



REPUBLIC OF KENYA

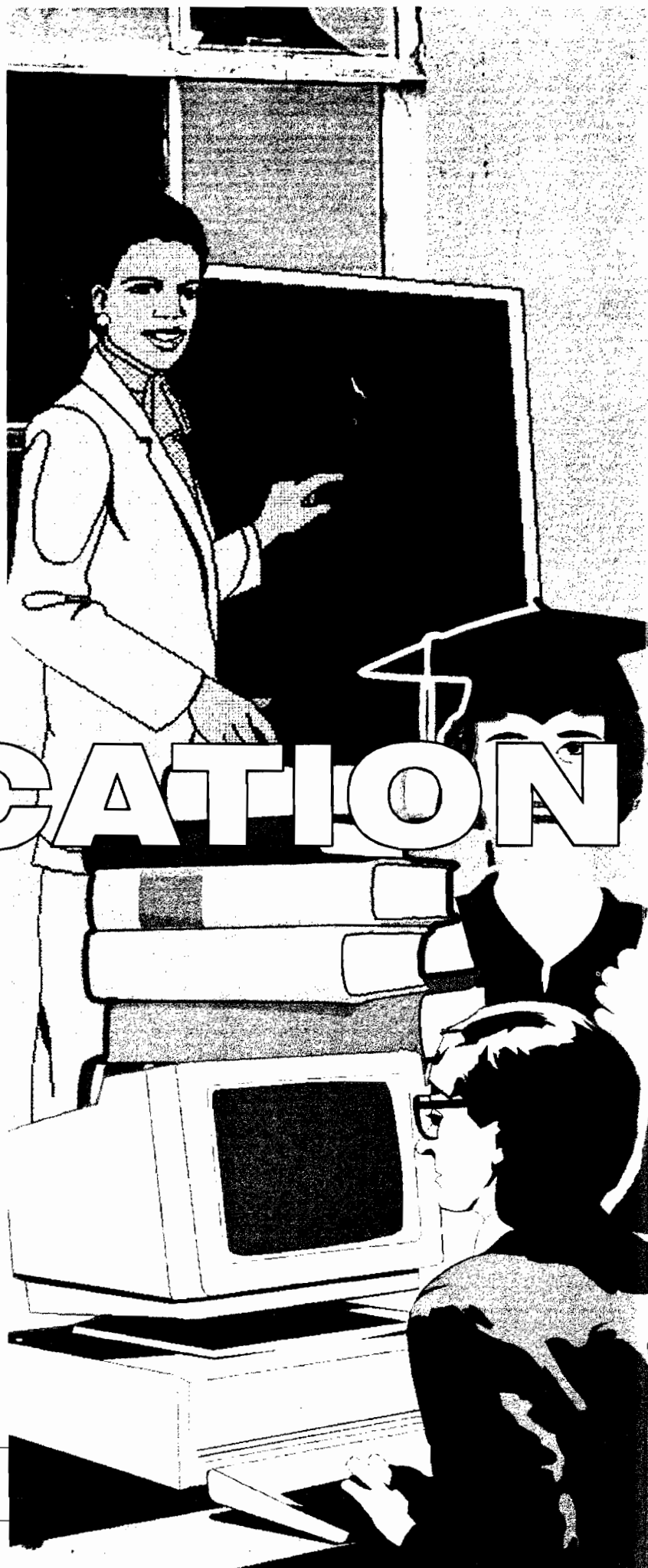
KENYA POPULATION CENSUS 1989

EDUCATION

ANALYTICAL REPORT VOLUME VIII

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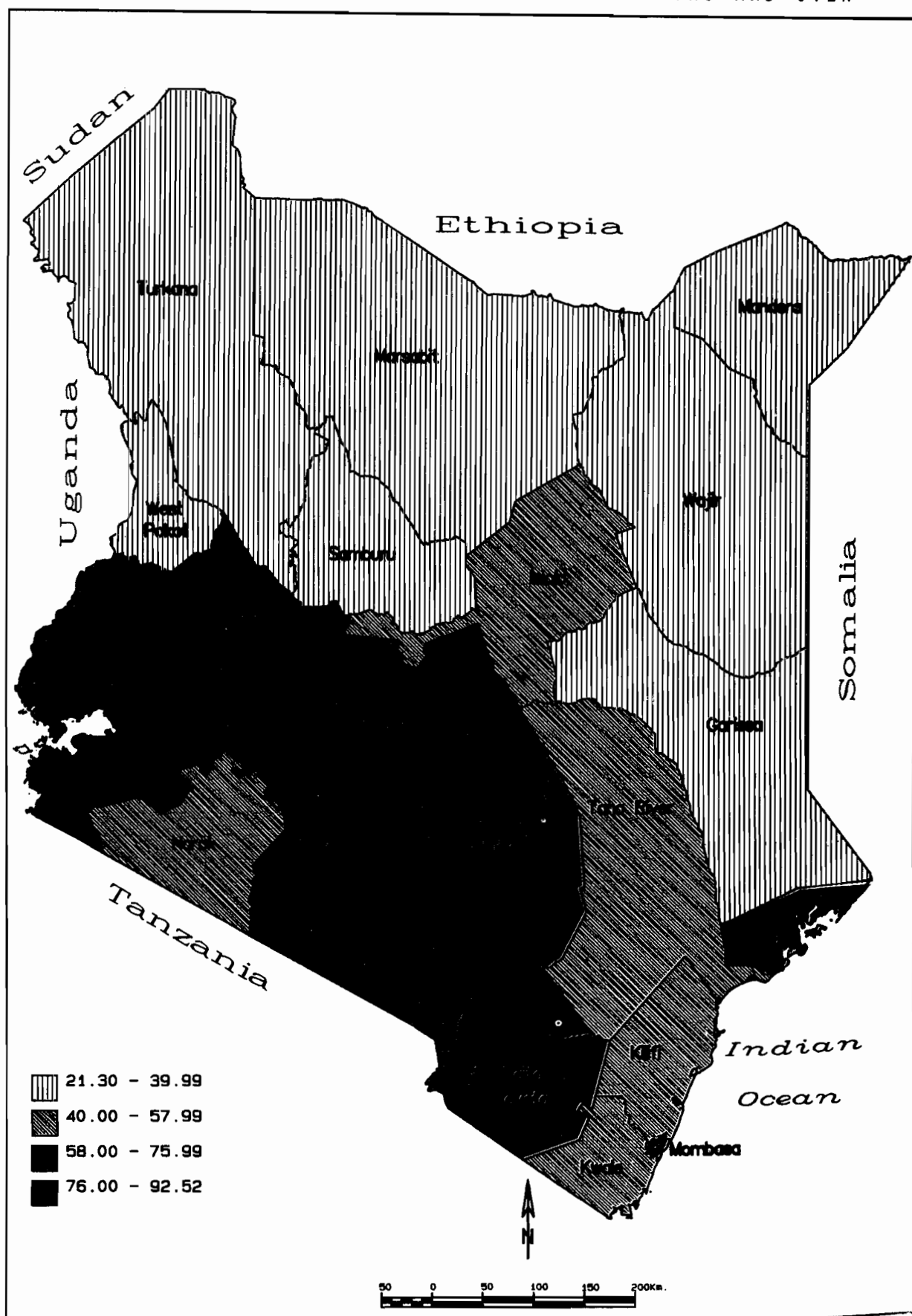
APRIL, 1996



**KENYA POPULATION CENSUS
1989**

**ANALYTICAL REPORT:
VOLUME VIII
EDUCATION**

KENYA: % LITERATE POPULATION AGED 10 YRS AND OVER



Map Production: DRSRS/CBS

Source: 1989 Population Census

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Foreword

The 1989 Population and Housing Census was carried out on a de facto basis with the midnight of 24/25 August as the reference date under the provisions of the Statistical Act (Cap. 112) of the Laws of Kenya and as per Legal Notice No. 466 of 4 November, 1988.

The census was taken to determine: the size, composition and distribution of the population; the levels and trends of fertility, mortality, migration and urbanisation; and to obtain information on housing, education, and employment.

The analytical work involved collaborative efforts of both local and external experts, a number of institutions and the Central Bureau of Statistics (CBS). The recruitment of the professional experts was done on a competitive basis, ensuring that in addition, such experts had adequate knowledge and involvement in the Kenyan demographic scene.

The production of the tabulations for the analyses was preceded by a rigorous programme of validation and editing to ensure internal consistency and to minimise errors. The analysis was therefore carried out on cleaned data files, and the population projections, in particular, are based on the census figures adjusted for errors of coverage. Should there be any discrepancies between the basic data in Volumes I and II and the cleaned data in the new volumes, the latter are preferred.

This volume presents the analysis of education and literacy trends using data from various population censuses. Overall, the 1989 census records improvements in literacy, school enrolment by sex and rural/urban residence. The females still remain disadvantaged. A new disturbing finding is the upward trend in school drop-outs recorded for both sexes and place of residence. This calls for further analysis to establish whether the Structural Adjustment Programmes (SAPs) and increasing unemployment for the skilled manpower have had any negative effect.

The future outlook on school-age populations indicates that by the year 2000, numbers of school-age going children at all levels will have declined. This decline might be bigger if fertility falls rapidly.

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Acknowledgement

The 1989 Population and Housing Census was the fifth census after those of 1948, 1962, 1969, and 1979. The census collected more information that was comprehensively analysed than any previous censuses.

The 1989 census was a strenuous and costly exercise which was accomplished through concerted efforts of many organisations, institutions, government ministries and individuals who assisted in a variety of ways in preparing, collecting, compiling, processing, analysing and publishing the census results. The Office of the Vice President and Ministry of Planning and National Development and in particular, the Central Bureau of Statistics (CBS), wish to thank all of them and pay special tribute to the late Director of Statistics, Mr. P.P. Kallaa.

Further the Ministry wishes to thank UNFPA, UNDP, CIDA, ODA, UNDTCD UNECA and the Government of Netherlands for their material, financial and technical support at all stages of preparing and conducting the census. Special commendation go to UNFPA and ODA, for providing further support for the detailed analysis of the 1989 census. In particular, the Ministry wishes to acknowledge contributions from the authors, technical support staff and professionals who individually and collectively gave comments and advice in the process of writing the various volumes.

EXECUTIVE SUMMARY

The results of the analysis of the 1989 Population and Housing Census presented in this volume focus on education and literacy aspects of the population. The census was designed to provide information on demographic and other socio-economic characteristics of the population including education and literacy for purposes of development planning.

The assessment of the quality of the 1989 census data on education and literacy revealed that the completeness of the reporting was fairly high. The level of imputations done was under 2 per cent on the average. Since no literacy tests were administered in the 1989 census, the accuracy of the reported literacy could not be assessed precisely. Data gathered in the 1989 census on education levels had large discrepancies in some classes/forms when compared with school enrolment records.

The national average literacy rate of the population aged 10 years and above was 73.4 per cent in 1989. This was fairly high when compared with literacy rates of neighbouring countries. The literacy rate was highest (over 90 per cent) in the age group 15-19 years and lowest (under 50 per cent) among the elderly population in the age group 45 years and above. Very wide disparities exist in literacy rates by sex and region. Males had higher literacy rates when compared with females while people residing in urban areas had also higher literacy rates when compared with those residing in rural areas. Nairobi and Central Provinces had the highest literacy rates of over 85 per cent while North Eastern Province had the lowest rate of 30 per cent.

About 6.2 million out of 16.7 million people of age 6 years and over were attending school in 1989. There was an increase in the proportion of the population attending school from 33 per cent in 1979 to 37 per cent in 1989. The proportion of the population that never attended school declined substantially from 40 per cent in 1979 to 24 per cent in 1989. The proportion that had left school was 36 per cent in 1989. Disparities in the population that was attending school in 1989 exist by sex, rural-urban residence and region. Females start being disadvantaged as from age 10 years. Nyanza and Central provinces had over 90 per cent of their population in age group 10-14 years attending school while North Eastern Province had only 26 per cent. Large gaps between males and females attending school were evident in Coast Province and in the arid districts.

Although the proportion of the population that had never attended school declined substantially by 1989, large disparities by sex and rural-urban residence were established. The proportions of the females and males aged 6 years and over who never attended school were 30 per cent and 18 per cent respectively. The corresponding percentages for the rural and urban areas were 27 per cent and 13 per cent respectively. Provinces and districts with low proportions of the population attending school had also high proportions with no schooling in 1989. School drop-out rates in 1989 were found to increase with increase of education level whereby they were 3 per cent, 30 per cent and over 80 per cent for the lower primary school, secondary school and higher education levels respectively. Females and urban residents had relatively higher school drop-out rates. The school drop-out problem was also more predominant in districts located in arid zones. Restricting the analysis to age group 10-14 years, Nairobi had the highest drop-out rate of 11 per cent

while Nyanza Province had the lowest rate of 3.3 per cent. The disturbing results of the 1979-1989 trend analysis was the apparent increase of school drop-out rates for the population in the age groups 6-9 and 10-14 years.

About 87 per cent of the population aged 6 years and over attending school were in the primary school level in 1989. Only 11 per cent and 2 per cent were in secondary form 1-4 level and higher (form 5+) level respectively. Disparities of those enrolled in school by sex were very small at primary school level but very wide at higher education level where the male-female ratio was 2 to 1. The average scholastic retardation rate based on the ratio of the population enrolled in primary whose ages were 14 years and over to the total primary school enrolments reported in the 1989 census was 28 per cent. The scholastic progression rate computed by obtaining the ratio of form 1 enrolments to standard 8 enrolments reported in 1989 census was 49 per cent. Females and those in rural areas had relatively lower progression rates when compared with males and urban residents respectively. The highest progression rate was in Nairobi with 68 per cent while the lowest was in West Pokot with 33 per cent.

On the status of education attainment of the population aged 6 years and over in 1989, the majority (53 per cent) had some primary school level of education. Those with secondary form 1-4 and form 5+ level of education were 13 per cent and 2 per cent respectively. The proportion with no level of education was 32 per cent. The 1979-1989 trend analysis revealed that there were substantial improvements in education attainments of the population at all levels and especially among the females. Wide regional disparities existed in 1989 in the population in the age group 20-24 with secondary form 1-4 level of education attainment whereby Nairobi had the highest proportion of 48 per cent while North Eastern had the lowest proportion of only 8 per cent.

The projection figures of school age population indicate that the primary school age population (6 to 13 years) is expected to increase from 5.9 million in 1990 to 6.8 million in the year 2000. The secondary school age population (14 to 17 years) is also expected to increase from 2.5 million in 1990 to 3.6 million in the year 2000.

The results of the analysis of the 1989 census data on education and literacy raises a number of issues that need to be considered for policy and future census undertakings. First, there is the need to develop appropriate policies and programmes that will address the problem of low adult literacy rates and the disparities by sex and region. Second, there is also the need to review and reformulate education policies and programmes to eliminate disparities by sex and tackle the problems of high school drop-out, low school enrolments, high scholastic retardation and low scholastic progression especially among the disadvantaged segments of the populations revealed by the data. Third, the questions on education and literacy in future census schedules need to be reviewed so as to improve on the quality of the data in this aspect.

CHAPTER 1

BACKGROUND

1.1. Introduction

This volume is the eighth in the series of the volumes presenting the results of the 1989 Population Census. The volume presents an analysis of the education and literacy status of the population. There are nine other volumes that present statistics and analysis of various characteristics of the population.

The 1989 Population Census was the fifth to be taken in Kenya. The census was taken on a 'de facto' basis with reference to midnight 24/25th August 1989. The previous censuses were taken in 1948, 1962, 1969 and 1979. The main objectives of the 1989 census were to provide information on the size, composition and distribution of the population; to collect information on trends and current levels of fertility, mortality and migration; to ascertain the rate and pattern of urbanisation; to determine the size and composition of the labour force and to provide information on availability of social amenities.

The Canvasser method was used to enumerate the population. The questionnaires were completed by the enumerators on the basis of answers provided by the respondents. Enumeration which was planned to be completed within five days was over before 2nd September 1989 in most of the enumeration areas. Volume 1 of the 1989 Population Census also contains the following: the 1989 census schedule which was administered in all the areas of the country; details of the census organisation and administration including data preparation and processing.

The analysis results of education and literacy status of the population contained in this volume are based on the data collected from the total population enumerated in the 1989 census just like in the 1979 census. The results from the other two censuses, 1969 and 1962 were based on data from in-built sample investigations conducted either during the census as in 1969 or after the census as in 1962.

1.2. The 1989 Census Questions on Education and Literacy

Columns 19 to 21 of the 1989 census schedule inquired on the literacy and education status of each person. Enumerators were required to write the appropriate code in each column using pre-coded categories provided in the census schedule.

In 1989 census, one question was asked on literacy and two other questions on education. The question asked on literacy was: "Does the person know how to read and write a simple statement in any language?".

The question applied to persons aged 6 years and over. No test was given and the responses were recorded as "Yes" and "No". Those whose responses were not obtained were recorded as "Not stated".

The two questions on education were also limited to persons aged six years and above. The first question on education was: "Has the person ever attended school?".

This was restricted to full time education in an education institution like primary, secondary, technical schools and university. The definition excluded post-school training colleges as well as madras schools where only reading and writing of Koran is taught. The responses were recorded as "At school", "left school" and "Never attended school". Those whose responses were not obtained were also recorded as "Not stated".

The second question on education was: "What is/was the person's highest level of education completed?".

The highest class/form completed was recorded for a person who had been to school or was at school. A person who had sat for "O" or "A" level exams through a correspondence course was recorded to have completed form IV or VI respectively. A person attending university was categorised as "Undergraduate" if undertaking his/her first degree. Those attending postgraduate courses were categorised as "Graduate". Those persons whose highest level of education completed were not stated were placed in the "Not stated" category.

A comparative analysis of the questions asked on education in 1979 and in 1989 population censuses indicate that there were substantial changes in the 1989 census schedule. First, there was no question on literacy in 1979 while there was one question in 1989. Secondly, there was no age limit on the two questions on education in 1979 as against 6 years and over in 1989. Third, the question on educational attainment in 1979 asked for the education level reached while in 1989 it asked for education level completed.

The inclusion of the question on literacy in the 1989 census implied availability of information on the literacy status of the population. However, experience from literacy surveys in some developing countries has shown that many people claim to be literate but when tested are found to be illiterate. The validity of the information gathered without being backed up with a test in the 1989 census is assessed in the next section of this chapter and in chapter 2. The change from no age limit in 1979 to age limit of 6 years and above in 1989 excluded children who were attending school before the official school entry age of six years. There is evidence from the 1979 census that 60,017 children of age 5 years were recorded in standard 1 and a further 10,849 were recorded to be attending school but standard not stated, so could be presumed to have been in pre-primary classes.

The change to level completed in 1989 is consistent with what was asked in 1969 but meant that the data were not directly comparable with the 1979 census and with the school enrolment records. There is also a possibility that people will state the level reached even though the question refers to the level completed. The merits and demerits of the changes made to the education questions in the 1989 census schedule will be examined further in the other chapters in this volume in light of the consistency of the results obtained.

1.3. Evaluation of Education and Literacy data

1.3.1. Quality of the data on literacy

As was mentioned in the introductory part, no literacy tests were given and for that reason it was not possible to ascertain the accuracy of the responses. Since some information on individual members of the household was provided by responsible persons other than the individuals themselves, one cannot rule out possibilities of inaccurate reporting. However, it was also not possible to assess the degree of inaccuracy in reporting by the responsible persons in the households. Assuming that the reporting on literacy was fairly correct, the quality of the reported data can only be assessed directly using the degree of imputations done and indirectly by making comparisons with existing data on literacy from other sources.

Overall, very limited imputations were done on the literacy data at the manual editing stage and at the analysis stage. At the data collection and manual editing stages, it was assumed that any person with educational level attainment of form 1 and above was able to read and write. At the analysis stage, all the missing and invalid codes were treated as non-response.

The effect of imputing all the missing and invalid codes as non-response was almost insignificant across all the provinces. Details of the imputations done and the impact on the data set by province is provided in table 1.1.

The average imputation of 1.9 per cent at national level is an indicator that the completeness of reporting on literacy was fairly high. Detailed comparative analysis of literacy rates obtained from the 1989 census data with those from other sources and specifically the 1988 Kenya Rural Literacy Survey (KRLS) was not possible. The 1988 KRLS was objective since literacy tests were conducted while the 1989 census data on literacy can be classified as subjective.

1.3.2. Quality of the data on education

The 1989 population census was done during school holidays and hence might have led to some under-enumeration of students. There is a possibility that some students could have reported themselves as not being in school. In addition, there is also the possibility that persons in post-primary and secondary training institutions could have been reported to be at school especially for cases where persons other than the individuals themselves provided the information. The quality of data on education was assessed by the degree of imputations done as well as by comparisons with other existing educational statistics from other sources.

A number of imputations were done regarding the level of education. First, any person aged six years and above who did not have any information or had an invalid code on the schooling status had his/her education level attained imputed as non-response. This had minimal impact as it affected only 1.4 per cent of the total population. Secondly, any person who was reported not to have gone to school had his/her education level attained imputed to none. This affected almost a negligible proportion of the population (0.1 per cent). Third, for those who were reported to be attending school but had their education level attainment inconsistent with the corresponding minimum ages in the education level

minimum age matrix, had their education level imputed. This cold deck imputation affected only 1.8 per cent of the population attending school. Similarly, those who had left school but had their completed education level inconsistent with the corresponding minimum ages in the education level minimum age matrix, had their education level imputed. This only affected 0.1 per cent of the population who reported having left school.

The distribution of those levels of imputations by province are given in Table 1.1. The national and the provincial averages for each of the imputations done on education fall below 5 per cent. The conclusions that could be drawn are that the imputations had minimum effect on the data set and that the completeness of reporting on education data was fairly high.

Further analysis of the quality of the education data was also done by comparing the results of the 1989 census data with those from other sources. The 1989 census data on class/level completed for those attending school were compared with the enrolment statistics by class/level from the Ministry of Education for the year 1989. Overall, the two data sets were more comparable for primary standard 1 to 8 and to some reasonable extent for secondary form 1 to 4. Beyond secondary form 4, the two data sets were less comparable. Details of the results of the comparative analysis of these two data sets are presented in chapter four.

Distribution of the level of Imputations done on Literacy and Education Attainment Variables by Province

Table 1.1

Imputation done	Per cent distribution in each province								Average National
	1	2	3	4	5	6	7	8	
Literacy level imputed to Not Stated for invalid and missing codes	1.3	1.7	1.6	1.9	0.9	2.4	2.2	2.5	1.9
Education level imputed to Not Stated for invalid and missing codes	0.6	0.7	1.4	1.2	0.5	2.9	2.7	0.0	1.4
Education level imputed to none for never attended school	0.0	0.1	0.1	0.1	0.2	0.1	0.3	0.1	0.1
Education level imputed using age education level matrix for those who left school	1.9	2.5	1.5	1.8	0.5	1.8	2.1	3.0	1.8
Education level imputed using age education matrix for those who left school	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Key:-

Province	1 - Nairobi
"	2 - Central
"	3 - Coast
"	4 - Eastern
"	5 - North Eastern
"	6 - Nyanza
"	7 - Rift Valley
"	8 - Western

1.4. Outline of the volume

Including this chapter, this volume consists of seven chapters and an appendix which contains information on the basic tabulations available on education and literacy. The other chapters in this volume focus on various aspects of education and literacy. The second chapter presents analysis results of literacy while chapters three and four presents analysis results of school attendance and school enrolments respectively. In chapter five, analysis results of education attainment are presented. The projections of school age population are presented in chapter six. Chapter seven presents conclusions and implications of the 1989 Population Census analysis results of education and literacy.

CHAPTER 2 - LITERACY

2.1. Introduction

The United Nations Education, Scientific and Cultural Organisation (UNESCO) defines a literate person as one who can read and write, with understanding, a short simple statement of one's everyday life. It is not very easy to distinguish between literacy and illiteracy without literacy tests. Since literacy tests were not administered during the 1989 census, it is therefore not possible to ascertain the validity of the reported literacy status of the individuals.

The 1989 population census did not gather information that could be used to categorise a person as semi-literate. A semi-literate person is defined as one who can read but cannot write. There is therefore the possibility that some of those reported to be literate or illiterate could be semi-literate. The likely candidates are persons who had never been to school or those who left school before completing standard three. The other consideration in analysis of literacy is that literacy can be acquired and can also be lost if not put into regular use. This also raises the possibility that some of those people who reported to be literate could have had their literacy lost at the time of the 1989 census.

The results of the analysis of literacy status of the population presented in this chapter are based on the reported data on literacy status of the individuals and hence should be viewed within the context of the above mentioned limitations. In section 2.2, the results of the national level estimates of literacy rates by sex, age group and rural-urban residence are discussed. Provincial and district level estimates of literacy rates are presented in sections 2.3 and 2.4 respectively.

