

## Demography - Orphanhood

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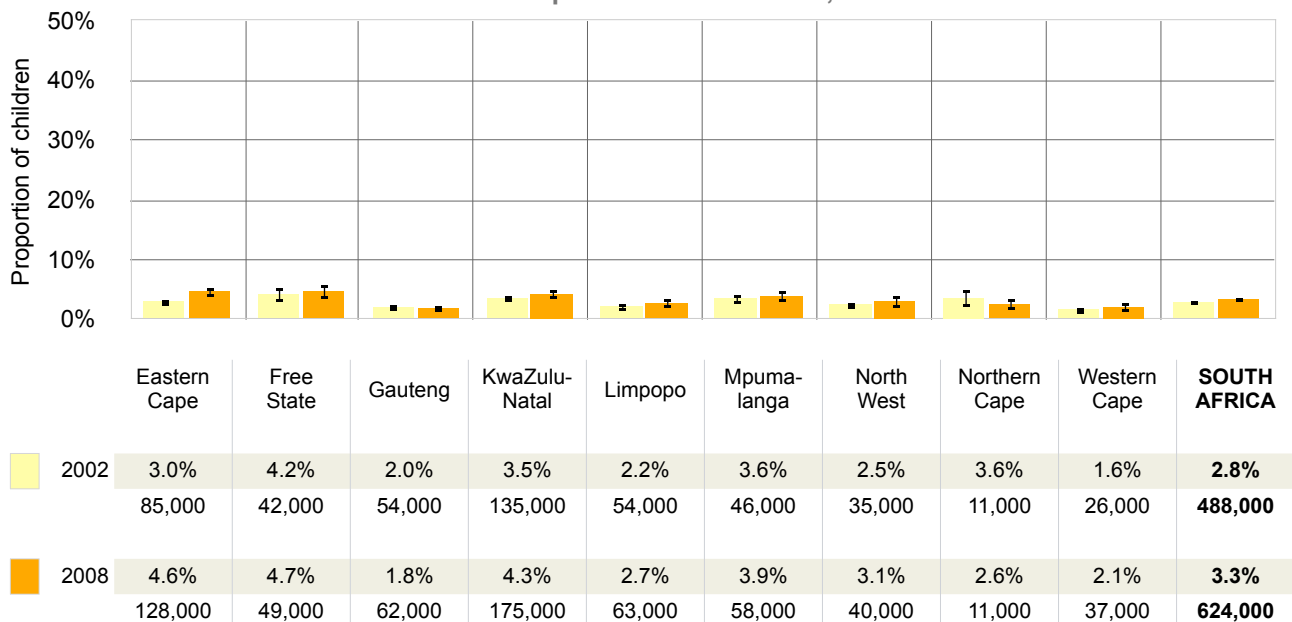
### Definition

An orphan is defined as a child under the age of 18 years whose mother, father, or both biological parents have died (including those whose living status is reported as unknown, but excluding those whose living status is unspecified). For the purpose of this indicator, we define orphans in three mutually exclusive categories:

