

Using data to raise attainment through accountability

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“Engaging citizens through the use of statistics”

- One part of this:
- Helping citizens choose public service providers by publishing performance data
- Schools
- In some countries, including England, schools collect, process and use a lot of data
- This talk uses evidence from developed countries

Why school accountability?

- How to improve educational attainment?
- And reduce educational inequalities?

- Is there a role for school accountability?
- Schools are entrusted with two resources:
 - The talent and potential of the nation's children
 - Public money (schools spend over £30bn a year)
- Schools should be accountable for what they do with these.

- **Accountability:**
 - Level of ‘effort’
 - Focus of ‘effort’:
 - wider learning versus qualifications
 - professional independence
 - “closed doors”
- **Accountability in schools works through the provision of information on outcomes**

Is this good or bad?

- Good – accountability mechanism can keep schools focussed and engaged, raises attainment.
- Bad – school performance tables can lead to gaming or cheating, can lead to narrower learning, and create segregation; reduces attainment.
- Empirical question

Outline

- Evidence on role of accountability in schools:
 - Wales and England
 - Portugal
 - The Netherlands
 - International comparisons
 - Gaming, unintended consequences and cheating
- What sort of data to present? And how?
- Value of providing school performance data

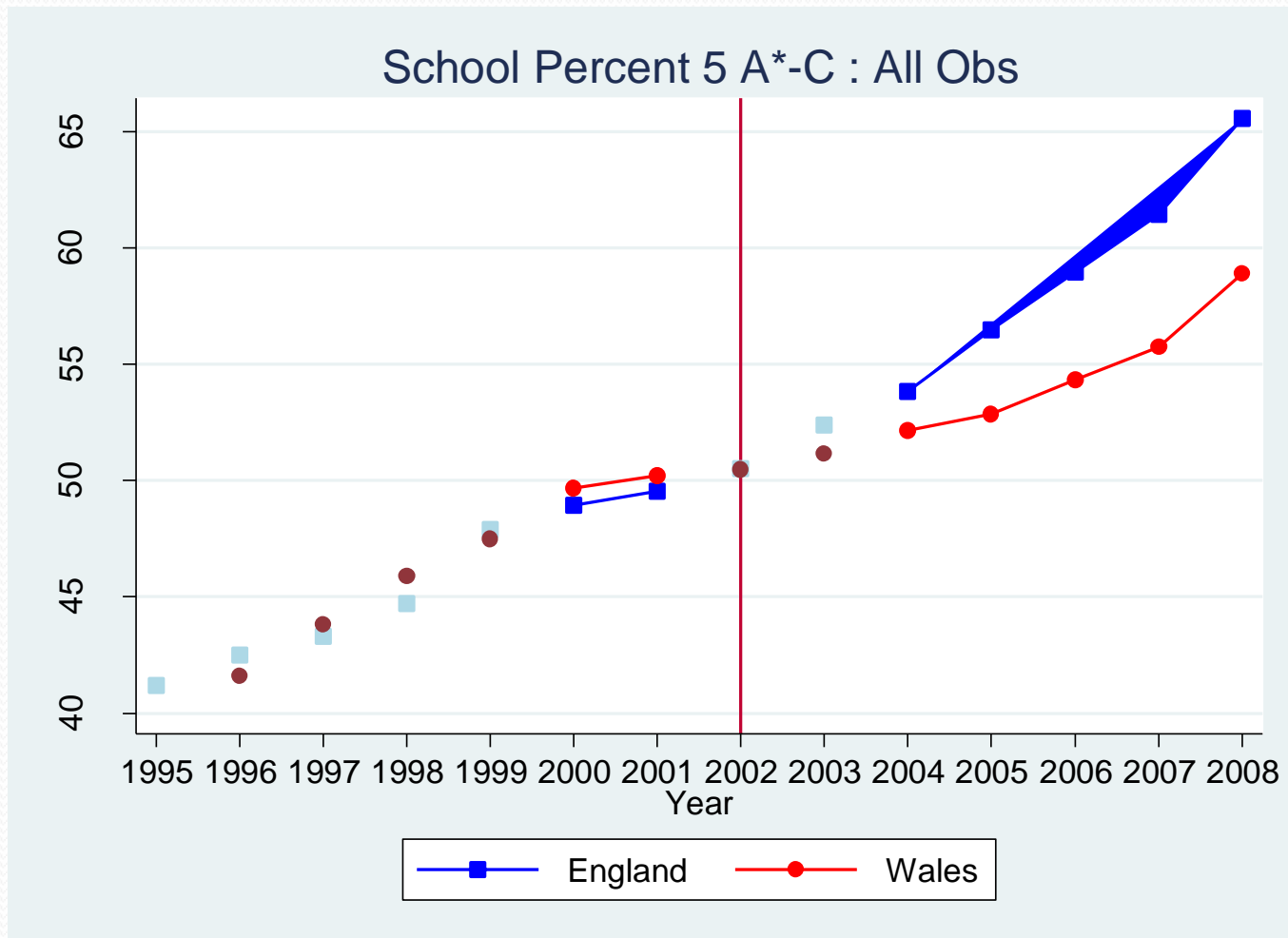
Evaluating provision of school performance information