2.2. Status of Literacy at National Level

2.2.1. Estimates of literacy rates

The distribution of the population by literacy status and by five year age group for Kenya and the urban population is presented in Table 5 in volumes 1 and 2 respectively of the 1989 Population census. However, the rates in this volume differ slightly by under 1 percent when compared with the figures in volumes 1 and 2. The differences are due to exclusion of the vagrant population in the analysis. This volume's figures are higher by under one percent. Literacy rates presented in this volume were calculated as follows:

$$\text{Literacy rate} = \frac{\text{Population in the age group category who can read and write}}{\text{Total population in the age group category}} \times 100$$

Although information on literacy status was collected from persons aged 6 years and above, further analysis of the literacy presented in this volume was restricted to the population 10 years and above for two main reasons. First, the 1988 Rural Literacy Survey had restricted the age of the respondents to 10 years and over. It was therefore thought that restricting the

analysis to the same age limit would promote consistency and allow for comparison not only with this particular survey but also with future literacy surveys. Second, the majority of the population in the age group 6 to 9 years who were at school or those who had left school had not completed standard three to become functionally literate.

Table 2.1 shows literacy rates by sex and rural-urban residence based on three definitions. The three are the percentages of the population who were reported to be able to read and write aged: 6 years and over; 10 years and over; and 15 years and over respectively. The summary rates based on the three definitions are provided for comparative purposes.

Literacy Rates by Sex and Rural-Urban Residence

Table 2.1

SEX	Percent Literate For Population aged 6 Yrs +			Percent Literate For Population aged 10 Yrs +			Percent Literate For Population aged 15 Yrs +		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
Male	73.55	88.85	76.45	78.72	91.67	81.36	76.83	91.62	80.24
Female	60.95	79.17	63.68	62.87	81.41	65.74	56.95	79.95	60.72
Both	67.00	84.51	69.97	70.41	87.15	73.40	66.22	86.63	70.23

The overall literacy rate is 70 per cent for both sexes for the population aged 6 years and over as well as for those aged 15 years and over. The rate improves slightly to 73.4 per cent when the computation is restricted to age 10 years and over. The reported literacy rate of 73.4 per cent for the population of age 10 years and over, though impressive, is definitely an over-estimate. The 1988 Rural Literacy Survey based on a sample of 32 rural districts estimated the national literacy rate at 54.33 per cent. It must be stressed that the two figures are not strictly comparable since the survey was objective while the census was subjective in the assessment of literacy status. Ignoring the effect of adult literacy programmes and thus treating all those who reported to be literate, while they had never been to school or left school before completing standard three, as functionally illiterate, the reported literacy rate for population of age 10 years and over declines to 65.02 per cent. This evidence from the data suggest that some semi-literate and illiterate persons reported their literacy status as literate. The analysis also shows that only 7 per cent of those who had never gone to school reported to be literate and this could be attributed to the effect of the adult literacy programmes.

The validity of including the question on literacy without conducting literacy tests during the 1989 census can partially be assessed by comparing the reported literacy rate with the indirectly computed literacy rate for population of age 10 years and over. The percentage of the total population 10 years and over who were reported to have completed standard 3 and above was 66.09 per cent in 1989. This figure is very close to the reported literacy rate of 65.02 per cent for the same population when those who never attended school or those who left school before completing standard three were all assumed to be functionally illiterate. It was not possible to establish trends in literacy rates between 1979 and 1989 due to lack of comparable data. The 1979 census did not have any question on literacy status. The literacy rate of 73.4 per cent is relatively high when compared with rates from other countries in the region as depicted in Table 2.2.

**Literacy Rates of Selected Countries in
Eeastern and Central Africa, 1990 and of
Kenya, 1989**

Table 2.2

Country	Age Group	Percent Literate
Burundi	15 and over	50.0
Mozambique	"	32.9
Rwanda	"	51.2
Somalia	"	24.1
Sudan	"	27.1
Uganda	"	48.3
Zimbabwe	"	76.9
Kenya	"	70.2
Kenya	10 and over	73.4

Source: UNESCO, 1992 Statistical Year Book Table
1989 Population Census.

2.2.2. Variations in literacy rates by age group, sex and residence

Table 2.3 also shows that there exists wide variations in literacy rates by sex and by rural-urban residence. The male and the urban resident have relatively higher literacy rates when compared with their female and rural counterparts.

Literacy Rates by Age Group and Rural-Urban Residence

Table 2.3

Age Group	PERCENT LITERATE								
	TOTAL			RURAL			URBAN		
	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL
10 - 14	85.36	84.95	85.16	84.56	84.39	84.48	92.09	89.03	90.48
15 - 19	91.82	88.01	89.90	91.32	87.37	89.36	94.96	91.36	93.00
20 - 24	90.95	82.64	86.50	88.91	80.27	84.11	95.99	90.81	93.54
25 - 29	88.58	72.49	80.17	85.13	68.67	75.87	95.28	85.66	91.25
30 - 34	84.14	59.45	71.96	80.23	55.21	66.67	93.40	77.68	87.55
35 - 39	81.20	51.21	66.19	77.02	47.21	60.91	91.74	72.13	84.65
40 - 44	77.67	39.48	58.60	73.66	36.27	53.50	89.37	61.57	80.17
45 - 49	70.22	30.51	49.88	66.00	28.08	45.19	84.80	51.99	74.23
50 - 54	63.87	23.71	43.53	60.32	21.96	39.76	78.94	41.70	66.95
55 - 59	57.03	19.15	37.94	54.60	17.74	35.38	72.76	37.62	60.45
60 +	39.24	11.24	24.75	37.77	10.37	23.50	57.42	24.35	41.80
NS	54.70	32.69	43.43	52.31	30.63	40.90	66.64	48.36	58.92
Total	81.36	65.74	73.40	78.72	62.87	70.41	91.67	81.41	87.15

Figures 2.1 and 2.2 show that literacy reached a peak in the age group 15 to 19 years and declined with increasing age thereafter for both males and females as well as for rural and urban residents. The national average literacy rate in the age group 15-19 years was 89.9 per cent, with males and females recording literacy rates of 91.8 per cent and 88.0 per cent respectively. The urban residents had on the average higher literacy rates when compared with rural residents in all age groups as depicted in Figure 2.2. The literacy rates for the population of age 6 years and over in the urban and rural areas were 87.2 per cent and 70.4 per cent respectively. The figures also show that the gap in literacy rates between males and females increases with increase in age from the age group 15-19 years and that there was no

significant variation in literacy rates by sex in the age group 10 to 14 years. Similarly, the gap in literacy rates between rural and urban residents increases with increase in age from age group 15-19 years. The gap in literacy rates by rural-urban residence is narrower in the earlier age groups. The policy implications of these results are that there is need to reduce the disparities in literacy rates by sex and rural-urban residence and also to raise literacy rates for the elderly population.

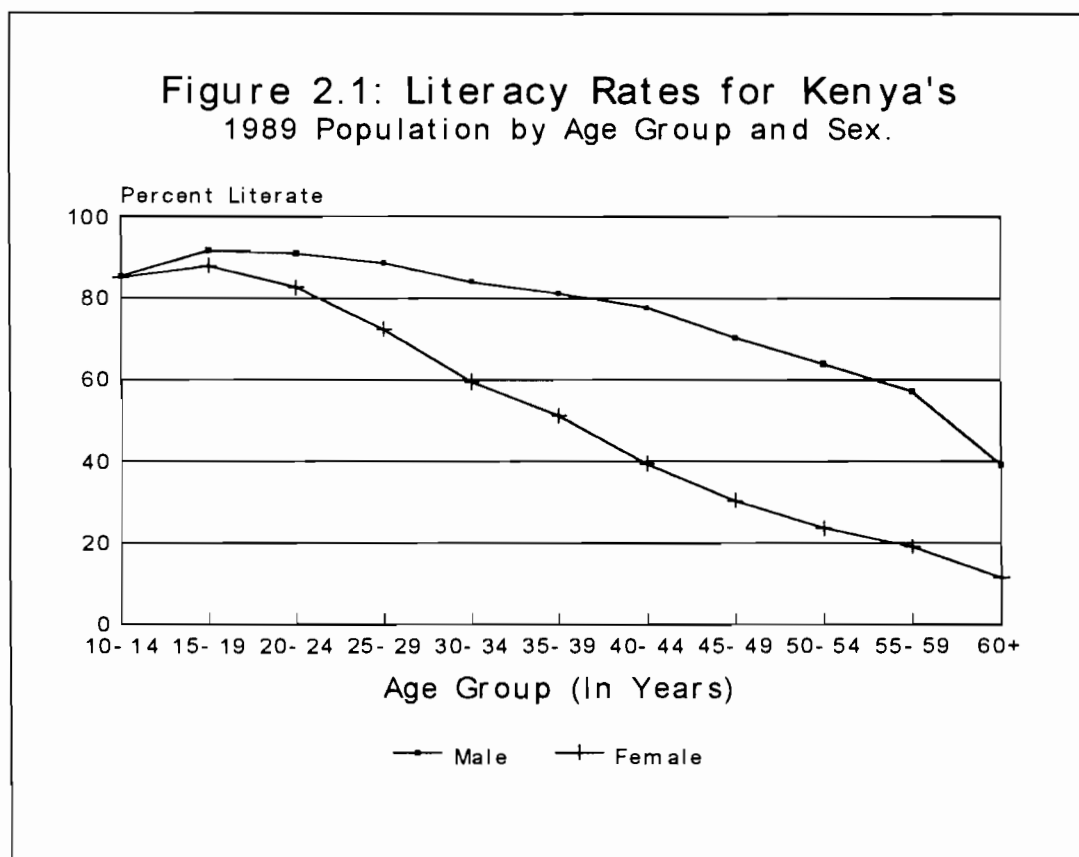
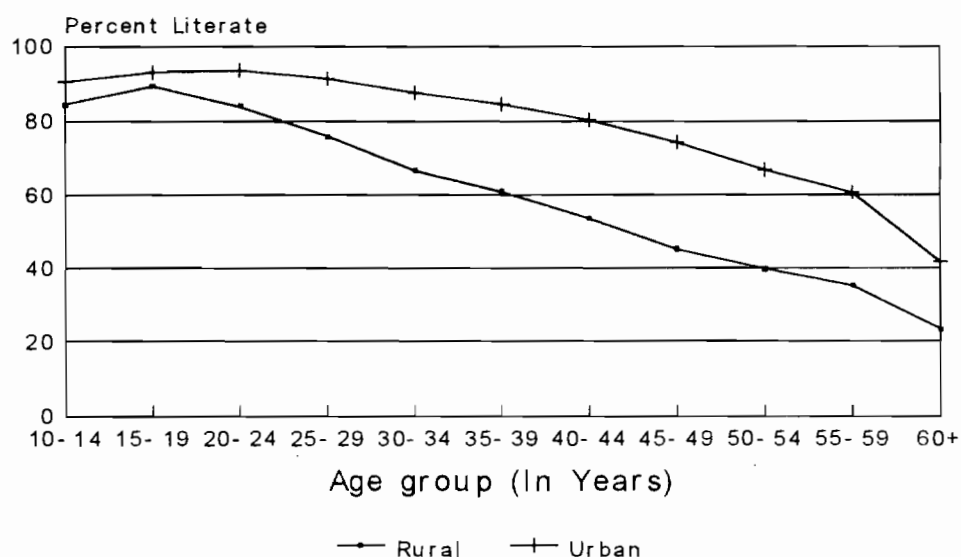


Figure 2.2: Literacy Rates for Kenya's 1989 Population by Age Group and Rural-Urban Residence.



2.3. Analysis of literacy at provincial level

Estimates of literacy rates for the population of age 10 years and over by province, sex and by rural-urban residence are provided in Table 2.4. It is apparent from the table that wide variations exist in literacy rates. North Eastern Province has the lowest literacy rate of about 30 per cent followed by Coast Province whose rate is about 63 per cent. The provinces with the highest literacy rates are Nairobi (93 per cent) and Central (85 per cent).

Literacy Rates by Province, Sex and Residence

Table 2.4

Province	Percent literate for Population Aged 10 yrs +								
	Total			Rural			Urban		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Nairobi	94.78	89.32	92.52	-	-	-	94.78	89.32	92.52
Central	91.05	79.44	85.06	90.69	78.77	84.48	94.81	88.51	91.93
Coast	75.96	50.41	63.27	68.27	40.36	53.48	87.73	73.05	81.35
Eastern	80.02	65.39	72.32	79.35	64.79	71.63	89.59	76.74	83.58
N. Eastern	44.05	13.94	29.51	35.84	8.11	22.46	70.00	32.26	51.74
Nyanza	82.83	64.53	73.05	81.75	63.01	71.63	91.42	79.95	85.90
R. Valley	74.40	59.81	67.13	71.54	56.97	64.17	90.59	80.02	85.82
Western	80.43	66.02	72.71	79.89	65.45	72.12	89.33	76.87	83.12
TOTAL	81.36	65.74	73.40	78.72	62.87	70.41	91.67	81.41	87.15

The difference between national literacy rates for males and females is 16 per cent. Provinces which had higher differences in literacy rates by sex are North Eastern (30

per cent), Coast (26 per cent) and Nyanza (18 per cent). All the other provinces had lower differences in literacy rates by sex with Nairobi having the lowest (5 per cent). The pattern at provincial level is similar to that of the national whereby in all provinces the female literacy rates are lower when compared to their male counterparts in both the rural and in the urban areas.

Further analysis of the difference of literacy rates by province also conform to the national pattern whereby the urban residents have higher literacy rates in all the provinces. Provinces whose differences of urban and rural literacy rates were found to exceed that of the national level (17 per cent) were Coast (28 per cent), North Eastern (29 per cent) and Rift valley (22 per cent). Provinces with smaller rural-urban variations in literacy rates were Central (7 per cent) and Western (11 per cent).

2.4. Analysis of literacy at district level

Literacy rates by district, sex, and rural-urban residence are provided in Table 2.5. The estimates indicate that the difference between the better-off and the worse-off districts is about 72 per cent. Turkana District had the lowest literacy rate of 21 per cent while Nairobi had the highest literacy rate of 93 per cent.

In an attempt to categorise the districts into worse-off and better-off categories with respect to literacy rates, the estimates of literacy rates obtained for each district were arranged in ascending order. Only one value of the literacy rates was included in the array list for all the districts sharing the same value. The arrayed values were then subdivided into four quartiles. Districts with literacy rates in the fourth quartile were considered to be in the better-off category while those districts with literacy rates in the first quartile were considered to be in the worse-off category. The districts with literacy rates in the second and third quartiles were considered to be in the average category. This approach for categorising district estimates is henceforth referred to in this volume as the quartile approach.

A much clearer picture emerges when these estimates are subdivided into quartiles. The worse-off districts in terms of levels (those with 21 to 40 percent literacy rates) are Turkana, Marsabit, Garissa, Mandera, Wajir, Isiolo, Samburu and West Pokot. The better-off districts (which had literacy rates of over 79 per cent) are Nairobi, Kiambu, Nyeri, Nyandarua, Murang'a, Kirinyaga, Mombasa, Machakos, Nakuru and Uasin Gishu.

Literacy Rates by District, Sex and Residence

Table 2.5

DISTRICT	Percent Literate for Population Aged 10 yrs +								
	Total			Rural			Urban		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Nairobi	94.78	89.32	92.52	-	-	-	94.78	89.32	92.52
Kiambu	92.79	82.14	89.49	92.36	81.18	86.69	95.27	89.41	92.70
Kirinyaga	88.15	73.46	80.67	87.92	72.97	80.28	92.57	84.80	88.91
Mumnga	89.49	77.66	83.20	89.35	77.43	83.00	93.67	85.72	89.80
Nyandarua	91.40	79.86	85.43	91.09	79.25	84.94	94.96	87.33	91.20
Nyeri	92.09	81.54	86.57	91.81	80.90	86.04	94.87	89.84	92.54
Kilifi	69.07	35.48	51.09	66.03	51.60	59.83	85.44	64.69	76.20
Kwale	66.49	38.09	51.66	66.19	37.78	51.33	90.55	74.49	83.73
Lamu	75.82	56.43	66.55	74.39	55.52	65.33	80.54	70.90	75.72
Mombasa	88.35	75.06	82.67	-	-	-	88.35	75.06	82.67
T. Taveta	84.03	72.00	77.85	82.73	70.50	76.36	91.15	81.95	86.79
T. River	61.68	36.55	49.14	58.36	33.88	46.05	78.63	51.62	65.71
Embu	85.07	71.07	77.76	84.37	69.93	76.79	92.66	85.33	89.08
Isiolo	55.29	33.35	44.35	42.74	22.09	32.36	82.41	59.01	70.95
Kitui	77.37	57.12	66.26	76.99	56.77	65.84	89.58	74.66	82.96
Machakos	87.58	74.16	80.46	87.08	73.51	79.81	93.74	85.64	90.09
Marsabit	33.54	15.78	24.71	25.54	10.41	18.01	72.97	42.28	57.72
Meru	77.97	64.87	71.22	77.45	64.27	70.64	90.37	81.95	86.41
Garissa	36.70	14.87	26.12	24.23	6.49	15.52	71.52	40.63	57.10
Mandera	50.84	14.63	33.41	43.91	10.16	27.78	71.07	27.00	49.44
Wajir	44.66	12.30	29.04	39.10	7.79	24.09	66.64	28.97	47.95
Kisii	85.32	70.32	77.35	84.97	69.85	76.90	91.50	80.38	86.10
Kisumu	85.30	68.31	76.59	82.08	63.44	72.16	91.26	79.87	85.30
Siaya	78.16	58.15	66.96	77.67	57.46	66.34	91.36	79.82	85.30
S. Nyanza	81.33	60.70	70.12	80.70	59.40	69.25	92.01	79.92	85.95
Baringo	71.35	57.37	64.23	69.22	55.59	62.21	90.36	77.34	84.41
E. Marakwet	75.50	63.15	69.20	75.13	62.79	68.81	92.37	84.87	89.05
Kajiado	66.87	49.03	58.30	61.22	42.03	51.90	89.41	80.37	85.28
Kericho	82.87	68.13	76.14	83.46	67.58	75.62	91.85	82.10	87.68
Laikipia	82.60	70.85	76.76	81.11	69.29	75.17	92.86	83.78	88.73
Nakuru	89.05	76.84	83.05	86.65	73.17	79.84	94.64	87.29	91.29
Nandi	80.82	68.95	74.94	80.56	68.66	74.66	88.99	78.19	83.77
Narok	62.46	43.87	53.02	60.77	41.99	51.19	93.41	84.48	89.23
Samburu	36.75	16.91	26.47	30.47	11.89	20.79	73.58	48.56	60.99
T. Nzoia	79.73	66.66	73.18	78.33	65.10	71.58	86.77	76.54	82.12
Turkana	32.85	13.14	21.30	20.40	9.68	14.65	69.61	40.74	55.00
U. Gishu	84.23	73.90	79.24	77.75	70.66	74.18	91.92	83.24	88.18
W. Pokot	49.79	29.81	39.71	46.89	27.14	37.06	86.10	77.32	82.09
Bungoma	84.62	70.41	77.23	84.06	69.24	76.31	90.56	78.90	84.87
Busia	74.11	51.76	61.89	73.32	50.70	60.94	86.07	68.34	76.57
Kakamega	80.17	68.28	73.75	79.75	67.88	73.31	89.46	78.98	84.31
Kenya	81.36	65.74	73.40	78.72	62.87	70.41	91.67	81.41	87.15

Analysis of the district estimates for literacy rates by sex showed that there are some districts with very large difference between male and female rates. The districts with differences of 25 per cent and above were considered to have the higher disparities using the quartile approach. These included Mandera, Kilifi, Tana River, Wajir and Kwale. On the other hand, districts with differences of 14 per cent and under were considered to have smaller disparities. These included Nairobi, all the central province districts except Kirinyaga, Mombasa, Taita-Taveta, Garissa, Elgeyo Marakwet, Laikipia, Nakuru, Nandi, Uasin Gishu and Kakamega. The district pattern also conforms to the national and provincial patterns whereby in all the districts the females have lower literacy rates when compared to the males in both the urban and in the rural areas.

Further analysis of the district level estimates for the difference in literacy rates by rural-urban was done using the quartile approach. The results of the analysis indicate that there were districts with very small differences (below 10 per cent). These included all the Central Province districts, Lamu, Kisii, Nandi, Bungoma, Busia and Kakamega.

Districts considered to have excessively high differences between rural and urban literacy rates (38 per cent and over) included Isiolo, Garissa, Marsabit, Narok, Samburu, Turkana and West Pokot. The overall pattern was also maintained in that all the urban areas had a relatively higher literacy rate in all the districts.

CHAPTER 3 - SCHOOL ATTENDANCE

3.1. Introduction

Volumes I and II of the 1989 Population Census published information on population by sex, five year age group and school attendance for the country and for the urban areas respectively. School attendance was categorised into three groups namely: at school, left school and never attended school.

Table 3.1 reproduces the national figures and also provides the percentage distribution of each age group. In 1989, the "proper" ages for primary schooling were 6 to 13 years while for secondary schooling, they were 14 to 17 years and 13 to 18 years for the 8-4-4 and 7-6-3 education systems respectively. These two systems were in operation as at the time of the 1989 population census. There is no "proper" ages for university schooling, although the age group 20-24 years is expected to accommodate the majority of the population attending university.

The overall picture emerging from Table 3.1 shows that about 37 per cent of the total population of ages 6 years and above were attending school in 1989. A nearly equal proportion (36 per cent) were reported to have left school and only 24 per cent were reported to have never attended school. When compared with the 1979 population figures, there is some indication that the proportion of the population attending school had slightly increased while the proportion that never attended school had declined substantially by 1989. The proportions of the population aged 5 years and above that were attending school and never attended school were 33 per cent and 40 per cent respectively in 1979.

Using the proportion of the population whose schooling attendance status was not stated as an index of quality of reporting, it is observed that the reporting during the 1979 population census was better when compared to that of 1989. While only 0.4 percent had not reported their schooling attendance status during the 1979 census, 3 percent did not have their schooling attendance status reported during the 1989 census. On the other hand, there

State of School Attendance by Age Group and Sex

Table 3.1

Age	Population			Per cent at School			Per cent left school			Per cent not Schooling		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
6 - 9	1,347,177	1,339,757	2,686,934	64.22	64.99	64.6	1.63	1.66	1.64	21.83	21.45	21.64
10 - 14	1,500,234	1,482,948	2,983,182	87.44	85.55	86.5	3.55	4.13	3.84	7.62	8.9	8.26
15 - 19	1,169,263	1,192,066	2,361,329	70.37	56.08	63.16	22.16	32.68	27.47	6.86	10.52	8.71
20 - 24	872,093	1,002,355	1,874,448	20.82	9.75	14.9	70.15	73.51	71.95	8.45	15.94	12.46
25 - 29	768,739	840,709	1,609,448	3.89	2.86	3.35	84.78	70.72	77.44	11.11	26.05	18.91
30 +	2,573,911	2,631,462	5,205,373	1.76	1.37	1.56	64.78	35.18	49.82	33.11	62.77	48.1
NS	7,761	8,138	15,899	9.14	6.42	7.75	40.7	22.94	31.61	23.26	46.66	48.1
Total	8,239,178	8,497,435	16,736,613	39.53	34.91	37.18	39.67	32.15	35.86	18.23	30.35	24.38

Note: Category of schooling status "Not stated" is included.

was a general improvement in the reporting of the ages of the population by school attendance except for the category "left school" that recorded a slight increase in 1989 in the age group category "not stated".

Results of the detailed analysis of the state of school attendance are presented under three subsections, namely: population that never attended school; population attending school; and population that left school. Differentials in levels in each of the school attendance status by age, sex and by rural-urban are discussed in addition to trends.

3.2. The Population that Never Attended School

3.2.1. National level analysis of the population that never attended school

The percentage of the population that never attended school is one of the most important indices that can be used to tell the whole story of educational expansion especially when tabulated by age and sex. Since this index is not fouled up by confusion over levels reached or completed, comparisons with the earlier censuses when made for the same age cohorts provide a powerful test of consistency of the education data. It is the expectation that with increased level of socio-economic development the ratios of the population with no schooling should decline. The results indicate that 24 per cent of the total population of age 6 years and over in 1989 had never attended school.

The single year age pattern of the population that never attended school displays four distinct segments. The first segment is for the age group 6 to 10 years which was characterised by a sharp drop from 33 per cent at age 6 years to 11 per cent at age 10 years.

This is not surprising since it is later noted in section 3.3 that some of the school age population started school late. The second segment is located between ages 11 and 17 years where the proportion of the population that never attended school was between 7 per cent and 8 per cent at each age. This age bracket had the lowest proportion of the population with no schooling. The third age segment is between ages 18 and 27 in which the proportion of the population with no schooling ranges between 11 per cent and 18 per cent.

The fourth age segment is for 28 years and over in which the percentage with no schooling rises from 23 per cent to beyond 60 per cent. The age pattern obtained indicate that no schooling is predominantly in the elderly population. A much clearer picture of the pattern is depicted in Table 3.2 and in Figure 3.1 which are based on values classified by five year age group .

