

The population of South Africa

An overall and demographic description of the South African population based on Census '96

Sandile E. Simelane

Contents

Chapter 1: Introduction	1
Importance of the report	1
The land area of South Africa.....	1
Background to Census '96.....	2
Definition of terms used in the report	3
Organisation of the rest of report	3
Chapter 2: Composition of the population.....	4
Population size and distribution by province	4
The urban–rural divide.....	5
Distribution of the population by urban/non urban areas	5
Population distribution by population group	6
Population densities.....	8
Population distribution by language.....	8
Ability of foreign born residents to speak South Africa's official languages	12
Population distribution by religion	12
Concluding remarks	14
Chapter 3: The structure of the population	15
Quality of the age–sex data	16
Further analysis of the age–sex structure of the population	18
The median age	18
Median age by population group and sex	18
Median age by province	19
Median age by urban and non-urban residence.....	19
Population distribution by age and sex	20
The age–sex distribution of the total population.....	20
Age–sex distribution by population group.....	21
Age–sex distribution by province	23
Age–sex distribution by urban/non-urban area.....	25
Age dependency ratios.....	26
Age dependency ratios by province.....	27
Age dependency ratios by population group.....	28
Dependency burden by urban and non-urban area	29
Sex ratios.....	29
Overall sex ratios.....	29
Overall sex ratios by population group and urban and non-urban area.....	30
Age-specific sex ratios.....	30
Age-specific sex ratios by province	32
Age-specific sex ratios by population group	33
Age-specific sex ratios by urban and non-urban area	33
Concluding remarks	35
Chapter 4: Summary and conclusions.....	36
References	38
Appendix: Age–sex accuracy indices by population group.....	39

List of tables

Table 1:	Land area (square kilometres) covered by each province	2
Table 2:	Population of South Africa by province	4
Table 3:	Population distribution by urban/non-urban area and province	6
Table 4:	Distribution of the population by population group and province	7
Table 5:	Population density by province	8
Table 6:	Distribution of the population by home language and province	9
Table 7:	Distribution of the population by home language and province (percentages)	9
Table 8:	Distribution of the population by second language spoken at home and province	11
Table 9:	Foreign-born residents speaking official languages as a second home language by country of birth.....	12
Table 10:	Distribution of the population by religion.....	13
Table 11:	Summary table for age–sex accuracy indices by population group.....	17
Table 12:	Dependency burden by province.....	28
Table 13:	Dependency burden by population group.....	28
Table 14:	Age-specific sex ratios by province.....	32

List of figures

Figure 1:	Distribution of the land area by province	2
Figure 2:	Percentage of the population in each province	4
Figure 3:	Percentage distribution of the population by urban and non-urban area within provinces.....	6
Figure 4:	Percentage distribution of the population by population group within provinces.....	7
Figure 5:	Percentage of people speaking each language as their first home language.....	10
Figure 6:	Among those who speak more than one language at home, percentage of people speaking each official language as their ‘second home language’	11
Figure 7:	Distribution by population group and religion.....	13
Figure 8:	Distribution of the population by age (single years) and sex	16
Figure 9:	Median age by population group and sex.....	18
Figure 10:	Median age by province	19
Figure 11:	Median age by urban and non-urban area.....	20
Figure 12:	Age distribution of the total population by sex.....	21
Figure 13:	Age distribution by population group and sex.....	22
Figure 14:	Age distribution by province and sex	24
Figure 15:	Age distribution by urban and non-urban area.....	26
Figure 16:	Overall sex ratios by province.....	30
Figure 17:	Age-specific sex ratios for South Africa	31
Figure 18:	Age-specific sex ratios by population group	33
Figure 19:	Age-specific sex ratios by urban and non-urban area.....	34

Author's note

Some of the issues discussed in this paper have been covered in other Statistics South Africa publications, in particular the Census '96 Summary Report. This paper however provides more detail on the age–sex structure of the South African population.

Acknowledgements

The author wishes to thank Dr. Hirschowitz for her valuable comments on this report. Special thanks also go to Mr. Vincent Montsitsi for verifying the accuracy of the tables produced.

Chapter 1

Introduction

South Africa is situated on the southern tip of the African continent. On the eastern, southern and western borders of the country are the Indian Ocean and the Atlantic Ocean. South Africa also shares borders with Mozambique, Swaziland, Botswana, Namibia and Zimbabwe. The entire country of Lesotho is confined within its borders.

South Africa is indeed a diverse country as reflected in the various cultures, population groups, languages, and socio-economic conditions of its people. For example, the country boasts eleven official languages; nine provinces, each with its own parliament, in addition to the national government; and four main population groups (African, coloured, Indian, and white).

Importance of the report

The purpose of this report is to provide a profile of the country, as portrayed by the 1996 population census. Such a profile is crucial for planning and monitoring in both the private and public sectors. In the private sector it can assist in targeting markets for specific products and in recruitment of workers, for example through the siting of factories and other premises. In the public sector, the socio-economic conditions in each part of the country can be identified, addressed and monitored as and when new policies are implemented

Demographic information is also important for national planning. For example, in order to adequately provide public services, the government (provincial or local) needs information about the size and the distribution of the population.

The land area of South Africa

South Africa covers a total land area of 1 219 090 square kilometres, which is not evenly distributed by province. Table 1 and Figure 1 show that the Northern Cape has the highest proportion of the land area of the country (29,7%). But as we shall see, this province has the

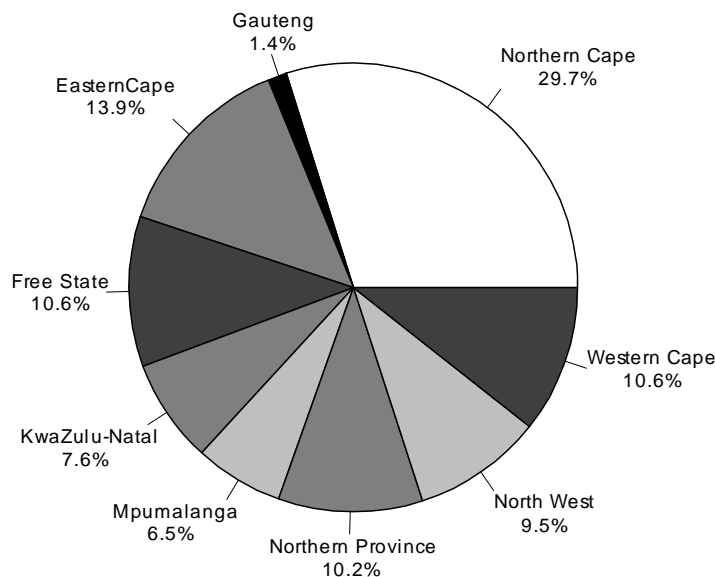
smallest proportion of the country's total population. Gauteng has the smallest share of the country's surface area (1,4%), even though it is the second most populous province.

Table 1: Land area of each province

	Eastern Cape	Free State	Gauteng	KwaZulu-Natal	Mpumalanga	Northern Cape	Northern Province	North West	Western Cape	South Africa
Square km	169 580	129 480	17 010	92 100	79 490	361 830	123 910	116 320	129 370	1 219 090

Source: Department of Land Affairs

Figure 1: Distribution of the land area by province



Background to Census '96

Census '96 was the first democratic census. The enumeration process included everyone in the country. Previous censuses, from 1970 to 1991, only enumerated the white, coloured and Indian populations and excluded the African population living in the so-called homelands, which forms a large proportion of the total population. Therefore, Census '96 compared to previous ones, presents a more representative picture of the South African population and its characteristics.

The whole process of the census followed five distinct phases: pre-enumeration, enumeration, the post enumeration survey (PES), data processing, and the production and marketing of various products.

Definition of terms used in this report

- *Population density*: is a measure of concentration of inhabitants within a given area. It relates the number of the inhabitants to the size of land – i.e. it shows the number of people per square kilometre of an area.
- *Population composition*: refers to the distribution of the population attributes such as age, sex, population group, marital status, income, occupation, religion, place of residence and language.
- *Population structure*: is part of the composition of the population. It refers to the distribution of the population by sex and age and can be graphically presented in the form of an age-pyramid.
- *Demographic transition*: is a process of change from high to low levels of fertility and mortality as populations experience socio-economic development.
- *Sex ratio*: is the ratio of males per 100 females in a population
- *Dependency ratio*: is an indicator of the potential dependency burden of children and the elderly on those who are of economically productive age in a population.

Organisation of the rest of the report

The next chapter discusses the composition of the population. The analysis focuses on the distribution of the population by such attributes as language, religion, population group, place of residence and province. Also looked into in the chapter is the concept of dependency burden.

Chapter three discusses the structure of the population (distribution by age and sex), using unweighted age–sex data. The tools employed in the analysis include the median age, age pyramids, age dependency ratios, and sex ratios. The results are presented at five levels of disaggregation (national, provincial, population group, sex, and urban/non-urban area).

The last chapter provides a summary of the report and some conclusions drawn from the analysis.

Chapter 2

Composition of the population

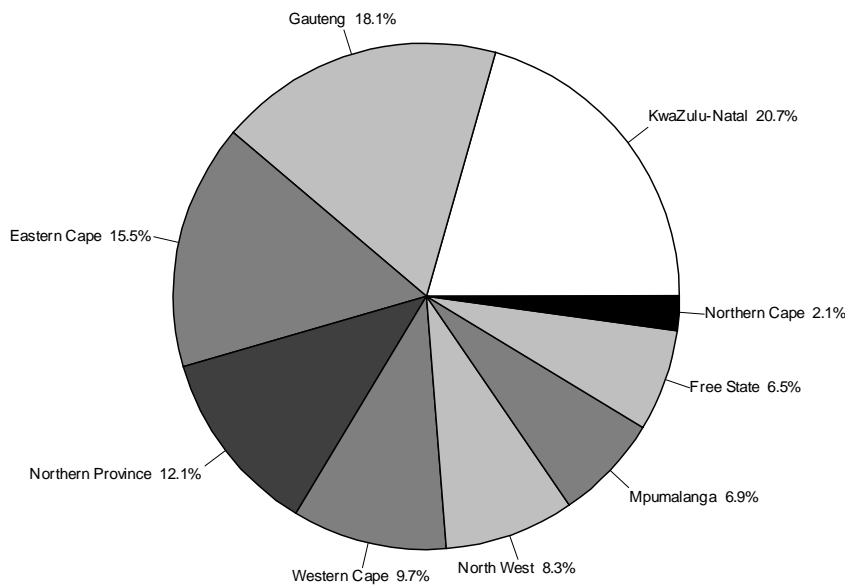
Population size and distribution by province

The country had 40 583 573 people in 1996. Table 2 below shows the distribution of the South African population by province (Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Mpumalanga, Northern Cape, Northern Province, North West and the Western Cape). It shows that, in absolute numbers, KwaZulu-Natal had the largest population (8 417 021) while the Northern Cape had the smallest (840 321). Figure 2 presents the percentage distribution of the population by province.

Table 2: Population of South Africa by province

	Eastern Cape	Free State	Gauteng	KwaZulu-Natal	Mpumalanga	Northern Cape	Northern Province	North West	Western Cape	South Africa
Number	6 302 525	2 633 504	7 348 423	8 417 021	2 800 711	840 321	4 929 368	3 354 825	3 956 875	40 583 573

Figure 2: Percentage of the population in each province



The urban–rural divide

There is a significant difference in the life circumstances of people enumerated in urban and rural areas. For instance, the Stats SA report on women and men in South Africa shows that compared with their urban counterparts, non-urban residents have their main source of water relatively far from their dwelling, and they may walk long distances to fetch it. The same study also shows that non-urban households are more likely than urban ones to rely on wood for cooking and heating (Statistics South Africa, 1998a: 11).

Statistics South Africa (1998b: 21) explains that the classification of areas as urban was arrived at through legal proclamations by government. Thus the classification of areas as non-urban was not done directly, but rather as a residual, after urban areas had been distinguished.

There follows a discussion of the distribution of the South African population by urban and non-urban place of residence and by province.

Distribution of the population by urban/non-urban area

Table 3 below shows the distribution of the South African population by urban and non-urban area and province. The table shows that in Census '96 just more than half (53,8%) of the total population were counted in areas that had been legally proclaimed urban. The remainder (46,2%) were counted in non-urban areas. This national picture can be further divided into the urban and non-urban population distribution in the nine provinces.

Figure 3 shows that five of the nine provinces were predominantly non-urban. These were Eastern Cape, Mpumalanga, KwaZulu-Natal, Northern Province and North West. The others, Free State, Gauteng, Northern Cape and Western Cape, were predominantly urban according to the legal definition given earlier. Among the predominantly non-urban provinces, the Northern Province had the largest proportion of people counted in non-urban areas (88,9%).

