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# Statistical release

## P0302

# Mid-year population estimates

## 2016

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## Summary

- This release uses the cohort-component methodology to estimate the 2016 mid-year population of South Africa.
- The estimates cover all the residents of South Africa at the 2016 mid-year, and are based on the latest available information. Estimates may change as new data become available.
- For 2016, Statistics South Africa (Stats SA) estimates the mid-year population as 55,91 million.
- Approximately fifty-one per cent (approximately 28,53 million) of the population is female.
- Gauteng comprises the largest share of the South African population. Approximately 13,5 million people (24%) live in this province. KwaZulu-Natal is the province with the second largest population, with 11,1 million people (19,9%) living in this province. With a population of approximately 1,19 million people (2,1%), Northern Cape remains the province with the smallest share of the South African population.
- About 30,1% of the population is aged younger than 15 years and approximately 8,0% (4,47 million) is 60 years or older. Of those younger than 15 years, approximately 23,0% (3,86 million) live in KwaZulu-Natal and 20,4% (3,43 million) live in Gauteng. Of those elderly aged 60 years and older, the highest percentage 26,1% (1,17 million) reside in Gauteng. The proportion of elderly persons aged 60 and older is increasing over time.
- Migration is an important demographic process in shaping the age structure and distribution of the provincial population. For the period 2011–2016 it is estimated that approximately 247 437 people will migrate from the Eastern Cape; Limpopo is estimated to experience an out-migration of nearly 305 030 people. During the same period, Gauteng and Western Cape are estimated to experience an inflow of migrants of approximately 1 216 258 and 363 114 respectively (see migration stream tables for net migration).
- Life expectancy at birth for 2016 is estimated at 59,7 years for males and 65,1 years for females.
- The infant mortality rate for 2016 is estimated at 33,7 per 1 000 live births.
- The estimated overall HIV prevalence rate is approximately 12,7% of the total South African population. The total number of people living with HIV is estimated at approximately 7,03 million in 2016. For adults aged 15–49 years, an estimated 18,9% of the population is HIV positive.
- This publication and its subsidiary products is based on the 2014 geographic boundaries and not those used subsequent to the Local Government Election held on 3 August, 2016, since these occurred after the reference period of 30 June, 2016. The 2017 mid-year estimates will apply the new geographic boundaries.

**Table 1: Mid-year population estimates for South Africa by population group and sex, 2016**

Population group	Male		Female		Total	
	Number	% distribution of males	Number	% distribution of females	Number	% distribution of total
<b>African</b>	22 119 200	80.8	22 990 700	80.6	45 109 900	80.7
<b>Coloured</b>	2 368 000	8.6	2 529 200	8.9	4 897 200	8.8
<b>Indian/Asian</b>	701 900	2.6	684 100	2.4	1 386 000	2.5
<b>White</b>	2 190 700	8.0	2 325 100	8.1	4 515 800	8.1
<b>Total</b>	<b>27 379 800</b>	<b>100,0</b>	<b>28 529 100</b>	<b>100,0</b>	<b>55 908 900</b>	<b>100,0</b>

**Table 2: Mid-year population estimates by province, 2016**

	Population estimate	% of total population
<b>Eastern Cape</b>	7 061 700	12.6
<b>Free State</b>	2 861 600	5.1
<b>Gauteng</b>	13 498 200	24.1
<b>KwaZulu-Natal</b>	11 079 700	19.8
<b>Limpopo</b>	5 803 900	10.4
<b>Mpumalanga</b>	4 328 300	7.7
<b>Northern Cape</b>	1 191 700	2.1
<b>North West</b>	3 790 600	6.8
<b>Western Cape</b>	6 293 200	11.3
<b>Total</b>	<b>55 908 900</b>	<b>100,0</b>

  
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## 1. Introduction

In a projection, the size and composition of the future population of an entity such as South Africa is estimated. The mid-year population estimates produced by Statistics South Africa (Stats SA) use the cohort-component method. In the cohort-component method, a base population is estimated that is consistent with known demographic characteristics of the country. The cohort base population is projected into the future according to the projected components of change. Agreed levels of fertility, mortality and migration are used as input to the cohort-component method. For the 2016 mid-year estimates, the cohort-component method is used within the Spectrum Policy Modelling system. Spectrum is a Windows-based system of integrated policy models. The DemProj module within Spectrum is used to make the demographic projection, while the AIDS Impact Model (AIM) is used to incorporate the impacts of HIV and AIDS on fertility and mortality.

Stats SA subscribes to the specifications of the Special Data Dissemination Standards (SDDS) of the International Monetary Fund (IMF) and publishes the mid-year population estimates for the country annually. This release uses the latest available Spectrum Software from Avenir Health. Stats SA used JMP Script Language (JSL) developed by the SAS Institute Inc. to do estimates lower than country level.

## 2. Demographic and other assumptions

A cohort-component projection requires a base population distributed by age and sex. Levels of mortality, fertility and migration are estimated for the base year and projected for future years. The cohort base population is projected into the future according to the projected components of population change. The DemProj module of Spectrum is used to produce a single year projection, thus the total fertility rate (TFR) and the life expectancy at birth must be provided in the same way. The time series of TFR estimates for all population groups in South Africa are interrogated following a detailed review of demographic projections, and necessary adjustments are made to ensure that the determined time series of TFR estimates (1985–2015) are consistent with published and unpublished TFR estimates from various sources of authors, methods, and data sources, including Census and CS fertility estimates and population structure. (see Table 3). Between 2002 and 2016, fertility has declined from an average of 2,65 children per woman to 2,43 children. Other inputs required in DemProj include the age-specific fertility rate (ASFR) trend, sex ratios at birth and net international migration. In estimating South Africa's population, international migration is provided as an input into the model (see Table 4).