Wide variations by sex in the percentages of population that had never gone to school can only be noted beyond age group 15-19 and precisely at age 16 years. Between ages 6 and 16 years, the differences in percentages between the males and females do not exceed two. The females were noted to have the higher percentage of no schooling in all ages. The widest variation by sex was in the age group 30 years and over where the percentage of males with no schooling was 33 while that for the females was 62. This implied that at older ages (30 years and over) the proportion of females with no schooling was twice as high as that for the males. This is also a reflection of the situation 30 years prior to 1989 when female schooling opportunities were limited when compared with males. Overall, the

urban residents had lower proportions with no schooling in all the age groups as also depicted in Figure 3.2.

Population that Never Attended School by Age Group, Sex and Residence

Table 3.2

Age	Percentage that never attended School								
	TOTAL			RURAL			URBAN		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
6 - 9	21.83	21.45	21.64	22.83	22.38	22.61	14.24	14.68	14.46
10 - 14	7.62	8.90	8.26	8.05	9.17	8.60	3.94	6.98	5.54
15 - 19	6.86	10.52	8.71	7.28	11.09	9.18	4.18	7.57	6.02
20 - 24	8.45	15.94	12.46	10.35	18.10	14.65	3.75	8.48	5.99
25 - 29	11.11	26.05	18.91	14.40	29.57	22.93	4.72	13.89	8.56
30 - 34	15.84	39.22	27.51	19.94	43.22	32.56	7.02	22.04	12.61
35 - 39	19.42	47.99	33.73	23.55	51.80	38.82	9.00	28.08	15.90
40 - 44	23.56	60.08	41.80	27.59	63.12	46.75	11.82	39.12	20.85
45 - 49	31.91	69.13	50.98	36.09	71.38	55.46	17.44	49.20	27.68
50 - 54	39.30	75.64	57.70	42.71	77.24	61.22	24.82	59.12	35.87
55 +	60.37	85.45	73.26	62.13	86.38	74.77	42.61	71.94	55.23
NS	23.21	46.65	35.20	24.96	49.30	37.77	14.42	26.41	19.48
Total	18.18	30.32	24.34	20.33	32.62	26.72	8.98	17.21	12.67

Table 3.3 shows the 1969-1979 and 1979-1989 trends in the population aged 6 years and over that had never attended school. The trends conform to the expectation. All age groups recorded decline in the proportion of the population that never attended school for the 1979-1989 period. The percentage decline was over 50 per cent in age groups 6-9, 15-19 and 20-24 years. The data also revealed that females registered greater improvements when compared to the males. Analysis of the cohort performance showed

Figure 3.1: Percentage Distribution of Kenya's 1989 Population that Never Attended School by Age Group and Sex.

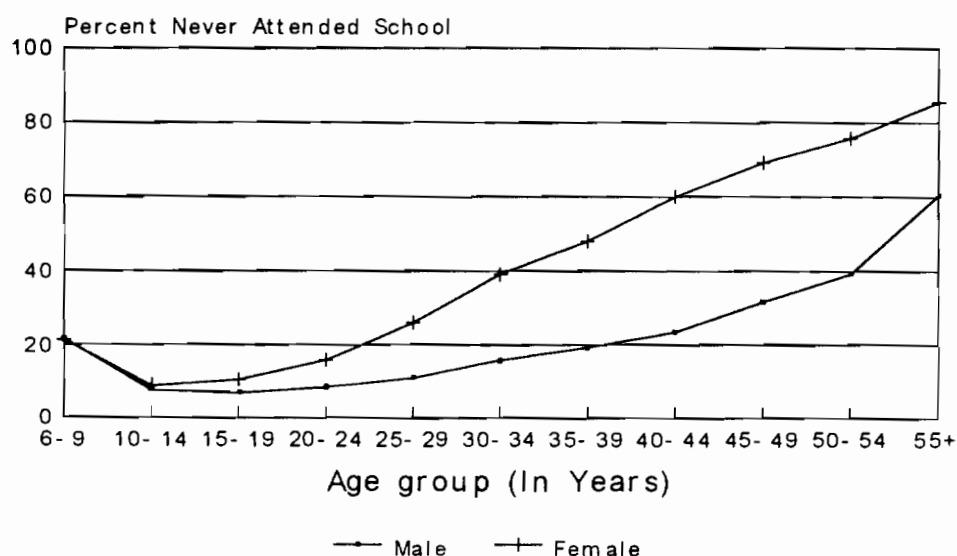
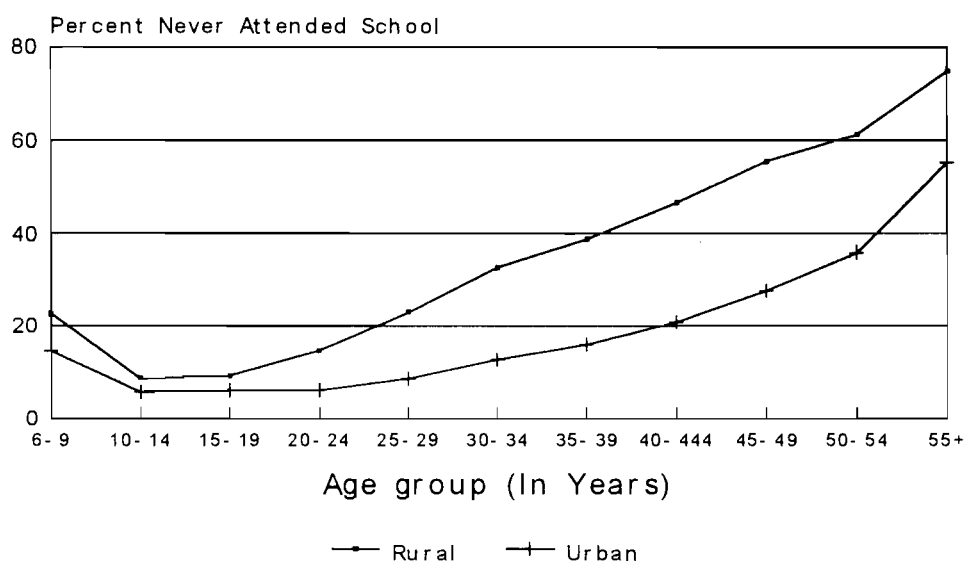


Figure 3.2: % Distribution of Kenya's
1989 Population that Never Attended
School by Age Group and Rural- Urban Res.



1979-1989 Trends in Population that Never Attended School by Age Group and Sex

Table 3.3

AGE GROUP	MALES					FEMALES					TOTAL				
	Percentage		Per cent change			Percentage		Per cent change			Percentage		Per cent change		
	1969	1979	1989	1969-1979	1979-1989	1969	1979	1989	1969-1979	1979-1989	1969	1979	1989	1969-1979	1979-1989
6 - 9	86.21	49.29	21.83	-42.83	-55.7	87.44	49.50	21.45	-43.4	-56.7	86.82	49.39	21.64	-43.1	-56.2
10 - 14	43.51	12.18	7.62	-72.01	-37.4	53.20	15.36	8.90	-71.1	-42.1	50.37	13.75	8.26	-72.7	-39.9
15 - 19	31.68	12.57	6.86	-60.32	-45.4	50.30	22.57	10.52	-55.1	-53.4	40.85	17.66	8.71	-56.8	-50.7
20 - 24	31.32	17.73	8.45	-43.39	-52.3	61.13	37.97	15.94	-37.9	-58.0	46.60	28.16	12.46	-39.6	-55.8
25 - 29	41.85	21.97	11.11	-47.50	-49.3	75.36	49.58	26.05	-34.2	-47.5	59.98	36.13	18.91	-39.8	-44.7
30 - 34		25.79	15.84	-	-38.6		62.22	39.22	-	-37.0		44.17	27.51	-	-37.71
35 - 39	54.34	34.91	19.42	-	-44.4	83.31	71.85	47.99	-	-33.2	69.19	54.44	33.73	-	-38.04
40 - 44		42.22	23.56	-	-44.2		78.52	60.08	-	-23.5		60.78	41.80	-	-31.23
45 - 49	70.04	50.57	31.91	-	-36.9	90.56	82.64	69.13	-	-16.4	80.31	66.71	50.98	-	-23.58
50 - 54		59.92	39.30	-	-34.4		87.09	75.64	-	-13.2		73.80	57.70	-	-21.82
55 +	85.75	74.83	60.37	-35.0	-19.3	96.36	93.03	85.45	-	-8.2	90.89	83.69	73.26	-	-12.46
NS	-	64.02	23.21	-	-63.8	-	75.41	46.65	-	-38.1	-	68.06	35.20	-	-48.28
Total	-	44.97	18.18	-	-59.6	-	57.41	30.32	-	-47.2	-	51.24	24.34	-	-52.50

that for ages beyond 20 years, the proportions of the population that never attended school were consistent in the three population censuses.

3.2.2 Provincial level analysis of the population that never attended school

The percentage of the population that never attended school in age group 10 - 14 years can be used as a good measure to study regional variations of no schooling population. Table 3.4 shows the percentage of the population that never attended school in the age group 10 - 14 years by province, sex and rural urban residence.

**Population Aged 10-14 Years that Never Attended School by
Province, Sex and Rural-Urban Residence, 1989**

Table 3.4

PROVINCE	Percentage that Never Attended School								
	TOTAL			RURAL			URBAN		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Nairobi	1.97	4.23	3.18	-	-	-	-	-	-
Central	1.57	1.65	1.61	1.56	1.59	1.58	1.73	2.68	2.24
Coast	13.50	22.99	18.19	15.73	27.48	21.46	6.36	10.01	8.23
Eastern	6.64	6.72	6.68	6.71	6.68	6.69	4.79	7.67	6.28
N. Eastern	63.70	79.21	70.90	76.81	90.06	82.96	16.47	40.71	27.81
Nyanza	2.32	2.74	2.53	2.36	2.66	2.51	1.81	3.65	2.79
R. Valley	13.91	15.32	14.61	14.84	16.22	15.52	4.67	7.70	6.28
Western	4.50	6.76	5.65	5.10	4.90	5.00	3.78	7.43	5.79
Kenya	7.62	8.90	8.26	8.05	9.17	8.60	3.94	6.98	5.54

The pattern observed from Table 3.4 is that North Eastern Province had the highest percentage of the population aged 10 - 14 years with no schooling (71 per cent) followed by Coast Province at a distant second with 18 per cent. The better-off provinces were Central and Nyanza with 2 per cent and 3 per cent respectively. These results are consistent with the results on the population attending school given in section 3.3. The data also revealed that females were worse off in all provinces when compared with the males although the variations by sex never exceeded 3 percent except in Coast and North Eastern Provinces, where the differences were 9 and 16 percent respectively. Wide disparities between rural and urban areas were only found to exist in the two worse-off provinces. The gap between the urban-rural were 13 per cent and 55 per cent in Coast and North Eastern Provinces respectively. Disparities in other provinces between rural and urban were under 3 per cent except for Rift-Valley where it was 10 per cent. These variations could be attributed to disparities in educational opportunities and to some extent socio-cultural factors which require in-depth studies.

3.2.3. District level analysis of the population that never attended school

The distribution of the population that never attended school provides a pointer of where more efforts need to be directed. Table 3.5 provides a summary of the population that never attended school in the age group 10 - 14 years by district, sex and rural-urban residence in 1989.

The data revealed that there existed very wide disparities between the better-off and worse-off districts. While the percentage of those aged 10-14 years that never attended school was under 1 per cent in Nyeri, it was 74 per cent in Wajir. It is apparent from the data that most of the worse-off districts are in the arid and semi-arid zones. The districts considered to be in the worse-off category were those that had a percentage with no schooling greater than 25 per cent. These included all the districts in the North Eastern Province, Marsabit, Isiolo, Kwale, Tana River, Kilifi, Kajiado, Samburu, Turkana, West Pokot and Narok. Table 3.6 also reveals that these 13 districts in the worse-off category contain about 62 per cent of the total national population with no schooling. Districts categorised as better-off were those with under 3 per cent of the population 10 - 14 years that never attended school. These included all the Central Province districts, all the Nyanza Province districts, Embu, Machakos, Elgeyo -Marakwet, Kericho and Nandi districts.

**Percentage of Population Aged 10-14 Years that Never
Attended School by District, Sex and Residence**

Table 3.5

DISTRICT	TOTAL			RURAL			URBAN		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Nairobi	1.97	4.23	3.18	-	-	-	1.97	4.23	3.18
Kiambu	1.18	1.71	1.45	1.16	1.63	1.40	1.39	2.59	2.03
Kirinyaga	2.90	2.44	2.67	2.91	2.41	2.67	2.32	3.52	2.98
Muranga	1.72	1.64	1.68	1.69	1.63	1.66	3.73	2.35	3.01
Nyandarua	1.74	1.71	1.73	1.77	1.66	1.71	1.10	2.64	1.94
Nyeri	0.92	1.01	0.96	0.89	0.91	0.90	1.52	2.80	2.21
CENTRAL	1.57	1.65	1.61	1.56	1.59	1.58	1.73	2.68	2.24
Kilifi	13.46	28.76	20.95	14.16	30.37	22.07	6.03	12.91	9.53
Kwale	18.76	31.88	25.16	18.86	32.06	25.29	5.46	9.23	7.41
Lamu	10.43	14.17	12.27	9.62	13.43	11.47	22.58	17.07	19.75
Mombasa	2.49	16.71	9.77	-	-	-	2.49	16.71	9.77
T. Taveta	5.14	5.40	5.27	4.73	4.90	4.81	3.96	4.57	4.27
T. River	30.72	41.02	35.72	3.17	3.90	3.52	16.90	27.51	22.29
COAST	13.50	22.99	18.19	15.73	27.48	21.46	6.36	10.01	8.23
Embu	2.80	2.67	2.74	2.83	2.62	2.72	2.26	3.61	2.97
Isiolo	28.44	38.29	33.25	36.69	48.01	42.18	5.79	13.15	9.47
Kitui	6.40	6.56	6.48	6.46	6.57	6.51	1.74	5.67	3.78
Machakos	2.29	2.00	2.15	2.30	1.98	2.14	2.01	2.59	2.31
Marsabit	49.47	61.69	55.16	57.06	70.46	63.23	11.96	23.12	17.42
Meru	7.75	7.24	7.50	7.78	7.24	7.51	6.64	7.21	6.94
EASTERN	6.64	6.72	6.68	6.71	6.68	6.69	4.79	7.67	6.28
Garissa	61.24	77.79	69.14	74.01	89.59	81.41	13.46	35.29	24.04
Mandera	61.84	79.82	70.05	77.76	90.92	83.79	15.65	46.82	29.74
Wajir	67.90	80.16	73.53	78.71	89.81	83.79	20.92	39.82	29.75
N. EASTERN	63.70	79.21	70.90	76.81	90.06	82.96	16.47	40.71	27.81
Kisii	2.57	2.60	2.58	2.57	2.54	2.55	2.49	4.09	3.31
Kisumu	1.67	2.32	2.00	1.65	1.80	1.73	1.73	3.61	2.73
Sinya	2.37	2.86	2.61	2.39	2.80	2.59	1.73	4.54	3.30
S. Nyanza	2.37	3.11	2.73	2.41	3.12	2.75	1.35	2.96	2.24
NYANZA	2.32	2.74	2.53	2.36	2.66	2.51	1.81	3.65	2.79
Baringo	12.89	13.06	12.97	13.45	13.60	13.52	4.15	5.90	5.09
E. Marakwet	2.51	3.28	2.89	2.53	3.21	2.87	0.63	8.26	5.03
Kajiado	29.96	37.38	33.49	33.65	42.87	37.98	6.95	8.53	7.76
Kericho	2.13	2.00	2.07	2.13	1.94	2.03	2.22	3.96	3.13
Laikipia	7.35	8.84	8.08	7.71	9.22	8.44	2.18	4.13	3.20
Nakuru	2.91	3.47	3.19	3.10	3.53	3.31	2.11	3.26	2.71
Nandi	3.11	2.79	2.95	3.09	2.71	2.90	3.59	6.07	4.88
Narok	24.14	27.91	25.96	24.73	28.75	26.67	2.66	5.10	4.01
Samburu	52.34	66.61	59.24	57.72	73.44	65.24	11.48	25.53	17.97
T. Nzoia	5.98	5.98	5.98	6.05	5.73	5.89	5.34	7.90	6.73
Turkana	66.46	75.19	70.61	72.94	81.44	76.98	14.01	23.39	18.42
U. Gishu	3.38	3.63	3.50	3.36	2.86	3.12	3.43	6.50	5.10
W. Pokot	36.57	44.18	40.27	38.11	46.13	41.99	4.60	10.80	7.89
R. VALLEY	13.08	14.46	13.40	13.96	15.34	14.64	4.37	7.00	5.69
Bungoma	3.30	3.28	3.29	3.31	3.09	3.20	3.00	5.90	4.59
Busia	7.40	9.55	8.46	7.54	9.43	8.47	4.49	11.35	8.36
Kakamega	5.21	4.62	4.91	5.24	4.54	4.89	4.17	6.97	5.70
WESTERN	5.03	5.02	5.03	5.09	5.12	5.11	3.76	7.41	5.77
TOTAL	7.06	8.90	8.23	8.02	9.14	8.60	3.94	6.98	5.54

Overall, males had a lower percentage with no schooling in the age group 10 - 14 years in most districts. No major disparities by sex existed in the districts categorised as better-off districts. However, major disparities by sex were observed in the category of the worse-off districts.

In these districts the difference between the male and female percentages were as high as over 10. The district patterns depicted by the rural-urban residence variable is similar to that of the provinces whereby wide disparities were observed in the worse-off districts.

**Number and percentage of the Total Population
Aged 10-14 Years that Never Attended School by District**

TABLE 3.6

DISTRICT	TOTAL		MALE		FEMALE	
	Number	Per cent	Number	Per cent	Number	Per cent
Nairobi	3,349	1.36	965	0.85	2,384	1.81
Kiambu	1,806	0.74	731	0.64	1,075	0.82
Kirinyaga	1,547	0.63	847	0.74	700	0.53
Muranga	2,286	0.93	1,185	1.04	1,101	0.84
Nyandarua	906	0.37	463	0.41	443	0.34
Nyeri	867	0.35	415	0.36	452	0.34
Kilifi*	16,575	6.75	5,435	4.77	11,140	8.46
Kwale*	12,805	5.22	4,895	4.30	7,910	6.01
Lamu	902	0.37	390	0.34	512	0.39
Mombasa	3,094	1.26	1,187	1.04	1,907	1.45
T. Taveta	1,600	0.65	788	0.69	812	0.62
T. River*	6,573	2.68	2,907	2.55	3,666	2.78
Embu	1,522	0.62	778	0.68	774	0.58
Isiolo*	2,985	1.22	1,305	1.15	1,680	1.28
Kitui	6,081	2.48	3,025	2.66	3,056	2.32
Machakos	4,472	1.82	2,402	2.11	2,070	1.57
Marsabit*	9,176	3.74	4,397	3.86	4,779	3.63
Meru	12,497	5.09	6,480	5.69	6,017	4.57
Garissa*	13,173	5.37	6,102	5.36	7,071	5.37
Mandera*	12,159	4.95	5,831	5.12	6,328	4.81
Wajir*	13,589	5.54	6,783	5.96	6,806	5.17
Kisii	4,663	1.90	2,317	2.04	2,346	1.78
Kisumu	1,795	0.73	749	0.66	1,046	0.79
Siaya	2,414	0.98	1,115	0.98	1,299	0.99
S. Nyanza	3,371	1.37	1,798	1.58	2,256	1.71
Baringo	5,448	2.22	2,725	2.39	2,723	2.07
E. Marakwet	1,131	0.46	392	0.34	739	0.56
Kajiado*	10,519	4.29	4,930	4.33	5,589	4.25
Kericho	2,652	1.08	1,366	1.20	1,286	0.98
Laikipia	2,557	1.04	1,192	1.05	1,365	1.04
Nakuru	3,738	1.52	1,725	1.52	2,013	1.53
Nandi	1,829	0.75	964	0.85	865	0.66
Narok*	16,033	6.53	6,762	5.94	9,271	7.04
Samburu*	8,767	3.57	3,999	3.51	4,768	3.62
T. Nzoia	3,391	1.38	1,689	1.48	1,702	1.29
Turkana*	17,195	7.00	8,495	7.46	8,700	6.61
U. Gishu	2,117	0.86	1,013	0.89	1,104	0.84
W. Pokot*	11,848	4.83	5,538	4.87	6,310	4.79
Bungoma	3,502	1.43	1,743	1.53	1,759	1.34
Busia	5,167	2.10	2,277	2.00	2,890	2.20
Kakamega	10,851	4.42	5,730	5.03	5,121	3.89
Kenya	245,472	100.00	113,830	100.00	131,642	100.00

Note: * Refers to districts in the worse-off category

3.3. Population Attending School

3.3.1. Analysis of population attending school at national level

The population at school can also be used as a measure of school enrolment. This is specifically more relevant when the primary schooling age is considered in view of the official policy of universal free primary education. Analysis of the population aged 6 years and above during the 1989 population census and who were also attending school, by age and sex, shows that the peak of school enrolment was at age 11 years for both sexes. At this age, about 88 per cent were reported to be at school. The corresponding figures for males and females were 89 per cent and 88 per cent, respectively. Although the start of "proper" primary school going age is six years, only about 42 per cent of the six year old were reported to be attending school. The age pattern obtained is such that enrolment increases by age up to 11 years, plateaus up to age 14 years and then drops as from age 15 years with a sharp drop after age 19 years. The shape of the school enrolment curve by age can be attributed to the pyramidal shape of the schooling opportunities which is wider at the base (primary level) slightly narrower at the middle (secondary level) and very narrow at the top (University level). When five year age groups are used, the peak of school enrolment was at age group 10-14 years as shown in Table 3.7.

The data also show that at the initial school-going ages (ages 6 to 9), the percentages of females attending school are slightly higher than for males. The scenario is reversed as from age 10 years although between ages 10 to 14 years the sex differences in those attending school is very minimal (3 per cent or under). The gap widens as from age 15

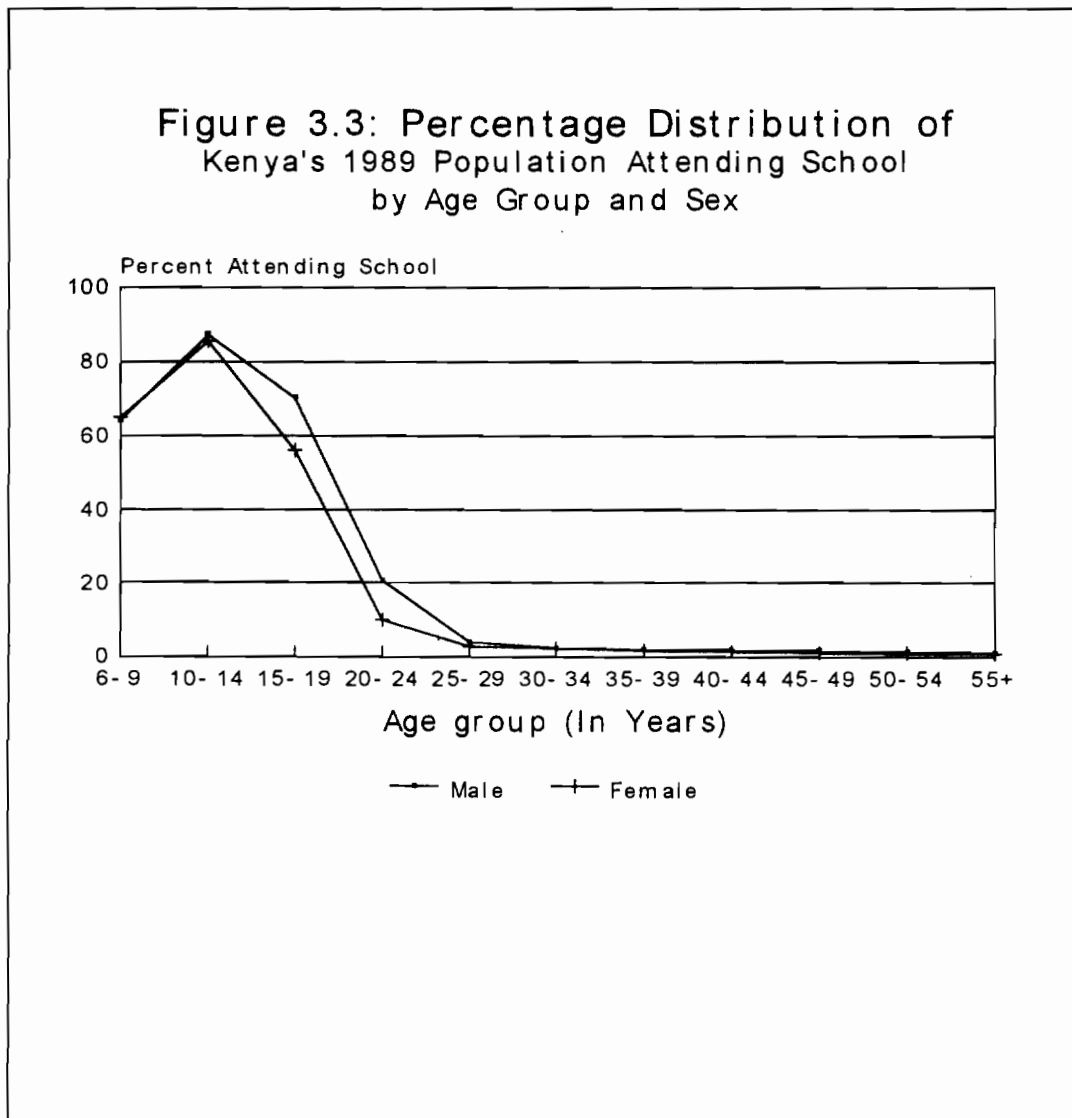
Distribution of Population Attending School by Age Group, Sex and Residence
Table 3.7

Age	Percentage at School								
	TOTAL			RURAL			URBAN		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
6 - 9	64.22	64.99	64.60	63.40	64.29	63.85	70.45	70.04	70.24
10 - 14	87.44	85.55	86.50	87.22	85.99	86.61	89.34	82.31	85.64
15 - 19	70.37	56.08	63.16	72.44	58.89	65.69	57.38	41.41	48.70
20 - 24	20.82	9.75	14.90	24.87	10.51	16.89	10.77	7.11	9.04
25 - 29	3.89	2.86	3.35	4.48	2.96	3.63	2.74	2.52	2.65
30 - 34	2.41	2.22	2.32	2.59	2.24	2.40	2.02	2.17	2.07
35 - 39	1.97	1.64	1.81	2.03	1.61	1.80	1.82	1.83	1.82
40 - 44	1.97	1.41	1.69	2.02	1.37	1.67	1.82	1.72	1.79
45 - 49	1.62	1.10	1.35	1.64	1.06	1.32	1.55	1.44	1.51
50 - 54	1.42	0.91	1.17	1.43	0.89	1.14	1.38	1.12	1.29
55 +	1.14	0.77	0.95	1.11	0.75	0.92	1.43	1.08	1.28
NS	9.15	6.43	7.76	9.49	6.07	7.69	7.44	9.12	8.15
Total	39.55	34.91	37.19	42.96	35.98	39.33	24.93	28.83	26.68

years where it is about 5 per cent and reaching 21 per cent at age 18 years. These figures imply that wide variations in school attendance by sex starts approximately at secondary school age level where the females are clearly the disadvantaged group. The pattern is clearer when 5 year age group categories are used as shown in Figure 3.3.

