

Education - Distance to the nearest school

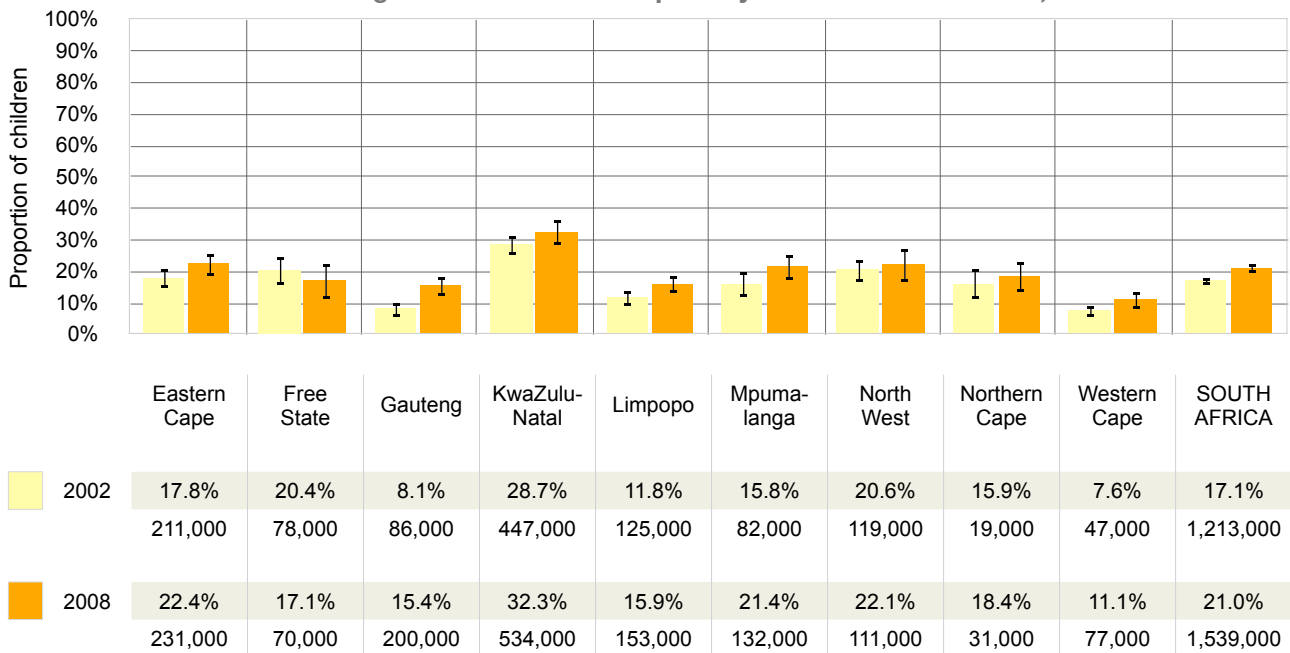
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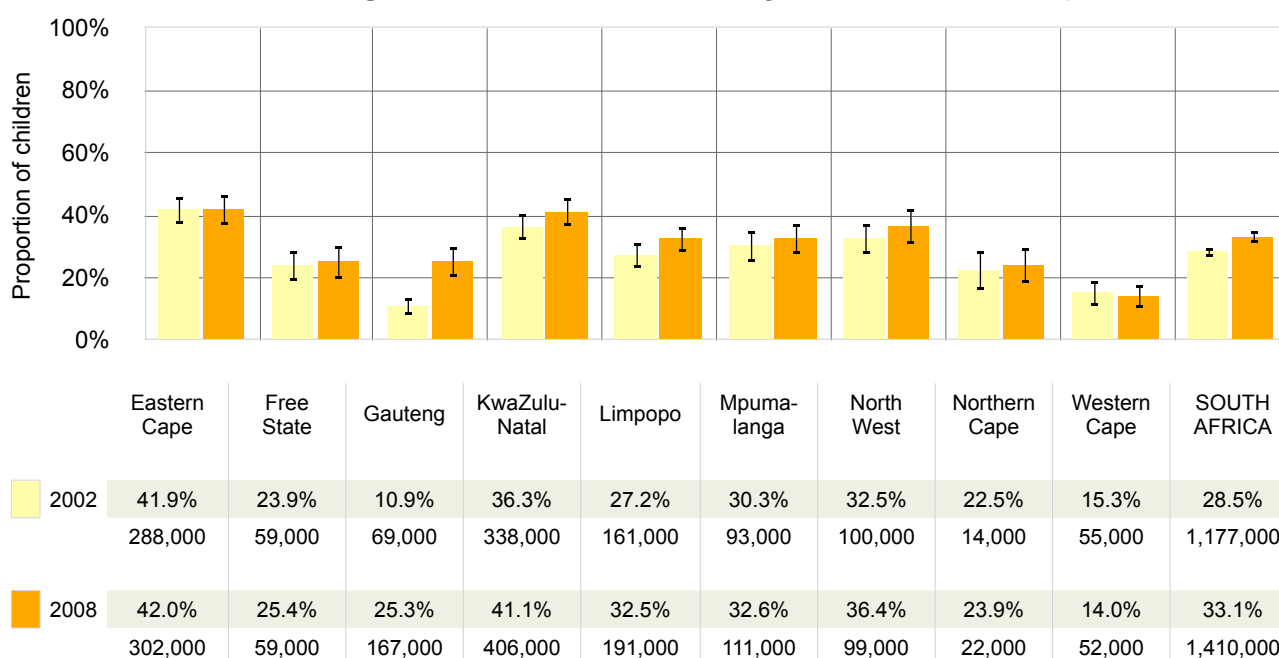
Definition

