

Executive summary

This report assesses the current state of data collection and availability, in terms of quality and completeness, at the level of the national education system in six countries that are participating in the Programme for International Student Assessment for Development (PISA-D): Cambodia, Ecuador, Guatemala, Paraguay, Senegal and Zambia.

The data and metadata involved in the assessment form part of the PISA system-level questionnaire, an OECD tool that collects data on contextual variables in educational systems in order to analyse and interpret the results of its international student assessment. The system-level questionnaire used in the most recent PISA implementation consists of ten worksheets that capture data on the structure of national programmes, national assessments and examinations, instruction time, teacher training and salaries, educational finance (including enrolment), national accounts and population data.

The report draws on evidence gathered during site visits in PISA-D participating countries. These visits took place between March and May 2015, and mainly consisted of meetings with National Project Managers (NPMs) and other officials responsible for managing areas covered by this assignment at the national level.

Overall, participating countries are able to report the requested data. The different information systems and legislative frameworks responsible for the relevant data within each country can be evaluated in most cases as advanced or emerging. That means quality data and metadata are generally available, or can be produced with some additional work. The results are presented in the report organised first by theme and then by country.

Results by theme

- All countries can provide information on the **structure of their education system**, as well as the theoretical entrance ages and duration of each International Standard Classification of Education (ISCED) level. Because this information is mapped to ISCED 2011, this facilitates comparisons between countries. The only exception is Guatemala, where the ISCED 2011 equivalence for the pre-primary level was not yet officially defined.
- Although there is no single approach to carrying out **national assessments and examinations at lower and upper secondary level** among the group of countries studied, all of them have solid institutions in charge of these assessments and examinations, most of them act as the PISA-D National Centre (NC), and they are able to provide the metadata properly.

- In Zambia, primary and secondary school students must sit competitive examinations at the end of the primary and secondary school cycles in order to gain successful entry into post-secondary institutions including tertiary and university institutions. There is not a high prevalence of **tertiary entrance examinations** within the group of participating countries. Only one country applies a universal examination (Ecuador) and a second one has an entrance examination for the main public university (Guatemala). Where information is produced, it is of good quality, and available to some extent.
- Information on **instruction time in public institutions** by grade (and therefore, by theoretical entrance age of the students) is available at the international level, showing the availability and quality of national frameworks, policies and implementation guidelines. There are frameworks and legislation in every country; the teams managing the curriculum receive clear guidelines, and are empowered to do their work. In Guatemala, however, there is no clear definition within the legislation of the duration of one class session in pre-primary and primary education.
- In general, data on **statutory teacher salaries** are available in participating countries, as well as data on the criteria for promotion. In some countries, human resources policies put teachers in the same category as civil servants, while in others there are specific regulations for teachers. Across all the countries teachers' working conditions tend to be clear and well known by all the actors. However, because many criteria come into play in determining teacher salaries, the information should be interpreted with caution. In Senegal, the fact that different ministries participate in the payment of teacher salaries leads to some difficulties in reporting data.
- **Pre-service teacher training, entry into the teaching profession and professional development** tend to be well-regulated in participating countries, meaning that they are in good condition to report the data. However, teacher training is an area undergoing change in terms of standards and policies. At least four countries (Ecuador, Guatemala, Zambia and Senegal) have recently modified or are currently reviewing the type of training required to enter the teaching profession and this could affect the relevant data collection. In Senegal, as described above, the participation of different ministries in the regulation of teacher issues leads to some difficulties in reporting data.
- Zambia upgraded its official minimum teaching requirements to a three-year diploma. However, the majority of the teaching stock for primary and junior secondary is still in the process of upgrading these requirements from a two to a three year diploma. Moreover, an attachment for a period of at least three months at institutions is required prior to official recognition in the profession.
- The **national accounts** table in the questionnaire focuses on gross domestic product (GDP), government expenditure, purchasing power parity (PPP) conversion factors, and population estimates. Data on GDP, government expenditure and population are key indicators of the national statistics system, and they are usually produced at the national level by central statistical offices or, in the case of GDP, by the central bank. PPP factors are usually produced by the

World Bank for all countries. In the case of Cambodia, the National Institute of Statistics' official website has some provisional data published up to 2012.

