### 2. OVERCOMING SOCIAL BACKGROUND

# How equitably are school resources distributed?

- In half of all OECD countries, students from more socioeconomically disadvantaged backgrounds tend to benefit from lower student-teacher ratios. However, in most countries, schools with more socio-economically advantaged students tend to have more full-time teachers with university degrees.
- In Israel, Slovenia, Turkey and the United States, more advantaged students generally attend schools with favourable student-teacher ratios.

#### What it means

A major challenge in many countries is to ensure that resources for education are equitably distributed. This can mean devoting more resources to schools attended by students from less advantaged backgrounds. However, in some cases, it is the more advantaged schools that end up with superior human and material resources, both in quality and quantity.

#### **Findings**

In around half of OECD countries, socio-economically disadvantaged schools have lower student-teacher ratios, suggesting that these countries try to help the students in such schools by providing more teachers. This relationship is particularly pronounced in Belgium, Denmark, Estonia, Germany, Iceland, Ireland, Italy, Japan, Korea, Luxembourg, the Netherlands, Portugal and Spain. However, in Israel, Slovenia, Turkey and the United States, and in the partner countries and economies Dubai (UAE); Brazil; Indonesia; Singapore and Shanghai, China the reverse is true: more socio-economically advantaged schools enjoy better student-teacher ratios.

When it comes to the quality of teachers, on the other hand, the picture is considerably different. In most countries, schools whose students are mostly from socio-economically advantaged backgrounds have more full-time teachers with university degrees. This advantage is highest in Austria, Belgium, the Netherlands, Slovenia and the partner countries Azerbaijan, Liechtenstein, Peru and Trinidad and Tobago. Only in the Slovak Republic, the partner economies Dubai (UAE) and Macao, China and the partner country Qatar do schools with a large population of less-advantaged students tend to have more highly qualified teachers. These results suggest that while socio-economically disadvantaged schools are often relatively well provided for in terms of the quantity of teaching resources, this is not true for the quality of these resources.

#### **Definitions**

A positive relationship between the socio-economic background of students and schools and resources for education implies that more advantaged schools also enjoy more or better resources. A negative relationship implies that more or better resources are devoted to disadvantaged schools. No relationship implies that resources are distributed similarly among socio-economically advantaged and disadvantaged schools. Information on data for Israel: http://dx.doi.org/10.1787/888932315602.

### Going further

Further analysis is presented in Chapter 2 of PISA 2009 Volume II, Overcoming Social Background: Equity in Learning Opportunities and Outcomes. Full data are shown in Table II.2.2 at the back of that volume.

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Table 2.1. Relationship between schools' average socio-economic background and school resources

|                 | Simple correlation between the school mean socio-economic background and:                            |                       |                     | Simple correlation between the school mean socio-economic background and:                            |                          |
|-----------------|--|-----------------------|---------------------|--|--------------------------|
|                 | Percentage of teachers<br>with university-level<br>degree (ISCED 5A) among<br>all full-time teachers | Student/teacher ratio |                     | Percentage of teachers<br>with university-level<br>degree (ISCED 5A) among<br>all full-time teachers | Student/teacher<br>ratio |
| Australia       |  |                       | OECD average        | +  | +                        |
| Austria         | ++   |                       | Partners            |  |                          |
| Belgium         | ++   | ++                    | Albania             | ++   | +                        |
| Canada          | •  |                       | Argentina           |  |                          |
| Chile           | +  |                       | Azerbaijan          | ++   | +                        |
| Czech Republic  | ++   |                       | Brazil              |  | -                        |
| )<br>Denmark    | +  | +                     | Bulgaria            | +  | +                        |
| stonia          |  | ++                    | Colombia            |  |                          |
| inland          |  |                       | Croatia             | +  | ++                       |
| rance           | W  | W                     | Dubai (UAE)         | -  | -                        |
| Germany         |  | +                     | Hong Kong, China    | +  |                          |
| Freece          | +  | +                     | Indonesia           | +  | -                        |
| lungary         |  |                       | Jordan              |  |                          |
| celand          | ++   | ++                    | Kazakhstan          | ++   | ++                       |
| reland          |  | ++                    | Kyrgyzstan          | ++   | +                        |
| srael           | +  | _                     | Latvia              | +  | ++                       |
| taly            | +  | ++                    | Liechtenstein       | ++   | ++                       |
| apan            | +  | ++                    | Lithuania           | +  | +                        |
| Corea           |  | ++                    | Macao, China        | _  | +                        |
| uxembourg       | ++   | +                     | Montenegro          | ++   | ++                       |
| Mexico          |  | •                     | Panama              |  |                          |
| letherlands     | ++   | ++                    | Peru                | ++   |                          |
| lew Zealand     |  | ••                    | Qatar               | -  | +                        |
| lorway          | +  | +                     | Romania             |  | •                        |
| Poland          | ,  | ·                     | Russian Federation  | ++   | +                        |
| ortugal         |  | ++                    | Serbia              |  | +                        |
| Slovak Republic | _  | •••                   | Shanghai, China     | ++   | -                        |
| llovenia        | ++   | _                     | Singapore           | +  | _                        |
| pain            | m  | ++                    | Chinese Taipei      | +  |                          |
| weden           |  | +                     | Thailand            | +  |                          |
| witzerland      | +  | ,                     | Trinidad and Tobago | ++   | ++                       |
| urkey           | ,  | _                     | Tunisia             | +  | - 11                     |
| Inited Kingdom  |  |                       | Uruguay             | Т  |                          |
|                 |  |                       | Graguay             |  |                          |
| Jnited States   |  | -                     |                     |  |                          |

Disadvantaged schools are more likely to have more or better resources

Advantaged schools are more likely to have more or better resources

Correlation is: ++ greater than 0.3

- + between 0.3 and 0.0
- between -0.03 and 0.0
- -- less than -0.3

Note: Correlation indicates the strength of the relationship between the school mean socio-economic background and quality of resources.

Source: OECD (2010), PISA 2009 Results, Volume II, Overcoming Social Background: Equity in Learning Opportunities and Outcomes, Figure II.2.3, available at http://dx.doi.org/10.1787/888932343570.

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#### From:

## PISA 2009 at a Glance

## Access the complete publication at:

https://doi.org/10.1787/9789264095298-en

### Please cite this chapter as:

OECD (2011), "How equitably are school resources distributed?", in *PISA 2009 at a Glance*, OECD Publishing, Paris.

DOI: https://doi.org/10.1787/9789264095250-25-en

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