4 QUALITY EDUCATION

Background Information on Education Statistics in the UIS Database

1 Objective

This document serves as a reader's guide to help data users understand and interpret the education data disseminated by the UIS. It presents the following information:

- The list of symbols accompanying data.
- The annual data release cycles.
- The data sources used by the UIS and their updates, including population and economic data used to calculate education indicators.
- Specific country notes.
- The production process for learning assessment-based indicators.

2 Data release

As of September 2018, the UIS has moved to one education data release in September of each year, with new national and regional data. National data are also updated in February, completing the UIS publication of educational data for the round of surveys conducted in the previous reference year.

The September 2024 data release includes data collected from UIS surveys of national authorities, data processed from household surveys and learning assessments, and data collected from UIS partners. It also includes an update of country-level data as well regional averages for selected SDG 4 indicators and Other Policy Relevant Indicators (OPRI)[1].

UIS data can be accessed in the following ways:

- The new UIS DATA Browser brings together all UIS dissemination data on education science and culture, acting as a one-stop-shop resource for policymakers, researchers, and developers interested in examining internationally comparable data.
- The Data API facilitates programmatic access to the data within our Data Browser. It allows users to efficiently retrieve data at regular intervals to inform custom analysis, data visualizations and applications.
- Bulk data download service (BDDS) enables access to all UIS databases in comma-separated values (CSV) format. The BDDS files include both SDG 4 data and Other Policy Relevant Indicators data.
- The legacy SDG 4 Data Explorer on SDG 4 indicators provides easy-to navigate dashboards organized by country or indicator and the possibility to download a long format database. This browser will continue to be maintained until further notice.
- The SDG 4 Scorecard Dashboard displays country progress against SDG 4 Benchmark Indicators.
- SDG 4 data resources contains resources to visualize SDG data, benchmark data, and the repositories of national publications with administrative data on education and educational expenditure data.

---

[1] See Annex 2 for the list of OPRI.

Metadata files on indicators are available at the following links:

- SDG4 indicators: http://tcg.uis.unesco.org/methodological-toolkit/metadata/
- OPR indicators: https://tcg.uis.unesco.org/metadata/opri

Please note that as of 23 June 2020, the UIS SDMX API reached its End-of-Life (EOL) and is no longer up to date with the latest UIS datasets.

3   Data sources

The production of international education statistics is a complex technical and political process involving multiple data sources (such as administrative records, surveys/censuses, learning assessments, and expenditure data) and multiple data producers or donors. Moreover, various education indicators may draw on multiple data sources. For instance, while some indicators can be informed by multiple data donors utilizing the same data source, others may rely on different sources (**Figure 1**). One illustrative example is the out-of-school rate, which may utilize both administrative and survey data. Consequently, some countries might choose to rely solely on one data source over the other. This necessitates combining data sources to monitor trends, an area in which the UIS and the Global Education Monitoring Report have made significant progress. Furthermore, certain indicators require the utilization of multiple data sources for their production; e.g., indicator 4.5.4, which pertains to expenditure on education per student by level of education and source of funding.

Figure 1. Distribution of SDG 4 global and thematic indicators, by potential data source
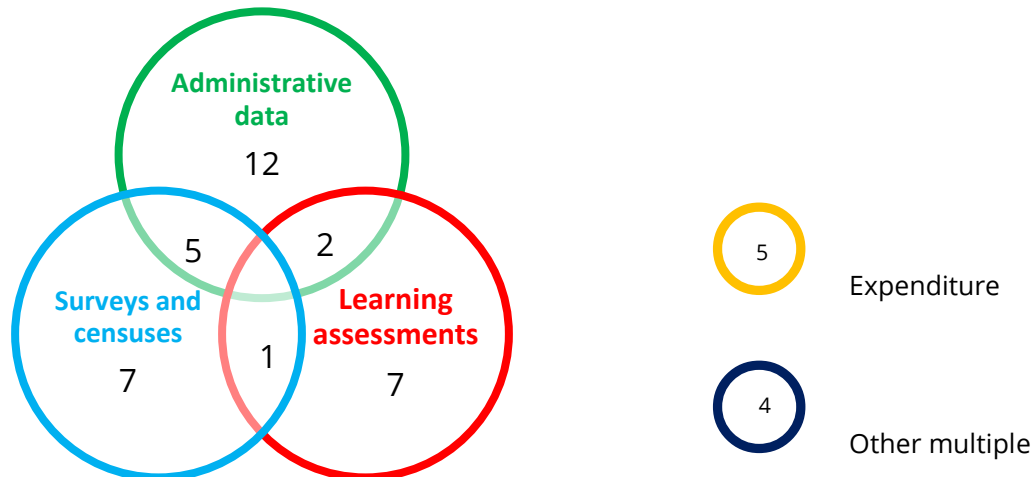
To produce internationally comparable education indicators, the UIS uses the main sources of data listed below. These data sources differ in their coverage as well as the timing and ways in which they are collected:

- **Administrative data** are based on information usually available from educational management information systems (EMIS) used by ministries of education for management and planning purposes and are typically updated on an annual basis. EMIS should typically cover many types of educational paths and levels, including early childhood education (ECE),

basic education and secondary general education, higher education, and technical and vocational education and training (TVET). Most international monitoring of previous global development agendas (Education for All and the Millennium Development Goals) was based on administrative data produced by countries and compiled by international organizations on school EMIS, which has since been expanded. Although some administrative data, such as school feeding programmes and teachers' salaries, are usually available from non-EMIS sources in education ministries, these should ideally be linked to EMIS.

- **Household surveys** are an important source of data on access, participation, completion, literacy, and educational attainment. Surveys differ in terms of coverage, frequency, objectives and questionnaire design. In contrast to administrative data, they are collected less frequently, and by a variety of organizations and countries. Household survey data are usually available from non-EMIS sources outside of ministries but should also ideally be linked to EMIS.

- **Learning assessments** include national school-based assessments designed to measure specific learning outcomes at a particular age or grade considered relevant for national policymakers. They encompass cross-national initiatives (either regional or global) that are based on a common, agreed-upon framework and follow similar procedures to yield comparable data on learning outcomes. Assessment data can be collected from households. Skills surveys (ICT, literacy, etc.) can also provide relevant information on the adult population. Learning assessments can be used to provide non-cognitive information as well, such as on home language, school infrastructure, students experiencing bullying, and teachers' professional development.

- **Financial and expenditure data** contain information on different sources of income and expenditure, including government spending on education. This source commonly encompasses data on the construction and maintenance of schools, teacher salaries and household spending on education, such as supplies, transport and other costs. Some administrative data are typically available from non-EMIS sources within ministries but should ideally be linked to EMIS (e.g., school feeding programmes and teacher salaries), depending on how a country organizes their data.

- **Population data** are important as a source of population estimates (the number of persons by age and sex in a country). As of the September 2023 Release, the UIS has been implementing a hybrid population data policy, whereby population estimates from the United Nations Population Division (UNPD) are used but can be replaced -- for countries that are interested by national population data that comply with a set of pre-defined data quality standards.