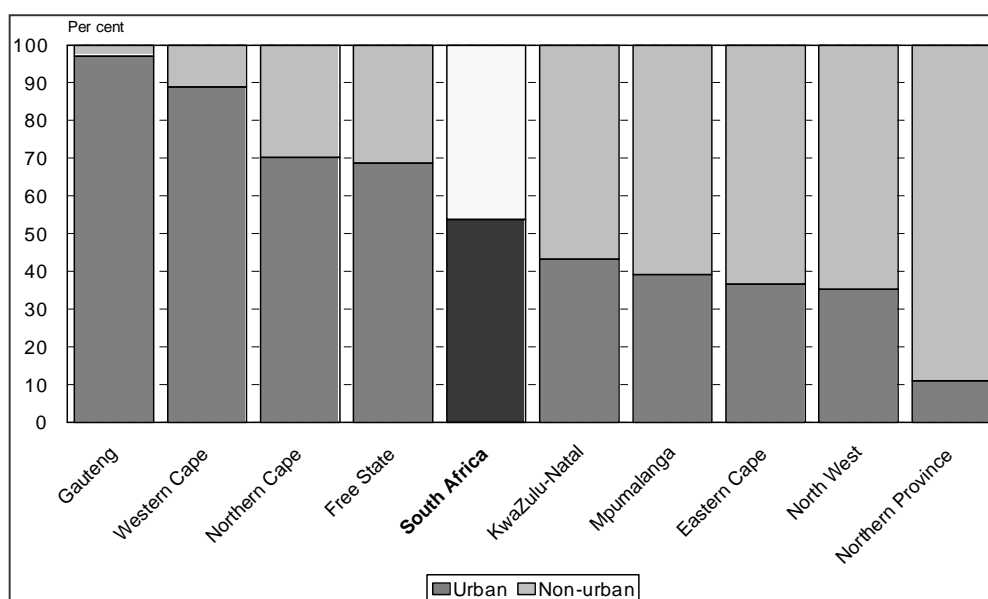
Among the urbanised provinces, the table shows that Gauteng had the highest proportion of people living in urban areas (97,1%).

Table 3: Population distribution by urban/non-urban area and province

	Eastern Cape	Free State	Gauteng	KwaZulu-Natal	Mpumalanga	Northern Cape	Northern Province	North West	Western Cape	South Africa
Urban	2 306 529	1 808 828	7 130 277	3 638 372	1 096 092	590 927	541 301	1 175 585	3517615	21 805 526
Non-urban	3 995 450	824 675	216 644	4 778 647	1 703 891	249 394	4 369 783	2 153 669	439225	18 731 378
Total	6 301 979	2 633 503	7 346 921	8 417 019	2 799 983	840 321	4 911 084	3 329 254	3956840	40 536 904

Excluding unspecified

Figure 3: Percentage distribution of the population by urban/non-urban area within provinces



Population distribution by population group

South Africans in different population groups have certain cultural, linguistic and other differences. Beside these differences, these population groups also have different geographic, socio-economic and demographic characteristics.

South Africa is predominantly African. Table 4 shows that Africans were the largest group of just above 31 million in 1996, followed by white (4 434 698), coloured 3 600 46 and Indian (1 045 597) people. Figure 4 shows that this translates into percentages as follows: Africans, 77,4%; the white and coloured groups, 11,0% and 9,0%; and the Indian group, 2,6% of the population.

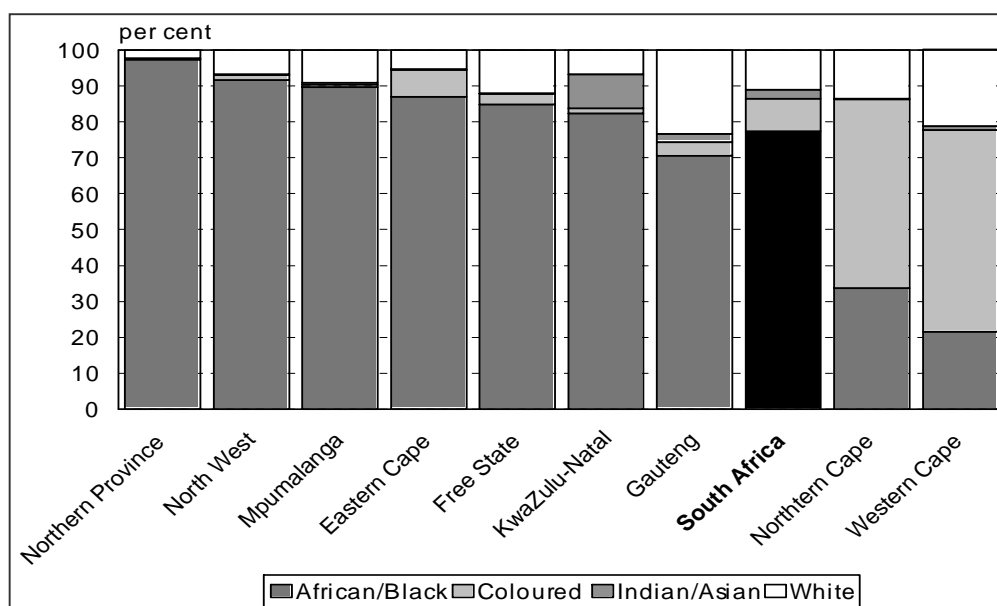
The graph also shows that Africans were the majority in all the provinces except two – the Northern Cape and the Western Cape, where they accounted for only 33,6% and 21,6% of total populations, respectively. Table 4 and Figure 4 also show that, in both absolute numbers and in proportionate terms, whites were highly concentrated in Gauteng.

Table 4: Distribution of the population by population group and province

	Eastern Cape	Free State	Gauteng	KwaZulu-Natal	Mpumalanga	Northern Cape	Northern Province	North West	Western Cape	South Africa
African/Black	5 448 495	2 223 940	5 147 444	6 880 652	2 497 834	278 633	4 765 255	3 058 686	826 691	31 127 630
Coloured	468 532	79 038	278 692	117 951	20 283	435 368	7 821	46 652	2 146 109	3 600 446
Indian/Asian	19 356	2 805	161 289	790 813	13 083	2 268	5 510	10 097	40 376	1 045 597
White	330 294	316 459	1 702 343	558 182	253 392	111 844	117 878	222 755	821 551	4 434 698
Total	6 266 677	2 622 242	7 289 768	8 347 598	2 784 592	828 113	4 896 464	3 338 190	3 834 727	40 208 371

Excluding unspecified

Figure 4: Percentage distribution of the population by population group within provinces



Population densities

Table 5 below shows the population density of the country as well as provincial densities. It shows that, on average, the country had a population density of 33 people per square kilometre in 1996. There is a marked difference between the densities of different provinces. Gauteng was the most densely populated province, with 432 people per square kilometre. The next most densely populated province was KwaZulu-Natal, with a density of 91 people per square kilometre. The Northern Cape had the lowest population density (2 people per square kilometre).

Table 5: Population density by province

	Eastern Cape	Free State	Gauteng	KwaZulu-Natal	Mpumalanga	Northern Cape	Northern Province	North West	Western Cape	South Africa
Population	6 302 525	2 633 504	7 348 423	8 417 021	2 800 711	840 321	4 929 368	3 354 825	3 956 875	40 583 573
Land Area (km ²)	169 580	129 480	17 010	92 100	79 490	361 830	123 910	116 320	129 370	1 219 090
Pop. Density	37,2	20,3	432,0	91,4	35,2	2,3	39,8	28,8	30,6	33,3

Population distribution by language

The 1996 population census questionnaire had two questions on language. The first required the respondents to give the language they used most often *at home*. The second question required them to say if they spoke more than one language *at home* and if so to specify the next most frequently spoken. The data on second language therefore relates to what we have called 'second home language', not to languages spoken, for example, at places of work.

Table 6 below shows the distribution of the population by home language (language most spoken at home) and province. Of the eleven official languages in the country, isiZulu was the language most frequently spoken at home in 1996. It was used by 9 200 145 people as the first language spoken at home. The next mostly frequently spoken home language was isiXhosa (7 196 118 people) while the least frequently spoken home language was isiNdebele (586 960 people). Figure 5 presents the proportionate use of each language in the national population, while Table 7 shows it for both national and provincial levels.

The table shows that isiZulu was the most frequently spoken home language in two of the nine provinces (KwaZulu-Natal, 79,8, and Gauteng, 21,5). In the Eastern Cape isiXhosa was the predominant home language (spoken by 83,8% of the population). In the Free State, Mpumalanga and Northern Province the most frequently spoken home languages were Sesotho (62,1%), Siswati (30,0%) and Sepedi (52,7%) respectively. The table also shows that Afrikaans was predominantly used in two provinces – Northern Cape (69,3%) and Western Cape (59,2%).

Table 6: Distribution of the population by home language and province

	Eastern Cape	Free State	Gauteng	Mpumalanga	KwaZulu-Natal	Northern Cape	Northern Province	North West	Western Cape	South Africa
Afrikaans	600 253	379 994	1 213 352	230 348	136 223	577 585	109 224	249 502	2 315 067	5 811 548
English	233 376	35 154	947 571	54 839	1 316 047	19 902	21 261	34 106	795 211	3 457 467
IsiNdebele	1 248	4 454	114 899	346 337	1 231	287	72 506	42 833	3 165	586 960
IsiXhosa	5 250 524	245 101	543 698	36 378	132 223	52 689	8 597	178 931	747 977	7 196 118
IsiZulu	25 323	125 082	1 559 520	706 816	6 658 442	2 300	36 253	82 068	4 341	9 200 145
Sepedi	2 572	4 708	688 607	291 923	1 775	259	2 572 491	132 374	1 136	3 695 845
Sesotho	139 671	1 625 953	953 239	90 011	45 677	7 419	56 002	171 549	14 676	3 104 197
Setswana	863	171 252	573 104	75 202	2 147	165 781	70339	2239 774	3 311	3 301 773
SiSwati	897	3 592	92 154	834 133	7 344	90	57 149	17 272	562	1 013 193
Tshivenda	511	1 713	99 837	3 345	589	87	757 683	12 209	436	876 410
Xitsonga	268	14 194	382 463	97 844	1 712	209	1 102 472	156 408	535	1 756 105
Other	12 008	7 456	96 939	10 606	38 634	6 449	13 228	18 088	24 868	228 276
Total	6 267 514	2 618 653	7 265 383	2 777 782	8 342 044	833 057	4 877 205	3 335 114	3 911 285	40228037

Excluding unspecified

Table 7: Distribution of the population by home language and province (percentages)

	Eastern Cape	Free State	Gauteng	Mpumalanga	KwaZulu-Natal	Northern Cape	Northern Province	North West	Western Cape	South Africa
Afrikaans	9,6	14,5	16,7	8,3	1,6	69,3	2,2	7,5	59,2	14,4
English	3,7	1,3	13,0	2,0	15,8	2,4	0,4	1,0	20,3	8,6
IsiNdebele	0,0	0,2	1,6	12,5	0,0	0,0	1,5	1,3	0,1	1,5
IsiXhosa	83,8	9,4	7,5	1,3	1,6	6,3	0,2	5,4	19,1	17,9
IsiZulu	0,4	4,8	21,5	25,4	79,8	0,3	0,7	2,5	0,1	22,9
Sepedi	0,0	0,2	9,5	10,5	0,0	0,0	52,7	4,0	0,0	9,2
Sesotho	2,2	62,1	13,1	3,2	0,5	0,9	1,1	5,1	0,4	7,7
Setswana	0,0	6,5	7,9	2,7	0,0	19,9	1,4	67,2	0,1	8,2
SiSwati	0,0	0,1	1,3	30,0	0,1	0,0	1,2	0,5	0,0	2,5
Tshivenda	0,0	0,1	1,4	0,1	0,0	0,0	15,5	0,4	0,0	2,2
Xitsonga	0,0	0,5	5,3	3,5	0,0	0,0	22,6	4,7	0,0	4,4
Other	0,2	0,3	1,3	0,4	0,5	0,8	0,3	0,5	0,6	0,6

Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------

Figure 5: Percentage of people speaking each language as their first home language