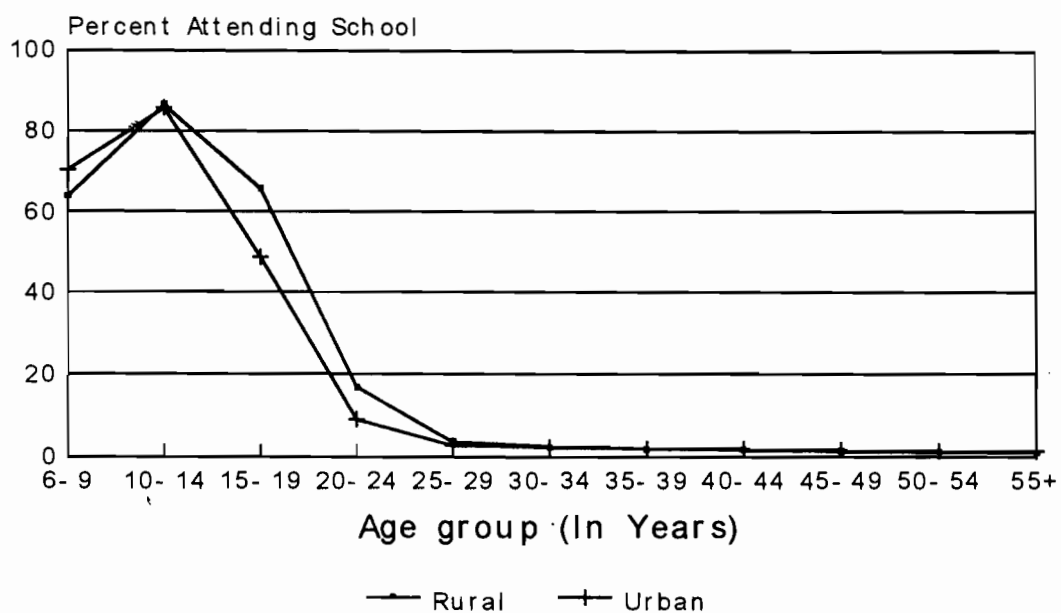
The age pattern of the population found to be attending school in the rural and urban areas was almost similar to the national total. Using single year age groups, the peak age was 12

years in both the rural and urban areas. There was also no major rural -urban difference in the patterns of the population attending school by sex. The most noticeable difference is that the gap between the percentage of males and females attending school starts to widen after age 13 in the urban areas as compared to age 16 in the rural areas. This could be attributed to the late school enrolments in the rural areas as depicted by the census data and Figure 3.4. The figure also shows that apart from the first two age groups, the percentages of the population attending school were higher in the rural than in the urban areas.



Using the population attending school as a measure of school enrolment, the 1979 - 1989 trends depicted in Table 3.8 indicate that improvement in school enrolment was registered in all age groups. Ignoring the age group category "Not Stated" remarkable improvements were recorded in the age group 20 years and above an indication of expanded schooling

**Fig. 3.4: % Distribution of Population
Attending School by Age Group and
Rural- Urban residence**



opportunities at the top of the pyramid. The table also shows clearly that females recorded a much greater improvement when compared to the males.

Trends in the Population Attending School by Age Group and Sex, 1979 - 1989

Table 3.8

Age	Males			Female			Total		
	Per cent 1979	Per cent 1989	Per cent change	Per cent 1979	Per cent 1989	Per cent change	Per cent 1979	Per cent 1989	Per cent change
6 - 9	49.98*	64.22	28.49	49.78*	64.99	30.55	49.88*	64.60	29.51
10 - 14	85.27	87.44	2.54	81.46	85.55	5.02	83.39	86.50	3.73
15 - 19	65.94	70.37	6.72	45.53	56.08	23.17	55.54	63.16	13.72
20 - 24	15.10	20.82	37.88	4.70	9.75	107.44	9.72	14.90	53.29
25 - 29	0.26	3.89	1,396.15	0.11	2.87	2,509.09	0.18	3.36	1,766.67
30 - 34	0.09	2.41	2,578.00	0.08	2.22	2,675.00	0.09	2.32	2,477.78
35 - 39	0.06	1.97	3,183.00	0.05	1.64	3,180.00	0.05	1.81	3,520.00
40 - 44	0.05	1.97	3,840.00	0.07	1.41	1,914.29	0.06	1.69	2,716.67
45 - 49	0.03	1.62	5,300.00	0.05	1.10	2,100.00	0.04	1.35	3,275.00
50 - 54	0.04	1.42	3,450.00	0.07	0.91	1,200.00	0.05	1.17	2,240.00
55 +	0.06	1.14	1,800.00	0.06	0.77	1,183.33	0.06	0.95	1,483.33
NS	10.03	9.15	-8.77	7.36	6.43	-12.64	8.57	7.76	-0.09
Total	28.70	39.55	37.80	24.52	34.91	42.37	26.60	37.19	39.81

1979 Population Census Volume II Analytical Report Table 4.1 and unpublished tables.

Note: * Refers to age group 5-9 years.

3.3.2. Provincial level analysis of the population attending school

Proportions of the population attending school in the age group 10 to 14 years in the provinces have been used to provide a picture of differentials in school enrolments. It will be recalled that the peak of the distribution of the population attending school is located in the age group 10 to 14 years. Estimates of the proportions of the population attending school in the age group 10-14 years by province, sex, and rural urban residence are provided in Table 3.9.

The provinces with relatively higher proportion of population aged 10 to 14 years attending school are Central and Nyanza. These have proportions of over 90 per cent. North Eastern Province is in a class of its own with only 26 per cent of the population in age group 10-14 attending school.

**Distribution of Population in the Age Group 10-14 Years Attending School by
Sex, Province and Rural-Urban Residence, 1989**

Table 3.9

Province	Percentage at School								
	Total			Rural			Urban		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Nairobi	74.25	74.15	74.20	-	-	-	-	-	-
Central	93.62	93.49	93.56	93.12	93.83	93.78	91.41	86.81	88.96
Coast	80.15	69.58	74.93	78.43	65.98	72.36	85.65	80.02	82.76
Eastern	88.16	88.52	88.34	88.16	88.75	88.45	87.98	83.09	85.45
N. Eastern	33.71	18.01	26.41	20.56	7.61	14.55	81.04	54.92	68.83
Nyanza	93.57	91.89	92.74	93.65	92.36	93.02	92.54	86.92	89.54
R. Valley	83.97	82.30	82.72	83.42	82.15	82.79	90.05	83.57	86.68
Western	89.44	89.18	89.31	89.39	89.54	89.46	90.70	82.13	85.97
Kenya	87.44	85.55	86.50	87.22	85.99	86.61	89.34	82.31	85.64

Nairobi Province comes a distant second in the worse-off category with 74 per cent while Coast Province is third in this worse-off category with 75 per cent. At this particular age group, the data reveal that there is not much difference by sex although the males are in a favourable position when compared to the females. The disparities by sex are greater in North Eastern and Coast Provinces. The national pattern whereby the rural dwellers have an advantage over the urban is violated in Coast, North Eastern, and Rift Valley Provinces at this particular age group.

While some of the observed variations could be explained by differentials in schooling opportunities and socio-cultural practices, a more in-depth analysis is needed.

3.3.3. Analysis of the population attending school at district level

Using the age group 10-14 years, the population attending school was found to vary widely by district. Proportions of the population aged 10 to 14 years attending school by district, sex and rural-urban residence are provided in Table 3.10. The difference in percentage between the better-off district (Nyeri) with 95 per cent and the worse-off district (Wajir) with 24 per cent is a clear 70 per cent difference.

**Percentage Distribution of the Population in age Group 10-14 Years
Attending School by District, Sex and Residence**

Table 3.10

DISTRICT	TOTAL			RURAL			URBAN		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Nairobi	74.25	74.15	74.20	-	-	-	-	-	-
Kiambu	93.97	92.54	93.25	94.14	93.16	93.65	92.41	92.37	92.57
Kirinyaga	90.59	91.92	91.25	90.63	92.13	91.37	89.15	85.11	86.92
Muranga	93.83	94.08	93.96	93.92	94.23	94.07	88.82	86.41	87.57
Nyandarua	93.44	93.54	93.49	93.44	93.77	93.60	93.63	89.59	91.44
Nyeri	94.89	94.92	94.91	95.05	95.29	95.17	91.36	87.99	89.57
CENTRAL	93.62	93.49	93.56	93.72	93.83	93.78	91.41	86.81	88.96
Kilifi	80.52	64.22	72.54	80.05	63.00	71.73	85.54	76.26	80.82
Kwale	74.63	60.48	67.73	74.51	60.30	67.59	91.80	83.08	87.30
Lamu	83.66	78.65	81.20	84.94	80.07	82.57	77.26	72.26	74.69
Mombasa	88.13	71.40	79.61	-	-	-	88.13	71.4	79.61
T. Taveta	89.39	89.14	89.27	89.31	89.36	89.33	90.10	87.43	88.73
T. River	64.57	53.59	59.23	63.02	51.85	57.63	75.88	65.08	70.39
COAST	80.15	69.58	74.93	78.43	65.98	72.36	85.65	80.02	82.76
Embu	91.52	92.03	91.78	91.74	92.41	92.07	87.30	85.57	86.39
Isiolo	64.22	53.46	58.96	55.66	43.90	49.96	87.68	78.19	82.94
Kitui	89.47	89.43	89.45	89.44	89.48	89.46	92.17	86.06	89.01
Machakos	93.10	93.85	93.47	93.18	94.06	93.61	91.00	88.71	89.81
Marsabit	46.35	33.07	40.17	38.88	24.69	32.34	83.23	69.92	76.71
Meru	85.84	87.23	86.53	85.86	87.38	86.61	85.23	81.50	83.26
EASTERN	88.16	88.52	88.34	88.16	88.75	88.45	87.98	83.09	85.45
Garissa	35.82	18.70	27.65	23.17	7.76	15.85	83.11	58.13	71.01
Mandera	35.33	17.57	27.22	19.19	6.71	13.47	82.16	49.87	67.56
Wajir	30.07	17.69	24.38	19.21	8.23	14.19	77.26	57.20	67.88
N. EASTERN	33.71	18.01	26.41	20.56	7.61	14.55	81.04	54.92	68.83
Kisii	93.62	93.03	93.32	93.69	93.25	93.47	91.82	87.82	89.76
Kisumu	93.70	90.88	92.28	94.17	92.71	93.46	92.29	86.30	89.09
Siaya	93.24	91.70	92.48	93.11	92.12	92.63	92.93	85.67	88.87
S. Nyanza	93.65	91.23	92.47	93.63	91.36	92.52	94.19	88.78	91.22
NYANZA	93.57	91.89	92.74	93.65	92.36	93.02	92.54	86.92	89.54
Baringo	84.12	83.75	83.94	83.61	83.51	83.56	92.07	86.89	89.32
E. Marakwet	94.38	93.28	93.83	94.36	93.47	93.92	96.25	79.82	86.77
Kajiado	64.80	57.04	61.10	61.32	52.35	57.10	86.50	81.68	84.03
Kericho	93.96	94.07	94.02	94.03	94.32	94.17	91.41	86.35	88.77
Laikipia	87.63	86.57	87.12	87.34	86.59	86.97	91.94	86.40	89.04
Nakuru	91.86	90.36	91.12	91.75	91.15	91.45	92.38	87.42	89.78
Nandi	93.17	93.06	93.11	93.24	93.30	93.27	90.12	82.76	86.29
Narok	70.40	66.21	68.37	69.78	65.49	67.72	92.70	85.56	88.73
Samburu	43.60	28.99	36.02	37.10	22.46	30.10	65.18	42.43	53.53
T. Nzoia	88.61	87.68	88.14	88.75	88.60	88.67	87.33	80.68	83.71
Turkana	29.30	20.37	25.06	22.81	14.49	18.85	81.79	69.21	75.89
U. Gishu	91.76	90.04	90.89	92.27	92.29	92.28	89.42	81.54	85.14
W. Pokot	59.47	51.18	55.45	57.92	49.10	53.66	91.67	80.05	85.50
R. VALLEY	83.97	82.30	82.72	83.42	82.15	82.79	90.05	83.57	86.68
Bungoma	91.90	91.45	91.67	91.99	92.10	92.04	90.40	82.80	86.24
Busia	87.14	83.69	85.43	86.95	84.14	85.57	90.98	77.16	83.18
Kakamega	88.97	89.60	89.28	88.91	89.80	89.36	90.85	83.87	87.02
WESTERN	89.48	89.18	89.33	89.43	89.55	89.49	90.70	82.11	85.97
TOTAL	87.44	85.55	86.50	87.22	85.99	86.61	89.34	82.31	85.64

Using the quartile approach, the worse-off districts were considered to be those with under 60 per cent of the population aged 10 - 14 years attending school. These districts, mainly located in the hardship areas are: West Pokot, Turkana, Samburu, Wajir, Mandera, Garissa, Marsabit, Isiolo and Tana River. The better-off districts were those with over 90 per cent of the population aged 10 to 14 years attending school. In this category, all the Central Province districts, all the Nyanza Province districts, Embu, Machakos, Elgeyo Marakwet, Kericho, Nakuru, Nandi, Uasin Gishu and Bungoma districts were included. These results suggest that more efforts should still be placed on school enrolment especially in the hardship districts.

Variation in school enrolment in the districts by sex were mainly noted in these hardship districts and in Coast Province districts where the females were clearly disadvantaged. The analysis of the variation, by rural-urban residence, also revealed that there were no major differences in the better-off districts but the worse-off districts had very wide differences between the urban and rural. The proportion of population aged 10 to 14 years attending school in the urban population in these districts was about more than three times that of the rural population. This suggests heavy concentration of schooling facilities in the urban areas.

3.4. Population that Dropped Out of School

3.4.1. Analysis of the population that dropped out of school at national level

The proportion of the population that has left school to those who have ever attended school is a much better index of school drop-outs when compared with the proportion of the population that left school to the total population. The latter is heavily affected by the population that never attended school. The school drop-out ratios used in this volume were therefore computed as percentages of the population that had left school in 1989 out of those who had ever attended school.

The distribution of the population that had dropped out of school in 1989 by five year age group, sex and rural-urban residence is given in Table 3.11. Analysis of the population aged 6 years and above as reported during the 1989 population census shows that the proportions of the population aged 6-9 years who were found to have dropped out of school was 2 per cent. These proportions increased slightly to 4 per cent in the age group 10-14 years. The drop-out ratios increased substantially to 30 per cent in the age group 15-19 years which accommodates most of those in the secondary school age population (14 to 18 years). By age 20 years, over 80 per cent were found to have dropped out of school. The results demonstrate that school retention is highest at the ages corresponding to the lower primary school level, low at the secondary school age level and lowest at the higher education schooling ages.

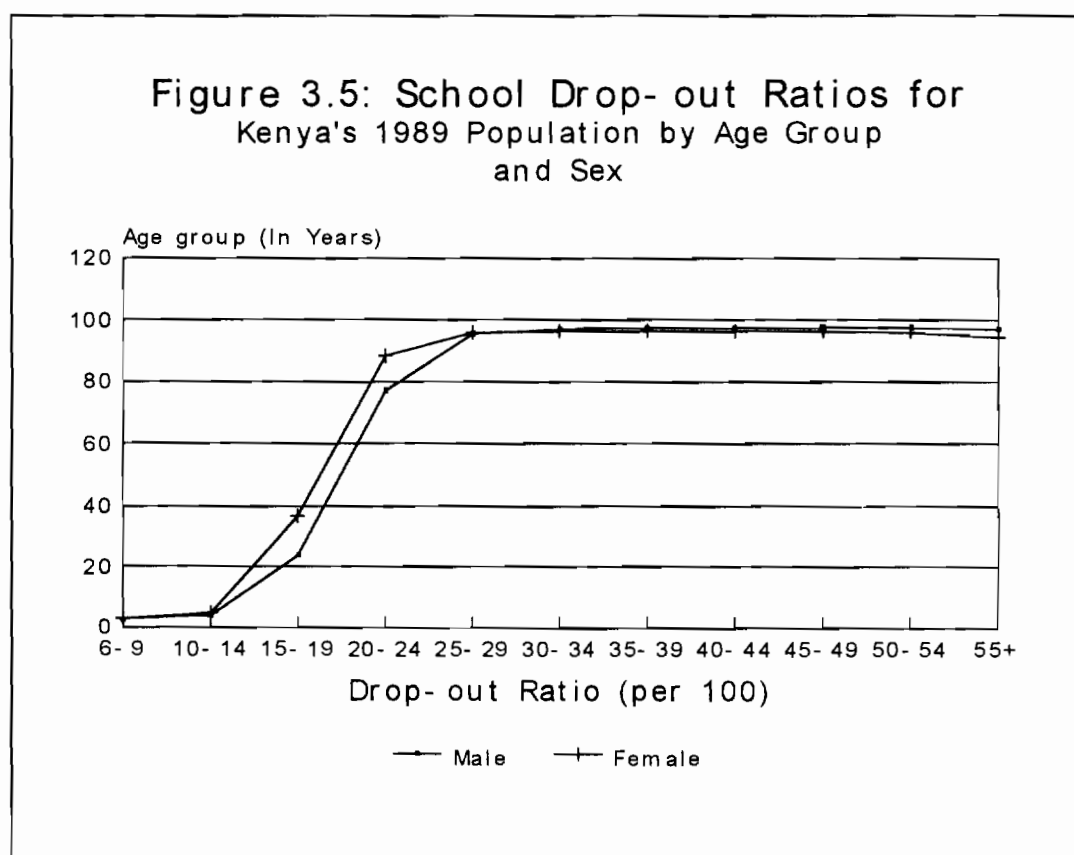
**Population that Had Dropped Out of School by Age Group,
Sex and Residence, 1989**

Table 3.11

Age Group	Percent that had dropped out of school								
	TOTAL			RURAL			URBAN		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
6 - 9	2.48	2.49	2.48	2.38	2.35	2.36	3.13	3.45	3.29
10 - 14	3.91	4.61	4.25	3.70	3.89	3.79	5.59	9.76	7.75
15 - 19	23.95	36.85	30.33	21.36	33.30	27.18	39.72	54.77	47.75
20 - 24	77.11	88.31	82.85	72.06	68.83	70.16	88.76	92.17	90.32
25 - 29	95.61	96.10	95.85	94.75	95.77	95.27	97.12	97.05	97.09
30 - 34	97.13	96.31	96.79	96.75	96.03	96.42	97.83	97.20	97.62
35 - 39	97.54	96.81	97.26	97.33	96.63	97.04	98.00	97.44	97.83
40 - 44	97.42	96.42	97.08	97.20	96.24	96.85	97.93	97.14	97.73
45 - 49	97.61	96.38	97.22	97.42	96.23	97.00	98.12	97.12	97.89
50 - 54	97.64	96.14	97.21	97.48	95.96	97.01	98.15	97.19	97.96
55 +	97.08	94.26	96.33	97.02	94.03	96.22	97.47	95.87	97.06
NS	81.65	78.11	80.30	80.26	78.14	79.43	87.37	77.95	84.17
Total	50.01	47.96	49.10	44.13	44.44	44.28	72.07	64.12	68.71

These results are consistent with the expectations given the pyramidal shaped nature of the educational opportunities in Kenya. A much clearer picture of the age pattern can be observed in figures 3.5 and 3.6 which depicts five year age group drop-out ratios by sex and rural-urban residence respectively.

Although the data reveal disparities in school drop-out ratios by sex, whereby the females were disadvantaged, these disparities start being wide after age 14 years which corresponds to the age for attending secondary school. However, the gap narrows very rapidly after age 20 years as shown in the figures.



The patterns of the school drop-out ratios by age group and sex were found to be similar in both the rural and urban areas. The school drop-out ratios in the urban were relatively higher than in the rural areas. The wide rural-urban disparities observed is a subject for further investigation. However, one of the possibilities that could be advanced is the selectivity of rural-urban migration whereby large proportions of those who migrate to the urban areas are school drop-outs.

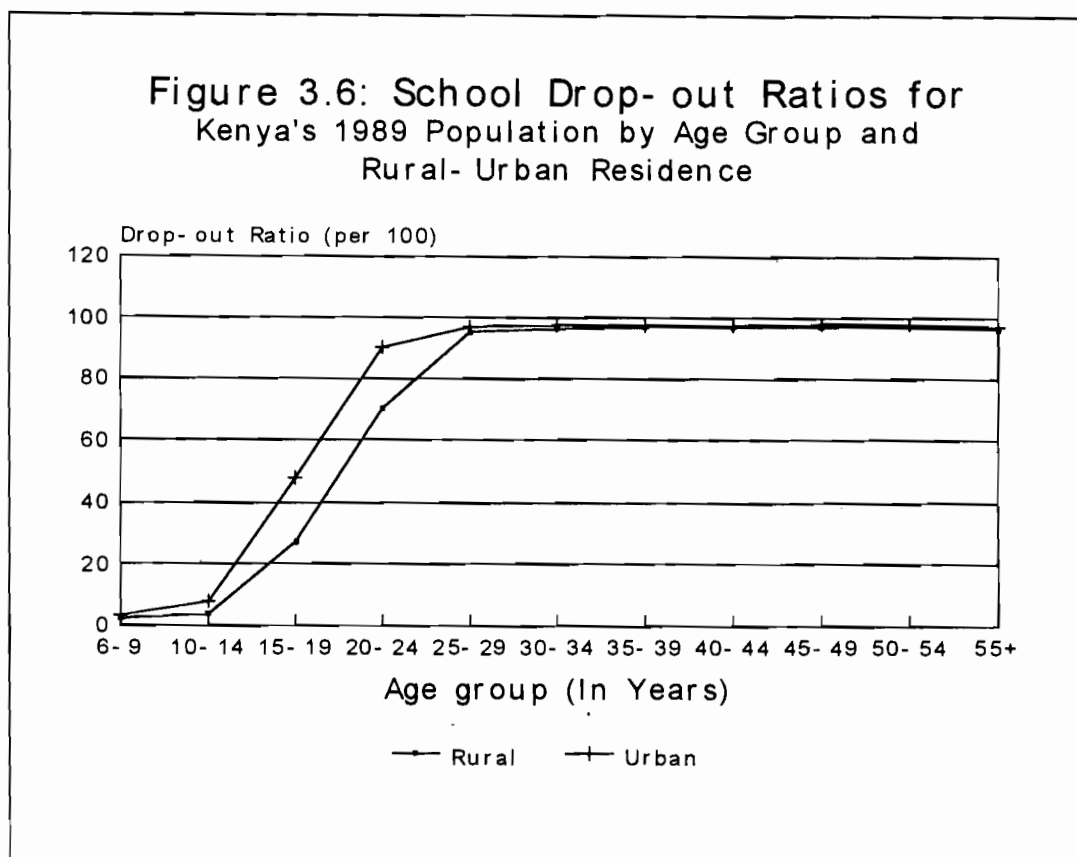


Table 3.12 indicates that deteriorating trends in school drop-out ratios recorded between 1979 and 1989 in the first two five year age groups. These very high increases in drop out ratios were recorded in the age groups 6-9 and 10-14 years were unexpected and could be attributed to increased costs of schooling. The decrease in the drop-out ratios in the age group 15 years and over could be attributed to the rapid expansion of higher educational opportunities between 1979 and 1989. The relative increase in drop-out ratios were recorded more for the females than males in the age group 6-9 years. In the age group 10-14 years, the situation was the reverse. Females in the age group 15-19 years recorded a relatively higher decline in the drop-out ratios when compared with their male counterparts. This is also an indication of expansion of secondary and higher level educational opportunities for females between 1979 and 1989. The deteriorating trends in the age groups 6-9 and 10-14 years is also a subject for further research. One of the possibilities that needs investigating is the impact of economic recession and structural adjustment programmes which came into effect towards the end of the nineteen eighties.

