



Republic of Sierra Leone

2004 Population and Housing Census

Analytical Report on Population Size and Distribution Age and Sex Structure

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EXECUTIVE SUMMARY

➡ POPULATION SIZE

a. Type of Enumeration

The 2004 Population and Housing Census was a de facto enumeration. It involved a count of all persons in households who were present in the dwelling unit on census night December 3rd and 4th. It was the fourth national population census, being preceded by national censuses in 1963, 1974 and 1985.

b. Total Population

The total enumerated population was 4,976,871. This consisted of 4,930,532 persons, (or 99.1 percent of the total), enumerated in households, and 46,339 persons, or 0.9 percent, enumerated in institutions, or who had no fixed place of residence.

c. Changes in Total Population Since 1901

The total national population increased from 1,024,278 in 1901 to 4,976,871 in 2004, an increase of 386 percent in 103 years, at an average annual rate of 1.5 percent. However, inter-censal changes in population size have fluctuated considerably from 1901-1911 to 1985-2004.

➡ POPULATION DISTRIBUTION

a. Distribution By Major Administrative Units

The national total of 4,976,871 persons was distributed amongst the Eastern, Northern, Southern and Western Area Regions, 14 Districts, and 150 Chiefdoms and 12 Wards.

Population distribution was fairly even amongst these units. Each Region contained between 19.0 percent and 35 percent, and each District between 2.8 percent and 15.5 percent, of the national population. Only three of the 150 Chiefdoms in the Eastern, Northern and Southern Regions had more 2.0 percent of the national population, and only four contained more than 25 percent of the total population of their District population.

In the Western area Region, two of the 12 Wards had more than 2.0 percent of the national population and another two contained over 35 percent of the population of their District.

Inter-censal changes in distribution since 1985 show varying increases in the population of Districts, from 4.1 percent in Moyamba to 106.3 percent in Western Rural District. Kono District on the other hand showed a slight decline in population over the inter-censal period.

More significant increases or decreases have occurred in the population size of a number of Chiefdoms, in consonance with the general trend for the District.

These inter-censal changes may have been a consequence of the changing economic opportunities in these areas, possibly the result of the 10-Year Rebel War which had an adverse impact on all types of economic activity, triggered large scale forced migration between administrative units, and to countries outside Sierra Leone.

➡ **AGE-SEX STRUCTURE**

a. General Sex Ratios

General Sex Ratios for Sierra Leone and the majority of its administrative units show a predominance of females in the population. For Sierra Leone, the sex ratio is 94 males per 100 females. Only the Eastern Region, with two of its three constituent Districts, namely Kenema and Kono, have sex ratios of over 100. In all other Regions and Districts, the General Sex Ratios are less than 100 males per females.

General Sex Ratios for Chiefdoms, and the Wards in Western Area Region, reflect the sex ratio of the District as a whole. For example, eight out of the 16 Chiefdoms in Kenema and six of the 14 Chiefdoms in Kono have a sex ratio of over 100. In all other Districts, the majority of Chiefdoms have an excess of females. On the other hand, two of the four Wards in Western Rea Rural and four of the eight in Western Area Urban have a male surplus.

These variations in sex ratios may be partly linked to the predominant economic activity in the area; with a male excess in those Districts in which the main economic activity is diamond mining or cash crop production, as in Kono and Kenema; and a female excess in all other Districts in which subsistence agriculture is the most important economic activity.

b. Changes In General Sex Ratios

The General Sex Ratios for Sierra Leone declined by 5.1 percent from 99 males per 100 females in 1985 to 94 males per 100 females in 2004, a continuation of the downward trend since 1974.

For the Districts, Bombali and Pujehun had slightly more males than females in 2004 than in 1985. While in all other Districts the General Sex Ratio declined.

c. Five Year Age-Sex Ratios

Five-year age-sex ratios for Sierra Leone, the Regions and Districts show a male deficit in the majority of age groups. Significant exceptions are the Eastern Region, and its two Districts, Kenema and Kono, and also in Western Area Urban.

The reasons for the continuing prevalence of low sex ratios in Sierra Leone and most Districts may be linked to the Rebel War which resulted in increased mortality, forced migration, and the relocation of Internally Displaced Persons in Refugee Camps. All of these factors may have had a greater impact on males than females. But the true impact of these possible determinants can only be established by more detailed analysis.

➡ **AGE COMPOSITION**

a. Single Year Age Distribution

The single year age distribution shows a number of distortions, especially the concentration of population, referred to as “age heaping” or “digit preference” at ages ending in digit 0 and digit 5, and to a less extent at ages ending in even number digits. In contrast, those ages which end in odd number digits contain relatively small proportions of the population.

b. Estimation Of The Levels Of Age Accuracy

Estimation of the levels of accuracy of age reporting using three standard procedures developed by Whipple, Myers and Bachi confirm the high levels of inaccuracy, especially digit preference, in the single year age data.

These inaccuracies are a consequence of the problems of reporting age in a population like Sierra Leone, in which levels of literacy are low, the majority of persons have no knowledge of their age, and do not have any documentary evidence which can be used as an aid to determine it. Ages were therefore estimated by using other less scientific techniques which are more prone to errors.

c. Five-Year Age Distribution

As expected, in a country like Sierra Leone, which has a high level of fertility, the age structure show a relatively broad base with 15.3 percent and 14.9 percent of the population at ages 0-4 and 5-9 years respectively.

At other ages the distribution of the male population appears to conform to the expected pattern; as the age groups become smaller with advancing years, from 0-4 years to 70-74 years. For females, there are a number of distortions to the expected pattern, with deficits, called “troughs” at age groups 10-14, 20-24 and 55-59 years, and excesses, called “bulges” at ages 15-19, 25-29 and 60-64 years.

The age structure of the population of the Regions and Districts show similar features, except in the Western Area Rural and Western Area Urban where age reporting appears to be more accurate than in the rest of the country.

d. Estimation Of The Accuracy Of Reporting In The Five Year Age Data

The UN Joint Score shows a high level of inaccuracy in the five-year age-sex data of Sierra Leone; the Regions, except the Western Area Region; and the Districts, except Western Area Rural and Western Area Urban.

➡ **AGE COMPOSITION: BROAD AGE GROUPS**

For Sierra Leone, the population is relatively young; 15.3 percent are aged under 5 years, 41.7 percent aged 0-14 years, 53.9 percent aged 15-64 years, and only 4.4 percent aged 65 years and over.

The pattern of distribution is similar in all Regions and Districts.

➡ **AGE DEPENDENCY RATIOS**

a. The Age Dependency Ratios

The observed patterns of population distribution by broad age groups is reflected in the Age Dependency Ratios. For Sierra Leone, the Total Dependency Ratio was 85.5, the Child Dependency Ratio 77.4, and the Old Age Dependency Ratio 8.1, a consequence of the relatively large proportion of children aged 0-14 years in the population.

This pattern is generally repeated in all the Regions and Districts, with only variation in Western Area Rural and Western Area Urban.

b. Changes in Age Dependency Ratios

For the country as a whole, the Total Dependency Ratio declined between 1985 and 2004, a consequence of the decline in both the Child Dependency Ratio and Old Age Dependency Ratio, with the implication that the combined burden of both children and the aged on the working population has declined.

All Districts, except Kono, have experienced a decrease in either the Child Dependency Ratio or the Old Age Dependency Ratio, or in both ratios. Only in Kono have both the Child Dependency Ratio and the Old Age Dependency Ratios increased.

➡ **CONCLUSIONS**

The population of Sierra Leone has increased at widely fluctuating rates between 1901-1911 and 1985-2004, while the distribution amongst the major administrative units around the country is fairly even.

Significant changes have occurred in the population size of some Districts, Chiefdoms and Wards. These may have been a consequence of normal demographic processes, or may have been due to other socio-economic and other related factors, including the 10-Year Rebel War.

There are slightly more females than males in the national population, a continuation of the trend observed in 1963, 1974 and 1985. Districts and Chiefdoms have also experienced varying patterns and trends in sex ratios, the nature and quantum of which have been influenced by changing social and economic conditions at both national and local levels.

The age composition of the 2004 population exhibits many of the characteristics observed in many other African populations including a high incidence of age misreporting, and relatively large percentages of the population aged under 15 years, in comparison with the population aged 15 to 64 years.

There are also significant differences in the age composition of Districts, as revealed by variations in the Age Dependency Ratios in 2004, and changes from 1985.

As this analysis has already emphasised, more detailed research is required on many aspects of the current pattern and inter-censal changes in age and sex composition of the population by major administrative units, to understand the many and complex factors which have created the changes in these characteristics.

1. POPULATION SIZE

a. Type Of Enumeration

The Population and Housing Census held between December 4 and December 19, 2004 (the 2004 Population Census) was the fourth complete national census conducted in Sierra Leone. The first was in 1963, the second and third in 1974 and 1985 respectively.

For the 2004 Population Census respondents were asked *“What are the names of persons who spent census night here (December 3 and 4, 2004)?”* This type of enumeration is usually referred to as ‘de facto’ because it includes persons who were physically present in the identified structure, and within the identified household on census night.

The 2004 Population Census involved a count of all persons who were found in dwelling units, in institutions, and those who had no fixed place of residence, referred to as the “floating population”.

b. Total Population 2004

The final results of the 2004 Population and Housing Census show that Sierra Leone had a total population of 4,976,871. Of these, 4,930,532 persons, or 99.1 percent, were enumerated in households. In addition, 46,339, or 0.9 percent, referred to as “Special Population”, comprised persons who were enumerated in institutions, and those persons who had no fixed place of residence, and are usually referred to as the “floating population”.

The data on total population provide a basis for analysing changes in the total population of Sierra Leone since 1901, the current pattern of population distribution by major administrative divisions, and the inter-censal changes since 1985.

c. Changes In Total Population Since 1901

Compared to the total of 1,024,278 in 1901, the figures indicate that the population of Sierra Leone has grown by 385.9 percent in the 103 year period, at an average annual rate of 1.5 percent. This means that it took just over 62 years from 1901 to 1963 for the population to double its size, and another 40 years for the next doubling to take place.

The inter-censal growth rates are generally low, but show two distinct patterns (Table 1).

**Table 1: Inter-censal Rate of Change of the Population of Sierra Leone
1901 To 2004**

Intercensal Period	Percentage Change	Average Annual Rate Of Change
1901 - 1911	36.7	3.2
1911 - 1921	10.0	1.0
1921 - 1931	14.8	1.4
1931 - 1948	5.1	0.3
1948 - 1963	17.3	1.1
1963 - 1974	25.4	2.0
1974 - 1985	28.5	2.3
1985 - 2004	41.6	1.8

For every period, from 1901 to 1963, the average annual rate of growth was less than 1.5 percent except for the inter-censal period 1901 -1911 when the annual rate of growth was 3.2 percent. For each of the four other periods, the rate of growth was less than 1.5 percent. In contrast for the three inter-censal periods which cover the four national censuses in 1963, 1974, 1985 and 2004, the rates of inter-censal growth were 2.0 percent for 1963 -1974, 2.3 percent for 1974 - 1985 and 1.8 percent for 1985 - 2004.

These two patterns may have been the result of the varying degrees of completeness of coverage in the two types of censuses. Censuses before 1963 consisted of counts in some areas, and estimates of the total population in others, and were therefore less complete in coverage, and less accurate in the final count of the total numbers of persons. In contrast, the population census of 1963 was the first truly national census during which every individual was enumerated throughout the country. Censuses in 1974, 1985 and 2004 have followed a similar pattern.

2. POPULATION DISTRIBUTION

a. Distribution By Major Administrative Units

The total national population of 4,976,871 was distributed over the Eastern Region, Northern Region, Southern Region and the Western Area Region (formerly the Western Area). The original three Provinces were further subdivided, firstly into 12 Districts, and then into 150 chiefdoms. For the purposes of the 2004 Population Census, the renamed Western Area Province was divided into Western Area Rural and Western Area Urban. Western Area Rural was divided into four Wards and Western Area Urban into eight Wards.

These Regions, Districts, Chiefdom and Wards form the basis for the analysis of the total population by major administrative units.

i : Regions And District

The percentage distribution of the total national population of 4,976,871 by Region is shown in Table 2, and by District in Table 3.

Table 2: Percentage Distribution of Total Population by Region 2004

Region	Percentage
Eastern	23.9
Northern	35.1
Southern	22.0
Western Area	19.0
Sierra Leone	100.0 (4,976,871)

Table 3: Percentage Distribution of Total Population by District 2004

District	Percentage
Kailahun	7.2
Kenema	10.0
Kono	6.8
Bombali	8.2
Kambia	5.4
Koinadugu	5.3
Port Loko	9.1
Tonkolili	7.0
Bo	9.3
Bonthe	2.8
Moyamba	5.3
Pujehun	4.6
Western Area Rural	3.5
Western Area Urban	15.5

Sierra Leone	100.0 (4,976,871)
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Table 2 shows that of the four Regions, Northern had the largest share of the national population (35.1 percent), and the Western Area the smallest with 19.0 percent.

However, in relation to the Districts, as seen in Table 3, the Western Area Urban had the largest population with 15.5 percent of the total population. Kenema with 10.0 percent, Bo with 9.3 percent, Port Loko with 9.1 percent, and Bombali with 8.2 percent, had the four largest population outside Western Area Urban.

In contrast Bonthe with 2.8 percent, has the smallest population. However, there are two other Districts with fewer than 5 percent of the total population. They are Pujehun (4.6 percent) and Western Area Rural (3.5 percent).

ii. Chiefdom

The percentage distribution of the population for each District, tabulated by Chiefdoms, is shown in Table 4. The Table also shows the percentage of the national population in each Chiefdom.

The figures show a number of interesting features. Firstly, the number of Chiefdoms in each District varies from 7 in Kambia to 16 in Kenema. Each of the 10 other Districts has between 11 and 15 Chiefdoms.

As a result the population is widely, but unevenly, dispersed amongst the Chiefdoms in each District. Only four Chiefdoms contain more than 25 percent of the population of their District, and more than 3.0 percent of the national population. They are Kakua, with 38.8 percent of the population of Bo; Nongowa, with 36.1 percent of Kenema; Bombali Seborra with 25.9 percent of Bombali; and Yoni, with 25.2 percent of Tonkolili.

In relation to the total national population, only three Chiefdoms have more than 2.0 percent of the population of Sierra Leone. They are Nongowa in Kenema District (3.6 percent), Kakua in Bo District (3.6 percent), and Bombali Seborra in Bombali

District (2.1 percent). These three Chiefdoms contain the District and Provincial headquarter towns of Kenema Township, Bo Township, and Makeni, respectively.

iii. Wards

As expected, there is a greater concentration of population in the wards of the Western Area Rural, and in Western Area Urban (Table 4). Of the four Wards in Western Area Rural, Waterloo has 44.6 percent, and York Rural 36.5 percent, of the total population. Of the eight Wards in Western Area Urban, by far the biggest concentration of population is in East III with 40.9 percent of the population. Each of the other seven wards contains less than 15 percent of the population.

In relation to the national population, only East III with 6.4 percent, and West III with 2.3 percent, have more than 2.0 percent of the total population of Sierra Leone.