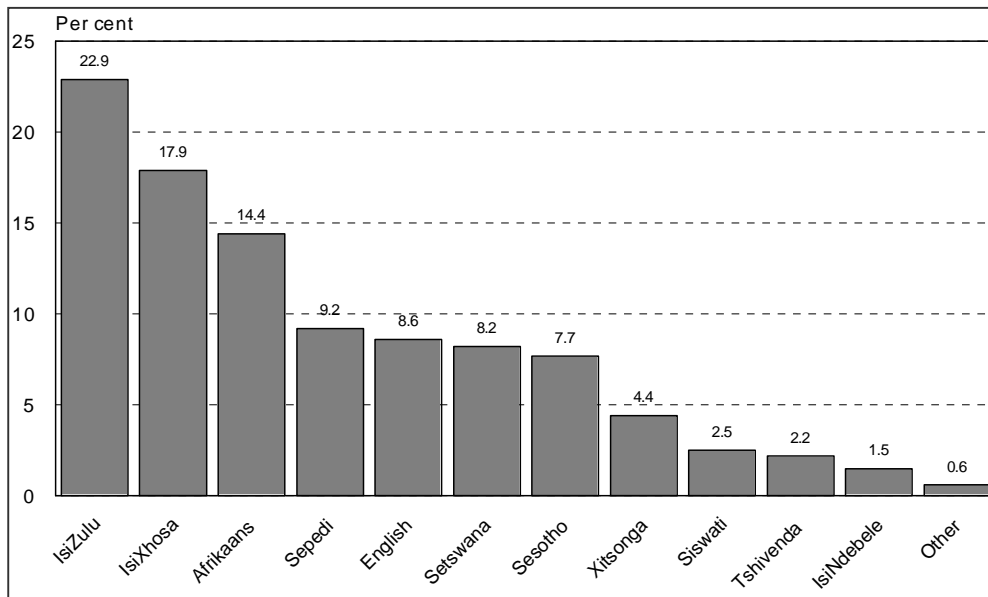


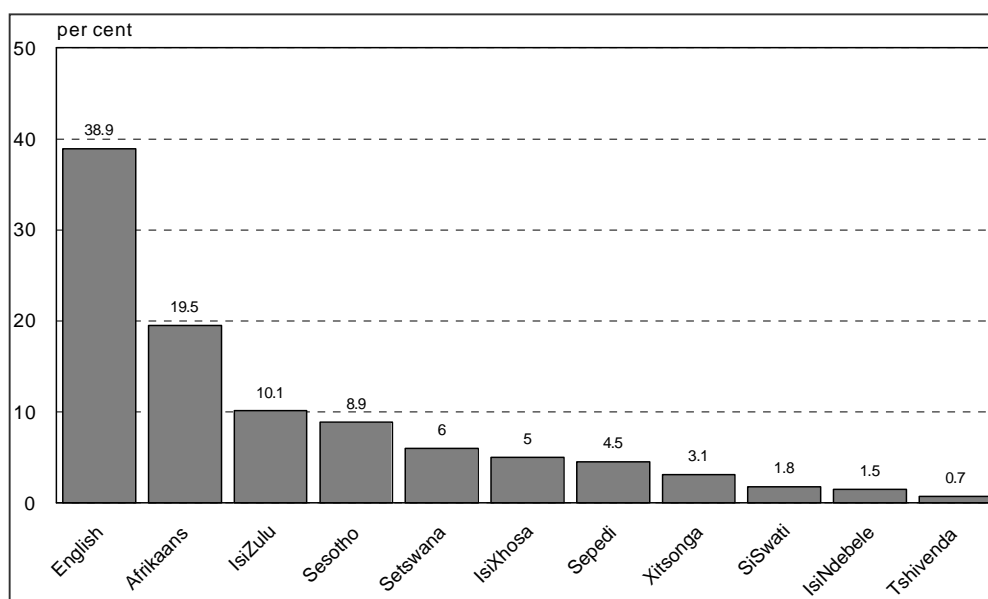
Table 8 below shows that a total of 5 651 777 people, or 13,9% of the total population used one of the official languages as the second most frequently spoken language at home. In other words, at least 14 people in every 100 in the country could speak at least two official languages at the time of Census '96. Table 8 also shows that, in relation to provincial population totals, Gauteng had the highest proportion of the population (1 923 203 or 26,2%) speaking at least two languages at home. The Western Cape (936 818 or 23,6%) had the second largest proportion of people speaking at least two languages at home. The province with the lowest proportion speaking at least two languages at home was the Northern Province (335 891 or 6,8%).

Table 8: Distribution of the population by second language spoken at home and province

	Eastern Cape	Free State	Gauteng	Mpumalanga	KwaZulu-Natal	Northern Cape	Northern Province	North West	Western Cape	South Africa
IsiNdebele	666	1 553	23 343	35 336	641	133	15 669	5 258	758	83 357
IsiXhosa	52 095	42 378	80 065	6 021	37 932	9 192	1 891	29 565	22 798	281 937
IsiZulu	7 426	36 743	325 630	81 929	75 205	516	18 621	23 721	2 380	572 171
Sepedi	587	1 191	78 554	41 484	940	67	113 289	16 544	400	253 056
Sesotho	29 941	142 964	217 186	26 750	32 133	2 400	11 585	30 028	11 026	504 013
Setswana	702	30 390	104 149	8 955	776	24 572	7 031	160 264	1 266	338 105
SiSwati	445	567	30 196	49 044	5 511	30	14 089	3 030	212	103 124
Tshivenda	106	220	13 200	990	228	10	23 207	1 992	81	40 034
Xitsonga	112	1 408	46 561	48 261	2 453	38	63 251	13 045	118	175 247
Afrikaans	108 729	53 093	294 752	32 945	80 733	63 038	16 526	53 862	397 742	1 101 420
English	264 938	83 413	709 567	86 739	375 016	40 378	50 732	88 493	500 037	2 199 313
Total	465 747	393 920	1 923 203	418 454	611 568	140 374	335 891	425 802	936 818	5 651 777

Figure 6 shows that, among those speaking at least two of the eleven official languages at home, English was the most frequently used as a second language. About four out of every ten people who speak more than one language at home used it as an alternative language. The second most frequently used language at home was Afrikaans. The graph also shows that a very small proportion (0,7%) of the population used Tshivenda as a second language at home.

Figure 6: Among those who speak more than one language at home, percentage of people speaking each official language as their ‘second home language’



Ability of foreign-born residents to speak South Africa's official languages

The data show that 847 293 people born outside South Africa were living in the country in 1996. Table 9 shows that 179 587 or 21% of these people spoke at least one of the official languages as their 'second home language'. 'First home language' of foreign-born people is not analysed here, although in some instances this could also be one of South Africa's official languages.

The table also shows that of the official languages English (77 923 or 43,4%), Afrikaans (33 829 or 18,8%) and isiZulu (24 389 or 13,6%) were the most frequently used as second home languages among the foreign-born group of the population.

Table 9 also show that the majority (113 649 or 63,3%) of the foreign-born people who spoke South African languages as their second home languages were from the Southern African Development Community (SADC) countries. The rest of the world accounted for 35,3% while the rest of Africa accounted for only 1,4%. This finding could imply that people from the SADC countries integrate more easily into the South African population than those from other regions of the world.

Table 9: Foreign-born residents speaking official languages as a 'second home language' by country of birth

	Afrikaans	Isi Ndebele	IsiXhosa	IsiZulu	Sepedi	Sesotho	Setswana	Siswati	Tshivenda	Xitsonga	English	Total
SADC	14624	1068	5085	22752	1430	5031	5004	9151	606	13690	35208	113649
Rest of Africa	204	4	116	95	20	19	76	10	7	20	1994	2565
Other	19001	210	393	1551	125	370	352	196	61	393	40721	63373
Total	33829	1282	5594	24398	1575	5420	5432	9357	674	14103	77923	179587

Population distribution by religion

The census question on religion was optional. Respondents were asked to state their religion, denomination or belief. Table 10 below shows that South Africa is a predominantly Christian country. About 76% of the country's population identified themselves with Christianity or with Christian denominations. The table also shows that a sizeable proportion of the population (11,7%) reported themselves as having no religion. The other religions (African Traditional Beliefs, Hinduism, Judaism and the Muslim faith) attracted a small proportion of

the population (0,0%, 1,4%, 0,2%, and 1,4% respectively). The table also shows that 9,4% of the population did not state their religion.

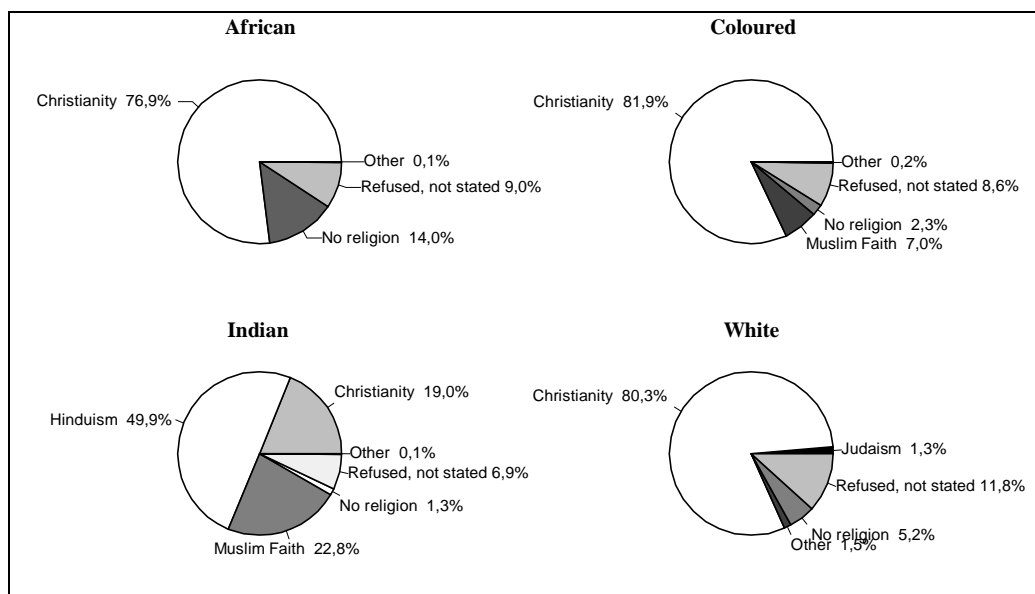
Table 10: Distribution of the population by religion

Religion	Number of people	Per cent
African Traditional Beliefs	17 085	0,0
Christianity	30 231 404	75,9
Hinduism	537 428	1,4
Judaism	68 058	0,2
Muslim Faith	553 585	1,4
No religion	4 638 897	11,7
Refused, not stated	3 746 706	9,4
Other	13 435	0,0
Total	39 806 598	100

Figure 7 shows the distribution of the religion within each population group.

It shows that Christianity was dominant for all the population groups except among the Indian group where only 19% were Christians, since Hinduism (49,9%) and Muslim faith (22,8%) were more frequently practised among Indians. Figure 7 also shows that a significant proportion of Africans (14%) and white people (5,3%) reported that they do not have a religion.

Figure 7: Distribution by population group and religion



Concluding remarks

This chapter discussed the composition of the South African population in 1996. It showed vast differences in socio-economic and demographic attributes characterising the country's population.

The analysis showed that the distribution of the population among the country's provinces is not even, but that population densities between the provinces differ significantly. It also showed that, overall, more people were enumerated in urban areas in 1996 than in non-urban ones. However, vast differences emerge at provincial level. Whereas some provinces (Gauteng and Western Cape in particular) showed very high proportions of their populations enumerated in urban areas, others (Northern Province and North West) showed very low proportions.

Although South Africa is predominantly African, the analysis revealed that the coloured group were in the majority in Western Cape and Northern Cape in 1996. It also showed that white people were mostly concentrated in Gauteng and the Western Cape, whereas Indians were mostly found in KwaZulu-Natal.

The analysis also showed vast differences in language usage among population groups and across provinces. Gauteng was shown to be the province with the highest percentage (26,2) of people who speak more than one language at home. It was also shown that among the people speaking more than one language at home English was the most frequently used as a second home language.

As regards the distribution of the population by religion, the data showed that the country's population was predominantly practising the Christian faith in 1996.

Chapter 3

The structure of the population

The distribution of a population by age and sex is very important for socio-economic and demographic considerations (Adepoju 1991: 11; Shryock et al. 1976: 105; Petersen 1969: 59), as described below.

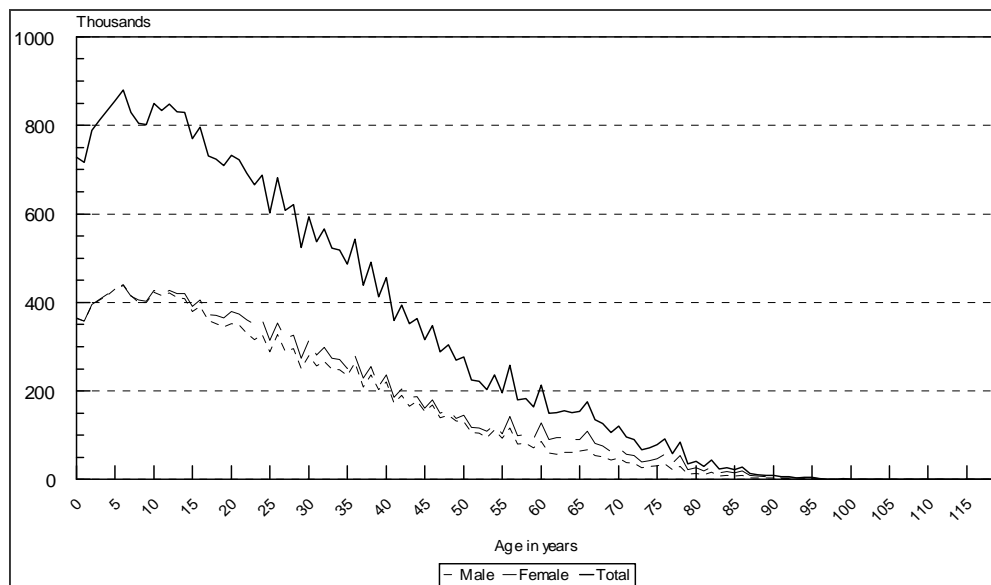
- The age composition of a population may be used to evaluate, adjust and reconcile the completeness and accuracy of census counts.
- The age structure may be used to project the total population and its components, including school age and working age populations, the youth, the middle aged and the elderly.
- The age–sex structure of the population may assist in understanding concepts such as dependency burden.
- The age–sex structure is also useful for the study of fertility and reproduction.
- Age–sex composition is closely related to the provision of social services and changes in requirements over time. For instance, a rapidly growing population is likely to experience problems associated with the need for increased school facilities.
- Age data are used in estimation of demographic variables such as childhood and adult mortality rates, age-specific mortality and fertility rates, and life expectancy and migration rates for various age–sex groups.