Trends in the Population That Had Dropped Out of School by Age Group and Sex, 1979 - 1989

Table 3.12

Age Group	Males			Females			Total		
	Per cent 1979	Per cent 1989	Per cent Change	Per cent 1979	Per cent 1989	Per cent Change	Per cent 1979	Per cent 1989	Per cent Change
6 - 9	0.92*	2.48	169.57	0.91*	2.49	173.63	0.92*	2.48	169.57
10 - 14	2.41	3.91	62.24	3.26	4.61	41.41	2.82	4.25	50.79
15 - 19	24.41	23.95	-1.88	40.92	36.85	-9.95	32.31	30.33	-6.13
20 - 24	81.53	77.11	-5.42	92.31	88.31	-4.33	86.32	82.85	-4.02
25 - 29	99.66	95.61	-4.06	99.79	96.10	-3.70	99.71	95.85	-3.87
30 - 34	99.88	97.13	-2.75	99.78	96.31	-3.48	99.85	96.79	-3.06
35 - 39	99.91	97.54	-2.37	99.80	96.81	-3.00	99.88	97.26	-2.62
40 - 44	99.92	97.42	-2.50	99.69	96.42	-3.55	99.85	97.08	-2.77
45 - 49	99.93	97.61	-2.32	99.72	96.38	-3.35	99.88	97.22	-2.66
50 - 54	99.89	97.64	-2.25	99.47	96.14	-3.35	99.79	97.21	-2.59
55 +	99.75	97.08	-2.68	99.06	94.26	-4.85	99.61	96.33	-3.29
NS	69.49	81.65	17.50	62.83	78.11	24.32	67.12	80.30	19.64
Total	47.56	50.10	5.34	41.93	47.96	14.38	45.09	49.10	8.89

1979 Population Census Unpublished tables.

Note: * Refers to age group 5-9 years.

3.4.2. Analysis of the population that dropped out of school at provincial level

The proportion of the population aged 10-14 years that had left school out of those that had ever attended school can be used to study regional differentials in school drop-outs. The population aged 10-14 years is expected to be in school and those who drop out at that age have not acquired much education since this implies dropping out at primary level. The estimates of school drop-out ratios in the age group 10-14 years are provided in Table 3.13 by province, sex and rural-urban residence.

Distribution Percentage of the Population Aged 10-14 that Had Dropped Out of School by Province, Sex and Rural-Urban Residence, 1989

Table 3.13

PROVINCE	TOTAL			RURAL			URBAN		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Nairobi	7.71	13.16	10.70	-	-	-	7.71	13.16	10.70
Central	3.97	4.01	3.99	3.89	3.73	3.82	5.80	9.51	7.77
Coast	5.53	7.46	6.43	5.01	6.66	5.76	5.22	6.50	6.34
Eastern	4.30	3.94	4.12	3.90	3.47	4.00	6.05	8.27	7.18
N. Eastern	4.94	8.67	6.15	7.80	15.07	9.68	2.15	5.15	3.29
Nyanza	2.72	3.93	3.33	2.62	3.57	3.08	4.05	7.89	6.02
R. Valley	3.57	4.10	3.85	3.46	3.57	3.52	4.64	8.67	6.76
Western	3.86	4.30	4.08	3.83	4.05	3.94	4.42	9.48	7.15
Kenya	3.90	4.61	4.25	3.69	3.88	3.79	5.59	9.76	7.75

The picture emerging from Table 3.13 is that Nyanza Province has the lowest drop-out ratio while Nairobi has the highest ratio. Coast Province comes in a distant second in the category of those with relatively higher drop-out ratios followed closely with North Eastern Province. The high drop-out ratio for Nairobi could be associated with urbanisation although it is not very clear how urbanisation increases school drop-out ratio.

The provincial data do not depict wide variations in school drop-out ratios by sex although the females had higher drop-out ratios when compared to the males except in Eastern Province. The relatively higher school drop-out ratio in the urban areas is evident in all provinces except in North Eastern. The drop-out ratio in the urban areas was on the average twice that in the rural areas.

3.4.3. Analysis of the population that dropped out of school at district level

The proportions of the population aged 10-14 years that had left school out of those that had ever attended school by district, sex and rural-urban residence are provided in Table 3.14. The range in the percentage values between the districts with the highest and lowest school drop-out rates was about 8.6. Nairobi had the highest ratio of 10.7 percent while Elgeyo Marakwet had the lowest ratio of 2.1 percent.

**Distribution Percentage of the Population aged 10-14 Years that Had Dropped
Out of School by Sex, District and Residence**

Table 3.14

DISTRICT	TOTAL			RURAL			URBAN		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Nairobi	7.71	13.16	10.70	-	-	-	7.71	13.61	10.7
Kiambu	3.92	4.71	4.31	3.78	4.20	3.99	5.55	9.64	7.74
Kirinyaga	5.64	4.84	5.24	5.59	4.66	5.13	7.23	10.81	9.20
Muranga	3.62	3.47	3.54	3.57	3.35	3.46	6.40	9.80	8.16
Nyandarua	3.78	3.81	3.79	3.73	3.62	3.67	4.66	7.09	5.97
Nyeri	3.63	3.46	3.54	3.51	3.19	3.35	6.21	8.55	7.45
CENTRAL	3.97	4.01	3.99	3.89	3.73	3.82	5.80	9.51	7.77
Kilifi	4.81	6.99	5.77	4.59	6.58	5.46	6.96	10.25	8.57
Kwale	6.00	8.43	7.08	6.03	8.44	7.09	2.89	7.43	5.17
Lamu	5.47	7.25	6.32	4.90	6.26	5.56	8.42	11.90	10.17
Mombasa	7.20	15.78	8.86	-	-	-	7.2	15.78	8.86
T. Taveta	4.55	4.76	4.66	4.09	4.02	5.04	4.67	6.91	5.82
T. River	4.96	7.11	5.91	4.79	7.00	5.76	6.00	7.62	6.77
COAST	5.53	7.46	6.43	5.01	6.66	5.76	5.22	6.50	6.34
Embu	4.59	4.32	4.46	4.41	4.02	4.24	8.00	8.93	8.49
Isiolo	8.99	11.81	10.26	10.99	13.67	12.15	5.28	8.94	7.05
Kitui	3.29	3.26	3.28	3.26	3.20	3.22	2.20	4.20	3.22
Machakos	3.48	3.13	3.31	3.41	2.97	3.20	5.43	7.13	6.31
Marsabit	6.14	9.62	7.51	6.61	11.06	8.23	3.20	4.21	3.64
Meru	5.57	4.77	5.16	5.52	4.62	5.07	7.23	10.33	8.87
EASTERN	4.30	3.94	4.12	4.24	3.76	4.00	6.05	8.27	7.18
Garissa	5.09	10.23	6.81	7.32	16.20	9.58	2.62	7.05	4.43
Mandera	5.51	9.01	6.56	10.33	18.57	12.36	1.92	4.52	2.81
Wajir	4.14	6.40	4.91	6.16	11.03	7.50	1.90	3.39	2.50
N. EASTERN	4.94	8.67	6.15	7.80	15.07	9.68	2.15	5.15	3.29
Kisii	2.16	2.67	2.42	2.10	2.54	2.32	3.68	6.02	4.87
Kisumu	3.30	5.46	4.38	2.96	4.23	3.58	4.32	8.64	6.60
Siaya	3.53	4.43	3.97	3.52	4.28	3.89	4.00	8.52	6.48
S. Nyanza	2.54	4.23	3.37	2.50	4.09	3.27	3.46	6.86	5.30
NYANZA	2.72	3.93	3.33	2.62	3.57	3.08	4.05	7.89	6.08
Baringo	2.29	2.47	2.37	2.26	2.16	2.20	2.86	6.27	4.66
E. Marakwet	1.86	2.27	2.07	1.85	2.16	2.00	1.92	11.22	7.08
Kajiado	5.46	6.37	5.87	5.47	5.52	5.49	5.43	9.12	7.30
Kericho	2.80	2.92	2.86	2.76	2.76	2.76	4.24	8.15	6.27
Laikipia	4.18	3.90	4.04	4.12	3.50	3.82	4.99	8.56	6.84
Nakuru	3.93	4.91	4.42	3.85	4.12	3.98	4.29	7.88	6.16
Nandi	2.92	3.21	3.06	2.85	3.04	2.94	5.94	10.45	8.24
Narok	4.61	5.37	4.96	4.67	5.25	4.94	2.92	7.88	5.65
Samburu	8.06	9.63	8.79	9.58	11.08	10.12	3.72	15.47	6.38
T. Nzoia	3.92	4.78	4.35	3.68	4.08	3.88	6.17	10.27	8.36
Turkana	8.52	11.67	9.76	10.76	13.95	11.96	3.03	7.32	4.91
U. Gishu	3.35	4.70	4.02	2.81	3.20	3.01	5.79	10.64	8.38
W. Pokot	4.19	5.71	4.87	4.30	5.52	4.84	2.75	8.17	5.51
R. VALLEY	3.57	4.10	3.85	3.46	3.57	3.52	4.64	8.67	6.76
Bungoma	3.07	3.80	3.42	2.94	3.35	3.15	5.19	10.07	7.83
Busia	4.01	5.42	4.71	4.03	5.02	4.52	3.53	11.49	7.87
Kakamega	4.17	4.26	4.22	4.17	5.13	4.15	4.10	8.05	6.22
WESTERN	3.86	4.30	4.08	3.83	4.05	3.94	4.42	9.48	7.15
KENYA	3.90	4.61	4.25	3.69	3.88	3.79	5.59	9.76	7.75

Using the quartile approach described earlier, the districts considered to be in the worse-off category were those with drop-out ratios of 8.8 percent while those with 3.5 percent or less were considered to be in the better-off category. The data revealed that the five districts in

the worse-off category were Nairobi, Isiolo, Turkana, Mombasa, and Samburu in that order from the worst. The results confirm the predominance of school drop-out problems in the hardship districts and in the urban areas.

The districts with relatively low school drop-out ratios were Elgeyo-Marakwet, Baringo, Kisii, Kericho, Nandi, Kitui, Machakos, South Nyanza and Bungoma.

Variations in drop-out ratios by sex were not large. The difference between the males and the females ratios were generally under 2 percent in most districts. The females had generally slightly higher drop-out ratios when compared to the males. It was mainly in the two urban districts of Nairobi and Mombasa where differentials in drop-out ratio by sex were large (more than 5 per cent). In these two urban districts, the drop-out ratios for the females were about twice as much as those for the males. Similarly, the drop-out ratios in the urban areas were nearly twice as much as for the rural areas in most districts.

CHAPTER 4 - SCHOOL ENROLMENT

4.1. Introduction

The 1989 population census figures of persons reported to be attending school by class or form attending were obtained by way of addition. The people who were reported to be attending school were also required to state the highest class or form completed. The class or form that the person was attending in school was computed by adding one to the reported highest class or form completed. Those who were attending school but had their highest class completed coded as none were assumed to be attending class one. Similarly, those who reported to have completed class eight and were still in school were assumed to be attending form 1. Those attending universities as undergraduates and postgraduates had special codes.

There is evidence in the census data that there were some errors in the recorded highest class/form completed for those that were reported to be at school. First, those attending class one shared the same code with those who never stated their class or form completed. Secondly, it appears that some respondents confused the education level reached with education level completed. This is reflected in the very large proportion of the population attending school that reported to have completed standard 8 or form 4 and thus by deduction were attending form 1 and form 5 or university respectively. It should be noted that there were no form 5 classes in 1989 except in very few schools not following the 8-4-4 system of education. The confusion on education level reached with level completed is further reflected by an equally large proportion who reported to be attending school and had completed form 6 which by deduction placed them at the undergraduate level at the university and yet were not coded as undergraduates in the census data. On the basis of this evidence, there is a very strong possibility that some respondents understood formal schooling to include post-primary and post-secondary training institutions such as teacher training colleges, polytechnic and other colleges. The 1989 census figures on current enrolment for class 1, form 1 and for classes beyond form 5 are of low quality. Assessment of the quality of the census figures was also done by comparing them with the 1989 school enrolment records.

In this chapter, the results of the analysis of the 1989 census data on current enrolment, scholastic retardation and progression are presented. The analysis was seriously limited by the poor quality of the data used.

4.2. Current enrolment

Analysis of the 1989 census data on current enrolment was done mainly by comparing the census figures of persons attending school with school enrolment records for the year 1989.

At the time of preparing this volume the analysis results of the data collected by the Ministry of Education on school census in 1989 were not available and for that reason it was not also possible to undertake in-depth comparative analysis of the age data contained in the population census with the school enrolment records. The results are presented below in three subsections namely: National, Provincial and District levels.

4.2.1. National level analysis of current enrolment

Table 4.1 shows the distribution of the 6.2 million people reported to be attending school in 1989 by broad educational level and sex. The corresponding school enrolment figures from school enrolment records are also given. Computations of the census figures provided in Table 4.1 reveal that in 1989 about 87 per cent of those attending school were in primary standard 1-8 level and that the proportion of those attending secondary form 1-4 level and higher (form 5+) were 11 per cent and 2 per cent respectively. When these figures are compared with the 1979 population census figures (CBS, 1979, Table 4.5:49) it is apparent that the distribution had not changed although the proportion attending secondary school increased slightly in 1989.

**Comparison of Census Figures of Persons Attending School
with School Enrolment Records by Sex**

Table 4.1

Class/Form	TOTAL			MALE			FEMALE		
	1989 Census	School Enrolment Record	Per cent Disc	Census	Enrolment Record	Per cent Disc	Census	Enrolment Record	Per cent Discrepancy
Primary Std 1-8	5,413,833	5,389,148	0.5	2,788,470	2,766,002	0.8	2,625,363	2,623,146	0.1
Secondary Form 1-4	665,639	609,150	9.3	378,267	361,717	4.6	287,372	247,433	16.1
Form 5 +	139,977	58,879	137.7	88,143	-	-	51,834	-	-
Total	6,219,449	6,057,177	2.7	3,254,880	-	-	2,964,569	-	-

Education Statistics - Ministry of Education.

Note: Per cent Discrepancy = (Census figures - School enrolment)/(School enrolment)*100

Further computations of the figures contained in Table 4.1 also reveal that there were disparities by sex in the 1989 census figures of persons attending school. At primary standard 1 to 8 level, the disparity by sex was very small whereby males formed 52 percent while the females were 48 per cent. At secondary form 1-4 level, the disparity widened such that the males attending formed 57 per cent of enrolment compared to 43 per cent for females. The disparity widened further at higher level (form 5+) where the percentage of males and females attending were 63 per cent and 37 per cent respectively. These disparities by sex are also confirmed when school enrolment records are applied.

In comparing the census figures with school enrolment records, it is evident that there is more discrepancy; there is a relatively large inconsistency on secondary form 1-4 enrolments (9 per cent discrepancy) and unacceptably very large inconsistency (138 per cent) at higher level. The school enrolment figures suggest over-reporting in the census figures on school enrolment at all levels.

A much clearer picture of the inconsistency between the census figures and school enrolment records is provided in Table 4.2 which gives the comparison by class and sex. The Table shows clearly that the disparity was mainly caused by under-reporting of standard 1; over-reporting of standard 8, form 1 and form 5+ in the 1989 census. One possible explanation for the discrepancies noted in standard 1, form 1 and form 5 was discussed in section 4.1. The over-reporting of standard 8 enrolment could possibly be explained either by persons who completed standard 7 in the 7-6-3 system of education and were attending some vocational training institutions or those who stated the level reached instead of the

level completed. There was no distinct pattern that emerged when the analysis of the discrepancy between the census and school enrolment figures was done by sex, although the male percentage was generally lower when compared with the females.

**Comparison of Census Figures of Persons Attending School
with School Enrolment Records by Class and Sex**

Table 4.2

CLASS	TOTAL			MALE			FEMALE		
	1989 Census	School Enrolment Record	Per cent Diff	Census	Enrolment Record	Per cent Diff.	Census	Enrolment Record	Per cent Diff.
Standard 1	854,513	939,488	-9.0	446,487	482,214	-7.4	408,026	457,274	-10.8
Standard 2	846,142	821,412	3.0	434,983	424,134	2.6	411,159	397,278	3.5
Standard 3	747,259	748,761	-0.2	382,885	385,277	-0.6	364,374	363,484	0.2
Standard 4	679,628	685,282	-0.8	350,069	351,302	-0.4	329,559	333,980	-1.3
Standard 5	640,861	618,421	3.6	326,682	312,946	4.4	314,179	305,475	2.8
Standard 6	569,628	576,354	-1.2	287,627	290,581	-1.0	282,001	285,773	-1.3
Standard 7	583,606	584,820	-0.2	297,507	295,453	0.7	286,099	289,367	-1.1
Standard 8	492,196	414,610	18.7	262,230	224,095	17.0	229,966	190,515	20.7
Form 1	238,669	166,748	43.1	133,332	97,725	36.4	105,337	69,023	52.6
Form 2	151,716	158,975	-4.6	85,015	93,866	-9.4	66,701	65,109	2.4
Form 3	147,065	144,426	1.8	83,521	85,471	-2.3	63,544	58,955	7.8
Form 4	128,189	139,001	-7.8	76,399	84,655	-9.8	51,790	54,346	-4.7
Form 5 +	139,977	58,879	137.7	88,143	-	-	51,834	-	-

Education Statistics - Ministry of Education.

Note: Per cent Difference = (Census figures - School enrolment)/(School enrolment)*100

To determine whether the completed levels stated were in fact the levels reached, the comparison shown in Table 4.3 was done without making any adjustments to the census figures. Assuming that the level stated was the level reached and not the level completed, the discrepancies between the census and the school enrolment figures become wider in the primary standard 1 to 8 level with standard 8 having the highest under-reporting of 42 per cent. However, the earlier very high over-enumeration percentages for form 1 and form 5+ turn out to be only moderate under-reporting of 9 per cent and 4 per cent respectively as indicated in Table 4.3. The truth nevertheless lies somewhere between the two. Due to non-availability of the school enrolment record figures by age, it was not possible to do a comparative analysis of current school enrolment by age.

**Comparison of Census Figures of Persons attending School
with School Enrolment Records by Class and Sex Assuming Repeated Class is Class
Reached**

Table 4.3

Class	TOTAL			MALE			FEMALE		
	1989 Census Figures	School Enrolment Record	Per cent Diff.	Census	Enrolment Record	Per cent Diff.	Census	Enrolment Record	Per cent Diff.
Std 1	847,593	939,488	-9.8	435,724	482,214	-9.6	411,869	457,274	-9.9
Std 2	748,006	821,412	-8.9	383,293	424,134	-9.6	364,713	397,278	-8.2
Std 3	680,300	748,761	-9.1	350,403	385,277	-9.1	329,897	363,484	-9.2
Std 4	641,460	685,282	-6.4	327,024	351,302	-6.9	314,436	333,980	-5.9
Std 5	569,849	618,421	-7.9	287,763	312,946	-8.0	282,086	305,475	-7.7
Std 6	584,022	576,354	1.3	297,740	290,581	2.5	286,282	285,773	0.2
Std 7	493,895	584,820	-15.5	263,152	295,453	-10.9	230,743	289,367	-20.3
Std 8	239,530	414,610	-42.2	133,896	224,095	-40.3	105,634	190,515	-44.6
Form 1	151,662	166,748	-9.0	84,977	97,725	-13.0	66,685	69,023	-3.4
Form 2	146,977	158,975	-7.5	83,461	93,866	-11.1	63,516	65,109	-2.4
Form 3	128,128	144,426	-11.3	76,344	85,471	-10.7	51,784	58,955	-12.2
Form 4	837,829	139,001	-39.7	49,702	84,655	-41.3	34,080	54,346	-37.3
Form 5 +	56,545	58,879	-4.0	38,681	-	-	17,864	-	-

Education Statistics - Ministry of Education.

Note: Per cent Difference = (Census figures - School enrolment)/(School enrolment)*100

Table 4.4 shows that gross enrolment ratios based on the 1989 population census figures were 106 per cent, 26 per cent and 2 per cent for primary, secondary and post secondary levels respectively. These enrolment ratios were relatively high when compared with ratios for other countries in the region as depicted in the table. Enrolment ratios for secondary and post secondary levels could have been higher if teacher and vocational training as well as distant learning institutions had been included as was the case for the other countries' figures shown in the table.

Gross Enrolment Ratios by Level of Education for Selected Countries in The Eastern and Central Africa, 1988 and for Kenya, 1989

Table 4.4

Country	Primary (Level 1)				Secondary (Level 2)				Post Secondary (Level 3)		
	D	G.E.R			D	G.E.R			G.E.R		
		TOTAL	MALE	FEMALE		TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
Botswana	7	116	114	119	5	33	32	33	2.7	3.4	2.1
Ethiopia	6	36	44	28	6	15	17	12	0.9	1.4	0.3
Lesotho	7	113	102	123	5	25	20	31	3.7	2.1	5.5
Madagascar	5	97	99	95	7	19	20	19	3.5	4.0	3.0
Malawi	8	72	79	65	4	4	6	3	0.5	0.8	0.3
Mauritius	6	105	104	105	7	53	53	53	1.9	2.2	1.3
Mozambique	5	68	76	59	7	5	7	4	0.2	0.3	0.1
Swaziland	7	105	105	104	5	44	45	43	3.5	4.1	2.9
Tanzania	7	64	64	64	6	4	5	3	0.3	0.5	0.1
Uganda	7	77	84	70	6	13	17	9	0.8	1.2	0.5
Zambia	7	95	99	91	5	20	25	14	2.1	3.1	1.1
Zimbabwe	7	128	130	126	6	51	60	42	5.5	7.6	3.5
Kenya	8	106	109	103	6	26	30	22	2.0	2.9	1.2

Sources: UNESCO, 1991 World Education Report Tables 4. 6 and 8

Key: D - Duration

G.E.R - Gross Enrolment Ratio

Notes: G.E.R = ((Total enrolment regardless of age)/(Population of age group officially corresponding to the level))*100

Kenya's Level 1 G.E.R = ((Enrolments Std 1 to 8)/(Population 6-13 years))

" " 2 " = ((Enrolments form 1 to 6)/(Population 14-19 years))

" " 3 " = ((Enrolments post form 6)/(Population 20-24 years))

4.2.2. Provincial level analysis of current enrolment

Due to the poor quality of data as already mentioned, analysis of current enrolment at provincial level was restricted to the comparison of the census figures of persons attending primary school with school enrolment records.

Comparison of Census Figures of Persons Attending Primary School with Enrolment Records by Province

Table 4.5

PROVINCE	Census Figures	School Enrolment	Percent Discrepancy
Nairobi	178,941	179,829	-0.5
Central	882,467	901,027	-2.1
Coast	352,944	348,589	1.2
Eastern	1,031,318	998,373	3.3
N. Eastern	28,781	31,094	-7.4
Nyanza	1,000,515	982,302	1.9
R. Valley	1,201,908	1,213,097	-0.9
Western	736,175	734,837	0.2
Kenya	5,413,833	5,389,148	0.5

Education Statistics - Ministry of Education.

Note: Discrepancy per cent = (Census figure - School enrolment)/(School enrolment)*100

The percentage distribution of disagreements between census and school records shown in Table 4.5 suggest that there was agreement in nearly all the provinces except for North Eastern. Much agreement was seen in Western, Nairobi and Rift-Valley Provinces although the percentage discrepancies were within acceptable range (under 5) in the other provinces. It should be noted that provincial figures can mask wide differentials in some indices.

4.2.3. District level analysis of current enrolment

Comparison of census figures of persons attending primary school with school enrolment records by district can also serve as an index for detecting districts with possible overall under-enumeration or over-enumeration especially when the migration element is in-built into the analysis. Table 4.6 provides the percentages of the discrepancy between census figures and school enrolment records by district.

