Statistical release
P0302

Mid-year population estimates

2009

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Summary

- This release uses the cohort-component methodology to estimate the 2009 mid-year population of South Africa.

- The estimates cover all the residents of South Africa at the 2009 mid-year, and are based on the latest available information. Estimates may change as new data become available.

- For 2009, Statistics South Africa (Stats SA) estimates three variants of the population. The low variant estimates the population at 48,88 million, and the high variant at 49,68 million. The medium variant of the population estimated at 49,32 million should be regarded as the best estimate of the 2009 mid-year population.

- Fifty-two per cent (approximately 25,45 million) of the population is female.

- Gauteng comprises the largest share of the South African population. Approximately 10,53 million people (21,4%) live in this province. KwaZulu-Natal is the province with the second largest population, with 10,45 million people (21,2%) living in this province. With a population of approximately 1,15 million people (2,3%), Northern Cape remains the province with the smallest share of the South African population.

- Nearly one-third (31,4%) of the population is aged younger than 15 years and approximately 7,5% (3,7 million) is 60 years or older. Of those younger than 15 years, approximately 23% (3,54 million) live in KwaZulu-Natal and 17,9% (2,78 million) live in Gauteng.

- Migration is an important demographic process in shaping the age structure and distribution of the provincial population.

- For the period 2006–2011 it is estimated that approximately 390 000 people will migrate from the Eastern Cape; Limpopo is estimated to experience a net outmigration of nearly 200 000 people. During the same period, Gauteng and Western Cape are estimated to experience a net inflow of migrants of approximately 450 000 and 140 000 respectively.

- Life expectancy at birth is estimated at 53,5 years for males and 57,2 years for females.

- The infant mortality rate is estimated at 45,7 per 1 000 live births.

- The estimated overall HIV prevalence rate is approximately 10,6%. The total number of people living with HIV is estimated at approximately 5,21 million. For adults aged 15–49 years, an estimated 17% of the population is HIV positive.

- For 2009, this release estimates that approximately 1,5 million people aged 15 and older and approximately 106 000 children would be in need of ART.

- The total number of new HIV infections for 2009 is estimated at 413 000. Of these, an estimated 59 000 will be among children.
### Table 1: Mid-year population estimates for South Africa by population group and sex, 2009

<table>
<thead>
<tr>
<th>Population group</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percentage of total population</td>
<td>Number</td>
</tr>
<tr>
<td>African</td>
<td>18 901 000</td>
<td>79,2</td>
<td>20 235 200</td>
</tr>
<tr>
<td>Coloured</td>
<td>2 137 300</td>
<td>9,0</td>
<td>2 295 800</td>
</tr>
<tr>
<td>Indian/Asian</td>
<td>635 700</td>
<td>2,6</td>
<td>643 400</td>
</tr>
<tr>
<td>White</td>
<td>2 194 700</td>
<td>9,2</td>
<td>2 277 400</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>23 868 700</td>
<td>100,0</td>
<td>25 451 800</td>
</tr>
</tbody>
</table>

### Table 2: Mid-year population estimates by province, 2009

<table>
<thead>
<tr>
<th>Province</th>
<th>Population estimate</th>
<th>Percentage share of the total population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern Cape</td>
<td>6 648 600</td>
<td>13,5</td>
</tr>
<tr>
<td>Free State</td>
<td>2 902 400</td>
<td>5,9</td>
</tr>
<tr>
<td>Gauteng</td>
<td>10 531 300</td>
<td>21,4</td>
</tr>
<tr>
<td>KwaZulu-Natal</td>
<td>10 449 300</td>
<td>21,2</td>
</tr>
<tr>
<td>Limpopo</td>
<td>5 227 200</td>
<td>10,6</td>
</tr>
<tr>
<td>Mpumalanga</td>
<td>3 606 800</td>
<td>7,3</td>
</tr>
<tr>
<td>Northern Cape</td>
<td>1 147 600</td>
<td>2,3</td>
</tr>
<tr>
<td>North West</td>
<td>3 450 400</td>
<td>7,0</td>
</tr>
<tr>
<td>Western Cape</td>
<td>5 356 900</td>
<td>10,9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>49 320 500</td>
<td>100,0</td>
</tr>
</tbody>
</table>

PJ Lehohla  
Statistician-General
1. Introduction

Statistics South Africa (Stats SA) subscribes to the specifications of the IMF’s Special Data Dissemination Standards (SDDS) and publishes the mid-year population estimates for the country annually. This release uses the latest available software from UNAIDS. The HIV epidemic curves were derived using the Estimation and Projection Package (EPP-Version 10.0/EPP2009 Beta U). Estimates from EPP were then used as input into SPECTRUM (Version 3.39). Stats SA also used JMP script language (JSL) developed by the SAS institute Inc.