Census '96 captured information on the population's age and sex distribution by asking respondents to specify their sex and their ages.

Figure 8 gives the distribution of the population at the time of census '96 (unweighted) by sex and age. By using unweighted data for analyses involving age, biases that might have occurred during the weighting are avoided.

Figure 8 shows the single year age distribution by sex. Age distributions may suffer errors associated with misreporting or misrecording. The former type of error can result from deliberate misreporting of one's age, digit preference, memory lapse, etc. The latter type may result from erroneous recording by the interviewer.

Figure 8: Distribution of the population by age (single years) and sex



Quality of the age–sex data

Figure 8 shows that, for the total population, and for males and females, all ages ending with zero are peaks whereas those ending with five are troughs. This finding may indicate a problem with the data. It is therefore necessary to evaluate the accuracy of the age–sex distribution. Results from such an analysis will not only pertain to the distribution but will also give a picture about the quality of the census as a whole.

According to Arriaga (1994: 23), the composite index of the quality of population distribution by age and sex (age–sex accuracy index) is computed by the following formula:

$$\text{age–sex accuracy index} = 3 \cdot \text{SRS} + \text{ARSM} + \text{ARSF}$$

where: SRS = sex ratio score (average of sex ratios)

ARSM = age ratio score for male (average of male age ratio deviations from 100)

ARSF = age ratio score for female (average of female age ratio deviations from 100).

The United Nations classifies age–sex structures of populations into three main categories;

- *accurate* if the age–sex accuracy index is less than 20;
- *inaccurate* if the index is between 20 and 40;

- *highly inaccurate* if the index value is above 40 (Arriaga, 1994: 23).

The analysis of the accuracy of the 1996 census age–sex data was performed using the United Nations Age–Sex Accuracy Index. The software Population Analysis Spreadsheets (PAS) was used. Table 11 below shows the accuracy index of the total population as well as accuracy indices of the different population groups. The table shows that the census age–sex data obtain a value of 17,8 for the overall accuracy index. But there is a marked difference in the accuracy of the age distributions of the different population groups. The population groups other than Africans (22,7) had accurate age–sex distributions. The white population group, with an index of 13,7, had the most accurate age distribution, followed by the Indian and coloured groups with 14,9 and 15,1 respectively.

Table 11: Summary table for age–sex accuracy indices by population group

	Index			
	Sex Ratio Score	Age Ratio Score (male)	Age Ratio Score (female)	Age-sex Accuracy index
African/ Black	4,3	5,2	4,7	22,7
Coloured	2,7	2,7	4,7	15,1
Asian/ Indian	2,6	3,5	3,4	14,9
White	2,6	2,9	3,0	13,7
Total Population	3,3	4,0	3,8	17,8

Normally, when the age–sex distribution of a population is found to be unacceptably inaccurate, it is recommended that it is smoothed to compensate for the misreporting and/ or misrecording errors. Since the overall age reporting in the 1996 census data have been found to be acceptable, there is not much need for smoothing the age–sex data. Hence, for further analysis, they will be used as they are. However, at population group level, there may be a need for light smoothing of the age distribution for Africans.

Further analysis of the structure of the population

The median age

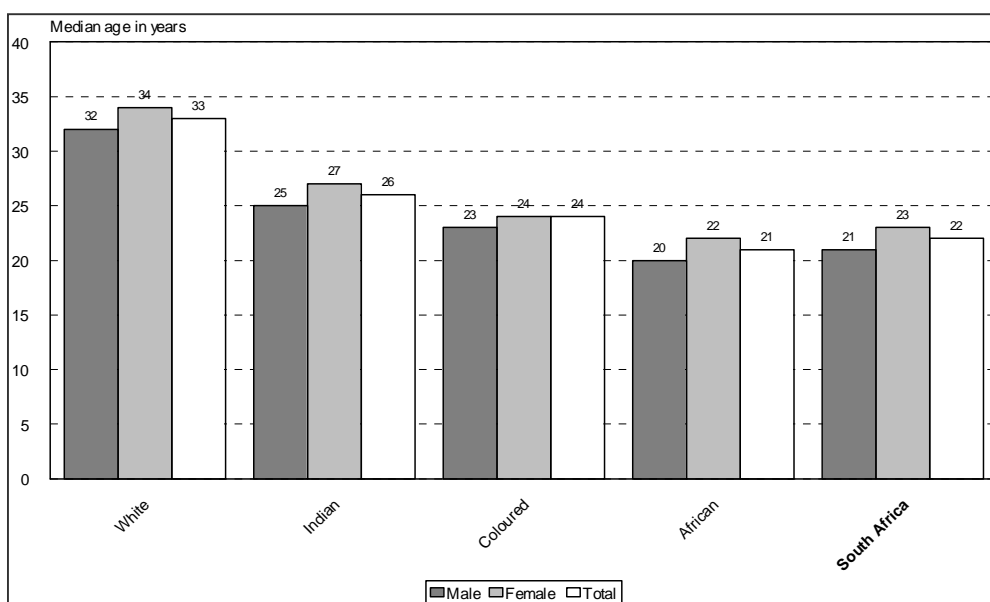
This index is often used when describing whether a population is young or old, and whether it is becoming younger or older. According to Shryock et al. (1976: 132) populations with medians under 20 are described as being young and those with medians of 30 and above as being old. Those with median ages between 20 and 29 are referred to as populations of intermediate age.

Median age by population group and sex

The median age of South Africa's population was 22 years in 1996 – see Figure 9 below. This is characteristic of a relatively young population. However, this summary figure masks the vast differences among the four main population groups. For instance, the white population group had a relatively old age structure with a median age of 33 years, the African (21 years), coloured (24 years) and Indian (26 years) groups all had intermediate age structures.

The median age also differed by sex, and the median age for females was higher than the one for males for all population groups. Females generally tend to have higher life expectancies than males.

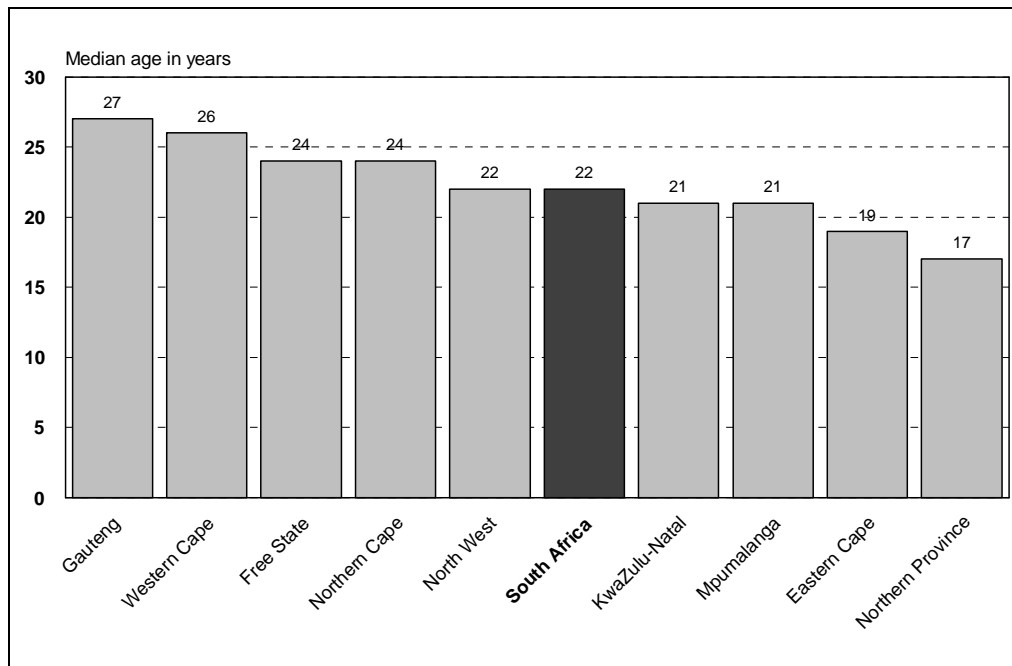
Figure 9: Median age by population group and sex



Median age by province

Figure 10 shows that all provinces had an intermediate age structure, except two – Eastern Cape (19 years) and Northern Province (17 years). Gauteng (with a median age of 27 years) had the oldest population while the Northern Province had the youngest.

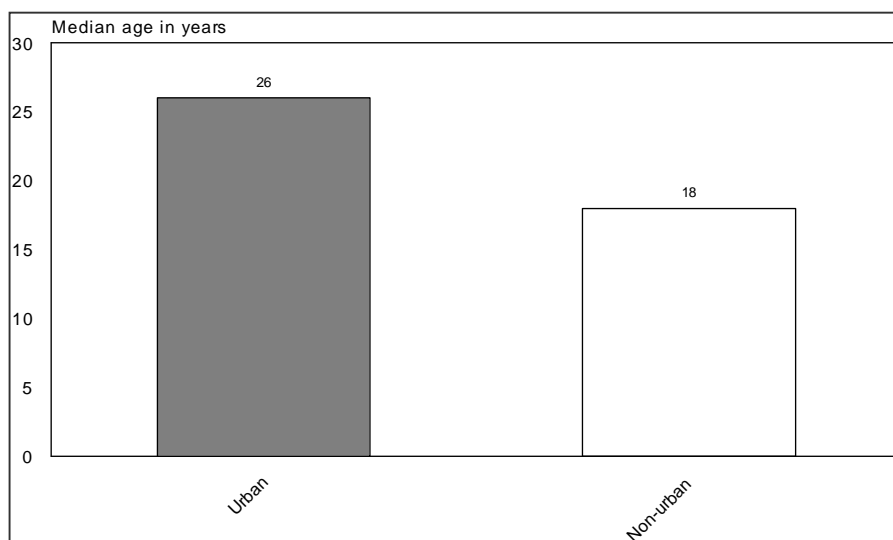
Figure 10: Median age by province



Median age by urban and non-urban residence

The data show that the median age among urban dwellers differed from that of non-urban dwellers. Figure 11 shows that, whereas the non-urban areas, with a median age of 18 years, could be described as young, the urban areas, with a median age of 26 years, could be described as having an intermediate age structure.

Figure 11: Median age by urban and non-urban area



Population distribution by age and sex

The age–sex structure of a population is a result of the interplay between the three components of population change (fertility, mortality and migration).

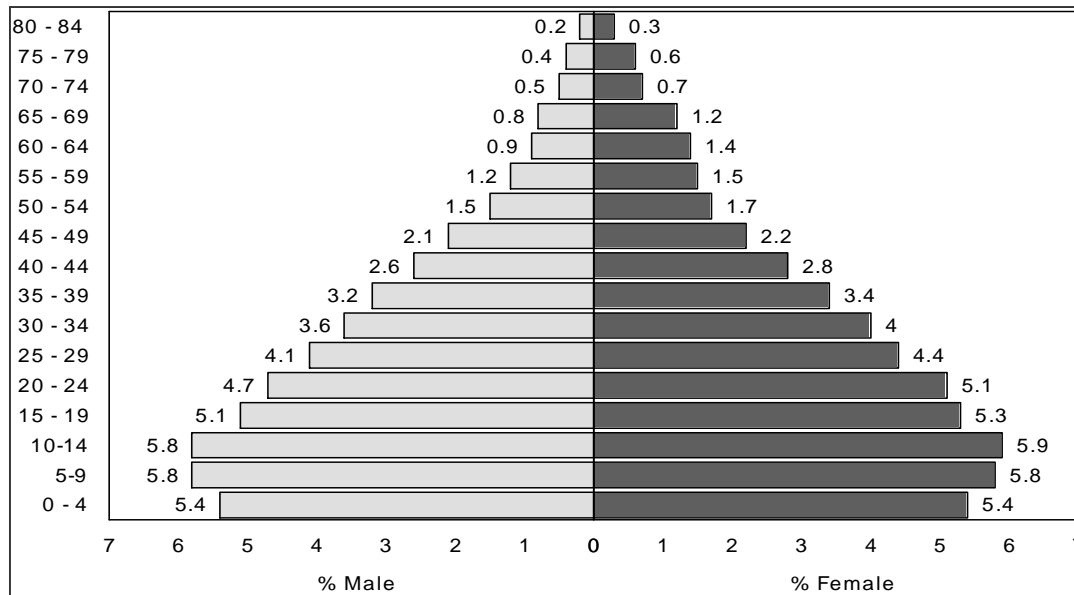
The age–sex distribution of the total population

Figure 12 shows South Africa’s population distribution in five-year age groups (for ages 0-84) by sex. The graph shows that the overall age distribution of the South African population is starting to diverge from the broad-based pyramid that is typical of developing countries. This could be associated with a fertility transition that the country appears to be currently undergoing. For instance, Udjo (1997: 7) estimates that during the period 1980-1995, the total fertility rate fell from a high figure of 4,2 at the beginning of the period to 3,2 at the end. This new shape of the pyramid brings with it a new set of socio-economic implications. These include increased demand for employment opportunities as bigger cohorts of people join the economically active group (ages 15-64).