The life expectancy assumption entered into DemProj by gender is the life expectancy in the absence of AIDS (see Table 3). Each population group is also subjected to non-AIDS mortality according to the input non-AIDS life expectancy and the selected model life table. AIM will calculate the number of AIDS deaths and determine a new set of life expectancies that incorporates the impact of AIDS. (see Table 5). Stats SA applies the country-specific UN Model Life table for South Africa built into Spectrum. Survival rates from the selected life tables were then used to project the population forward.

**Table 3: Assumptions of expectation of life at birth without AIDS and fertility**

Year	TFR	Life expectancy at birth without HIV/AIDS	
		Male	Female
2002	2.65	61.2	69.1
2003	2.67	61.6	69.4
2004	2.69	62.0	69.6
2005	2.70	62.5	69.9
2006	2.72	62.9	70.1
2007	2.74	62.9	70.3
2008	2.75	62.9	70.6
2009	2.72	63.2	70.7
2010	2.66	63.5	71.0
2011	2.60	63.8	71.2
2012	2.57	64.1	71.5
2013	2.54	64.4	71.7
2014	2.51	64.7	71.9
2015	2.48	65.0	72.2
2016	2.43	65.2	72.3

**Table 4: International migration assumptions for the period 1985–2016**

	African	Indian/Asian	White
1986–2000	919655	29509	-304112
2001–2006	594970	29491	-133782
2006–2011	719260	45221	-112046
2011–2016	855050	51337	-95158

Spectrum includes among others, the DemProj Module. The AIDS Impact Model (AIM) has an inbuilt Epidemiological Projection Package for estimating HIV prevalence and incidence. In the AIDS Impact Model (AIM), several programmatic and epidemiological data inputs are required. These are related to programme coverage of adults and children on antiretroviral treatment (ART) and Prevention of Mother to Child Transmission (PMTCT) treatment. In addition to eligibility for treatment as per national guidelines, the epidemiological inputs include antenatal clinic data (NDoH, 2012). Our assumptions of the HIV epidemic in South Africa are based primarily on the prevalence data collected annually from pregnant women attending public antenatal clinics (ANC) since 1990. However, antenatal surveillance data produce biased prevalence estimates for the general population because only a select group of people (i.e. pregnant women attending public health services) are included in the sample. To correct this bias, we adjusted the ANC prevalence estimates by adjusting for relative attendance rates at antenatal clinics and for the difference in prevalence between pregnant women and the general adult population (Shisana, 2014). Other inputs in the AIM model include the following:

***Median time from HIV infection to death***

This release assumed the median time from HIV infection to death in line with the UNAIDS Reference Group recommendation of 10,5 years for men and 11,5 years for women.

**Ratio of new infections**

Adult HIV incidence is disaggregated into female and male incidence by specifying the ratio of new female infections to new male infections. This report assumes a ratio of female to male prevalence for those aged 15–49 of 1,5 by 2016.

Indicators of HIV prevalence, incidence and HIV population numbers over time, merely show the impact of HIV on the population. HIV indicators shown in Table 6 are based on the aforementioned assumptions and may differ to HIV indicators published elsewhere.

**3. Demographic and other indicators**

Table 5 shows the life expectancies that incorporate the impact of AIDS (AIM model). The crude death rate is down from 12,9 deaths per 1 000 people in 2002 to 9,7 deaths per 1 000 people in 2016. Life expectancy at birth had declined between 2002 and 2005 but expansion of health programmes to prevent mother to child transmission as well as access to antiretroviral treatment, has partly led the increase in life expectancy since 2005. By 2016 life expectancy at birth is estimated at 59,7 years for males and 65,1 years for females. By 2016 life expectancy is continuing to increase, and this may be related to marginal gains in survival rates among infants and children under-5 post HIV interventions in 2005. Infant mortality rate (IMR) has declined from an estimated 48,2 infant deaths per 1 000 live births in 2002 to 33,7 infant deaths per 1 000 live births in 2016. Similarly the under-five mortality rate (U5MR) declined from 70,8 child deaths per 1 000 live births to 44,4 child deaths per 1 000 live births between 2002 and 2016. IMR and U5MR shown in Table 5 are based on the selected model life table and may differ to similar indices published elsewhere.

**Table 5: Demographic indicators, 2002–2016**

Year	Crude Birth Rate	Life Expectancy			Infant Mortality Rate	Under 5 Mortality Rate	Crude Death Rate	Rate of Natural Increase (%)
		Male	Female	Total				
2002	23.4	53.6	56.6	55.2	48.2	70.8	12.9	1.05
2003	23.6	53.2	55.7	54.5	48.2	71.1	13.5	1.01
2004	23.8	52.9	55.1	54.0	48.4	71.5	14.0	0.98
2005	24.0	52.8	54.8	53.8	48.7	71.8	14.3	0.97
2006	24.2	53.0	55.0	54.0	48.6	71.3	14.2	1.00
2007	24.5	53.4	55.5	54.5	48.0	70.0	13.9	1.05
2008	24.7	54.2	56.9	55.6	46.8	67.5	13.2	1.15
2009	24.5	54.7	57.9	56.4	43.4	63.9	12.8	1.17
2010	24.0	55.3	58.6	57.0	41.2	58.8	12.4	1.16
2011	23.5	56.2	60.2	58.3	39.7	55.6	11.7	1.18
2012	23.2	57.4	62.2	59.9	38.6	53.2	10.8	1.24
2013	22.9	58.3	63.6	61.0	37.7	51.3	10.2	1.27
2014	22.5	58.9	64.2	61.6	36.6	49.3	10.0	1.26
2015	22.2	59.3	64.7	62.1	34.4	46.6	9.8	1.23
2016	21.6	59.7	65.1	62.4	33.7	44.4	9.7	1.19