Stats SA estimates three variants: high, medium, and low. The medium variant should be regarded as the best estimate of the mid-year population for 2009. The estimates provided in this release may change as new data become available.

2. Demographic and other assumptions

Our knowledge of the HIV epidemic in South Africa is based primarily on the prevalence data collected annually from pregnant women attending public antenatal clinics (ANCs) 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’s 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. For a detailed description of the adjustment, see www.statssa.gov.za

**Antiretroviral therapy (ART) for adults and children**

Those who become infected with HIV do not need treatment with antiretroviral drugs immediately. There is an asymptomatic period during which the body’s immune system controls the HIV infection. After some time the rapid replication of the virus overwhelms the immune system and the patient is in need of antiretroviral treatment (USAID Health Policy Initiative, 2009).

The WHO recommends that cotrimoxazole be provided to all children born to HIV+ mothers until their status can be determined. With normal antibody tests, a child’s HIV status cannot be determined until 18 months of age, because the mother’s antibodies are present in the child’s blood. Thus, all children born to HIV-positive mothers should receive cotrimoxazole until 18 months. For children aged between 18 months and 5 years, the WHO recommends cotrimoxazole should be provided to all children who are HIV positive. After the age of 5 years, children should be on cotrimoxazole if they have progressed to Stage III or IV. If early diagnosis is available, then only HIV-positive children are considered in need of cotrimoxazole (USAID Health Policy Initiative, 2009).

**Table 3: Estimated number of adults and children receiving ART and the percentage of children receiving cotrimoxazole, 2005–2009**

<table>
<thead>
<tr>
<th>Adults (15+ years)</th>
<th>Children</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Estimated number receiving ART</strong></td>
<td><strong>Estimated number receiving ART</strong></td>
</tr>
<tr>
<td>2005</td>
<td>133 000</td>
</tr>
<tr>
<td>2006</td>
<td>255 000</td>
</tr>
<tr>
<td>2007</td>
<td>430 000</td>
</tr>
<tr>
<td>2008</td>
<td>655 000</td>
</tr>
<tr>
<td>2009</td>
<td>800 000</td>
</tr>
</tbody>
</table>
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 2009.

HIV prevalence

Table 4 shows the prevalence estimates and the total number of people living with HIV from 2001 to 2009. The total number of persons living with HIV in South Africa increased from an estimated 4,1 million in 2001 to 5,2 million by 2009. For 2009, an estimated 10,6% of the total population is HIV positive. For 2008, Shisana et al (2009) estimate prevalence at 10,9%. Approximately one-fifth of South African women in their reproductive ages are HIV positive.

Table 4: HIV prevalence estimates and the number of people living with HIV, 2001–2009

<table>
<thead>
<tr>
<th>Year</th>
<th>Population 15–49 years</th>
<th>Percentage of women</th>
<th>Percentage of the population 15–49</th>
<th>Percentage of the total population</th>
<th>Total number of people living with HIV (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>18,5</td>
<td>15,3</td>
<td>9,3</td>
<td>4,19</td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td>18,9</td>
<td>15,6</td>
<td>9,6</td>
<td>4,35</td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td>19,1</td>
<td>15,9</td>
<td>9,7</td>
<td>4,49</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>19,3</td>
<td>16,1</td>
<td>9,9</td>
<td>4,61</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>19,4</td>
<td>16,2</td>
<td>10,0</td>
<td>4,72</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>19,4</td>
<td>16,4</td>
<td>10,1</td>
<td>4,83</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>19,5</td>
<td>16,5</td>
<td>10,2</td>
<td>4,94</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>19,5</td>
<td>16,7</td>
<td>10,4</td>
<td>5,06</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>19,7</td>
<td>17,0</td>
<td>10,6</td>
<td>5,21</td>
<td></td>
</tr>
</tbody>
</table>

International migration

This release assumes an inflow of one million for the Black/Africa population since 1996. For the same period it assumes an outmigration of 500 000 whites.

Mortality, expectation of life at birth, and fertility

This report makes assumptions about life expectancy at birth by sex and uses a model life table of age-specific mortality rates. Stats SA used the UN East Asia model life tables. Table 5 shows the life expectancies used to generate survival ratios from the UN East Asia model life tables. It also shows the estimates of the fertility assumptions and the infant mortality rates associated with the given mortality pattern. Life expectancy at birth had declined between 2001 and 2005 but has since increased partly due to the roll-out of antiretroviral. For 2009, life expectancy at birth is estimated at 53,3 years for males and 57,2 years for females. This increase in life expectancy at birth is expected to continue.

While still high, infant mortality has declined from an estimated 63 live births per 1 000 in 2001 to 46 per 1 000 live births in 2009.