Figure 12 shows proportionately more females than males, for all the age groups except the first two (0-4 and 5-9). Under normal circumstances, all populations have more females than males in all ages, except at birth. This is because, in general, slightly more males are born than

females, but at any point in time, they tend to die faster than the latter, as they grow. This differential in life expectancies is explained by many factors. The most prominent among these are the biological make-up of the sexes and behaviour.

Figure 12: Age distribution of the total population by sex



Age–sex distribution by population group

Figure 13 shows the age–sex structures of each population group. The graph shows that, because of the numeric preponderance of Africans over the other groups, the shape of the national population pyramid is similar to that of this group. The graph also shows that these population groups are at different levels of demographic transition and development.

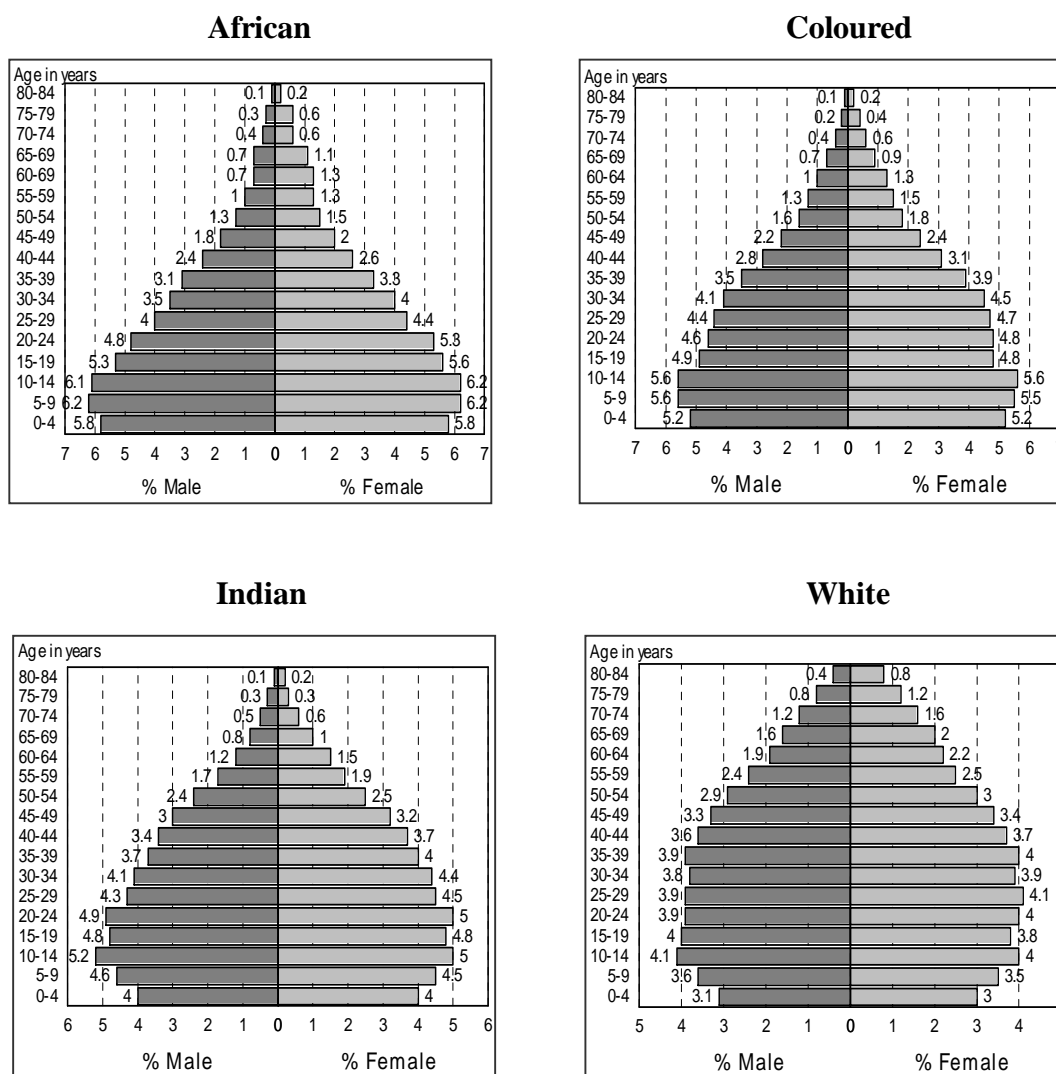
The broad-based pyramid for Africans suggests that this group experiences relatively high fertility levels, and has proportionately more young people than the other three population groups. Studies by van Aardt (1992: 18) and Udjo (1999: 11) also attest to this. This type of pyramid is also associated with high population growth rates and poverty.

The convex shape of the white population pyramid shows that this group has completed its transition (it experiences very low fertility and mortality rates) and enjoys a higher development status. This shape is reminiscent of population pyramids of industrialised countries and is characteristic of older populations.

According to Udjo (1999: 11), the white population had a total fertility rate (TFR) of 1,9 in 1996 while the Department of Health (1999: 6) shows that they had a low infant mortality rate (IMR) of 11 deaths per 1000 live births in the same year. These rates (fertility and mortality) are comparable with those of developed countries. For instance, the United States had a TFR of 1,5 and an IMR of 9 deaths per 1000 live births in 1998. Denmark and the United Kingdom had a TFR of 1,7 each, while corresponding figures for the IMR were 11 and 10, respectively, in the same year (Population Reference Bureau, 1999).

Figure 13 also shows that the shape of the population pyramid for the coloured population group was closer to that of Africans while that of the Indian group is beginning to appear similar to that of whites.

Figure 13: Age distribution by population group and sex



Age–sex distribution by province

The data show a marked variation in the age distribution of the population by province. As previously shown with median ages, the actual age distributions indicate that Gauteng and the Western Cape have the oldest age structures while the Northern Province and the Eastern Cape have the youngest.

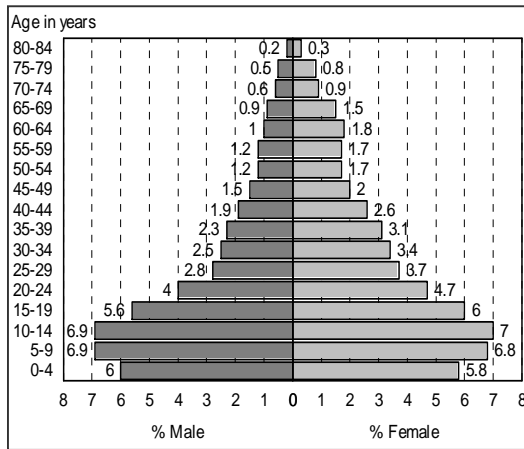
Figure 14 shows that in Gauteng and the Western Cape a large proportion of people are found in the age groups from 20 to 39 years. These two provinces are highly urbanised compared to the others. Internal migration into these provinces for education and job opportunities may explain the preponderance of young adults.

Figure 14 also shows that the Northern Province and the Eastern Cape exhibit age structures that are broad-based and taper rapidly as age increases – typical of least developed populations. It is probably from these two provinces, but also from others, that the young adults migrate into Gauteng and Western Cape. The age structures of the other provinces (Free State, KwaZulu-Natal, Mpumalanga, Northern Cape and North West) are also broad based but tend to taper gradually as age increases – reminiscent of age structures of developing populations.

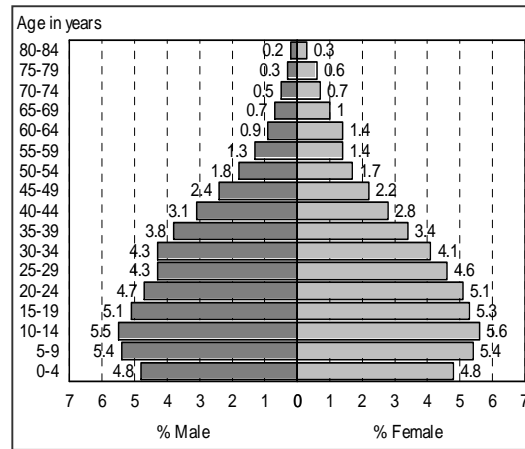
The shape of the age distributions of the more rural provinces suggests that they are experiencing considerable out-migration of some people in the working age category (15-64). Thus, these provinces may become a repository for the young and very old. Dependency ratios are thus likely to be high in these more rural provinces.

