

# **Assessment, accountability, desegregation**

**comments to the presentations of  
professors Resnick, Scheinin, Hautamäki**

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**I. How to tackle any given level of student performance variation?**

**Mixing or sorting pupils with different skill levels?**

**Sorting ==> high between-school differentials  
(as the case in Hungary), Keep in mind that:**

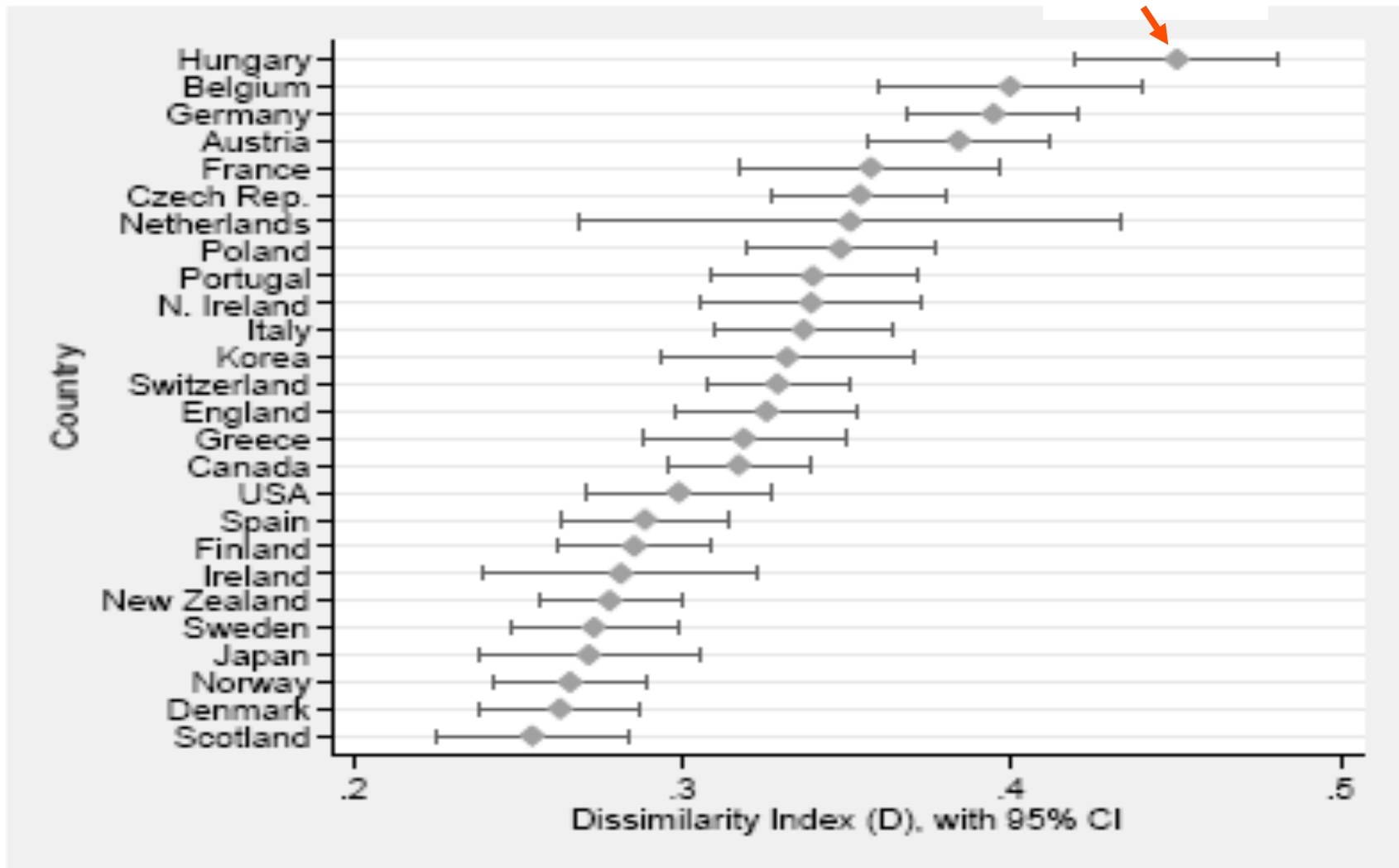
- Skill level is strongly correlated with social or ethnic background, even in very early age!
- Grouping of low skill pupils – if not compensated for – very often results in low level educational services. Mechanisms:
  - (a) teaching is more difficult: lowering standards; teachers' adverse selection, high turnover
  - (b) adverse peer effects
  - (c) flawed allocation of central funds designed to disadvantaged pupils (block grants, fiscal autonomy of municipalities)
- Accelerated sorting by free school choice
- Early tracking via elite schools (6 | 8 grade general secondary schools)