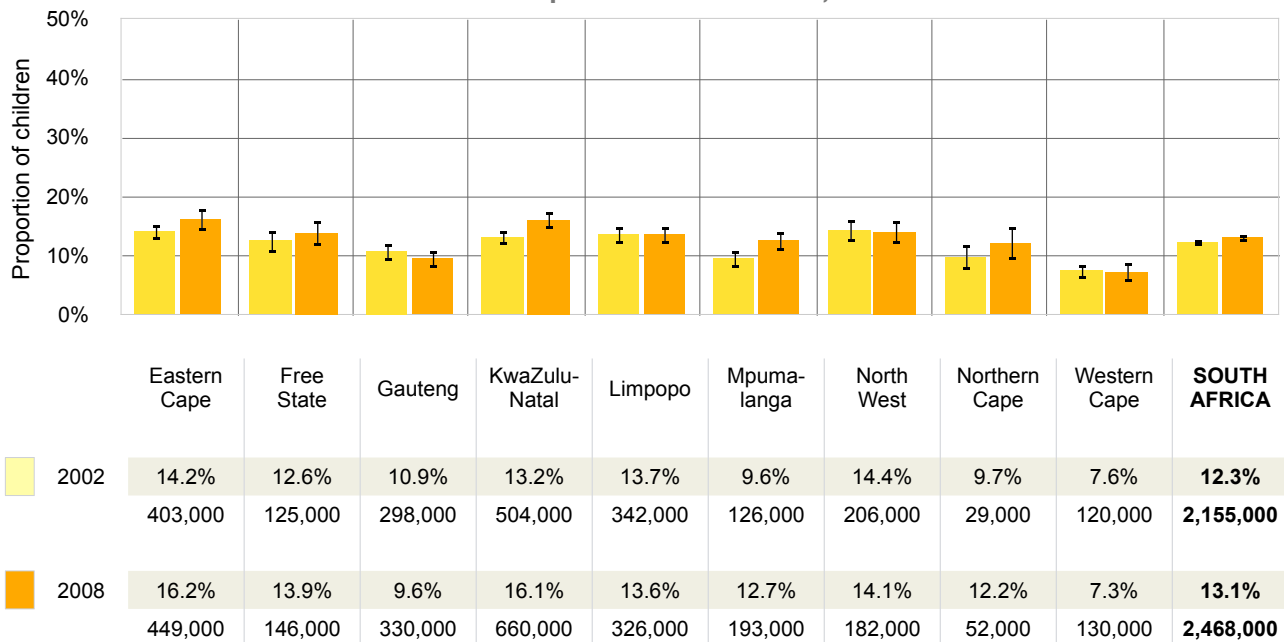
- A maternal orphan is a child whose mother has died but whose father is alive;
- A paternal orphan is a child whose father has died but whose mother is alive;
- A double orphan is a child whose mother and father have both died.

The total number of orphans is the sum of maternal, paternal and double orphans.

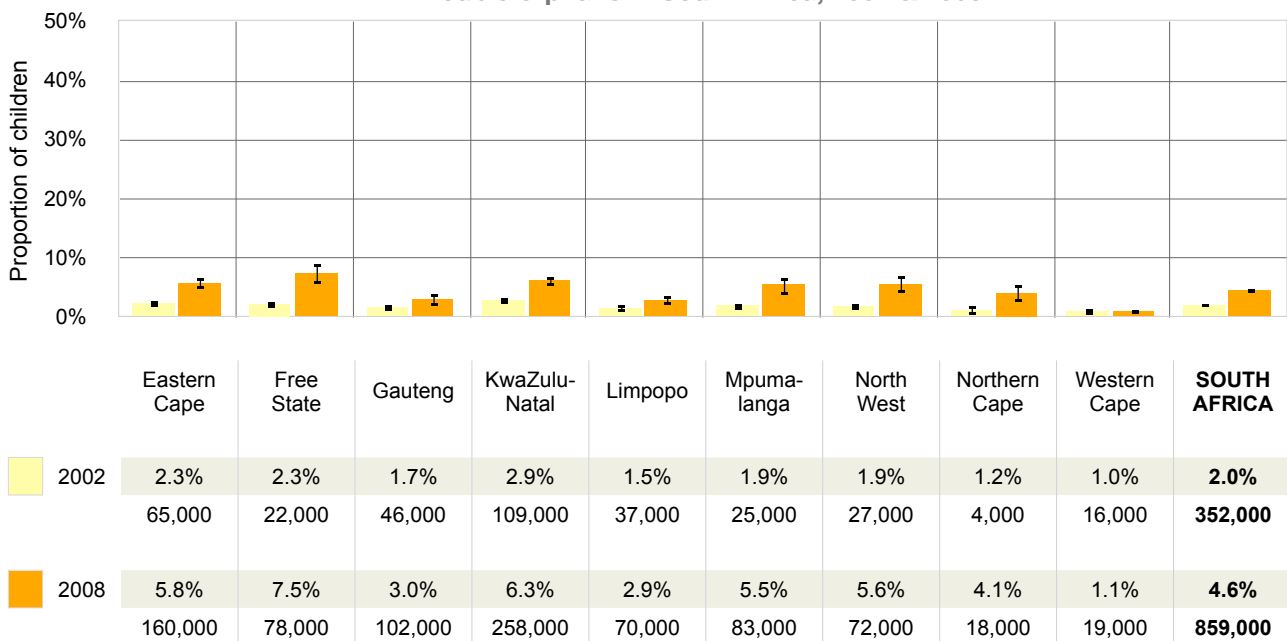
Maternal orphans in South Africa, 2002 & 2008