Figure 2. Mapping of Data Source, Data Type, and SDG 4 Indicators
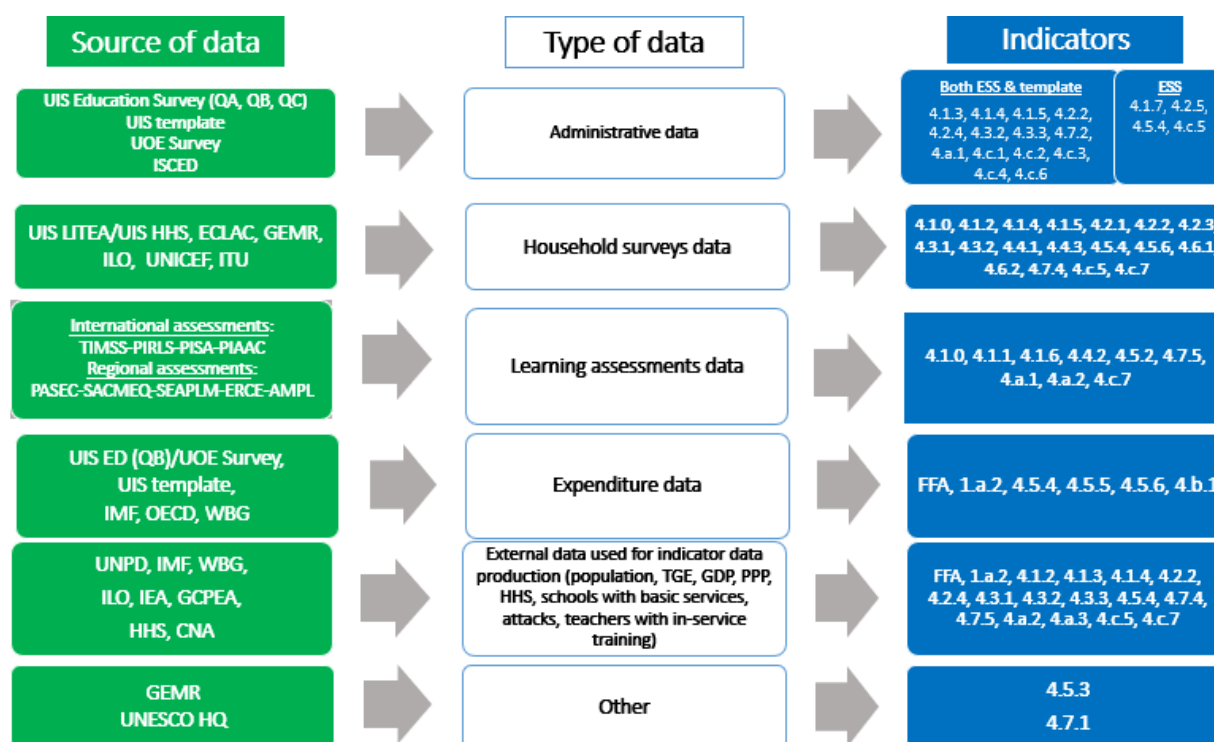
4 Overview of SDG indicators available

Table 1. Summary of education SDG indicators data dimensions released

Indicator	Indicator description			
	Is the indicator being reported for the first time? (Y/N)	Total number of countries for which the indicator is reported	Range of years for which data are available for the indicator	Dimensions of disaggregation
FFA	No	206	1970-2023	.
1.a.2	No	203	1972-2024	.
4.1.0	No	117	1995-2023	Sex
4.1.1	No	148	1995-2023	Sex, school location (urban/rural), socio-economic status (SES), immigrant status, language of the test at home
4.1.2	No	171	1990-2024	Sex, location (urban/rural), wealth and disability
4.1.3	No	214	1970-2024	Sex
4.1.4	No	217	1970-2024	Sex, location (urban/rural), wealth and disability
4.1.5	No	205	1998-2024	Sex, location (urban/rural), wealth
4.1.6	No	236	2014-2023	Subject (reading/mathematics)
4.1.7	No	214	1975-2023	Free and compulsory education

Indicator	Indicator description			
	Is the indicator being reported for the first time? (Y/N)	Total number of countries for which the indicator is reported	Range of years for which data are available for the indicator	Dimensions of disaggregation
4.2.1	No	90	2010-2023	Sex
4.2.2	No	205	1998-2024	Sex, location (urban/rural), wealth
4.2.3	No	89	2005-2019	Sex, location (urban/rural), wealth
4.2.4	No	207	1970-2024	Sex
4.2.5	No	215	1975-2023	Free and compulsory education
4.3.1	No	164	1976-2023	Age, sex
4.3.2	No	213	1970-2024	Sex, location (urban/rural), wealth
4.3.3	No	201	1970-2024	Sex
4.4.1	No	96	2014-2021	ICT skills, sex
4.4.2	No	31	2012-2017	Sex
4.4.3	No	212	1970-2023	Sex, location (urban/rural)
4.5.1	No	222	1970-2024	Sex, location (urban/rural), wealth and disability
4.5.2	No	137	2012-2022	Sex, location (urban/rural), SES (wealthiest/poorest)
4.5.3	No	81	2020-2020	.
4.5.4	No	204	1970-2023	.
4.5.5	No	44	2010-2022	.
4.5.6	No	206	1970-2023	Source of funding (public, private – households; other private entities-, international -ODA; non-ODA-)
4.6.1	No	41	2006-2017	Sex, SES, native status
4.6.2	No	180	1970-2023	Sex, location (urban/rural)
4.7.1	No	70	2020-2020	.
4.7.2	No	97	2000-2024	.
4.7.4	No	32	2016-2022	Sex, SES, location (urban/rural)
4.7.5	No	42	2015-2019	Sex, SES, location (urban/rural)
4.a.1	No	200	2000-2024	.
4.a.2	No	154	2003-2022	Sex, location (urban/rural), SES (wealthiest/poorest)
4.a.3	No	106	2013-2023	.
4.b.1	No	152	2006-2022	.
4.c.1	No	168	1998-2024	Sex
4.c.2	No	168	1970-2024	.
4.c.3	No	161	1999-2024	Sex
4.c.4	No	162	1970-2024	.
4.c.5	No	66	2000-2022	.
4.c.6	No	107	2011-2024	Sex
4.c.7	No	97	2013-2022	Sex

5   Highlights of the data release

5.1   Updates to indicator reporting

- SDG 4 indicators:
    - **Indicator 4.1.1**: Reporting has been split to report early grades separately for grade 2 and grade 3, whereas previously, grades 2 and 3 were reported together.
    - **Indicator 4.1.2**: Model data is now reported separately; previously, observed and model data were reported together.
    - **Indicator 4.1.4**: Model data has been added to the reporting on a separate line. The indicator is now reported with observed administrative data, observed survey data, and model data, whereas previously it was reported with only observed administrative and survey data.
    - **Indicator 4.6.2**: Model data is now reported separately; previously, observed and model data were reported together.
- OPRI indicators:
    - **Distribution of tertiary graduates by field of study:** Added disaggregation by sex.

5.2   Analysis of data expansion

The UIS has added 235,596 national data points to its database, incrementing by 6%, comprising 54% SDG indicators and 46% OPRI indicators. The significant increase in the SDG database by 128,141 data points is primarily attributed to indicator 4.1.4 (accounting for 42% of that increase, including its parity index -PI-) because it is the first time that modelled data is published for this indicator, along with indicators 4.1.2 (22%, including PI) because modelled data was published separate from observed data for the first time, and 4.3.1 and 4.4.3 (8% and 12% respectively, including PI) mainly because more LFS data from ILO was available for processing..

