

# Improving learning outcomes worldwide: How PISA can help

*This brief introduces PISA and shows how countries have used it to inform their policies. It also presents PISA for Development, a new project that aims to enhance the relevance of PISA for developing countries and contribute to the UN-led discussions about post-2015 development goals.*



**P**olicy makers around the world recognise that enrolling all children and keeping them in school is essential for social and economic development. They also know that attendance is not enough: if young people are to get decent work, succeed in higher education and participate in society as engaged citizens, they need to graduate with the right set of knowledge and skills. In short: they need quality education.

Discussions about the follow-up to the UN Millennium Development Goals (MDG) after 2015 have already raised the issue of quality education. The challenge now is to define global learning goals that combine access, equity and quality, and that can be measured and tracked over time.

The OECD Programme for International Student Assessment (PISA) and the new “PISA for Development” project can help.

## What is PISA?

Since its launch in 1997, PISA has become a leading reference on the quality of education systems worldwide. Every three years, PISA assesses the knowledge and competencies of 15-year-olds in three subjects: reading, mathematics and science. To date, about 70 countries have taken part in the assessment, comparing results and learning from one another in PISA's collaborative global network. The next round of results (PISA 2012) will be published on 3 December 2013 and preparations for the following round (PISA 2015) are already underway.

Some important features of PISA:

- The age of the students surveyed – 15 years – is an age at which an assessment of career- and college-readiness is particularly important.
- PISA assesses cumulative learning from early childhood through primary and secondary schooling.
- It addresses both cognitive and non-cognitive learning outcomes, including students' strategies for and attitudes towards learning.
- It examines not only how well students reproduce knowledge, but also whether they can apply knowledge in diverse practical settings within and outside of school.

## BRAZIL HAS MADE THE MOST OF ITS PARTICIPATION IN PISA

Participation in PISA has helped Brazil to improve its education system. When Brazil first participated in the assessment in 2000, its performance ranked lower than any other country. Brazil used PISA results to benchmark progress, prioritise policies and inform its new national assessment framework. By 2009, Brazil's average PISA scores had improved across the board – and particularly in mathematics, where the improvement was equivalent to almost one year of schooling – making it the fastest improver of all PISA-participating countries.

To learn more:

