideal situation it must be unity.

The wastage contributed due to dropout and repetition rates were computed. It was observed that the overall wastage due to drop out was 97 percent of which, 96.6 percent was for males and 96.3 percentage was for females.

The wastage due to repetition was about 3 percent of which, 3.4 percent each was for males and 3.7 percent was for females respectively.

3.2.2 Data Analysis and Findings

FLOW RATES BY GRADES

In Percentage

Flow rates	I	II	III	IV	V
Promotion					
Total	47.1	84.8	85.9	93.3	99.7
Male	47.1	81.8	84.2	91.6	99.5
Female	47.0	91.4	89.7	97.4	100.0
Repetition					
Total	1.9	1.5	0.8	0.5	0.3
Male	1.9	1.6	0.9	0.7	0.5
Female	2.1	1.3	0.4	0.2	0.0
Dropout					
Total	51.0	13.8	13.3	6.1	0.0
Male	51.0	16.6	14.9	7.7	0.0
Female	50.9	7.3	9.9	2.4	0.0

Source: Report on Training Workshop on capacity building and use of EMIS data in Planning and Decision-making. AEPAM- UNICEF

- Dropout rate was more pronounced in grade I. i.e. 51 percent. However, the male and female also showed the same rates.

- The female dropout rates were lower in all the grades as compared to males.
- The maximum repetition rte was noticed as 2.1 percent in grade I for females.
- The promotion rates were encouraging in all the grades in case of females as compared to males.
- In grade V, the promotion rates were highly significant both for males and females.

3.2.3 Indicators of Retention by Grades

a. Survival of Children by Grades

In Percentage

Survival of children by grades	Total	Male	Female
Between grade I and II	48.0	48.1	48.0
Between grade II and III	41.3	39.9	44.4
Between grade III and IV	35.8	33.9	40.0
Between grade IV and V	33.6	31.3	39.0

b. Dropouts of Children by Grades

In Percentage

Dropout children by grades	Total	Male	Female
Between grade I and II	52.0	51.9	52.0
Between grade II and III	6.7	8.1	3.6
Between grade III and IV	5.5	6.0	4.4
Between grade IV and V	2.2	2.6	1.0

c Number of Graduates from Final Grades

In Percentage

Graduates	Total	Male	Female
With no repetition	31.9	29.6	37.5
With one repetition	1.6	1.6	1.5
With two repetition	0.1	0.1	0.0
With three repetition	0.0	0.0	0.0

- It was noted that in grade V, only 33.6 percent children of primary education could survived whereas 31.3 percent were males and 39 percent were females.
- The highest dropout of children was 52 percent between grades I and II and 51.9 percent were males 52 percent were females.
- About 32 percent could pass primary schooling without any repetition of any grade of which, about 30 percent were males and about 38 percent were females.

3.2.4. Indicators of Retention By Years Of Study

a. Enrolment by Years of Study

In Percentage

Enrolment by years of study	Total	Male	Female
Enrolment in 2005 in grades I and II	49.0	49.0	49.1
Enrolment in 2006 in grades I, II and III	41.6	40.2	44.5
Enrolment in 2007 in grades I, II,III and IV	36.0	34.2	40.2
Enrolment in 2008 in grades II,III,IV and V	33.7	31.4	39.1
Enrolment in 2009in grades III,IV and V	1.7	1.7	1.6
Enrolment in 2010 in grades IV and V	0.1	0.1	0.0

b. Dropout of Children by Years of Study

In Percentage

Dropouts by years of study	Total	Male	Female
Dropout in 2004 in grades I	51.0	51.0	50.9
Enrolment in 2005 in grades I, II	7.5	8.8	4.5
Enrolment in 2006 in grades I, II,III	5.5	6.0	4.4
Enrolment in 2007 in grade I,II,III and IV	2.3	2.8	1.1
Enrolment in 2008 in grades II, III,IV and V	0.1	0.1	0.0
Enrolment in 2009 in grades III,IV and V	0.0	0.0	0.0

c. Graduates by Years of Study

In Percentage

Graduates by years	Total	Male	Female
Graduation in 5 years	31.9	29.6	37.5
Graduation in 6 years	1.6	1.6	1.5
Graduation in 7 years	0.1	0.1	0.0
Graduation in 8 years	0.0	0.0	0.0

- Out of a cohort of 1000 children, 49 percent were found enrolled in grades I and II of which, the same percentages were for males and females respectively.
- The highest dropout rate was 51 percent in grade I. The male dropout was about 51 percent in grade I and for female it was about 51 percent in the same grade.
- About 32 percent could pass primary cycle of education in 5 years time of which, about 30 percent were males and 38 percent.

3.2.5 Average Duration of Study

Pupil- years

Average durations of study	Total	Male	Female
a. Average duration of study by graduate	5.1	5.1	5.0
b. Average duration of study by dropout	1.4	1.4	1.3

- It is revealed that on the average a student took 5.1 pupils- years to complete the primary education. The male situation was the same as that of overall .The female consumed 5.0 years time to complete the primary cycle.
- The overall situation of children who dropped out wasted 1.4 pupil- years on the average and the same position was that of male. The female wasted slightly less pupil- years (1.3) as compared to males.

3.2.6 Indicators of Internal Efficiency

Degree of Efficiency	Total	Male	Female
a. Wastage Ratio	1.56	1.64	1.40
b. Coeff. of Efficiency (Percentage)	64.0	61.0	71.1

- The overall wastage ratio was computed as 1.56 of which, 1.64 was for males and 1.40 was for females. In ideal situation it must be unity.
- The Coefficient of Efficiency was noted .The overall Coeff. of Efficiency was 64.0 percent of which , 61.0 percent was of male and 71.1 percent was that of females.

3.2.7 Wastage Contributed Due to Dropout and Repetitions

In Percentage

Wastage components	Total	Male	Female
a. Wastage due to dropouts	96.6	96.6	96.3
b. Wastage due to repetitions	3.4	3.4	3.7

- The pupil- years wasted due to dropouts was 97 percent of which, 96.6 percent was for males and almost the same percentage was that of females.
- The pupil- years wasted due to repetitions was 3 percent as a whole but the male contribution for the wastage was 3.4 percent and for female it was 3.7 percent.

3.2.8 Education Expenditure:

The district Government – Mirpurkhas allocated an amount of Rs. 20.025 million as non-salary expenditure which is 2 percent of the salary budget.

3.3 Upper Dir (NWFP)

Upper Dir was a state ruled by Nawab Shah Jehan Khan at the time of in dependence. It is a pat of Old Dir district. In 1969, the Upper Dir was merged in Pakistan and was declared as a district in 1970. it was bifurcated into Upper and Lower Dir districts.

It is bounded on the north and north-west by Chitral district, on the east by Swat district and on the south by Lower Dir and on the west by Afghanistan. The Upper Dir is spread over an area of 3,699 sq. km.

The district is dominated by the high mountains in winter the whole areas remains snow covered. The summer season is moderate and worm. The rainfall is received throughout the years. The people of Dir are very simple, hospitable and good Pathans. They are known by their hard work.

In Upper Dir district Tehsil Head Quarters Hospital provided heath facilities to the people of the district. There are also private clinics of medical parishioners and traditional Hakims.

The total population of Upper Dir was 175,858 according tot 1998 Population Census. The average annual growth rate was 2.8 percent. The population density was 156 persons per square kilometers.

3.3.1 Literacy and Education Situation

The literacy ratio in Upper Dir was 21.2 percent in 1998 of which 36.1 percent were males and 6.1 percent were females.

