

The relative under-performance of males in the schooling system

*Martin Gustafsson
19 February 2015*

Summary

Both male and female performance is much lower than it should be in the South African schooling system, but males perform particularly poorly in standardised tests. For instance, in the 2007 SACMEQ¹ tests for Grade 6, males in South Africa performed around 20% of a standard deviation worse than females, in both reading and mathematics. Roughly, 20% of a standard deviation is what a learner should learn over a period of five months, so males can be said to be five months behind females, roughly speaking.

Not coping with their schoolwork would be a key contributing factor to lower levels of grade attainment amongst males. Males clearly leave school at lower grades than females. The problem can be seen already at Grade 9. Around 92% of females get to successfully complete Grade 9, compared to 87% for males. For Grade 12 the grade attainment figures are 54% for females and 50% for males².

There are a few niche areas where males do out-perform females. In the 2013 public Grade 12 examinations, amongst black African students there were almost twice as many outstanding mathematics performers amongst males as amongst females, although the number of female mathematics candidates was higher (outstanding here is taken to be a percentage score of at least 70, a level frequently used by universities as a requirement for entry into engineering programmes). Yet against many frequently cited Grade 12 indicators males have been performing worse than females: the total number of examination candidates (16% lower for males than females in 2013), number of overall passes (13% lower for males).

Importantly, although males tend to drop out of the schooling system at lower grades than girls, enrolment *by age* is rather similar between males and females. The system does not clearly invest less in males than females. Males attend school as much as females do, but males struggle more with their schoolwork, repeat grades more, and therefore finish less schooling.

This relative under-performance of males is not new. The under-performance of Grade 6 boys in the SACMEQ tests was about the same in 2000 as it was in 2007. The grade attainment situation clearly favoured females in 2003. Between 2003 and 2013 grade attainment improved markedly for *both* males and females, but improvements for females were larger, meaning that the gender gap in this regard has actually worsened.

If one breaks the 2013 grade attainment problem down by race, one sees evidence of male under-performance in all the four race groups. Coloured youths display the largest gap. For instance, 57% of males attain Grade 12, against 65% for females. Amongst black Africans, whilst the gender gap may be smaller, the absolute levels are even lower: 47% of males attain Grade 12, against 50% of females. The demographics of the country are such that eliminating

¹ Southern and Eastern Africa Consortium for Monitoring Educational Quality.

² These figures are all somewhat higher than what one sees in other reports, for instance DBE (2013: 25). This is because there is a general problem in the data source, the General Household Survey, whereby respondents will say they have *successfully* completed Grade 12 when in fact they have only *attended* Grade 12, but not passed this grade. These data problems need to be taken seriously, but there is little reason to believe that the bias would differ by gender. They would not change the general conclusions of this analysis significantly.

the male disadvantage with respect to grade attainment would mostly be a question of improving the situation for black African male youths. However, there is something very striking about the statistics for coloured youths, and this is that in 2003 amongst coloured youths *males* were much more likely to attain higher grades than females, but by 2013 this situation had been completely reversed. No other race group saw such a radical change.

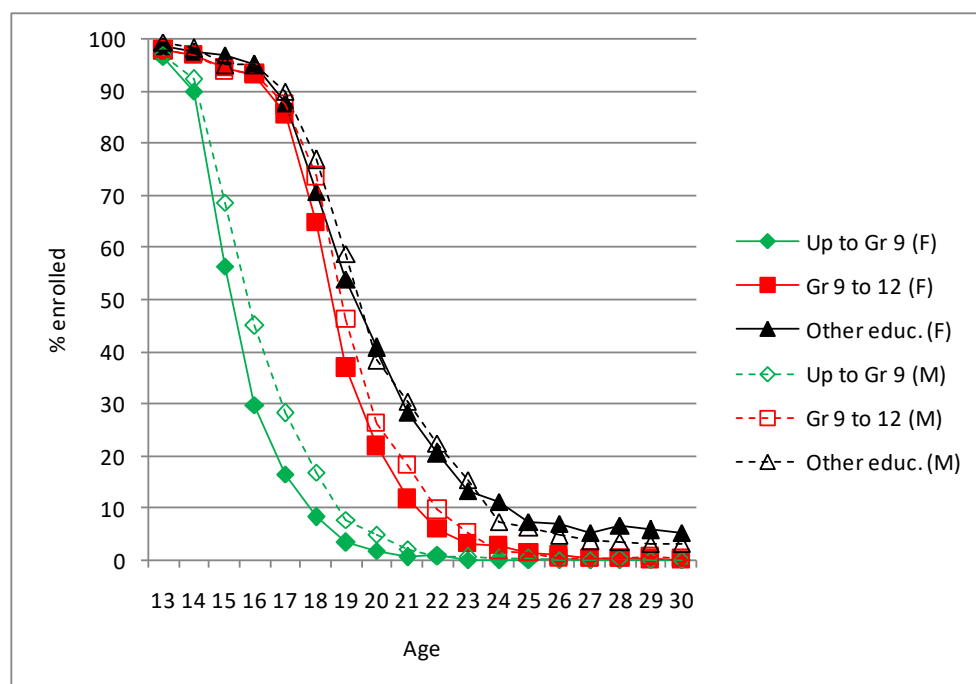
The grade attainment disadvantage for males is evident across all provinces, though least so in KwaZulu-Natal.