Table 4 : Distribution Of Chiefdom Population As Percentage Of District Total And National Total

KAILAHUN			KENEMA			KONO		
Chiefdom	Percentage Of District Total	Percentage Of National Total	Chiefdom	Percentage Of District Total	Percentage Of National Total	Chiefdom	Percentage Of District Total	Percentage Of National Total
Dea	2.8	0.2	Dama	5.3	0.5	Fiama	2.7	0.2
Jawie	11.9	0.9	Dodo	2.9	0.3	Gbane	4.4	0.3
Kissi Kama	3.6	0.3	Gaura	3.5	0.3	Gbane Kandor	1.2	0.1
Kissi Teng	8.5	0.6	Gorama Mende	6.5	0.7	Gbense	21.4	1.4
Kissi Tongi	9.3	0.7	Kandu Lekpeama	4.4	0.4	Gorama Kono	3.5	0.2
Kpeje Bongre	3.5	0.3	Koya	2.0	0.2	Kamara	3.7	0.3
Kpeje West	3.6	0.3	Langrama	0.9	0.1	Lei	4.9	0.3
Luawa	18.3	1.3	Lower Bambara	15.7	1.6	Mafindor	2.0	0.1
Malema	6.5	0.5	Malegohun	2.5	0.2	Nimikoro	13.2	0.9
Mandu	5.5	0.4	Niawa	1.7	0.2	Nimiyama	7.8	0.5
Njaluahun	10.5	0.8	Nomo	0.8	0.1	Sandor	14.9	1.0
Penguia	3.5	0.3	Nongowa	36.1	3.6	Soa	6.3	0.4
Upper Bambara	7.9	0.6	Simbaru	3.7	0.4	Tankoro	13.1	0.9
Yawei	4.5	0.3	Small Bo	6.3	0.6	Toli	0.8	0.1
			Tunkia	4.3	0.4			
			Wandor	3.5	0.3			
	100.0 (358,190)	7.2		100.0 (497,948)	10.0		100.0 (335,401)	6.7

Table 4 (Contd.) : Distribution Of Chiefdom Population As Percentage Of District Total And National Total

BOMBALI			KAMBIA			KOINADUGU		
Chiefdom	Percentage Of District Total	Percentage Of National Total	Chiefdom	Percentage Of District Total	Percentage Of National Total	Chiefdom	Percentage Of District Total	Percentage Of National Total
Biriwa	6.9	0.6	Bramaia	9.4	0.5	Dembelia Sinkunia	5.2	0.3
Bombali Sebor	25.9	2.1	Gbinle -Dixing	7.2	0.4	Diang	7.4	0.4
Gbanti-Kamaranka	6.4	0.5	Magbema	24.9	1.4	Follosaba Dembelia	5.5	0.3
Gbendembu Ngowahun	7.3	0.6	Mambolo	12.5	0.7	Kasunko	7.7	0.4
Libeisaygahun	3.3	0.3	Masungbala	10.5	0.6	Mongo	11.0	0.6
Magbaimba Ndorhahun	2.1	0.2	Samu	21.0	1.1	Neya	12.6	0.7
Makari Gbanti	10.1	0.8	Tonko Limba	14.5	0.8	Nieni	14.7	0.8
Paki Masabong	4.2	0.3				Sengbe	8.5	0.5
Safroko Limba	5.2	0.4				Sulima	7.5	0.4
Sanda Loko	6.8	0.6				Wara Wara Bafodia	9.7	0.5
Sanda Tendaren	4.6	0.4				Wara Wara Yagala*	10.2	0.5
Sella Limba	12.9	1.1						
Tambakka	4.3	0.4						
	100.0 (408,390)	8.2		100.0 (270,462)	5.4		100.0 (65,758)	5.3

Table 4 (Contd.): Distribution Of Chiefdom Population As Percentage Of District Total And National Total

PORT LOKO			TONKOLILI			BO		
Chiefdom	Percentage Of District Total	Percentage Of National Total	Chiefdom	Percentage Of District Total	Percentage Of National Total	Chiefdom	Percentage Of District Total	Percentage Of National Total
BKM	7.1	0.6	Gbonkolenken	13.8	1.0	Badjia	1.7	0.2
Buya Romende	6.1	0.6	Kafe Simira	5.7	0.4	Bagbo	5.4	0.5
Dibia	3.3	0.3	Kalansogoia	4.7	0.3	Bagbwe	2.4	0.2
Kaffu Bullom	15.3	1.4	Kholifa Mabang	3.6	0.3	Baoma	11.0	1.0
Koya	14.0	1.3	Kholifa Rowalla	13.7	1.0	Bumpe Ngawo	7.7	0.7
Lokomasama	15.9	1.5	Kunike Barina	3.9	0.3	Gbo	1.1	0.1
Maforki	15.0	1.4	Kunike Sanda	12.4	0.9	Jaimama-Bongor	5.6	0.5
Marampa	8.0	0.7	Malal Mara	4.0	0.3	Kakua	38.8	3.6
Masimera	7.2	0.7	Sambaya	6.5	0.5	Komboya	3.4	0.3
Sanda Magbolontor	3.3	0.3	Tane	6.4	0.4	Lugbu	5.1	0.5
TMS	4.6	0.4	Yoni	25.2	1.8	Niawa Lenga	2.4	0.2
						Selenga	1.2	0.1
						Tikonko	8.5	0.8
						Valunia	3.8	0.4
						Wunde	2.1	0.2
	100.0 (453,746)	9.1		100.0 (347,197)	7.0		100.0 (463,668)	9.3

Table 4 (Contd.) : Distribution Of Chiefdom Population As Percentage Of District Total And National Total

BONTHE			MOYAMBA			PUJEHUN		
Chiefdom	Percentage Of District Total	Percentage Of National Total	Chiefdom	Percentage Of District Total	Percentage Of National Total	Chiefdom	Percentage Of District Total	Percentage Of National Total
Bendu Cha	3.4	0.1	Bagruwa	7.3	0.4	Barri	14.1	0.6
Bum	13.5	0.4	Bumpeh	12.4	0.7	Gallinasperi*	11.9	0.5
Dema	3.8	0.1	Dasse	4.2	0.2	Kpaka	5.6	0.3
Imperi	12.6	0.4	Fakunya	8.6	0.4	Kpanga-Kabonde	14.6	0.7
Jong	20.4	0.6	Kagboro	11.9	0.6	Makpele	9.6	0.4
Kpanda Kemo	5.5	0.2	Kaiyamba	8.3	0.4	Malen	9.7	0.4
Kwamebai Krim	5.5	0.2	Kamajei	3.3	0.2	Mano Sakrim	3.3	0.2
Nongoba Bullom	9.7	0.3	Kongbora	4.3	0.2	Panga Krim	2.9	0.1
Sittia	9.6	0.3	Kori	11.1	0.6	Pejeh	4.5	0.2
Sogbini	5.6	0.2	Kowa	2.7	0.1	Soro Gbema	14.0	0.6
Yawbeko	3.4	0.1	Lower Banta	9.9	0.5	Sowa	6.7	0.3
Bonthe Town	7.0	0.2	Ribbi	9.6	0.5	YKK	3.1	0.1
			Timdale	3.1	0.2			
			Upper Banta	3.2	0.2			
	100.0 (139,687)	2.8		100.0 (260,910)	5.2		100.0 (228,392)	4.6

Table 4 (Contd.): Distribution Of Chiefdom Population As Percentage Of District Total And National Total

WESTERN AREA RURAL			WESTERN AREA URBAN		
Ward	Percentage Of District Total	Percentage Of National Total	Ward	Percentage Of District Total	Percentage Of National Total
Koya	13.2	0.5	Central 1	6.5	1.0
Mountain	5.7	0.2	Central 2	2.6	0.4
Waterloo	44.6	1.6	East 1	7.1	1.1
York Rural	36.5	1.3	East 2	10.3	1.6
			East 3	40.9	6.4
			West 1	6.0	0.9
			West 2	11.8	1.8
			West 3	14.7	2.3
	100.0 (174,249)	3.5		100.0 (772,873)	15.5

b: Changes In Population Size 1985 To 2004

i. Regions and Districts

The percentage change, and average annual change, in the population size for 1985 to 2004 for Regions are shown in Table 5, and for Districts in Table 6.

Table 5: Percentage Change and Average Annual Change in Population Size of Regions 1985 To 2004

Region	Percentage Change	Average Annual Change
Eastern	24.0	1.1
Northern	38.6	1.7
Southern	47.4	2.9
Western Area	70.9	1.8
Sierra Leone	41.6	1.8

Table 6: Percentage Change and Average Annual Change in Population Size Of Districts 1985 To 2004

District	Percentage Change	Average Annual Change
Kailahun	53.2	2.3
Kenema	47.7	2.1
Kono	-13.9	-0.8
Bombali	28.5	1.3
Kambia	45.2	2.0
Koinadugu	45.0	2.0
Port Loko	37.8	1.7
Tonkolili	42.8	1.9
Bo	72.6	2.9
Bonthe	33.0	1.5
Moyamba	4.1	0.2
Pujehun	94.9	3.6
Western Area Rural	106.3	3.9
Western Area Urban	64.5	2.7

As figures in Table 5 show, the biggest increase in population between 1985 and 2004, 47.4 percent or 2.9 percent per annum, was in the Southern Region, while the Eastern Region, with 24.0 percent or 1.1 percent per annum, experienced the smallest rate of growth.

However, for the Districts, figures in Table 6 indicate that the population of Western Area Rural increased by 106.3 percent, or 3.9 percent per annum, between 1985 and 2004. Other Districts in which the population increased by more than 50 percent or 2.2 percent per annum, were Pujehun (94.9 percent, or 3.6 percent per annum), Western Area Urban (64.5 percent or 2.7 percent per annum), Bo (72.6 percent or 2.9 percent per annum), and Kailahun (53.2 percent or 2.3 percent per annum).

In contrast, the smallest increases, of less than 30 percent, occurred in Moyamba (4.1 percent or 0.2 percent per annum) and Bombali (28.5 percent or 1.3 percent per annum)

The most significant change was in Kono in which the population declined by 13.9 percent, or 0.8 percent per annum during the inter-censal period.

ii. Chiefdoms

As shown in Table 7, all the Chiefdoms in Kailahun, Kambia, Bo, Bonthe, Pujehun, and all the Wards in Western Area Rural experienced an increase in population between 1985 and 2004, a reflection of the relatively large population increases in these Districts (Table 3).

While in many Chiefdoms, the population has more than doubled in the inter-censal years, the largest increases, of over 200 percent, were in Kholifa Rowalla (331 percent) and in Kunike Sanda (244 percent), both in Tonkolili; in Soro Gbema (229 percent) in Pujehun; and Mountain (223 percent) and York Rural (203 percent) in Western Area Rural.

However, in a number of Districts the population has increased in size in some Chiefdoms but declined in others, for example in Kono, Bombali, Tonkolili, Moyamba and Western Area Rural.

The decline in the population of Kono, observed in Table 7, appears to have had the greatest impact in six of the fourteen Chiefdoms. There was a decrease in population size of between 12 percent in Toli and 51 percent in Kamara.

Hostile rebel activity during the 10-year Rebel War all over the country, and its adverse impact on all types of economic activity, both nationally and at District and Chiefdom levels, including diamond mining in Kono, certainly caused the population to migrate from some Chiefdoms. On the other hand the search for safe havens may have attracted large numbers of internally displaced persons to other Chiefdoms.

The real impact of these various social, economic, demographic and war-related factors which may have triggered such diverse population changes, can only be properly determined by more detailed analytical research based on other additional data.

Table 7 : Percentage Change In Population Size Of Chiefdoms 1985 To 2004

KAILAHUN		KENEMA		KONO	
Chiefdom	Percentage Change 1985-2004	Chiefdom	Percentage Change 1985-2004	Chiefdom	Percentage Change 1985-2004
Dea	33	Dama	39	Fiama	-34
Jawie	87	Dodo	62	Gbane	3
Kissi Kama	82	Gaura	17	Gbane Kandor	37
Kissi Teng	28	Gorama Mende	40	Gbense	11
Kissi Tongi	124	Kandu Lekpeama	50	Gorama Kono	89
Kpeje Bongre	24	Koya	49	Kamara	-51
Kpeje West	22	Langrama	138	Lei	32
Luawa	33	Lower Bambara	17	Mafindor	59
Malema	130	Malegohun	3	Nimikoro	-42
Mandu	42	Niawa	53	Nimiyama	-45
Njaluahun	23	Nomo	39	Sandor	-25
Penguia	78	Nongowa	98	Soa	66
Upper Bambara	71	Simbaru	42	Tankoro	13
Yawei	70	Small Bo	61	Toli	-12
		Tunkia	-3		
		Wandor	11		

Table 7 (Contd.) : Percentage Change In Population Size Of Chiefdoms 1985 To 2004

BOMBALI		KAMBIA		KOINADUGU	
Chiefdom	Percentage Change 1985-2004	Chiefdom	Percentage Change 1985-2004	Chiefdom	Percentage Change 1985-2004
Biriwa	8	Bramaia	54	Dembelia Sinkunia	-8
Bombali Sebora	78	Gbinle -Dixing	82	Diang	59
Gbanti-Kamaranka	31	Magbema	70	Follosaba Dembelia	40
Gbendembu Ngowahun	11	Mambolo	26	Kasunko	16
Libeisyagahun	15	Masungbala	47	Mongo	25
Magbaimba Ndorhahun	-20	Samu	34	Neya	102
Makari Gbanti	75	Tonko Limba	26	Nieni	34
Paki Masabong	40			Sengbe	51
Safroko Limba	35			Sulima	48
Sanda Loko	120			Wara Wara Bafodia	126
Sanda Tendaren	4			Wara Wara Yagala*	44
Sella Limba	-2				
Tambakka	-34				

Table 7 (Contd.): Percentage Change In Population Size Of Chiefdoms 1985 To 2004

PORT LOKO		TONKOLILI		BO	
Chiefdom	Percentage Change 1985-2004	Chiefdom	Percentage Change 1985-2004	Chiefdom	Percentage Change 1985-2004
BKM	41	Gbonkolenken	60	Badjia	54
Buya Romende	16	Kafe Simira	30	Bagbo	61
Dibia	-17	Kalansogoia	57	Bagbwe	28
Kaffu Bullom	72	Kholifa Mabang	-67	Baoma	70
Koya	37	Kholifa Rowalla	331	Bumpe Ngawo	4
Lokomasama	55	Kunike Barina	-34	Gbo	48
Maforki	55	Kunike Sanda	244	Jaimama-Bongor	29
Marampa*	9	Malal Mara	0	Kakua	144
Masimera		Sambaya	51	Komboya	100
Sanda Magbolontor	26	Tane	31	Lugbu	28
TMS	84	Yoni	47	Niawa Lenga	139
				Selenga	31
				Tikonko	75
				Valunia	28
				Wunde	42

Table 7 (Contd.): Percentage Change In Population Size Of Chiefdoms 1985 To 2004

BONTHE		MOYAMBA		PUJEHUN	
Chiefdom	Percentage Change 1985-2004	Chiefdom	Percentage Change 1985-2004	Chiefdom	Percentage Change 1985-2004
Bendu Cha	41	Bagruwa	117	Barri	102
Bum	37	Bumpeh	35	Gallinasperi*	79
Dema	49	Dasse	19	Kpaka	104
Imperi	34	Fakunya	19	Kpanga-Kabonde	60
Jong	31	Kagboro	26	Makpele	76
Kpanda Kemo	2	Kaiyamba	7	Malen	75
Kwamebai Krim	47	Kamajei	4	Mano Sakrim	148
Nongoba Bullom	53	Kongbora	27	Panga Krim	121
Sittia	9	Kori	-37	Pejeh	129
Sogbini	52	Kowa	19	Soro Gbema	229
Yawbeko	45	Lower Banta	-39	Sowa	54
		Ribbi	36	YKK	93
		Timdale	68		
		Upper Banta	-12		

Table 7 (Contd.): Percentage Change In Population Size Of Chiefdoms 1985 To 2004

Western Area Rural		Western Area Urban	
Ward	Percentage Change 1985-2004	Ward	Percentage Change 1985-2004
Koya	90	Central 1	45
Mountain	223	Central 2	5
Waterloo	61	East 1	27
York Rural	203	East 2	40
		East 3	192
		West 1	-26
		West 2	-2
		West 3	121

3. AGE – SEX STRUCTURE

a. Sex Composition

The sex composition of a population can be measured by the Sex Ratio which is defined as the number of males per 100 females. A sex ratio of 100 denotes equal numbers of males and females, a sex ratio above 100 signifies an excess of males, and a sex ratio below 100 signifies an excess of females. Sex ratios can be calculated for the total population, or for specific age groups. The 2004 Final Census Results provide data for analysing the General and Age-specific Sex ratios for Sierra Leone and the Districts.

b. General Sex Ratios

i. Sierra Leone

For the country as a whole, the general sex ratio was 94 males per 100 females reflecting a female excess of 147,913.

ii. Regions and Districts

The low general sex ratio for Sierra Leone is replicated for three of the four Regions, and for 12 of the 14 Districts (Table 8).

Table 8: Sex Ratios for Sierra Leone and Districts 2004 and Percentage Change 1985 to 2004

District	Sex Ratio 2004 (Males per 100 Females)	Percentage Change 1985 to 2004
Sierra Leone	94	-5.1
Eastern Region	101	na
Kailahun	94	-2.1
Kenema	102	-1.9
Kono	106	-5.4
Northern Region	88	na
Bombali	93	+1.1
Kambia	90	-1.1
Koinadugu	88	-4.3
Port Loko	88	-4.3
Tonkolili	87	-9.4
Southern Region	94	na
Bo	96	-1.0
Bonthe	92	-4.1
Moyamba	90	-4.3
Pujehun	93	+1.1
Western Area Region	97	na
Western Area Rural	95	-11.2
Western Area Urban	98	-9.3

Of the four Regions, only the Eastern Region, with a Sex Ratio of 101, has a small excess of males over females. In all other Regions, there are more females than males.

This general pattern of excess females is generally replicated in the Districts. Only in two Districts, Kenema (102) and Kono (106) is the General Sex Ratio above 100, indicating an excess of males. In all other Districts, the General Sex Ratio is less than 100, indicating more females than males. Sex ratios of less than 90 males per 100 females are in Port Loko (88), Koinadugu (88) and Tonkolili (87).

These relatively low sex ratios may be the consequence of a number of factors. Firstly differences in socio-economic conditions may have created population movements between Districts. The highest sex ratios are in the diamond mining and cash crop Districts of Kono and Kenema where employment opportunities are more easily available than in other Districts. These Districts may have attracted relatively more males than females from other less prosperous Districts within the country, and from other countries outside Sierra Leone.

