

---

## PISA 2009: How does the social attainment gap in England compare with countries internationally?

---

Emily Knowles and Helen Evans

### Socio-economic background

- Pupils in England score more highly in terms of social, economic and cultural status than pupils across all OECD countries. In particular, disadvantaged pupils in England are not as disadvantaged as in the average OECD country.

### Attainment

- The distribution of pupil attainment in the PISA 2009 reading assessment for pupils in England is very similar to the average for OECD countries and there is no obvious association between average pupil performance in different countries and how widespread pupil results are.

### Social attainment gaps

- Social attainment gaps in England are known to be wide when measured in terms of the gap in attainment at GCSE between FSM pupils and their peers. In PISA publications, social attainment gaps are measured in a different way, based on the OECD's "index of economic, social and cultural status", which makes comparisons between findings from the two sources difficult.
- This report shows that when putting these different measures onto a comparable basis, the size of attainment gaps shown on PISA and GCSE are in fact the same.
- For example, the gap in average PISA reading scores between non-FSM and FSM pupils is virtually identical to the gap between similarly sized groups of pupils split using the OECD's deprivation index. The same is true for PISA mathematics and science scores.
- Similarly, the gap in English GCSE attainment is one GCSE grade whether pupils are split into groups by FSM eligibility or using the OECD's deprivation index.

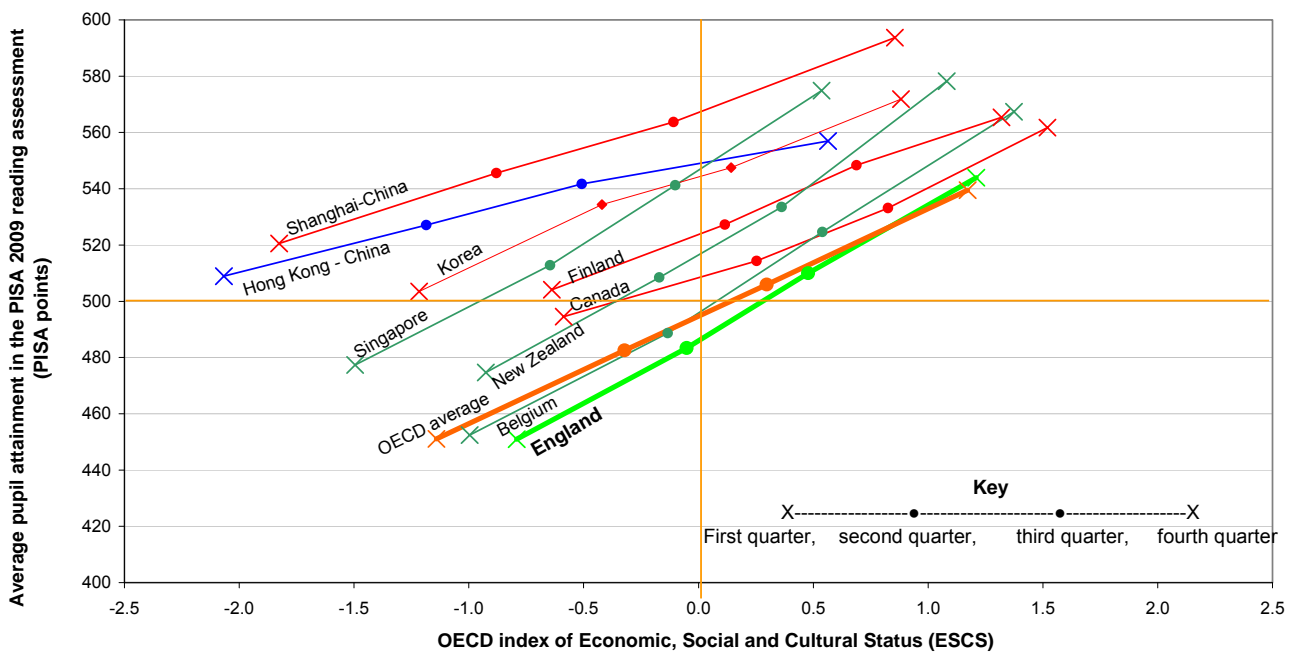
- Looking at overall attainment, the gap in attainment of the 5A\*-C (inc English and mathematics) threshold measure is also similar whether based on FSM eligibility or using the OECD's deprivation index.

## Relationship between pupil socio-economic background and attainment

- Using the full OECD deprivation index, the relationship between pupil socio-economic background and attainment can be described in a number of different ways, including:
  - **impact** - how much of a difference scoring higher on the socio-economic scale has on pupil attainment;
  - **strength** – the extent to which factors other than socio-economic background explain variation in pupil attainment (hence a lower strength indicates socio-economic background does not have such a strong hold on pupil attainment as the variation is dependent on a number of other factors too).
- In England the **impact** of pupils' socio-economic background is significantly higher than the OECD average. This indicates that the difference in the attainment of two pupils a set distance apart on the scale of socio-economic deprivation in England is, on average, larger than it would be in other OECD countries.
- England is not the only country in which socio-economic status has a high impact on attainment. Indeed this is also true for some high performing PISA participants, namely: New Zealand, Australia, Singapore and Belgium. However, there are high performing education systems where socio-economic background does not have such a high impact on attainment. Hong Kong does particularly well for its socially and economically disadvantaged students as, compared to England, do Canada, Finland, Iceland, Korea and Shanghai-China.
- Figure 1 shows average attainment of pupils at different deprivation levels for the top-performing countries. As the chart shows, pupils in the bottom half of the OECD's socio-economic scale in England perform less well than their peers in the bottom half of the distribution across the OECD despite not being as disadvantaged. Conversely, pupils in the poorest half of the socio-economic distribution in Hong Kong, Korea and Shanghai-China are substantially more disadvantaged than in England, but the attainment levels they reach are comparable with the attainment of pupils in England from above average backgrounds.

**Figure 1:**

**Average pupil performance on the reading scale by national quarters of economic, social and cultural status for a selection of<sup>1</sup> top-performing countries, PISA 2009**



1. Four countries scoring statistically significantly higher than England in the PISA 2009 reading assessment are not included in the chart as the patterns in these countries were very similar to others that have been included. Namely: Australia was very similar to Belgium; Japan similar to Finland; The Netherlands very similar to the OECD average; and Norway very similar to England

Source: OECD, PISA 2009 database

- In England the **strength** of the relationship between pupil attainment and socio-economic background is similar to the OECD average. This indicates that student attainment is no more closely related to social-economic background than on average across the OECD.

### Average pupil attainment after controlling for social economic background

- Using statistical methods it is possible to control for differing socio-economic background between countries and to say how pupils may have performed in PISA 2009 if they all had equal socio economic background. Were we to control for pupil background in this way, the most notable changes to average pupil attainment would be:
  - Average pupil attainment in England would decrease slightly;
  - Poland, Chinese Taipei, France, Hungary and Turkey would become significantly higher performing than England;
  - Shanghai-China, Hong-Kong, Singapore and Korea would move even further ahead.

### **Additional Information**

The full report can be accessed at <http://www.education.gov.uk/publications/>  
Further information about this research can be obtained from  
Emily Knowles, Sanctuary Buildings, Great Smith Street, London, SW1P 3BT  
[Emily.KNOWLES@education.gsi.gov.uk](mailto:Emily.KNOWLES@education.gsi.gov.uk)

The views expressed in this report are the authors' and do not necessarily reflect those of the Department for Education.