- It's hard to get at a causal effect:
 - Introduction of multi-faceted system all at once.
 - Lack of adequate control group
- Need to find contexts that get around these problems.

Case: Wales and England

- Long-standing provision of performance information on schools, and school inspections
- School performance tables (“league tables”) published annually in England and Wales from 1992
- Devolution of power to Welsh Assembly Government (WAG) after a referendum in 1999
- WAG abolished the publication of these league tables from 2001; they continued in England.
- Otherwise, the educational systems continued to be similar.

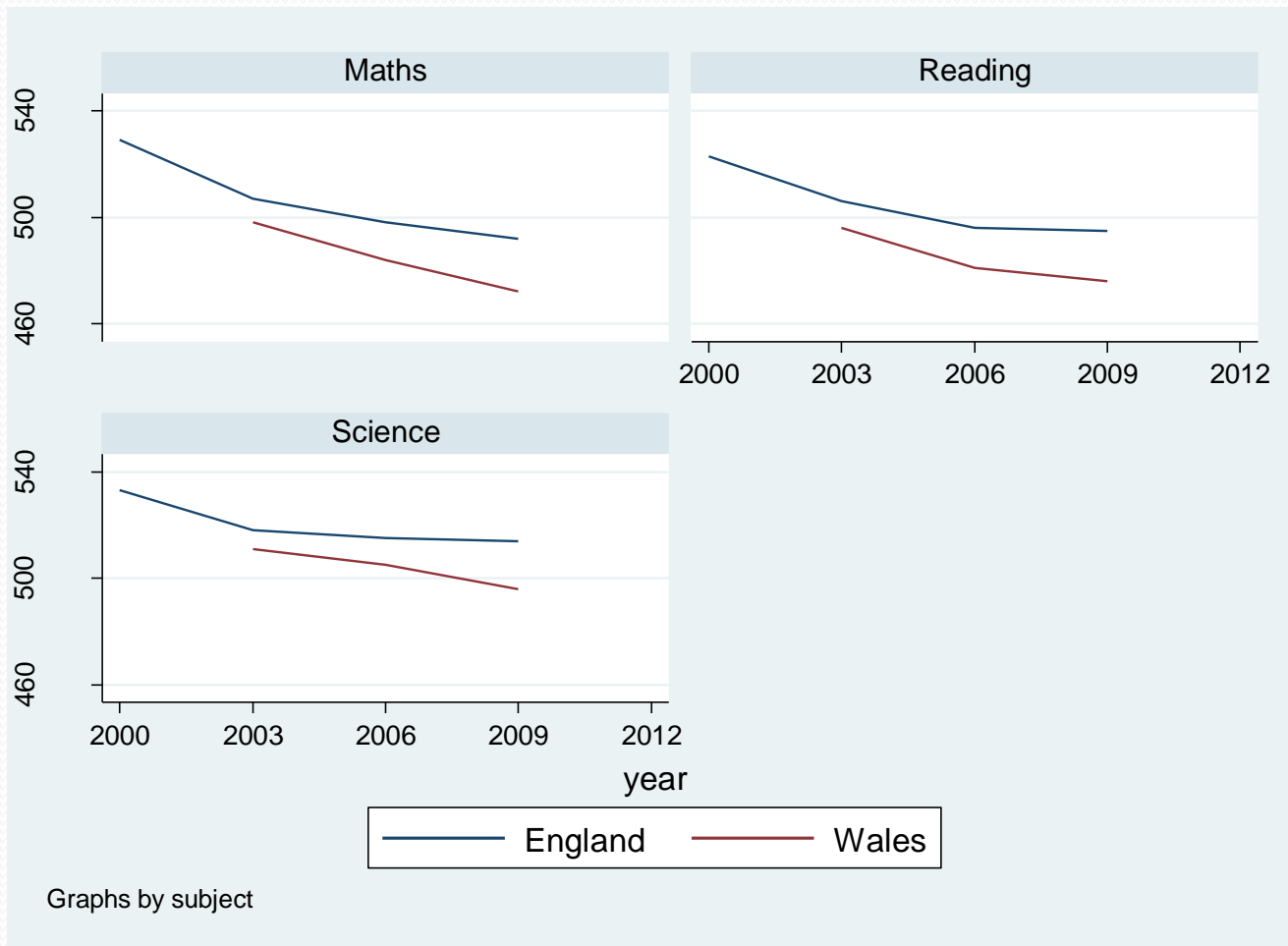
School Performance 1 in England and Wales