Low sex ratios, on the other hand, occur in those Districts in which the primary economic activity is subsistence agriculture and where, as a result, socio-economic conditions are less favourable. These Districts therefore have experienced large net out-migration especially of males, leaving behind an excess of females.

The low sex ratios for the Western Area Rural (95) and Western Area Urban (98) are surprising. With the capital Freetown experiencing net in-migration, the expectation would have been a male surplus in the sex composition.

iii. Chiefdoms

Figures in Table 9 indicate that General Sex Ratios for Chiefdoms reflect the sex distribution of their District as a whole. Eight out of the 16 Chiefdoms in Kenema, and six of the 14 Chiefdoms in Kono (the two Districts with a male surplus population) have a sex ratio of over 100, signifying an excess of males over females.

Only one Chiefdom in each of Kailahun, Bombali and Pujehun, and three Chiefdoms in Bo, have an excess of males over females. In all other Districts, all the Chiefdoms have more females than males in the population. The lowest sex ratio of 83 males per 100 females is in Kasunko Chiefdom in the Koinadugu District.

iv. Wards

Two of the four wards in Western Area Rural, and three of the eight wards in Western Area Urban, have a male surplus (Table 9).

While these variations in sex ratios may partly be explained by sex differences in internal migration streams, the underlying reasons for the consistently low sex ratios in the majority of Chiefdoms need to be further analysed, but would require additional data on other social, economic and cultural indicators.

Table 9 : Sex Ratios For Chiefdoms In Districts 2004

KAILAHUN		KENEMA		KONO		BOMBALI		KAMBIA	
Chiefdom	Sex Ratio (Males per 100 Females)	Chiefdom	Sex Ratio (Males per 100 Females)	Chiefdom	Sex Ratio (Males per 100 Females)	Chiefdom	Sex Ratio (Males per 100 Females)	Chiefdom	Sex Ratio (Males per 100 Females)
Dea	92	Dama.	90	Fiama	95	Biriwa	86	Bramaia	86
Jawie	96	Dodo	98	Gbane	94	Bombali Sebor	90	Gbinle-Dixing	93
Kissi Kama	88	Gaura	94	Gbane Kandor	90	Gbanti-Kamaranka	91	Magbema	91
Kissi Teng	93	Gorama Mende	103	Gbense	112	G/Ngowahun	88	Mambolo	89
Kissi Tongi	89	Kandu Lekpeama	121	Gorama Kono	101	Libeisyahun	87	Masungbala	89
Kpeje Bongre	88	Koya-Kenema	90	Kamara	126	M/Ndorhahun.	92	Samu	89
Kpeje West	95	Langram	96	Lei	89	Makari Gbanti	89	Tonko Limba	90
Luaw	90	Lower Bambara	127	Mafindor	89	Paki Masabong	85		
Malema	118	Malegohun	101	Nimikoro	121	Safroko Limba	85		
Mandu	91	Niawa	90	Nimiyama	120	Sanda Loko	90		
Njaluahun	96	Nomo	106	Sandor	97	Sanda Tendaren	91		
Penguia	91	Nongowa	101	Soa	91	Sella Limba	117		
Upper Bambara	92	Simbaru	104	Tankoro	101	Tambakka	92		
Yawei	92	Small Bo	96	Toli	85				
		Tunkia	91						
		Wondor	101						

Table 9 (Contd.) : Sex Ratios For Chiefdoms In Districts- 2004

KOINADUGU		PORT LOKO		TONKOLILI		BO		BONTHE	
Chiefdom	Sex Ratio (Males per 100 Females)	Chiefdom	Sex Ratio (Males per 100 Females)	Chiefdom	Sex Ratio (Males per 100)	Chiefdom	Sex Ratio (Males per 100 Females)	Chiefdom	Sex Ratio (Males per 100 Females)
Dembelia Sinkunia	94	Bkm.	88	Gbonkolenken	85	Badjia	93	Bendu Cha	96
Diang	86	Buya Romende	90	Kafe Simira	89	Bagbo	94	Bum	93
Falasobia Dembelia	91	Dibia	90	Kalansogoia	86	Bagbwe	88	Dema	93
Kasunko	83	Kaffu Bullom	93	Kholifa Mabang	85	Baoma	107	Imperi	99
Mango	88	Koya	87	Kholifa Rowalla	90	Bumpe Ngawo	93	Jong	91
Neya	85	Lokomasama	86	Kunike Barina	96	Gbo	85	Kpanga Kemo	93
Nieni	86	Maforki	88	Kunike Sanda	89	Jaiama-Bongor	95	Kwamebai Krim	91
Sengbe	88	Marampa	91	Malal Mara	86	Kakua	95	Nongoba Bullom	93
Sulima	93	Masimera	86	Sambaya	86	Komboya	93	Sittia	88
Wara Wara Bafodia	93	Sanda Magbolontor	87	Tane	87	Lugbu	106	Sogbini	91
Wara Wara Yagala	91	TMS	87	Yoni	86	Niawa Lenga	88	Yawbeko	97
						Selenga	89		
						Tikonko	102		
						Valunia	96		
						Wunde	94		

Table 9 (Contd.) : Sex Ratios For Chiefdoms - 2004

MOYAMBA		PUJEHUN		WESTERN AREA RURAL		WESTERN AREA URBAN	
Chiefdom	Sex Ratio (Males per 100 Females)	Chiefdom	Sex Ratio (Males per 100 Females)	Chiefdom	Sex Ratio (Males per 100 Females)	Chiefdom	Sex Ratio (Males per 100 Females)
Bagruwa	90	Barri	95	Koya	91	Central 1	103
Bumpeh	88	Gallinas Peri	93	Mountain	124	Central 2	102
Dasse	88	Kpaka	88	Waterloo	93	East 1	97
Fakunya	90	Kpanga-Kabonde	95	York Rural	102	East 2	99
Kagboro	92	Makpele	95			East 3	96
Kaiyamba	89	Malen	101			West 1	97
Kamajei	87	Mano Sakrim	90			West 2	100
Kongbora	96	Panga Krim	91			West 3	102
Kori	91	Pejeh	89				
Kowa	86	Soro Gbema	87				
Lower Banta	91	Sowa	94				
Ribbi	88	YKK	95				
Timdale	93						
Upper Banta	99						

c: Changes In General Sex Ratios Of Districts

The figures in Table 8 also show the percentage changes in Sex Ratio from 1985 to 2004 for Sierra Leone and the Districts. The figures required to calculate inter-censal changes in sex ratios for Regions are not available.

i. Sierra Leone

The Sex Ratio for Sierra Leone declined by 5.1 percent from 99 males per 100 females in 1985 to 94 males per 100 females in 2004. As the sex ratios of 98 males per 100 females in 1963, and 99 males per 100 females in 1974 show, females have always formed the majority in the population.

ii. Districts

The percentage changes in sex ratios between 1985 and 2004 reveal a number of interesting features. Bombali and Pujehun are the only two Districts in which there was a relatively small increase in the sex ratio, although both continued to show sex ratios of less than 100.

In all other Districts, the sex ratios declined. The most significant declines were by 11.2 percent in Western Area Rural, 9.3 percent in Western Area Urban, 9.4 percent in Tonkolili, and by 5.4 percent in Kono and Kailahun.

The reasons for the general decline in sex ratios in Sierra Leone, and in most Districts, which were already low, over the past 19 years, can only be speculative. The 10-year Civil War which went on for the best part of the inter-censal period, decimated the population through increased mortality, triggered considerable forced migration between Districts, and large scale emigration to other countries. These factors may have had more adverse consequences for males than females, resulting in the lowering of sex ratios between 1985 and 2004.

On the other hand, the relatively large declines in sex ratios in the two districts of the Western Area may have been the result of greater female presence in the in-migration streams between 1985 and 2004.

The reasons for the slight increases in Bombali and Pujehun may also be associated with the war. In Bombali, the influx of RUF fighters and sympathisers into Makeni may explain the slight increase in sex ratios, while in Pujehun the establishment of relatively large refugee camps for internally displaced persons may have attracted more males than females.

These possible demographic fall outs of the Rebel War need to be the subject of further and more detailed analysis.

iii. Chiefdoms

Percentage changes in General Sex Ratios between 1985 and 2004 in the Chiefdoms are shown in Table 10.

In the majority of Chiefdoms in each District, except Kono, Bombali, Bo and Pujehun, General Sex Ratios declined between 1985 and 2004, a reflection of the increase in the proportions of females in the population in the country.

However, these chiefdom-level sex ratios do not reveal any consistent pattern, although there are a number of interesting variations in some Districts. For example, increases in General Sex Ratios of over 20 percent have occurred in three Chiefdoms in Kono, namely Sella Limba (37.5 percent), Kandu Leppeama (34 percent), and Sandor (29.6 percent).

In contrast, amongst Chiefdoms which have experienced a decline of over 20 percent are Fiama also in Kono (49.6 percent) and Kunike Sanda in Tonkolili (36.2 percent).

Table 10 : Percentage Change In Sex Ratios For Chiefdoms 1985 To 2004

KAILAHUN		KENEMA		KONO		BOMBALI		KAMBIA	
CHIEFDOM	Percentage Change 1985-2004	CHIEFDOM	Percentage Change 1985-2004	CHIEFDOM	Percentage Change 1985-2004	CHIEFDOM	Percentage Change 1985-2004	CHIEFDOM	Percentage Change 1985-2004
Dea.....	0.7	Dama.....	-3.0	Fiama.....	-49.8	Biriwa.....	-9.3	Bramaia.....	-1.5
Jawie.....	-1.7	Dodo.....	-3.4	Gbane.....	-23.9	Bombali Sebor.....	-7.9	Gbinle-Dixing.....	-2.2
Kissi Kama.....	-4.5	Gaura.....	-1.7	Gbane Kandor.....	0.1	Gbanti-Kamaranka.....	-1.0	Magbema.....	0.2
Kissi Teng.....	-2.7	Gorama Mende	2.5	Gbense.....	5.9	G/Ngowahun.....	-1.6	Mambolo.....	-4.7
Kissi Tongi.....	-6.0	Kandu Lekpeama..	34.0	Gorama Kono.....	4.8	Libeisaygahun.....	-1.6	Masungbala.....	-0.5
Kpeje Bongre.....	-6.9	Koya-Kenema.....	-0.5	Kamara.....	-20.5	M/Ndorhahun.....	2.6	Samu.....	-4.9
Kpeje West.....	3.1	Langrama.....	5.4	Lei.....	-2.1	Makari Gbanti.....	-0.1	Tonko Limba.....	0.9
Luawa.....	-5.3	Lower Bambara.....	11.2	Mafindor.....	8.2	Paki Masabong...	-7.9		
Malema.....	15.0	Malegohun.....	-12.7	Nimikoro.....	-15.9	Safroko Limba..	0.2		
Mandu.....	-1.7	Niawa.....	-5.8	Nimiyama.....	-1.9	Sanda Loko.....	2.1		
Njaluahun.....	-1.2	Nomo.....	-5.3	Sandor.....	29.6	Sanda Tendaren...	2.0		
Penguia.....	-3.7	Nongowa.....	-4.1	Soa.....	6.1	Sella Limba.....	37.5		
Upper Bambara..	-7.3	Simbaru.....	-3.1	Tankoro.....	-7.4	Tambakka.....	3.7		
Yawei.....	-0.2	Small Bo.....	1.7	Toli.....	3.1				
		Tunkia.....	-1.6						
		Wondor.....	-9.1						

Table 10 (Contd .) : Percentage Change In Sex Ratios For Chiefdoms 1985 To 2004

KOINADUGU		PORT LOKO		TONKOLILI		BO		BONTHE	
CHIEFDOM	Percentage Change 1985-2004	CHIEFDOM	Percentage Change 1985-2004	CHIEFDOM	Percentage Change 1985-2004	CHIEFDOM	Percentage Change 1985-2004	CHIEFDOM	Percentage Change 1985-2004
Dembelia Sinkunia....	-7.3	Bkm.....	-5.0	Gbonkolenken....	1.6	Badjia.....	1.3	Bendu Cha...	2.2
Diang.....	-11.6	Buya Romende.....	-7.9	Kafe Simira.....	4.2	Bagbo.....	8.4	Bum.....	9.1
Falاسوبيا Dembelia....	-4.1	Dibia.....	-1.6	Kalansogoia.....	-9.1	Bagbwe.....	0.8	Dema.....	-5.1
Kasunko.....	-6.9	Kaffu Bullom.....	0.6	Kholifa Mabang..	-10.2	Baoma.....	-2.0	Imperi.....	-4.3
Mango.....	-1.8	Koya.....	-4.9	Kholifa Rowalla...	-11.2	Bumpe Ngawo....	1.7	Jong.....	1.6
Neya.....	0.3	Lokomasama.....	-5.4	Kunike Barina.....	-19.7	Gbo.....	-5.0	Kpanga Kemo...	-13.2
Nieni.....	-5.4	Maforki.....	-9.5	Kunike Sanda....	-36.2	Jaiama-Bongor...	-1.9	Kwamebai Krim....	-9.5
Sengbe.....	-0.5	Marampa.....	-2.7	Malal Mara.....	1.0	Kakua.....	-2.8	Nongoba Bullom...	-19.9
Sulima.....	-4.0	Masimera.....	*	Sambaya.....	0.6	Komboya.....	-3.7	Sittia.....	-5.4
Wara Wara Bafodia.....	7.6	Sanda Magbolontor..	-4.5	Tane.....	-14.3	Lugbu.....	6.4	Sogbini.....	1.9
Wara Wara Yagala.....	-1.5	TMS.....	-6.6	Yoni.....	-5.7	Niawa Lenga.....	1.7	Yawbeko.....	0.3
						Selenga.....	0.6		
						Tikonko.....	-0.7		
						Valunia.....	1.1		
						Wunde.....	0.1		

Table 10 (Contd .) : Percentage Change In Sex Ratios For Chiefdoms 1985 To 2004

MOYAMBA		PUJEHUN		WESTERN AREA RURAL		WESTERN AREA URBAN	
CHIEFDOM	Percentage Change 1985-2004	CHIEFDOM	Percentage Change 1985-2004	CHIEFDOM	Percentage Change 1985-2004	CHIEFDOM	Percentage Change 1985-2004
Bagruwa.....	0.7	Barri.....	2.2	Koya.....	-2.8	Central 1.....	-10.7
Bumpeh.....	-9.9	Gallinas Peri.....	-4.5	Mountain.....	16.7	Central 2.....	1.3
Dasse.....	-5.7	Kpaka.....	-3.8	Waterloo.....	-15.3	East 1.....	-5.9
Fakunya.....	2.9	Kpanga-Kabonde.....	7.6	York Rural.....	-7.1	East 2.....	-7.4
Kagboro.....	-2.4	Makpele.....	-3.9			East 3.....	-15.5
Kaiyamba.....	-6.2	Malen.....	8.4			West 1.....	-7.3
Kamajei.....	-0.2	Mano Sakrim.....	6.3			West 2.....	-5.7
Kongbora.....	10.0	Panga Krim.....	5.0			West 3.....	-2.7
Kori.....	-7.5	Pejeh.....	5.6				
Kowa.....	0.3	Soro Gbema.....	-3.9				
Lower Banta.....	-7.1	Sowa.....	3.3				
Ribbi.....	-10.0	YKK.....	0.0				
Timdale.....	-6.4						
Upper Banta.....	0.9						

d. Sex Ratios for Single Year Age Groups for Sierra Leone

The age specific sex ratio measures the number of males per 100 females of a specific age.

i. Sierra Leone

For the country as a whole age specific sex ratios for single year ages in Table 11 and Figure 1, show considerable variations.

Sex ratios tend to vary slightly above or below 100 from ages 0 to 10 years, implying that differences in mortality, or in the accuracy of enumeration between males or females at these ages, are minimal. Between ages 11 years and 15 years, all sex ratios are in excess of 100. This is unexpected, as it is incompatible with the relatively low sex ratios at the younger ages.

Ages 16 years to 40 years show a female surplus, with the exception of ages 31 and 34 years.

Where levels of mortality are high, it is expected that deaths due to maternal causes may reduce the number of females in the child bearing ages in relation to males. In a population in which life expectancy is low, male mortality is expected to be higher than female mortality at ages over 40 years. Sex ratios are therefore expected to be low at these higher ages, and to decline with advancing years.