Using the percentage discrepancy of excess of 5 in either direction, as a measure of major over or under-enumeration, seven districts fell into the category with over-enumeration possibility while 10 districts fell into the category of possible under-enumeration.

**Comparison of Census Figures of Persons Attending Primary School with School
Enrolment Records by District**

Table 4.6

DISTRICT	CENSUS FIGURES	SCHOOL ENROLMENT	PER CENT DISCREPANCY
Nairobi	178,941	179,829	-0.5
Kiambu	232,238	227,343	2.2
Kirinyaga	109,912	106,476	3.2
Muranga	261,021	286,769	-9.0
Nyandarua	98,955	97,076	1.9
Nyeri	180,341	183,363	-1.6
CENTRAL	882,467	901,027	-2.1
Kilifi	116,476	120,534	-3.4
Kwale	71,076	76,202	-6.7
Lamu	12,706	13,904	-8.6
Mombasa	73,053	56,876	28.4
T. Taveta	56,823	57,623	-1.4
T. River	22,810	23,450	-2.7
COAST	352,944	348,589	1.2
Embu	110,110	104,330	5.5
Isiolo	10,959	11,442	-4.2
Kitui	179,248	176,687	1.4
Machakos	418,054	413,821	1.0
Marsabit	13,453	14,647	-8.2
Meru	299,494	277,446	7.9
EASTERN	1,031,318	998,273	3.3
Garissa	10,364	12,213	-15.1
Mandera	9,562	9,865	-3.1
Wajir	8,855	9,016	-1.8
N. EASTERN	28,781	31,094	-7.4
Kisii	350,564	325,578	7.7
Kisumu	173,525	175,218	-1.0
Siaya	181,990	188,123	-3.3
S. Nyanza	294,436	293,374	0.4
NYANZA	1,000,515	982,302	1.9
Baringo	76,114	81,412	-6.5
E. Marakwet	62,631	70,711	-11.4
Kajiado	40,415	42,065	-3.9
Kericho	266,362	257,484	3.4
Laikipia	54,545	56,005	-2.6
Nakuru	212,948	213,479	-0.2
Nandi	127,737	122,500	4.3
Narok	76,791	72,793	5.5
Samburu	11,678	14,214	-17.8
T. Nzoia	106,819	101,008	5.8
Turkana	13,692	29,793	-54.0
U. Gishu	117,509	108,243	8.6
W. Pokot	34,488	43,390	-20.5
R. VALLEY	1,201,908	1,213,097	-0.9
Bungoma	216,989	224,992	-3.6
Busia	109,488	108,772	0.7
Kakamega	409,590	401,073	2.1
WESTERN	736,175	734,837	0.2
KENYA	5,413,833	5,389,148	0.5

Education Statistics - Ministry of Education

Note: Discrepancy % = (Census figure - School enrolment)/(School enrolment)*100

The seven districts with possible over-enumeration in a descending order of magnitude were Mombasa, Uasin Gishu, Meru, Kisii, Trans-Nzoia, Narok and Embu. In this category, Mombasa district recorded the highest discrepancy of 28 per cent.

The majority of the districts in the category of possible under-enumerations were mainly in the hardship areas. Turkana district had the highest percentage of discrepancy (-54 per cent). The ten districts in this category arranged in a descending order of magnitude were Turkana, West Pokot, Samburu, Garissa, Elgeyo Marakwet, Muranga, Lamu, Marsabit, Kwale and Baringo.

4.3. Scholastic Retardation

4.3.1. National level analysis of scholastic retardation.

A crude measure of scholastic retardation was computed based on information on the reported ages of the persons attending primary school in 1989. The analysis was restricted to the primary school level due to its relatively better quality of enrolment figures. The formula used in the computation was as follows:

$$\text{Scholastic Retardation Rate} = \frac{\text{Persons attending Primary aged 14 years and over}}{\text{All persons attending primary}} \times 100$$

The cut-off point of age 14 years is based on the "proper" schooling ages for primary standards one to eight which is 6 to 13 years. Any person attending primary level aged 14 years and above must have either started school late or must have repeated some class.

The crude rate therefore accommodates both late starters and repeaters. Table 4.7 indicates that about 29 per cent of the persons attending primary school level in 1989 were supposed to have completed if they had gone to school at the correct age and if they had not repeated.

The data also indicate that scholastic retardation is higher in the rural areas than in the urban. The males also had a slightly higher retardation rate when compared with the females in both the urban and rural areas.

Scholastic Retardation by Sex and Rural - Urban Residence

Table 4.7

REGION	Proportion of primary enrolments aged 14 yrs +		
	Male	Female	Total
Kenya	30.7	27.4	29.1
Rural	31.6	28.3	30.0
Urban	23.4	19.8	21.6

4.3.2 Provincial level analysis of scholastic retardation

The provincial level analysis results shown in Table 4.8 suggest that scholastic retardation is relatively lower in Nairobi (17 per cent) and higher in Eastern and Western provinces (33 per cent and 30 per cent respectively). Disparities by sex were not wide except in North Eastern Province. The national pattern by sex and rural - urban residence is maintained at provincial level except in North Eastern Province where the urban residents have higher retardation rate. In Central Province, there is also a conspicuously higher male retardation rate compared with the females in the rural areas. It is not clear whether going to school late or repeating is responsible for the observed retardation rates.

Scholastic Retardation Rates by Sex, Province and Residence, 1989

Table 4.8

PROVINCE	PERCENTAGE OF PRIMARY SCHOOL ENROLLMENT AGED 14 YRS +								
	TOTAL			RURAL			URBAN		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Nairobi	18.3	15.7	17.0	-	-	-	18.3	15.7	17.0
Central	27.0	25.6	26.3	27.2	13.4	20.3	21.0	19.3	20.2
Coast	33.1	28.4	30.8	34.4	30.3	32.4	29.4	23.9	26.7
Eastern	33.5	31.8	32.7	33.8	32.1	33.0	25.8	23.1	24.5
N. Eastern	34.5	22.9	28.7	35.0	20.8	27.9	34.1	23.9	29.0
Nyanza	30.6	26.0	28.3	31.0	26.4	28.7	25.0	21.1	23.1
R. Valley	30.4	26.1	28.3	31.2	26.7	29.0	22.9	20.1	21.5
Western	33.6	29.7	31.7	34.0	30.0	32.1	23.5	22.2	22.8
Kenya	30.7	27.4	29.1	31.6	28.3	30.0	23.4	19.8	21.6

4.3.3 District level analysis of scholastic retardation.

Not very wide disparity existed between the district with lowest and the highest retardation rate. Kitui scored the highest scholastic retardation rate (38 per cent) based on our index while Nairobi had the lowest score (17 per cent).

It should be noted that Nairobi was in a class of its own since the second lowest district of Nakuru had a 24 per cent score. Table 4.9 gives the retardation rates by district.

Using the quartile approach to group the districts into categories based on obtained scholastic retardation rates, the better-off districts were those that scored under 24 per cent .

Those were only three namely Nairobi, Nakuru and Kiambu. The worse-off districts were those with over 32 per cent score. These arranged in a descending order were: Kitui, West Pokot, Turkana, Machakos, Kwale, Bungoma, Kilifi, Taita - Taveta, Busia, Baringo and Kakamega.

Disparities in retardation rates by sex at district levels were not very wide. Districts with differences between the male and female rates exceeding 5 were: Kilifi, Kwale, Marsabit, Mandera, Wajir, South Nyanza, Kajiado, Narok, Samburu, Turkana and

Scholastic Retardation Rates by Sex, District and Residence

Table 4.9:

DISTRICT	PERCENTAGE OF PRIMARY SCHOOL ENROLMENTS AGED 14 YRS and over								
	TOTAL			RURAL			URBAN		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Nairobi	18.3	15.7	17.0	-	-	-	18.3	15.7	17.0
Kiambu	24.5	23.0	23.8	24.8	23.4	24.1	21.0	18.5	19.8
Kirinyaga	29.2	27.5	28.4	29.3	27.6	28.5	23.1	22.8	23.0
Muranga	27.7	27.4	27.6	27.8	26.8	27.3	21.2	19.3	20.3
Nyandarua	27.9	26.1	27.0	28.3	26.4	27.4	19.4	19.0	19.2
Nyeri	27.2	26.2	26.7	27.5	26.5	27.0	20.8	20.2	20.5
CENTRAL	27.0	25.6	26.3	27.2	13.4	20.3	21.0	19.3	20.2
Kilifi	34.7	29.8	32.3	34.8	30.4	32.6	33.5	25.0	29.3
Kwale	35.2	30.4	32.8	35.2	30.5	32.9	28.2	25.5	26.9
Lamu	31.6	27.5	29.6	31.1	28.2	29.7	34.6	23.9	29.3
Mombasa	28.4	23.3	25.9	-	-	-	28.4	23.3	25.9
T. Taveta	33.0	30.6	31.8	33.3	30.8	32.1	30.6	29.0	29.8
T. River	33.3	27.9	30.6	33.7	28.7	31.2	30.9	23.5	27.2
COAST	33.1	28.4	30.8	34.4	30.3	32.4	29.4	23.9	26.7
Embu	30.6	30.0	30.3	31.0	30.4	30.7	22.7	21.9	22.3
Isiolo	27.6	24.0	25.8	29.0	25.9	27.5	25.2	21.3	23.3
Kitui	39.1	36.1	37.6	39.3	36.3	37.8	23.9	22.6	23.3
Machakos	34.1	32.2	33.2	34.3	32.5	33.4	28.8	26.1	27.5
Marsabit	29.8	23.1	26.5	31.9	23.2	27.6	25.1	22.7	23.9
Meru	30.8	29.8	30.3	31.0	30.0	30.5	23.3	21.4	22.4
EASTERN	33.5	31.8	32.7	33.8	32.1	33.0	25.8	23.1	24.5
Garissa	32.1	31.0	26.6	32.4	18.9	25.7	31.8	22.0	26.9
Mandera	37.8	23.0	30.4	39.1	21.2	30.2	36.9	23.7	30.3
Wajir	33.6	24.9	29.3	34.3	22.2	28.3	32.9	26.6	29.8
N. EASTERN	34.5	22.9	28.7	35.0	20.8	27.9	34.1	23.9	29.0
Kisii	31.2	28.8	30.0	31.4	29.1	30.3	26.7	23.0	24.9
Kisumu	27.0	22.7	24.9	27.8	23.4	25.6	24.7	21.0	22.9
Siaya	31.7	27.1	29.4	32.0	27.2	29.6	25.1	22.9	24.0
S. Nyanza	31.2	23.7	27.5	31.4	24.0	27.7	24.6	18.6	21.6
NYANZA	30.6	26.0	28.3	31.0	26.4	28.7	25.0	21.1	23.1
Baringo	32.5	30.0	31.3	33.0	30.3	31.7	26.7	26.1	26.3
E. Marakwet	32.0	30.2	31.1	32.1	30.2	31.2	25.5	25.7	25.6
Kajiado	27.5	21.9	24.7	29.1	23.2	26.2	20.4	17.6	19.0
Kericho	31.6	25.7	28.7	31.7	25.8	28.8	25.1	22.7	23.9
Laikipia	26.8	24.4	25.6	27.4	25.1	26.3	18.2	16.1	17.2
Nakuru	24.9	22.5	23.7	17.2	14.9	16.1	19.9	18.2	19.1
Nandi	32.7	28.1	30.4	32.8	28.2	30.5	25.5	21.1	23.3
Narok	30.6	23.7	27.2	31.0	24.0	27.5	19.4	18.2	18.8
Sanburu	39.7	26.8	33.3	41.3	26.9	34.1	34.1	26.6	30.4
T. Nzoia	30.9	26.8	28.9	31.5	27.4	29.5	25.3	21.4	23.4
Turkana	37.2	29.5	33.4	39.3	31.5	35.4	32.6	26.1	29.4
U. Gishu	30.6	27.3	29.0	32.1	35.2	33.7	23.5	20.1	21.8
W. Pokot	38.7	30.7	34.7	39.7	31.7	35.7	23.8	20.8	22.3
R. VALLEY	30.4	26.1	28.3	31.2	26.7	29.0	22.9	20.1	21.5
Bungoma	35.0	30.2	32.7	43.0	30.7	36.9	24.4	22.8	23.6
Busia	34.3	29.1	31.8	34.9	29.5	32.2	22.1	23.0	22.6
Kakamega	32.6	29.6	31.1	32.8	29.9	31.4	22.9	21.2	22.1
WESTERN	33.6	29.7	31.7	34.0	30.0	32.1	23.5	22.2	22.8
KENYA	30.7	27.4	29.1	31.6	28.3	30.0	23.4	19.8	21.6

West Pokot. The males had higher retardation rates compared with the females in both the rural and urban areas. Wide disparities were noted between rural and urban areas with urban areas scoring lower retardation rates.

4.4. Scholastic Progression

4.4.1. National level analysis of scholastic progression

An index depicting rate of movement from one class/level to another is essential in determining the prospects or opportunities for mobility that exist within the education system for those attending school. Due to scanty information gathered during the 1989 census, a crude index was computed using the formula below:

$$\text{Scholastic Progression Rate} = \frac{\text{Form 1 enrolments}}{\text{Standard 8 enrolments}} \times 100$$

It would have been desirable to compute an index depicting movement from secondary level to university level but this was not possible due to reasons already explained. The crude index obtained is therefore a measure of flow from primary level to secondary level. The measures obtained are only approximate due to the following two main reasons. First, the census figures for form 1 and standard eight enrolments had different over-enrolment rates. Secondly, in an expanding total population such as Kenya's, the age cohorts of the standard eights will be 3 to 4 percent bigger than the form ones. A more refined measure could have been the proportion of the cohort that were standard 8 in 1988 and which enrolled in form 1 in 1989. Unfortunately such information could not be computed from the census data.

Table 4.10 provides information on the proportions of the form 1 to standard 8 enrolment by sex and rural - urban residence in 1989. The data shows that only 49 per cent move from primary level to secondary level. By implication, the wastage rate between these two levels is about 50 per cent. The data also shows that the males have better prospects for progression to the next level when compared to the females and that the urban dwellers have even better prospects when compared to the rural dwellers. This information can also be used as an index of opportunities and of facilities available for secondary schooling.

Scholastic Progression Rates by Sex and Rural - Urban

Table 4.10

REGION	Percentage of Form 1 to Std 8 enrolments		
	Male	Female	Total
Kenya	50.8	45.8	48.5
Rural	49.6	44.2	47.1
Urban	60.1	56.8	58.5

4.4.2 Provincial level analysis of scholastic progression

The provincial level data given in Table 4.11 indicate that scholastic progression rates are higher in Nairobi (68 per cent) and Central (55 per cent). The rates are lower in Nyanza and Western (44 per cent). The national rural - urban and sex patterns are also confirmed at provincial level. In all the provinces, the males have better prospects for progression in both the rural and urban areas except in Eastern Province urban area. Except for North Eastern Province, the urban areas have better prospects in all the provinces when compared to their rural counter-parts.

Scholastic Progression Rates by Sex, Province, and Residence, 1989

Table 4.11

PROVINCE	PERCENTAGE OF FORM 1 TO STD 8 ENROLMENT								
	TOTAL			RURAL			URBAN		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Nairobi	69.0	65.9	67.5	-	-	-	69.0	65.9	67.5
Central	56.7	52.3	54.5	56.6	52.2	54.4	58.9	53.4	56.1
Coast	47.8	43.9	46.2	43.7	39.0	41.9	56.9	52.8	55.1
Eastern	50.6	45.5	48.1	50.6	45.0	47.9	50.7	56.8	53.5
N. Eastern	47.2	43.9	46.4	53.3	51.5	52.3	44.3	41.9	43.6
Nyanza	46.7	40.4	43.9	46.2	39.8	43.4	51.9	45.9	49.1
R. Valley	50.4	43.6	47.4	49.3	41.9	46.0	60.6	55.2	57.9
Western	46.7	41.5	44.2	46.1	41.1	43.7	60.3	49.0	54.5
Kenya	50.8	45.8	48.5	49.6	44.2	47.1	60.1	56.8	58.5

4.4.3 District analysis of scholastic progression

The range between the districts with the highest scholastic progression rate and the lowest is fairly large. Nairobi's rate was 68 per cent while West Pokot which had the lowest rate scored 33 per cent. Table 4.12 shows the percentages of scholastic progression of the districts in 1989.

Using the quartile approach to classify the districts into the better-offs and the worse-offs, 9 districts were placed in the better-off list with scholastic progression rates of over 53 per cent. On the other hand, 8 districts were placed in the worse-off category with scholastic progression rates of less than 42 per cent. The districts with higher scholastic progression rates were Nairobi, Kiambu, Nyandarua, Nyeri, Mombasa, Mandera, Kajiado, Laikipia and Nakuru. The worse-off districts in terms of scholastic progression include Kilifi, Wajir, Siaya, Nandi, Turkana, West Pokot, Bungoma and Busia. The results suggest that an in-depth analysis of secondary schooling opportunities would be necessary to establish the factors associated with disparities in the progression rates observed.

Scholastic Progression Rates by Sex, District and Residence, 1989

Table 4.12

DISTRICT	Percentage of FORM 1 to STD 8 Enrolment								
	TOTAL			RURAL			URBAN		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Nairobi	69.0	65.9	67.5	-	-	-	69.0	65.9	67.5
Kiambu	56.6	53.2	54.9	56.5	52.9	54.7	57.8	57.3	57.5
Kirinyaga	54.6	48.3	51.4	54.7	48.5	51.6	51.7	42.5	46.8
Muranga	58.8	54.6	49.5	58.8	54.5	56.7	57.1	56.1	56.6
Nyandarua	56.7	49.9	53.3	56.4	49.8	53.2	62.8	50.6	56.1
Nyeri	55.5	51.6	53.5	55.1	51.7	53.4	63.7	49.0	55.6
CENTRAL	56.7	52.3	54.5	56.6	52.2	54.4	58.9	53.4	56.1
Kilifi	42.5	37.5	40.7	41.8	35.4	39.3	50.4	52.5	51.0
Kwale	45.6	38.8	42.9	45.4	38.8	42.8	71.9	33.3	51.5
Lamu	47.7	49.0	48.2	47.2	48.7	47.8	50.0	50.0	50.0
Mombasa	59.0	54.1	56.8	-	-	-	59.0	54.1	56.8
T. Taveta	46.6	43.2	44.9	46.8	43.4	45.1	45.0	42.3	43.6
T. River	43.5	40.8	42.5	42.2	39.4	41.1	52.4	49.4	51.3
COAST	47.8	43.9	46.2	43.7	39.0	41.9	56.9	52.8	55.1
Embu	48.3	43.9	46.1	48.5	43.1	45.7	45.0	60.1	52.6
Isiolo	34.5	44.5	38.0	23.5	21.5	22.9	49.6	60.9	54.4
Kitui	45.5	38.3	42.2	45.3	38.1	41.9	63.9	56.2	60.4
Machakos	53.3	47.2	50.3	53.3	46.8	50.1	51.3	57.6	54.2
Marsabit	51.2	47.9	50.2	51.0	44.0	49.4	51.7	51.5	51.6
Meru	51.7	47.8	49.7	51.8	47.6	49.6	47.8	53.9	50.8
EASTERN	50.6	45.5	48.1	50.6	45.0	47.9	50.7	56.8	53.5
Garissa	47.3	44.3	46.5	54.9	57.6	55.3	43.8	42.1	43.2
Mandera	54.0	53.8	54.0	58.5	65.4	59.3	51.6	50.5	51.4
Wajir	37.3	34.3	36.5	42.6	37.5	41.6	33.3	33.0	33.2
N. EASTERN	47.2	43.9	46.4	53.3	51.5	52.3	44.3	41.9	43.6
Kisii	50.8	44.4	47.8	50.5	44.3	47.5	57.6	48.2	53.2
Kisumu	46.5	39.3	43.3	44.8	37.0	41.5	51.5	45.0	48.4
Siaya	37.3	32.8	35.4	37.0	32.5	35.1	50.0	42.6	46.2
S. Nyanza	47.1	39.3	44.1	47.0	38.7	43.9	48.3	48.4	48.4
NYANZA	46.7	40.4	43.9	46.2	39.8	43.4	51.9	45.9	49.1
Baringo	48.3	40.3	44.5	48.8	40.6	44.9	41.4	36.2	38.9
E. Marakwet	54.1	43.7	49.3	54.2	43.4	49.2	50.0	71.0	59.4
Kajiado	56.6	55.8	56.3	54.7	54.6	54.6	65.5	59.9	62.7
Kericho	47.4	36.2	42.6	47.3	36.0	42.4	52.3	42.5	47.5
Laikipia	61.7	55.5	58.7	59.7	54.7	57.3	88.9	64.1	75.5
Nakuru	58.5	51.6	55.2	56.1	49.1	52.8	68.3	60.1	64.1
Nandi	43.0	36.7	40.2	42.8	36.1	39.8	49.6	63.5	55.8
Narok	56.0	41.3	50.4	55.5	40.7	50.0	64.9	47.9	56.0
Samburu	40.8	58.3	44.8	39.3	54.9	42.2	46.0	63.5	52.1
T. Nzoia	44.2	41.8	43.1	43.5	40.3	42.1	49.7	52.7	51.2
Turkana	41.0	31.9	38.3	38.5	26.4	35.0	47.1	42.8	45.7
U. Gishu	49.0	43.9	46.5	47.0	41.8	44.5	57.9	52.3	55.1
W. Pokot	34.8	30.1	33.1	34.0	27.9	31.9	47.1	47.8	47.4
R. VALLEY	50.4	43.6	47.4	49.3	41.9	46.0	60.6	55.2	57.9
Bungoma	43.8	38.2	41.1	42.7	37.4	40.2	63.1	50.2	56.5
Busia	43.1	36.8	40.5	42.4	36.6	40.0	58.6	38.7	48.0
Kakamega	49.4	44.0	46.6	49.0	43.7	46.3	58.7	51.6	55.1
WESTERN	46.7	41.5	44.2	46.1	41.1	43.7	60.3	49.0	54.5
KENYA	50.8	45.8	48.5	49.6	44.2	47.1	60.1	56.8	58.5

Analysis of the scholastic progression rates by sex revealed that there were some districts with very wide disparities. On the average, the males had higher rates when compared with females in all the districts except in Isiolo and Samburu where the scenario was reversed. It should be noted that the two districts had very few number of students in the computation hence the reverse situation could be attributed to data problems. Districts with disparities in the male - female rates in excess of 8 were considered to have large differences. These districts included Isiolo, Kitui, Kisumu, South Nyanza, Baringo, Elgeyo Marakwet.

Kericho, Narok, Samburu and Turkana. These districts require more comprehensive policies for the promotion of female secondary education.

Data on rural-urban rates show that urban residents had higher scholastic progression rates when compared to their rural counter-parts except in North Eastern Province districts, Kirinyaga, Tana River and in Baringo district. This finding also requires some in-depth studies to establish the underlying causes.

It is also not surprising to observe very large disparities between the rural and urban areas since, in terms of development, the urban areas are better-off when compared to the rural. The rural-urban and district level disparities noted should be interpreted with caution since the census might have captured some of the students not in their usual place of residence considering the fact that 1989 census was undertaken during the August school holidays.

CHAPTER 5 - EDUCATIONAL ATTAINMENT

5.1. Introduction

Information about the population at the highest education level completed by sex, age group, administrative regions and for urban areas were published in volumes I and II of the 1989 population census. The figures are in table 4 in each of the volumes. The highest education level completed was categorised into six groups namely: none, standard 1 to 4, standard 5 to 8, form 1 to 4, form 5+, and university. Table 5.1 in this report provides the percentage distribution of the population aged six years and above by age group and highest level of education attained. The category 'none' includes those who never went to school, those who left school before completing standard 1, and those who were enrolled in standard 1 at the time of the census. The category 'form 5+' includes those who were undertaking their undergraduate programmes at the university level. The category 'university' is for all university graduates including those who were enrolled for postgraduate programmes in 1989.

It is worth stressing that the 1989 population figures on educational attainment are strictly not comparable with the 1979 figures due to differences in the concept applied by the two censuses. The 1989 census used the concept 'completed' which excludes incomplete classes/forms attended. On the other hand, the 1979 census used the concept 'reached' which includes incomplete classes/forms attended. The percentage obtained using the 1979 census figures over-estimates the education attainments when compared with the 1989 figures. For instance, the category 'none' in the 1979 census excluded those who were enrolled in standard 1 at the time of the census and were therefore placed as having attained standard 1 level of education. It should also be noted that Table 4 in volumes I and II of the 1989 population census, the category 'university' include those who had not yet completed their undergraduate programmes while in this volume they have been placed under the category 'form 5+'.

