

From: Janet Downs  
To: Authority Enquiries,  
Date: 1 December 2015  
Subject: Re: Misuse of PISA data for 2000

Hi Jamie

Sorry, I should have been more explicit about Gibb's speech. On the face of it he is admitting the 2000 PISA results were faulty. The reason he gave was 'under-representation of lower performing schools and pupils, which had skewed results'. That's not how OECD reports it in its FAQs re PISA (<http://www.oecd.org/pisa/aboutpisa/pisafaq.htm>):

‘United Kingdom: In PISA 2000, the initial response rate for the United Kingdom fell 3.7% short of the minimum requirement. At that time, the United Kingdom provided evidence to the PISA Consortium that permitted an assessment of the expected performance of the non-participating schools and on the basis of which the PISA Consortium concluded that the response-bias was likely negligible and the results were therefore nevertheless included in the international report. In PISA 2003, the United Kingdom’s response rate was such that required sampling standards were not met and further investigation by the PISA Consortium did not confirm that the resulting response bias was negligible. Therefore, these data were not deemed internationally comparable and were not included in most types of comparisons. For PISA 2006, the more stringent standards are being applied and PISA 2000 and PISA 2003 data for the United Kingdom are therefore not included in the comparisons of this chapter.’

It was the overall response rate, not the under-representation of lower performing schools and pupils, which caused the UK's results to be redacted.

Gibb goes on to say the 2006 result for the UK was 'a bombshell. It saw our mean scores shift decidedly lower than the rosy picture painted in 2001. We ranked 14th out of 57 countries in science, 17th in reading, and 24th in mathematics'.

This implies poor performance on the part of the UK in relation to other countries. But this isn't quite the case.

The UK's scores included those for Wales which, as the NFER makes clear in its National Report for England 2006 (<https://www.nfer.ac.uk/nfer/publications/NPC02/NPC02.pdf> ). Paragraphs 7.2 to 7.4 show the ‘mean scores’ of Welsh pupils was ‘significantly lower’ than the scores for England, Northern Ireland and Scotland in science, maths and reading. The inclusion of the Welsh score would have reduced the mean score for the UK in these three subjects. Yet the UK results are used to underpin educational reform in England.

But the NFER report cited above makes it clear that England's performance is not as dire as is represented by Gibb and others:

‘The mean score for science in England was higher than the OECD average. This difference was statistically significant.’

‘The mean score for mathematics in England was not significantly different from the OECD average.’

‘The mean score for reading in England was slightly above the OECD average. This difference was not statistically significant.’

Gibb's implication was that a higher than average score in science, a slightly above average score in reading and an average score in maths in 2006 was poor. I don't think this is a statistically robust analysis.

Gibb then said the 2009 results looked 'worse' because the relative standing of the UK declined again. But as this House of Commons Library blog makes clear

(<http://commonslibraryblog.com/2014/01/20/whos-top-of-the-class-comparing-international-educational-performance-using-pisa/>) the results shows the UK were neither better or worse in 2006, 2009 and 2012. This same blog reminds MPs that the 2000 results can't be used for comparison. This is something the Education Secretary seems to have forgotten.

Finally, Gibb said PISA was proof that education standards in the UK had fallen. But he has not taken into account other international tests such as the Trends in Maths and Science Survey (TIMSS) 2007 and 2011 and the Programme in Reading Literacy Survey PIRLS 2011 paint a more positive picture of England's performance. In the last round of PIRLS, English 10 year-olds were 10= out of 45. 18% of English 10 year-olds reached the Advanced International Benchmark – the same percentage as in Finland and Hong Kong.

There are really two issues raised by my emails. The first is straightforward: Nicky Morgan making a comparison with the 2000 PISA data for the UK that the OECD warned should not be used.

The second is less straightforward because Nick Gibb didn't implicitly make the comparison having admitted the 2000 data was wrong (but citing the wrong reason). However, Gibb uses international test data in such as way as to be misleading.

I look forward to hearing from you,

Janet

From: Janet Downs  
To: Authority Enquiries  
Date: 10 November 2015  
Subject: Nicky Morgan's misuse of PISA data

In 2012, Andrew Dilnot expressed concern about the use of PISA data by the Department for Education (see FullFact here [https://fullfact.org/articles/statistics\\_watchdog\\_education\\_international\\_school\\_league\\_table-28392](https://fullfact.org/articles/statistics_watchdog_education_international_school_league_table-28392)). The concern centred on a warning by the OECD that PISA data for the UK in 2000 should not be used for comparison because it was found to be flawed. The Department for Education had ignored this warning. However, after the intervention of the UK Statistics Authority such DfE claims appeared to cease.

In her speech to the CBI yesterday, Education Secretary Nicky Morgan said the last Labour Government had 'let down young people, as PISA showed us that between 2000 and 2009 the UK fell further and further behind the countries with the highest educational standards.'  
<https://www.gov.uk/government/speeches/nicky-morgan-raising-ambition-for-all>

I would be grateful if you could remind Nicky Morgan of the uncertainty surrounding PISA 2000 and of the advice given by Andrew Dilnot in 2012 that statistics used by the DfE should 'meet standards similar to those required of departmental statistical publications.'

I look forward to hearing from you

Janet Downs