### Paternal orphans in South Africa, 2002 & 2008



### Double orphans in South Africa, 2002 & 2008



Source: Statistics South Africa (2003 – 2009) General Household Survey 2002 – 2008. Pretoria, Cape Town: Statistics South Africa.

Analysis by Katharine Hall & Double-Hugh Marera, Children's Institute, University of Cape Town.

#### Notes

1. Children are defined as persons aged 0 – 17 years.
2. Population numbers have been rounded off to the nearest thousand.
3. Sample surveys are always subject to error, and the proportions simply reflect the mid-point of a possible range. The confidence intervals (CIs) indicate the reliability of the estimate at the 95% level. This means that, if independent samples were repeatedly taken from the same population, we would expect the proportion to lie between upper and lower bounds of the CI 95% of the time. The wider the CI, the more uncertain the proportion. Where CIs overlap for different sub-populations or time periods we cannot be sure that there is a real difference in the proportion, even if the mid-point proportions differ. CIs are represented in the bar graphs by vertical lines at the top of each bar.

## What do the numbers tell us?

The 2008 General Household Survey indicates that there were approximately 3.95 million orphans in South Africa. This includes children without a living biological mother, father or both parents, and is equivalent to 21% of all children in South Africa. The total number of orphans has increased substantially, with nearly one million more orphaned children in 2008 than in 2002. This equates to an increase of four percentage points in the total orphan population since 2002.

Orphan numbers do not say anything about the nature or extent of care that children are receiving: Child-rearing in South Africa has long been characterised by the presence of multiple caregivers and the involvement of broad kinship networks in the lives of children both with and without living parents. It is important to disaggregate the total orphan figures because the death of one parent may have different implications for children than the death of both parents. In particular, it seems that children who are maternally orphaned are slightly more at risk of poorer outcomes than paternal orphans – for example, in relation to education.<sup>1</sup>

In 2008, 13% of children in South Africa in 2007 did not have a living biological father, but that the figure is much lower for children who do not have a biological mother: 3% of children in South Africa (approximately 624,000 children) were documented to be “maternal orphans”; and a further 5% (860,000) were recorded as “double orphans”. In other words, the vast majority (62%) of all orphans in South Africa are paternal orphans. The numbers of paternal orphans are high because of the higher mortality rates of men in South Africa, as well as the frequent absence of fathers in their children’s lives (1% or 185,000 children have fathers whose vital status is reported to be “unknown”).

The figures illustrate notable increases in the number and proportion of double orphans over a seven-year period: The number of children who have lost both a mother and a father has more than doubled since 2002 (from approximately 350,000 to 860,000), indicating an increase of nearly three percentage points in double orphans as a proportion of all children in South Africa (2002: 2.0%; 2006: 4.6%). These increases are likely to be driven primarily by the AIDS pandemic.

Throughout the period 2002 – 2008, roughly half of all orphans in South Africa have been resident in only two of the country’s nine provinces: Kwazulu-Natal and the Eastern Cape. It is perhaps more useful to note that 27% of children living in each of these two provinces were orphaned in 2008. In addition, orphaned children in the Free State constitute one quarter (26%) of the provincial child population (even though there are relatively small numbers of orphans living there due to the smaller overall child population).