Regarding the distribution of data points by years of reference for both SDG and OPRI indicators, the majority were added in 2022 (21%), followed by 2023 (20%), 2021 (8%), with 2018, 2019 and 2020 each contributing 4%. Additionally, 2010, 2011, 2012, 2015, 2016, and 2017 each accounted for 3% of the total additions.

6   UIS surveys on education

The UIS collects education statistics in aggregate form from official administrative sources at the national level. Collected information encompasses data on the structure of national educational programmes, access, participation, progression, completion, teacher's statutory compensation, school infrastructure, literacy, educational attainment, and human and financial resources. These statistics cover formal education in public (or state) and private institutions (early childhood education, primary and secondary schools, and colleges, universities and other tertiary education institutions), and special needs education (both in regular and special schools).

These data are gathered annually by the UIS and its partner agencies through the following three major surveys which can be downloaded from the UIS website at http://uis.unesco.org/en/uis–questionnaires.

6.1   UIS Survey of Formal Education

The UIS Survey of Formal Education is sent annually to 163 UNESCO Member States. The questionnaires are based on international standards, classifications, and measures that are regularly reviewed and modified by the UIS to address emerging statistical issues and improve data quality.

The Survey comprises the following six questionnaires:

- **UIS/ED/ISC11: National Education Systems.** This questionnaire collects information on the national education programmes and their classifications according to the 2011 revision of the International Standard Classification of Education (ISCED 2011).

- **UIS/ED/A: Students and Teachers (ISCED 0–4).** This questionnaire collects internationally comparable data on formal education at the early childhood, primary, secondary and post-secondary non-tertiary levels, necessary for the evaluation and monitoring of education systems worldwide. The data collected include the number of students disaggregated by education level, by type of institution, programme orientation, sex, age, and grade; and data on classroom teachers by level of education and by training and qualification status, as well as their statutory salaries. The questionnaire also collects data on the number of schools with ICT services, basic hygiene facilities and the provisioning of life skills–based HIV and sexuality, as well as the number of schools with adapted infrastructures and materials for students with disabilities.

- **UIS/ED/B: Educational Expenditure (ISCED 0–8).** This questionnaire collects internationally comparable expenditure data on formal education from early childhood to tertiary education. Data are disaggregated by source of funding (government, international and private), destination of funding, by level of education, and by type of transaction and nature of expenditure.

- **UIS/ED/C: Students and Teachers (ISCED 5–8).** This questionnaire collects internationally comparable data on tertiary education. The data collected include the number of students by level of education, sex, and age; and the number of graduates by level of education and field of education. The questionnaire also collects information on the number of academic staff and the number of internationally mobile students.

- **UIS/TEACH on Teacher Qualifications.** This data collection was approved by the TCD/EDSC in its 10th post-meeting consultation report in February 2024, to enable UIS to collect data in order to report on indicator 4.c.1 as per the new Global Standard. The questionnaire collects data on teachers by the highest level of educational qualification. Data collected include classroom teachers by teaching level of education and highest level of education completed as well as Metadata on National definitions of qualified teachers for the latest 10 years. While indicators derived from TEACH are not included in this data release, work is being performed to have them included in future UIS data releases.

- **UIS/DEM on Population.** This is an <u>optional</u> questionnaire allowing Member States to submit their national population data to be used for the calculation of international population-based education indicators.[2]

In addition to questionnaires, survey resources also provide guidelines to countries to support their quality data reporting.

Together, the first four questionnaires provide the data that underlie twenty-one SDG 4 global and thematic indicators, informing SDG targets 4.1, 4.2, 4.3, 4.5, 4.7, 4.a, and 4.c as well as two global education finance indicators. Every year, a total of 204 SDG 4 indicator values can be produced for each country surveyed together with another 740 indicator values for a set of other policy relevant indicators (OPRI) available in UIS database.

The UIS survey of formal education also includes the UIS, OECD, and Eurostat (UOE) data collection, which has been jointly administered annually since 1993. The UOE questionnaires compile data from high- and middle-income countries that are generally members or partner countries of the OECD or Eurostat. The UOE survey gathers more detailed education statistics.

Figure 3. UIS Survey of Formal Education and SDG 4 Monitoring
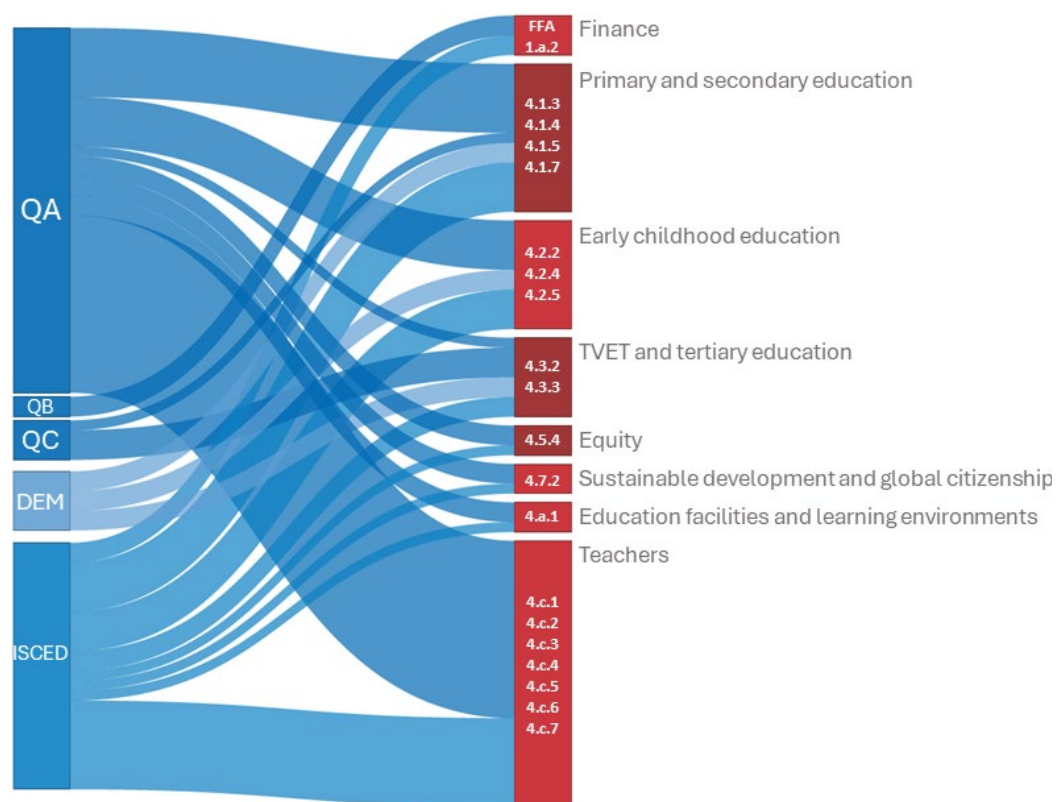
All questionnaires and supporting resources for the Survey of Formal Education are available at: https://uis.unesco.org/uis-questionnaires.