According to 1998 population census, of the total educated persons, 29.7 percent were below primary 33.2 percent had passed primary, 17.6 per middle, 13.1 percent matriculate, 3.2 percent intermediate, 1.2 percent graduates, 0.6 percent post graduate etc.

The gross enrolment at primary level of education was reported as 61,771 out of which 3,947 were in private students. The males were 42.062 and females were 19,709 students. The net enrolment was observed as 2880 students of which 1,264 were males and 1,616 were females. The net enrolment rate was very low 2.6 percent. The pupil teacher ratio was 48.

The repetition rate on the average at primary school was 7.9 percent for grade I to V of which, the same rates were noticed for males and females respectively.

The survival rate of children to grade V was 34.6 percent. The male and female survival rates were 43.2 and 21.3 percent respectively.

The average duration of study per graduate was 5.4 pupil years of which 5.4 pupil years were taken both by males and females. In ideal situation, they should have completed primary education in 5 years.

On the average a child who dropped out from the system wasted 2.2 pupil years of which, 2.3 and 2.1 pupil years were wasted by males and females respectively

The internal efficiency of primary education was computed. It was observed that the overall Coeff. of Efficiency was 51.8 percent of which, 58.8 percent was for males and 38.0 percent was for females.

The wastage ratios were calculated. It was noticed that the wastage ratio as a whole was 1.9 and 1.7 was for males and 2.6 was females. In ideal situation it must be unity.

The overall wastage contributed due to dropout was about 84 percent of which, 82 percent was for males and 87 percent was for females.

The wastage contributed due to repetition was about 16 percent of which, 18 percent was due to repetition of males and 13 percent for females.

3.3.2 Data Analysis and Findings

FLOW RATES BY GRADES

In Percentage

Flow rates	I	II	III	IV	V
Promotion					
Total	68.8	62.8	77.9	75.1	90.6
Male	74.2	67.7	81.0	78.5	89.7
Female	59.9	53.5	71.1	66.8	93.2
Repetition					
Total	9.9	7.6	6.7	6.o	9.4
Male	9.7	7.5	6.4	5.6	10.3
Female	10.3	7.7	7.6	6.9	6.8
Dropout					
Total	21.3	29.6	15.4	19.0	0.0
Male	16.1	24.8	12.7	15.9	0.0
Female	29.8	38.8	21.4	26.4	0.0

Source: Report on Training Workshop on capacity building and use of EMIS data in Planning and Decision-making. AEPAM- UNICEF

- The maximum dropout rates were observed in grades I and II. The situation needs special attention to retain the children in the system. The main reason in the ground reality can only be ascertained by following the parents through conducting the follow up study.
- The dropout rates were comparatively beet in case of males as compared to females.
- There is no significant difference in repletion rates of males and females.
- The promotion rates for males were better in each grade as compared to females.

3.3.3 Indicators of Retention By Grades

a. Survival of Children by Grades

In Percentage

Survival of children by grades	Total	Male	Female
Between Grade I and II	76.4	82.2	66.8
Between Grade II and III	51.9	60.1	38.7
Between Grade III and IV	43.3	52.0	29.7
Between Grade IV and V	34.6	43.2	21.3

b. Dropout of Children by Grades

In Percentage

Dropout of children by grades	Total	Male	Female
Between Grade I and II	23.6	17.8	33.2
Between Grade II and III	24.5	22.1	28.1
Between Grade III and IV	8.6	8.2	9.0
Between Grade IV and V	8.8	8.7	8.4

c. No of Graduates From Final Grade

In Percentage

No of Graduates from final grade	Total	Male	Female
With no repetition	22.9	28.7	14.2
With one repetition	9.1	11.3	5.6
With two repetition	2.2	2.7	1.3
With three repetition	0.4	0.5	0.2

- It was noticed that in grade V only 34.6 percent children of primary education could survived. Where as about 43 percent were males and 21 percent were females.
- The highest dropout of children was 24.5 percent between grade II and III and 22 percent were males in the same grade. The highest dropout rates amongst females was 33 percent in grade I & II.
- About 23 percent could pass primary schooling without repetition of any grade of which, about 29 percent were males and about 14 percent females.

3.3.4 Indicators of Retention by Years of Study.

a. Enrolment by years of study

In Percentage

Enrolment by years of study.	Total	Male	Female
Enrolment in 2005 in grades I and II	78.7	83.9	70.2
Enrolment in 2006 in grades I, II and III	56.2	63.9	43.9
Enrolment in 2007 in grades I, II, III and IV	45.8	54.3	32.6
Enrolment in 2008 in grades II, III, IV and V	37.3	45.9	24.2
Enrolment in 2009 in grades III, IV and V	12.2	15.0	7.7
Enrolment in 2010 in grades IV and V	2.7	3.3	1.7

b. Dropout by years of study

In Percentage

Dropout by years of study	Total	Male	Female
Dropout in 2004 in grade I	21.3	16.1	29.8
Dropout in 2005 in grades I, II	22.5	20.0	26.3
Dropout in 2006 in grades I, II and III	10.4	9.7	11.3
Dropout in 2007 in grades I, II, III and IV	8.5	8.4	8.4
Dropout in 2008 in grades II, III, IV and V	2.3	2.2	2.3
Dropout in 2009 in grades III, IV, and V	0.4	0.4	0.5
Dropout in 2010 in grades IV and V	0.1	0.1	0.1

c. Graduates by Years of study

In Percentage

Graduates by Years of study	Total	Male	Female
Graduation in 5 years	22.9	28.7	14.2
Graduation in 6 years	9.1	11.3	5.6
Graduation in 7 years	2.2	2.7	1.3
Graduation in 8 years	0.4	0.5	0.2

- Out of a Cohort of 1000 children, about 79 percent children were found enrolled in grade I and II of which, about 84 percent were males and 70 percent were females.
- The highest dropout of children was 22.5 percent in grades I and II of which 20 percent were males. The highest dropout rate was that of females i.e. about 30 percent in grades I and II.
- About 23 percent children completed primary schooling in 5 years without consuming any additional year. The males were about 29 percent and females were about 14 percent.

3.3.5 Average Duration of Study

Pupil- years

Average durations of study	Total	Male	Female
a. Average duration of study by graduate	5.4	5.4	5.4
b. Average duration of study by dropout	2.2	2.3	2.1

- It is revealed that the overall average of a graduate who completed primary education was 5.4 pupil years instead of 5 pupil yeas. The male completed in 5.4 pupil and females took same period.
- The dropouts consumed 2.2 pupil years in primary education and detached themselves from the system. The male consumed 2.3 years whereas females consumed 2.1 pupil years.

3.3.6 Indicators of Internal Efficiency

Indicators of Internal Efficiency

Degree of Efficiency	Total	Male	Female
a. Wastage Ratio	1.9	1.7	2.6
b. Coeff. of Efficiency (Percentage)	51.8	58.8	38.0

- The overall wastage ratio was calculated as 1.9. In ideal situation, it should have been unity. The male and female wastage ratios were 1.7 and 2.6 respectively.
- The overall coefficient of efficiency of primary education was 51.8 percent whereas the male and female had 58.8 percent and 38 percent respectively.

3.3.7 Wastage Due to Dropout and Repetitions

In Percentage

Wastage components	Total	Male	Female
a. Wastage due to dropouts	84.3	82.0	87.3
b. Wastage due to repetitions	15.7	18.0	12.7

3.3.8 Education Expenditure

- The overall wastage contributed due to dropout and repetition was 84.3 percent and 15.7 percent respectively.
- The male situation was 82 percent due to dropout and 18 percent due to repetition
- The female situation was about 87 percent due to dropout and about 13 percent due to repetition.