Figure 14: Age distribution by province and sex

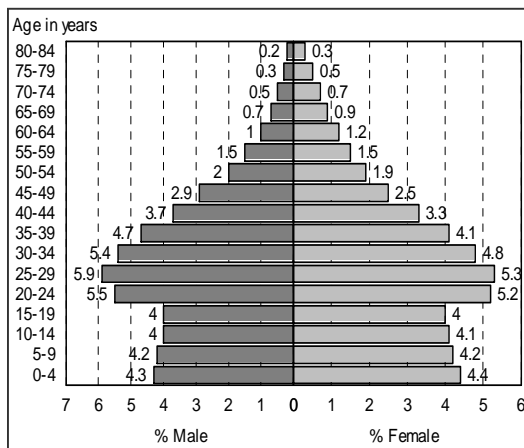
Eastern Cape



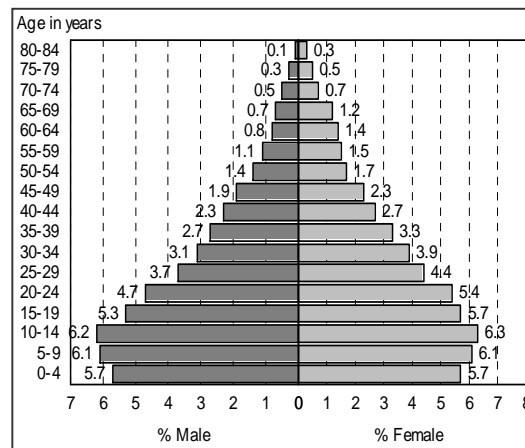
Free State



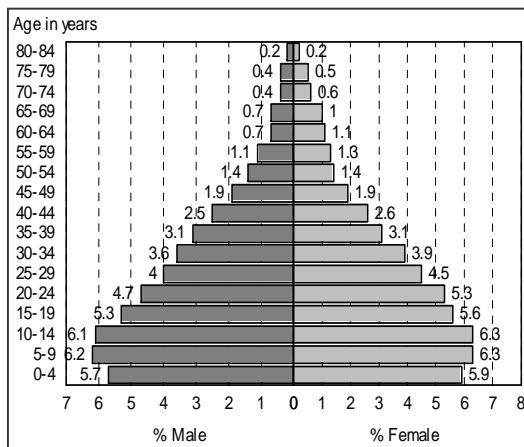
Gauteng



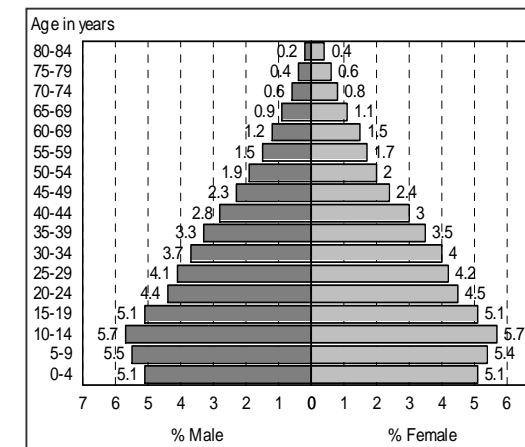
KwaZulu-Natal



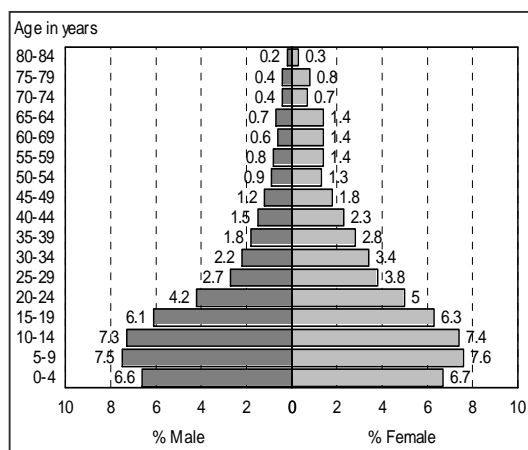
Mpumalanga



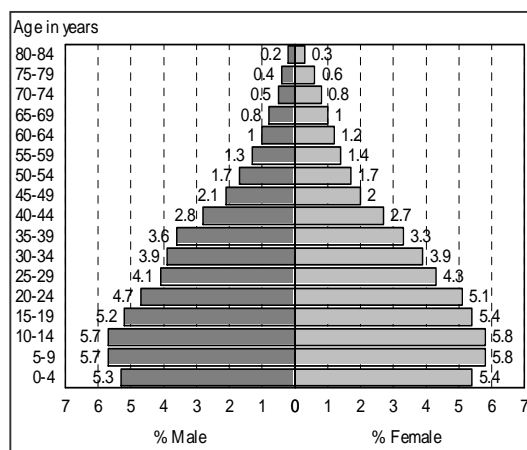
Northern Cape



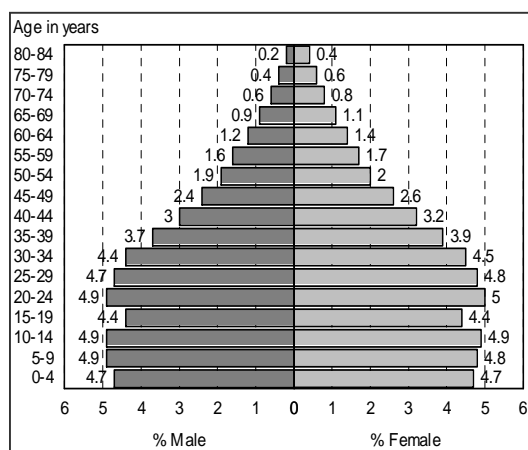
Northern Province



North West



Western Cape

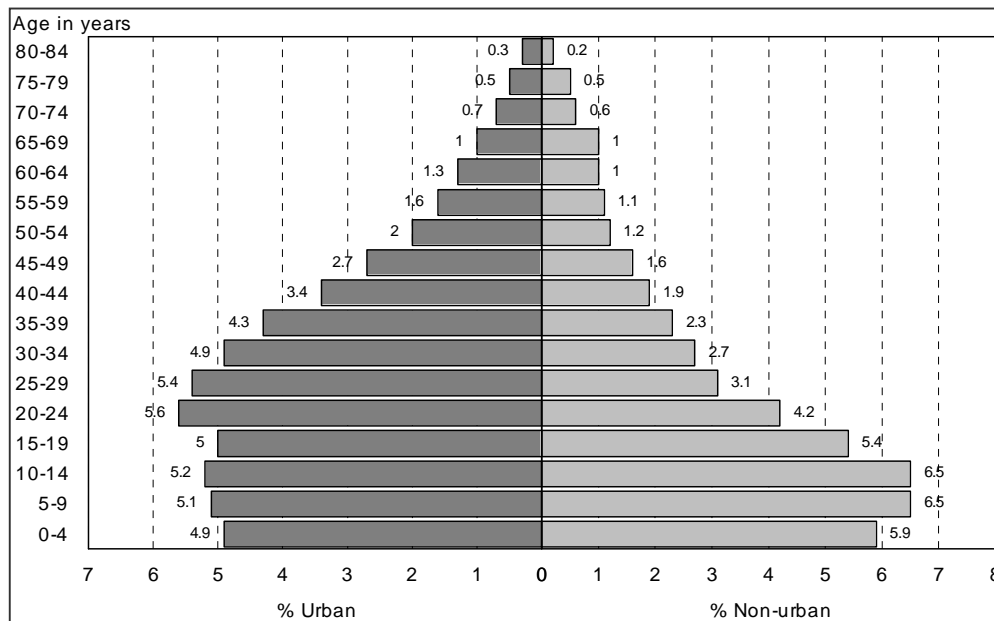


The age structures of the two most developed provinces Gauteng and Western Cape, show that they need to meet a demand not only for education, recreation, and health but also for employment creation.

Age-sex distribution by urban/non-urban area

The picture of movement from non-urban into urban environments is confirmed in Figure 15. Non-urban areas had a higher proportion of young people (0-15) than urban areas in 1996. In the age group 20-64 on the other hand, urban areas had proportionately more people than non-urban ones. In the elderly group (65+), however, both urban and non-urban areas have comparable proportions.

Figure 15: Age distribution by urban and non-urban area



The graph thus shows that migration, particularly in the prime working ages, is mainly from non-urban to urban areas. This pattern of migration, as was seen with provinces, affects the dependency ratios in the two places of residence. In urban areas the effect is to decrease the ratio while in non-urban areas the effect is to increase it. Secondly, the graph seems to indicate that non-urban areas experience higher fertility levels than urban areas, or perhaps some children born in urban areas are sent to non-urban ones for the extended family to care for them.

Age dependency ratios

The dependency ratio is an indicator of the potential dependency burden of children and the elderly on those who are of economically productive age in a population. It is computed as follows:

$$\frac{\text{population under 15 years old} + \text{population 65 years and over}}{\text{population aged 15 to 64}} * 100$$

This is a composite ratio comprising the aged and youth dependency burden on the population of working ages. The separate dependency ratios for the children and the aged are obtained through the following formulae:

$$\text{Child dependency ratio} = \frac{\text{population under 15 years old}}{\text{population aged 15 to 64}} * 100$$

$$\text{Adult dependency ratio} = \frac{\text{population 65 years and over}}{\text{population aged 15 to 64}} * 100$$

Table 12 indicates that the country had a total dependency ratio of 64 in 1996. This was made up of a child dependency ratio of 56 and an adult dependency of ratio of 8 people per 100 working age people. This means that every 100 persons in the economically active years (15-64) were expected to cater for 64 people, 56 of whom would be children under 15 years and 8 of whom would be adults. This dependency burden is comparable with that of other developing countries. For example, the United Nations (2000: 168) shows that, on average, the overall dependency ratio for developing countries was 69% in 1998, compared to 61% and 90% for developed and least developed countries, respectively.

Age dependency ratios by province

Table 12 also shows differences in dependency ratios between provinces. These range from as high as 94 to as low as 42. The table also shows that child dependency ratios ranged from a high figure of 84 to a low of 36, while for adults the corresponding dependency ratios were 11 and 6 respectively.

The provinces that were identified as relatively developed because of their age structures (Gauteng and Western Cape) had low dependency ratios. For instance, in Gauteng, where the burden was the lowest, every 100 persons in the economically active group catered for only 42 people. Of these dependants, 36 were children and 6 were adults.

In those provinces that were identified as less developed because of their age structures, the situation was different. For instance, in the Northern Province and the Eastern Cape, the economically active group carried the heaviest burden of supporting the dependent groups. In the Northern Province, for example, for every 100 persons in the economically active group there were 94 dependants, 84 of whom were children and the remainder adults. For the Eastern Cape, the total dependency ratio was 83 while the child and adult dependency ratios were 72 and 11 people in the working ages, respectively.

Table 12 Dependency burden by province

	Dependency ratios		
	Child	Adult	Total
Eastern Cape	72,1	11,0	83,1
Free State	49,4	7,2	56,6
Gauteng	35,7	6,2	41,8
KwaZulu-Natal	60,7	7,9	68,6
Mpumalanga	61,7	7,3	69,0
Northern Cape	52,2	8,5	60,8
Northern Province	83,3	10,3	94,1
North West	54,9	8,0	62,9
Western Cape	43,8	8,2	52,0
South Africa	56,2	8,2	64,3

Age dependency ratios by population group

Regarding population group, Table 13 shows that Africans had the highest dependency ratio (69 people in dependent ages per 100 in working ages) while the white population group had the lowest (47 per 100). Again this shows a strong relationship between the dependency ratios and the proportions of children in each population group. The Africans had the highest proportion of children (36,4%) and the white population group had the lowest (21,2%).

Table 13 also shows that whereas Africans had a higher child dependency ratio (61 per 100 working age people) than the white group (31 per 100 people), the latter had a higher adult dependency ratio (16 against 7 per 100 working age people).

Table 13: Dependency burden by population group

	Dependency ratios		
	Child	Adult	Total
Black/ African	61,4	7,4	68,7
Coloured	51,7	5,9	57,6
Indian/ Asian	39,8	5,6	45,4
White	31,1	15,5	46,6

The high child dependency ratios for Africans indicate, for example, that they have a greater need for childcare than the other groups. White people, on the other hand, had comparatively high responsibility for taking care of the elderly.

Dependency burden in urban and non-urban areas

If one ignores remittances, the data show a higher dependency situation in non-urban areas than urban areas. In the former, every 100 people in the working ages were expected to support 87 dependants. A large number of these dependants (77) would be children under 15 years of age and the remainder would comprise adults. In the latter, on the other hand, every 100 of the economically active population would be expected to support only 52 dependants, 42 of whom would be children.

Sex ratios

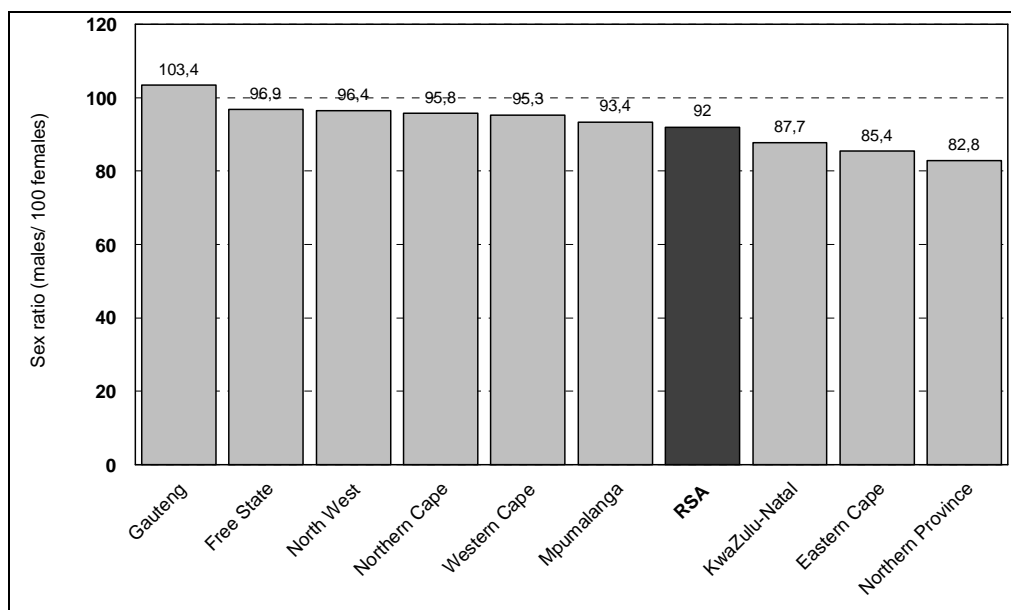
The sex ratio is the principal measure of sex composition. It shows the number of males in a given population compared to every 100 females. Sex ratios above 100 indicate a preponderance of males over females, whilst for those below 100 the reverse is true.

Normally, sex ratios are above 100 in childhood ages (0 – 4) and they decline as age increases. The main cause for this trend is that more males are born than females, and as they grow, because of mortality differentials by sex, males tend to die faster than females.

Overall sex ratios

Figure 16 shows that South Africa had a total sex ratio of 92 in 1996. This means that there were 92 males for every 100 females in the population. The graph also shows that among provinces there was a marked difference in the ratios. Gauteng had the highest sex ratio (103 males per 100 females), while the Northern Province and the Eastern Cape had the lowest and second lowest ratios (83 and 85 males per 100 females, respectively).

Figure 16: Overall sex ratios by province



Gauteng’s sex ratio may be largely influenced by the type of economic activities undertaken in the province. These are mainly male-selective (i.e. mining, construction and manufacturing), hence, through migration, males (especially young adults) may be drawn from their respective provinces to seek employment opportunities in Gauteng.

Overall sex ratios by population group and urban and non-urban area

The data show that urban areas had a higher sex ratio (95 males per 100 females) than non-urban areas (88 males per 100 females). Regarding population group, the data do not show meaningful differences between overall sex ratios among the four groups.

Age-specific sex ratios

Figure 17 presents the age-specific sex ratios for the total population of South Africa. The graph shows a rather unexpected pattern in some ages. In general, more males are born than females. Hence, sex ratios for the young age groups (0-4 in particular) are expected to be above 100. The graph shows that this was not the case with the South African population during Census '96. Instead, the sex ratio for the age group (0-4) was 100 males per 100 females. The low sex ratios for young ages could reflect an underreporting of male babies in the census.