### PISA 2009 Key Findings

<http://www.oecd.org/pisa/pisa2009keyfindings.htm>

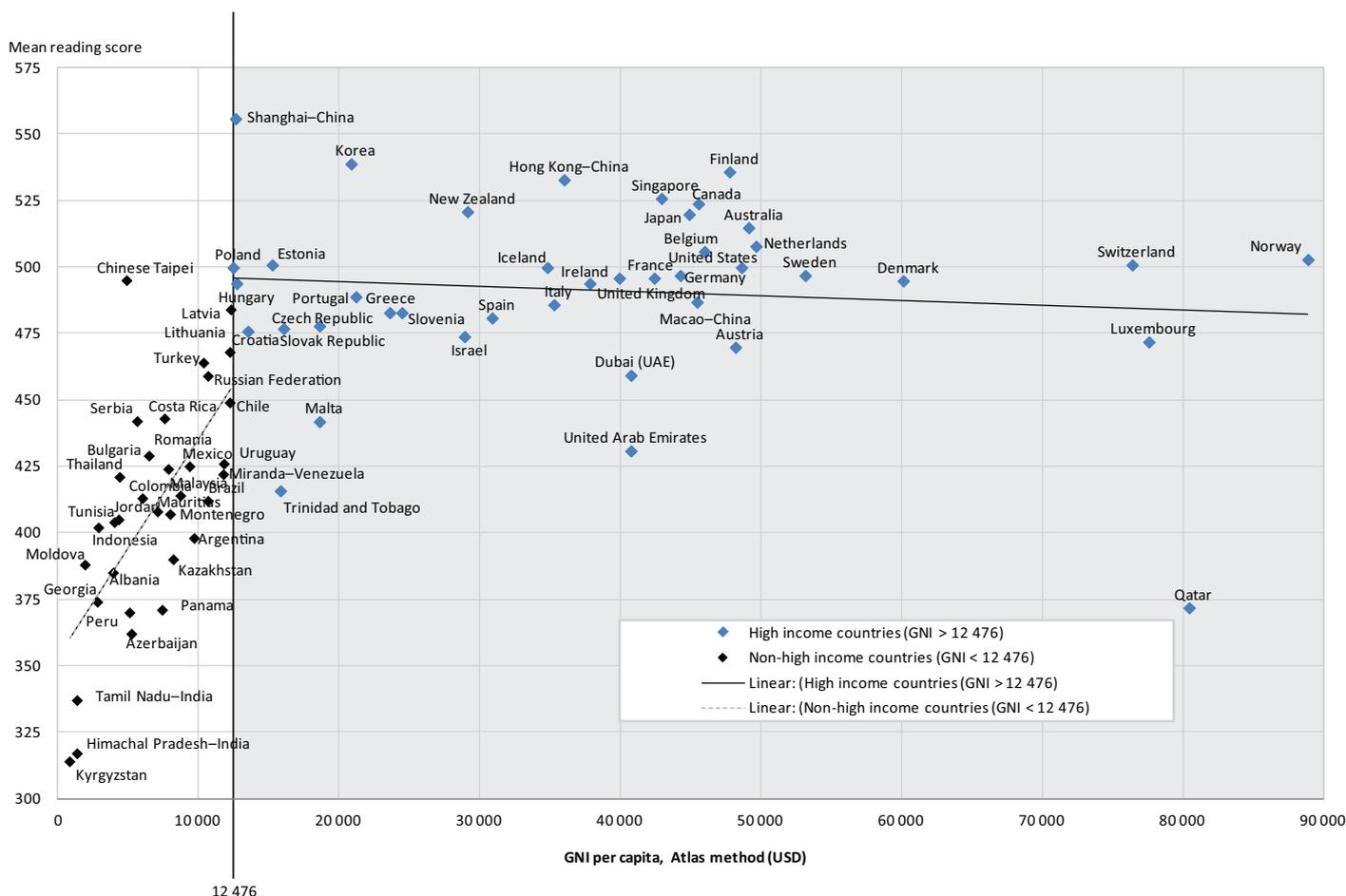
### PISA 2012 Assessment and Analytical Frameworks 2012

<http://dx.doi.org/10.1787/9789264190511-en>

### PISA Take the Test -Sample Questions from the OECD's PISA Assessments

<http://www.oecd.org/pisa/pisaproducts/pisa2006/pisatakethetestsamplequestionsfromoecdspisaassessments.htm>

## National wealth and average reading performance in PISA



This figure presents the relationship of national wealth (as expressed by GNI per capita) with reading performance in PISA. The chart shows that even among developing countries with less than USD 12 500 GNI per capita (the countries on the left of the chart), performance in PISA varies considerably. The chart also shows that among this group of emerging economies, some perform at levels comparable to their wealthier peers (countries on the right of the chart).

12 476 USD is the threshold value (GNI per capita) of high income countries according to the country income group classification of the World Bank.

GNI per capita 2011 from World Bank Indicators. GNI per capita for Chinese Taipei reported for China. GNI per capita for Dubai (UAE) reported for the United Arab Emirates. GNI per capita for Venezuela-Miranda for Venezuela, for the Indian States Tamil Nadu and Himachal Pradesh for India. For Shanghai-China GDP per capita is reported from <http://www.globaltimes.cn/NEWS/tabid/99/ID/700783/PageID/622649/Top-10-richest-provincial-regions-in-China.aspx>.

Liechtenstein did not report per capita GNI data.