An amount of Rs.9.886 million was allocated as non-salary expenditure which represented 3 percent of the total budget

4. **RECOMMENDATIONS:** The following steps may be considered to retain the children in the system which may reduce the dropouts:

- Access to education at primary level
- Distance from home should be narrow down
- Child friendly and conducive environment in the institutions
- Medium of instruction of students in their mother tongue
- Campaign to motivate parents to send their children in schools
- Involvement of community and religious leaders
- Incentives to talented , regular, punctual and poor children
- Some food provision during school hours to students
- Preference to female teachers
- Soft treatment of teachers towards children
- Games and extra- curricular activities facilitations
- Provision of basic facilities in schools.

5. CONCLUSION: THE DROPOUT RATE AND ITS IMPACT

The dropout rate is a well-known and frequently used education indicator. The dropout rate is also a very confusing indicator that can confuse peoples at the highest policymaking levels, largely because it is sophisticated to calculate and interpret only if, data on repeaters by grade is available. It should be calculated carefully. This approach assumes that repeater, and promotion figures, are not correct in general. In particular, schools in Pakistan and elsewhere under-report the data of repetition which leads to inflated dropout rates.

The impact of the dropping out phenomenon itself is partly that the country's resources are wasted on the incomplete schooling of children. Children occupy space in school (and hence increase the class size for other children) though they do not complete compulsory schooling, and hence (one assumes) miss out on attaining the levels of literacy and numeracy that society requires. Moreover, dropping out leads to inequality between those with and without a basic education, and lower the output. Moreover, uneducated women are less likely to promote the education of their own children. This ultimately affect the overall system in particular and society in general adversely.

The observation made on the basis of NEC data indicated that at national level the overall situation from grade I to V was about 31 percent. The surprising situation was that the male dropout rate was almost double to its counterparts. The survival rate was noted about 71 percent to grade V of which, the male survival rate was about 64 percent and for female it was about 81 percent.

It was concluded that in both the districts i.e. Mirpurkhas (Sindh) and Upper Dir (NWFP), the survival situation to grade V was 33.4 percent and 34.6 percent respectively. Similarly, situation was also observed in males and females in both the districts.

Looking into the situation, it is necessary that the measures be taken to improve the retention of primary school children in the system.

The overall assessment indicated that the girls situation was better in most of the aspects.

BIBLIOGRAPHY

1. AEPAM, 2004-05 National Education Census
2. AEPAM. 1995-96 to 2004-05 Pakistan Education Statistics.
3. AEPAM. Quantitative Techniques. Model 2.
4. Economic Survey, 1999-2000.
5. Economic Survey, 2000-01.
6. Economic Survey, 2000-02.
7. Fehmeeda Khanam 2004. Grade Retention Model: Primary Education and Retention of Children, 1997-98 to 2000-01 (Unpublished)
8. Ministry of Education. Action Plan. Education Sector Reforms, 2001-2004.
9. Ministry of Education. National Plan of Action. Education of All, 2001-2015.
10. Ministry of Interior. Proceedings, 1947. The Pakistan Education Conference.
11. Mirza Tauhid uddin Ahmed. Nation's Future Aspirations Education for All, AEPAM.
12. Projected population, NIPS.
13. UNESCO. Statistical Analysis of Demographic and Education data in Republic of Kenya.
14. UNESCO. Training Seminar on Education Statistic Basic background material book -3.

Coefficiency of Efficiency: Student Flow Model (Both Sexes) -Pakistan

Year		Gr.I	Gr.II	Gr.III	Gr.IV	Gr.V	Total
2004	E	2765496	2119625	1950152	1765947	1535357	10136577
2005	E	3140,004	2337095	2031309	1856543	1606322	7831269
	R	95610	58906	49989	55544	46741	306790
2004	p	82.4%	93.5%	92.4%	88.3%	97.0%	
	r	3.5%	2.8%	2.6%	3.1%	3.0%	
	d	14.2%	3.7%	5.1%	8.5%	0.0%	

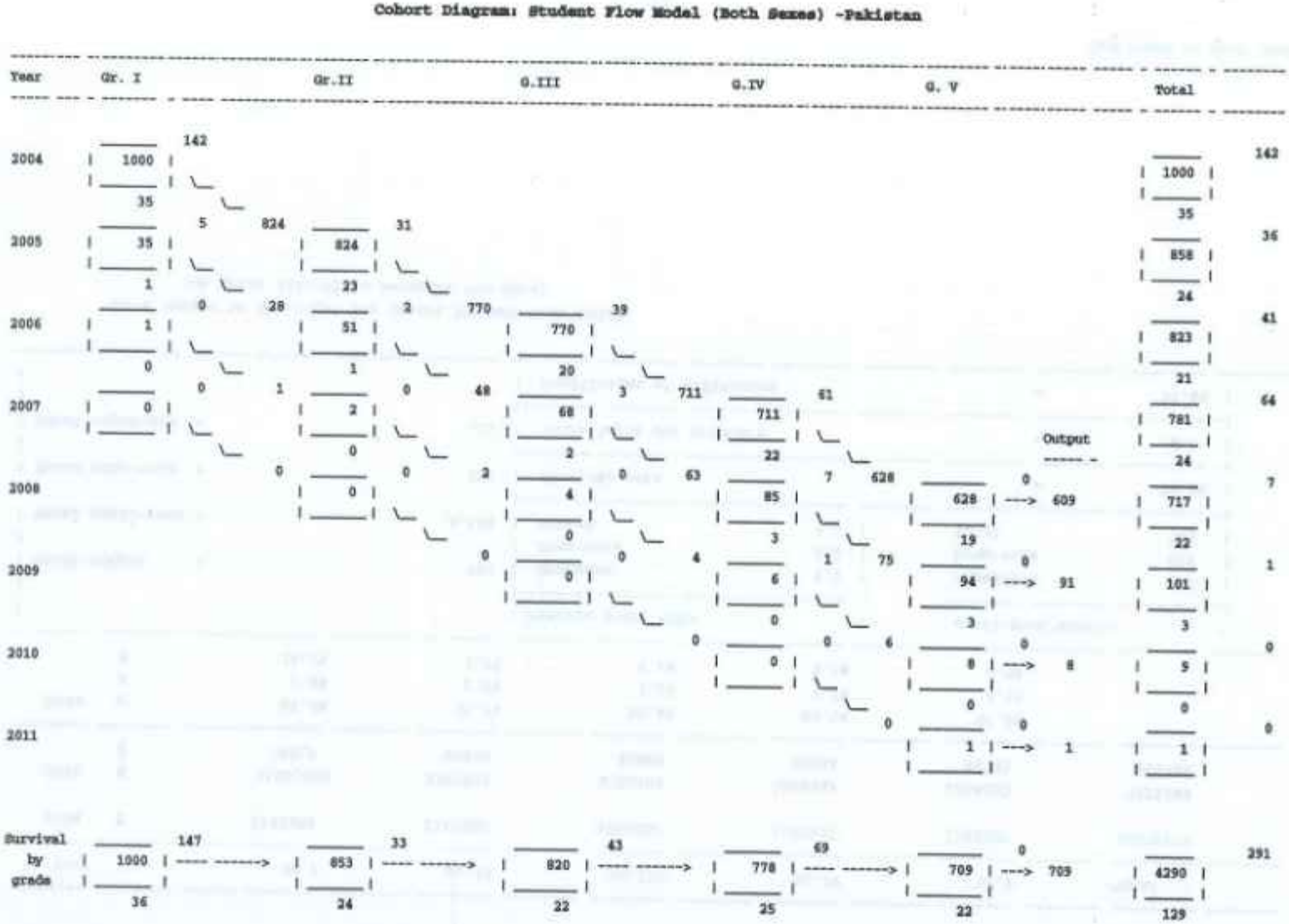
		Average study time	
Total output	= 709	Graduate	5.2
Total pupil-year	= 4,290	Drop-outs	2.2
Total drop-outs	= 291	Cohort	4.3
Total repeaters	= 129	Survival rate	= 70.9%
		Years input per graduate	= 6.1
		Coefficient of efficiency	= 82.6%