## **Mixing:** a high priority of the Hungarian educational policy

- How can be children with very different skill levels instructed together? Instruction methods? Teacher education? Extra resources for mixing schools? Teacher compensation?
- How can the middle class be persuaded not to force sorting?
- How can we keep free school choice and constrain the choice of pupils by the schools?
- How can we give more chance to the poor so as they make more use of free school choice: information?, enhancing commuting?, vouchers? instructional help by educational research centers?

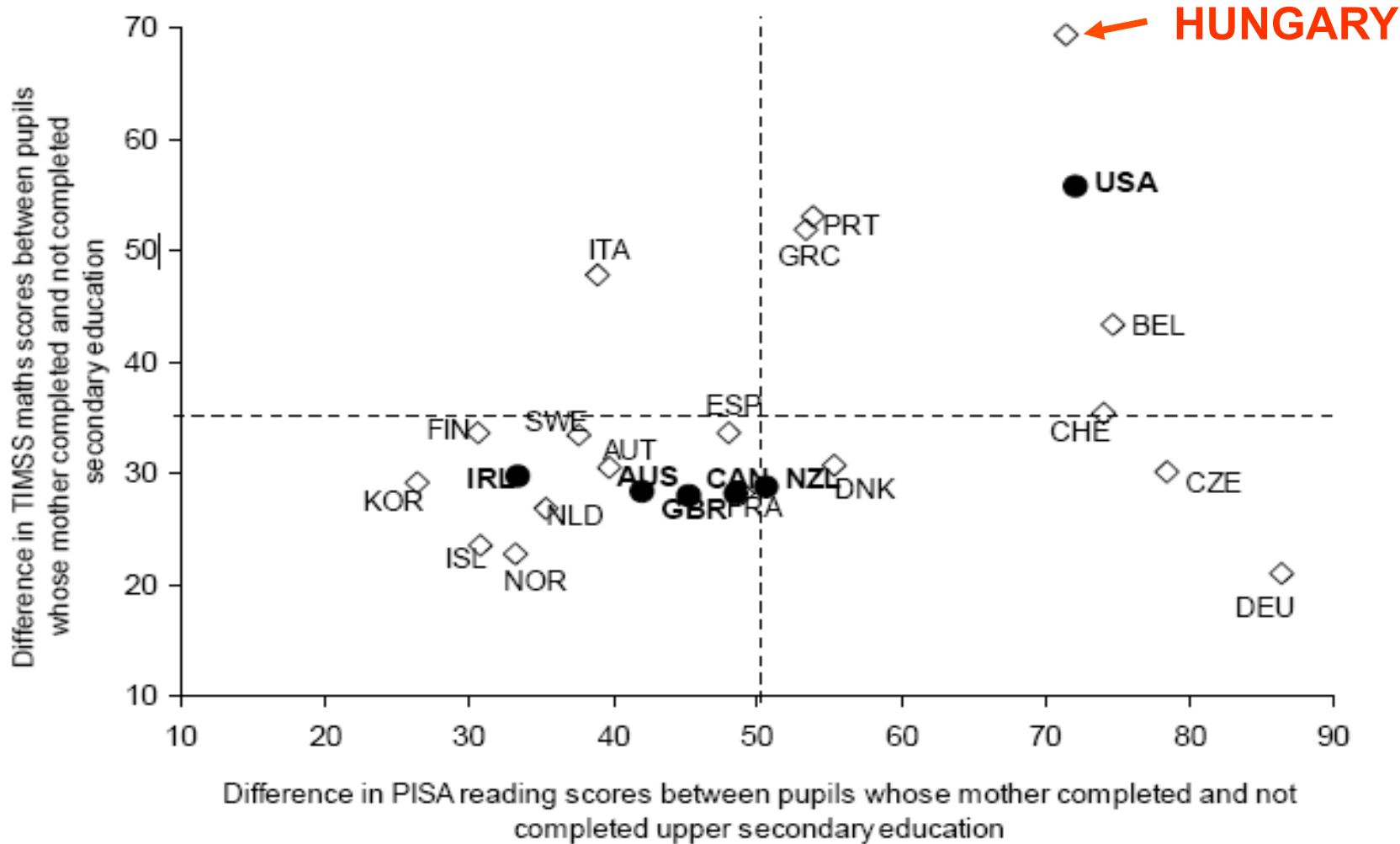
# Graphs & Tables to I.