Table 6 shows estimates for selected indicators. The highest number of deaths were estimated in 2006. The decline in the percentage of AIDS-related deaths from 2007 can be attributed to the increase in the roll-out of ART over time. National rollout of ARV began in 2005 with a target of 1 service point in each of the 53 districts of South Africa. The number of AIDS-related deaths declined consistently since 2006 from 325 241 to 150 759 AIDS related deaths in 2016. Access to antiretroviral treatment has changed historical patterns of mortality. ARVs have extended the lifespan of many in South Africa, who would have otherwise died at an earlier age, evident in the decline of AIDS deaths post-2005.

**Table 6: Births and deaths for the period 2002–2016**

Year	Number of Births	Number of deaths	Number of AIDS related deaths	Percentage of AIDS deaths
2002	1 065 149	587 001	232 581	39.6
2003	1 089 307	623 061	268 496	43.1
2004	1 112 009	654 512	299 504	45.8
2005	1 133 578	675 642	320 473	47.4
2006	1 157 720	681 434	325 241	47.7
2007	1 186 149	675 287	315 059	46.7
2008	1 213 007	649 556	284 312	43.8
2009	1 221 737	636 926	266 591	41.9
2010	1 216 150	628 915	256 625	40.8
2011	1 207 511	600 085	225 901	37.6
2012	1 210 987	562 184	185 558	33.0
2013	1 212 947	541 413	161 986	29.9
2014	1 213 213	537 579	155 063	28.8
2015	1 212 055	537 313	151 748	28.2
2016	1 198 861	539 714	150 759	27.9

#### *HIV prevalence*

Table 7 shows the prevalence estimates and the total number of people living with HIV from 2002 to 2016. The total number of persons living with HIV in South Africa increased from an estimated 4,72 million in 2002 to 7,03 million by 2016. For 2015, an estimated 12,7% of the total population is HIV positive. Shisana et al. (2012) estimated the HIV prevalence for 2012 at 12,2,%. Approximately one-fifth of South African women in their reproductive ages are HIV positive. HIV prevalence among the youth aged 15-24 has declined over time from 7,6% in 2002 to 5,6 in 2016. The rate at which the population in South Africa is being infected is declining year on year from 1,77% in 2002 to 1,27% in 2016.



**Table 7: HIV prevalence estimates and the number of people living with HIV, 2002–2016**

	Prevalence %				Incidence rate % 15-49	HIV population (in millions)
	Women 15-49	Adults 15-49	Youth 15-24	Total population		
<b>2002</b>	19.6	17.1	7.6	10.3	1.77	4.72
<b>2003</b>	19.8	17.2	7.1	10.6	1.74	4.87
<b>2004</b>	19.9	17.3	6.6	10.7	1.76	5.00
<b>2005</b>	20.0	17.3	6.4	10.8	1.81	5.13
<b>2006</b>	20.1	17.4	6.3	11.0	1.83	5.26
<b>2007</b>	20.3	17.5	6.2	11.1	1.82	5.40
<b>2008</b>	20.5	17.6	6.2	11.3	1.77	5.56
<b>2009</b>	20.7	17.8	6.3	11.5	1.72	5.73
<b>2010</b>	20.9	17.9	6.4	11.6	1.65	5.89
<b>2011</b>	21.2	18.1	6.3	11.8	1.59	6.07
<b>2012</b>	21.5	18.3	6.2	12.0	1.50	6.27
<b>2013</b>	21.8	18.5	6.1	12.2	1.39	6.47
<b>2014</b>	22.0	18.7	5.9	12.4	1.34	6.67
<b>2015</b>	22.2	18.8	5.8	12.5	1.30	6.85
<b>2016</b>	22.3	18.9	5.6	12.7	1.27	7.03

#### 4. National population estimates

Table 8 shows the mid-year estimates by population group and sex. The mid-year population is estimated at 55.91 million. The black African population is in the majority (45.11 million) and constitutes approximately 81% of the total South African population. The white population is estimated at 4,52 million, the coloured population at 4,90 million and the Indian/Asian population at 1,39 million. Just over fifty-one per cent (28,53 million) of the population is female.

**Table 8: Mid-year estimates by population group and sex, 2016**

Population group	Male		Female		Total	
	Number	% of total male population	Number	% of total female population	Number	% of total population
<b>African</b>	22 119 200	80,8	22 990 700	80,6	45 109 900	80,7
<b>Coloured</b>	2 368 000	8,6	2 529 200	8,9	4 897 200	8,8
<b>Indian/Asian</b>	701 900	2,6	6 84 100	2,4	1 386 000	2,5
<b>White</b>	2 190 700	8,0	2 325 100	8,1	4 515 800	8,1
<b>Total</b>	<b>27 379 800</b>	<b>100,0</b>	<b>28 529 100</b>	<b>100,0</b>	<b>55 908 900</b>	<b>100,0</b>

Table 9 shows that the implied rate of growth for the South African population has increased between 2002 and 2016. The estimated overall growth rate increased from approximately 1,22% between 2002 and 2003 to 1,62% for the period 2015 to 2016. The growth rate for females is lower than that of males.