Pupil-year wasted	
Repeaters	129
Drop-outs	635
Total	764

(move cursor to the right for Cohort Student Flow Model)
(or press [Alt-M] to re-enter the data)

Continued on next Page

Cohort Diagram: Student Flow Model (Both Sexes) -Pakistan



Coefficiency of Efficiency: Student Flow Model (Boys) -Pakistan

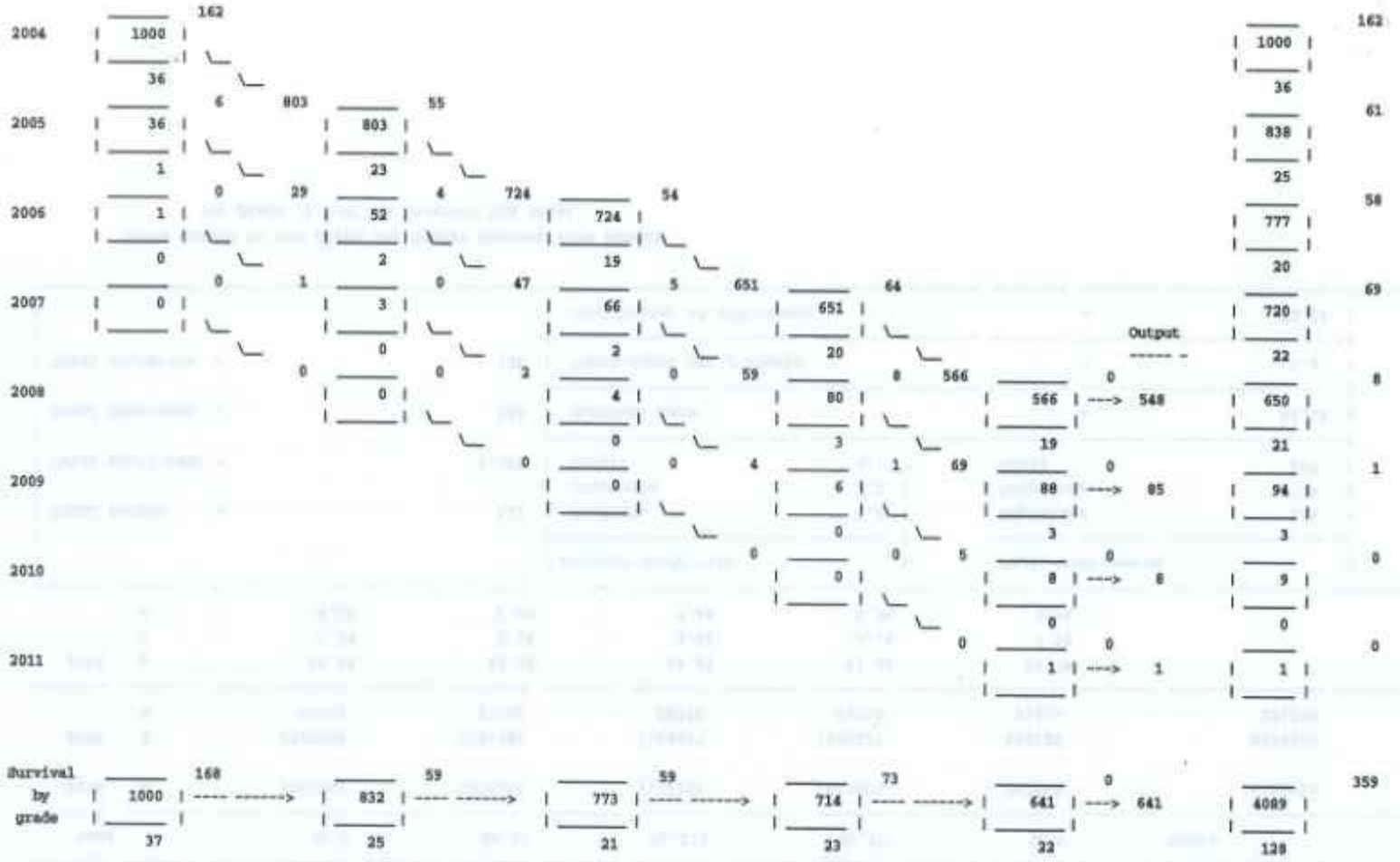
Year		Gr.I	Gr.II	Gr.III	Gr.IV	Gr.V	Total
2004	E	1643865	1279263	1177129	1073473	947865	6121595
2005	E	1799988	1356386	1184827	1092527	965128	6398856
	R	58850	37105	30750	33714	31411	191830
2004	p	80.3%	90.2%	89.9%	87.0%	96.7%	
	r	3.6%	2.9%	2.6%	3.1%	3.3%	
	d	16.2%	6.9%	7.4%	9.9%	0.0%	

Total output =	641	Average study time		Pupil-year wasted
		Graduate	5.2	Repeaters 128
Total pupil-year =	4,089	Drop-outs	2.2	Drop-outs 779
		Cohort	4.1	Total 907
Total drop-outs =	359	Survival rate	=	64.1%
Total repeaters =	128	Years input per graduate	=	6.4
		Coefficient of efficiency	=	78.4%

(move cursor to the right for Cohort Student Flow Model)
(or press [Alt-M] to re-enter the data)