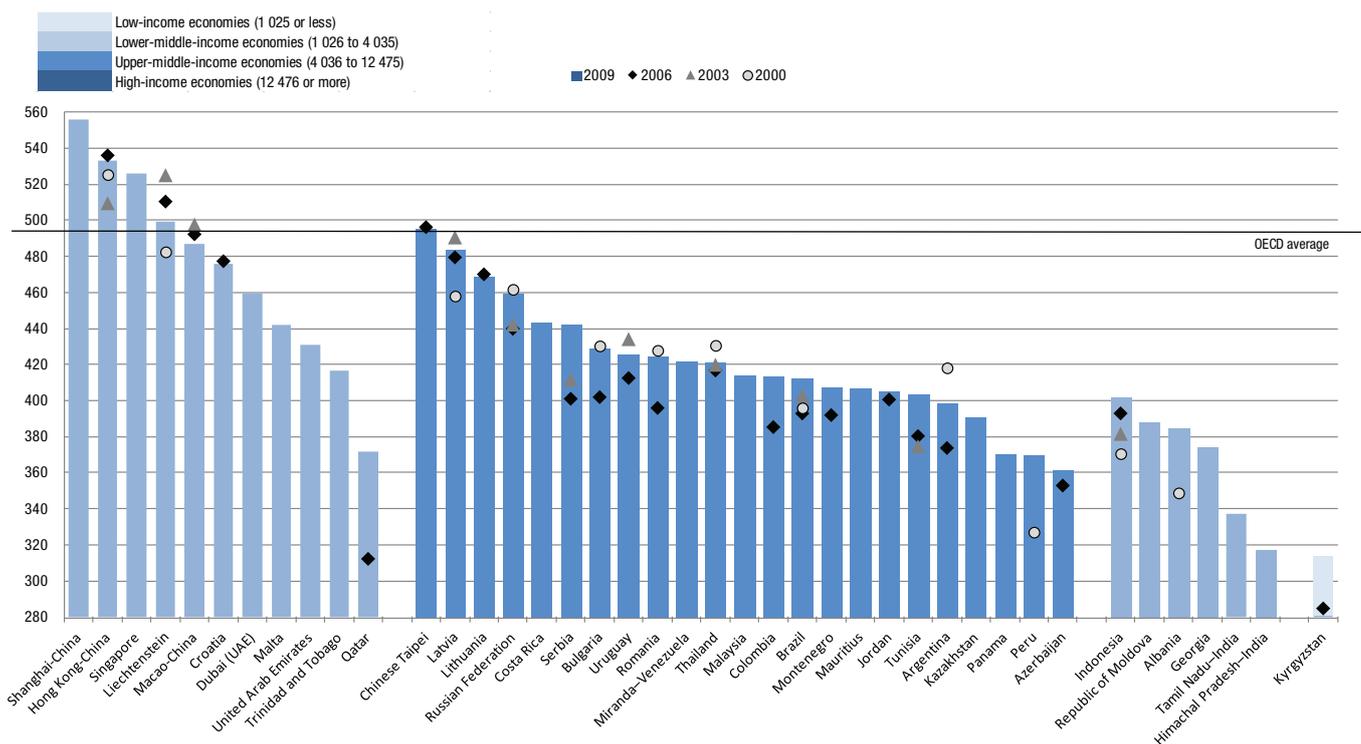
Source: OECD (2012c), Table I.2.3, OECD (2012d), Table IV.3.21c. ACER (2012), Table 2.1. Bloem, S. (forthcoming). "PISA in low and middle income countries", *OECD Education Working Papers*, OECD Publishing.

# How countries benefit from participating in PISA

PISA is a powerful tool for policy making. By participating, countries receive a comprehensive assessment of the quality and equity of their education systems. This helps them to benchmark their progress over time, set national goals and measure progress towards those goals, and chart paths to better and more equitable learning outcomes. Countries also see where they stand in comparison to their regional and global peers – an opportunity for mutual learning – and inspiration.

The following figure shows not only that performance in PISA can vary greatly between groups of countries and over time - across different PISA cycles - but that performance varies even between countries with similar income levels. Having a common metric of performance across different countries and groups allows for improvement trajectories to be set by countries that may be starting off at very different levels of performance.

## Large variation in PISA reading performance among countries



Source: OECD (2010), Table V.2.1, ACER (2011), Table B.2.1. Bloem, S. (forthcoming). "PISA in low and middle income countries", *OECD Education Working Papers*, OECD Publishing.

Income group classification based on GNI per capita, Atlas method (current US\$), World Bank 2012. <http://data.world-bank.org/data-catalog/GNI-per-capita-Atlas-and-PPP-table>.