**Table 9: Estimated annual population growth rates, 2002–2016**

Period	Children 0-14	Youth 15-34	Elderly 60+	Total
2002–2003	-0.38	2.14	2.58	1.22
2003–2004	-0.23	2.13	2.62	1.25
2004–2005	-0.06	2.09	2.66	1.28
2005–2006	0.09	2.06	2.67	1.31
2006–2007	0.25	1.99	2.69	1.34
2007–2008	0.54	1.76	2.68	1.37
2008–2009	0.60	1.74	2.71	1.40
2009–2010	0.75	1.63	2.77	1.43
2010–2011	0.83	1.51	2.82	1.46
2011–2012	0.98	1.31	2.85	1.49
2012–2013	1.17	1.11	2.89	1.52
2013–2014	1.22	1.06	2.93	1.55
2014–2015	1.27	1.01	2.98	1.59
2015–2016	1.25	0.85	3.04	1.62

Table 10 shows the 2016 mid-year population estimates by age, sex and population group. About 30,1% of the population is aged 0–14 years and approximately 8,0% is 60 years and older.

**Table 10: Mid-year population estimates by population group, age and sex, 2016**

	Black African			Coloured			Indian/Asian			White			South Africa		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>0-4</b>	2 556 260	2 490 878	5 047 138	236 077	232 753	468 830	48 640	48 646	97 286	126 661	122 981	249 642	2 967 638	2 895 258	5 862 896
<b>5-9</b>	2 498 888	2 445 502	4 944 390	232 171	229 469	461 640	47 896	48 050	95 946	131 384	127 751	259 135	2 910 339	2 850 772	5 761 111
<b>10-14</b>	2 207 170	2 168 357	4 375 527	220 969	219 095	440 064	46 086	46 446	92 532	139 251	135 860	275 111	2 613 476	2 569 758	5 183 234
<b>15-19</b>	2 039 224	2 017 699	4 056 923	214 837	213 831	428 668	47 522	48 042	95 564	148 522	144 197	292 719	2 450 105	2 423 769	4 873 874
<b>20-24</b>	2 241 775	2 237 569	4 479 344	212 808	212 773	425 581	54 257	52 853	107 110	153 997	149 257	303 254	2 662 837	2 652 452	5 315 289
<b>25-29</b>	2 376 145	2 323 243	4 699 388	195 325	196 535	391 860	62 455	56 072	118 527	150 618	146 933	297 551	2 784 543	2 722 783	5 507 326
<b>30-34</b>	1 876 201	1 951 808	3 828 009	176 952	187 225	364 177	69 302	58 307	127 609	127 894	131 360	259 254	2 250 349	2 328 700	4 579 049
<b>35-39</b>	1 555 156	1 616 532	3 171 688	177 287	191 001	368 288	67 361	55 937	123 298	148 186	149 813	297 999	1 947 990	2 013 283	3 961 273
<b>40-44</b>	1 244 305	1 294 001	2 538 306	176 073	192 636	368 709	58 441	49 845	108 286	138 625	142 631	281 256	1 617 444	1 679 113	3 296 557
<b>45-49</b>	986 845	1 067 928	2 054 773	147 590	165 170	312 760	50 472	45 406	95 878	161 858	163 540	325 398	1 346 765	1 442 044	2 788 809
<b>50-54</b>	776 212	879 707	1 655 919	123 512	141 644	265 156	43 120	41 454	84 574	163 804	166 688	330 492	1 106 648	1 229 493	2 336 141
<b>55-59</b>	614 926	740 202	1 355 128	97 088	115 028	212 116	35 439	36 543	71 982	158 540	168 164	326 704	905 993	1 059 937	1 965 930
<b>60-64</b>	467 703	597 752	1 065 455	68 142	85 454	153 596	27 911	31 554	59 465	138 923	150 815	289 738	702 679	865 575	1 568 254
<b>65-69</b>	315 003	441 813	756 816	43 501	61 017	104 518	20 162	25 592	45 754	121 810	142 145	263 955	500 476	670 567	1 171 043
<b>70-74</b>	194 932	322 289	517 221	24 574	39 007	63 581	12 263	17 897	30 160	89 185	114 486	203 671	320 954	493 679	814 633
<b>70-79</b>	103 406	213 171	316 577	13 118	25 673	38 791	6 559	11 641	18 200	52 948	79 682	132 630	176 031	330 167	506 198
<b>80+</b>	65 048	182 231	247 279	7 955	20 918	28 873	3 970	9 861	13 831	38 488	88 777	127 265	115 461	301 787	417 248
	22 119 199	22 990 682	45 109 881	2 367 979	2 529 229	4 897 208	701 856	684 146	1 386 002	2 190 694	2 325 080	4 515 774	27 379 728	28 529 137	55 908 865

## 5. Provincial population estimates

When provincial population estimates are desired and the appropriate data are available a multi-regional approach should be considered as this is the only way to guarantee that the total migration flows between regions will sum to zero (United Nations,1992). The methods developed for this purpose by Willekens and Rogers (1978) have not been widely used in developing countries partly due to the lack of adequate migration data and the difficulty of applying these methods.