Continued on next Page

Cohort Diagram: Student Flow Model (Boys) -Pakistan



Coefficiency of Efficiency: Student Flow Model (Girls) -- Pakistan

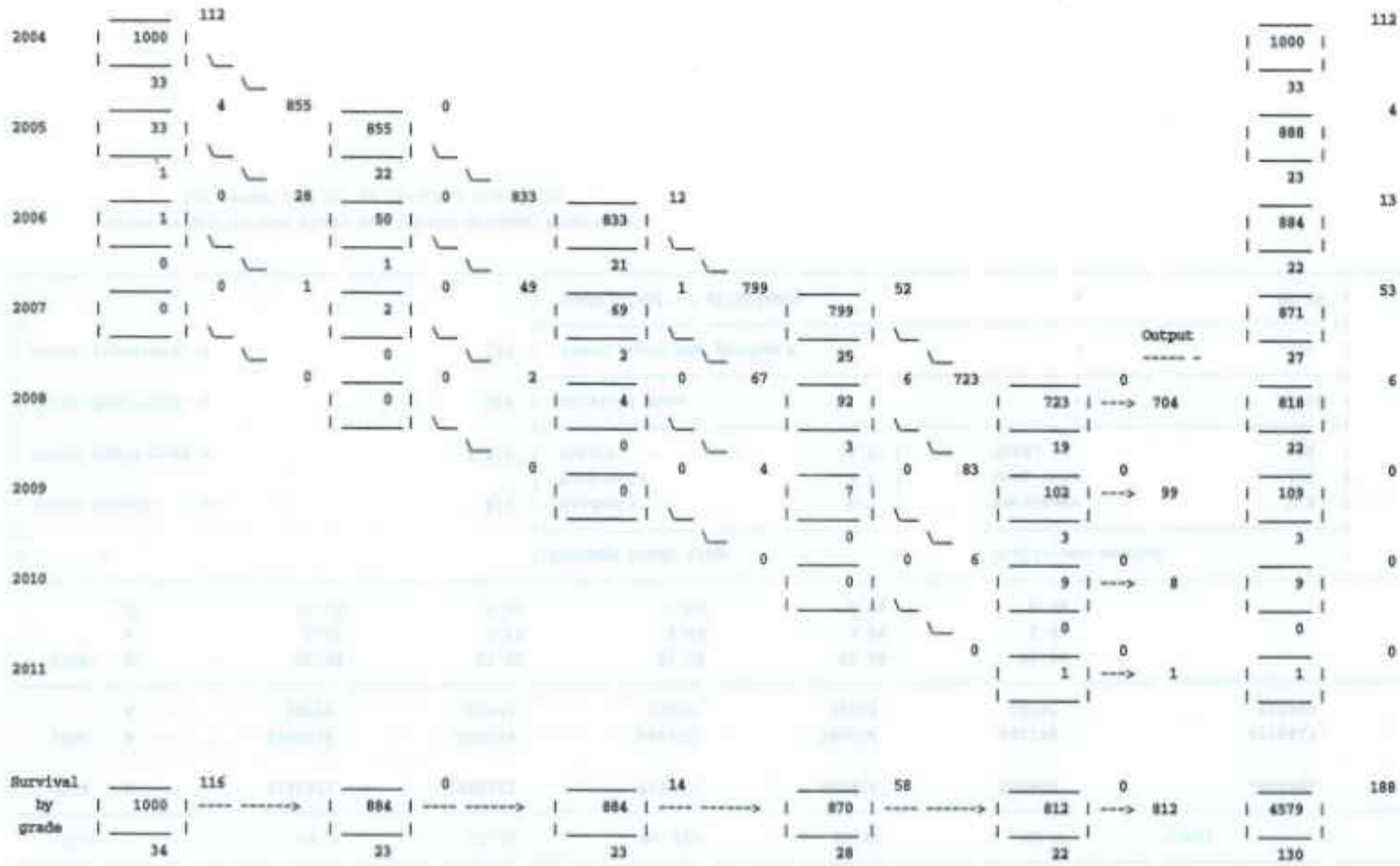
Year		Gr.I	Gr.II	Gr.III	Gr.IV	Gr.V	Total
2004	R	1121631	849362	773023	692474	586492	4022982
2005	R	1340016	980709	846482	764016	641194	4572417
	R	36760	21801	19239	21830	15330	114960
2004	p	85.5%	97.4%	96.0%	90.4%	97.4%	
	r	3.3%	2.6%	2.5%	3.2%	2.6%	
	d	11.2%	0.0%	1.5%	6.5%	0.0%	

		Average study time		Pupil-year wasted	
Total output	= 812	Graduate	5.1	Repeaters	130
		Drop-outs	2.1	Drop-outs	402
Total pupil-year	= 4,579	Cohort	4.6	Total	532
Total drop-outs	= 188	Survival rate	=		81.2%
Total repeaters	= 130	Years input per graduate	=		5.6
		Coefficient of efficiency	=		88.6%

(move cursor to the right for Cohort Student Flow Model)
(or press [Alt-M] to re-enter the data)

Continued on next Page

Cohort Diagram: Student Flow Model (Girls) -- Pakistan



Coefficiency of Efficiency: Student Flow Model (Both Sexes) -Mirpurkhas

Year		Gr.I	Gr.II	Gr.III	Gr.IV	Gr.V	Total
2004	E	71467	31191	24365	19702	15335	162060
2005	E	64718	34107	26626	21033	18441	164925
	R	1390	457	186	102	51	2186
2004	p	47.1%	84.8%	85.9%	93.3%	99.7%	
	r	1.9%	1.5%	0.8%	0.5%	0.3%	
	d	51.0%	13.8%	13.3%	6.1%	0.0%	

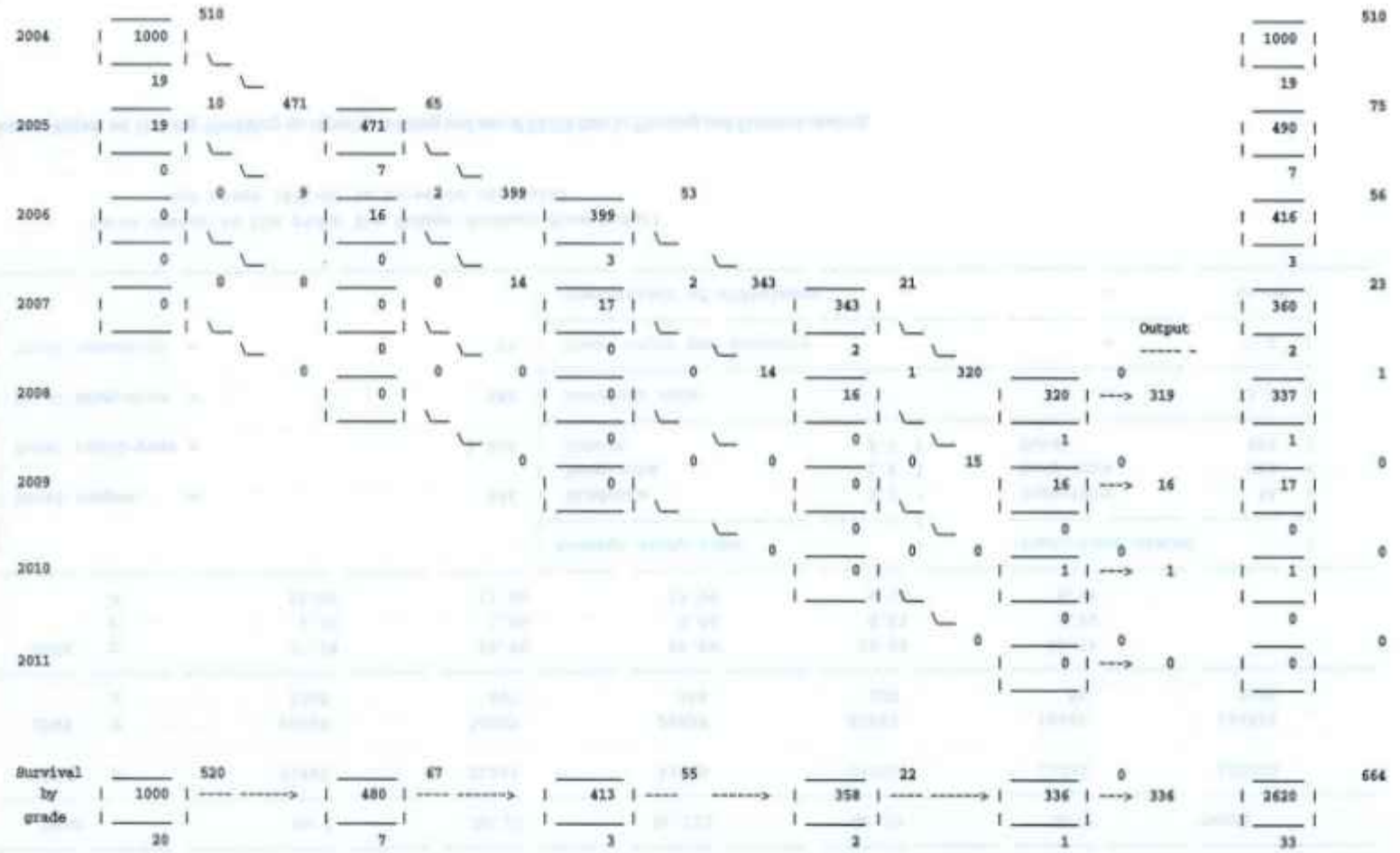
Total output =	336	Average study time		Pupil-year wasted
		Graduate	5.1	Repeaters 33
Total pupil-year =	2,620	Drop-outs	1.4	Drop-outs 925
		Cohort	2.6	Total 958
Total drop-outs =	664	Survival rate	=	33.6%
Total repeaters =	33	Years input per graduate	=	7.8
		Coefficient of efficiency	=	64.0%

(move cursor to the right for Cohort Student Flow Model)
(or press [Alt-M] to re-enter the data)

Source: Report on Training Workshop on capacity building and use of EMIS data in Planning and Decision-making.