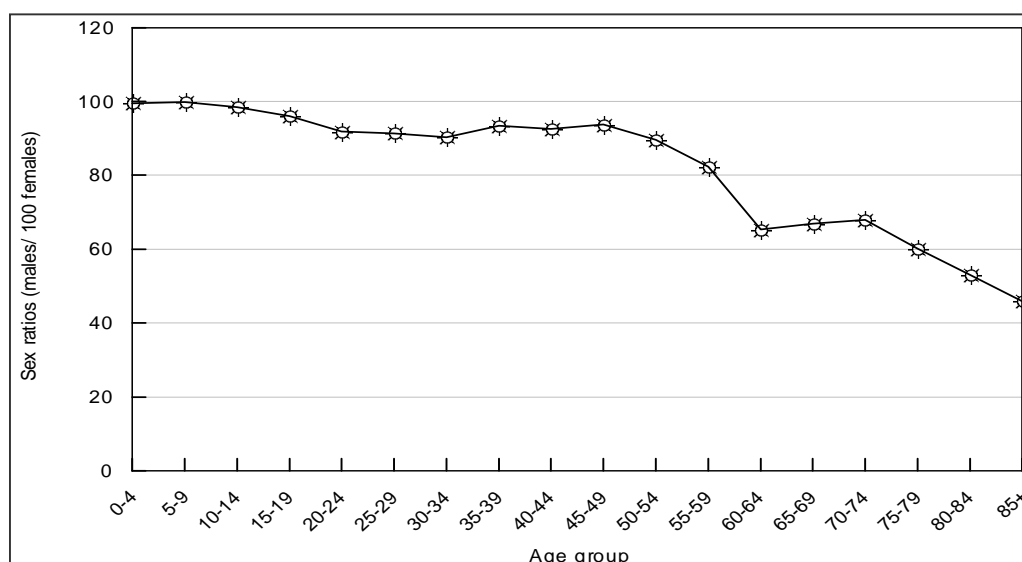
Another unexpected finding is the low sex ratios for the young working ages (20-34) as shown in the graph. This pattern could partly indicate that the census count missed a substantial number of young men relative to women of the same ages. This may be attributable to the migration differential that exists by sex. Young males are normally more geographically mobile than women and, hence, harder to capture during censuses or surveys.

The low sex ratios in these ages could also indicate that young men are experiencing higher mortality rates than young women in the country.

The pattern of age-specific sex ratios also shows a significant drop in the sex ratio from 85 to 62 males for every 100 females between age groups 55-59 and 60-64. After this dip the ratios assume an increase trend up to age group 70-74 after which they decline again. The dramatic decline in sex ratios between age groups 55-59 and 60-64 could be attributable to a tendency of overstating ones age. For instance, the difference in the age at which men and women qualified for pensions may have led males aged between 60-64 years to state their age as 65 and above to enable them to qualify for pensions at an earlier age. Publicity in 1996 may have led respondents to expect unrealistic personal benefits from the census.

The decline in sex ratios for the age group 75 and above could be explained by the higher life expectancies of females than males, and this manifests in lower sex ratios in older ages.

Figure 17: Age-specific sex ratios for South Africa



Age-specific sex ratios by province

The data show significant dissimilarities in the age-specific sex ratios among provinces (see Table 14). At the young age groups 0-4 and 5-9, all provinces except three (Eastern Cape, Northern Cape and Western Cape) had sex ratios below 100 – that is, there were more females than males. These low ratios are unexpected and, as mentioned above, could imply the under-reporting of male births.

Table 14 also shows a provincial differential in the pattern of sex ratios in the working ages (15-64). Gauteng had high sex ratios (above 100) in this group of the population, while all the other provinces (except Free State) had sex ratios below 100. These provinces also show notably low ratios for the young working ages (20-34). Gauteng and Free State are the chief mining provinces.

Among the elderly, the data show a similar pattern of declining sex ratios for ages above 75 for all provinces. Whereas Mpumalanga had the highest sex ratio (56 males per 100 females) in the age group 85+, the Western Cape had the lowest (42).

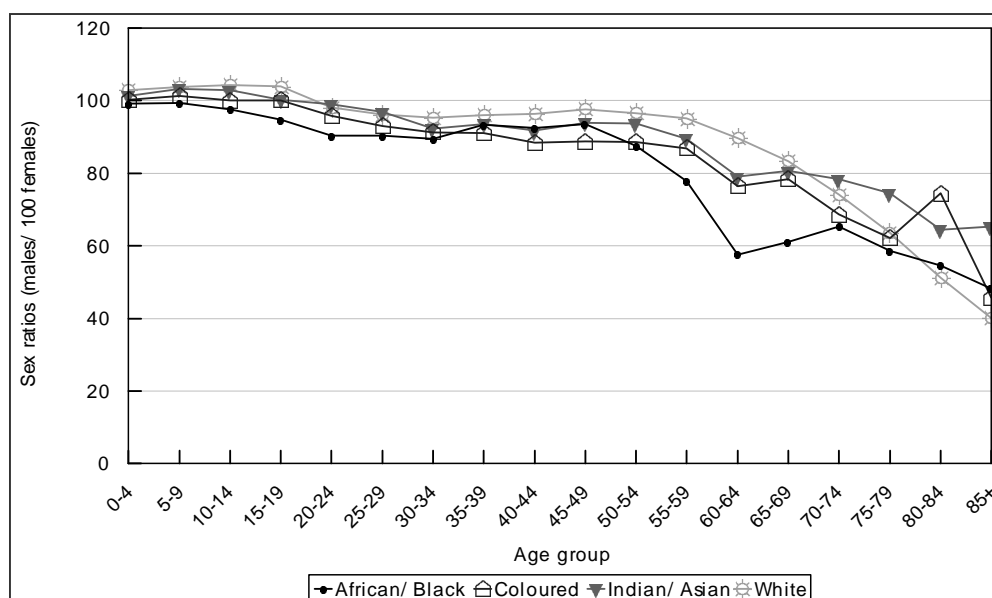
Table 14: Age-specific sex ratios by province

	Eastern Cape	Free State	Gauteng	KwaZulu-Natal	Mpumalanga	Northern Cape	Northern Province	North West	Western Cape
0-4	102,6	99,4	98,6	99,3	97,3	100,8	98,0	98,6	101,2
5-9	101,7	99,2	98,9	100,2	98,5	100,5	99,0	99,2	101,2
10-14	98,9	98,3	97,4	98,4	97,4	100,3	98,6	98,0	99,6
15-19	93,9	96,0	98,4	94,1	95,8	99,6	97,1	96,1	98,8
20-24	84,6	92,3	105,8	86,8	89,1	97,7	83,6	91,6	97,4
25-29	77,0	94,4	112,0	83,9	88,9	98,7	70,9	94,3	97,3
30-34	72,7	103,0	111,7	79,5	91,7	93,4	63,7	100,5	96,4
35-39	73,7	112,3	113,3	82,9	100,2	96,1	66,1	109,0	95,1
40-44	74,3	109,5	111,6	84,5	98,1	93,4	65,3	106,2	93,0
45-49	75,7	108,2	113,8	85,8	101,2	94,7	68,5	106,4	94,7
50-54	72,8	103,1	106,5	82,8	99,8	94,7	66,8	97,1	93,1
55-59	69,0	90,8	100,8	75,4	86,7	92,6	59,8	92,9	91,9
60-64	53,9	68,6	83,2	57,7	66,8	82,9	44,7	77,5	83,1
65-69	64,3	71,5	79,4	58,6	67,5	83,7	48,6	78,7	82,7
70-74	66,2	68,7	73,1	61,9	78,6	76,7	59,0	71,5	73,5
75-79	58,2	57,9	66,7	55,7	67,0	68,2	53,0	65,4	64,6
80-84	51,7	47,7	53,3	52,2	67,5	56,7	52,8	56,1	49,9
85+	48,4	44,7	48,1	42,5	55,8	48,7	42,3	48,6	42,2
Total	85,4	96,9	103,4	87,7	93,4	95,8	82,8	96,4	95,3

Age-specific sex ratios by population group

Figure 18 shows patterns of age-specific sex ratios for the country's four main population groups. Whites had generally higher sex ratios than the other population groups in the age groups of 0 to 69 years but they had the lowest ratios in the older ages (80+). Africans had the lowest sex ratios in the age groups 0-34 and 50-79 years. Between the ages of 30-54 years coloured people had the lowest sex ratios.

Figure 18: Age-specific sex ratios by population group



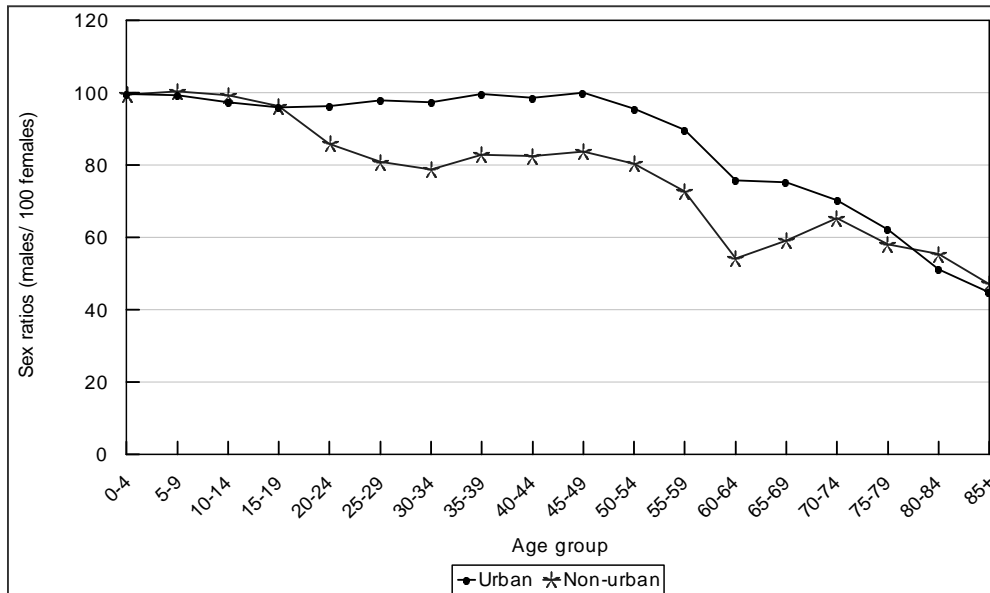
The pattern portrayed by Figure 18 could imply that Africans experience the highest mortality rates in the young ages (0-34) while coloured people experience highest mortality in the ages of 30-59 years. It also shows that whites enjoy lower mortality than other population groups in the young and early adulthood ages, and highest mortality among the elderly.

Age-specific sex ratios by urban and non-urban area

There are differences in the pattern of age-specific sex ratios by urban or non-urban enumeration (see Figure 19). Non-urban areas had higher sex ratios in the young ages (0-14 years). In the working ages (15-64 years) urban areas had higher sex ratios and the gap increased with age. Figure 19 also shows that, although urban areas had higher ratios between

ages 65 and 79, the gap between the two narrows as age increases. From age 80 and above the trend switches (non-urban areas had higher sex ratios).

Figure 19: Age-specific sex ratios by urban and non-urban area



The observed pattern of age-specific sex ratios by place of residence seems to suggest that non-urban areas have higher fertility than urban areas. Urban dwellers on the other hand are exposed to life circumstances that favour small families, possibly resulting in low fertility levels.

The gap in sex ratios in the working ages may be attributed to internal migration. It seems that, up to 1996, the number of males leaving non-urban areas for cities to seek jobs exceeded that of females. Hence, the higher sex ratios in urban areas than in non-urban ones.

The switch in the trend from higher ratios for urban areas to that of higher ratios in non-urban areas in the older ages may reflect a high incidence of male migrants returning to their places of origin after working age.

Concluding remarks

This chapter discussed the age–sex structure of the South African population in 1996. The results from the evaluation of the age–sex data show, overall, Census '96 collected accurate data. However, the quality of the data differs by population group.

The demographic tools (median age, age pyramid, age dependency ratio and sex ratio) used for further analysis of the data show that, overall, the country's population possessed attributes of developing countries. However, at population group level, in the white and Indian groups attributes characteristic of developed populations are observable.

Chapter 4

Summary and conclusion

Chapter 1 outlined reasons why it is important to keep track of the demographic profile of populations. The chapter also provided a brief discussion on the land area of the country. Also provided is the background to Census '96. Some of the terms used in the report were defined in this chapter. Lastly, a brief note was made about how the rest of the report is organised.

Chapter 2 discussed the composition of the population in relation to the land area of the country. The following conclusions were drawn from the analysis in chapter 2.

- The results show that the highest proportion of the population was counted in KwaZulu-Natal (20,7%), while the lowest proportion was counted in the Northern Cape (2,1%). Africans accounted for the highest proportion (77,4%) of the country's population and Indians the smallest (2,6%).
- Overall, the country was slightly more urban (53,8) than non-urban (46,2%). However, the provinces that encompass the previous so-called homelands (KwaZulu-Natal, Mpumalanga, Eastern Cape, North West and Northern Province) remain largely non-urban.
- IsiZulu (22,9%) and isiXhosa (17,9%) were the most frequently spoken first home languages in the country. Xitsonga (4,4%), isiNdebele (1,5%), and Tshivenda (0,6%) were the least spoken languages.
- English was the most frequently used language as a second medium of communication in South African homes (used by 38,9% of the population).
- A large proportion of the population (76%) follows the Christian faith.
- Overall, the population density of the country was rather low. However, vast differences emerge when doing cross-provincial comparisons. For instance, whereas Gauteng (with a density of 432 people per square kilometre) was the most densely populated, the Northern Cape (with a density of 2 people per square kilometre) was the most sparsely populated province.

