

4. WHAT MAKES A SCHOOL SUCCESSFUL?

How do countries/economies allocate educational resources?

- Students perform better in those countries that pay teachers more, relative to national income, while smaller classes are not necessarily associated with better reading performance.
- Within countries, schools with more resources attain higher scores, largely because their students tend to come from more advantaged backgrounds.
- Some countries choose to keep class size large and pay teachers higher salaries. This group includes the top performers in reading, such as Japan, Korea, the partner economies Hong Kong, China and Shanghai, China and the partner country Singapore.

What it means

School systems need to balance the need for adequate levels of resources with other demands on public spending. Systems vary in how they spend their resources, from buying textbooks to lengthening the school year to improving the physical structure of schools to providing more extracurricular activities for students. However, most extra spending is directed either towards higher teachers' salaries or smaller class size. PISA results show teachers' salaries to be an important factor linked to student performance among those examined.

Findings

Some OECD countries spend much more on education than others. Yet most OECD countries opt to devote their resources to maintaining relatively small classes and modest teachers' salaries.

Four OECD countries show the opposite pattern, with much higher-than-average salaries for teachers and large classes. Japan and Korea do so in the context of

a high level of spending on education, concentrated on generous pay for teachers and achieving strong learning outcomes. In Mexico and Chile, on the other hand, overall spending is relatively low, but by accepting larger classes, these countries manage to keep teachers' pay high.

All partner countries and economies spend relatively less on education than OECD countries do. Around one-third of these countries choose to focus investment on higher salaries for teachers. Hong Kong, China; Shanghai, China and Singapore are among the top five performers in reading, even though they spend very modest amounts on education in absolute terms.

Definitions

Countries listed in the chart on the facing page are grouped on the basis of "latent profile analysis", a technique used to classify countries into a number of groups that share similar features in several aspects related to educational resources.

Information on data for Israel: <http://dx.doi.org/10.1787/888932315602>.

Going further

Further analysis is presented in Chapter 3 of *PISA 2009 Results Volume IV, What Makes a School Successful? Resources, Policies and Practices*. Data on resources in individual countries and economies are shown in Tables IV.3.21 to IV.3.23 at the back of that volume.

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Table 4.5. **How school systems allocate resources for education**

This figure divides countries into groups with similar characteristics according to how much is spent for education and how it is allocated.

		In a group of countries with <i>small</i> class size and/or <i>low</i> teachers' salaries...	In a group of countries with <i>large</i> class size and <i>high</i> teachers' salaries...
		...there are an average of 23 students in a class on the language of instruction...	...there are an average of 36 students in a class on the language of instruction...
		...and teachers earn 1.18 times GDP/capita. ¹	...and teachers earn 1.72 times GDP/capita. ¹
In a group of countries with <i>low</i> cumulative expenditure on education...	...an average of USD 39 463 is spent on educating each student from age 6 to 15.	Czech Republic, Estonia, ** Hungary, Greece, Israel, New Zealand, * Poland, * Portugal, Slovak Republic, Turkey, Albania, Argentina, Azerbaijan, Bulgaria, Croatia, Dubai (UAE), Kazakhstan, Kyrgyzstan, Latvia, Liechtenstein, Lithuania, Montenegro, Panama, Peru, Qatar, Romania, Russian Federation, Serbia, Tunisia, Trinidad and Tobago, Uruguay	Chile; Mexico; Brazil; Colombia; Hong Kong, China; ** Jordan; Indonesia; Macao, China; Shanghai, China; * Singapore; * Chinese Taipei; Thailand
In a group of countries with <i>high</i> cumulative expenditure on education...	...an average of USD 81 238 is spent on educating each student from age 6 to 15.	Australia, * Austria, Belgium, * Canada, ** Denmark, Finland, ** France, Germany, Iceland, ** Ireland, Italy, Luxembourg, Norway, ** Netherlands, * Slovenia, Spain, Sweden, Switzerland, * United Kingdom, United States	Japan, ** Korea **

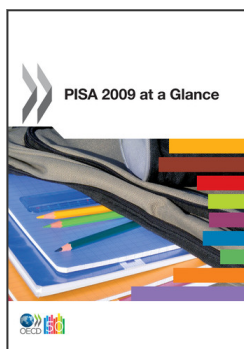
1. This is the weighted average of upper and lower secondary teachers. The average is computed by weighting teachers' salaries for upper and lower secondary education according to how many 15-year-olds are enrolled (for countries with valid information on both if 15-year-old students attend both upper and lower secondary schools).

* Perform higher than the OECD average.

** Perform higher than the OECD average and where the relationship between students' socio-economic background and performance is weaker than the OECD average.

Note: The estimates in the grey cells indicate the average values of the variables used in latent profile analysis in each group. See Annex A5 for technical details.

Source: OECD (2010), *PISA 2009 Results, Volume IV, What Makes a School Successful?: Resources, Policies and Practices*, Figure IV.3.7, available at <http://dx.doi.org/10.1787/888932343399>.



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