- H: very high between-school social segregation
- H: extremely high intergenerational transmission of inequalities through the schooling system: mother's educational attainment & cultural capital (books)
- H: highly selective system in the *secondary* school: PISA results partly due to this. Almost 2 std.dev. unit diff. between the performance of the best & worst school type
- But selections starts much earlier (1st-4th grades) via free school choice. Driven mainly by social background. Ability sorting exists, but mainly due to composition effect.
- A consequence of free school choice: poor (& struggling) pupils get stucked in ghetto schools.

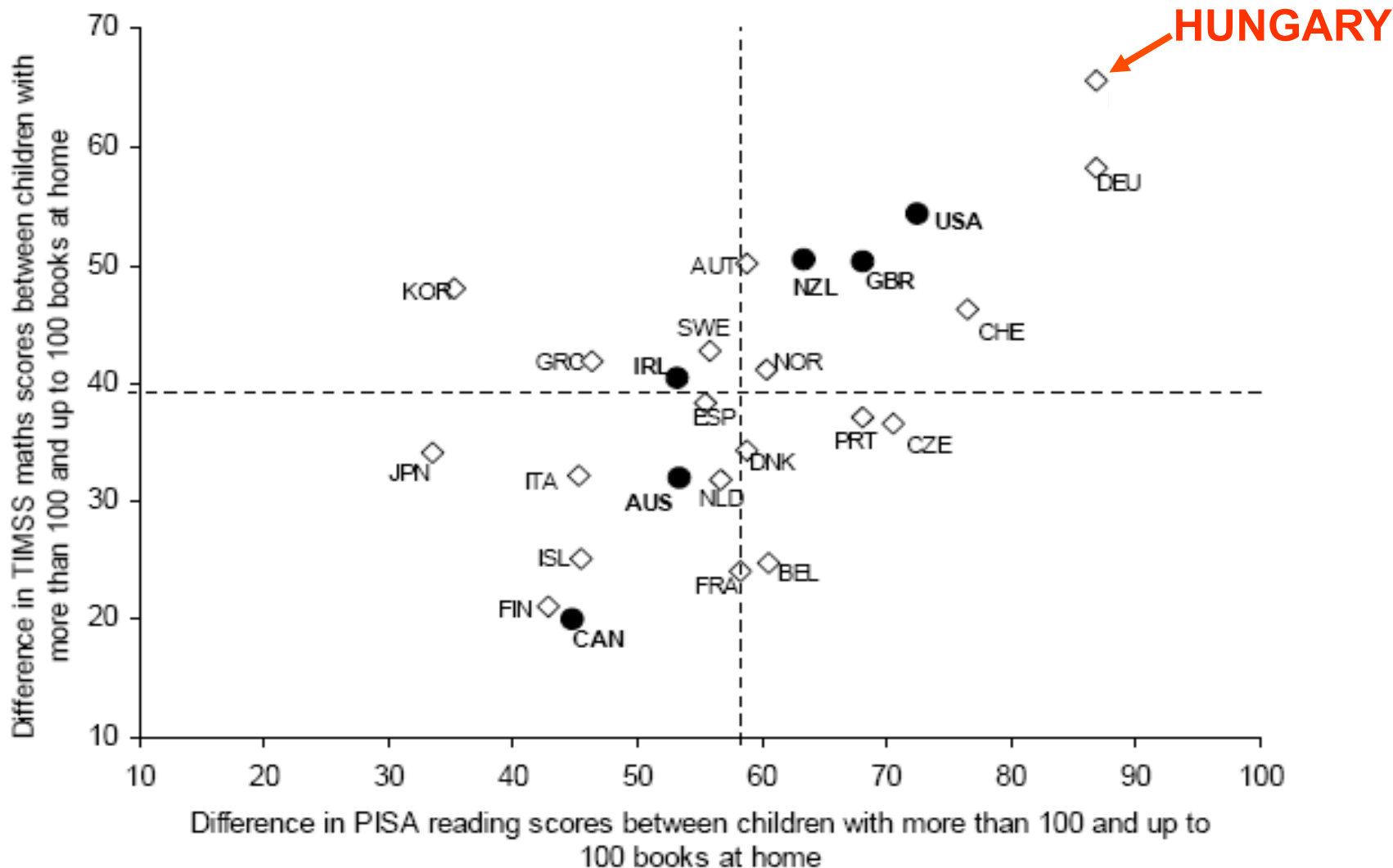


## Social segregation in public schools, 27 countries, Dissimilarity Index ( $D$ )

High (low) family background defined by whether the parental occupation index value is above (below) the national median. The horizontal lines show 95 percent confidence intervals. PISA 2000 & 2003 (Jenkins-Micklewright-Schnepf, 2006)

