Computers in Schools: For Better or Worse?

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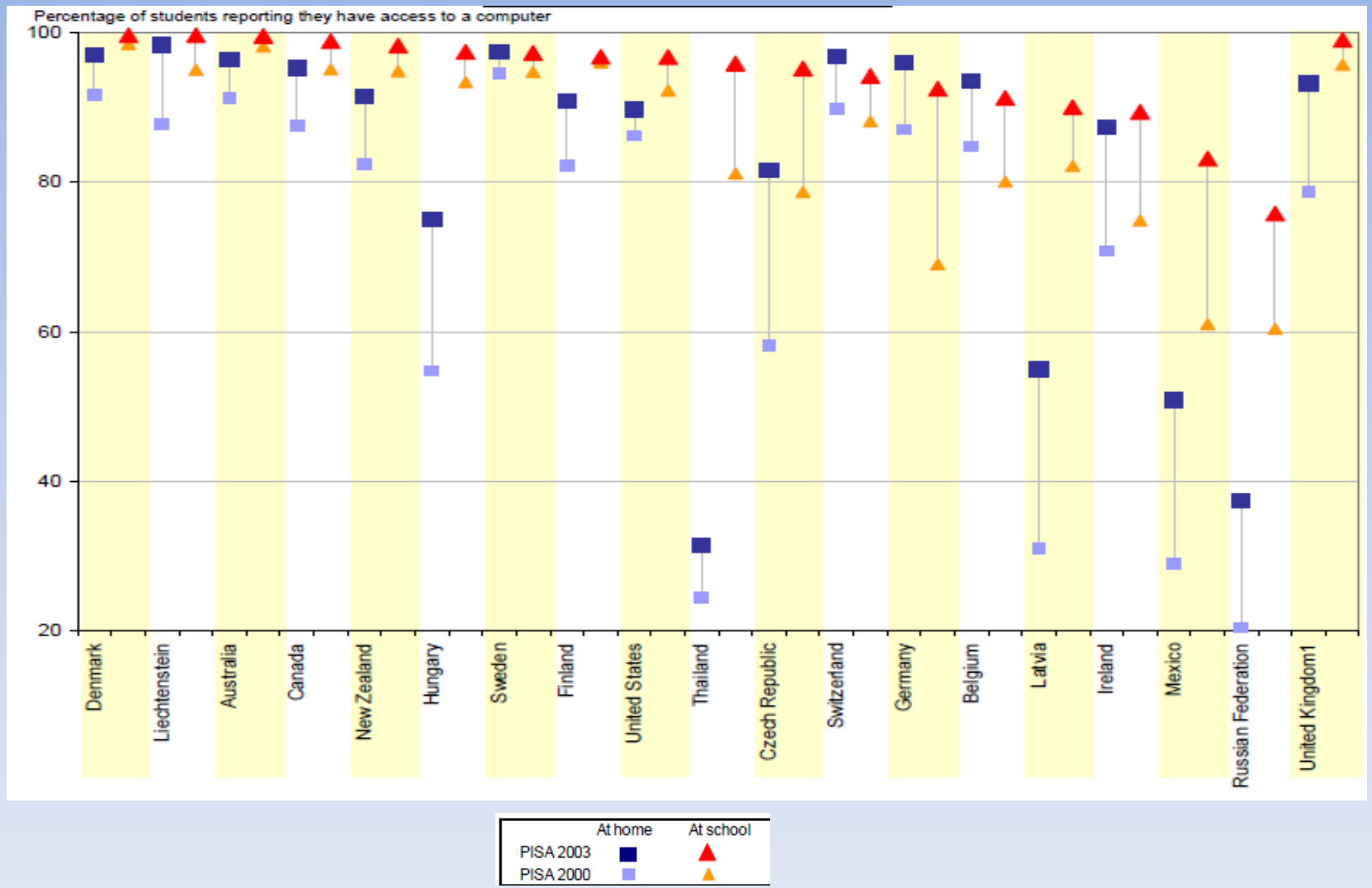
Access to computers at home and at school, PISA 2000 and 2003



Experimental research on funding for computers and internet in schools

- Angrist and Lavy (2002): Receiving funding for computers provides **no benefit and possible negative effect on achievement** in Israel
- Goolsbee and Guryan (2002): a subsidy for internet and communications had **no impact on achievement**
- Leuven *et al.* (2004): extra funding for computers and software had **no impact on achievement** in Netherlands
- Barrera-Osorio and Linden (2009): A program to increase the number of computers and internet access had **no impact on achievement** in Columbia
- Machin et al. (2005): increase in funding for ICT resulted in **positive effect** on reading and science in primary schools in UK

Results of computer instruction experiments

- Kulik (2003) reviewed 8 meta-analyses of experimental studies of computer instruction in US before 1990: all found that CI **improved basic skills** with average effect size = .36 SD; **studies in 1990s yield similar effect size; computer instruction in math and reading as effective as conventional instruction**.
- Rouse and Krueger (2004): Evaluation of Fast ForWord program: **no improvement in reading skill**
- Barrow, Markam and Rouse (2008): **CI raised pre-algebra and algebra test scores by .17 SD**
- Banerjee et al. (2004): instructional games **raised math scores** in India by .35 SD