Fertility has declined from an average of 2,87 children per woman in 2001 to 2,38 children in 2009.
Table 5: Assumptions about fertility, life expectancy and infant mortality levels, 2001–2009

<table>
<thead>
<tr>
<th></th>
<th>Total fertility rate (TFR)</th>
<th>Male life expectancy at birth</th>
<th>Female life expectancy at birth</th>
<th>Infant mortality rate (IMR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>2.87</td>
<td>52.3</td>
<td>57.5</td>
<td>63.4</td>
</tr>
<tr>
<td>2002</td>
<td>2.80</td>
<td>51.4</td>
<td>56.3</td>
<td>61.3</td>
</tr>
<tr>
<td>2003</td>
<td>2.73</td>
<td>50.8</td>
<td>55.3</td>
<td>59.0</td>
</tr>
<tr>
<td>2004</td>
<td>2.67</td>
<td>50.3</td>
<td>54.6</td>
<td>56.2</td>
</tr>
<tr>
<td>2005</td>
<td>2.61</td>
<td>50.7</td>
<td>54.7</td>
<td>52.6</td>
</tr>
<tr>
<td>2006</td>
<td>2.55</td>
<td>51.4</td>
<td>55.5</td>
<td>49.8</td>
</tr>
<tr>
<td>2007</td>
<td>2.48</td>
<td>52.2</td>
<td>56.1</td>
<td>48.1</td>
</tr>
<tr>
<td>2008</td>
<td>2.41</td>
<td>53.3</td>
<td>57.2</td>
<td>46.4</td>
</tr>
<tr>
<td>2009</td>
<td>2.38</td>
<td>53.5</td>
<td>57.2</td>
<td>45.7</td>
</tr>
</tbody>
</table>

3. National population estimate, 2009

Table 6 shows the population estimates for the three variants. Detailed information about the low and high variants is available at www.statssa.gov.za

Table 6: Population estimates for the low, medium and high variants by population group (millions), 2009

<table>
<thead>
<tr>
<th></th>
<th>High</th>
<th>Medium</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>African</td>
<td>39.38</td>
<td>39.14</td>
<td>38.98</td>
</tr>
<tr>
<td>Coloured</td>
<td>4.45</td>
<td>4.43</td>
<td>4.36</td>
</tr>
<tr>
<td>Indian/Asian</td>
<td>1.30</td>
<td>1.28</td>
<td>1.26</td>
</tr>
<tr>
<td>White</td>
<td>4.55</td>
<td>4.47</td>
<td>4.27</td>
</tr>
<tr>
<td>Total</td>
<td>49.68</td>
<td>49.32</td>
<td>48.88</td>
</tr>
</tbody>
</table>

Table 7 shows the mid-year estimates by population group and sex. The mid-year population is estimated at 49.32 million. Africans are in the majority (39.14 million) and constitute just more than 79% of the total South African population. The white population is estimated at 4.47 million, the coloured population at 4.43 million and the Indian/Asian population at 1.28 million. Fifty-two per cent (25.45 million) of the population is female.

Table 7: Mid-year estimates by population group and sex, 2009

<table>
<thead>
<tr>
<th>Population group</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percentage of total population</td>
<td>Number</td>
</tr>
<tr>
<td>African</td>
<td>18 901 000</td>
<td>79.2</td>
<td>20 235 200</td>
</tr>
<tr>
<td>Coloured</td>
<td>2 137 300</td>
<td>9.0</td>
<td>2 295 800</td>
</tr>
<tr>
<td>Indian/Asian</td>
<td>635 700</td>
<td>2.6</td>
<td>643 400</td>
</tr>
<tr>
<td>White</td>
<td>2 194 700</td>
<td>9.2</td>
<td>2 277 400</td>
</tr>
<tr>
<td>Total</td>
<td>23 868 700</td>
<td>100.0</td>
<td>25 451 800</td>
</tr>
</tbody>
</table>

Table 8 shows that the implied rate of growth for the South African population has declined between 2001 and 2009. The estimated overall growth rate declined from approximately 1.38% between 2001–2002 to 1.07% for 2007–2009. The growth rate for females is lower than that of males.
Table 8: Estimated annual population growth rates, 2001–2009

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>1,47</td>
<td>1,36</td>
<td>1,27</td>
<td>1,23</td>
<td>1,22</td>
<td>1,19</td>
<td>1,20</td>
<td>1,17</td>
</tr>
<tr>
<td>Female</td>
<td>1,30</td>
<td>1,19</td>
<td>1,10</td>
<td>1,05</td>
<td>1,03</td>
<td>1,01</td>
<td>1,02</td>
<td>0,99</td>
</tr>
<tr>
<td>Total</td>
<td>1,38</td>
<td>1,27</td>
<td>1,18</td>
<td>1,14</td>
<td>1,12</td>
<td>1,10</td>
<td>1,10</td>
<td>1,07</td>
</tr>
</tbody>
</table>

Tables 9, 10 and 11 show estimates for selected indicators.