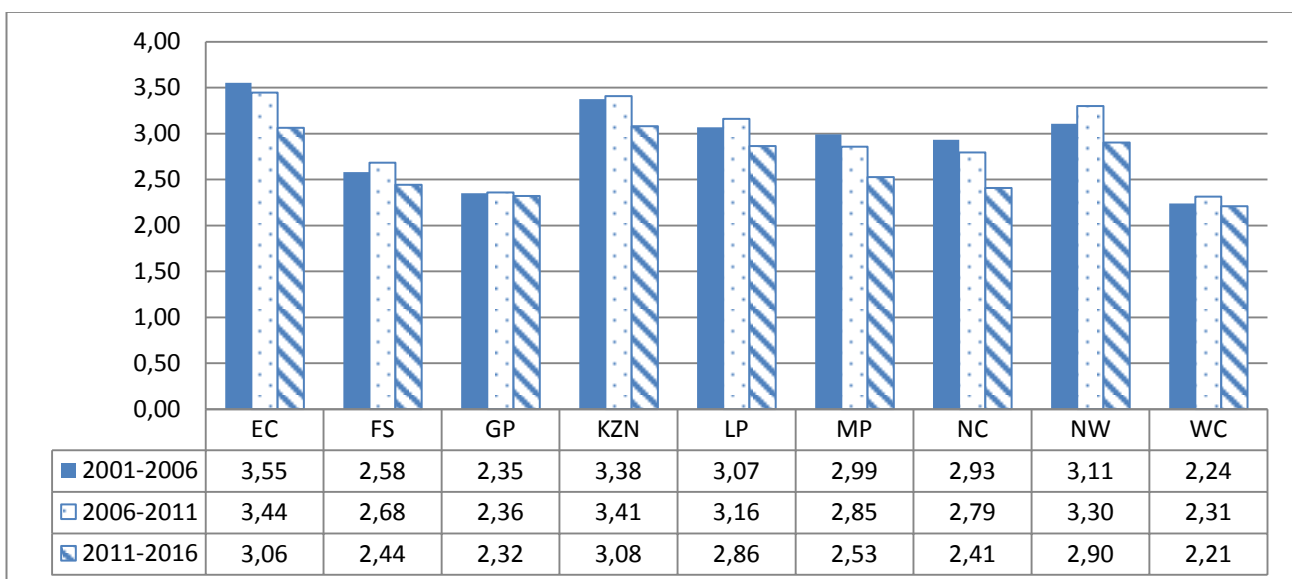
Multi-regional methods require the estimation of separate age-specific migration rates between every region of the country and every other region and such detailed data are rarely available. Although it is possible to estimate some of the missing data (see Willekens et al. 1979) the task of preparing data can become overwhelming if there are many regions. If there are only a few streams however the multi-regional method is the best method to use. In South Africa 2 448 (9x8x17x2) migration streams are derived if the multi-regional model is applied in calculating migration streams by age group (17 in total) and sex for each of the nine provinces.

The cohort-component approach suggested by the United Nations (United Nations, 1992) was used to undertake the provincial projections for this report. The programming was done through JMP Script Language (JSL). JMP was developed by the SAS Institute Inc., which was used to develop the projection for the 2016 provincial mid-year estimates using the matrix algebra approach.

### 5.1 Demographic assumptions

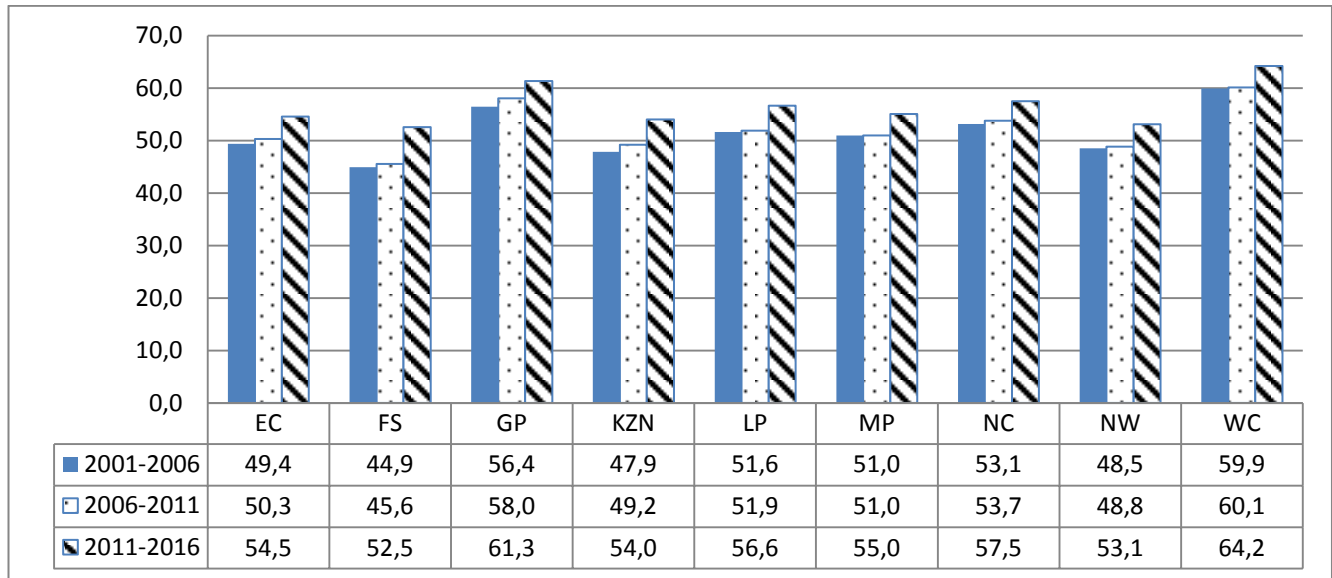
The demographic data from the 2011 census i.e. fertility, mortality and migration rates as well as the distribution of births and deaths from vital registration (adjusted for late registration and completeness) are used to determine provincial estimates. Figure 1 shows the provincial fertility estimates for the periods 2001–2006, 2006–2011 and 2011–2016. Over time the provincial TFR declined overall.