The relative under-performance of males in schools is not a uniquely South African phenomenon. In all 15 countries participating in SACMEQ in 2007, on average males were older than females, suggesting higher levels of grade repetition, and in nine countries test scores for girls were significantly higher than for boys. Three countries displayed a test score gap, in favour of females, which was even larger than South Africa's: Botswana, Mauritius and Seychelles.

The rest of this report reproduces and discusses key graphs and tables which inform the analysis. The more straightforward trends discussed in the summary, for instance those relating to the Grade 12 examinations, are not discussed below.

The first graph below illustrates enrolment ratios by age, for males and females separately, according to the 2013 General Household Survey. Enrolment ratios in the schooling system, up to Grade 12, favour males slightly for certain age categories. For instance, amongst males aged 19 46% are enrolled at school, against 37% for females. However, from age 24 females are slightly favoured, with 7% of females aged 24 to 30 being enrolled, against 5% for males. This is largely due to higher levels of enrolment amongst females in post-school education. In the schooling system, enrolment patterns are either virtually the same for males and females, or favour males slightly.

Figure 1: Enrolment ratios by gender (2013)

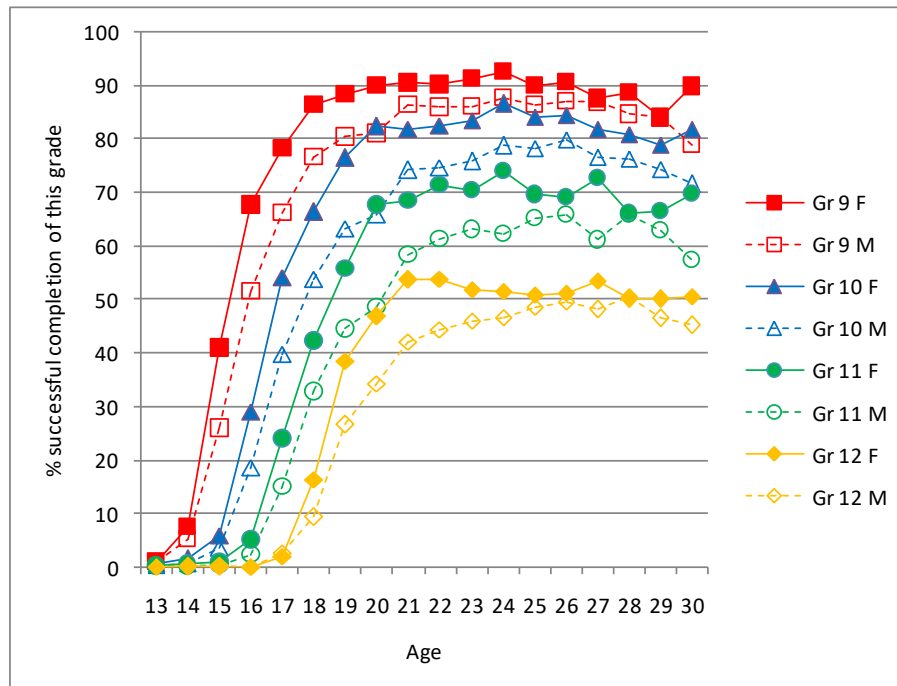


Source: General Household Survey 2013, own calculations.

Note: The statistics are cumulative, thus for instance the 13% enrolment ratio for females at age 23 includes all three education levels.

Figure 2 below illustrates the percentage of each age cohort who have successfully completed specific school grades. The curves for females are all above the corresponding curves for males. For instance, from age 21 over 50% of females report having completed Grade 12. The corresponding figures for males are often 5 percentage points lower.

