## Only 1 in 5 matrics get more than $50 \%$ in maths and science

Only $20 \%$ of pupils writing matric mathematics and physical science achieve more than $50 \%$, according to the latest South Africa Survey, published by the South African Institute of Race Relations in Johannesburg last week.

Since the introduction of the National Senior Certificate (NSC) in 2008, the proportion of pupils achieving a pass in mathematics of between $70 \%$ and $100 \%$ fell from $8.3 \%$ in 2008 to $5.9 \%$ in 2011. This means that in 2011, only 13223 pupils achieved $70 \%$ and above for mathematics. The proportion of pupils achieving between $50 \%$ and $69 \%$ increased slightly from $12.4 \%$ to $12.7 \%$. The data also revealed that more than half of all pupils who have written mathematics since the introduction of the NSC have failed (receiving a mark below $30 \%$ ).

The Institute's analysis was based on data supplied by the Department of Basic Education. A breakdown of the 2012 NSC results by mark was not available at the time of going to print.

More encouragingly, the quality of passes in physical science has improved. The proportion of pupils achieving a pass mark of $70 \%-100 \%$ increased from $3.4 \%$ in 2008 to $6.6 \%$ in 2011. During the same period, the proportion of pupils achieving a mark of between $50 \%-69 \%$ increased from $11.5 \%$ to $13.9 \%$. However, as is the case with mathematics, more than half of all pupils who have written physical science since the introduction of the NSC have failed.

Jonathan Snyman, a researcher at the Institute, described the failure rates as a cause for concern. 'The $30 \%$ threshold for a pass mark has been criticised for being too low, and the fact that $50 \%$ of pupils who write mathematics and physical science cannot achieve even that low threshold indicates not only that there are problems with the quality of teaching in these subjects, but also that pupils have not grasped core concepts by the time they reach matric.' Mr Snyman added that if the pass mark had to be improved to $50 \%$, in line with university standards, the real rate of failure for mathematics and physical science would be closer to $80 \%$.