**Figure 1: Provincial average total fertility rate**

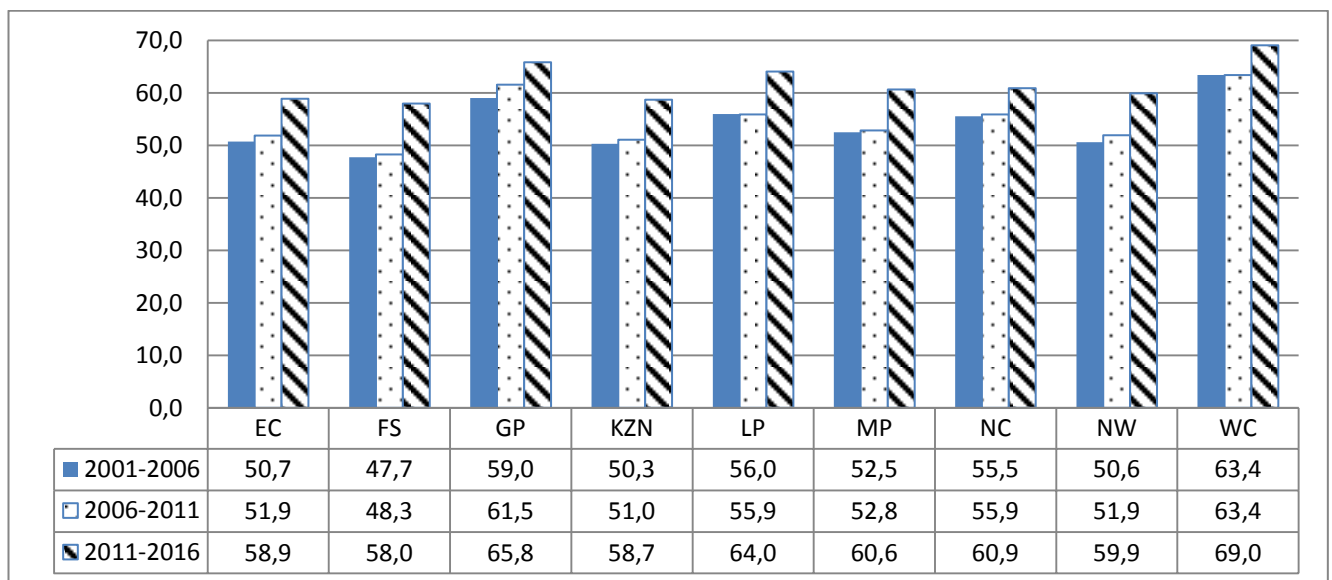


Figures 2 and 3 show the average provincial life expectancies at birth for males and females for the periods 2001–2006, 2006–2011 and 2011–2016. The life expectancy increased incrementally for each period across all provinces. Western Cape has the highest life expectancy at birth for both males and females whilst the Free State has the lowest life expectancy at birth.

**Figure 2: Provincial average life expectancy at birth (males)**



**Figure 3: Provincial average life expectancy at birth (females)**



## 5.2 Provincial distributions

Table 11 shows the estimated percentage of the total population residing in each of the provinces from 2002 to 2016. The provincial estimates show that Gauteng has the largest share of the population followed by KwaZulu-Natal and Eastern Cape. By 2016 approximately 11,2% of South Africa's population live in Western Cape. Northern Cape has the smallest population (2,1%). Free State has the second smallest share of the South African population constituting just over 5,2% of the population.

**Table 11: Percentage distribution of the projected provincial share of the total population, 2002–2016**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
EC	13.3	13.3	13.2	13.2	13.1	13.0	13.0	12.9	12.9	12.8	12.8	12.7	12.7	12.7	12.6
FS	5.8	5.8	5.7	5.7	5.6	5.5	5.5	5.4	5.4	5.3	5.3	5.2	5.2	5.2	5.1
GP	22.4	22.5	22.6	22.8	22.9	23.1	23.2	23.3	23.4	23.6	23.7	23.8	23.9	24.0	24.1
KZN	20.0	20.0	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.8	19.8	19.8	19.8	19.8
LP	10.7	10.6	10.6	10.6	10.6	10.5	10.5	10.5	10.5	10.4	10.4	10.4	10.4	10.4	10.4
MP	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.7
NC	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1
NW	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.8	6.8	6.8	6.8	6.8	6.8
WC	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

## 5.3 Migration patterns

From Census 2011 it was possible to determine out-migration rates for each province. Applying these rates to the age structures of the province it was possible to establish migration streams between the provinces. The result of these analyses is shown in Tables 12, 13 and 14. The assumptions imply that Gauteng and Western Cape received the highest number of migrants Mpumalanga and North West provinces also received positive net migration. The Eastern Cape, Free State and Limpopo experienced the largest proportion of outflow.

## 5.4 Provincial estimates by age and sex

Table 15 shows the detailed provincial population estimates by age and sex. Where necessary the totals by age were reconciled with the national totals for males and females separately.

About 30,1% of the population is aged younger than 15 years and approximately 8,0% (4,42 million) is 60 years or older. Of those younger than 15 years approximately 23,0% (3,86 million) live in KwaZulu-Natal and 20,4% (3,43 million) live in Gauteng. The province with the smallest population namely Northern Cape has 27,9% of its population aged younger than 15 years and more than a tenth of the population aged 60 years and older.