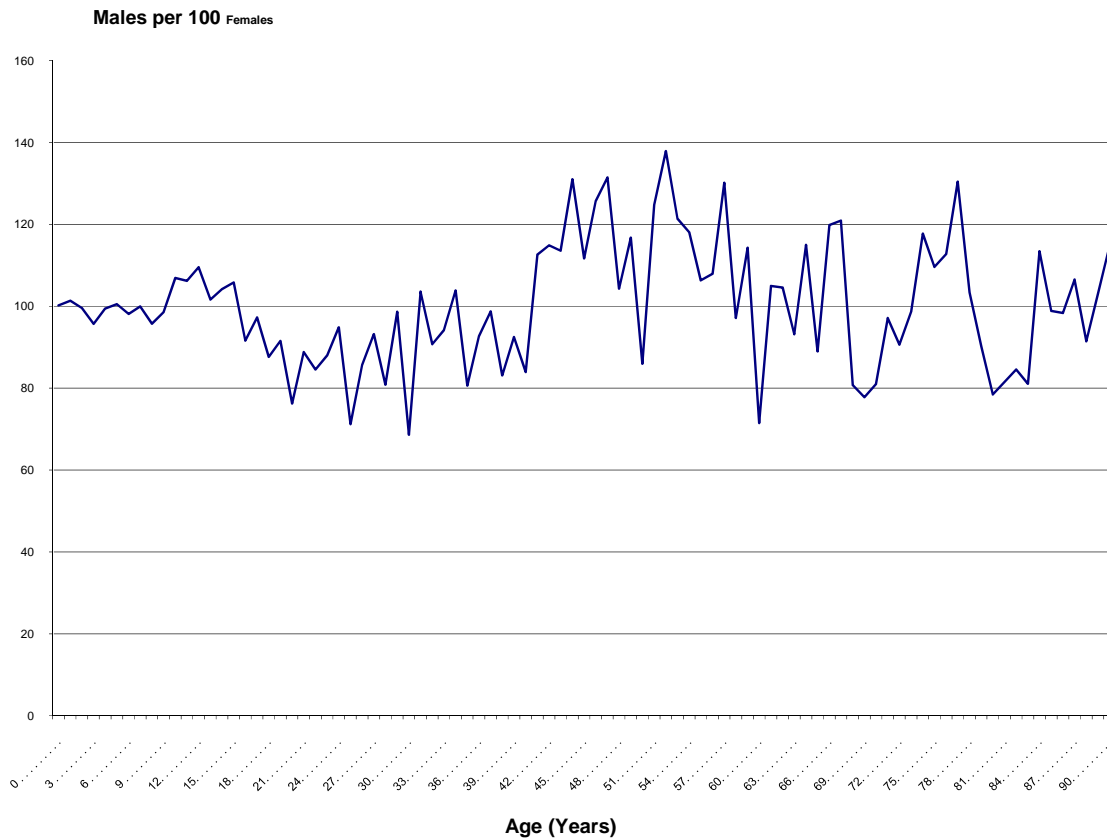
Table 11: Single Year Sex Ratios 2004 and Percentage Change 1985 to 2004 for

Age (Years)	Sex Ratio 2004	Percentage Change 1985 to 2004	Age (Years)	Sex Ratio 2004	Percentage Change 1985 to 2004
0	100	0.1	46	126	2.4
1	101	-1.3	47	131	-4.4
2	100	-2.1	48	104	-6.1
3	96	-3.8	49	117	-0.4
4	99	-4.1	50	86	-18.1
5	101	1.4	51	125	18.4
6	98	-2.2	52	138	14.1
7	100	-2.4	53	121	8.7
8	96	-7.4	54	118	3.4
9	99	-3.5	55	106	-14.0
10	107	-4.6	56	108	-10.6
11	106	-6.9	57	130	-6.8
12	110	-7.1	58	97	-13.7
13	102	-6.9	59	114	4.0
14	104	-5.0	60	71	-28.6
15	106	1.5	61	105	-10.1
16	92	5.5	62	105	-7.3
17	97	13.2	63	93	-15.1
18	88	16.8	64	115	-7.3
19	92	7.2	65	89	-20.4
20	76	4.0	66	120	7.7
21	89	-0.4	67	121	-13.8
22	85	6.0	68	81	-19.2
23	88	1.1	69	78	-20.2
24	95	9.6	70	81	-30.2
25	71	-4.5	71	97	-37.4
26	86	3.8	72	91	-19.8
27	93	-1.6	73	99	-13.0
28	81	6.0	74	118	-13.7
29	99	11.6	75	110	-13.0
30	69	-3.9	76	113	-8.7
31	104	-2.6	77	130	-17.7
32	91	-5.1	78	103	-11.1
33	94	-14.5	79	90	-22.1
34	104	7.1	80	78	-24.3
35	81	-15.0	81	82	-29.2
36	93	-0.8	82	85	-17.3
37	99	-19.3	83	81	-14.9
38	83	-10.5	84	113	3.8
39	92	-6.0	85	99	-6.7
40	84	-4.8	86	98	-2.7
41	113	-1.2	87	107	-28.7
42	115	-4.6	88	91	-15.9
43	114	0.8	89	103	-3.8
44	131	10.1	90	115	10.1

45	112	-4.7			
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Sierra Leone

Figure 1 : Age-Sex Ratios For Sierra Leone (Males per 100 Females) 2004



For Sierra Leone however, age-sex data show a completely different pattern. Sex ratios are consistently above 100 for the age range 41 years to 67 years, with the exception of ages 50, 58, 60, 63 and 65. After age 67, a female surplus at ages 68 to 73 is succeeded by a male surplus at ages 74 to 78, and by another female surplus from 79 to 83 years.

One possible reason for the high sex ratios between ages 10 years and 15 years is that in a country, like Sierra Leone, where the date of birth of most people is not documented, many of the methods used to estimate age tend to over estimate the ages of young girls, but under estimate those of young boys. Hence, more boys than girls may have been enumerated at ages 10 years to 15 years, while at the same time, more girls than boys aged 10 years to 15 years may have had their ages over estimated, and therefore transferred to the higher ages. Hence a male surplus, or a female deficit, may have been created at ages 10 years to 15 years.

The relatively low sex ratios, which characterise the majority of ages between 16 years to 40 years, may have been the result of both demographic and non-demographic factors including age misreporting and the consequences of the rebel war. Males at ages 16 to 40 years formed the majority of the fighting forces. Higher mortality amongst them may have accounted for the greater female surplus at these age groups.

Although high levels of maternal mortality have been responsible for depleting the number of females at these child bearing ages, in relation to males, it is possible that the impact of this factor may have been cancelled out by the impact of greater war-related deaths and migration amongst males.

However, these inconsistencies and unexpected patterns in the age-specific sex ratios may be the result of one of the perennial problems in African population data, the inaccuracy of reporting the age of respondents in populations in which the level of illiteracy is high, and the practice of documenting vital events is not widespread.

e. Sex Ratios for Five Year Age Groups

i. Sierra Leone

Five-year age-sex ratios for Sierra Leone in Table 12 show a male deficit in all age groups except 10-14, 45-49, 50-54, 55-59, 75-79 and 90 years and over

ii. Regions

For the Regions, the relatively high General Sex Ratios for the Eastern Region is replicated in the various age groups. Sex ratios are above 100 for all ages except ages 0-4 and 5-9 years, 15-19 to 30-34, 60-64, and 80-84 years.

In the other Regions, there are more females than males at most ages. However, there are a number of peculiar departures from this general pattern. For example, there are male excesses at ages 5-9 and 10-14 years in Northern and Southern Regions; and at ages 40-44 to 55-59 years in Western Area Region. In contrast, at nearly all ages above 60-64 years in both Southern Region and Western Area Region, there is an excess of females.

Table 12 : Five Year Age-Sex Ratios For Sierra Leone And Regions – 2004

Age (Years)	Sierra Leone	Eastern	Northern	Southern	Western Area
00 - 04 ...	99	99	99	100	100
05 - 09 ...	99	97	101	102	90
10 - 14 ...	106	107	111	113	92
15 - 19 ...	95	97	95	96	93
20 - 24 ...	84	89	73	78	99
25 - 29 ...	81	93	64	77	99
30 - 34 ...	81	95	65	76	99
35 - 39 ...	86	102	71	82	97
40 - 44 ...	96	112	81	95	113
45 - 49 ...	114	138	99	111	121
50 - 54 ...	100	116	86	97	119
55 - 59 ...	108	146	89	102	119
60 - 64 ...	80	91	75	73	93
65 - 69 ...	91	111	87	82	93
70 - 74 ...	86	96	84	83	78
75 - 79 ...	109	130	116	100	76
80 - 84 ...	81	88	93	72	54
85 - 89 ...	99	116	116	86	57
90 +.	108	119	126	93	65

Table 13: Five Year Age-Sex Ratios For Districts – 2004

Age (Years)	Kailahun	Kenema	Kono	Bombali	Kambia	Koinadugu	Port Loko	Tonkolili
00 - 04	97	99	98	100	100	98	99	97
05 - 09	98	96	96	102	101	100	102	101
10 - 14	112	108	101	113	117	103	114	108
15 - 19	101	94	96	104	95	93	91	92
20 - 24	81	90	94	86	72	70	67	67
25 - 29	76	96	106	73	64	59	63	59
30 - 34	78	97	112	74	66	59	65	60
35 - 39	84	107	116	73	70	69	73	70
40 - 44	87	118	132	82	81	79	80	81
45 - 49	114	148	149	97	101	105	93	106
50 - 54	92	123	134	83	83	99	84	86
55 - 59	123	151	165	85	81	104	86	97
60 - 64.	73	96	111	71	70	94	73	73
65 - 69	97	112	127	77	86	116	83	89
70 - 74	81	112	96	74	83	101	83	86
75 - 79	120	131	142	109	108	158	113	115
80 - 84	75	93	105	96	84	108	89	92
85 - 89	105	113	145	127	114	132	105	109
90 +.	107	128	119	140	112	157	123	114

Table 13 (Contd.) : Five Year Age-Sex Ratios For Districts - 2004

Age (Years)	Bo	Bonthe	Moyamba	Pujehun	Western Rural	Western Urban
00 - 04	99	102	102	96	106	91
05 - 09	95	106	107	106	100	106
10 - 14	105	117	119	123	96	128
15 - 19	98	97	97	92	106	87
20 - 24	86	75	67	76	88	87
25 - 29	83	72	69	75	92	81
30 - 34	86	71	69	70	99	71
35 - 39	92	78	73	75	97	78
40 - 44	106	89	84	91	92	99
45 - 49	124	109	96	106	91	117
50 - 54	108	98	81	98	83	119
55 - 59	110	101	90	106	85	125
60 - 64	80	71	66	72	92	79
65 - 69	85	78	75	90	84	107
70 - 74	83	85	78	91	86	106
75 - 79	106	93	89	113	79	143
80 - 84	71	72	65	85	77	111
85 - 89	91	78	81	93	87	108
90 +.	98	89	79	111	71	156

ii. Districts

Table 13 also shows five-year age sex ratios for the Districts. For most Districts the pattern of age-specific sex ratios is similar to the national pattern. But there are a number of significant variations.

At ages 0-4 years, sex ratios vary slightly above or below 100 in all Districts except Pujehun (96), Western Area Rural (106), and Western Area Urban (91). At ages 10-14 years, the sex ratios show a male surplus in every District except Western Area Rural.

Sex ratios for Bonthe, Moyamba and Pujehun show a male surplus in the youngest age groups, that is from 0-4 years to 10-14 years.

From ages 15-19 years sex ratios are below 100 for most age groups in all the Districts of the Northern Province except Koinadugu; and for Bonthe, Moyamba and Western Area Rural.

Sex ratios are above 100 from ages 35-39 years to 90 years and over in Kenema; and from 25-29 years to 90 years and over in Kono. These features are consistent with the two main economic activities namely, cash crop production and diamond mining, both of which tend to be serviced by a male dominated labour force.

For Western Area Rural, a male surplus in the first four age groups (except 10-14 years) is succeeded by a female surplus in all other age groups up to the oldest ages. But in Western Area Urban there are more females at ages 0-4, 15-19 to 40-44, and at 60-64 years, while there are more males at 5-9, 10-14, and 45-49 to the oldest ages except 60-64 years.

These variations in age-sex ratios both within and across Regions and Districts may be the result of differences in both economic and demographic factors. The availability of employment opportunities which provide greater attraction for males, as in Kenema and Kono, both in Eastern Region, and in Western Area Urban, may account for the male surplus amongst the working age population in these Districts. On the other hand, the low sex ratio for many young age groups in all Districts may possibly be partly explained by the consequences of the 10 year Rebel War which decimated certain age groups either through deaths or out migration.

The occurrence of widespread age errors may also have resulted in the movement of either males or females across age boundaries resulting in unexpected age-sex ratio patterns in some Districts.

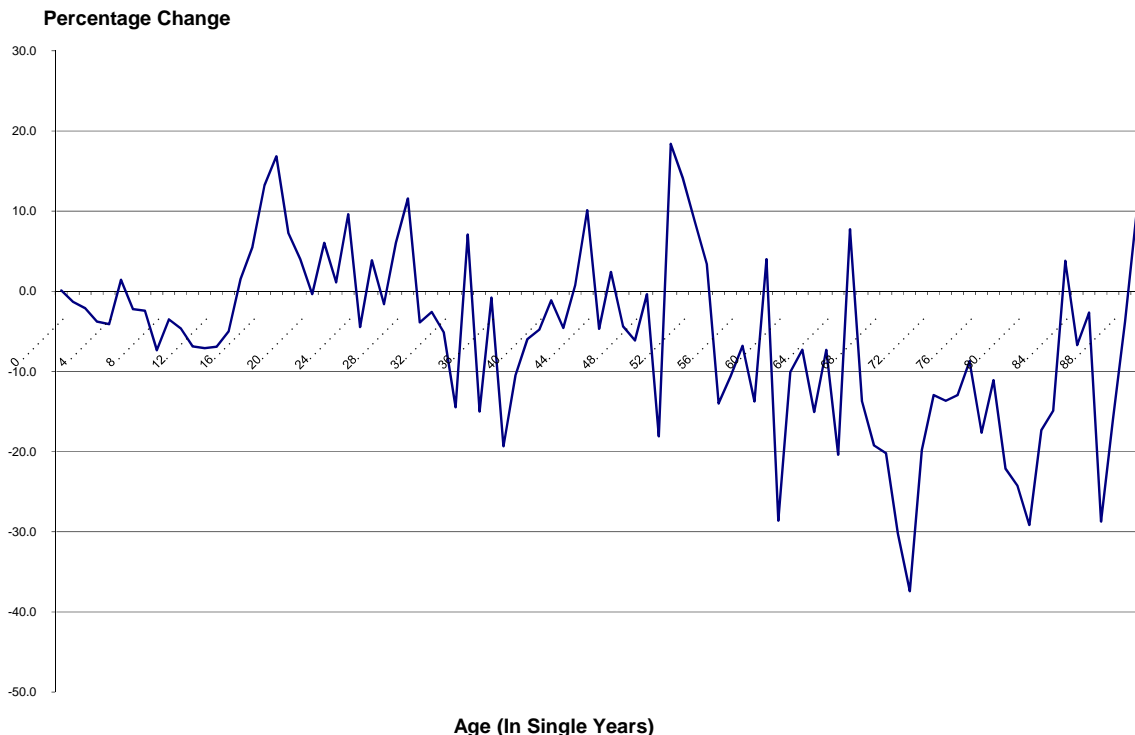
Also of significance, in a country, where maternal mortality is high, the child bearing ages that is 15-19 years to 40-44 years are expected to have male surpluses. But in Sierra Leone, for which the maternal mortality rate has been estimated at 1600 per 100,000 (UNICEF 2004) the pattern of sex ratios is not consistent with this expectation.

f. Changes in Single-Year Age-Sex Ratios 1985-2004

i. Sierra Leone

Inter-censal changes in sex ratio have been analysed for single and five year age groups for Sierra Leone. These show a general pattern of decline between 1985 and 2004 (Figure 2).

Figure 2 : Percentage Changes In Age-Sex Ratios For Sierra Leone 1985 To 2004



From age 0 to age 15 years, sex ratios declined by varying rates from 1.3 percent at age 1 year to 5.0 percent at age 14 years.

However from 15 years to 29 years, sex ratios increased except at three ages, 21 years, 25 years and 27 years, which show declines of 0.4 percent, 4.5 percent and 0.6 percent respectively. Between ages 30 years and 66 years a decline in almost all ages is interspersed with increases at ages 34 years, 43 and 44 years, 51 years to 54 years, and 59 years. At the oldest age groups, that is from 62 years to 90 years, there is a general decline in sex ratios.

g. Changes In Five Year Age-Sex Ratios 1985 To 2004

Percentage changes in five year age-sex ratios between 1985 and 2004 for Sierra Leone and the Districts are shown in Table 14.