Results 1

- The reform reduced average performance and widened inequality.
- Significant and sizeable negative effect on pupil progress in Wales: 2 GCSE grades = 0.23 sd (school) = 0.09 sd (pupil)
- Equivalent to raising class-sizes from 30 to 38
- Heterogeneity:
 - Greatest effect on schools with most poor children
 - No effect in the top performance quartile of schools

“Just wait for the PISA scores to come out ...”



Results 2

- Results suggest no significant and consistent change in any dimension of sorting.
- If anything, a hint of polarisation in Wales

Change of policy:

- Leighton Andrews, Minister for Children, Education and Lifelong Learning, 2011, Cardiff.

“We will introduce a national system for the grading of schools which will be operated by all local authorities/consortia. ... All schools will produce an annual public profile containing performance information to a common format”

Recent studies: Portugal

- In Portugal, Reis et al (2015) show that the publication of school rankings make a significant difference to parents' choice of schools and to schools' enrolment.
- Fewer students enroll in low ranked schools and their probability of closure increases
- Reis, A., Nunes, L. and Seabra, C. (2015) 'The publication of school rankings: a step toward increased accountability?' *Economics of Education Review*, (forthcoming).

Recent studies: Netherlands

- Koning and van der Weil (2012) show that publishing school quality scores (following campaigning by a newspaper) affects school performance substantially.
- Previous quality scores have an effect on school performance: both average grades and the number of diplomas go up after receiving a negative score.
- Koning, P. and van der Wiel (2012) 'School responsiveness to quality rankings: An empirical analysis of secondary education in the Netherlands.' *De Economist*, vol. 160(4), pp. 339 – 355.

International comparisons

- Work of Hanushek and Woessmann shows that strong accountability and autonomy together help to raise attainment on international comparable tests.
- Hanushek, E. and Woessmann, L. (2015) *The Knowledge Capital of Nations: Education and the Economics of Growth*. Cambridge, MA: MIT Press
- Hanushek, E. and Woessmann, L. (2011) 'The Economics of International Differences in Educational Achievement.' *Handbook of the Economics of Education* vol 3, Edited by Eric A. Hanushek, Stephen Machin and Ludger Woessmann.
- Woessman, L. (2007) 'School Accountability, Autonomy, Choice, and the Level of Student Achievement: International Evidence from PISA 2003.' OECD Education Working Papers, No. 13, OECD Publishing.
- Woessmann, L. (2014) 'The Economic Case for Education' EENEE Analytical Report No. 20, EENEE. <http://www.eenee.de/eeneeHome/EENEE/Analytical-Reports.html>

Gaming, unintended consequences and cheating

- Focus resources on what/who is tested:
 - Subjects, topics, grades/years, students
- Cheating by teachers or school administrators
- Other inappropriate responses

- Long-run effects?

What sort of data to present?

And how?

- Data to help answer the question “how will my child do in this school?”
- Trade-off between functionality and comprehensibility
- Progress (value-added) data best but complexities ...
- Sparse, simple information in a recognisable metric and an accessible format.

“Engaging citizens through the use of statistics”

- If pupils sit the same tests, graded outside the school, then the cost of publishing the performance data is minimal
- If not, cost is large and many other issues too
- Significant benefits of providing school performance data
- Same arguments true for other public services

Relevant papers:

- (2015) Human Capital and Education: The State of the Art in the Economics of Education <http://www.coeure.eu/wp-content/uploads/Human-Capital-and-education.pdf>
- (2013) A natural experiment in school accountability: the impact of school performance information on pupil progress. *Journal of Public Economics*. Vol. 106, pp. 57 – 67. With D. Wilson and J. Worth
- (2013) Evaluating the provision of school performance information for school choice. *Economics of Education Review*. Vol 34, pp. 175 – 190. With R. Allen.
- (2011) Can school league tables help parents choose schools? *Fiscal Studies*. Vol. 32 (2) pp. 245 – 262. With R. Allen.