**Table 12: Estimated provincial migration streams 2001–2006**

Province in 2001	Province in 2006									Out-migrants	In-migrants	Net migration
	EC	FS	GP	KZN	LIM	MP	NC	NW	WC			
EC	-	9 198	68 792	43 358	6 682	8 318	3 775	18 450	77 859	236 431	158 993	-77 439
FS	6 793	-	61 771	7 024	5 501	9 060	6 190	19 868	9 901	126 108	108 001	-18 108
GP	49 354	39 819	-	67 027	84 947	78 687	12 602	99 678	90 193	522 306	985 700	463 395
KZN	16 773	8 749	135 684	-	6 346	23 404	2 057	8 299	19 659	220 971	196 042	-24 929
LIM	3 567	4 821	207 615	6 159	-	30 248	1 894	21 856	8 539	284 699	205 361	-79 338
MP	4 376	5 144	103 952	12 469	24 068	-	1 972	12 205	7 965	172 151	205 398	33 247
NC	3 774	7 504	16 425	4 979	2 131	3 783	-	11 059	16 130	65 784	63 130	-2 654
NW	4 230	10 597	96 697	4 986	16 270	9 717	18 132	-	7 428	168 057	236 463	68 405
WC	51 478	6 554	62 814	13 131	5 810	6 768	12 824	7 188	-	166 566	294 665	128 099
Outside SA	18 648	15 614	231 952	36 908	53 606	35 414	3 685	37 859	56 993			

**Table 13: Estimated provincial migration streams 2006–2011**

Province in 2006	Province in 2011									Out-migrants	In-migrants	Net migration
	EC	FS	GP	KZN	LIM	MP	NC	NW	WC			
EC	-	9 619	71 849	45 287	7 001	8 710	3 956	19 283	81 303	247 009	176 522	-70 486
FS	7 091	-	64 456	7 330	5 744	9 459	6 464	20 737	10 322	131 603	120 593	-11 010
GP	54 349	43 874	-	73 802	93 654	86 697	13 882	109 803	99 288	575 349	1 105 750	530 401
KZN	17 635	9 189	142 576	-	6 676	24 623	2 165	8 737	20 646	232 248	220 180	-12 068
LIM	3 762	5 079	218 199	6 490	-	31 860	2 000	23 029	9 000	299 419	236 162	-63 256
MP	4 679	5 495	110 989	13 316	25 704	-	2 111	13 047	8 508	183 849	230 290	46 442
NC	4 080	8 118	17 759	5 376	2 308	4 090	-	11 956	17 456	71 144	68 785	-2 359
NW	4 546	11 398	103 994	5 361	17 520	10 464	19 494	-	7 976	180 753	264 678	83 925
WC	55 574	7 055	67 606	14 122	6 255	7 284	13 808	7 738	-	179 443	330 290	150 847
Outside SA	24 806	20 764	308 323	49 096	71 299	47 103	4 906	50 346	75 791			

**Table 14: Estimated provincial migration streams 2011–2016**

Province in 2011	Province in 2016									Out-migrants	In-migrants	Net migration
	EC	FS	GP	KZN	LIM	MP	NC	NW	WC			
<b>EC</b>	-	9 639	71 946	45 419	7 029	8 745	3 983	19 277	81 399	247 437	194 507	-52 930
<b>FS</b>	7 401	-	67 227	7 657	6 007	9 878	6 753	21 651	10 794	137 367	133 048	-4 319
<b>GP</b>	59 561	48 103	-	80 968	102 672	95 107	15 225	120 436	108 977	631 048	1 216 258	585 211
<b>KZN</b>	18 463	9 613	149 361	-	7 027	25 813	2 275	9 172	21 714	243 439	242 755	-684
<b>LIM</b>	3 848	5 179	222 147	6 635	-	32 513	2 047	23 479	9 182	305 030	266 751	-38 279
<b>MP</b>	4 936	5 787	116 691	14 014	27 016	-	2 227	13 734	8 959	193 363	254 363	61 000
<b>NC</b>	4 459	8 896	19 456	5 860	2 537	4 471	-	13 076	19 159	77 914	74 759	-3 154
<b>NW</b>	4 950	12 369	112 810	5 829	19 024	11 366	21 184	-	8 691	196 223	291 821	95 598
<b>WC</b>	60 042	7 644	73 275	15 324	6 782	7 901	14 964	8 395	-	194 328	363 114	168 786
<b>Outside SA</b>	30 846	25 819	383 345	61 049	88 657	58 570	6 101	62 601	94 240			