Table 14 : Percentage Difference In Five Year Age-Sex Ratios For Sierra Leone And Districts 1985 To 2004

Age (Years)	Sierra Leone	Kailahun	Kenema	Kono	Bombali	Kambia	Koinadugu	Port Loko	Tonkolili
00 - 04	-2.0	-1.6	0.3	-2.5	-0.3	-3.1	-2.1	-2.7	-6.9
05 - 09	-2.4	-2.9	-1.1	0.1	-3.7	-4.3	-0.2	-2.6	-4.9
10 - 14	-6.2	-8.5	-1.8	-5.1	-5.4	-10.2	-3.5	-6.4	-10.6
15 - 19	8.3	23.3	14.4	2.5	14.0	17.0	13.4	4.4	1.8
20 - 24	3.5	5.6	10.2	-0.8	22.3	13.8	4.1	-0.9	-15.7
25 - 29	1.2	4.4	5.0	8.1	17.0	9.1	-8.1	-0.9	-21.3
30 - 34	-2.4	5.0	1.5	0.6	13.8	8.4	-14.5	-3.0	-20.6
35 - 39	-11.8	-5.1	-9.4	-19.4	-1.6	-2.1	-21.5	-2.4	-17.1
40 - 44	-1.6	-0.3	2.5	-15.1	12.0	3.5	-13.4	0.4	-6.6
45 - 49	-3.4	8.8	-7.4	-24.8	15.0	8.4	-8.2	-0.3	5.0
50 - 54	-7.1	-6.9	-17.2	-18.6	-3.7	-13.9	-5.3	-8.3	-8.8
55 - 59	-10.7	10.4	-11.9	-14.2	-13.0	-26.6	-26.4	-19.1	-7.5
60 - 64	-22.6	-29.5	-28.6	-20.9	-16.9	-30.4	-12.8	-26.9	-23.7
65 - 69	-17.7	-12.2	-22.0	-15.2	-19.0	-28.3	-1.3	-21.7	-8.4
70 - 74	-28.1	-35.5	-29.0	-25.8	-36.4	-28.0	-13.3	-27.2	-21.0
75 - 79	-12.3	-8.9	-16.2	-2.9	-10.1	-17.2	8.4	-10.7	-5.0
80 - 84	-21.8	-33.9	-29.7	-7.2	-7.0	-18.4	-11.0	-8.8	-8.4
85 - 89	-12.2	-4.8	-25.6	9.9	3.3	0.6	9.9	-15.0	-8.4
90 +.	3.5	-6.5	-3.0	4.1	27.4	7.5	40.2	18.3	-4.3

Table 14 (Contd): Percentage Difference In Five Year Age- Sex For Sierra Leone And Districts 1985 To2004

Age (Years)	Bo	Bonthe	Moyamba	Pujehun	Western Area
00 - 04	-1.8	-0.5	-0.2	-2.6	-4.2
05 - 09	-0.6	0.7	1.7	-4.2	-5.0
10 - 14	-5.8	3.8	4.1	-2.8	-6.5
15 - 19	9.1	15.9	7.9	14.6	-1.0
20 - 24	1.9	3.9	-11.7	7.5	-2.3
25 - 29	4.3	-3.7	-5.5	7.0	-8.3
30 - 34	1.0	-9.3	-2.5	7.7	-16.4
35 - 39	-0.6	-11.5	-5.3	-4.6	-24.6
40 - 44	11.6	6.1	3.8	18.7	-15.5
45 - 49	8.8	5.5	1.4	2.2	-20.2
50 - 54	4.5	3.4	-9.7	2.6	-7.7
55 - 59	-3.4	-7.3	-9.6	-0.5	-32.8
60 - 64	-24.1	-23.3	-27.1	-26.9	-11.2
65 - 69	-19.0	-25.8	-24.0	-12.0	-18.0
70 - 74	-31.4	-27.1	-29.6	-16.3	-26.1
75 - 79	-6.2	-11.8	-24.1	-1.0	-21.8
80 - 84	-26.7	-25.9	-29.8	-10.5	-30.2
85 - 89	-4.6	-27.2	-22.1	-10.2	-20.7
90 +.	22.5	15.7	-7.8	2.8	-6.2

i. Sierra Leone

For Sierra Leone the five year age-specific sex ratios declined in age groups 0-4 years, 5-9 years and 10-14 years; increased in the next three age groups that is 15-19 years to 25-29 years, but declined again in all subsequent age groups up to 85-89 years.

ii. Districts

Figures in Table 14 for the Districts indicate a pattern of change that is generally similar to that of Sierra Leone. At ages 0-4 to 15-19 years, sex ratios declined in all Districts except 0-4 in Kenema, and 5-9 to 15-19 in Bonthe and Moyamba. At ages 15-19 years to 30-34 years there is an increase in sex ratios in all Districts except Port Loko, Tonkolili, Moyamba and Western Area.

There are a number of peculiar features in these patterns of differences. For all Districts, sex ratios have declined at the older ages, for example from 45-49 years in Kenema and Kono, 50-54 years in Kambia, 30-34 years in Koinadugu, and 45-49 years in Port Loko. In the Western Area the sex ratios for every age group declined between 1985 and 2004.

The variable pattern of inter-censal changes in sex ratio in the country are interesting but defy straight forward and simple explanations. For Sierra Leone, as a whole, the general decline in age specific sex ratios may have been a consequence of the rebel

war which increased the number of deaths, and migration to other countries, both of which probably involved more males than females.

However sex ratios which show a female deficit at the youngest ages raise other questions. Is the sex ratio at birth less than 100 in Sierra Leone, contrary to the expected 102 to 106 males per 100 females usually quoted for African populations? Is mortality at infancy and early childhood higher for males than females? Over the inter-censal period has male infant and early childhood mortality increased relative to female infant and early childhood mortality?

Further detailed analysis of the changing age-sex structure in Sierra Leone is required to understand the impact of the demographic and non-demographic factors that have shaped the age-sex patterns, and determined the trends in sex ratios in the various administrative units in the country.

4. AGE COMPOSITION

The analysis of age composition is confined to the single year age data for Sierra Leone, and the five year age data for both Sierra Leone and the Districts.

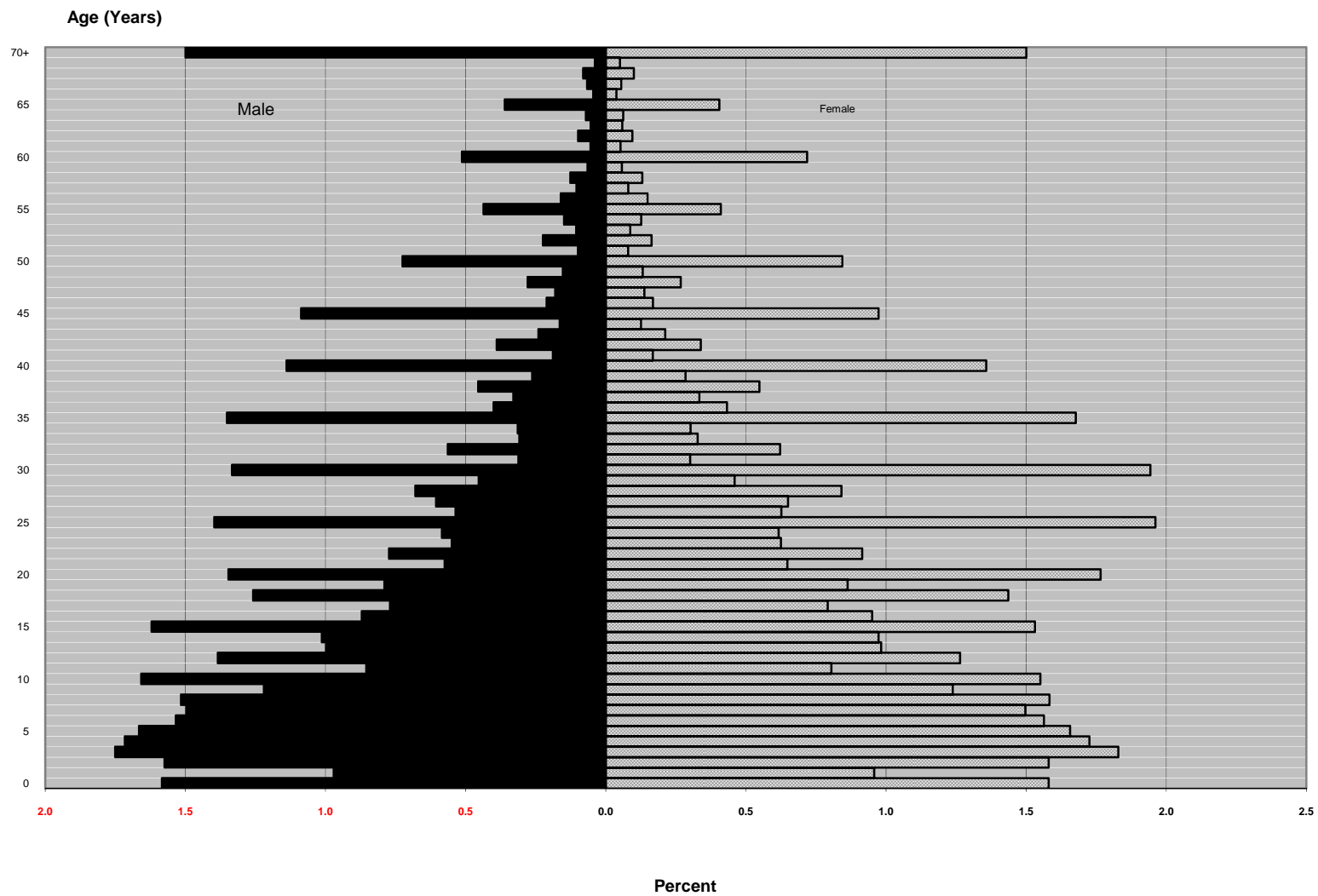
a. Single Year Age Distribution

The percentage distribution of the population in single-years in Table 15, and the single-year age pyramid for Sierra Leone in Figure 3, show a number of interesting features.

Table 15: Percentage Distribution of Total Population by Age and Sex

Age (Years)	Male	Female	Age (Years)	Male	Female
0	1.6	1.6	36	0.4	0.4
1	1.0	1.0	37	0.3	0.3
2	1.6	1.6	38	0.5	0.5
3	1.8	1.8	39	0.3	0.3
4	1.7	1.7	40	1.1	1.4
5	1.7	1.7	41	0.2	0.2
6	1.5	1.6	42	0.4	0.3
7	1.5	1.5	43	0.2	0.2
8	1.5	1.6	44	0.2	0.1
9	1.2	1.2	45	1.1	1.0
10	1.7	1.6	46	0.2	0.2
11	0.9	0.8	47	0.2	0.1
12	1.4	1.3	48	0.3	0.3
13	1.0	1.0	49	0.2	0.1
14	1.0	1.0	50	0.7	0.8
15	1.6	1.5	51	0.1	0.1
16	0.9	1.0	52	0.2	0.2
17	0.8	0.8	53	0.1	0.1
18	1.3	1.4	54	0.1	0.1
19	0.8	0.9	55	0.4	0.4
20	1.3	1.8	56	0.2	0.1
21	0.6	0.6	57	0.1	0.1
22	0.8	0.9	58	0.1	0.1
23	0.5	0.6	59	0.1	0.1
24	0.6	0.6	60	0.5	0.7
25	1.4	2.0	61	0.1	0.1
26	0.5	0.6	62	0.1	0.1
27	0.6	0.6	63	0.1	0.1
28	0.7	0.8	64	0.1	0.1
29	0.5	0.5	65	0.4	0.4
30	1.3	1.9	66	0.0	0.0
31	0.3	0.3	67	0.1	0.1
32	0.6	0.6	68	0.1	0.1
33	0.3	0.3	69	0.0	0.1
34	0.3	0.3	70 And Over	1.5	1.5
35	1.4	1.7	Total	48.5	51.5

Figure 3 : Single Year Age Distribution For Sierra Leone



In a country like Sierra Leone, where fertility levels are high, the numbers of persons in the youngest ages, namely under one year, 1 year and 2 years, are expected to comprise relatively large proportions of the population. But their numbers are expected to decline in succeeding age groups as a result of high levels of mortality at infancy and early childhood.

The single year age pyramid for Sierra Leone shows a number of deviations from the expected pattern. A relatively broad base at age Under 1 year is succeeded by a deep trough at age 1 year and by increasing proportions at ages 2 years and 3 years.

The sharp decrease from Under 1 year to 1 year may partly be a consequence of high levels of infant mortality. But providing an explanation for the increases up to age 3 years may be less straightforward. These inconsistencies are a consequence of three possible influences on the population; the high levels of infant and child mortality prevalent in the population, the under reporting of new-born children, and the wrong estimation of the ages of other children, based on their physical appearance, and information on breastfeeding provided by the mother.

There is also a concentration of population at certain ages, referred to in the literature as “age heaping” or “digit preference”. This feature is particularly prevalent at ages ending in 0, for example 10, 20, 30 and so on; at ages ending in 5, for example ages 15, 25, 35 and so on; and less significantly at those ages ending in even numbers, for example 8. In contrast, a number of ages contain relatively small proportions of the population, especially those ending in the odd numbers 1, 3, 7 and 9.

These observed preferences for certain digits, together with the other distortions in the first three ages may be a consequence of the problems of reporting age in a population, like Sierra Leone, in which levels of literacy are low, and the majority of persons have no knowledge of their age, and no documentary evidence which can be used as an aid to determine it. Ages which are therefore estimated by other means, for example, physical characteristics, event calendars, and child bearing performance, usually contain the types of widespread errors, distortions and irregularities which have been observed in the single year age distribution for Sierra Leone.

b. Estimation Of The Levels Of Age Accuracy

The scale of these observed inaccuracies in the single-year age data have been estimated using three methods devised for this purpose, namely Whipple Method, Myers Method and Bachti Method (Shryock et al. 1973:pp 206-208).

i. Whipple Method

Whipple Method is devised to measure heaping on multiples of five, (that is terminal digits “0” and “5” combined) in the age range 23 to 62 years. It varies between 100, representing no preference for “0” and “5”, and 500 indicating that only digits “0” and “5” were reported.

In the case of Sierra Leone, the index was 230 for males, 254 for females, and 243 for both sexes combined (Table 16).

Table 16: Measures of Digit Preference: Sierra Leone 2004

Method And Terminal Digit	Male	Female	Both Sexes
WHIPPLE METHOD (23-62)			
Index	230	254	243
MYERS METHOD			
Index *	44.5	52.5	48.7
0	10.7	14.1	12.5
1	-4.8	-5.3	-5.1
2	-0.8	-1.6	-1.2
3	-3.9	-4.3	-4.1
4	-3.4	-4.3	-3.8
5	11.4	11.6	11.5
6	-2.7	-3.1	-2.9
7	-3.0	-3.8	-3.4
8	0.1	0.5	0.3
9	-3.5	-3.9	-3.7
BACHI METHOD			
Index **	28.2	32.9	30.7
0	14.1	18.4	16.4
1	-5.7	-6.4	-6.1
2	-1.4	-2.4	-1.9
3	-4.5	-5.0	-4.8
4	-4.3	-5.3	-4.8
5	14.1	14.4	14.3
6	-3.1	-3.6	-3.4
7	-3.6	-4.4	-4.0
8	-1.1	-0.8	-0.9
9	-4.5	-5.0	-4.8

Compared with the values for other populations, for example 156 for Philippines in 1960, and 100.9 for the USA in 1960 (Shyrock et al. op. cit.), the indices for Sierra Leone reveal strong concentrations of population at ages “0” and “5”, particularly for females.

ii. Myers Blended Method

The second measure of digit preference, Myers Index, takes into account the preference for other digits apart from ‘0’ and ‘5’. As such, it yields an index of preference for each terminal digit. If age heaping is non-existing, the index would approximate zero, but if all ages were reported at a single digit, say “0”, it would equal 90.

As Table 16 shows, for Sierra Leone, the summary preference index is 44.5 for males, 52.5 for females and 48.7 for both sexes. These compare rather unfavourably with 10.0 for Philippines in 1960, and 0.8 for USA in 1960 (Shyrock et al. op. cit.). For Sierra Leone, the figures also show, firstly that for either males or females, the greatest concentration is at ages ending in “0” and “5”, and the greatest avoidance, is for ages ending in 1, 3, 4 and 9; and secondly that age reporting is more inaccurate for females than for males.

iii. Bachi Method

The Bachi Method also determines the extent of preference for each final digit. Its expected range is from 0 to 90, and 10 percent is the expected value for each digit.

For Sierra Leone, figures in Table 16 provide further evidence of the extent of concentration at ages ending in “0” and “5”; the avoidance of ages ending in 1, 3, 4 and 9; and the implication of less accurate age reporting for females than males.

Although these indices show relatively large occurrence of heaping in the age data, the possibility should also be considered that other types of errors, and peculiar demographic factors, may have had varying impact on some of the age groups.

c. Five-Year Age Distribution

The percentage distribution of the population in five-year age groups for Sierra Leone is shown in Table 17 and Figure 4; for the Regions in Table 17; and for the Districts in Table 18 and Figure 5.

i. Sierra Leone

In the five-year age distribution, the distortions observed in the single year pyramid are subsumed in the five year age groups. Despite this, the distribution shows a number of interesting features.

As expected, in a country with a high level of fertility, the pyramid has a relatively broad base. The first two age groups, 0-4 years and 5-9 years, comprise 15.3 percent and 14.9 percent respectively of the total population.

The distribution of males and females show a number of significant contrasts. The distribution of the male population appears to conform to the expected pattern; the age groups become smaller with advancing years from ages 0-4 years to 70-74 years. But, for females there are a number of distortions to the expected pattern. For example, there are fewer females in age group 10-14 years than in 15-19 years; in 20-24 years than in 25-29 years, and finally in 55-59 years than in 60-64 years.