Table 9: Births and deaths for the period 2001–2009

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Births</th>
<th>Total number of deaths</th>
<th>AIDS deaths</th>
<th>Percentage AIDS deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>1 138 600</td>
<td>523 900</td>
<td>202 200</td>
<td>38,6</td>
</tr>
<tr>
<td>2002</td>
<td>1 132 500</td>
<td>562 400</td>
<td>236 900</td>
<td>42,1</td>
</tr>
<tr>
<td>2003</td>
<td>1 120 400</td>
<td>596 600</td>
<td>267 700</td>
<td>44,9</td>
</tr>
<tr>
<td>2004</td>
<td>1 109 200</td>
<td>626 200</td>
<td>293 900</td>
<td>46,9</td>
</tr>
<tr>
<td>2005</td>
<td>1 096 600</td>
<td>634 100</td>
<td>296 600</td>
<td>47,1</td>
</tr>
<tr>
<td>2006</td>
<td>1 083 900</td>
<td>628 600</td>
<td>289 800</td>
<td>46,1</td>
</tr>
<tr>
<td>2007</td>
<td>1 064 900</td>
<td>621 600</td>
<td>279 600</td>
<td>45,0</td>
</tr>
<tr>
<td>2008</td>
<td>1 049 300</td>
<td>602 800</td>
<td>257 500</td>
<td>42,7</td>
</tr>
<tr>
<td>2009</td>
<td>1 044 900</td>
<td>613 900</td>
<td>263 900</td>
<td>43,0</td>
</tr>
</tbody>
</table>

From the Spectrum model, the need for ART may be determined. These estimates are shown in Table 10. The need for ART has increased between 2005 and 2009. By 2009, it is estimated that approximately 1,6 million people are in need of ART.

Table 10: Number of persons in need for ART, 2005–2009

<table>
<thead>
<tr>
<th>Year</th>
<th>Adults (15+ years)</th>
<th>Children</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>1 156 000</td>
<td>73 000</td>
</tr>
<tr>
<td>2006</td>
<td>1 242 000</td>
<td>75 000</td>
</tr>
<tr>
<td>2007</td>
<td>1 329 000</td>
<td>82 000</td>
</tr>
<tr>
<td>2008</td>
<td>1 420 000</td>
<td>91 000</td>
</tr>
<tr>
<td>2009</td>
<td>1 524 000</td>
<td>106 000</td>
</tr>
</tbody>
</table>

Table 11: Other HIV related estimates, 2009

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIDS orphans</td>
<td>1, 91 million</td>
</tr>
<tr>
<td>Number of new HIV infections among adults aged 15+</td>
<td>354 000</td>
</tr>
<tr>
<td>New infections among children</td>
<td>59 000</td>
</tr>
</tbody>
</table>

Table 12 shows the 2009 mid-year population estimates by age, sex and population group for the medium variant. Approximately one-third of the population is aged 0–14 years and approximately 7,5% is older than 60 years.

1 Births, deaths and AIDS deaths as well as the need for ART and the estimated number of orphans refer to events from July\textsubscript{t-1} to July\textsubscript{t}. New infections refer to events during the calendar year.
## Table 12: Mid-year population estimates for the medium variant by population group, age and sex, 2009