---

[2] Technical Note: National Population Data: Criteria for use in indicator calculation by the UIS

Table 2. UIS Survey of Formal Education: list of tables by questionnaire

ISCED: National Education System	QA: Students and teachers (ISCED 0-4)	QB: Education Expenditures (ISCED 0-8)	QC: Students and teachers (ISCED 5-8)
T1: Education Programs	A1: Information on the academic school year	B2: Actual expenditure on ed. by level/source	C2: Number of students by level
T2: Free and compulsory education	A2: Numbers of students by level	B3: Actual expenditure on ed. by level/nature	C5: Number of students by age
	A3: Numbers of mobile students		C6: Number of mobile students
	A5: Numbers of students primary, age/grade		C7: Number of graduates by level/field
	A6: Numbers of students lower sec., age/grade		C8: Number of academic staff, by level and sex
	A9: Number of teachers by level		
	A10: Number of trained and qualified teachers by level		
	A10-Metadata		
	A11: Teacher salary		
	A12: Number of institutions by level		
	A13: Number of institutions with basic services		

Table 3. SDG 4 Indicators calculated from data collected through the UIS Survey of Formal Education, by questionnaire and table

SDG4 INDICATORS	ISCED		QA										QB	QC	
	T1	T2	A2	A3	A5	A6	A9	A10	A10-M	A11	A12	A13	B2	C2	C5
FFA													+		
1.a.2													+		
4.1.3	+				+	+									
4.1.4	+			+	+	+									+
4.1.5	+				+	+									
4.1.7	+	+													
4.2.2	+			+	+										
4.2.4	+		+	+	+										
4.2.5	+	+													
4.3.2	+													+	+
4.3.3	+			+											+
4.5.4	+		+	+											
4.7.2	+										+	+			
4.a.1	+										+	+			
4.c.1	+						+	+	+						
4.c.2	+		+					+	+						
4.c.3	+						+	+	+						
4.c.4	+		+					+	+						
4.c.5	+									+					
4.c.6	+						+								

Table 4. OPRI Indicators calculated from data collected through the UIS Survey of Formal Education, by questionnaire and table

OTHER POLICY RELEVANT INDICATORS	ISCED	QA						QB		QC			
	T1	A1	A2	A3	A5	A6	A9	B2	B3	C2	C6	C7	C8
Number of teachers							+						+
% of female teachers							+						+
School life expectancy	+			+									
Number of international mobile students											+		
Inbound and outbound rates of international mobile students										+	+		
Number of students			+	+						+			
Enrolment rates	+		+	+						+			
Graduation ratio, tertiary education	+											+	
% of tertiary graduates by field of education												+	
Repetition rate					+	+							
Number of OOS children and adolescents	+			+						+			
Public education expenditure by nature									+				
% of students by programme orientation			+										
% enrolment in private institutions			+										
Government expenditure in education (amount)								+					
Survival rate					+	+							
School age population	+												
Start and end of academic school year		+											

New or updated SDG 4 and OPRI indicators values added to this data release

The data points contributed by the Education Section to the September 2024 data release include new or updated indicator values from administrative data sources for 192 countries, resulting in

improvement of data coverage of these countries on six global and 14 thematic SDG 4 indicators, as well as 16 Other Policy Relevant Indicators (OPRI). Including disaggregation by gender, age, and location, as well as parity indices for relevant indicators, a total of 73,632 data points have been added or updated. Of these, 3,908 data points improved the monitoring of SDG global indicators, 17,522 of SDG thematic indicators, and 52,202 for OPRI. The majority of updates have been done for the two most recent school years with reported data: 2021/2022 and 2022/2023. Around 55% of SDG 4-related and 68% of OPRI updates are for these two years.

This data release also reflects ongoing work on the International Standard Classification of Education as ISCED 2011 mappings have been updated and used in the calculation of cross-nationally comparable education indicators. To this day, a total of 201 countries have their ISCED 2011 mapping finalized and published by the UIS. Along with the ISCED 2011 mappings, new or updated ISCED diagrams for up to 70 countries have also been published.

6.2   UIS Survey on Literacy and Educational Attainment

The UIS gathers attainment data through its biennial literacy and educational attainment survey which is sent to 131[3] UNESCO countries. The questionnaires collect internationally comparable data used to calculate literacy and attainment rates as well as mean years of schooling. The data are derived from national population censuses and sample household surveys, including labour force surveys.

The UIS supplements literacy and educational attainment data provided by countries by calculating indicators based on information obtained from population censuses and international household survey programmes such as the Multiple Indicator Cluster Survey (MICS) and the Demographic and Health Survey (DHS). The UIS also applies methodologies, such as the Global Age-specific Literacy Projections Model (GALP), to produce literacy estimates for years with missing data and to produce regional and global averages.

For this Data Release, 4715 new or updated values have been contributed by the 2023 UIS Survey on Literacy and Educational attainment. These include 4075 data points for educational attainment (SDG 4.4.3) by age group, 318 data points for adult literacy (SDG 4.6.2) and 422 new or updated OPRI data points. Moreover, this data release further improves the global capacity to monitor equity in the SDG 4 agenda and in education in general with new or updated data points for gender or location disaggregation as well as parity indices representing more than 70% of the new or updated data points. New location (rural/urban) disaggregated data have been added to the release for SDG thematic indicators 4.4.3 (Youth/adult educational attainment rates by age group and level of education) and 4.6.2 (Youth/adult literacy rate). This adds to efforts over the past three years to provide the global education community with the time series for years 1962 onwards for indicator 4.4.3 for rural and urban population.

---

[3] Data are also produced for an additional 72 countries (not surveyed) for which UIS, and partners agencies estimate indicators from available microdata. These 72 countries include 35 in Europe and North America and 37 in Latin America and the Caribbean.

7 Multi-year dynamic templates

In 2021, the UIS started implementing an innovative approach to collect administrative and finance education data based on entering publicly available raw data into dynamic templates that automatically produce the related 23 indicators: 16 SDG 4 indicators and 7 OPRI indicators, in other words, 21 indicators on students, teachers, and schools, and 2 indicators on education expenditure.

This process allows countries to directly validate the indicators instantly generated and check their consistency over time. It also enables them to immediately view what indicators are missing, what data are needed to produce them and then to work on filling these data gaps. The templates are an excellent tool for capacity-building as they present the methodology of calculation of each indicator in detail, increasing countries' ownership of the produced data and indicators.

An interesting feature of the templates is that they offer countries the possibility of calculating population-based indicators either by using UNPD population or national population. They also let countries compare the indicators produced by the template with the ones previously published by the UIS. Finally, metadata collected in the templates may serve as a basis for a comprehensive inventory of all publicly available national publications and data sources.

7.1 Dynamic templates, workflows and data points produced

Administrative data template

The template collects data for 14 years (2010 to 2023) on students, teachers and schools. It is automatically prefilled with population data from UNPD, ISCED mapping data on the national education system (theoretical entrance age and duration of the national education programmes), and with indicator figures available at the UIS for comparison purposes. Indicators are automatically calculated with the indicator formulas embedded in the template.

The template includes the following:

- Metadata sheet: It presents the definition, calculation method and formula, and data required for every indicator; allows the comparison of UIS published indicators with the ones produced in the template from national data; and enables the selection of the source of population data (UNPD or national).

- Data source sheet: It compiles the names and links of all the national publications from which data were extracted and used to populate the template.

- Six sheets to collect students' data for each level of education from early childhood to tertiary education: data are disaggregated by age and sex in all sheets; the sheets on primary and secondary general programmes also include data disaggregated by grade and data on repeaters.

- A sheet to collect teachers' data from pre-primary to upper secondary education: data are disaggregated by sex and status of teachers (trained/qualified/newly recruited).