Continued on next Page

Cohort Diagram: Student Flow Model (Both Sexes) - Mirpurkhas



Coefficiency of Efficiency: Student Flow Model (Boys) Mirpurkhas

Year		Gr.I	Gr.II	Gr.III	Gr.IV	Gr.V	Total
2004	E	46411	21503	16831	13800	10418	108963
2005	E	42590	22220	17741	14266	12691	109508
	R	880	342	158	93	49	1522
2004	p	47.1%	81.8%	84.2%	91.6%	99.5%	
	r	1.9%	1.6%	0.9%	0.7%	0.5%	
	d	51.0%	16.6%	14.9%	7.7%	0.0%	

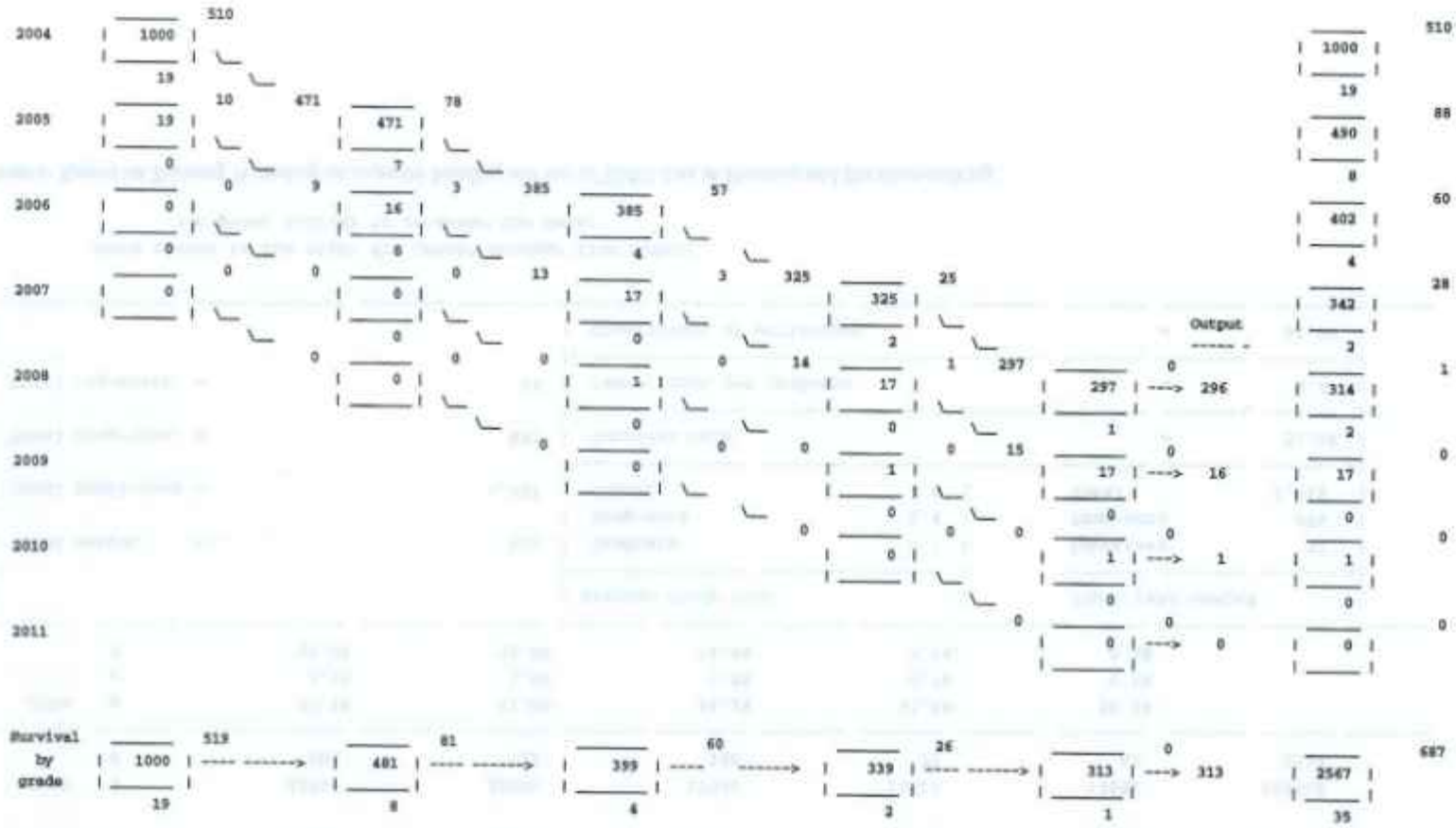
	Average study time		Pupil-year wasted	
Total output = 313	Graduate	5.1	Repeaters	35
	Drop-outs	1.4	Drop-outs	984
Total pupil-year = 2,567	Cohort	2.6	Total	1,019
Total drop-outs = 687	Survival rate	=	31.3%	
Total repeaters = 35	Years input per graduate	=	8.2	
	Coefficient of efficiency	=	61.0%	

(move cursor to the right for Cohort Student Flow Model)
(or press [Alt-M] to re-enter the data)

Source: Report on Training Workshop on capacity building and use of EMIS data in Planning and Decision-making.

Continued on next Page

Cohort Diagram: Student Flow Model (Boys) Mirpurkhas



Coefficiency of Efficiency: Student Flow Model (Girls) -- Mirpurkhas

Year		Gr.I	Gr.II	Gr.III	Gr.IV	Gr.V	Total
2004	E	25056	9688	7534	5902	4917	53097
2005	E	22128	11887	8885	6767	5750	55417
	R	532	123	32	11	2	700
2004	p	47.0%	91.4%	89.7%	97.4%	100.0%	
	r	2.1%	1.3%	0.4%	0.2%	0.0%	
	d	50.9%	7.3%	9.9%	2.4%	0.0%	