<table>
<thead>
<tr>
<th>Age</th>
<th>African</th>
<th>Coloured</th>
<th>Indian/Asian</th>
<th>White</th>
<th>South Africa</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Total</td>
<td>Male</td>
<td>Female</td>
<td>Total</td>
</tr>
<tr>
<td></td>
<td>0–4</td>
<td>2 098 000</td>
<td>207 300</td>
<td>417 100</td>
<td>48 700</td>
<td>98 700</td>
</tr>
<tr>
<td></td>
<td>5–9</td>
<td>212 000</td>
<td>209 900</td>
<td>421 900</td>
<td>45 000</td>
<td>91 300</td>
</tr>
<tr>
<td></td>
<td>10–14</td>
<td>210 400</td>
<td>208 200</td>
<td>418 600</td>
<td>49 700</td>
<td>100 700</td>
</tr>
<tr>
<td></td>
<td>15–19</td>
<td>206 200</td>
<td>205 000</td>
<td>411 200</td>
<td>53 900</td>
<td>108 800</td>
</tr>
<tr>
<td></td>
<td>20–24</td>
<td>191 000</td>
<td>193 700</td>
<td>384 700</td>
<td>58 400</td>
<td>119 400</td>
</tr>
<tr>
<td></td>
<td>25–29</td>
<td>179 300</td>
<td>191 900</td>
<td>371 200</td>
<td>60 200</td>
<td>124 600</td>
</tr>
<tr>
<td></td>
<td>30–34</td>
<td>182 300</td>
<td>198 000</td>
<td>380 300</td>
<td>53 700</td>
<td>109 500</td>
</tr>
<tr>
<td></td>
<td>35–39</td>
<td>173 700</td>
<td>191 300</td>
<td>365 000</td>
<td>45 300</td>
<td>90 700</td>
</tr>
<tr>
<td></td>
<td>40–44</td>
<td>143 800</td>
<td>161 000</td>
<td>304 800</td>
<td>41 800</td>
<td>82 600</td>
</tr>
<tr>
<td></td>
<td>45–49</td>
<td>125 600</td>
<td>142 000</td>
<td>267 600</td>
<td>45 300</td>
<td>90 700</td>
</tr>
<tr>
<td></td>
<td>50–54</td>
<td>99 800</td>
<td>115 100</td>
<td>214 900</td>
<td>34 800</td>
<td>71 100</td>
</tr>
<tr>
<td></td>
<td>55–59</td>
<td>73 000</td>
<td>87 700</td>
<td>160 700</td>
<td>30 100</td>
<td>62 600</td>
</tr>
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<td></td>
<td>60–64</td>
<td>50 200</td>
<td>65 200</td>
<td>115 400</td>
<td>23 500</td>
<td>50 200</td>
</tr>
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<td></td>
<td>65–69</td>
<td>35 000</td>
<td>46 000</td>
<td>81 000</td>
<td>17 200</td>
<td>37 500</td>
</tr>
<tr>
<td></td>
<td>70–74</td>
<td>23 700</td>
<td>35 300</td>
<td>58 900</td>
<td>11 100</td>
<td>14 400</td>
</tr>
<tr>
<td></td>
<td>75–79</td>
<td>13 200</td>
<td>22 200</td>
<td>35 400</td>
<td>6 700</td>
<td>9 100</td>
</tr>
<tr>
<td></td>
<td>80+</td>
<td>8 300</td>
<td>16 000</td>
<td>24 300</td>
<td>4 500</td>
<td>7 500</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2 098 000</td>
<td>207 300</td>
<td>417 100</td>
<td>48 700</td>
<td>98 700</td>
</tr>
</tbody>
</table>

All numbers have been rounded off to the nearest hundred.
4. **Medium variant provincial population estimates for 2009**

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, 2448 (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., Cary, NC. JMP is not a part of the SAS System, though portions of JMP were adapted from routines in the SAS System, particularly for linear algebra and probability calculations. Version 8.01 was used to develop the projection for the 2009 provincial mid-year estimates and used the matrix algebra approach. A detailed description of the methodology that Stats SA used for the provincial projections is available at: www.statssa.gov.za

5. **Demographic assumptions**

Figure 1 shows the provincial fertility estimates for the periods 2001–2006 and 2006–2011. For all the provinces it was assumed that the total fertility rates will decline, although the declines in Gauteng and Western Cape were much smaller because the rates were already on low levels.

**Figure 1: Provincial average total fertility rates for the periods 2001–2006 and 2006–2011**

<table>
<thead>
<tr>
<th>Province</th>
<th>2001-2006</th>
<th>2006-2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC</td>
<td>3.27</td>
<td>2.83</td>
</tr>
<tr>
<td>FS</td>
<td>2.76</td>
<td>2.51</td>
</tr>
<tr>
<td>GT</td>
<td>2.06</td>
<td>2.01</td>
</tr>
<tr>
<td>KZN</td>
<td>3.03</td>
<td>2.60</td>
</tr>
<tr>
<td>LIM</td>
<td>3.25</td>
<td>2.67</td>
</tr>
<tr>
<td>MP</td>
<td>3.00</td>
<td>2.57</td>
</tr>
<tr>
<td>NC</td>
<td>3.03</td>
<td>2.56</td>
</tr>
<tr>
<td>NW</td>
<td>2.92</td>
<td>2.11</td>
</tr>
<tr>
<td>WC</td>
<td>2.19</td>
<td>2.43</td>
</tr>
<tr>
<td>SA</td>
<td>2.74</td>
<td>2.43</td>
</tr>
</tbody>
</table>

Figures 2 and 3 show the average provincial life expectancies at birth for males and females for the periods 2001–2006 and 2006–2011. The assumptions for this projection were that Western Cape has the highest life expectancy at birth for both males and females; while KwaZulu-Natal has the lowest life expectancy at birth.
At provincial level, migration plays an important role in the growth of provinces. This is especially the case in the Eastern Cape (out-flow), Gauteng and Western Cape (inflow). Table 14 shows the migration streams between provinces in the period 2006–2011.
6. **Provincial estimates, 2009**