- A sheet to collect data on basic services in schools from primary to upper secondary education: electricity, internet and computers for pedagogical purposes, infrastructure and materials for students with disabilities, basic drinking water, single-sex basic

sanitation facilities, basic handwashing facilities and life skills-based HIV and sexuality education.

- Two sheets with population data (national sources and UNPD): In the same sheets, the school-age population is calculated based on the population data and the national education system data (age of entry into a level, duration of level) should the country be interested in inputs their own national population estimates.

- Twenty-one sheets which contain the embedded formulas for the calculation of SDG 4 and OPRI indicators.

Finance data template

The finance template collects data for 14 years (2010 to 2023) on government expenditure on education and total government expenditure. The template is prefilled with GDP data from the World Bank and with indicator figures available at the UIS for comparison purposes. Indicators are automatically calculated with the indicator formulas embedded in the template. The template allows the calculation of two indicators: *Proportion of total government spending on essential services (education) (SDG 1.a.2); and Government expenditure on education as a percentage of GDP (Education 2030 Framework for Action)*.

In addition to a metadata sheet, the template includes only one sheet of data – 'Educational expenditure'. It is enough to provide data for only two data points in this sheet to get the indicators: total government expenditure on all sectors (including education) and total government expenditure on education. The information is presented for all levels of education combined from early childhood to tertiary and for all levels of government combined – central, regional, and local. The data can be provided based on the revised estimates/budget or actual expenditure. The sheet enables comparison between the indicators produced and the ones published by the UIS.

Tables 5 and **6** present the SDG 4 and OPRI indicators and variables in the administrative data and finance templates.

Table 5. SDG 4 indicators and variables in the administrative data and finance data templates

Variables for SDG indicators	Administrative data template														Finance data template	
	4.1.3	4.1.4	4.1.5	4.2.2	4.2.4	4.3.2	4.3.3	4.7.2	4.a.1	4.c.1	4.c.2	4.c.3	4.c.4	4.c.6	1.a.2	% GDP
National education system	x	x	x	x	x	x	x	x	x	x	x	x	x	x		
Population data	x	x		x	x	x	x									
Enrolment by sex	x	x	x	x	x	x	x				x		x			
Enrolment by age		x	x	x	x		x									
Enrolment by grade	x		x													
Repeaters by sex and grade	x															
Teachers by sex										x		x		x		
Trained teachers by sex										x	x					
Qualified teachers by sex												x	x			

Variables for SDG indicators	Administrative data template														Finance data template	
	4.1.3	4.1.4	4.1.5	4.2.2	4.2.4	4.3.2	4.3.3	4.7.2	4.a.1	4.c.1	4.c.2	4.c.3	4.c.4	4.c.6	1.a.2	% GDP
Newly recruited teachers by sex														x		
Schools by type of facility								x	x							
Educational expenditure															x	x
Total government expenditure															x	
Gross domestic product (GDP)																x

Table 6. OPRI indicators and variables in the administrative data template

Variables for OPRI indicators	Administrative data template						
	Number of students	Gross enrolment ratio	Total net enrolment rate	Out-of-school children	Enrolment by programme orientation	Number of teachers	Percentage of female teachers
National education system	x	x	X	x	x	x	x
Population data		x	X	x			
Enrolment by sex	x	x	X	x	x		
Enrolment by age			X	x			
Enrolment by programme orientation					x		
Teachers by sex						x	x

Template workflows

The following workflows are implemented to produce globally comparable data:

1. Design and development of the two dynamic templates.

2. Completion of both templates with data and metadata published by countries.

3. Production of a database with data and metadata for all covered countries.

4. Creation of repositories for the official data sources available at the country level:

   - Repository of education expenditure reports:
     https://tcg.uis.unesco.org/data-resources/repository-education-budgets/

   - Repository of education indicators report:
     https://tcg.uis.unesco.org/data-resources/repository-education-indicators/

5. Curation of compiled data to remove outliers.

Data points from the templates

Tables 7 and **8** show the number of data points for SDG 4 indicators and OPRI by SDG region derived from the templates. These data points are included in the September 2024 data release additional to the data produced with the data collected through the UIS Survey of Formal Education.

Table 7. Number of data points for SDG 4 indicators by region derived from the administrative data and finance data templates

SDG Region	SDG 4 indicators																Finance data template	
	Administrative data template																	
	4.1.3	4.1.4	4.1.5	4.2.2	4.2.4	4.3.2	4.3.3	4.5.6	4.7.2	4.a.1	4.c.1	4.c.2	4.c.3	4.c.4	4.c.6	% GDP	1.a.2
Asia (Eastern and South-eastern)	586	1348	468	234	882	260	111	39	92	873	845	243	720	214	284	106	66
Asia (Central and Southern)	635	1337	540	210	847	370	123		54	774	950	272	617	183	142	112	59
Africa (sub-Saharan)	700	2257	715	284	1034	192		7	41	568	667	225	607	201	78	275	244
Oceania	327	690	309	110	599	96		1	33	481	309	82	356	93	86	76	83
Latin America and the Caribbean	111	436	216	38	447	148	32		3	23	231	57	109	19		176	186
Northern America and Europe		11			15	3										30	18
Northern Africa and Western Asia		13			3											53	54
World	2359	6092	2248	876	3827	1069	266	47	223	2719	3002	879	2409	710	590	828	710

Table 8. Number of data points for OPRI by region from the administrative data template

SDG Region	Other Policy Relevant Indicators (OPRI)								
	Distribution of enrolment by programme orientation	Gross enrolment ratio	Number of students	Number of teachers	Out-of-school children	Percentage of female teachers	School life expectancy	Total net enrolment rate	Gov. exp. on education as a % of GDP (by education level)
Asia (Eastern and South-eastern)	835	2961	2922	1287	1433	419	1072	847	423
Asia (Central and Southern)	872	3115	3258	1406	1440	438	774	869	374
Africa (sub-Saharan)	960	3154	3577	1298	2389	421	358	1396	293
Oceania	435	1282	1441	493	712	155	360	431	149
Latin America and the Caribbean	469	1157	1499	453	487	122	235	216	261
Northern America and Europe	108	423	289	41	13	12		10	58
Africa (Northern) and Asia (Western)	9	28	29	6	10			12	
World	3688	12120	13015	4984	6484	1567	2799	3781	1558

7.2 Templates validation

The administration of the new education templates has been continued and the countries that have validated their data through them are

- Asia and the Pacific (27 out of 30 countries having received Dynamic Templates): Bangladesh, Bhutan, India (for March, 2024 data release), Kazakhstan, Kyrgyzstan, Maldives, Nepal, Pakistan, Sri Lanka, Uzbekistan (Central and Southern Asia); Brunei Darussalam, Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Mongolia, Philippines, Thailand, Timor-Leste, Viet Nam (Eastern and South-Eastern Asia); Fiji, Federal States of Micronesia, Palau, Samoa, Solomon Island, Tonga, Vanuatu (Pacific).

- Sub-Saharan Africa (10 out of 15 countries having received Dynamic Templates): Botswana, Comoros, Ethiopia, Lesotho, Liberia, Madagascar, Malawi, Sierra Leone, The Gambia, United Republic of Tanzania.

- Latin America and the Caribbeans (4 out 7 countries having received the Dynamic Templates): Aruba, Turks and Caicos, Suriname, and Saint Vincent and the Grenadines.