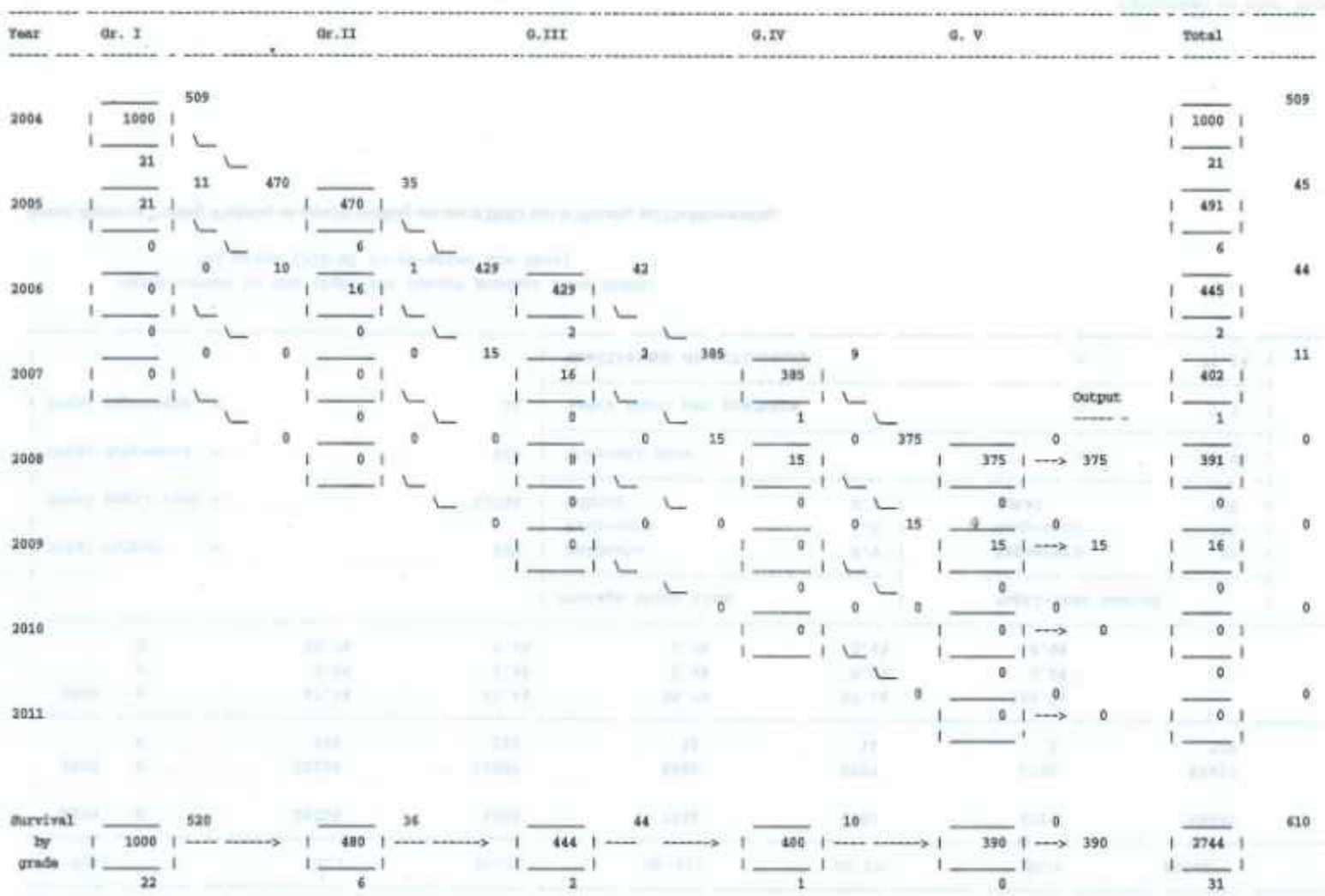
Total output =	390	Average study time		Pupil-year wasted
		Graduate	5.0	Repeaters 31
Total pupil-year =	2,744	Drop-outs	1.3	Drop-outs 778
		Cohort	2.7	Total 808
Total drop-outs =	610	Survival rate	=	39.0%
Total repeaters =	31	Years input per graduate	=	7.0
		Coefficient of efficiency	=	71.1%

(move cursor to the right for Cohort Student Flow Model)
(or press [Alt-M] to re-enter the data)

Source: Report on Training Workshop on capacity building and use of EMIS data in Planning and Decision-making.

Continued on next Page

Cohort Diagram: Student Flow Model (Girls) -- Mirpurkhas



Coefficiency of Efficiency: student Flow Model (Both sexes) Upper Dir

Year		Gr.I	Gr.II	Gr.III	Gr.IV	Gr.V	Total
2004	E	17375	14761	11360	10891	10961	65348
2005	E	16019	13067	10035	9503	9200	57824
	R	1727	1117	765	652	1026	5287
2004	p	68.8%	62.8%	77.9%	75.1%	90.6%	
	r	9.9%	7.6%	6.7%	6.0%	9.4%	
	d	21.3%	29.6%	15.4%	19.0%	0.0%	

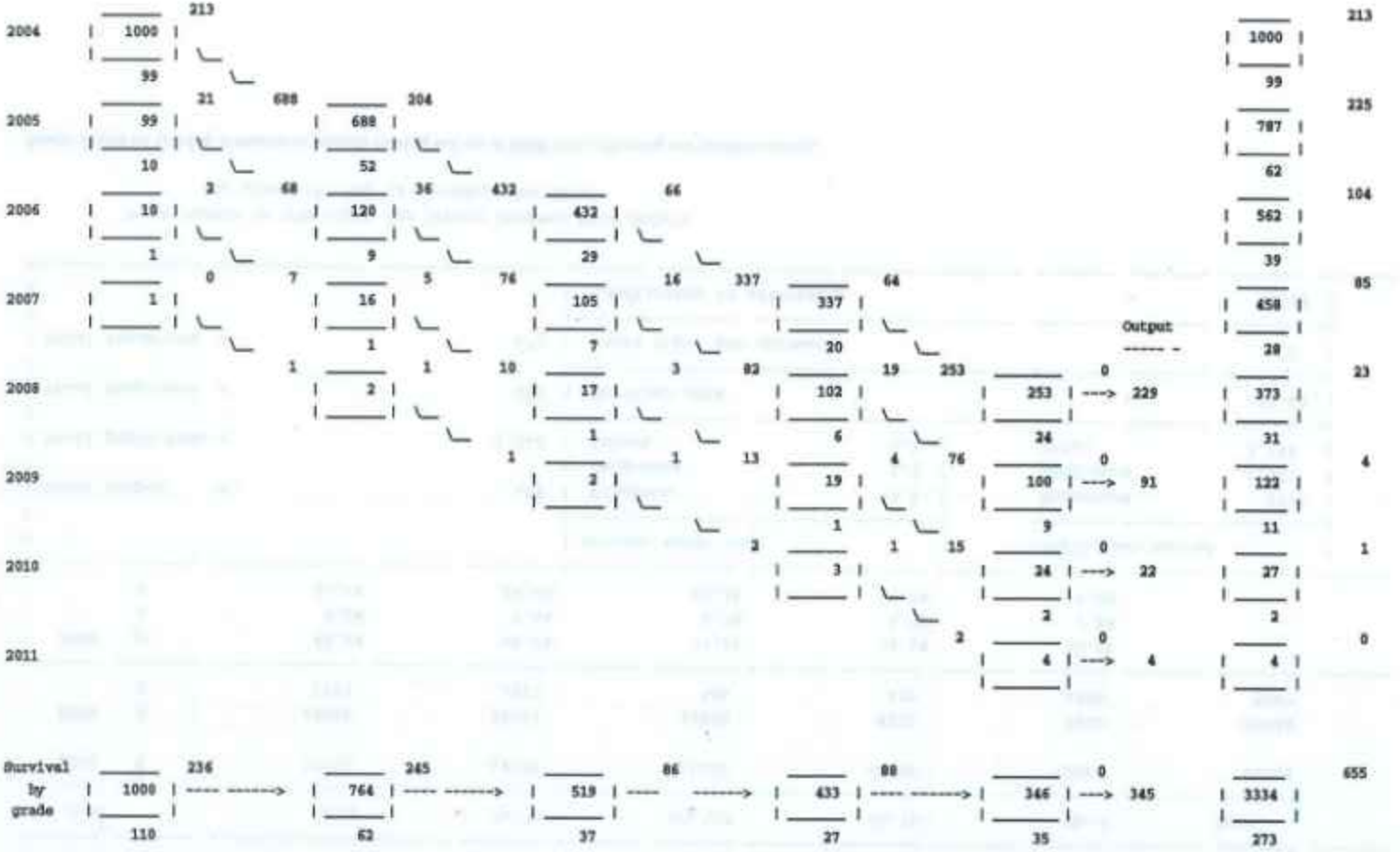
Total output =	345	Average study time		Pupil-year wasted	
Total pupil-year =	3,334	Graduate	5.4	Repeaters	273
Total drop-outs =	655	Drop-outs	2.2	Drop-outs	1,461
Total repeaters =	273	Cohort	3.3	Total	1,734
		Survival rate		=	34.6%
		Years input per graduate		=	9.7
		Coefficient of efficiency		=	51.8%

(move cursor to the right for Cohort Student Flow Model)
(or press [Alt-M] to re-enter the data)

Source: Report on Training Workshop on capacity building and use of EMIS data in Planning and Decision-making.