The three variants of projections were also done for the provinces (see Table 13). As in the case of the national projection, detailed tabulations will only be given for the medium variant. A revised time series for the 2001–2009 population estimates (all three variants) are available at: www.statssa.gov.za

<table>
<thead>
<tr>
<th>Province</th>
<th>High variant</th>
<th>Medium variant</th>
<th>Low variant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern Cape</td>
<td>6,70</td>
<td>6,65</td>
<td>6,59</td>
</tr>
<tr>
<td>Free State</td>
<td>2,92</td>
<td>2,90</td>
<td>2,88</td>
</tr>
<tr>
<td>Gauteng</td>
<td>10,61</td>
<td>10,53</td>
<td>10,44</td>
</tr>
<tr>
<td>KwaZulu-Natal</td>
<td>10,52</td>
<td>10,44</td>
<td>10,35</td>
</tr>
<tr>
<td>Limpopo</td>
<td>5,27</td>
<td>5,23</td>
<td>5,18</td>
</tr>
<tr>
<td>Mpumalanga</td>
<td>3,64</td>
<td>3,61</td>
<td>3,57</td>
</tr>
<tr>
<td>Northern Cape</td>
<td>1,15</td>
<td>1,15</td>
<td>1,14</td>
</tr>
<tr>
<td>North West</td>
<td>3,48</td>
<td>3,45</td>
<td>3,42</td>
</tr>
<tr>
<td>Western Cape</td>
<td>5,39</td>
<td>5,36</td>
<td>5,31</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>49,68</strong></td>
<td><strong>49,32</strong></td>
<td><strong>48,88</strong></td>
</tr>
</tbody>
</table>
Table 14: Estimated provincial migration streams (2006–2011)

<table>
<thead>
<tr>
<th>Prov. in 2006</th>
<th>EC</th>
<th>FS</th>
<th>GP</th>
<th>KZN</th>
<th>LP</th>
<th>MP</th>
<th>NC</th>
<th>NW</th>
<th>WC</th>
<th>Out-migration</th>
<th>In-migration</th>
<th>Net migration</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC</td>
<td>-</td>
<td>14 700</td>
<td>93 400</td>
<td>84 200</td>
<td>10 200</td>
<td>12 500</td>
<td>3 400</td>
<td>27 900</td>
<td>143 800</td>
<td>390 100</td>
<td>116 500</td>
<td>-273 600</td>
</tr>
<tr>
<td>FS</td>
<td>7 600</td>
<td>-</td>
<td>57 500</td>
<td>5 900</td>
<td>9 700</td>
<td>6 400</td>
<td>5 200</td>
<td>23 900</td>
<td>9 700</td>
<td>125 900</td>
<td>94 100</td>
<td>-31 800</td>
</tr>
<tr>
<td>GP</td>
<td>31 500</td>
<td>31 000</td>
<td>-</td>
<td>56 400</td>
<td>33 300</td>
<td>40 900</td>
<td>7 600</td>
<td>47 400</td>
<td>46 900</td>
<td>295 000</td>
<td>741 900</td>
<td>446 900</td>
</tr>
<tr>
<td>KZN</td>
<td>18 600</td>
<td>8 500</td>
<td>117 100</td>
<td>-</td>
<td>6 300</td>
<td>17 000</td>
<td>1 800</td>
<td>7 800</td>
<td>18 100</td>
<td>195 200</td>
<td>207 300</td>
<td>12 100</td>
</tr>
<tr>
<td>LP</td>
<td>3 700</td>
<td>5 600</td>
<td>210 000</td>
<td>5 900</td>
<td>-</td>
<td>28 200</td>
<td>900</td>
<td>27 300</td>
<td>5 100</td>
<td>286 700</td>
<td>97 500</td>
<td>-189 200</td>
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<tr>
<td>MP</td>
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<td>4 000</td>
<td>100 200</td>
<td>15 400</td>
<td>17 000</td>
<td>-</td>
<td>5 200</td>
<td>11 600</td>
<td>6 700</td>
<td>166 600</td>
<td>122 800</td>
<td>-43 800</td>
</tr>
<tr>
<td>NC</td>
<td>12 100</td>
<td>7 200</td>
<td>12 300</td>
<td>2 100</td>
<td>3 000</td>
<td>2 600</td>
<td>-</td>
<td>11 400</td>
<td>15 900</td>
<td>66 600</td>
<td>41 100</td>
<td>-25 500</td>
</tr>
<tr>
<td>NW</td>
<td>5 200</td>
<td>16 900</td>
<td>109 500</td>
<td>23 600</td>
<td>13 300</td>
<td>11 600</td>
<td>10 200</td>
<td>-</td>
<td>3 600</td>
<td>193 900</td>
<td>161 800</td>
<td>-32 100</td>
</tr>
<tr>
<td>WC</td>
<td>31 300</td>
<td>6 200</td>
<td>41 900</td>
<td>13 800</td>
<td>4 700</td>
<td>3 600</td>
<td>6 800</td>
<td>4 500</td>
<td>-</td>
<td>112 800</td>
<td>249 800</td>
<td>137 000</td>
</tr>
</tbody>
</table>