In 2008, 76% of all child orphans were of school-going age (between 7 and 17-years-old) and half were 12 years or older.

## Technical notes

The definition used here differs from that commonly used by the UN agencies as well as the Actuarial Society of South Africa (ASSA). The definition of maternal and paternal orphan employed by these institutions includes children who are double orphans: for instance, all children who have lost a mother (whether or not their father is alive) are included in their measure of maternal orphans. Using those definitions, maternal, paternal and double orphan numbers add up to more than the total number of orphans.

Because the orphan definitions used here are mutually exclusive and additive, the figures differ from orphan estimates provided by the ASSA models. This is particularly striking in the instance of maternal orphans, estimated by the ASSA model to total 1.7 million children in 2007 – of whom 500,000 are estimated to be double orphans. The GHS represents a cross-sectional survey at a single point in time, while the ASSA model is a modeling approach that calibrates to mortality and the antenatal HIV survey data. In spite of these differences, the orphan estimates are consistent over time, and the estimates of total orphan numbers similar.

## Strengths and limitations of the data

The data are derived from the General Household Survey, a multi-purpose annual survey conducted by the national statistical agency, Statistics South Africa, to collect information on a range of topics from households in the country's nine provinces. The survey uses a sample of 30,000 households. These are drawn from Census enumeration areas using multi-stage stratified sampling and probability proportional to size principles. The resulting estimates should be representative of all households in South Africa.

The GHS sample consists of households and does not cover other collective institutionalised living-quarters such as boarding schools, orphanages, students' hostels, old age homes, hospitals, prisons, military barracks and workers' hostels. These exclusions should not have a noticeable impact on the findings in respect of children.

### Changes in sample frame and stratification

The current master sample was used for the first time in 2004, meaning that, for longitudinal analysis, 2002 and 2003 may not be easily comparable with later years as they are based on a different sampling frame. From 2006, the sample was stratified first by province and then by district council. Prior to 2006, the sample was stratified by province and then by urban and rural area. The change in stratification could affect the interpretation of results generated by these surveys when they are compared over time.

### Provincial boundary changes

Provincial boundary changes occurred between 2002 and 2007, and slightly affect the provincial populations. Comparisons on provincial level should therefore be treated with some caution. The sample and reporting are based on the old provincial boundaries as defined in 2001 and do not represent the new boundaries as defined in December 2005.

### Weights

Person and household weights are provided by Statistics South Africa and are applied in Children Count – Abantwana Babalulekile analyses to give estimates at the provincial and national levels. Survey data are prone to sampling and reporting error. Some of the errors are difficult to estimate, while others can be identified. One way of checking for errors is by comparing the survey results with trusted estimates from elsewhere. Such a comparison can give an estimate of the robustness of the survey estimates. For this project, GHS data were compared with estimates from the Statistics South Africa's mid-year estimates, as well as the Actuarial Society of South Africa's ASSA2003 AIDS and Demographic model.

Analyses of the seven surveys from 2002 to 2008 suggest that over- and under-estimation may have occurred in the weighting process:

- When comparing the weighted 2002 data with the ASSA2003 AIDS and Demographic model estimates, it seems that the number of children aged 0 – 9 years was under-estimated in the GHS, while the number of children aged 10 – 19 was over-estimated. The pattern is consistent for both sexes. The number of very young males aged 0 – 4 years appears to be under-estimated by 15%. Girls in this age group have been under-estimated by 15.8%. Males in the 10 – 14-year age group appear to be over-estimated by 5.7%.
- Similarly in 2003, there was considerable under-estimation of the youngest age group (0 – 9 years) and over-estimation of the older age group (10 – 19 years). The pattern is consistent for both sexes. The results also show that the over-estimation of males (9%) in the 10 – 19-year age group is more than double the over-estimation for females in this age range (3.8%).
- In the 2004 results, it seems that the number of children aged 7 – 12 years was over-estimated by 6%, as well as the number of persons aged 13 – 22 years. The number of very young children appeared to have been under-estimated. The patterns of over- and under-estimation appear to differ across population groups. For example, the number of White children appears to be over-estimated by 14%, while the number of Coloured persons within the 13 – 22-year age group appears to be 9% too low.
- In 2005, the GHS weights seem to have produced an over-estimate of the number of males within each five-year age group. The extent of the overestimation is particularly severe for the 10 – 14-year age group. In contrast, the weights produce an under-estimate of the number of girls – the error seems greatest in respect of the younger age groups. These patterns result in male-to-female ratios of