It is necessary that the data input into the templates through data mining and data provided by country focal points are validated properly with countries. In this regard, a UIS team carefully reviewed the templates submitted by the countries and checked the consistency of the data with historical data and metadata. In addition, the team also ran a series of data checks to ensure data quality and validity. Based on this validation process, a review report was prepared with detailed comments and suggestions on the data provided and sent to the countries to provide more data and explanation, including data sources, reference documents, and available metadata at the national level, as pointed out in the review.

Countries reviewed the report and provided additional data and information. At least one follow-up meeting was organized to review the updated data and statistics in the template. Based on the discussion, countries provided additional data, revised previous submissions and information, and finalized the template in consultation with their senior officials.

The UIS Regional Field Network is crucial for an efficient and quality validation process. During the validation process, UIS field offices worked closely with country focal points to compile data from various sources and ensure the data provided are accurate and valid. UIS field offices were regularly in touch with country focal points through various channels to support completion of the templates and their validation. The UIS validation process is presented in Annex 1.

Overall, the use of UIS dynamic templates offers numerous benefits, including improved efficiency, accuracy, and capacity building of the member states. It's encouraging to see the interest and efforts to expand their use among countries, with the UIS Regional Network's facilitated processes.

8 Household surveys

8.1 UIS produced indicators

The UIS processes household survey and census data to produce disaggregated estimates for a variety of SDG 4 and other policy relevant indicators. These indicators include:

- SDG indicator 4.1.2: Completion rate (primary education, lower secondary education, upper secondary education).

- SDG indicator 4.1.4: Out-of-school rate (primary education, lower secondary education, upper secondary education).

- SDG Indicator 4.1.5: Percentage of children over-age for grade (primary education, lower secondary education).

- SDG indicator 4.2.2: Participation rate in organized learning (one year before the official primary entry age), by sex.

- SDG Indicator 4.3.2: Gross enrolment ratio for tertiary education, by sex.

- SDG Indicator 4.4.3: Educational attainment rates by level of education

- SDG Indicator 4.5.1: Parity indices (female/male, rural/urban, bottom/top wealth quintile and others such as disability status, indigenous peoples and conflict-affected, as data become available) for all education indicators on this list that can be disaggregated.

- SDG Indicator 4.6.2: Youth/adult literacy rates

- OPRI Indicator: Total Net Attendance Rates, by level of education.

- OPRI Indicator: Mean years of schooling.

Table 9. Summary indicator coverage for UIS internal HHS production

Region	Datapoints added since March 2024	Total datapoints
Central and Southern Asia	1116	39661
Eastern and South-Eastern Asia	871	28827
Europe and Northern America	200	17280
Latin America and the Caribbean	3985	38805
Northern Africa and Western Asia	2822	28947
Oceania	396	8357
Sub-Saharan Africa	10833	160985
Total	20223	322862

8.2 Household survey datasets aggregated from partners

Two data sets are produced by partners and aggregated in the UIS database: the data set from ECLAC and the data set from the GEM Report.

8.2.1   ECLAC (Economic Commission for Latin America and the Caribbean)

The indicators below produced by ECLAC based on household surveys were aggregated in the database[4]:

- SDG Indicator 4.1.2: Completion rate (primary education, lower secondary education, upper secondary education).
- SDG Indicator 4.1.4: Out-of-school rate (one year before primary, primary education, lower secondary education, upper secondary education).
- SDG Indicator 4.1.5: Percentage of children over-age for grade (primary education and lower secondary education).
- SDG Indicator 4.2.2: Participation rate in organized learning (one year before the official primary entry age), by sex.
- SDG Indicator 4.3.2: Gross enrolment ratio for tertiary education, by sex.
- SDG Indicator 4.6.2: Youth/adult literacy rate.
- OPRI indicator 'Total Net Attendance Rate'.

ECLAC produced a dataset with the following indicators[5]:

- Completion rates (CR) by level of education (ISCED 1, 2 and 3).
- Net attendance rates (NAR) by level of education (ISCED 1, 2 and 3).
- Total net attendance rates (TNAR) by level of education (ISCED 2 and 3).
- Out-of-school rate (OOSR) by level of education (ISCED 1, 2 and 3).
- Participation rate in organized learning one year before the official primary entry age.
- Gross enrolment ratio for tertiary education.
- Percentage of children over-age for grade (ISCED 1 and 2).
- Youth/adult literacy rate.

All indicators are disaggregated by sex, income quintiles, urban and rural areas, and include the corresponding parity indexes for the respective dimensions.

Countries processed by ECLAC are Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, and Venezuela. The latest available data corresponds to the year 2021, except in Chile, El Salvador, and Mexico (2020), Honduras (2019), Guatemala, Nicaragua, and Venezuela (2014).

Note on comparability of data for 2020

Surveys collected in 2020 were subject to special conditions for the data collection, due to the pandemic and the restrictions that it implied for mobility and face-to-face interviews. During this period, most countries were able to implement the surveys using telephone interviews but faced

---

[4] For more details see https://tcg.uis.unesco.org/wp-content/uploads/sites/4/2024/02/Calculation-of-education-indicators_HHS_Report-UNESCO-UIS-13122023.pdf.

[5] This section was prepared by ECLAC.

changes in the survey sample and higher non-response rates or used modified questionnaires. These changes may affect the comparability of data with previous years.

Some examples include:
- Bolivia: Change in the way of collecting information on school attendance. Also, increased the number of observations of missing data.
- Colombia: March and April have fewer observations in attendance and level of education than last year.
- El Salvador: This survey did not collect information between April and June.

8.2.2   Global Education Monitoring (GEM) Report

The indicators below were aggregated in the UIS database [6]:
- SDG Indicator 4.1.2: Completion rate (primary education, lower secondary education, upper secondary education).
- SDG Indicator 4.1.4: Out-of-school rate (primary education, lower secondary education, upper secondary education).
- SDG Indicator 4.1.5: Percentage of children over-age for grade (primary education).
- SDG Indicator 4.2.2: Participation rate in organized learning (one year before the official primary entry age), by sex.
- SDG Indicator 4.3.2: Gross attendance ratio for tertiary education.
- SDG Indicator 4.4.3: Educational Attainment
- SDG Indicator 4.6.2: Youth/adult literacy rate.

Table 10 summarizes the data coverage from ECLAC and GEM Report databases:

Table 10. Summary of ECLAC and GEMR indicators coverage

Indicators		Source		Countries
		ECLAC	**GEMR**	**(#)**
SDG 4	4.1.2	2000-2022	1999-2022	123
SDG 4	4.1.4	2000-2022	2000-2022	82
SDG 4	4.1.5	2000-2022	2000-2019	104
SDG 4	4.2.2	2000-2022	2005-2021	49
SDG 4	4.3.2	2000-2022	2006-2021	51
SDG 4	4.4.3	2000-2022	-	18
SDG 4	4.6.2	2000-2022	2000-2023	103
OPRI	Total Net Attendance Ratio	2000–2022	-	18

---

[6] Data are downloaded from the World Inequality Database on Education website (https://www.education-inequalities.org/), consulted in January 2024

8.3   Indicator 4.3.1

SDG Indicator 4.3.1 is calculated by the UIS based on the household-based survey data compiled by the Department of Statistics of the International Labour Organisation (ILO), which maintains a global database on national Labour Force Surveys or other relevant household surveys covering the labour market. The ILO database contains information on educational attendance of the working-age population aged 15 years and above, disaggregated by sex and by four main age groups: 15-24 years old, 25-54 years old, 55-64 years old, and 64 years and above. The variable of interest, educational attendance, classifies the working-age population into three mutually exclusive and exhaustive groups: (1) attending school; (2) not attending; (3) not elsewhere classified. SDG Indicator 4.3.1 is calculated for the age group 15-64 since the educational attendance estimates for most countries are zero for the age group 65 years and above. **Table 11** shows the number of data points for Indicator 4.3.1 available for each SDG region. From UIS February 2024 Data Release to September 2024, the number of new data points increased by 8%. These new data points include the participation rate in formal and non-formal education by sex (total, female, male) and do not include the adjusted gender parity index, which are under indicator 4.5.1.