- The countries taking part in PISA-D are able to produce data on **education expenditure** for the public sector. Nonetheless, countries find it difficult to report data on private expenditure on education. Although some of them have experience of creating estimates for private expenditure, none of them has produced recent data for this source.
- All countries can report **enrolment** in public institutions, at least for primary and secondary level. For private enrolment, most countries are not able to distinguish between enrolment in government-dependant private institutions and independent private institutions. Cambodia seems unable to estimate the number of students participating in technical or vocational education at upper secondary level. In Senegal, even when data are produced, there is little co-ordination between the general education sector and the technical education sector.

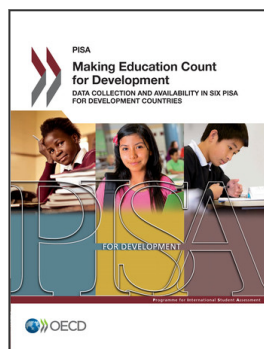
Results by country

- The three participating Latin American countries are in a strong position to respond to the system-level questionnaire. **Ecuador** and **Paraguay** have solid information systems for all the topics covered by the questionnaire, and in both cases the NC is located at a high-level position in the government structure – in Ecuador, as an independent institution, and in Paraguay within the Ministry of Education. This facilitates the co-ordination needed to collect the data from different organisations and dependencies. One particular issue in Paraguay concerns the data on tertiary entrance examinations; these exams are stipulated by the legislation but not yet implemented.
- **Guatemala** has good availability and quality of the requested data, and the NC has provided a satisfactory level of co-ordination between the institutions that manage the different information systems. However, there are some specific issues relating to national legislation which need to be clarified by the country before completing the system-level questionnaire.
- The two African participating countries, **Senegal** and **Zambia**, have both made considerable efforts to improve their system-level data in recent years and have the capacities to complete the questionnaire.
- In **Zambia**, commencing in 2013, pre-primary schools have been attached to primary schools. The Ministry is continually making improvements to collect comprehensive data on all education sectors including statistics on pre-primary education.
- Finally, **Cambodia** is the only Asian participating country, and it was not visited for this assignment. The assessment presented in this report is therefore based on desk research. In general, the country is potentially in a good position to compile most of the data. It has already reported some of the requested data to international organisations such as the UIS, the World Bank and the United Nations Population Division (UNPD).

Recommendations

This report identifies a group of transversal challenges that should be addressed to improve data collection when PISA-D is carried out:

- Countries' difficulty in providing data on private expenditure on education is the most obvious challenge. The participating countries regularly report statistics on education expenditure to UIS through its education survey, but with limited coverage; none of them include private expenditure.
- Countries have made concerted efforts to upgrade national standards. In some cases, the pace of upgrading minimum teaching standards is taking place in a phased approach. For example, the prevalence of teaching certificates in Zambia is still common in spite of stipulated requirements for primary and junior secondary school teachers to hold a minimum of a teaching diploma. Similarly, the number of senior secondary school teachers that are upgrading their teaching diplomas to an ISCED 6 qualification is increasing consistently. Quantifying the teaching stock according to academic qualifications therefore requires closer scrutiny of official records.
- Several different institutions within each country are responsible for the various dimensions covered by the PISA questionnaire. It is therefore extremely important to ensure that the **PISA-D NC in each country communicates and co-ordinates with the institutions** responsible for reporting data to other international data collections. It will be important to avoid a situation where these institutions are reporting the same data but for different international data collections, using alternative criteria for reporting.
- Finally, it is worth considering ways to modify the system-level questionnaire to **avoid requesting data and metadata that are already available** at the international level, for example through regular UIS activities. This is particularly relevant for data that are collected regularly, such as the ISCED mapping, enrolment and expenditure on education.



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