GNI per capita 2011 for Tamil-Nadu and Himachal Pradesh for India; Miranda for Venezuela; Dubai for United Arab Emirates; Chinese Taipei for China. Country classification for Shanghai-China based on GDP per capita from <http://www.globaltimes.cn/NEWS/tabid/99/ID/700783/PageID/622649/Top-10-richest-provincial-regions-in-China.aspx>

Countries are sorted by income group and ranked by mean reading performance in PISA 2009/PISA 2009+ within the income groups.

The analysis of PISA results gives policy makers insights into what factors may be associated with good – or poor – student performance. For example, results can indicate the impact of socio-economic background or the effect of certain learning environments on performance. A comprehensive view of student learning emerges when test results are analysed in conjunction with responses to questionnaires that are completed by students, their parents and school principals.

The number of countries benefiting from PISA has grown to include about 30 emerging and developing economies. Brazil, Indonesia, Vietnam and Tunisia, for example, have drawn on PISA to support their national policy efforts.

## PISA for Development: Making PISA even more relevant for a broader set of countries

The OECD and a number of partners have launched a three-year PISA for Development initiative that aims to identify how PISA can best support evidence-based policy making in emerging and developing economies – and contribute to the UN-led definition of global learning goals. These objectives will be achieved in three main ways:

1. Developing contextual questionnaires and data-collection instruments that better capture diverse situations in emerging and developing countries. This will allow for a deeper understanding of how certain factors – such as the socio-economic background of students or the learning environment in classrooms – are associated with learning outcomes in different contexts.
2. Adjusting the PISA test instruments so that they are sensitive to a wider range of performance levels. While there are undoubtedly high performers in all countries, a number of 15-year-old students in developing countries can be expected to perform at lower levels of proficiency. Enhanced test instruments will better capture performance differences among these students, while maintaining the comparability of a country's results on the international PISA scales.
3. Establishing methods and approaches to include out-of-school students in the PISA assessment. Though much progress has been made in increasing access to education around the world, over 60 million children of primary-school age and over 70 million children of lower-secondary-school age remain out of school. Conducting PISA only among enrolled students would provide unrepresentative results and could encourage countries to exclude potential low performers from schools.

We hope that, from 2016 onwards, these efforts will enable more countries to use PISA to set national learning targets, monitor progress towards them, and analyse the factors that affect student outcomes, particularly among poor and marginalised populations. Countries will also have greater institutional capacity to help track post-2015 global educational targets.

### Putting a new partnership into practice

PISA for Development will achieve its objectives only if conducted in partnership with several key actors:

- A group of partner countries will participate in the initiative and provide crucial guidance. They will help to develop enhanced survey instruments and methodologies and undertake field trials and surveys. The results of their surveys will provide local policy makers with new evidence to diagnose shortcomings and inform new policies. In addition, these countries will benefit from opportunities for peer-to-peer exchanges with other members of the PISA global community.
- Within each partner country, bilateral and multilateral development co-operation agencies will provide both financial and technical support for the initiative, including assistance in developing the survey instruments and methodologies. The results of the survey can be used to inform their own policies and practices.
- Technical partnerships and networks of experts in such fields as learning assessments or out-of-school youth will be established to build on best practices. In addition to offering insights into learning metrics at global and national levels, these partnerships will also work to address the lack of data on out-of-school children.
- The OECD will contribute its expertise in conducting the PISA survey since 1997. It will co-ordinate the development of survey instruments and methodologies, and facilitate both policy-level and technical discussions on PISA for Development. The outcomes of the programme are also expected to be relevant to countries that are already participating in PISA, but that are seeking more flexible and targeted survey instruments.

PISA for Development will be guided by an international steering group composed of representatives of the partners outlined above. In addition, technical experts will meet regularly to develop survey instruments and methodologies.



If you wish to find out more about PISA for Development and explore opportunities to participate, please visit our web page (<http://www.oecd.org/pisa/pisaforddevelopment>) or contact the OECD directly ([Michael.Davidson@oecd.org](mailto:Michael.Davidson@oecd.org); [Michael.Ward@oecd.org](mailto:Michael.Ward@oecd.org)).

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