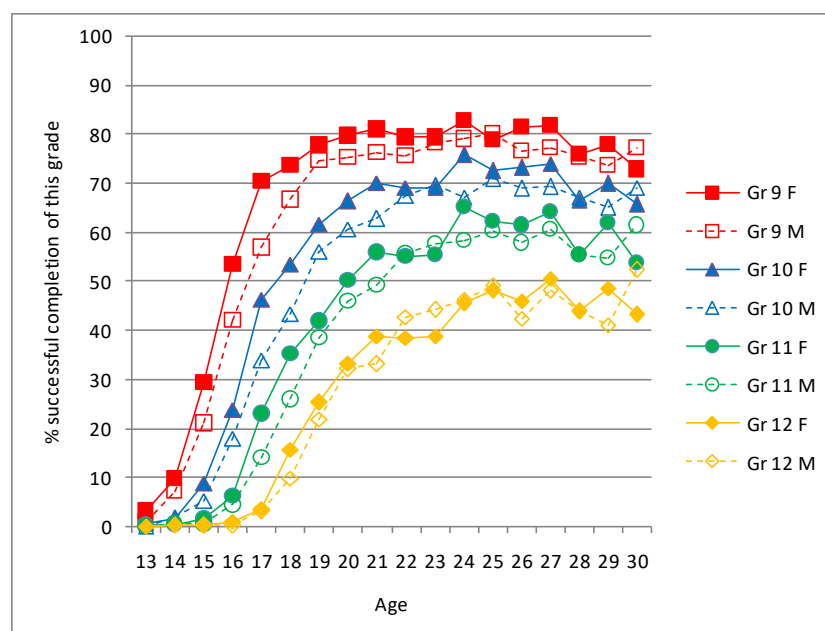
Figure 2: Grade attainment by gender (2013)



Source: General Household Survey 2013, own calculations.

Figure 3 provides the equivalent picture for ten years earlier, for 2003. It is clear that between 2003 and 2013 the attainment curves moved up, signifying better grade attainment levels for all youths, but also that the curves moved *leftwards*, indicating that youths were attaining particular grades *at a younger age*.

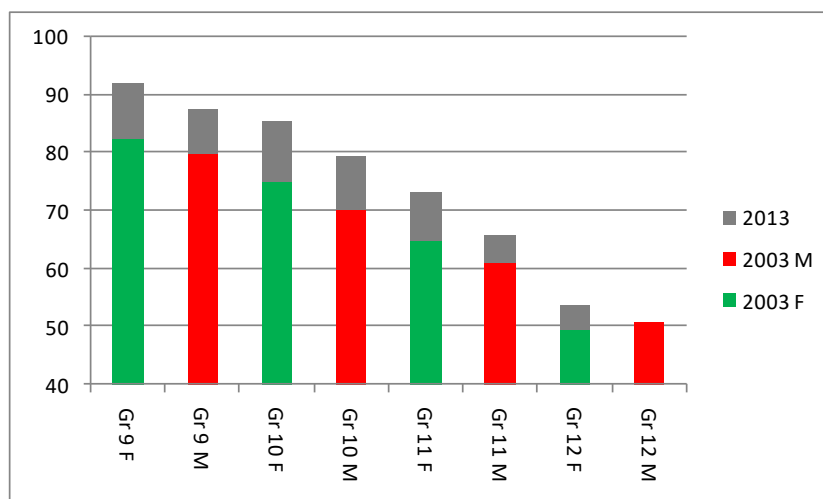
Figure 3: Grade attainment by gender (2003)



Source: General Household Survey 2013, own calculations.

The following graph draws from the two previous graphs. It confirms that mostly attainment levels improved, for females and males (the exception is Grade 12 for males). The improvements tended to be larger for females than males, meaning the gap in favour of females grew larger.

Figure 4: Changes in attainment ratios 2003 to 2013



Source: General Household Survey 2013, own calculations.

Note: Each attainment value is the average of the two highest values in the previous two graphs. For instance, in the case of Grade 10 for males the two highest values from Figure 3 were 70 and 70, giving an average of 70. In Figure 2 the highest values were 80 and 79, giving an average of 79.5.

The following two tables provide statistics similar to those of the previous graph, broken down by race and then by province. To illustrate, in 2003 50% of females could expect to complete Grade 12 at the national level, and the figure for males was 1 percentage point higher, so 51%. In 2013, females experienced a level of 54%, and males 50% (54 minus 4). The magnitudes in the far right column help to assess the size of the problem. For instance, if in 2013 black African males were to enjoy the same Grade 9 attainment level as black African females, an additional 20,800 males would need to reach and complete Grade 9 each year. It can be seen that although the largest gaps in percentage point terms for 2013 are those for coloured youths, in terms of numbers of people, the largest gaps were those for black African youths. It is striking that in 2003, amongst coloured youths males experienced *better* grade attainment figures than females.