**Percentage Distribution of Highest Level of Education Completed by Age Group
and Sex, 1989**

Table 5.1

AGE GROUP (YRS)	NONE	PRIMARY SCHOOL		SECONDARY SCHOOL		UNIVERSITY	NS	TOTAL
		Std 1-4	Std 5-8	Form 1-4	Form 5 +			
MALE								
6 - 9	55.16	41.08	0.00	0.00	0.00	0.00	3.76	100.00
10 - 14	15.89	56.61	26.66	0.41	0.00	0.00	0.43	100.00
15 - 19	8.64	13.38	59.27	17.59	0.77	0.01	0.34	100.00
20 - 24	8.85	7.75	42.71	34.26	5.70	0.22	0.51	100.00
25 - 29	11.37	8.71	37.79	36.16	4.44	1.04	0.49	100.00
30 - 34	16.22	10.91	34.61	32.78	3.33	1.56	0.59	100.00
35 - 39	19.80	13.17	36.13	25.90	2.63	1.70	0.67	100.00
40 - 44	24.14	14.87	37.40	19.30	1.90	1.63	0.76	100.00
45 - 49	32.62	20.51	32.15	11.25	1.25	1.31	0.91	100.00
50 - 54	40.35	24.19	25.63	7.15	0.75	0.96	0.97	100.00
55 - 59	47.91	24.78	19.65	5.32	0.55	0.66	1.13	100.00
60 +	66.96	20.39	8.78	1.81	0.22	0.29	1.55	100.00
NS	47.31	12.80	20.47	10.82	0.94	0.31	7.35	100.00
Total	25.75	25.84	30.14	14.95	1.67	0.50	1.15	100.00

FEMALE

6 - 9	53.33	43.09	0.00	0.00	0.00	0.00	3.58	100.00
10 - 14	15.99	53.13	27.97	0.46	0.00	0.00	0.45	100.00
15 - 19	12.22	10.74	59.53	16.50	0.62	0.01	0.38	100.00
20 - 24	16.56	8.28	44.39	27.53	2.42	0.18	0.64	100.00
25 - 29	26.69	10.89	34.42	25.20	1.49	0.55	0.76	100.00
30 - 34	40.24	12.69	27.91	16.71	0.85	0.62	0.98	100.00
35 - 39	49.11	13.81	25.11	9.72	0.53	0.54	1.18	100.00
40 - 44	61.53	14.26	17.65	4.47	0.35	0.41	1.33	100.00
45 - 49	70.85	14.76	10.06	2.19	0.24	0.29	1.61	100.00
50 - 54	77.46	12.51	6.62	1.42	0.19	0.20	1.60	100.00
55 - 59	81.74	10.99	4.42	0.86	0.14	0.15	1.70	100.00
60 +	89.50	5.84	1.83	0.39	0.09	0.08	2.27	100.00
NS	67.97	8.99	11.62	4.03	0.39	0.22	6.78	100.00
Total	37.47	23.29	26.95	10.13	0.64	0.19	1.33	100.00

TOTAL

6 - 9	54.25	42.08	-	-	-	-	3.67	100.00
10 - 14	15.94	54.88	28.31	0.43	-	-	0.44	100.00
15 - 19	10.45	12.05	59.40	17.04	0.69	0.01	0.37	100.00
20 - 24	12.97	8.03	43.61	30.66	3.95	0.20	0.58	100.00
25 - 29	19.37	9.85	36.03	30.44	2.90	0.78	0.63	100.00
30 - 34	28.20	11.80	31.26	24.76	2.09	1.09	0.78	100.00
35 - 39	34.47	13.49	30.62	17.80	1.58	1.12	0.92	100.00
40 - 44	42.81	14.57	27.54	11.90	1.12	1.02	1.04	100.00
45 - 49	52.21	17.56	20.83	6.61	0.73	0.79	1.26	100.00
50 - 54	59.13	18.27	16.01	4.25	0.46	0.58	1.30	100.00
55 - 59	64.96	17.83	11.97	3.07	0.34	0.40	1.42	100.00
60 +	78.63	12.86	5.18	1.08	0.15	0.18	1.92	100.00
NS	57.89	10.85	15.94	7.34	0.66	0.26	7.05	100.00
Total	31.70	24.55	28.52	12.50	1.15	0.34	1.23	100.00

Table 5.1 shows that about 67 per cent of the total population of ages 6 years and above had completed some level of education in 1989. Only 32 per cent of the population had not completed any level. The proportion with some primary, secondary form 1 to 4, and form 5 and higher education were 53 per cent, 13 per cent and 1.5 per cent respectively. When compared with the 1979 population figures while bearing in mind that they were over-estimates, there is clear indication that there was a substantial improvement in educational attainment. The figures for the 1979 were 51 per cent, 40 per cent, 7 per cent and 0.7 per cent for the population with none, some primary, secondary form 1 to 4, and university education respectively.

It is also apparent that the reporting on educational attainment was slightly better in 1979 when compared with 1989 on the basis of the proportion of the population with their educational attainment level not stated. While only 0.85 per cent had not reported the highest education level attained in 1979, 1.23 per cent did not report their level in 1989. This could be attributed to difficulties in the reporting of the class completed required in 1989 when compared to class reached required in 1979. It might have been relatively easier to provide the class/form reached than completed especially so when this information was being provided by other persons.

Although comparable data on educational attainment by level of education for countries in the Eastern and Southern African region are not readily available, the scanty data available indicate that educational attainments are relatively high. For instance, while Uganda's proportions of the population of age 6 years and above with educational attainment levels of none, primary, secondary form 1-4, secondary for 5-6, and post form 6 were 37 per cent, 53 per cent, 8.5 per cent, 1 per cent and 0.3 per cent respectively according to 1991 census data, the corresponding figures for Kenya based on the 1989 census were 32 per cent, 53 per cent, 12.5 per cent, 1 per cent and 0.5 per cent respectively. The figures show relatively lower proportion of the population with no education and higher proportions with secondary level of education and above. The educational attainment rates for the population of age group 25 years and above shown in Table 5.2 are relatively high when compared with rates for other countries with comparable data.

Percentage Distribution of the Population Aged 25 Years and Above by Level of Educational Attainment for Selected Countries in Africa and Kenya

Table 5.2

Country	Year	No schooling		Primary level		Secondary level	level	Post secondary level	
		Total	Female	Total	Female			Total	Female
Egypt	1986	64.1	78.6	16.5	10.3	14.8	9.3	4.6	1.8
Congo	1984	58.7	72.2	21.3	15.4	16.9	11.2	3.0	1.1
Libya	1984	59.7	79.4	23.9	9.4	13.7	5.9	2.7	5.2
Malawi	1987	55.0	71.5	39.8	26.4	4.8	2.0	0.4	0.2
Mauritania	1988	60.8	68.3	34.1	29.7	3.8	1.7	1.3	0.3
Mauritius	1990	18.3	25.8	48.7	48.2	31.1	25.1	1.9	0.9
South Africa	1985	24.8	26.9	46.4	45.3	26.5	26.2	2.3	1.5
Sudan	1983	76.7	88.8	18.6	9.1	3.9	1.8	0.8	0.3
Tunisia	1984	66.3	79.0	18.9	12.7	12.0	6.9	2.8	1.3
Kenya	1989	44.7	58.1	36.4	29.3	17.9	11.6	0.9	0.5

Source: UNESCO, 1994 Statistical Year Book, Table 1.4

Results of the detailed analysis of the highest level of education completed are presented under four subsections namely: population with no level of education completed; population

Results of the detailed analysis of the highest level of education completed are presented under four subsections namely: population with no level of education completed; population with primary standard 1-8 level of education; population with secondary form 1-4 and population with form 5+ including university level of education. Differentials in levels by age, sex, rural-urban as well as trends are also discussed.

5.2. Population with no level of education attained

The percentage distribution of persons of age six years and above with no level of education attained by age group and sex for the years 1969, 1979 and 1989 is provided in Table 5.3. Apart from age groups 5-9 and 10-14 years which recorded increases in proportions with no education, there were substantial declines in the other age groups in the 1979-1989 period.

The main difference between the population with no level of education attained and the population that never attended school discussed in chapter 3 is that the population with no level of education attained consists of those who never attended school plus those who attended but did not complete standard one. The population that never attended school is therefore a subset of the population with no level of education attained.

There is a possibility that the apparent increase reflected in the two age groups could be due to inclusion of those attending standard 1 in the 1989 figures. Analysis of school attendance by age had already established that there were large proportions of those in these two age groups attending standard 1 class in 1989.

Although the levels in the age groups are higher for females than for the males in general, the 1979-1989 percentage change shows that the females recorded greater improvements relatively. The age group with the greatest improvement was 20-24 years - a cohort that was 10-14 years at the time of the 1979 census. This strengthens the possibility of late start of schooling. Further analysis of the figure by cohort confirmed the consistency of the figures and the limited impact of adult literacy classes.

**Percentage Distribution of Persons with No Education by Age Group and Sex,
1969 - 1989**

Table 5.3

AGE GROUP	MALE				FEMALE			
	1969	1979	1989	Per cent change 1979-1989	1969	1979	1989	Per cent change 1979-1989
5 - 9	86.2	49.6	55.2*	11.3	87.5	49.7	53.3*	7.2
10 - 14	43.5	12.6	15.9	26.2	53.2	14.2	20.0	40.8
15 - 19	31.7	13.1	8.6	-34.4	50.3	23.2	12.2	-47.4
20 - 24	31.3	18.7	8.9	-52.4	61.1	39.5	16.6	-58.0
25 - 29	41.9	22.6	11.4	-49.6	75.4	50.2	26.7	-46.8
30 - 34	54.3	26.4	16.2	-38.6	83.3	62.9	40.2	-36.1
35 - 39	-	35.5	19.8	-44.2	-	72.4	49.1	-32.2
40 - 49	70.0	46.4	36.5	-21.3	90.6	80.7	66.2	-18.0
50 +	85.8	71.3	51.7	-27.5	96.4	91.9	82.9	-9.8

1979 Population Census Volume II Analytical Report Table 4.4

Note: * Refers to age group 6-9.

It was found not critical to present results of detailed analysis of the population with no level of education completed by province and by district. This was due to the observation that the patterns depicted by the population that never went to school discussed in chapter 3 were similar to those depicted by the population with no level of education completed. This could be attributed to the fact that the majority of the population with no level of education completed never went to school. The overall percentage for those with no level of education completed was slightly higher when compared with those who reported to have never gone to school. The national pattern of the population with no level of education completed by age group and rural-urban residence is shown in Table 5.4.

**Percentage Distribution of the Population with No Education by Age Group
and Residence**

Table 5.4

AGE GROUP	TOTAL			RURAL			URBAN		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
6 - 9	55.16	53.33	54.25	56.63	54.73	55.69	43.96	43.18	43.56
10 - 14	15.89	19.99	15.94	16.75	16.55	16.65	8.72	11.89	10.39
15 - 19	8.64	12.22	10.45	9.17	12.82	10.98	5.36	9.07	7.38
20 - 24	8.85	16.56	12.97	10.83	18.76	15.24	3.92	8.93	6.29
25 - 29	11.37	26.69	19.37	14.74	30.25	23.46	4.85	14.41	8.85
30 - 34	16.22	40.24	28.20	20.41	44.30	33.36	7.23	22.81	13.02
35 - 39	19.80	49.11	34.47	23.99	52.98	39.65	9.23	28.92	16.35
40 - 44	24.14	61.53	42.81	28.23	64.58	47.83	12.22	40.51	21.58
45 - 49	32.62	70.85	52.21	36.85	73.12	56.76	18.00	50.81	28.58
50 - 54	40.35	77.46	59.13	43.80	79.03	62.68	25.67	61.25	37.13
55 - 59	47.91	81.74	64.96	50.13	82.94	67.25	33.51	65.97	44.88
60 +	66.96	89.50	78.63	68.24	90.25	79.70	51.08	78.29	63.93
NS	47.31	67.97	57.89	49.79	70.08	60.47	34.88	51.96	42.10
Total	25.75	37.47	31.70	28.78	40.14	34.69	12.80	22.29	17.06

5.3. Population with Primary Level of Education

5.3.1. Population with primary std 1 - 4

Table 5.5 shows the 1979 - 1989 trends in the population with primary standard 1 - 4 as the highest level of education completed by age group and sex. The figures shows a slight improvement of about 8 per cent. The 1979 and 1989 figures are not strictly comparable given that the 1979 figures are over-estimates. This could partly explain the negative growth recorded in most of the age groups. The other possible reason for the decline noted could be the improvements in the school enrolments beyond primary standard 1-4 level.

Percentage Distribution of the Population with Primary Std. 1 - 4 as Highest Level of Education Completed by Age Group and Sex

Table 5.5

AGE GROUP	MALE			FEMALE			TOTAL		
	1979	1989	Per cent change	1979	1989	Per cent change	1979	1989	Per cent change
6 - 9	48.50*	41.08	-15.30	48.33	43.09*	-10.84	48.42*	42.08	-13.90
10 - 14	58.00	56.61	-2.40	53.35	53.13	-0.41	55.71	54.88	-1.49
15 - 19	16.98	13.38	-21.20	15.07	10.74	-28.73	16.00	12.05	-24.69
20 - 24	11.13	7.75	-30.37	12.67	8.28	-34.65	11.93	8.03	-32.69
25 - 29	12.45	8.71	-29.72	14.24	10.89	-23.53	13.37	9.85	-26.33
30 - 34	13.82	10.91	-21.06	14.24	12.69	-10.88	14.03	11.80	-15.89
35 - 39	19.12	13.17	-31.12	15.07	13.81	-8.36	16.98	13.49	-20.55
40 - 44	21.72	14.87	-31.54	12.84	14.26	11.06	17.18	14.57	-15.19
45 - 49	22.12	20.51	-7.28	11.56	14.76	27.68	16.80	17.56	4.52
50 - 54	22.26	24.19	8.67	8.95	12.51	39.78	15.46	18.27	18.18
55 +	16.64	22.59	35.76	4.54	8.42	85.46	10.76	15.35	42.66
NS	12.36	20.39	3.60	10.19	8.99	-11.78	11.34	10.85	4.32
Total	24.16	25.84	6.95	21.43	23.29	8.68	22.79	24.55	7.72

1979 Population Census Volume II Analytical Report Table 4.2

Note: * Refers to age group 5 - 9 years.

Disparities in this level of educational attainment by sex, age group and rural - urban residence is summarised in Table 5.6. Ignoring the first three age groups, the proportion with standard 1-4 as highest level of education completed increases with age. This reflects the past efforts put in attaining universal primary education. The data also show that differences by sex are minimal (under 3 per cent) in all age groups under 44 years but very large in the older age groups (45 years and over). This too could be attributed to the past legacy. Similarly, except for the first and older age groups (50+), the rural residents had a relatively higher proportion of primary std 1-4 as the highest level of education completed than urban residents.

5.3.2. Population with primary standard 5-8

The efforts made during the 1979-1989 period towards attainment of universal primary education are reflected in Table 5.7 which gives the percentage distribution of the population with primary standard 5-8 as the highest level of education completed by age group and sex for the years 1979 and 1989. Noting that the 1979 figures are over-estimates, the overall improvement by about 66 per cent shown in Table 5.7 imply that

massive resources were availed towards meeting that goal. The relatively higher percentage change in the older ages can not be explained and could be attributed to data problems.

Percentage Distribution of the Population with Highest Level of Education Completed as Primary Std 1-4 by Age Group, Sex and Residence

Table 5.6

AGE GROUP	TOTAL			RURAL			URBAN		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
6 - 9	41.08	43.09	42.08	39.60	41.68	40.63	52.34	53.32	52.83
10 - 14	56.61	53.13	54.88	57.48	54.24	55.86	49.73	44.97	47.22
15 - 19	13.38	10.74	12.05	14.31	11.46	12.89	7.55	6.97	7.23
20 - 24	7.75	8.28	8.03	9.18	9.20	9.19	4.20	5.11	4.63
25 - 29	8.71	10.89	9.85	10.81	12.11	11.54	4.65	6.66	5.50
30 - 34	10.91	12.69	11.80	13.17	13.67	13.44	6.07	8.49	6.97
35 - 39	13.71	13.81	13.49	15.15	14.51	14.80	8.17	10.19	8.90
40 - 44	14.87	14.26	14.57	16.46	14.59	15.45	10.25	11.99	10.82
45 - 49	20.51	14.76	17.56	21.63	14.84	17.90	16.67	14.05	15.82
50 - 54	24.19	12.51	18.27	24.89	12.44	18.22	21.21	13.16	18.62
55 - 59	24.78	10.99	17.83	25.01	10.88	17.64	23.32	12.36	19.48
60 +	20.39	5.84	12.86	20.30	5.67	12.68	21.49	8.40	15.31
NS	12.80	8.99	10.85	13.87	9.15	11.38	7.44	7.77	7.57
Total	25.84	23.29	24.55	27.99	24.10	25.97	16.68	18.71	17.59

Percentage Distribution of the Population with Primary Std. 5-8 as Highest Level of Education Completed by Age Group and Sex

Table 5.7

AGE GROUP	MALE			FEMALE			TOTAL		
	1979	1989	Per cent change	1979	1989	Per cent change	1979	1989	Per cent change
6 - 9	0.21*	0.00	-	0.26*	0.00	-	0.24*	0.00	-
10 - 14	27.51	26.66	-3.09	28.81	29.97	4.03	28.15	25.03	-0.57
15 - 19	46.98	59.27	26.16	41.42	59.53	43.72	44.15	60.32	34.54
20 - 24	34.09	42.71	25.29	28.34	44.39	56.63	31.12	44.83	40.13
25 - 29	35.66	37.79	5.97	25.02	34.42	37.57	30.21	40.93	19.27
30 - 34	36.55	34.61	-5.31	17.78	27.91	56.97	27.08	36.45	15.44
35 - 39	30.99	36.13	16.59	9.77	25.11	157.01	19.77	36.99	54.88
40 - 44	25.72	37.40	45.41	6.15	17.65	277.11	15.72	37.38	75.19
45 - 49	19.93	32.15	61.31	4.15	10.06	142.41	11.99	30.78	73.73
50 - 54	12.88	25.63	98.99	2.36	6.62	180.51	7.50	24.12	113.47
55 +	6.15	14.22	131.22	1.10	3.13	184.55	3.69	13.60	132.52
NS	11.79	20.47	73.62	5.80	11.62	100.34	8.98	20.32	77.51
Total	19.73	30.14	52.76	14.73	26.95	82.96	17.21	29.58	65.72

1979 Population Census Volume II Analytical Report Table 4.2

Note: * Refers to age group 5 - 9 years.

Table 5.8 gives the distribution with highest educational attainment category by sex and rural - urban residence in 1989. The age distribution shows a relatively higher percentage in age group 15-19 years that could be attributed to the larger number of school leavers after standard 8. In the first three age-groups, the females have a relatively higher proportion with this level of educational attainment when compared to the males in both the urban and rural areas. This could be attributed partly to a number of factors including

intensive campaign efforts on female education. The wide differences, between the percentage for the males and females are only noticed in the age group 30 years and over where the females are clearly disadvantaged. Although the rural dwellers had an overall lower proportion of the population with highest level of education completed as primary standard 5-8 compared to the urban, this pattern was not observed in the age group 15-34 years.

Percentage Distribution of the Population with Highest Level of Education Completed as Primary Std. 5-8 by Age Group, Sex and Residence

Table 5.8

AGE GROUP	TOTAL			RURAL			URBAN		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
6 - 9	-	-	-	-	-	-	-	-	-
10 - 14	26.66	29.97	28.31	25.03	28.43	26.73	39.96	41.27	40.65
15 - 19	59.27	59.53	59.40	60.32	60.72	60.52	52.60	53.37	53.02
20 - 24	42.71	44.39	43.61	44.83	46.51	45.76	37.44	37.06	37.26
25 - 29	37.79	34.42	36.03	40.93	35.69	37.98	31.69	30.04	31.00
30 - 34	34.61	29.71	31.26	36.45	27.87	31.80	30.66	28.06	29.69
35 - 39	36.13	25.11	30.62	36.99	24.42	30.20	33.99	28.74	32.09
40 - 44	37.40	17.65	27.54	37.38	16.65	26.20	37.46	24.92	33.18
45 - 49	32.15	10.06	20.83	30.78	9.06	18.86	36.90	18.92	31.10
50 - 54	25.63	6.62	16.01	24.12	5.96	14.39	32.04	13.45	26.06
55 - 59	19.65	4.42	11.97	18.87	3.90	11.06	24.70	11.19	19.97
60 +	8.78	1.83	5.18	8.33	1.57	4.81	14.32	5.82	10.30
NS	20.47	11.62	15.94	20.32	11.28	15.56	21.24	14.21	18.27
Total	30.14	26.95	28.52	29.58	26.29	27.87	32.56	30.71	31.73

5.4. Population with Form 1-4 Level of Education

5.4.1. National level analysis of the population with form 1-4

The proportion of the population with secondary form 1 to 4 level is a good index for advancements in higher education. This proportion increased from 7.3 per cent in 1979 to 12.5 per cent in 1989 implying an improvement of over 72 per cent considering that the 1979 figures are over-estimates. Table 5.9 shows that percentage of the population with secondary form 1 to 4 as the highest level attained by age group and sex. It also gives percentage changes for the 1979-1989 period.

Percentage Distribution of the Population with Secondary Form 1-4 as Highest Level of Education Completed by Age Group and Sex

Table 5.9

AGE GROUP	MALE			FEMALE			TOTAL		
	1979	1989	Per cent change	1979	1989	Per cent change	1979	1989	Per cent change
6 - 9	-	-	-	-	-	-	-	-	-
10 - 14	1.34	0.41	-69.40	1.54	0.46	-70.13	1.44	0.43	-70.14
15 - 19	22.18	17.59	-20.69	19.74	16.50	-16.41	20.94	17.04	-18.62
20 - 24	32.85	34.26	4.29	18.32	27.53	50.27	25.34	30.66	20.99
25 - 29	26.05	36.16	38.81	9.59	25.20	162.77	17.61	30.44	72.86
30 - 34	20.34	32.78	61.16	4.29	16.71	289.51	12.24	24.76	102.29
35 - 39	12.03	25.90	115.30	2.11	9.72	360.66	6.78	17.80	162.54
40 - 44	7.89	19.30	144.61	1.30	4.47	243.85	4.52	11.90	163.27
45 - 49	5.60	11.25	100.89	0.77	2.19	184.42	3.17	6.61	108.52
50 - 54	3.27	7.15	118.65	0.47	1.42	202.13	1.84	4.25	130.98
55 +	1.20	3.57	197.50	0.31	0.63	103.23	0.76	2.08	173.68
NS	4.24	10.82	155.19	1.86	4.03	116.67	3.12	7.34	135.26
Total	9.35	14.95	59.89	5.20	10.13	94.81	7.26	12.50	72.18

1979 Population Census Volume II Analytical Report Table 4.2

The analysis on age group shows negative changes in the age group 10-14 and 15-19 years. These can be attributed to both the increasing costs of education and also the possible over-estimates of the 1979 figures.

Changes in the education system stretched the primary school age to 13 years from 12 years and by implication placing those aged 14 years to have completed form 1. This effect trickled down to affect the age group 15-19 years although slightly as reflected in the percentage change. Greater improvements are readily seen in the ages 25 years and over. Considering the argument that the 1979 figures over estimated the levels, the actual percentage changes in this category of level of education is bigger than the figures indicated in the table. A cohort analysis of the age groups 20-24 through 50-54 years confirms the consistency of the 1989 results. For instance, those aged 20-24 years in 1979 were aged 30-34 years in 1989 and had proportions with form 1-4 level of education of 25 per cent in both 1979 and 1989. Analysis by sex indicate that the improvements, measured by percentage changes between 1979 and 1989, were greater for females when compared with males. On the average, the proportion of females with form 1 - 4 level of educational attainment approximately doubled.

**Percentage Distribution of the Population with Highest level of Education Completed as
Secondary Form 1-4 by Age Group, Sex and Rural-Urban Residence**

Table 5.10

AGE GROUP	TOTAL			RURAL			URBAN		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
6 - 9	-	-	-	-	-	-	-	-	-
10 - 14	0.41	0.46	0.43	0.31	0.35	0.33	1.13	1.27	1.20
15 - 19	17.59	16.50	17.04	15.36	14.24	14.80	31.58	28.28	29.79
20 - 24	34.26	27.35	30.66	29.96	23.10	26.15	44.91	42.83	43.93
25 - 29	36.16	25.20	30.44	29.39	20.16	24.20	49.30	42.61	44.50
30 - 34	32.78	16.71	24.76	26.70	12.64	19.08	45.83	34.17	41.49
35 - 39	25.90	9.72	17.80	20.91	6.58	13.17	38.47	26.12	34.00
40 - 44	19.30	4.47	11.90	15.37	2.63	8.50	30.74	17.19	26.25
45 - 49	11.25	2.19	6.61	8.58	1.25	4.55	20.50	10.52	17.28
50 - 54	7.15	1.42	4.25	5.40	0.86	2.96	14.56	7.22	12.20
55 - 59	5.32	0.86	3.07	4.32	0.52	2.34	11.76	5.28	9.49
60 +	1.81	0.39	1.08	1.40	0.24	0.80	6.90	2.74	4.94
NS	10.82	4.03	7.34	8.55	3.10	5.68	22.17	11.13	17.51
Total	14.95	10.13	12.50	11.25	7.72	9.41	30.78	23.89	27.69

Table 5.10 shows the percentage distribution of the population with secondary form 1-4 level of education completed in 1989 by sex and rural urban residence. The females are clearly a disadvantaged group in all age groups. The disparities by sex increase with age. The urban residents' average percentage was about three times that for the rural. This could possibly be attributed to better and more educational opportunities in the urban areas as well as selectivity of the urban migrant population with respect to educational attainment .