All numbers have been rounded off to the nearest hundred.
Table 15 shows the estimated percentage of the total population residing in each of the provinces from 2001 to 2009. The provincial estimates show that since 2008, Gauteng had the largest share of the population, followed by KwaZulu-Natal and Eastern Cape. Approximately 11% of South Africa’s population live in Western Cape. Northern Cape has the smallest population. Free State has the second smallest share of the South African population, constituting approximately 6% of the population.

Table 15: Percentage distribution of the projected provincial share of the total population, 2001–2009

<table>
<thead>
<tr>
<th>Province</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern Cape</td>
<td>14.5</td>
<td>14.3</td>
<td>14.2</td>
<td>14.1</td>
<td>13.9</td>
<td>13.8</td>
<td>13.7</td>
<td>13.6</td>
<td>13.5</td>
</tr>
<tr>
<td>Free State</td>
<td>6.1</td>
<td>6.1</td>
<td>6.1</td>
<td>6.0</td>
<td>6.0</td>
<td>5.9</td>
<td>5.9</td>
<td>5.9</td>
<td>5.9</td>
</tr>
<tr>
<td>Gauteng</td>
<td>20.0</td>
<td>20.2</td>
<td>20.4</td>
<td>20.5</td>
<td>20.7</td>
<td>20.9</td>
<td>21.0</td>
<td>21.2</td>
<td>21.4</td>
</tr>
<tr>
<td>Limpopo</td>
<td>11.0</td>
<td>11.0</td>
<td>10.9</td>
<td>10.9</td>
<td>10.8</td>
<td>10.8</td>
<td>10.7</td>
<td>10.7</td>
<td>10.6</td>
</tr>
<tr>
<td>Mpumalanga</td>
<td>7.5</td>
<td>7.4</td>
<td>7.4</td>
<td>7.4</td>
<td>7.4</td>
<td>7.4</td>
<td>7.4</td>
<td>7.3</td>
<td>7.3</td>
</tr>
<tr>
<td>Northern Cape</td>
<td>2.4</td>
<td>2.4</td>
<td>2.4</td>
<td>2.4</td>
<td>2.4</td>
<td>2.4</td>
<td>2.4</td>
<td>2.3</td>
<td>2.3</td>
</tr>
<tr>
<td>North West</td>
<td>7.1</td>
<td>7.1</td>
<td>7.1</td>
<td>7.1</td>
<td>7.1</td>
<td>7.0</td>
<td>7.0</td>
<td>7.0</td>
<td>7.0</td>
</tr>
<tr>
<td>Western Cape</td>
<td>10.1</td>
<td>10.2</td>
<td>10.3</td>
<td>10.4</td>
<td>10.5</td>
<td>10.6</td>
<td>10.7</td>
<td>10.8</td>
<td>10.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Table 16 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 separately².

Nearly one-third (31.4%) of the population is younger than 15 years and approximately 7.5% (3.7 million) is 60 years or older. Of those younger than 15, approximately 23% (3.54 million) live in KwaZulu-Natal and 17.9% (2.78 million) live in Gauteng. The smallest province, Northern Cape, has nearly one-third (32%) of its population aged younger than 15 years.

² Due to the rounding off of data in the tables to the nearest 100, the population totals by sex and age may not always correspond with the totals presented elsewhere.
Table 16: Provincial population estimates by age and sex, 2009