From 2010 to 2023, there are 163 countries with reliable SDG Indicator 4.3.1 estimates. The data sources for SDG Indicator 4.3.1 are Labor Force Surveys (LFS), Household Income and Expenditure Surveys (HIS), Household Surveys (HS), and the Population Censuses.

Table 11. Number of SDG 4.3.1 data points added for the period 2010–2023 by SDG region

SDG region	New data points added (comparison between Sept. 2023 and Febr. 2024)	Total data points for SDG Indicator 4.3.1 for the period 2010 to 2023*	% of new data points (from Sept. 2023 to Febr. 2024)
Central and Southern Asia	58	728	9%
Eastern and South-Eastern Asia	93	1199	8%
Europe and Northern America	390	5852	7%
Latin America and the Caribbean	173	2811	7%
Northern Africa and Western Asia	108	1164	10%
Oceania	49	412	13%
Sub-Saharan Africa	175	1644	12%
Total	**1046**	**13810**	**8%**

Note: the number of data points refers to reliable estimates

8.4   Indicator 4.4.3

The SDG Indicator 4.4.3 measures the Youth/adult educational attainment rates by age group and level of education. This indicator in the UIS database is presented for the population aged 25 years and above, disaggregated by sex, and when data are available, by urban and rural areas and wealth quintiles. The LFS is the most common data source for information on educational attainment LFS

data. Other household-based surveys providing data on educational attainment are household income and expenditure surveys, general household surveys, DHS, MICS, and Census data.

For the current data release, the UIS has extended the data sources producing the indicator using the ILO repository on educational attainment by ISCED-11 levels, sex and/or urban and rural disaggregation. **Table 12** shows the number of new SDG indicator 4.4.3 data points added in the UIS database by SDG region. For the period 2010 to 2023, the UIS has added 76% of data points compared to the September 2023 Data Release, without counting the parity indexes. Additionally, there are 21 new countries with data added to the UIS database (from 174 to 195 countries).

Table 12. Number of SDG 4.4.3 data points added for the period 2010–2023 by SDG region

SDG region	New data points added (comparison between Febr. 2024 and Sep. 2024)	Total data points for SDG Indicator 4.4.3 for the period 2010 to 2023*	Share of new data points (from Febr. 2024 and Sep. 2024)
Central and Southern Asia	61	5980	1%
Eastern and South-Eastern Asia	1900	9305	26%
Europe and Northern America	4457	36266	14%
Latin America and the Caribbean	3397	19289	21%
Northern Africa and Western Asia	1289	9522	16%
Oceania	511	3437	17%
Sub-Saharan Africa	2180	14806	17%
Total	**13795**	**98605**	**16%**

Note: the number of data points refers to reliable estimates and all ISCED levels by sex.

9 Learning assessments and integration of data sources

Some national values are calculated/compiled by the UIS and/or its partners from learning assessments while other data sources are flagged with footnotes to identify the data sources in the UIS database. The indicators calculated and their metadata are:

- SDG Indicator 4.1.0: Proportion of children/young people prepared for the future, by sex.

- SDG Indicator 4.1.1: Proportion of children and young people (a) in grades 2/3; (b) at the end of primary; and (c) at the end of lower secondary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex.

- SDG Indicator 4.1.6: Administration of a nationally representative learning assessment (a) in Grade 2 or 3; (b) at the end of primary education; and (c) at the end of lower secondary education.

- SDG Indicator 4.2.1: Proportion of children aged 24-59 months who are developmentally on track in health, learning and psychosocial well-being, by sex.

- SDG Indicator 4.2.3: Percentage of children under 5 years experiencing positive and stimulating home learning environments.

- SDG Indicator 4.4.1: Proportion of youth and adults with information and communications technology (ICT) skills, by type of skill.

- SDG Indicator 4.4.2: Percentage of youth/adults who have achieved at least a minimum level of proficiency in digital literacy skills.

- SDG Indicator 4.5.1: Parity indices (female/male, rural/urban, bottom/top wealth quintile, and others such as disability status, indigenous peoples and conflict-affected, as data become available) for all education indicators on this list that can be disaggregated.

- SDG Indicator 4.5.2: Percentage of students in a) early grades, b) at the end of primary, and c) at the end of lower secondary education who have their first or home language as language of instruction.

- SDG Indicator 4.5.3: Existence of funding mechanisms to reallocate education resources to disadvantaged populations.

- SDG Indicator 4.6.1: Proportion of population in a given age group achieving at least a fixed level of proficiency in functional (a) literacy and (b) numeracy skills, by sex.

- SDG Indicator 4.7.4: Percentage of students in lower secondary education showing adequate understanding of issues relating to global citizenship and sustainability.

- SDG Indicator 4.7.5: Percentage of students in lower secondary showing proficiency in knowledge of environmental science and geoscience.

- SDG Indicator 4.a.1: Proportion of schools offering basic services, by type of service.

- SDG Indicator 4.a.2: Percentage of students experiencing bullying in the last 12 months in a) primary, and b) lower secondary education.

- SDG Indicator 4.c.5: Average teacher salary relative to other professions requiring a comparable level of qualification.

- SDG Indicator 4.c.7: Percentage of teachers who received in-service training in the last 12 months by type of training.

For more information on the data production cycle of these SDG 4 Indicators, please refer to: http://tcg.uis.unesco.org/wp-content/uploads/sites/4/2020/08/CN_LOS_DataProduction-.pdf

10 Regional averages in the September 2024 data release

The September 2024 data release includes time series regional averages from 1990 to 2023. The regional estimates are based on the latest SDG, World Bank income groups, and GPE[7] regional composition. For more details about the current UIS methodology of regional average calculation, see: https://tcg.uis.unesco.org/wp-content/uploads/sites/4/2020/10/TCG-7-I-2-UIS-methodology-for-aggregation-of-national-educaiton-data-to-regional-and-global-estimates.pdf. Regional averages for out-of-school rates (SDG 4.1.4) and number of children out-of-school are based on estimates produced by the UIS and the GEM Report to harmonize information from Education Management Information Systems (EMIS) and Household Surveys, the two main data sources used to produce out-of-school rates. The Technical Cooperation Group on SDG 4 Indicators (TCG) approved to use the regional averages estimated by this innovative method. The UIS refreshed the regional averages for SDG 4.1.4 in its SDG 4 data browser.

The latest estimated rates and numbers of out-of-school by country and by SDG regions are also accessible on VIEW. The new methodology is outlined in the joint UIS/GEM Report Policy Paper / Fact Sheet.

Moreover, since 2023, the release included new data on:

- Regional averages for Indicator 4.1.1 in all levels and domains from 2000 to 2019 produced by the UIS team.