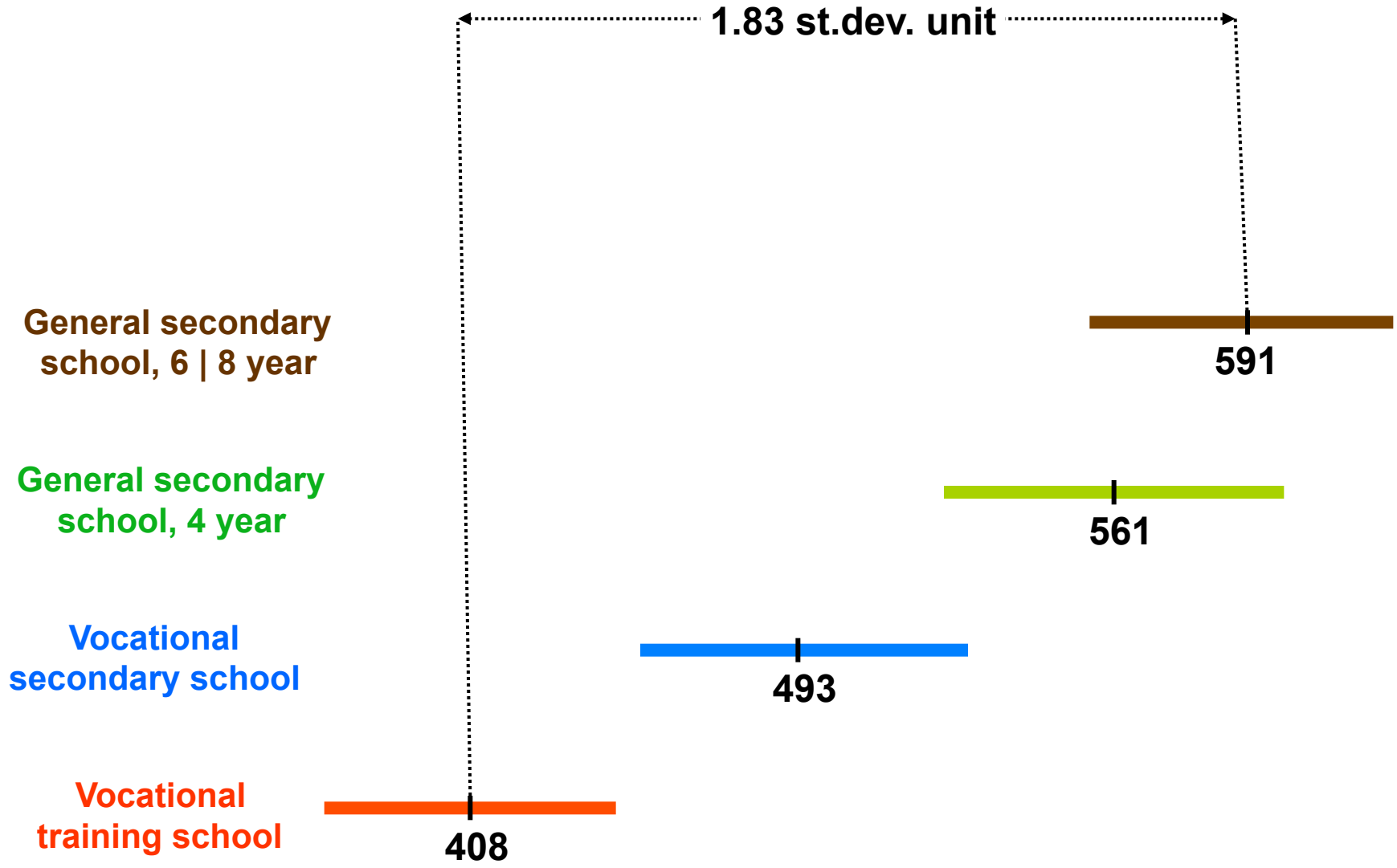


**Difference in PISA reading and TIMSS maths scores between pupils whose mother completed and not completed (upper) secondary education (Micklewright-Schnepf, 2004)**



**Difference in reading (PISA) and math scores (TIMSS) between pupils with up to 100 and with more than 100 books at home (Micklewright-Schneepf, 2004)**





**Average reading score by the type of the school  
+/- 50% st.dev (SB testing of May 2006, 10th grade)**

| <b>Mother's educational attainment</b>     | <b>Country as a whole</b> | <b>Budapest &amp; county capitals</b> | <b>Small villages</b> |
|--|---------------------------|---------------------------------------|-----------------------|
| <b>Elementary school (0-8 classes)</b>     | <b>16</b>                 | <b>33</b>                             | <b>11</b>             |
| <b>Vocational training school</b>          | <b>22</b>                 | <b>39</b>                             | <b>17</b>             |
| <b>Secondary school with maturity exam</b> | <b>32</b>                 | <b>49</b>                             | <b>25</b>             |
| <b>3 year college</b>                      | <b>43</b>                 | <b>58</b>                             | <b>31</b>             |
| <b>4-5 year university</b>                 | <b>54</b>                 | <b>63</b>                             | <b>51</b>             |
| <b>TOTAL</b>                               | <b>29</b>                 | <b>49</b>                             | <b>19</b>             |

**Proportions of pupils who attend a different school than their district school by their mothers' educational attainment and their residence, 4th grade (SB testing of May 2006)**