Table 1: Grade attainment by race and gender

| 2003 | | | | 2013 | | |
|---------------|-------|-------------------|-----------------------------|-------------------|-----------------------------|------------------|
| | Grade | % attained female | Male minus female statistic | % attained female | Male minus female statistic | Magnitude of gap |
| Black African | 9 | 82 | -4 | 92 | -6 | 20,800 |
| | 10 | 74 | -7 | 85 | -7 | 25,600 |
| | 11 | 63 | -6 | 71 | -7 | 24,600 |
| | 12 | 46 | 0 | 50 | -3 | 10,700 |
| Coloured | 9 | 79 | 8 | 93 | -1 | 500 |
| | 10 | 66 | 8 | 91 | -7 | 2,700 |
| | 11 | 58 | 3 | 77 | -13 | 4,600 |
| | 12 | 53 | 1 | 65 | -8 | 2,900 |
| Indian | 9 | 100 | 0 | 100 | 0 | 0 |
| | 10 | 100 | 0 | 100 | 0 | 0 |
| | 11 | 99 | -2 | 100 | -1 | 100 |
| | 12 | 96 | -11 | 97 | -5 | 400 |
| White | 9 | 100 | 0 | 100 | 0 | 0 |
| | 10 | 99 | 1 | 100 | 0 | 100 |
| | 11 | 95 | -2 | 99 | -4 | 1,000 |
| | 12 | 91 | -1 | 98 | -4 | 1,100 |
| Overall | 9 | 82 | -3 | 92 | -5 | 20,100 |
| | 10 | 75 | -5 | 86 | -6 | 26,900 |
| | 11 | 65 | -4 | 73 | -7 | 32,300 |
| | 12 | 50 | 1 | 54 | -4 | 15,900 |

Table 2: Grade attainment by province and gender

| | | 2003 | | 2013 | |
|----|-------|-------------------|-----------------------------|-------------------|-----------------------------|
| | Grade | % attained female | Male minus female statistic | % attained female | Male minus female statistic |
| EC | 9 | 79 | -8 | 87 | -8 |
| EC | 10 | 69 | -10 | 80 | -11 |
| EC | 11 | 54 | -5 | 63 | -8 |
| EC | 12 | 39 | 2 | 38 | -1 |
| FS | 9 | 85 | 0 | 94 | -5 |
| FS | 10 | 78 | -3 | 87 | -4 |
| FS | 11 | 68 | -2 | 72 | -7 |
| FS | 12 | 51 | 0 | 57 | -3 |
| GP | 9 | 93 | -2 | 98 | -3 |
| GP | 10 | 90 | -5 | 95 | -3 |
| GP | 11 | 82 | -7 | 88 | -7 |
| GP | 12 | 67 | -2 | 74 | -10 |
| KN | 9 | 83 | -4 | 93 | -1 |
| KN | 10 | 74 | -3 | 89 | -4 |
| KN | 11 | 65 | -3 | 77 | -4 |
| KN | 12 | 52 | 0 | 58 | 1 |
| LP | 9 | 87 | -5 | 93 | -7 |
| LP | 10 | 79 | -10 | 85 | -12 |
| LP | 11 | 67 | -12 | 70 | -8 |
| LP | 12 | 46 | -3 | 53 | -5 |
| MP | 9 | 84 | 1 | 96 | -5 |
| MP | 10 | 78 | -1 | 88 | -7 |
| MP | 11 | 70 | -3 | 76 | -9 |
| MP | 12 | 49 | 6 | 59 | -8 |
| NC | 9 | 82 | -5 | 92 | -2 |
| NC | 10 | 70 | -2 | 87 | -9 |
| NC | 11 | 60 | -3 | 76 | -16 |
| NC | 12 | 51 | -3 | 60 | -8 |
| NW | 9 | 80 | -1 | 93 | -4 |
| NW | 10 | 70 | 3 | 89 | -8 |
| NW | 11 | 59 | 4 | 76 | -8 |
| NW | 12 | 46 | 7 | 57 | -4 |
| WC | 9 | 86 | 2 | 97 | -2 |
| WC | 10 | 78 | 0 | 94 | -9 |
| WC | 11 | 71 | -4 | 84 | -16 |
| WC | 12 | 57 | 0 | 66 | -10 |

References

Department of Basic Education (2013). *Report on progress in the schooling sector against key indicators*. Pretoria.