Chapter 3 discussed the structure of the South African population as portrayed by the census data. The following conclusions were drawn from the analysis:

- The United Nations age-sex accuracy index shows that, overall, the census data were accurate. Differences are, however, observable in the accuracy indices by population group.
- The median age analysis shows that, overall, the country's population could be classified as intermediate aged. The differences by population group show that whites have the oldest population structure while Africans have the youngest.
- The median ages by province show that populations of intermediate ages lived in all the country's provinces except two (Eastern Cape and Northern Province) which were inhabited by relatively young populations in 1996.
- The differential in the median age, by type of area, shows that non-urban areas are mainly inhabited by young populations, while urban ones are inhabited by populations of intermediate age.
- The age pyramids show the same results as the median age. The South African population pyramid is broad based, implying a young age structure.
- The data do not show significant differences in sex ratios by population group. However, at provincial level the differences are larger. They show that provinces with less economic development had the lowest sex ratios, indicating high male migration patterns in the direction of more urban provinces.

References

1. Adepaju A. (1991). *Introduction to population studies*. UNFPA: New York.
2. Arriaga E.E. (1994). *Population analysis with microcomputers*. Bureau of the Census, UNFPA, USAID: New York.
3. Department of Health (1999). *South African demographic health survey 1998: preliminary report*.
4. Petersen W. (1969). *Population* (2nd ed.). The Macmillan Company: New York.
5. Population Reference Bureau (1999)
6. Shryock et al. (1976). *Methods and materials of demography*. Academic Press: New York.
7. Statistics South Africa (1998a). *Women and men in South Africa*. Pretoria.
8. Statistics South Africa (1998b). *The people of South Africa population census, 1996: The count and how it was done*. Pretoria.
9. Statistics South Africa (1998c). *The people of South Africa population census, 1996: Definitions*. Pretoria.
10. Udjo E. (1997). *Fertility and mortality trends in South Africa: Evidence from the 1995 October household survey, and implications for population projections*. Statistics South Africa: Pretoria.
11. Udjo E. (1999). "Recent evidence of levels, trends and differential in fertility in South Africa". Paper presented at the Workshop on Fertility in Southern Africa, School of Oriental and African Studies, University of London, 22-24 September 1999.
12. United Nations (2000). *World population prospects. The 1998 revision. Volume 111: Analytical report*. United Nations. New York
13. van Aardt C. (1992). *The future of South Africa: Issues, options, and prospects*. Centre for Population Studies: University of Pretoria.

Appendix: Age-sex accuracy indices by population group

Table A1
African
Population, by Age and Sex, and United Nations Age-Sex
Accuracy Index

Age	Population		Age ratio		Age ratio deviation		Sex ratio (males per 100 females)	Sex ratio difference
	Male	Female	Male	Female	Male	Female		
All ages	13,081,557	14,330,325					91.3	
0-4	1,585,770	1,598,975					99.2	
5-9	1,700,772	1,711,296	104.6	103.5	4.6	3.5	99.4	0.2
10-14	1,666,832	1,708,311	105.7	105.3	5.7	5.3	97.6	-1.8
15-19	1,453,337	1,534,652	97.6	97.1	-2.4	-2.9	94.7	-2.9
20-24	1,312,306	1,452,171	102.7	105.5	2.7	5.5	90.4	-4.3
25-29	1,102,094	1,219,306	96.6	96.1	-3.4	-3.9	90.4	0.0
30-34	970,468	1,085,586	100.1	102.6	0.1	2.6	89.4	-1.0
35-39	836,389	896,623	102.8	99.8	2.8	-0.2	93.3	3.9
40-44	656,574	710,867	98.0	99.1	-2.0	-0.9	92.4	-0.9
45-49	503,083	537,988	99.4	96.3	-0.6	-3.7	93.5	1.1
50-54	355,974	406,688	90.1	89.7	-9.9	-10.3	87.5	-6.0
55-59	287,283	368,740	102.9	97.2	2.9	-2.8	77.9	-9.6
60-64	202,463	352,123	86.1	105.2	-13.9	5.2	57.5	-20.4
65-69	183,236	300,511	115.9	114.2	15.9	14.2	61.0	3.5
70-74	113,786	174,216	#N/A	#N/A	0.0	0.0	65.3	4.3
75+	151,190	272,272	#N/A	#N/A	#N/A	#N/A	55.5	#N/A

Age ratio score for males 5.2
 Age ratio score for females 4.7
 Sex ratio score 4.3

Age-sex accuracy index 22.7
 Sample size X
 Corrected for population (sample) size X

X Not applicable.

Source:
 Census 1996

Table A2
Coloured
Population, by Age and Sex, and United Nations Age-Sex
Accuracy Index

Age	Population		Age ratio		Age ratio deviation		Sex ratio (males per 100 females)	Sex ratio difference
	Male	Female	Male	Female	Male	Female		
All ages	1,539,724	1,643,236					93.7	
0-4	166,779	166,216					100.3	
5-9	177,480	175,378	102.6	101.5	2.6	1.5	101.2	0.9
10-14	179,289	179,251	108.0	108.7	8.0	8.7	100.0	-1.2
15-19	154,444	154,284	94.7	92.9	-5.3	-7.1	100.1	0.1
20-24	146,723	153,047	99.6	100.4	-0.4	0.4	95.9	-4.2
25-29	140,088	150,611	100.9	101.5	0.9	1.5	93.0	-2.9
30-34	131,066	143,603	103.8	104.9	3.8	4.9	91.3	-1.7
35-39	112,360	123,308	102.3	101.2	2.3	1.2	91.1	-0.1
40-44	88,672	100,183	97.7	99.5	-2.3	-0.5	88.5	-2.6
45-49	69,195	77,978	98.3	98.1	-1.7	-1.9	88.7	0.2
50-54	52,111	58,836	94.4	93.8	-5.6	-6.2	88.6	-0.2
55-59	41,268	47,513	98.1	94.3	-1.9	-5.7	86.9	-1.7
60-64	32,051	41,916	100.7	110.2	0.7	10.2	76.5	-10.4
65-69	22,414	28,590	100.0	94.4	0.0	-5.6	78.4	1.9
70-74	12,785	18,628	#N/A	#N/A	0.0	0.0	68.6	-9.8
75+	12,999	23,894	#N/A	#N/A	#N/A	#N/A	54.4	#N/A

Age ratio score for males 2.7
Age ratio score for females 4.3
Sex ratio score 2.7

Age-sex accuracy index 15.1
Sample size X
Corrected for population (sample) size X

X Not applicable.

Source:
Census 1996

Table A3
Indian
Population, by Age and Sex, and United Nations Age-Sex
Accuracy Index

Age	Population		Age ratio		Age ratio deviation		Sex ratio (males per 100 females)	Sex ratio difference
	Male	Female	Male	Female	Male	Female		
All ages	473,009	493,280					95.9	
0-4	38,906	38,395					101.3	
5-9	44,803	43,398	100.6	99.7	0.6	-0.3	103.2	1.9
10-14	50,137	48,705	109.8	108.4	9.8	8.4	102.9	-0.3
15-19	46,518	46,433	95.4	96.2	-4.6	-3.8	100.2	-2.8
20-24	47,372	47,849	107.1	106.6	7.1	6.6	99.0	-1.2
25-29	41,971	43,368	97.0	96.0	-3.0	-4.0	96.8	-2.2
30-34	39,206	42,469	100.6	103.8	0.6	3.8	92.3	-4.5
35-39	35,986	38,482	100.5	98.9	0.5	-1.1	93.5	1.2
40-44	32,394	35,337	99.9	102.1	-0.1	2.1	91.7	-1.8
45-49	28,876	30,749	104.3	102.7	4.3	2.7	93.9	2.2
50-54	23,002	24,560	101.6	100.1	1.6	0.1	93.7	-0.3
55-59	16,392	18,309	95.9	94.6	-4.1	-5.4	89.5	-4.1
60-64	11,170	14,140	92.9	101.7	-7.1	1.7	79.0	-10.5
65-69	7,657	9,500	97.3	95.1	-2.7	-4.9	80.6	1.6
70-74	4,570	5,834	#N/A	#N/A	0.0	0.0	78.3	-2.3
75+	4,049	5,752	#N/A	#N/A	#N/A	#N/A	70.4	#N/A

Age ratio score for males 3.5
Age ratio score for females 3.4
Sex ratio score 2.6

Age-sex accuracy index 14.9
Sample size X
Corrected for population (sample) size X

X Not applicable.

Source:
Census 1996

Table A4
White
Population, by Age and Sex, and United Nations Age-Sex
Accuracy Index

Age	Population		Age ratio		Age ratio deviation		Sex ratio (males per 100 females)	Sex ratio difference
	Male	Female	Male	Female	Male	Female		
All ages	1,915,160	2,020,849					94.8	
0-4	121,292	117,893					102.9	
5-9	141,272	136,058	99.5	99.4	-0.5	-0.6	103.8	0.9
10-14	162,538	155,907	109.1	108.7	9.1	8.7	104.3	0.4
15-19	156,657	150,849	99.0	96.4	-1.0	-3.6	103.9	-0.4
20-24	154,024	157,086	98.9	100.8	-1.1	0.8	98.1	-5.8
25-29	154,704	160,859	102.6	103.1	2.6	3.1	96.2	-1.9
30-34	147,683	154,923	96.4	97.2	-3.6	-2.8	95.3	-0.8
35-39	151,672	157,946	105.4	105.2	5.4	5.2	96.0	0.7
40-44	140,089	145,443	99.0	99.4	-1.0	-0.6	96.3	0.3
45-49	131,425	134,595	103.6	102.3	3.6	2.3	97.6	1.3
50-54	113,694	117,788	100.5	100.6	0.5	0.6	96.5	-1.1
55-59	94,731	99,587	99.9	98.3	-0.1	-1.7	95.1	-1.4
60-64	75,971	84,799	95.3	95.7	-4.7	-4.3	89.6	-5.5
65-69	64,684	77,609	105.0	104.4	5.0	4.4	83.3	-6.2
70-74	47,294	63,838	#N/A	#N/A	0.0	0.0	74.1	-9.3
75+	57,430	105,669	#N/A	#N/A	#N/A	#N/A	54.3	#N/A

Age ratio score for males 2.9
Age ratio score for females 3.0
Sex ratio score 2.6

Age-sex accuracy index 13.7
Sample size X
Corrected for population (sample) size X

X Not applicable.

Source: Census
1996

Table A5
South Africa
Population, by Age and Sex, and United Nations Age-Sex
Accuracy Index

Age	Population		Age ratio		Age ratio deviation		Sex ratio (males per 100 females)	Sex ratio difference
	Male	Female	Male	Female	Male	Female		
All ages	17,162,157	18,651,031					92.0	
0-4	1,934,618	1,943,432					99.5	
5-9	2,084,969	2,086,701	103.9	102.9	3.9	2.9	99.9	0.4
10-14	2,078,162	2,111,598	106.3	105.9	6.3	5.9	98.4	-1.5
15-19	1,826,468	1,902,276	97.3	96.6	-2.7	-3.4	96.0	-2.4
20-24	1,674,731	1,824,843	102.2	104.6	2.2	4.6	91.8	-4.2
25-29	1,451,050	1,586,823	97.6	97.3	-2.4	-2.7	91.4	-0.3
30-34	1,299,253	1,438,281	100.1	102.3	0.1	2.3	90.3	-1.1
35-39	1,145,809	1,226,294	103.0	100.6	3.0	0.6	93.4	3.1
40-44	925,110	999,776	98.2	99.3	-1.8	-0.7	92.5	-0.9
45-49	738,448	787,732	100.2	97.7	0.2	-2.3	93.7	1.2
50-54	549,143	612,842	92.9	92.4	-7.1	-7.6	89.6	-4.1
55-59	443,235	538,460	101.5	97.1	1.5	-2.9	82.3	-7.3
60-64	324,308	496,795	89.7	103.7	-10.3	3.7	65.3	-17.0
65-69	279,920	419,343	111.1	110.1	11.1	10.1	66.8	1.5
70-74	179,665	264,709	#N/A	#N/A	0.0	0.0	67.9	1.1
75+	227,268	411,126	#N/A	#N/A	#N/A	#N/A	55.3	#N/A

Age ratio score for males 4.0
Age ratio score for females 3.8
Sex ratio score 3.3

Age-sex accuracy index 17.8

Sample size X
Corrected for population (sample) size X

X Not applicable.

Source: Census
1996