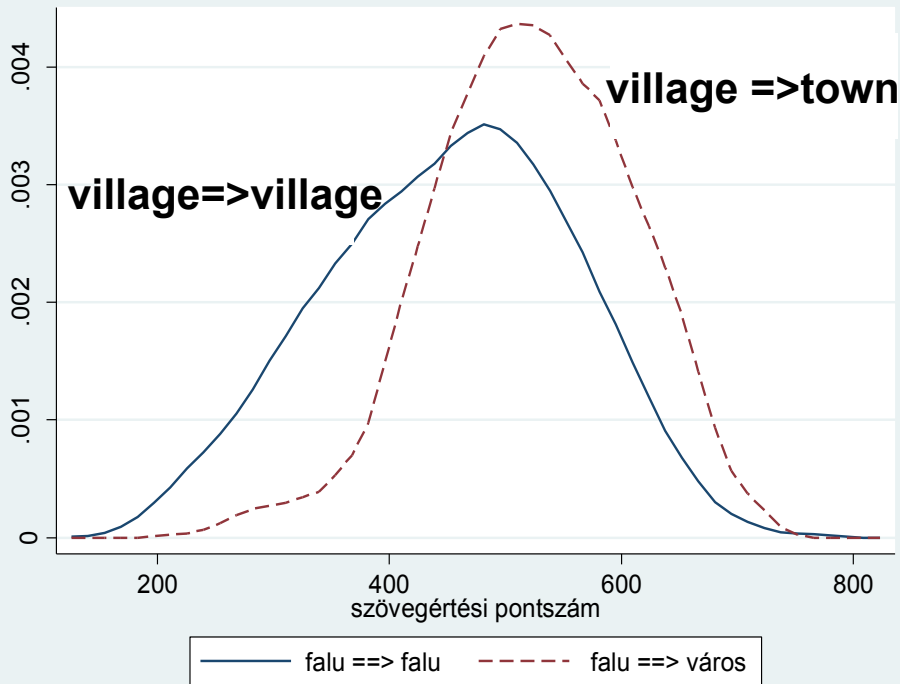
| <b>Mother's educational attainment</b>     | <b>Q1</b> | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q5</b> | <b>TOTAL</b> |
|--|-----------|-----------|-----------|-----------|-----------|--------------|
| <b>Elementary school (0-8 classes)</b>     | <b>17</b> | <b>15</b> | <b>16</b> | <b>16</b> | <b>15</b> | <b>16</b>    |
| <b>Vocational training school</b>          | <b>23</b> | <b>21</b> | <b>22</b> | <b>23</b> | <b>22</b> | <b>22</b>    |
| <b>Secondary school with maturity exam</b> | <b>33</b> | <b>31</b> | <b>31</b> | <b>33</b> | <b>34</b> | <b>32</b>    |
| <b>3 year college</b>                      | <b>41</b> | <b>41</b> | <b>43</b> | <b>43</b> | <b>44</b> | <b>44</b>    |
| <b>4-5 year university</b>                 | <b>51</b> | <b>51</b> | <b>53</b> | <b>53</b> | <b>57</b> | <b>54</b>    |
| <b>TOTAL</b>                               | <b>24</b> | <b>25</b> | <b>28</b> | <b>31</b> | <b>34</b> | <b>29</b>    |

**Proportions of pupils who attend a different school than their district school by their mothers' educational attainment and their performance quintile, 4th grade (SB testing of May 2006)**