For females therefore, the pyramid shows deficits, called “troughs”, at age groups 10-14, 20-24 and 55-59 years; and excesses, called “bulges”, at ages 15-19, 25-29 and 60-64 years.

As already implied, these distortions in the age structure may be explained by inaccuracies in the reporting of ages. However, they could also have been the result of other demographic factors, for example unusual levels of fertility, or age-specific mortality, or age specific net out-migration. The 10 year Civil War, which caused many deaths, triggered the displacement of many people within the country, and the flight of others from the country, may also have had some impact on the age-structure of the population.

Further analysis of changes in the age-sex structure of the population from 1963 to 2004 should be undertaken at both District and Chiefdom levels to ascertain the relative impact of the Civil War, other socio-economic and demographic factors on the age-structure of Sierra Leone.

ii. Districts

The percentage distribution of the population in five-year age groups is shown in Table 17, and the five-year population pyramids in Figure 5.

Figure 4.: Population By Age And Sex 2004 - Sierra Leone

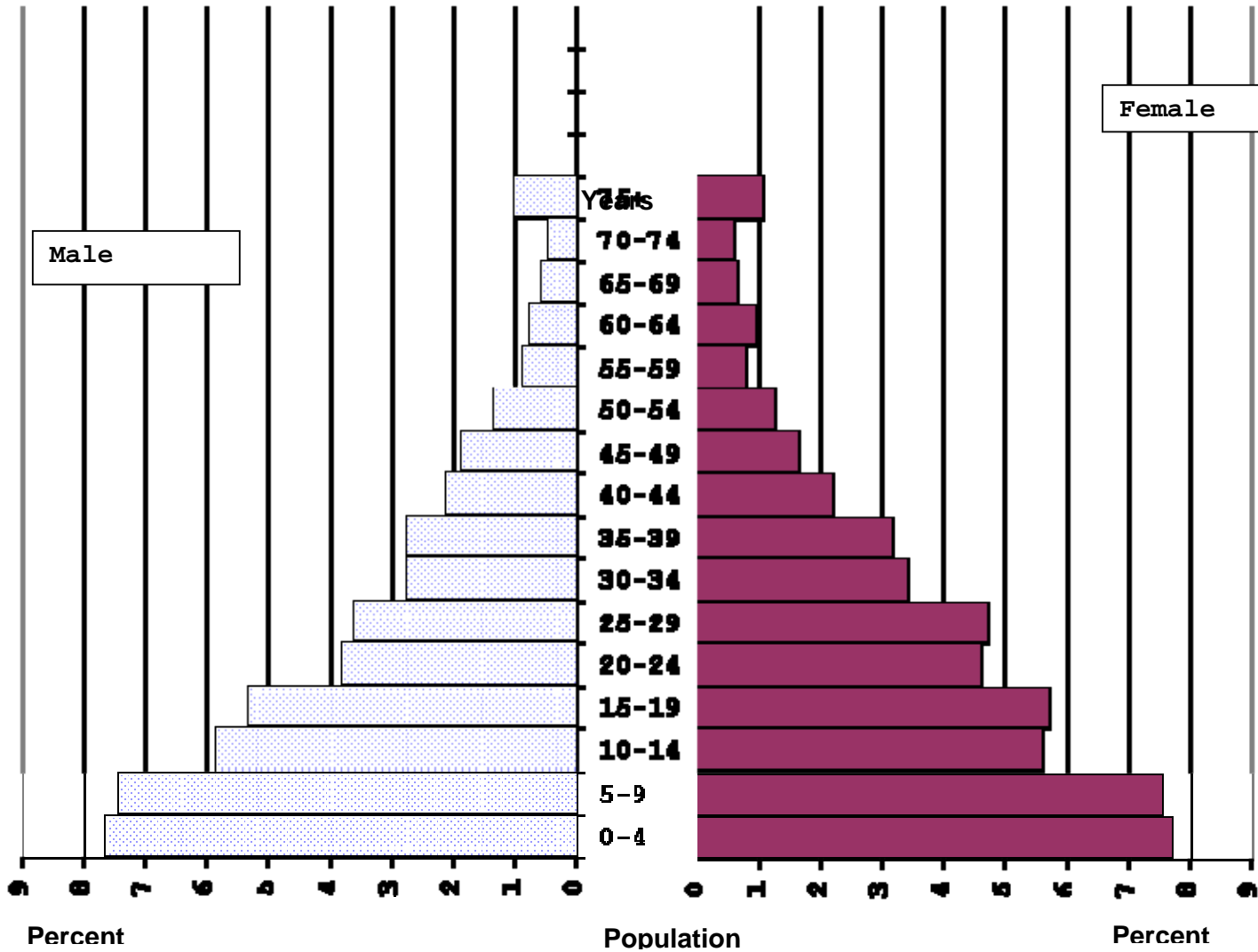


Table 17 : Percentage Distribution of Total Population By Age And Sex For Sierra Leone And Regions

AGE (YEARS)	SIERRA LEONE		EASTERN		NORTHERN		SOUTHERN		WESTERN AREA	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
00 - 04 . . .	7.6	7.7	7.7	7.9	8.0	8.1	8.2	8.3	5.9	5.9
05 - 09 . . .	7.4	7.5	7.1	7.3	8.4	8.3	7.5	7.4	5.9	6.5
10 - 14 . . .	5.9	5.6	5.4	5.1	6.2	5.6	5.7	5.1	6.2	6.8
15 - 19 . . .	5.3	5.6	5.3	5.5	5.1	5.4	5.1	5.3	6.0	6.4
20 - 24 . . .	3.8	4.6	4.0	4.5	3.0	4.1	3.4	4.3	5.7	5.8
25 - 29 . . .	3.7	4.5	4.4	4.7	2.8	4.4	3.3	4.3	4.9	4.9
30 - 34 . . .	2.8	3.5	3.3	3.4	2.3	3.5	2.7	3.5	3.5	3.5
35 - 39 . . .	2.8	3.3	3.3	3.2	2.4	3.4	2.8	3.4	2.9	3.0
40 - 44 . . .	2.1	2.2	2.2	2.0	1.9	2.4	2.1	2.2	2.4	2.1
45 - 49 . . .	1.9	1.7	2.1	1.6	1.8	1.8	1.9	1.7	1.8	1.5
50 - 54 . . .	1.3	1.3	1.3	1.1	1.2	1.4	1.3	1.4	1.4	1.1
55 - 59 . . .	0.9	0.8	0.9	0.6	0.8	0.9	0.9	0.9	0.9	0.8
60 - 64 . . .	0.8	1.0	0.8	0.9	0.8	1.1	0.8	1.1	0.7	0.7
65 - 69 . . .	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.8	0.5	0.5
70 - 74 . . .	0.5	0.6	0.5	0.5	0.5	0.7	0.6	0.7	0.3	0.4
75 - 79 . . .	0.4	0.4	0.4	0.3	0.4	0.4	0.5	0.5	0.2	0.3
80 - 84 . . .	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.4	0.1	0.2
85 - 89 . . .	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.1
90 +	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.1	0.1
Total	48.5	51.5	50.1	49.9	47.2	52.8	48.2	51.8	49.3	50.7

Table 18 : Percentage Distribution of Total Population By Age and Sex for Sierra Leone and Districts

AGE (YEARS)	SIERRA LEONE		KAILAHUN		KENEMA		KONO	
	Male	Female	Male	Female	Male	Female	Male	Female
00 - 04 ...	7.6	7.7	7.8	8.1	7.7	7.8	7.6	7.8
05 - 09 ...	7.4	7.5	8.0	8.1	6.6	6.9	6.8	7.1
10 - 14 ...	5.9	5.6	5.6	5.0	5.4	5.0	5.3	5.3
15 - 19 ...	5.3	5.6	5.9	5.8	5.0	5.4	5.1	5.3
20 - 24 ...	3.8	4.6	3.5	4.3	4.2	4.6	4.2	4.4
25 - 29 ...	3.7	4.5	3.5	4.6	4.6	4.8	5.0	4.7
30 - 34 ...	2.8	3.5	2.7	3.5	3.4	3.5	3.6	3.3
35 - 39 ...	2.8	3.3	2.8	3.3	3.5	3.2	3.6	3.1
40 - 44 ...	2.1	2.2	1.8	2.1	2.4	2.0	2.4	1.8
45 - 49 ...	1.9	1.7	1.9	1.6	2.2	1.5	2.4	1.6
50 - 54 ...	1.3	1.3	1.2	1.2	1.4	1.1	1.4	1.0
55 - 59 ...	0.9	0.8	0.8	0.6	1.0	0.6	1.0	0.6
60 - 64 ...	0.8	1.0	0.7	1.0	0.8	0.9	0.8	0.7
65 - 69 ...	0.6	0.6	0.6	0.6	0.6	0.5	0.7	0.5
70 - 74 ...	0.5	0.6	0.5	0.6	0.6	0.5	0.5	0.5
75 - 79 ...	0.4	0.4	0.5	0.4	0.4	0.3	0.4	0.3
80 - 84 ...	0.2	0.3	0.3	0.4	0.3	0.3	0.2	0.2
85 - 89 ...	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1
90 +	0.2	0.2	0.3	0.2	0.3	0.2	0.1	0.1
Total	48.5	51.5	48.4	51.6	50.6	49.4	51.4	48.6

Table 18 (Contd.): Percentage Distribution of Total Population by Age and Sex for Sierra Leone and Districts 2004

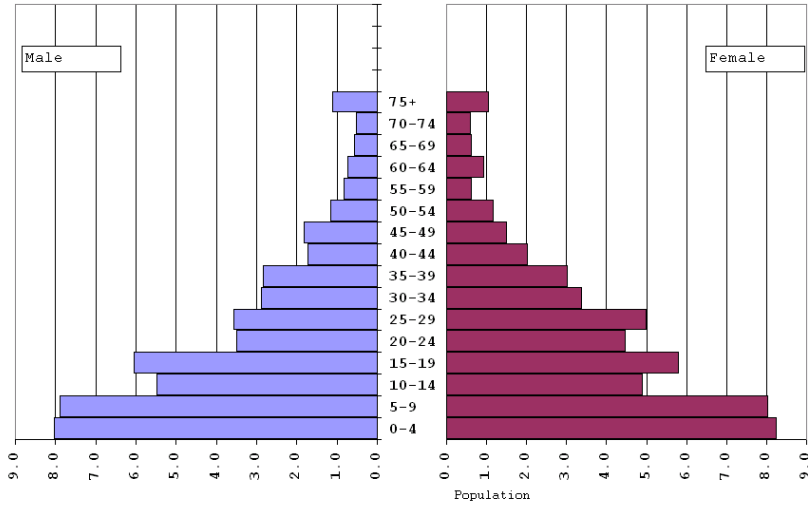
AGE (YEARS)	BOMBALI		KAMBIA		KOINADUGU		PORT LOKO		TONKOLILI	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
00 - 04 ...	7.5	7.5	8.7	8.7	7.3	7.5	8.4	8.4	8.1	8.3
05 - 09 ...	8.2	8.0	9.1	9.0	8.8	8.8	8.2	8.0	8.2	8.1
10 - 14 ...	6.5	5.7	5.9	5.1	6.2	6.0	6.2	5.4	6.2	5.7
15 - 19 ...	5.6	5.4	4.6	4.9	5.1	5.5	4.7	5.1	5.3	5.8
20 - 24 ...	3.4	4.0	2.9	4.0	2.9	4.1	2.9	4.4	2.8	4.1
25 - 29 ...	3.0	4.1	2.8	4.3	2.7	4.6	2.8	4.5	2.7	4.5
30 - 34 ...	2.4	3.3	2.3	3.5	2.2	3.8	2.3	3.6	2.1	3.5
35 - 39 ...	2.4	3.3	2.3	3.3	2.3	3.4	2.5	3.4	2.5	3.6
40 - 44 ...	2.0	2.4	1.8	2.2	2.1	2.6	1.9	2.4	1.8	2.3
45 - 49 ...	1.9	2.0	1.7	1.6	1.9	1.8	1.7	1.8	1.9	1.8
50 - 54 ...	1.2	1.5	1.2	1.4	1.4	1.4	1.2	1.5	1.2	1.4
55 - 59 ...	0.9	1.0	0.8	1.0	0.8	0.8	0.8	1.0	0.8	0.9
60 - 64 ...	0.8	1.1	0.8	1.1	1.0	1.0	0.8	1.2	0.8	1.1
65 - 69 ...	0.6	0.8	0.6	0.7	0.6	0.5	0.6	0.8	0.6	0.7
70 - 74 ...	0.5	0.7	0.6	0.7	0.6	0.6	0.6	0.7	0.5	0.6
75 - 79 ...	0.4	0.4	0.4	0.4	0.4	0.2	0.4	0.4	0.4	0.3
80 - 84 ...	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3
85 - 89 ...	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.1
90 +	0.2	0.2	0.3	0.3	0.2	0.1	0.3	0.2	0.2	0.2
Total	48.1	51.9	47.3	52.7	46.9	53.1	46.9	53.1	46.6	53.4

Table 18 (Contd.) : Percentage Distribution Of Total Population By Age And Sex For Sierra Leone And Districts 2004

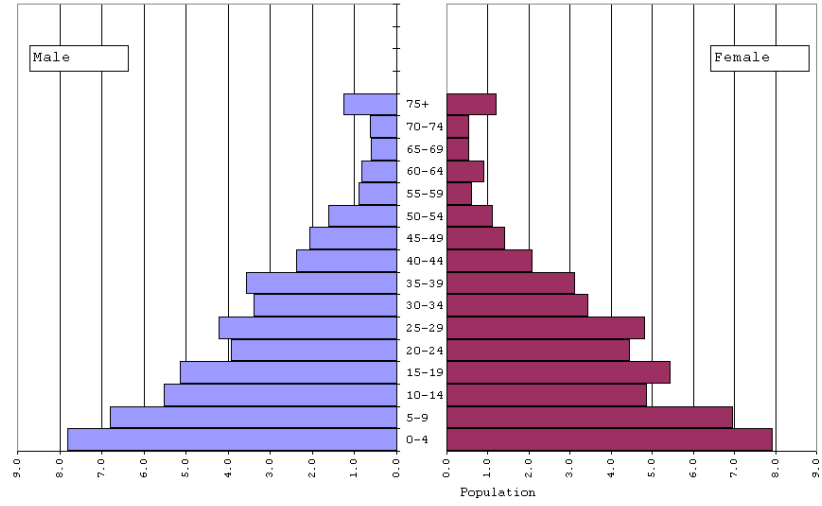
AGE (YEARS)	BO		BONTHE		MOYAMBA		PUJEHUN		WESTERN RURAL		WESTERN URBAN	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
00 - 04 ...	7.6	7.7	9.1	9.0	8.6	8.5	8.5	8.9	7.4	7.4	5.6	5.6
05 - 09 ...	6.8	7.2	7.6	7.2	7.7	7.2	8.7	8.1	6.7	7.1	5.7	6.4
10 - 14 ...	5.9	5.7	5.2	4.4	5.9	5.0	5.3	4.3	6.1	6.1	6.2	6.9
15 - 19 ...	5.6	5.7	4.7	4.8	4.5	4.6	5.0	5.4	5.0	5.6	6.2	6.6
20 - 24 ...	4.0	4.6	3.0	4.0	2.7	4.0	3.2	4.3	4.1	5.2	6.1	5.9
25 - 29 ...	3.7	4.4	3.0	4.1	2.8	4.1	3.2	4.3	4.1	4.8	5.0	4.9
30 - 34 ...	3.0	3.4	2.6	3.7	2.4	3.5	2.6	3.8	3.3	3.5	3.5	3.5
35 - 39 ...	3.0	3.2	2.7	3.4	2.6	3.6	2.7	3.5	3.1	3.2	2.9	2.9
40 - 44 ...	2.2	2.1	2.1	2.4	2.1	2.5	2.0	2.2	2.5	2.2	2.3	2.1
45 - 49 ...	2.0	1.6	1.8	1.7	2.0	2.0	1.7	1.6	1.9	1.6	1.8	1.5
50 - 54 ...	1.3	1.2	1.4	1.5	1.4	1.7	1.2	1.3	1.4	1.2	1.3	1.1
55 - 59 ...	0.9	0.8	0.9	0.9	1.0	1.1	0.8	0.8	0.9	0.8	0.9	0.7
60 - 64 ...	0.8	1.0	1.0	1.4	0.9	1.4	0.8	1.1	0.7	0.8	0.7	0.7
65 - 69 ...	0.6	0.7	0.7	0.9	0.7	1.0	0.6	0.6	0.5	0.6	0.5	0.5
70 - 74 ...	0.5	0.6	0.7	0.8	0.6	0.8	0.6	0.6	0.4	0.5	0.3	0.4
75 - 79 ...	0.4	0.4	0.6	0.6	0.5	0.6	0.4	0.4	0.3	0.3	0.2	0.3
80 - 84 ...	0.3	0.4	0.4	0.5	0.3	0.4	0.3	0.3	0.1	0.2	0.1	0.2
85 - 89 ...	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1
90 +	0.3	0.3	0.4	0.5	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.1
Total	48.9	51.1	48.0	52.0	47.3	52.7	48.1	51.9	48.7	51.3	49.4	50.6