This indicator reflects the distance from a child's household to the nearest school. Distance is measured through a proxy indicator: length of time travelled to reach the nearest (primary or secondary) school. The nearest school is regarded as 'far' if a child would have to travel more than 30 minutes to reach it, irrespective of mode of transport. For children aged 7 – 13, distance is measured to the nearest primary school. For children aged 14 – 17, distance is measured to the nearest secondary school.

Children living far from the nearest primary school in South Africa, 2002 & 2008



Children living far from the nearest secondary school 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. The proportions are based on children in the age group appropriate for school level: Primary 7 – 13 years; Secondary 14 – 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. 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 graph by vertical lines at the top of each bar.

What do the numbers tell us?

Access to schools and other educational facilities is a necessary condition for achieving the right to education. The location of a school and the distance between school and home can pose a barrier to education. Access to schools is also hampered by poor roads, transport that is unavailable or unaffordable, and danger along the way. Risks may be different for young children, for girls and boys, and are likely to be greater when children travel alone.

For children who do not have schools near to their homes, the cost, risk and effort of getting to school can influence decisions about regular attendance. Those who travel long distances to reach school may wake very early and risk arriving late or physically exhausted, which may affect their ability to learn.

Statistics South Africa's population estimates show that there were approximately 7.3 million children of primary school age (7 – 13 years) in South Africa in mid-2008. A fifth (21%) of these children would have to travel more than 30 minutes to reach the nearest primary school. The highest proportions of children living far from the nearest primary school are in KwaZulu-Natal (32%), the North West (22%) and the Eastern Cape (22%).

Around 4.3 million children in South Africa are of secondary school age (14 – 17 years). A third (33%) of these children do not have a high school within a 30-minute radius of their home. KwaZulu-Natal (41%), the Eastern Cape (42%) and North West (36%) are provinces with particularly high proportions of teenage children who do not have schools within easy access of their homes.

Access to school thus remains a problem for many children in South Africa, particularly those living in rural areas. Rural schools tend to be merging or closing down, making the situation worse for children in these areas. It appears that the problem is greater for children of secondary school age than for younger children.

The greatest change over the seven-year period (2002 – 2008) is in Gauteng, where the proportion of children living far from the nearest school has increased significantly at both the primary and secondary levels. This may be related to rapid population growth and in-migration of children.

It is important to note that children do not necessarily attend the school closest to their home for many reasons, including over-crowding, poor facilities and quality of education. The school fee exemption policy aims to remove financial obstacles to education in fee-charging schools. In theory the exemption makes it possible for children living in poor areas to attend better schools in areas further away. The proportion of learners who actually travel far to school is therefore likely to be higher than reflected in this indicator.

Technical notes

The General Household Survey asks: “How long in minutes does it take or would it take, from here, to reach the nearest (primary or secondary) school using the usual means of transport?”

Where respondents indicate that children would have to travel more than 30 minutes to the nearest school, the distance to school was categorised as ‘far’. Where children would spend 30 minutes or less travelling to the nearest schools, the distance was categorised as “not far”. The indicator was defined by school-going age (primary: 7 – 13 years; secondary: 14 – 17 years) and not by actual school attendance to include children who may not be attending school because of transport or other access problems.

Strengths and limitations of the data

The data are derived from the *General Household Survey*¹, 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).

Related links

- > [National Department of Education](#)
- > [Education Management and Information Systems \(EMIS\)](#)

References

- ¹ Statistics South Africa (2003-2009). General Household Survey 2002-2008 Metadata. Cape Town, Pretoria: Statistics South Africa.

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