1.06, 1.13, 1.10 and 1.09 respectively for the four age groups covering children (ie 0 – 4, 5 – 9, 10 – 14 and 15 – 19 years).

- The 2006 weighting process yielded the same results as in 2005. The one exception is that the under-estimation of females is greatest in the 5 – 9 and 15 – 19-year age groups. This results in male-to-female ratios of 1.03, 1.10, 1.11 and 1.12 respectively for the four age groups covering children.
- The 2007 weighting process produced an over-estimation for boys and an under-estimation for girls. The under-estimation of females is in the range of 3 – 5% while the over-estimation is in the range of 1 – 7%. This results in male-to-female ratios of 1.07, 1.06, 1.08 and 1.08 respectively for the four age groups covering children.
- Overall, assuming the ASSA2003 Aids and Demographic model to be the 'gold standard', it appears that the GHS2008 over-estimates both male and female populations under the age of 19 years, except for 0 – 4-year-old females. The extent of over-estimation for boys is in the range 0 – 7%. It is particularly severe for boys aged 10 – 14 years. Over-estimation is in the range of 2 – 5% for girls aged five years and above. For girls aged 0 – 4 years, the ASSA2003 model suggests that these may have been under-estimated by about 1%. The GHS2008 suggests a sex ratio of 1.03 for children aged 0 – 4 years, which is higher than that of the ASSA model and Statistics South Africa's mid-year estimates.

The apparent discrepancies in the seven years of data may slightly affect the accuracy of the Children Count – Abantwana Babalulekile estimates. Since 2005 the male and female patterns vary in respect of a particular characteristic, which means that the total estimate for this characteristic will be somewhat slanted toward the male pattern. A similar slanting will occur where the pattern for 10 – 14-year-olds, for example, differs from that of other age groups. Furthermore, there are likely to be different patterns across population groups.

### **Disaggregation**

Statistics South Africa suggests caution when attempting to interpret data generated at low level disaggregation. The population estimates are benchmarked at the national level in terms of age, sex and population group while at provincial level, benchmarking is by population group only. This could mean that estimates derived from any further disaggregation of the provincial data below the population group may not be robust enough.

### **Reporting error**

Error may be present due to the methodology used, ie the questionnaire is administered to only one respondent in the household who is expected to provide information about all other members of the household. Not all respondents will have accurate information about all children in the household. In instances where the respondent did not or could not provide an answer, this was recorded as "unspecified" (no response) or "don't know" (the respondent stated that they didn't know the answer).

## **References and related links**

<sup>1</sup> See for example: Ardington C (2007) Orphanhood and schooling in South Africa: Trends in the vulnerability of orphans between 1993 and 2005. Cape Town: South African Labour Department Research Unit, University of Cape Town; Case A, Paxson C & Ableidinger J (2004) Orphans in Africa: parental death, poverty and school enrollment. *Demography*, 41(3): 483-508; Cluver L, Gardner F & Operario D (2007) Psychological distress amongst AIDS-orphaned children in urban South Africa. *Journal of Child and Psychology and Psychiatry and Allied Disciplines*, 48(8): 755-763.

<sup>2</sup> Statistics South Africa (2008). General Household Survey 2007 Metadata. Cape Town, Pretoria: Statistics South Africa

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