**Table 15: Provincial population estimates by age and sex, 2016**

Age	Eastern Cape			Free State			Gauteng			KwaZulu-Natal			Limpopo		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>0-4</b>	430 478	417 716	848 194	139 156	136 820	275 977	618 383	604 616	1 222 999	685 227	666 041	1 351 268	338 759	330 784	669 542
<b>5-9</b>	431 548	419 399	850 946	138 614	138 402	277 016	578 295	569 075	1 147 370	680 431	662 993	1 343 424	327 047	320 199	647 246
<b>10-14</b>	382 351	373 510	755 861	126 603	127 137	253 739	536 815	526 737	1 063 552	589 156	578 909	1 168 065	286 627	282 543	569 169
<b>15-19</b>	329 232	323 218	652 450	132 883	131 128	264 010	490 032	482 735	972 767	513 426	518 345	1 031 771	295 665	290 949	586 614
<b>20-24</b>	367 943	369 424	737 367	139 663	138 035	277 699	577 270	567 153	1 144 423	539 743	558 561	1 098 304	311 825	310 968	622 794
<b>25-29</b>	365 314	365 676	730 990	146 149	141 358	287 507	660 760	639 405	1 300 165	530 847	542 121	1 072 968	299 482	300 108	599 590
<b>30-34</b>	264 648	284 077	548 725	116 759	119 582	236 341	578 739	588 859	1 167 598	409 157	452 851	862 007	227 774	241 535	469 309
<b>35-39</b>	189 780	206 150	395 929	97 452	102 842	200 294	583 108	567 945	1 151 053	325 071	365 265	690 336	174 035	198 350	372 384
<b>40-44</b>	137 032	159 555	296 587	78 922	85 828	164 750	534 729	493 144	1 027 872	254 034	290 992	545 026	124 120	156 811	280 931
<b>45-49</b>	112 958	145 220	258 179	69 328	76 207	145 535	447 584	410 053	857 637	195 963	243 345	439 308	95 357	128 840	224 197
<b>50-54</b>	94 717	134 143	228 860	58 493	64 900	123 393	360 083	335 510	695 593	162 835	217 037	379 871	75 763	112 738	188 501
<b>55-59</b>	83 406	128 574	211 980	49 217	56 311	105 527	292 027	284 820	576 847	134 018	188 251	322 268	60 379	95 507	155 886
<b>60-64</b>	67 753	106 574	174 327	39 447	48 600	88 047	219 906	224 697	444 603	108 475	154 876	263 351	48 797	83 887	132 684
<b>65-69</b>	48 953	83 289	132 242	27 426	37 953	65 379	153 358	166 086	319 444	81 786	128 748	210 534	35 404	65 654	101 058
<b>70-74</b>	33 760	65 489	99 249	17 560	27 952	45 512	95 862	117 752	213 614	50 912	92 226	143 137	22 097	48 580	70 678
<b>75-79</b>	23 839	55 780	79 619	9 251	18 107	27 358	46 906	65 297	112 204	28 229	60 787	89 016	12 806	39 818	52 624
<b>80+</b>	16 664	43 549	60 212	5 693	17 839	23 532	26 311	54 098	80 409	18 812	50 250	69 062	11 113	49 622	60 735
<b>Total</b>	3 380 375	3 681 342	7 061 717	1 392 616	1 469 002	2 861 618	6 800 169	6 697 982	13 498 151	5 308 120	5 771 597	11 079 717	2 747 049	3 056 893	5 803 941

**Table 15: Provincial mid-year population estimates by age and sex, 2016 (concluded)**

Age	Mpumalanga			Northern Cape			North West			Western Cape			All provinces		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	224 602	220 185	444 787	53 979	52 498	106 476	202 705	200 109	402 814	274 348	266 490	540 838	2 967 638	2 895 258	5 862 896
5-9	225 956	221 833	447 790	57 767	56 294	114 061	202 611	200 912	403 523	268 070	261 664	529 734	2 910 339	2 850 772	5 761 111
10-14	212 464	209 094	421 558	56 533	55 448	111 980	174 549	173 318	347 867	248 380	243 063	491 443	2 613 476	2 569 758	5 183 234
15-19	211 391	211 677	423 068	55 976	55 058	111 034	164 743	159 529	324 272	256 757	251 130	507 887	2 450 105	2 423 769	4 873 874
20-24	218 852	216 123	434 975	56 944	54 214	111 157	177 556	168 155	345 712	273 040	269 819	542 858	2 662 837	2 652 452	5 315 289
25-29	231 826	218 208	450 034	59 718	54 569	114 287	194 382	175 548	369 931	296 064	285 790	581 854	2 784 543	2 722 783	5 507 326
30-34	186 809	183 058	369 867	49 302	45 839	95 140	161 159	148 279	309 437	256 004	264 621	520 625	2 250 349	2 328 700	4 579 049
35-39	152 362	153 897	306 259	41 623	39 561	81 184	143 743	128 864	272 607	240 817	250 409	491 226	1 947 990	2 013 283	3 961 273
40-44	117 284	126 517	243 801	34 541	34 062	68 604	117 061	107 376	224 437	219 721	224 828	444 549	1 617 444	1 679 113	3 296 557
45-49	93 662	105 682	199 344	30 884	31 505	62 390	101 457	91 803	193 261	199 571	209 387	408 958	1 346 765	1 442 044	2 788 809
50-54	76 845	87 282	164 127	25 512	26 831	52 343	87 100	76 349	163 449	165 300	174 703	340 003	1 106 648	1 229 493	2 336 141
55-59	60 413	68 908	129 321	22 028	23 992	46 020	73 072	65 126	138 199	131 433	148 448	279 882	905 993	1 059 937	1 965 930
60-64	47 479	57 354	104 833	18 053	20 865	38 918	52 031	53 495	105 526	100 738	115 227	215 965	702 679	865 575	1 568 254
65-69	32 034	42 030	74 063	13 029	16 453	29 482	34 193	40 248	74 441	74 292	90 108	164 400	500 476	670 567	1 171 043
70-74	19 629	30 094	49 723	9 062	13 127	22 189	21 995	32 783	54 779	50 077	65 675	115 752	320 954	493 679	814 633
75-79	10 541	22 018	32 559	5 166	8 338	13 504	10 566	21 073	31 639	28 727	38 949	67 676	176 031	330 167	506 198
80+	8 602	23 545	32 147	3 955	8 924	12 879	6 080	22 642	28 722	18 231	31 318	49 549	115 461	301 787	417 248
<b>Total</b>	<b>2 130 753</b>	<b>2 197 503</b>	<b>4 328 256</b>	<b>594 071</b>	<b>597 580</b>	<b>1 191 651</b>	<b>1 925 004</b>	<b>1 865 610</b>	<b>3 790 614</b>	<b>3 101 572</b>	<b>3 191 628</b>	<b>6 293 200</b>	<b>27 379 728</b>	<b>28 529 137</b>	<b>55 908 865</b>

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