Figure 5 : Five Year Population Pyramids 2004 : Districts

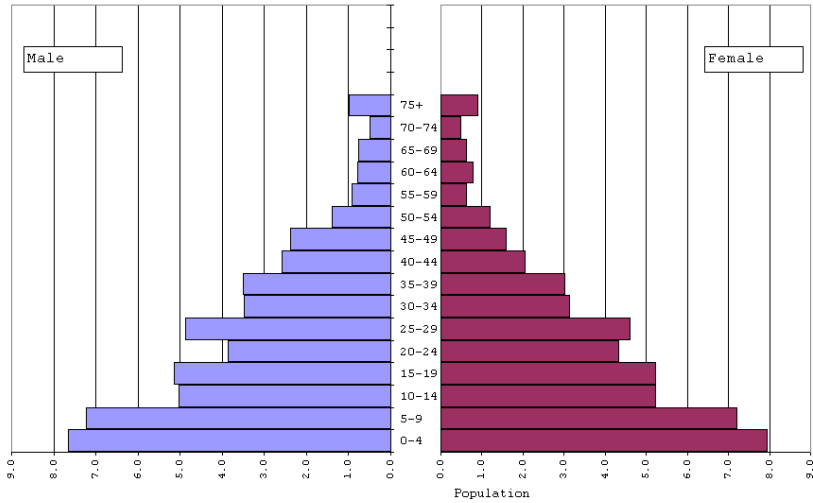
Kailahun District 2004
1. Population by Age and Sex



KENEMA DISTRICT 2004
1. Population by Age and Sex



KONO DISTRICT 2004
1. Population by Age and Sex



BOMBALI DISTRICT 2004
1. Population by Age and Sex

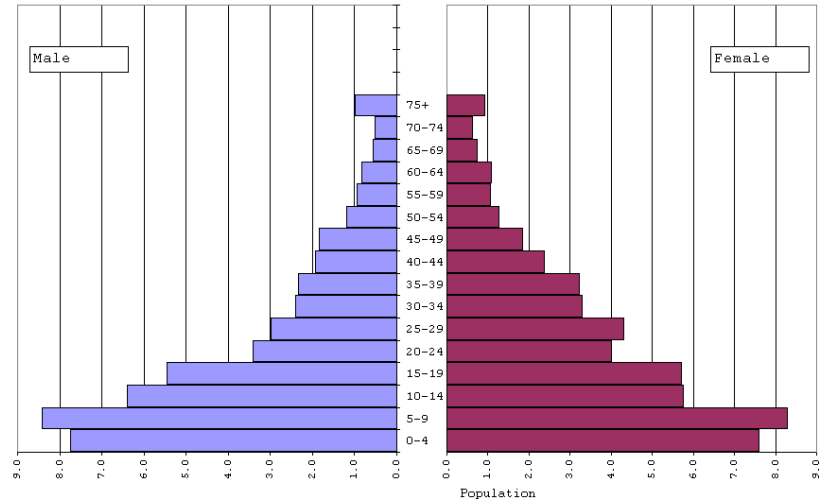
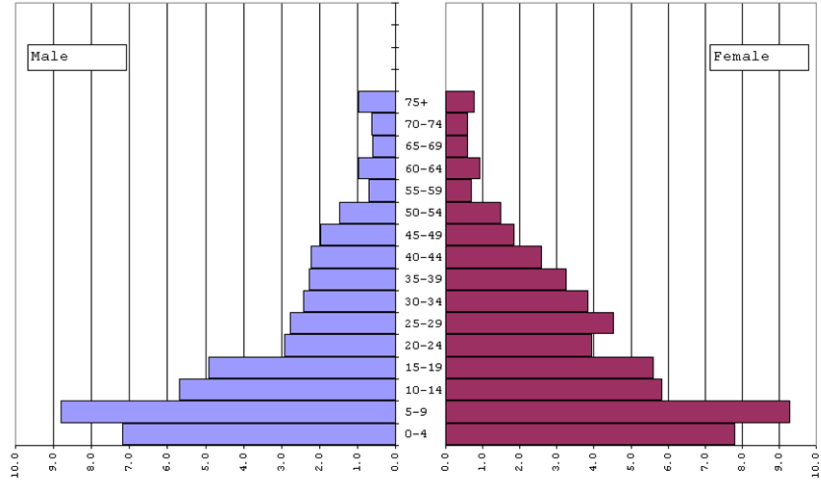
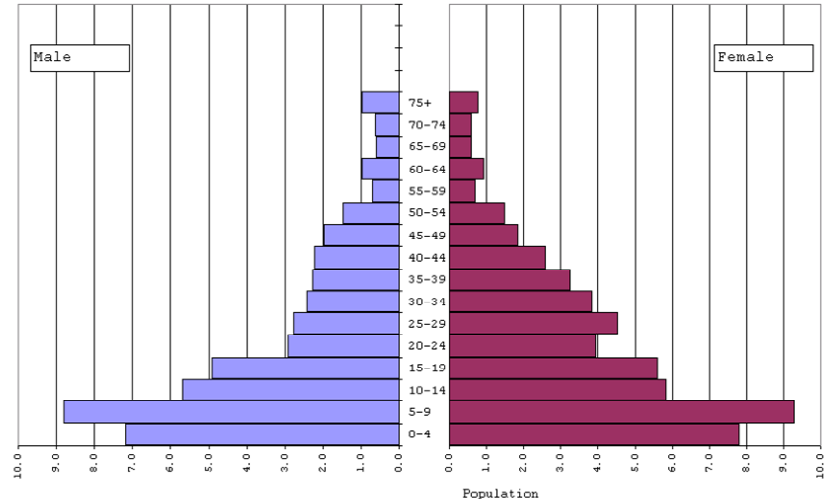


Figure 5 (Contd.) : Five Year Population Pyramids 2004 : Districts

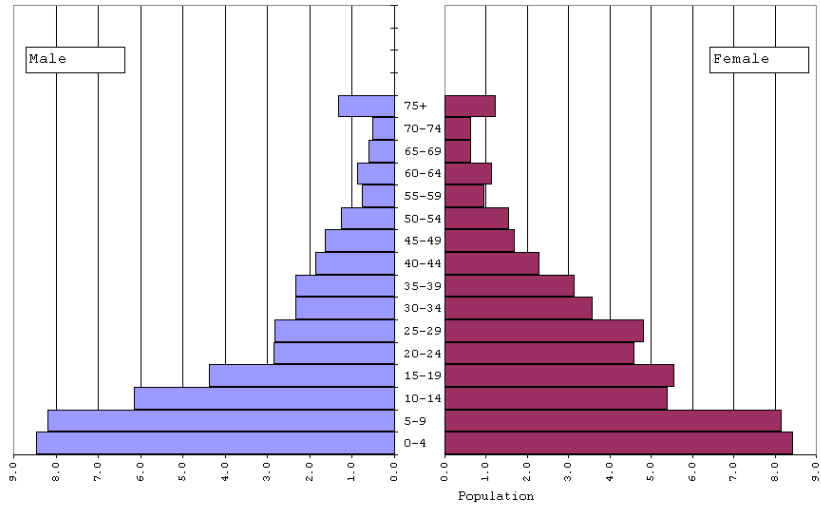
KAMBIA DISTRICT 2004
1. Population by Age and Sex



KOINADUGU DISTRICT 2004
1. Population by Age and Sex



PORT LOKO DISTRICT 2004
1. Population by Age and Sex



TONKOLILI DISTRICT 2004
1. Population by Age and Sex

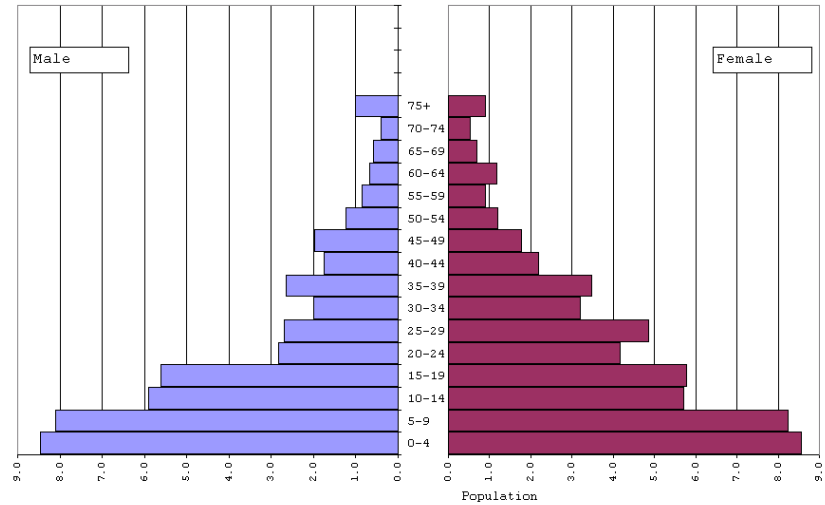
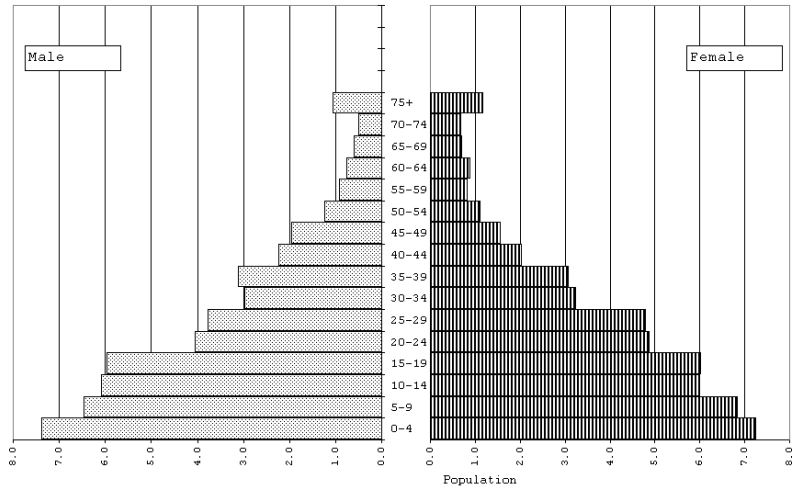
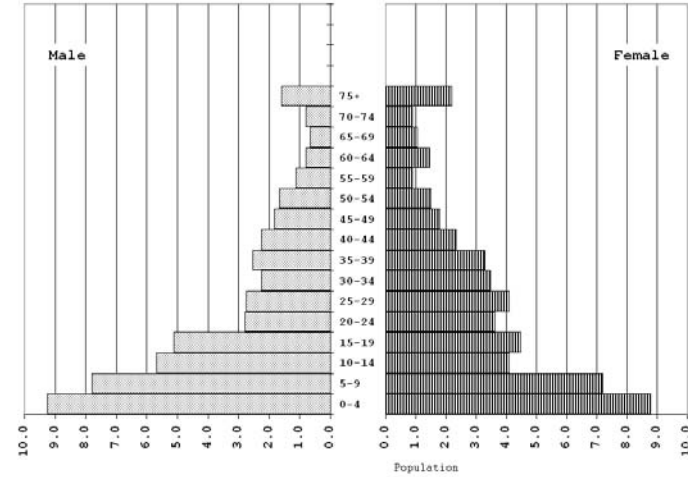


Figure 5 (Contd.) : Five Year Population Pyramids 2004 : Districts

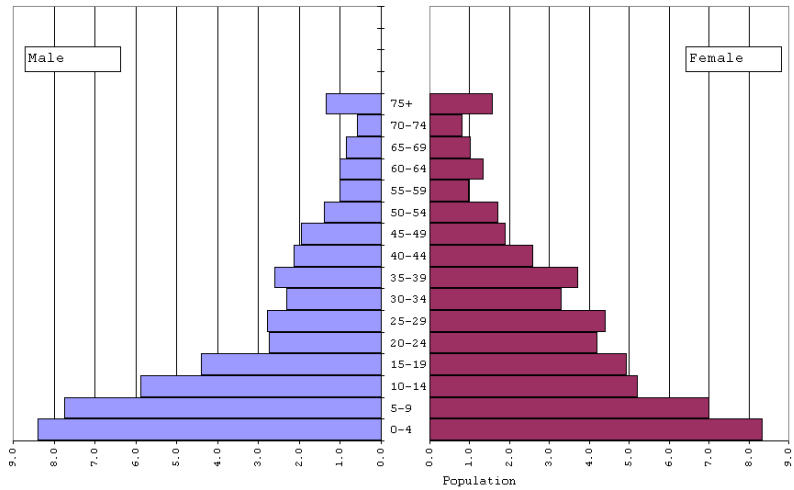
BO DISTRICT 2004
1. Population by Age and Sex



BONTHE DISTRICT 2004



MOYAMBA DISTRICT 2004
1. Population by Age and Sex



PUJEHUN DISTRICT 2004
1. Population by Age and Sex

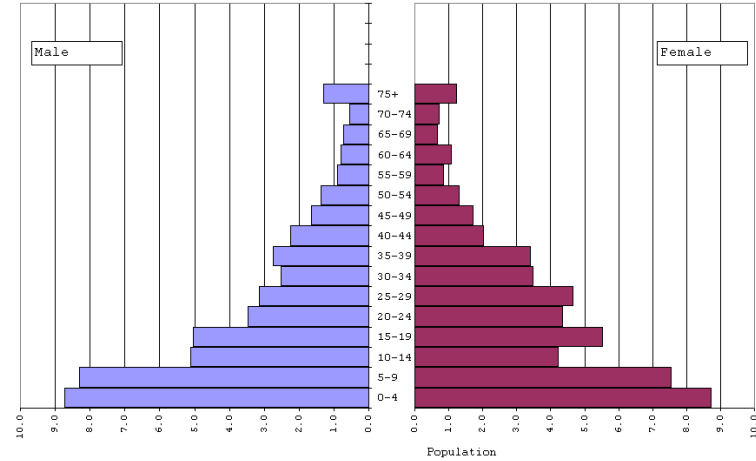
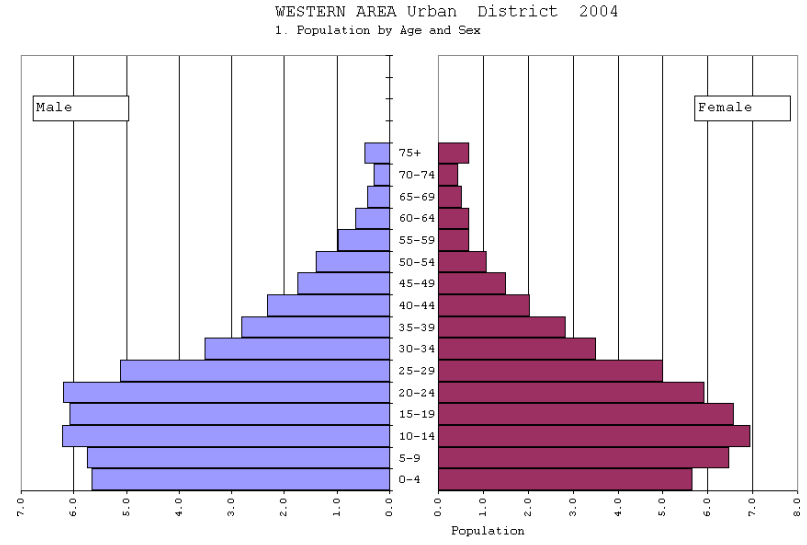
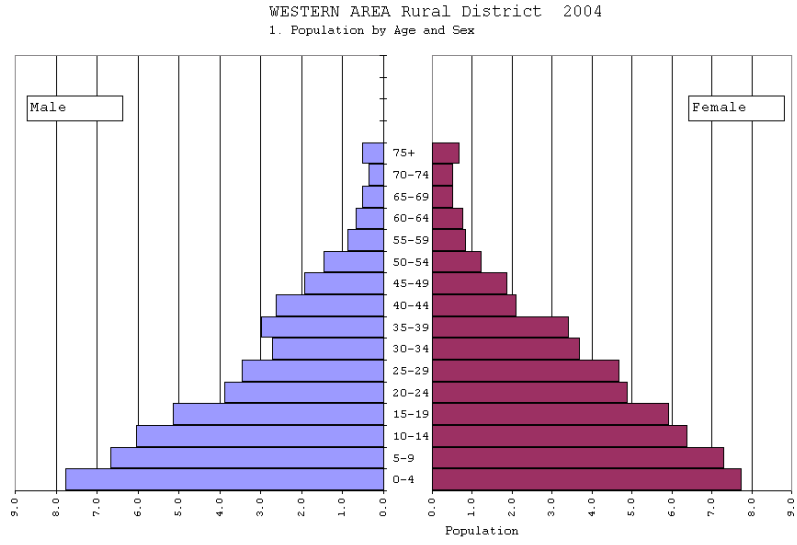


Figure 5 (Contd.) : Five Year Population Pyramids 2004 : Districts



All Districts show a relatively broad base, with age group 0-4 years greater than 5-9 years for either males or females, in all Districts except Bombali, Kambia, Koinadugu, and Western Area Urban.