5.4.1. Provincial and district level analysis of the population with form 1-4 education level

The proportion of the population of age 20-24 years with form 1 to 4 as the highest level of education completed had been used in the past censuses to measure progress made in secondary and higher education. Table 5.11 shows the distribution of the population aged 20 to 24 years with form 1 to 4 educational attainment by sex, province and district for the years 1979 and 1989.

The 1989 provincial level data show that Nairobi had the highest percentage (48 per cent) of the population with form 1 to 4 level of education followed by Central (39 per cent). North Eastern Province had the lowest percentage (8 per cent) and was in a class of its own, followed by Coast which had 25 per cent. This shows that the disparities in higher education by province were still wide by 1989. Assuming that the 1989 figures were not seriously over-estimated, the data reveal that some form of stabilisation had been achieved for the males between 1979 and 1989 in a number of provinces. The proportions of the males with form 1 - 4 education in Nairobi, Central, Eastern, Coast and Nyanza had not substantially changed in 1979. The slightly lower proportions for the males in 1989 compared with 1979 could be attributed to the differences of the concepts 'reached' and 'completed' used in the two censuses. On the other hand, there were continued improvements recorded for females between 1979 and 1989 in all the provinces. Wide disparities between males and females were observed in all provinces except Nairobi and

Central. The males had relatively higher proportions with form 1-4 level of education attainment in 1989.

**Percentage Distribution of the Population Aged 20-24 with Education Form 1-4 by
Sex and District**

Table 5.11

DISTRICT	MALE		FEMALE		TOTAL
	1979	1989	1979	1989	1989
Nairobi	47.59	47.53	41.70	47.93	47.71
Kiambu	40.66	43.27	31.67	41.94	42.58
Kirinyaga	34.86	34.59	26.30	33.51	34.03
Muranga	36.29	35.55	25.19	32.41	33.79
Nyandarua	35.56	34.15	19.18	30.01	31.89
Nyeri	43.42	44.01	33.85	44.96	44.96
CENTRAL	39.01	39.63	28.24	37.87	38.75
Kilifi	20.03	24.09	4.25	9.80	15.79
Kwale	19.17	20.75	4.84	10.50	14.87
Lamu	20.56	31.17	5.19	14.71	23.06
Mombasa	39.59	40.00	26.33	34.10	37.36
T. Taveta	29.16	31.74	28.17	27.80	29.66
T. River	14.56	22.17	3.55	9.27	15.17
COAST	28.38	31.19	11.55	19.53	25.12
Embu	34.43	32.07	23.30	28.76	30.24
Isiolo	17.28	25.93	5.34	14.46	20.02
Kitui	28.92	28.39	10.63	17.13	21.68
Machakos	38.24	36.30	21.74	28.60	32.06
Marsabit	8.52	14.90	1.74	5.35	9.88
Meru	24.00	24.88	18.19	23.42	24.08
EASTERN	30.10	30.05	18.00	24.00	26.69
Garissa	8.06	14.94	3.77	7.91	11.43
Mandera	7.46	10.61	1.04	2.61	6.81
Wajir	6.47	10.25	1.06	3.50	6.97
N. EASTERN	7.32	11.92	1.09	4.70	8.42
Kisii	41.59	34.82	20.03	31.24	32.74
Kisumu	34.70	37.93	16.48	26.83	31.85
Siaya	29.54	26.83	10.72	17.63	21.34
S. Nyanza	30.98	27.11	10.79	15.67	20.43
NYANZA	35.37	31.94	14.96	23.29	26.94
Baringo	19.50	33.02	8.70	23.08	27.54
E. Marakwet	22.30	33.52	9.19	22.01	27.12
Kajiado	20.81	24.79	9.77	20.00	23.16
Kericho	26.77	34.09	11.47	22.54	28.16
Laikipia	30.23	33.46	15.51	28.77	31.01
Nakuru	33.92	38.87	19.98	31.65	35.09
Nandi	24.27	30.67	11.23	23.34	26.86
Narok	13.12	18.54	4.04	9.95	13.88
Samburu	10.44	13.67	3.31	6.86	9.93
T. Nzoia	27.25	31.51	13.84	25.36	28.24
Turkana	5.56	11.26	1.06	4.18	7.26
U. Gishu	32.26	39.37	16.19	33.76	36.55
W. Pokot	9.10	17.48	2.99	8.45	12.59
R. VALLEY	24.75	31.47	11.49	23.08	27.28
Bungoma	42.88	36.83	22.13	29.84	32.74
Busia	31.29	26.73	11.81	16.63	20.55
Kakamega	34.84	30.35	19.93	27.26	28.56
WESTERN	36.90	31.80	19.20	26.16	28.57

1979 Population Census Volume II Analytical Report Table 4.3

District level analysis also yielded results that reveal wide disparities in the levels. The difference between the district with the highest level (Nairobi with 48 per cent) and those with the lowest level (Mandera, Wajir and Turkana with 7 per cent) was very large. Stabilisation in the male rates was noted in most districts except in Lamu, Tana River, Isiolo, Marsabit, North Eastern districts, Baringo, Elgeyo-Marakwet, Kericho, Nandi, Turkana, Narok and West Pokot. Substantial improvements between 1979 and 1989 in the female rates were recorded in all districts except in Taita Taveta. The males have higher rates compared to the females in most districts. The gaps between male and female rates were narrower in the districts with relatively higher proportions with form 1-4 level of educational attainment.

Using the quartile approach to group the districts into categories of better-off and worse-off, districts with percentages of over 40 per cent were considered the better-off while those with under 16 per cent were considered the worse-off. The better-off districts in 1989 were Nairobi (48 per cent) followed by Nyeri and Kiambu (43 per cent). The worse-off districts were mainly located in the hardship zones. These districts were Mandera, Wajir, Marsabit, Turkana, Samburu, Kwale, Garissa, Narok, West Pokot, Kilifi and Tana River.

5.5. Population with Form 5 and Higher Level of Education

The proportion of the population with form 5 and higher education level completed was still very small in 1989. The figure of 1.5 per cent shows that higher level education opportunities were very limited although, a substantial increase was recorded between 1979 and 1989 when the proportion more than doubled as reflected in Table 5.12.

**Percentage of Population with Form 5 and Higher as Highest Level of Education
Completed by Age Group and Sex**

Table 5.12

AGE GROUP	MALE			FEMALE			TOTAL		
	1979	1989	Per cent change	1979	1989	Per cent change	1979	1989	Per cent change
0 - 4	-	-	-	-	-	-	-	-	-
5 - 9	-	-	-	-	-	-	-	-	-
10 - 14	-	-	-	-	-	-	-	-	-
15 - 19	0.78	0.78	0.00	0.56	0.63	12.50	0.67	0.70	4.48
20 - 24	3.17	5.92	86.75	1.15	2.60	125.00	2.12	3.97	87.26
25 - 29	3.25	5.48	68.62	0.92	2.04	121.74	2.05	3.68	79.51
30 - 34	2.87	4.86	69.34	0.74	1.47	98.65	1.79	3.18	77.65
35 - 39	2.38	4.33	81.93	0.62	1.07	72.58	1.45	2.70	86.21
40 - 44	1.70	3.53	107.65	0.43	0.76	76.74	1.05	2.14	103.81
45 - 49	1.22	2.56	109.84	0.37	0.53	43.24	0.79	1.52	92.41
50 - 54	0.92	1.71	85.87	0.34	0.39	14.71	0.63	1.04	65.08
55 +	0.49	0.86	75.51	0.27	0.23	-7.41	0.38	0.36	-5.26
NS	0.66	1.25	89.39	0.09	0.39	333.33	0.29	0.92	217.24
Total	0.97	2.17	123.71	0.35	0.83	137.14	0.65	1.49	129.23

Source: 1979 Population Census Volume II Analytical Report Table 4.2

The data provided in Table 5.12 demonstrate greater improvement in all age groups between 1979 and 1989. The data indicate that the females had greater improvements in the age groups 15 to 19 through 30-34 years when compared with the males. This could be attributed to a number of factors among them increased higher level educational institutions for the females in the 1979-1989 period. The females are still the disadvantaged group despite the impressive improvements recorded. The proportion of males with form 5 and higher educational attainment was 2.2 per cent in 1989 compared with only 0.8 per cent for females. This gives a ratio of about 3 males for every 1 female.

Table 5.13 shows the distribution of the population with university as the highest level completed by age group, sex and rural-urban residence. The proportion with university education as indicated in the table is very small (only 0.34 per cent). The majority with university education are in the age groups 25-29 to 45-49 years. It should be stressed that these figures exclude those who had not completed undergraduate programmes at the university.

Percentage Distribution of the Population with Highest Level of Education Completed as University by Age Group and Rural-Urban Residence

Table 5.13

AGE GROUP	TOTAL			RURAL			URBAN		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
6 - 9	-	-	-	-	-	-	-	-	-
10 - 14	-	-	-	-	-	-	-	-	-
15 - 19	0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.03	0.03
20 - 24	0.22	0.18	0.20	0.11	0.09	0.10	0.50	0.50	0.50
25 - 29	1.04	0.55	0.78	0.48	0.21	0.33	2.12	1.70	1.95
30 - 34	1.56	0.62	1.09	0.63	0.17	0.38	3.57	2.58	3.20
35 - 39	1.70	0.54	1.12	0.63	0.13	0.36	4.38	2.70	3.78
40 - 44	1.63	0.41	1.02	0.58	0.10	0.32	4.69	2.55	3.98
45 - 49	1.31	0.29	0.79	0.44	0.06	0.23	4.30	2.33	3.67
50 - 54	0.96	0.20	0.58	0.33	0.05	0.18	3.64	1.68	3.01
55 - 59	0.66	0.15	0.40	0.23	0.04	0.13	3.44	1.59	2.79
60 +	0.29	0.08	0.18	0.09	0.02	0.06	2.73	0.93	1.88
NS	0.31	0.22	0.26	0.12	0.07	0.10	1.24	1.38	1.30
Total	0.50	0.19	0.34	0.17	0.06	0.11	1.89	0.94	1.46

Analysis of the population with university education was only done at national level. This was because of the small numbers involved which did not allow for further desegregation at provincial and district levels. The age pattern depicted in Table 5.13 is similar to that in Table 5.12 underscoring the link between form 5+ and university education. The ratio of males to females with university education in 1989 was approximately 3:1 on the average. Table 5.13 also establishes that the majority of the population with university education is resident in urban areas. For each 1 graduate in the rural area there were 15 in the urban areas in 1989. This could be attributed to the relatively better employment and other income earning opportunities for the graduates in the urban areas when compared with the rural areas.

CHAPTER 6 - PROJECTIONS OF SCHOOL AGE POPULATION

6.1. Introduction

The objective of this chapter is to present the results of the projections of school age population for Kenya for the 1990-1995 and 1995-2000 periods. The school age population projections provided in this volume are segmented into two components. The first component is the projections of the primary school age population which corresponds to the age group 6 to 13 years. The second component is for the secondary school age group that covers the population in the age group 14 to 17 years. Since there are no age restrictions in university admissions, this component is not covered in the projections. In general terms, the projections were done assuming declining trends in fertility. The impact of AIDS was also incorporated into the mortality trends used in the projections. Detailed discussions on the methodology used and the assumptions are contained in Volume VII on Population Projections. The projected school age population presented in this volume are at national and provincial levels.

6.2. Projections of Primary School Age Population

The projected primary school age population (6 to 13 years) assuming decline in fertility and including AIDS for the years 1990, 1995 and 2000 is shown in Table 6.1. The projections indicate that the population in this age group is expected to increase from about 5.9 million in 1990 to 6.4 million in 1995 and to 6.8 in the year 2000. The distribution of the projected primary school age population by sex and province for these three years is also provided in Table 6.1.

Projections for Kenya's Primary School Age (6-13 Yrs) Population by Sex and Province(in thousands)

Table 6.1

PROVINCE	1990			1995			2000		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Nairobi	105	116	221	123	136	259	130	153	283
Central	427	423	850	454	443	900	463	450	913
Coast	226	224	450	242	239	481	253	251	504
Eastern	531	524	1,055	575	561	1,146	613	595	1,208
N. Eastern	77	69	146	88	79	170	99	89	188
Nyanza	540	535	1,075	574	566	1,147	608	601	1,209
R. Valley	677	666	1,343	765	752	1,534	834	821	1,680
Western	355	359	714	388	391	787	424	426	850
Kenya	2,938	2,916	5,854	3,255	3,169	6,424	3,435	3,400	6,836

Note:- Assuming declining fertility and mortality including AIDS

The 1990-1995 and 1995-2000 projected percentage increases for primary school age population are provided in Table 6.2. The projections indicate that in the 1990-1995 period, the primary school age population was expected to increase by 9.7 per cent. A much slower rate of increase of 6.4 per cent is expected in the 1995-2000 period mainly due to the expected continued decline in fertility and the cumulative impact of AIDS on both adult mortality and on child survival.

During the 1990-1995 period, Nairobi and North Eastern Provinces are expected to have relatively higher percentage increases of over 16 per cent while Central and Nyanza Provinces are expected to experience relatively slower increases of under 7 per cent. For the 1995-2000 period, the projections indicate that there will be a general decline in the rate of growth of the primary school age population. North Eastern Province is expected to have the highest rate of growth of about 11 per cent while Central Province is projected to have the lowest rate of growth of about 1 per cent.

Projected 1990-1995 and 1995-2000 Percentage Increase for Primary School Age Population by Province

Table 6.2

PROVINCE	1990 - 1995	1995 - 2000
	Percentage increase	Percentage increase
Nairobi	17.2	9.3
Central	5.9	1.4
Coast	6.9	4.8
Eastern	8.6	5.4
N. Eastern	16.4	10.6
Nyanza	6.7	5.4
R. Valley	14.2	9.5
Western	10.2	8.0
Kenya	9.7	6.4

6.3. Projections of Secondary School Age Population

The projected number of people in the secondary school age group (13 to 17 years) is expected to increase from 2.5 million in 1990 to 3.3 million in 1995 and to 3.6 million in the year 2000 as shown in Table 6.3. The table also shows the distribution of the projected secondary school age population by province.

Projections of Secondary School Age (14-17 Yrs) Population by Sex and Province (in thousands)

Table 6.3

PROVINCE	1990			1995			2000		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Nairobi	43	59	102	63	85	148	69	100	169
Central	174	172	346	220	214	439	242	231	473
Coast	84	86	170	109	110	219	118	119	237
Eastern	206	415	621	266	531	804	297	586	883
N. Eastern	31	27	58	36	31	68	40	35	75
Nyanza	205	206	411	260	260	525	282	279	561
R. Valley	260	254	514	351	342	705	407	393	800
Western	139	142	281	182	183	369	202	202	404
Kenya	1,142	1,361	2,503	1,521	2,846	3,277	1,657	1,945	3,132

Note:- Assuming declining fertility and mortality including AIDS

The percentage increases for the 1990-1995 and 1995-2000 periods for the projected secondary school age population indicate that this segment of the population would

increase by about 31 per cent and 10 per cent during the respective two projection periods. The projected continued increase in the rate of growth of the secondary school population can be attributed to the relatively high fertility in the recent past. Table 6.4 provides the percentage increase of this segment of the population for Kenya by province.

Projected 1990 - 1995 and 1995 - 2000 Percentage Increases for Secondary School Age Population by Province

Table 6.4

PROVINCE	1990 - 1995	1995 - 2000
	Percentage increase	Percentage increase
Nairobi	45.1	14.2
Central	26.9	7.7
Coast	28.8	8.2
Eastern	29.5	9.8
N. Eastern	17.2	10.3
Nyanza	27.7	6.9
R. Valley	37.2	13.5
Western	31.3	9.5
Kenya	30.9	9.9

The projected large numbers and high percentage increase of the school age population presented in sections 6.2 and 6.3 have serious implications especially on additional resources required to maintain the current level of schooling opportunities and for future improvements. The financing of education is already a heavy burden on the national and individual family resources. In view of the on-going policy of cost sharing, the projected high increase of the school age population implies greater burden to the nation and to individual families. This in turn could possibly translate into increase in school drop-out rates unless effective programmes and resources are put in place to address the problem of financing of education.

CHAPTER 7 - CONCLUSIONS AND RECOMMENDATIONS

This chapter presents the conclusions drawn from the results of the analysis of the various aspects of literacy and education status of the population in the 1989. Recommendations are also provided for policy and for the future population census undertaking. The conclusions are presented in sub-sections that correspond to the specific aspects of the literacy and education analysed.

7.1. Conclusions

7.1.1. The quality of the data

Using the level of imputations done as a criteria for assessing the completeness of reporting of information on literacy and education, the completeness of reporting in the 1989 Population Census was fairly high. The average level of imputations done was under 2 percent. Although the accuracy of reporting could not be assessed precisely for information gathered on literacy, the reported literacy rates were found to be over-estimates. Literacy tests were not administered during the 1989 population census, hence it was not possible to assess the accuracy of the reported literacy directly.

The information gathered on education level was adversely affected by possible reporting of class reached instead of class completed. The analysis revealed relatively very large discrepancies between census and school enrolment records in some classes.

7.1.2. Literacy status

The conclusions under this subsection are based on the reported literacy which were not subjected to literacy tests. The average literacy rate of 73.4 per cent for the population of age 10 years and above is fairly high when compared with data from neighbouring countries.

The most literate segment of the population is the age group 15-19 years where reported literacy is about 90 per cent. The majority of the elderly population, of age 45 years and over, has fairly low literacy rate of under 50 per cent.

Variations exist in literacy rates by sex and region whereby the males and urban residents have comparatively higher literacy rates compared with the females and rural residents. Disparities by sex were greater in regions with low literacy rates. Nairobi and Central Provinces had highest literacy rates of over 85 per cent while North Eastern Province had the lowest rate of only 30 per cent. Nairobi, Mombasa, Nakuru and Uasin Gishu had relatively higher literacy rates while the districts located in arid zones had the lowest rates.

7.2.3. Status of school attendance.

In 1989, the percentage distribution of the population aged six years and over by various categories of school attendance was as follows: attending school (37 per cent); left school (36 per cent) and never attended school (24 per cent). There was an increase from 33 per

cent in 1979 to 37 per cent in 1989 for the proportion of the population attending school and a substantial decrease from 40 per cent in 1979 to 24 per cent in 1989 for the proportion of the population that never attended school.

About 90 per cent of the population in the age group 10-14 years was attending school in 1989 but this proportion declined sharply after age 20. Variations in the proportions of the population attending school exist by sex and region. The males and urban residents had relatively higher proportions when compared with the females and rural residents. The disparities by sex start at age 10 years. Using the proportion of the population in age group 10-14 years that are attending school as a measure of school enrolment level, North Eastern had the lowest school enrolment rate of 26 per cent while Central and Nyanza Provinces had the highest enrolment rate of over 90 per cent. Districts located in Coast Province and in the hardship areas had low school enrolment rates and had also wide disparities between male and female enrolment rates.

The proportion of the population that never attended school was found to increase with increase in age. Wide variations were also found to exist by sex especially beyond age 30 years. The proportions of the female and male population of age 6 years and above who never attended school were 30 per cent and 18 per cent respectively. This implies that the females with no schooling were almost twice as many as the males. Variations also exist by region whereby the percentage of the population with no schooling in rural areas was twice that for the urban areas. The percentages for the rural and urban areas were 27 per cent and 13 per cent respectively. Provinces and districts with low school enrolment rates had also high percentages of the population with no schooling recorded in most years between 6 and 24 in the 1979-1989 period.

School drop-out rates were found to be lowest (under 3 per cent) at ages corresponding to the lower primary school level, moderately high (about 30 per cent) at secondary school ages and very high (over 80 per cent) at higher education ages. This is consistent with the pyramidal structure of the education system. Variations were also found to exist by sex and region. Females had higher school drop-out ratios when compared with males in the age group 15 to 24 years. Urban areas had also higher school drop-out ratios than rural areas. Their corresponding drop-out rates were 69 per cent and 44 per cent respectively. Using the proportion of the population in age group 10-14 years that ever attended school and dropped out of school as an index of school drop-out, Nairobi had the highest drop-out ratio of 11 per cent while Nyanza Province had the lowest ratio of 3.3 per cent. The problem of school drop-outs was predominant in hardship districts and in urban areas. Of special concern is the deteriorating trend in school drop-out ratios recorded in the 1979-1989 period for the age groups 6-9 and 10-14 years.

7.1.4. Status of school enrolment.

The majority (87 per cent) of the 6.2 million people aged 6 years and over who were attending school in 1989 was in primary level. The proportions attending secondary form 1-4 and higher level (form 5+) were only 11 per cent and 2 per cent respectively. Variations in school enrolment by sex were very small at primary level but widened with the increase

in education level. At higher level (form 5+), the ratio of males to females enrolment was 2 to 1.

Using the ratio of the population attending primary school aged 14 years and above to the total population attending primary school as a measure for scholastic retardation, the average retardation rate was about 28 per cent in 1989. Variations in scholastic retardation exist by sex and region. Males and rural residents had higher scholastic retardation rates when compared with females and urban residents respectively. Nairobi had the lowest scholastic retardation rate of 17 per cent while Kitui had the highest rate of 38 per cent.

Scholastic progression rates were computed using the ratio of the form 1 enrolments to standard 8 enrolments in 1989. The average scholastic progression rate was 49 per cent in 1989. Variations in scholastic progression rates also exist by sex and region. Females and rural residents had relatively lower progression rates when compared with their males and urban resident counterparts. Scholastic progression rate was highest in Nairobi (68 per cent) and lowest in West Pokot (33 per cent).

7.1.5. Status of education attainment.

The majority (53 per cent) of the population aged 6 years and above in 1989 had some primary school level of education. The proportion of the population with no education was 32 per cent, of those with secondary form 1-4 level was 13 per cent and of those with form 5+ was only 2 per cent. The 1979-1989 trend analysis revealed that: there was a substantial decline in the population with no level of education; greater improvements especially for the females were recorded for the population with primary 5-8 level of education; and the proportions of the population with form 1-4 and form 5+ level of education doubled between 1979 and 1989 with females registering greater improvements than males.

Variations in the population with secondary and higher education attainment exist also by region. Districts located in hardship areas had lower proportions with secondary and higher level of education attainment. While Nairobi and Central Provinces had 48 per cent and 39 per cent of their population aged 20-24 years with secondary form 1-4 level of education, North Eastern Province had only 8 per cent. The majority of the university graduates was in the urban areas in 1989.

7.1.6. Projections of school age population

The projected primary school age population (6 to 13 years) is expected to increase from 5.9 million in 1990 to 6.8 million in the year 2000. The rate of increase is expected to slow down slightly from 10 per cent in 1990-1995 period to 6 per cent in 1995-2000 period due to expected continued fertility decline. Secondary school age population (14 to 17 years) is expected to increase from 2.5 million in 1990 to 3.6 million in the year 2000. The rate of increase is expected to continue to rise by 31 per cent in the 1990-1995 period by 10 per cent in the 1995-2000 period due to recent decline in fertility. These projected rates of increase in the school age population have serious implications.

7.2. Policy Recommendations

The following are the recommendations for policy that arise from the results of the analysis:

1. Develop appropriate policies and programmes that will raise adult literacy rates and also reduce the disparities by sex and region especially in low literacy zones.
2. Review and reformulate education policies and programmes with a view to:
 - a) reducing school drop-out rates in the school age population with a bias towards the urban areas, in hardship areas and among females.
 - b) improving school enrolment rates in areas with low rates and reducing disparities in school enrolments by sex in Coast and North Eastern Provinces.
 - c) reducing scholastic retardation among the males, in rural areas and in districts with high retardation rates.
 - d) increasing education and other training opportunities for the rapidly increasing school age population so as to promote higher rates of scholastic progression and also cater for those who fail to progress to higher education levels.

7.3. Recommendations for Future Census Undertakings

The following recommendations focus on the considerations that need to be taken into account at the stage of designing the census schedule for future census undertakings:

1. The question on literacy should be dropped in view of the considerations that : it is not feasible to administer literacy tests during the census; the quality of the reported literacy status without accompanied tests cannot be assessed objectively; and crude literacy rates can be computed indirectly using information on education attainment.
2. The restriction of age limit of 6 years and above placed on education questions in 1989 census should be removed and appropriate codes added so as to capture pre-primary class attendants and those who might enrol in class one before attaining age 6 years.
3. The question on education needs re-focusing so as to eliminate possible confusion of education level reached for education level completed. This could be done by asking for the class reached and a sub-question on whether that class reached was completed.

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