Continued on next Page

Cohort Diagram: Student Flow Model (Both sexes) Upper Dir



Coefficiency of Efficiency: student Flow Model (Boys) Upper Dir

Year		Gr.I	Gr.II	Gr.III	Gr.IV	Gr.V	Total
2004	E	10781	9676	7859	7673	8106	44095
2005	E	10065	8725	7049	6794	6856	39489
	R	1048	724	500	431	831	3534
2004	p	74.2%	67.7%	81.0%	78.5%	89.7%	
	r	9.7%	7.5%	6.4%	5.6%	10.3%	
	d	16.1%	24.8%	12.7%	15.9%	0.0%	

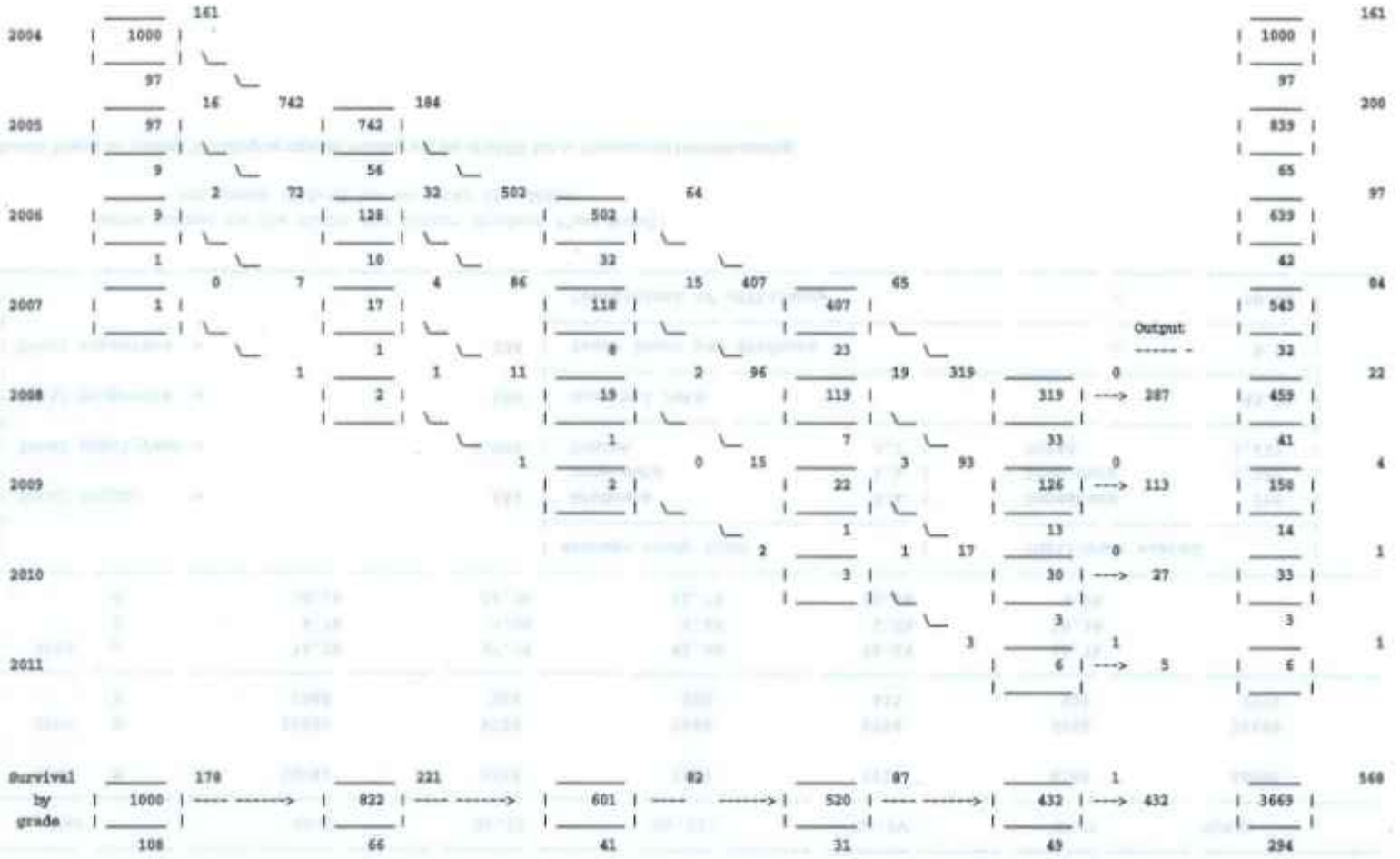
Total output =	432	Average study time		Pupil-year wasted	
		Graduate	5.4	Repeaters	294
		Drop-outs	2.3	Drop-outs	1,329
Total pupil-year =	3,669	Cohort	3.7	Total	1,623
Total drop-outs =	568	Survival rate	=		43.2%
Total repeaters =	294	Years input per graduate	=		8.5
		Coefficient of efficiency	=		58.8%

(move cursor to the right for Cohort Student Flow Model)
(or press [Alt-M] to re-enter the data)

Source: Report on Training Workshop on capacity building and use of EMIS data in Planning and Decision-making.

Continued on next Page

Cohort Diagram: Student Flow Model (Boys) Upper Dir



Coefficiency of Efficiency: Studet Flow Model (Girls) Upper Dir

Year		Gr.I	Gr.II	Gr.III	Gr.IV	Gr.V	Total
2004	E	6594	5085	3501	3218	2855	21253
2005	E	5954	4342	2986	2709	2344	18335
	R	679	393	265	221	195	1753
2004	p	59.9%	53.5%	71.1%	66.8%	93.2%	
	r	10.3%	7.7%	7.6%	6.9%	6.8%	
	d	29.8%	38.8%	21.4%	26.4%	0.0%	

		Average study time		Pupil-year wasted	
Total output	= 213	Graduate	5.4	Repeaters	239
Total pupil-year	= 2,804	Drop-outs	2.1	Drop-outs	1,650
		Cohort	2.8	Total	1,889
Total drop-outs	= 787	Survival rate	=		21.3%
Total repeaters	= 239	Years input per graduate	=		13.2
		Coefficient of efficiency	=		38.0%

(move cursor to the right for Cohort Student Flow Model)
(or press [Alt-M] to re-enter the data)

Source: Report on Training Workshop on capacity building and use of EMIS data in Planning and Decision-making.

Continued on next Page

Cohort Diagram: Studet Flow Model (Girls) Upper Dir