<table>
<thead>
<tr>
<th>Age</th>
<th>Eastern Cape</th>
<th>Free State</th>
<th>Gauteng</th>
<th>KwaZulu-Natal</th>
<th>Limpopo</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Total</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>0–4</td>
<td>364 000</td>
<td>370 300</td>
<td>734 300</td>
<td>153 200</td>
<td>151 300</td>
</tr>
<tr>
<td>5–9</td>
<td>362 800</td>
<td>353 300</td>
<td>716 100</td>
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<td>150 900</td>
</tr>
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<td>10–14</td>
<td>404 300</td>
<td>376 900</td>
<td>781 200</td>
<td>146 600</td>
<td>149 000</td>
</tr>
<tr>
<td>15–19</td>
<td>429 900</td>
<td>405 000</td>
<td>834 900</td>
<td>148 800</td>
<td>150 800</td>
</tr>
<tr>
<td>20–24</td>
<td>360 900</td>
<td>352 700</td>
<td>713 600</td>
<td>143 100</td>
<td>146 500</td>
</tr>
<tr>
<td>25–29</td>
<td>258 200</td>
<td>279 700</td>
<td>537 900</td>
<td>120 600</td>
<td>134 400</td>
</tr>
<tr>
<td>30–34</td>
<td>193 200</td>
<td>219 700</td>
<td>412 900</td>
<td>101 300</td>
<td>117 800</td>
</tr>
<tr>
<td>35–39</td>
<td>153 100</td>
<td>188 600</td>
<td>341 700</td>
<td>87 200</td>
<td>104 300</td>
</tr>
<tr>
<td>40–44</td>
<td>116 400</td>
<td>149 200</td>
<td>265 600</td>
<td>70 000</td>
<td>81 000</td>
</tr>
<tr>
<td>45–49</td>
<td>113 700</td>
<td>151 500</td>
<td>265 200</td>
<td>64 800</td>
<td>74 500</td>
</tr>
<tr>
<td>50–54</td>
<td>110 600</td>
<td>148 700</td>
<td>259 300</td>
<td>59 300</td>
<td>67 900</td>
</tr>
<tr>
<td>55–59</td>
<td>92 400</td>
<td>121 700</td>
<td>214 100</td>
<td>48 300</td>
<td>56 500</td>
</tr>
<tr>
<td>60–64</td>
<td>72 800</td>
<td>100 300</td>
<td>173 100</td>
<td>36 200</td>
<td>45 400</td>
</tr>
<tr>
<td>65–69</td>
<td>59 500</td>
<td>85 500</td>
<td>145 000</td>
<td>25 600</td>
<td>32 600</td>
</tr>
<tr>
<td>70–74</td>
<td>47 300</td>
<td>76 100</td>
<td>123 400</td>
<td>15 900</td>
<td>22 700</td>
</tr>
<tr>
<td>75–79</td>
<td>28 400</td>
<td>43 400</td>
<td>71 800</td>
<td>10 400</td>
<td>17 000</td>
</tr>
<tr>
<td>80+</td>
<td>20 500</td>
<td>38 000</td>
<td>58 500</td>
<td>6 400</td>
<td>12 100</td>
</tr>
<tr>
<td>Total</td>
<td>3 188 000</td>
<td>3 460 600</td>
<td>6 648 600</td>
<td>1 387 700</td>
<td>1 514 700</td>
</tr>
</tbody>
</table>

All numbers have been rounded off to the nearest hundred and may therefore lead to small differences in the overall totals by age and sex.
### Table 16: Provincial mid-year population estimates by age and sex, 2009 (concluded)

<table>
<thead>
<tr>
<th>Age</th>
<th>Mpumalanga</th>
<th>Northern Cape</th>
<th>North West</th>
<th>Western Cape</th>
<th>All provinces</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Total</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>0–4</td>
<td>193 100</td>
<td>190 900</td>
<td>384 000</td>
<td>59 200</td>
<td>58 000</td>
</tr>
<tr>
<td>5–9</td>
<td>207 400</td>
<td>208 200</td>
<td>415 600</td>
<td>63 900</td>
<td>63 300</td>
</tr>
<tr>
<td>10–14</td>
<td>212 900</td>
<td>214 900</td>
<td>427 800</td>
<td>63 200</td>
<td>62 800</td>
</tr>
<tr>
<td>15–19</td>
<td>206 600</td>
<td>205 800</td>
<td>412 400</td>
<td>58 700</td>
<td>58 000</td>
</tr>
<tr>
<td>20–24</td>
<td>192 500</td>
<td>192 200</td>
<td>384 700</td>
<td>52 600</td>
<td>52 700</td>
</tr>
<tr>
<td>25–29</td>
<td>155 900</td>
<td>168 300</td>
<td>324 200</td>
<td>44 100</td>
<td>46 200</td>
</tr>
<tr>
<td>30–34</td>
<td>125 100</td>
<td>142 900</td>
<td>268 000</td>
<td>38 200</td>
<td>41 800</td>
</tr>
<tr>
<td>35–39</td>
<td>101 100</td>
<td>121 800</td>
<td>222 900</td>
<td>34 000</td>
<td>37 800</td>
</tr>
<tr>
<td>40–44</td>
<td>75 800</td>
<td>89 100</td>
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<td>27 700</td>
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All numbers have been rounded off to the nearest hundred.
References