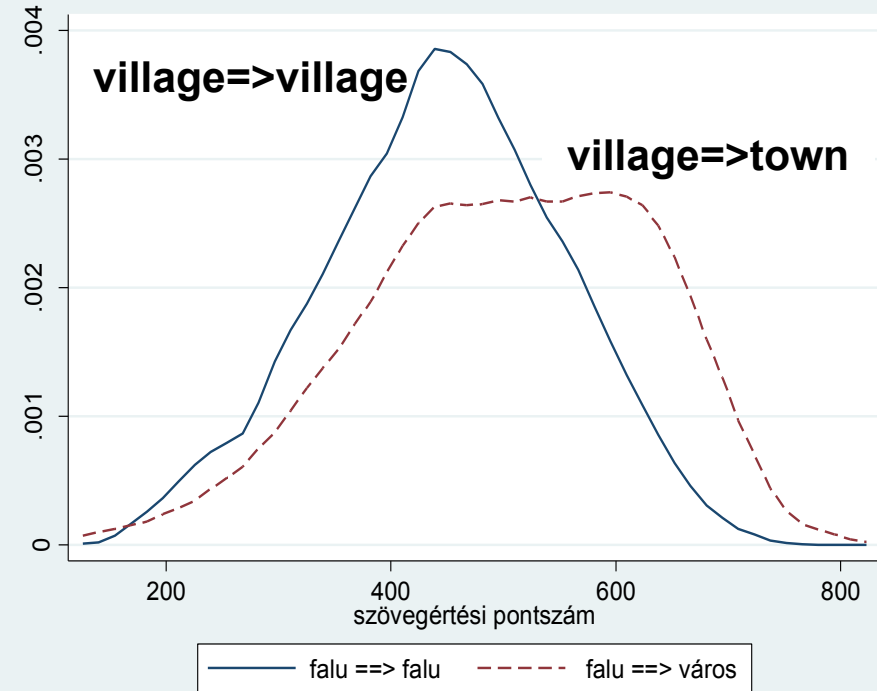
| <b>Mother's educational attainment</b>     | <b>Q1</b> | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q5</b> | <b>TOTAL</b> |
|--|-----------|-----------|-----------|-----------|-----------|--------------|
| <b>Elementary school (0-8 classes)</b>     | <b>37</b> | <b>25</b> | <b>17</b> | <b>13</b> | <b>8</b>  | <b>100</b>   |
| <b>Vocational training school</b>          | <b>19</b> | <b>23</b> | <b>22</b> | <b>20</b> | <b>16</b> | <b>100</b>   |
| <b>Secondary school with maturity exam</b> | <b>11</b> | <b>17</b> | <b>22</b> | <b>24</b> | <b>26</b> | <b>100</b>   |
| <b>3 year college</b>                      | <b>8</b>  | <b>13</b> | <b>20</b> | <b>26</b> | <b>33</b> | <b>100</b>   |
| <b>4-5 year university</b>                 | <b>6</b>  | <b>12</b> | <b>18</b> | <b>25</b> | <b>39</b> | <b>100</b>   |

**Composition of pupils by their performance quintile and their mothers' educational attainment, 4th grade (SB testing of May 2006)**

# Reading scores of pupils with village residence attending a school either in a village or in a town



**NO SCHOOL  
IN THE VILLAGE**



**THERE IS A SCHOOL  
IN THE VILLAGE**

**Borsod county, North-Eastern part of Hungary,  
6th grade pupils (SB testing of May 2003)**



## **II. H. is on the move of building a national measurement and accountability system**

- Lessons from the NCLB practice?**
- How to avoid NCLB mistakes & pitfalls?**

# Components of any educational accountability system

- What kind of skills should students master? Standards?
- How to measure student skills?
- How to infer from student performance data to the performance of the institution?
- What kind of incentives (rewards & sanctions) to use to improve performance? Stakes?
- How to increase the capacity of schools, how to give them professional assistance in case of lasting underperformance?
- What kind of balance between incentives and assistance (as answers to internal & external causes of underperformance)?



# The present H. accountability system, 2003-

- **Skills:** numeracy, literacy
- **Tests:** need improvement
- **Standards:** not enough specific
- **Subgroup rules:** no racial or social subgroup rules
- **Measurement:** central testing
- **Funding:** poor => sampling problems
- **Measuring school performance:** from cross sectional data [raw indicators, regressions residuals (HLM)], intertemporal comparisons from repeated cross-sections
- **Stake:** public announcement of school level performance data from 2009 (H: completely free school choice)
- **Professional assistance for schools:** only plans

How should we proceed?