For the female population, there are deficits at ages 10-14 years, 20-24 years and 55-59 years. And excesses at ages 15-19 years, 25-29 years and 60-64 years in all Districts, except Western Area Rural and Western Area Urban.

For males, fewer distortions are evident, but troughs occur at ages 20-24 years in Kenema and Kono; at ages 30-34 years for Kenema, Tonkolili, Bo, Bonthe, Moyamba, Pujehun and Western Rural; and at ages 55-59 years for Kambia, Koinadugu and Port Loko.

Some pyramids reveal special features. Bonthe has smaller proportions of both males and females at ages 20-24 years to 40-44 years than other Districts.

The female age distribution for Western Area Rural reveals significant “troughs” and “bulges”. But for males, a “trough” at ages 30-34 years is the only significant distortion in the pattern of declining proportions from 0-4 years to 70-74 years.

Similarly for Western Area Rural, apart from ages 0-4 years and 5-9 years, there is a regular pattern of decline from ages 10-14 years to 70-74 years, for both males and females, with a slight “trough” at 15-19 years for males.

While the regularity of age distribution in Western Area Rural and Western Area Urban is possibly a reflection of more accurate age reporting in the two areas which have the highest levels of literacy in the country, some of the observed features in the District pyramids may be due to differences in local socio-economic conditions, the extent to which the 10-year Civil War decimated the population through mortality, internal displacement and emigration; and the virtually constant presence of errors in the age data.

However, the relative contribution of each of these factors can only be determined through more in-depth analysis of the age-sex data for the Population Censuses of 1963, 1974, 1985 and 2004.

d. Estimation of the Accuracy of Reporting In the Five Year Age Data

In order to estimate the level of accuracy of age reporting in the data, the United Nations Joint Score, which computes an Age-Sex Accuracy Index has been calculated for Sierra Leone and each of the Districts. According to this method, an index of less than 20 shows that the age-sex data are “accurate”, 20-40 “inaccurate”, and over 40 signifies data that is “highly inaccurate”(Shryrok et al : *ibid*). The indices for Sierra Leone, Regions and Districts are shown in Table 19.

Table 19: United Nations Age Accuracy Index for Sierra Leone and Districts 2004

DISTRICT	Age Ratio Score		Sex Ratio Score	Age-sex Accuracy Index
	Males	Females		
Sierra Leone	10	14	9	53
Eastern Region	14	18	16	79
Kailahun	18	23	16	90
Kenema	12	17	16	76
Kono	14	16	15	76
Northern Region	13	16	10	59
Bombali	12	14	9	52
Kambia	13	17	11	62
Koinadugu	17	20	11	69
Port Loko	11	13	9	51
Tonkolili	17	19	13	74
Southern Region	11	15	10	56
Bo	9	12	9	50
Bonthe	12	14	9	52
Moyamba	10	12	11	56
Pujehun	13	20	13	73
Western Area Region	4	7	6	29
Western Area Rural	5	7	9	39
Western Area Urban	5	7	7	33

The Age Accuracy Index for Sierra Leone is 53, signifying a high level of inaccuracy. In comparison with the values of 40 for 1974, and 42 for 1985, the implication is that age-sex reporting is not only poor but appears to have deteriorated since 1974.

Each of the Regions except Western Area, as well as each of the Districts, except Western Area Rural and Western Area Urban, shows an Age-Sex Accuracy Index which is consistently above 50. However the index is particularly high in Kailahun, Kono, Tonkolili and Pujehun which have indices of between 73 and 90.

5. AGE COMPOSITION: BROAD AGE GROUPS

Although age data are usually tabulated in single and five year age groups, many aspects of socio-economic planning require data for special categories of population, for example, children under age five years, the pre-labour force population, that is persons aged under 15 years; the working population which includes persons aged 15-64 years; and the population no longer in the labour force, that is persons aged 65 years and over. The relative sizes of these broad age groups have been determined for Sierra Leone and the Districts and are shown in Table 20.

i. Sierra Leone

For the country as a whole, the population is relatively young; 15.3 percent are aged under 5 years, and 41.7 percent aged 0-14 years. In contrast, 53.9 percent are aged 15-64 years and only 4.4 percent are aged 65 years and over (Table 20).

The figures further show that differences between males and females are small especially for ages under 15 years, and those 65 years and over. In addition there are slightly more females than males at ages 15-64 years.

a. Children Aged Under 5 Years

The pre-labour force population is usually taken as all persons aged under 15 years. Within this group, the number of persons aged under 5 years is usually given special attention because of the concern about high levels of infant and child morbidity and mortality

i. Regions

The percentage of children aged Under 5 years varies little between the Southern Region (16.5 percent), the Northern Region (16.2 percent) and the Eastern Region (15.6 percent). However, in the Western Area Region, only 11.8 percent of the population are aged under 5 years.

ii. Districts

The percentage of the total population aged Under 5 years varies from 11.2 percent in Western Area Urban to 18.1 percent in Bonthe. In all Districts, differences between males and females are minimal.

b. Persons Aged Under 15 Years

i. Regions

There are only relatively small differences in the percentage of persons aged under 15 years between the Eastern Region (40.6 percent), the Northern Region (44.6 percent) and the Southern Region (42.2 percent). However, in the Western Area Region children aged under 15 years make up only 37.3 percent of the total population.

Table 20 : Percentage Distribution Of Population By District By Broad Age Groups By Sex

Region and District	0 to 4			0 to 14			15 to 64			65 and over		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Sierra Leone	7.6	7.7	15.3	20.9	20.8	41.7	25.5	28.4	53.9	2.1	2.3	4.4
Eastern Region	7.7	7.9	15.6	20.3	20.3	40.6	27.6	27.5	55.1	2.2	2.1	4.3
Kailahun	7.8	8.1	15.9	21.4	21.2	42.6	24.7	28.1	52.8	2.3	2.4	4.7
Kenema	7.7	7.8	15.5	19.8	19.7	39.5	28.4	27.7	56.1	2.3	2.0	4.3
Kono	7.6	7.8	15.4	19.8	20.1	39.9	29.6	26.7	56.3	2.1	1.7	3.8
Northern Region	8.0	8.1	16.2	22.6	22.0	44.6	22.2	28.5	50.7	2.3	2.4	4.7
Bombali	7.5	7.5	15.0	22.2	21.3	43.5	23.6	28.1	51.7	2.3	2.5	4.8
Kambia	8.7	8.7	17.3	23.7	22.7	46.4	21.1	27.4	48.5	2.5	2.6	5.1
Koinadugu	7.3	7.5	14.8	22.4	22.3	44.7	22.3	28.9	51.2	2.2	1.8	4.0
Port Loko	8.4	8.4	16.8	22.7	21.8	44.5	21.8	28.8	50.6	2.4	2.6	5.0
Tonkolili	8.1	8.3	16.4	22.4	22.2	44.6	22.0	29.0	51.0	2.1	2.2	4.3
Southern Region	8.2	8.3	16.5	21.5	20.7	42.2	24.3	28.2	52.5	2.4	2.9	5.3
Bo	7.6	7.7	15.2	20.4	20.5	40.9	26.3	28.0	54.3	2.2	2.6	4.8
Bonthe	9.1	9.0	18.1	21.9	20.6	42.5	23.1	27.7	50.8	3.0	3.7	6.7
Moyamba	8.6	8.5	17.1	22.2	20.7	42.9	22.5	28.6	51.1	2.6	3.4	6.0
Pujehun	8.5	8.9	17.4	22.5	21.3	43.8	23.3	28.2	51.5	2.3	2.4	4.7
Western Area Region	5.9	5.9	11.8	18.0	19.3	37.3	30.0	29.8	59.8	1.2	1.6	2.8
Western Area Rural	7.4	7.4	14.8	20.2	20.6	40.8	27.0	28.9	55.9	1.4	1.9	3.3
Western Area Urban	5.6	5.6	11.2	17.5	19.0	36.5	30.7	30.0	60.7	1.2	1.6	2.8

ii. Districts

For persons aged under 15 years, the percentage contribution of the total population varies from 36.5 percent in Western Area Urban to 46.4 percent in Kambia. Differences between the sexes are generally small.

c. The Working-Age Population

i. Regions

In all the four Regions, the population in the working ages make up more than half the population, with the biggest contribution in Western Area Region.

ii. Districts

For both sexes combined, the percentage of the population at ages 15-64 years, that is the working-age population, is generally above 50 percent in all Districts, except Kambia (48.5 percent). The highest proportion, 60.7 percent, is in Western Area Urban.

In a number of Districts, there are significant differences between males and females. The proportion of males is greater in Kenema, Kono and Western Area Urban. On the other hand, there are more females than males in all other Districts.

Differences in the types of employment opportunities can partly account for some of these regional variations. In those Districts in which employment facilities are available in Central and Local Government, in manufacturing, mining and commercial agriculture, the percentage of the working-age population is relatively large. This is the case for Western Area Urban which contains the capital Freetown, Western Area Rural in which are located many commercial and industrial enterprises, Bo District and Kenema District which contain the capitals of the Southern Province and Eastern Province respectively, and Kono District, the centre of the diamond mining industry.

d. Old Age Population

i. Regions

The percentage of persons aged 65 years and over in the population varies from only 2.8 percent in Western Area Region to 5.3 percent in Southern Region.

ii. Districts

In all Districts, the percentage of old people in the population is relatively small, varying from 2.8 percent in Western Area Urban to 6.7 percent in Bonthe. There are no significant differences in the distribution of males and females.

6. AGE DEPENDENCY RATIOS

a. The Age Dependency Ratios

The relationship between the pre-labour population, the working-age population and the old age population is usually expressed by the Age Dependency Ratio. This is the ratio of the combined population of children under 15 years, and persons aged 65 year and over, to the population aged 15-64 years, multiplied by a constant, usually 100. This is the Total Dependency Ratio. Separate calculations can be made of the Child Dependency Ratio, or the Old age Dependency Ratio, by restricting the numerator only to the population either in the age group under 15 years, or in the age group 65 years and over.

Generally the higher the age dependency ratio the greater the proportion of children and old person in relation to the productive population, and therefore, the greater the 'burden' the productive population has to carry. Lower age-dependency ratios usually signify better prospects for rapid socio-economic development.

The Age Dependency Ratios for Sierra Leone and the Districts are shown in Table 21.

Table 21: Dependency Ratios for Sierra Leone and Districts 2004

District	Dependency Ratios		
	Total	Child	Old Age
Sierra Leone	85.5	77.4	8.1
Eastern Region	81.3	73.5	7.8
Kailahun	89.4	80.6	8.8
Kenema	78.2	70.4	7.8
Kono	77.6	70.9	6.7
Northern Region	97.1	87.9	9.2
Bombali	93.1	83.9	9.1
Kambia	106.1	95.6	10.5
Koinadugu	95.1	87.2	7.8
Port Loko	97.8	88.1	9.8
Tonkolili	95.8	87.3	8.5
Southern Region	90.5	80.4	10.1
Bo	84.0	75.2	8.8
Bonthe	96.8	83.7	13.1
Moyamba	95.7	83.9	6.0
Pujehun	94.4	85.2	9.1
Western Area	67.1	62.3	4.8
Western Rural	79.0	73.1	5.9
Western Urban	64.7	60.1	4.6

i. Sierra Leone

For Sierra Leone the Total Dependency Ratio was 85.5, the Child Dependency Ratio 77.4 and the Old Age Dependency Ratio 8.1.

ii. Regions

For the Regions, the Total Dependency Ratio was highest in the Northern Region (97.1) and lowest in Western Area Region (87.1). Similarly, the Northern Region had the highest Child Dependency Ratio (87.9) and Western Area Region, the lowest (62.3). However, Old Age Dependency Ratios were highest in Southern Region (10.1) and lowest in Western Area Region (4.8)

ii. Districts

Age Dependency Ratios varied considerably between the Districts. The Total Dependency Ratio varied from 64.7 in Western Area Urban to 106.1 in Kambia; the Child Dependency Ratio from 60.1 in Western Area Urban to 95.6 in Kambia; and Old Age Dependency Ratio from 4.6 in Western Area Rural to 13.1 in Bonthe.

These variations in age dependency ratios are a reflection of variations in the age composition of the population. The Districts with the highest proportions of children have the highest Child Dependency and Total Dependency Ratios, especially Kambia, Port Loko and Tonkolili. In contrast, the Districts with the largest proportion of old people have the highest Old Age Dependency Ratios, especially Bonthe, Kambia and Port Loko.

As this analysis has already observed, these differences amongst the Regions and Districts are possibly due to variations in fertility and mortality between Districts, the availability of opportunities for employment and education, and the extent of age mis-reporting.

b. Changes in Age Dependency Ratios

Changes in age dependency ratios between 1985 and 2004 have been calculated for Sierra Leone and the Districts, and are shown in Table 22.

Table 22: Percentage Changes in Dependency Ratios by District 1985 To 2004

District	Dependency Ratios		
	Total	Child	Old Age
Sierra Leone	-4.4	-1.4	-25.6
Kailahun	-5.4	0.3	-37.4
Kenema	-5.4	-1.9	-28.2
Kono	0.3	-0.4	8.8
Bombali	-11.6	-10.2	-23.1
Kambia	2.2	4.5	-14.4
Koinadugu	6.1	7.8	-9.9
Port Loko	-1.9	0.6	-19.9
Tonkolili	2.2	5.8	-24.6
Bo	-3.8	2.4	-36.5
Bonthe	7.5	12.2	-15.3
Moyamba	3.2	9.0	-61.7
Pujehun	5.5	16.4	-43.7
Western Area	-13.9	-13.7	-16.1

Source: *Dependency Ratios for 1985 from Kandeh and Ramachandran 1995*

i. Sierra Leone

For the county as a whole, the Total Dependency Ratio declined by 4.4 percentage points, the culmination of a decrease of 1.0 in the Child Dependency Ratio and of 25.6 in the Old Age Dependency Ratio. In growth terms, and in relation to the age structure of the population, the figures imply that the combined 'burden' of both children and the aged to the working population is declining.

ii. Districts

The figures also reveal that a number of Districts have experienced a decrease in both the Child Dependency Ratio and the Old Age Dependency Ratio. These include Kenema, Bombali, and the Western Area.

In a number of Districts, only the Child Dependency Ratio has increased, including Pujehun, Bonthe, Moyamba and Koinadugu. Although these increases suggest an increase in fertility levels, the relatively small scale of the increases in many Districts may suggest that the rate of growth of these ages is relatively small in comparison with the growth in the labour force.

Only Kono has experienced an increase in both the Child Dependency Ratio and the Old Age Dependency Ratio. A possible explanation is that during the intercensal period the size of the labour force has grown more slowly than the population aged 0-15 years and 65 years and over.

7. CONCLUSIONS

This analysis has shown that although the population of Sierra Leone has increased rapidly since the start of the Twentieth Century, the four most recent National Population Censuses of 1963, 1974, 1985 and 2004 indicate a population growth rate which is fluctuating just below or above 2.0 percent per annum. This rate of growth may not be as high as other countries in the sub-region, but in relation to a slower annual rate of growth of the national income, it implies a significant constraint on efforts to achieve rapid economic development, eradicate poverty, and improve living standards of the population.

Distribution of the population is fairly even amongst the major administrative units around the country. No Region has more than 36 percent, and no District more than 15 percent of the national population. Only four Chiefdoms have more than 25 percent of the population of their District, or more than 3 percent of the national population.

However, significant increases or decreases have occurred in the population size of some Districts, Chiefdoms and Wards. These changes may have been the consequences of normal demographic processes, or other non-demographic factors, the influences of which can be determined from a more detailed study of previous Census and other related socio-economic data.

Additional detailed research is required to understand the role of changing fertility and mortality levels, the full impact of national and local socio-economic conditions in motivating voluntary inter-district and inter-chiefdom migration, as well as the contributions of the 10-year Rebel War as an agent of forced migration from areas of hostility to areas of safety.

The population of Sierra Leone had slightly more females than males in 2004, further extending the female excess observed in 1963, 1974 and 1985. Within Districts, but particularly within Chiefdoms, a number of interesting sex ratio patterns in 2004, and changes from 1985, have been detected. The relative contributions of changing national and local economic conditions, or of forced migration as a result of the rebel war, can only be determined by further detailed research.

The age composition of the 2004 population exhibits many of the characteristics observed in many other African populations including a high incidence of age misreporting, and relatively large percentages of the population aged under 15 years, in comparison with the population aged 15 to 64 years. There are also significant differences in the age composition of Districts, as revealed by variations in the Age Dependency Ratios in 2004, and changes from 1985.

As this analysis has already emphasised, more detailed research is required on many aspects of the current age and sex composition, and spatial distribution of the population by major administrative units, to understand the many and complex factors which have created the dynamics in these characteristics.

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