- Regional averages for Indicator 4.1.2 aggregated from the GEM Report team from 1990 to 2023 and available at https://education-estimates.org/completion/.

- Regional averages for Indicator 4.1.4 produced by UIS/GEM Report team from 1990 to 2023 and available at https://education-estimates.org/out-of-school/.

- Regional averages for Indicator 4.1.0, or the proportion of children/young people prepared for the future, from 2000 to 2019, that need regional averages for learning and completion are also included in the February 2024 data refresh.

- Median for Indicator 1.a.2 from 2000 to 2023 produced based on the TCG decision of June 2021.

For the current data release, regional estimates have been added for:

- Indicator 4.3.1

---

[7] The aggregated values for the "GPE: Overall FY22, all 85 countries, January 2023" did not include data for Egypt, Moldova, and Sri Lanka. The aggregated will be revised in the UIS February/March 2025 data refresh to cover the 88 countries in the GPE December 2023 grouping revision.

11 External data sets: Indicators aggregated from partner agencies

11.1 External data sets: Inputs to indicators

The UIS compiles data for some Sustainable Development Goal 4 indicators directly from partner organizations, such as:

IMF

- SDG Indicator Education 2030 FFA: Government expenditure on education as a percentage of GDP
- SDG Indicator 1.a.2: Proportion of total government spending on essential services (education)

OECD

- SDG Indicator 4.5.5: Percentage of total aid to education allocated to least developed countries.
- SDG Indicator 4.b.1: Volume of official development assistance flows for scholarships by sector and type of study.

Global Coalition to Protect Education from Attack

- SDG Indicator 4.a.3: Number of attacks on students, personnel and institutions.

Global Education Monitoring Report (GEM Report)

- SDG Indicator 4.5.3: Existence of funding mechanisms to reallocate education resources to disadvantaged populations.

UNESCO Section for Education for Sustainable Development (Division for Peace and Sustainable Development, Education sector)

- SDG Indicator 4.7.1: Extent to which (i) global citizenship education and (ii) education for sustainable development are mainstreamed in (a) national education policies; (b) curricula; (c) teacher education and (d) student assessment.

11.2 External data sets: Inputs to estimate indicators

11.2.1 Implementing a hybrid population data policy

The UIS has continued the implementation of its new population data policy endorsed by the Technical Cooperation Group (TCG) on SDG 4 indicators in March 2023. The implementation of the new Policy started with the UIS September 2023 Data Release. Under this new policy, countries, for which national population data meet a set of pre-defined standard quality criteria[8], have the possibility to request UIS to use their national population data for the calculation of their population-based indicators in place of the World Population Prospects estimates from the United Nations,

---

[8] See https://tcg.uis.unesco.org/wp-content/uploads/sites/4/2022/11/2_WG_EMIS_3_UIS_Population_Data_Note.pdf

Department of Economic and Social Affairs (UNDESA) Population Division (UNPD), which remains the default source of population data used by the UIS.

As part of the new population data policy, information requirements are:

- A complete time series data and metadata from 2000 to 2023;

- A complete sex and age disaggregated data for the 0-99 age population;

- Data should be compiled and disseminated by recognized international organizations or are publicly available;

- Data should also have adequate population coverage and be representative of the underlying population to the extent possible. Substantive population subgroups or internationally recognised geographic regions should not be excluded. Estimates or counts where more than 5% of the total population is excluded are not eligible for use in calculations.

This hybrid approach to the use of population data in the production of international education indicators improves national ownership over education statistics disseminated by the UIS, especially in countries where the coverage of data from the United Nation Population Division differs from the coverage of education data reported by countries to the UIS.

For this September 2024 release, the source of population estimates from UNDESA Population Division is the *World Population Prospects (WPP) 2022, scenario of 1 January* (https://population.un.org/wpp/).

Sources of population data and exceptional cases

The UN Population Division (UNPD) remains the standard source of population data at the UIS. With the implementation of the hybrid population data policy, the following exceptional cases are worth mentioning (please also see **Table 13**):

- Countries that requested the use of their national data and that provided data complying with the predefined UIS quality requirements.

- Population data by UNPD represent a geographically larger area than education data. Without adjustment, this would lead to an underestimation of population-based indicators. Countries in this group include Azerbaijan, Cyprus, Republic of Moldova, and Serbia.

Process for accepting national population data, instead of UNPD data, for use by UIS in the calculation of education statistics

Under the new UIS policy of population data, interested countries are invited to complete the UIS/ED/DEM questionnaire[9] with the requested time series data and metadata and submit it to the UIS. Countries reported data and metadata needed to comply with the pre-defined standard criteria for accepting national population data, otherwise the UIS would continue to use UNPD population estimates.

---

[9] Please see; https://uis.unesco.org/uis-questionnaires.

For this data release, the source of population data used to calculate education indicators are presented in **Table 13**, including countries that have submitted data directly to the UIS and that respected the established acceptance criteria.

Table 13. Sources of population data for UIS indicator calculation

Source of population data	No. of countries	Countries list and comment
United Nations Population Division (UNPD): World Population Prospect 2022, released in July 2022	157	The UNPD is the main source of population data used by the UIS for all countries, except for the countries listed below in this column.
National statistical offices submitting data directly to the UIS (through the UIS DEM questionnaire)	42	1. Aruba 2. Australia 3. Azerbaijan 4. Bolivia (Plurinational State of) 5. Brazil 6. Canada 7. Chile 8. China, Hong Kong Special Administrative Region 9. China, Macao Special Administrative Region 10. Colombia 11. Costa Rica 12. Curaçao 13. Dominican Republic 14. Ecuador 15. India 16. Israel 17. Japan 18. Jordan 19. Mauritius 20. Mexico 21. New Zealand 22. Niger 23. Oman 24. Qatar 25. Republic of Korea 26. Republic of Moldova 27. Russian Federation 28. Rwanda 29. San Marino 30. Saudi Arabia 31. Serbia 32. Seychelles 33. Singapore 34. Thailand 35. Tonga 36. Türkiye 37. Ukraine 38. United Arab Emirates 39. United States of America 40. Uruguay

Source of population data	No. of countries	Countries list and comment
		41. United Kingdom of Great Britain and Northern Ireland 42. Uzbekistan
National data collected by Eurostat	34	1. Albania 2. Austria 3. Belgium 4. Bulgaria 5. Croatia 6. Cyprus 7. Czechia 8. Denmark 9. Estonia 10. Finland 11. France 12. Germany 13. Greece 14. Hungary 15. Iceland 16. Ireland 17. Italy 18. Latvia 19. Liechtenstein 20. Lithuania 21. Luxembourg 22. Malta 23. Montenegro 24. Netherlands (Kingdom of the) 25. North Macedonia 26. Norway 27. Poland 28. Portugal 29. Romania 30. Slovakia 31. Slovenia 32. Spain 33. Sweden 34. Switzerland

*Notes:

- *For the following countries this release uses the DEM questionnaires submitted in 2023, as this was the latest submission received: Australia, Brazil, Canada, Chile, Colombia, Costa Rica, New Zealand, Republic of Korea, and United States of America. For Japan and Mexico the national population was received in early 2024.*

- *The following 13 countries reported DEM questionnaires in 2024 but data supplied could not be used because they did not meet the UIS standard validation criteria[10]: Andorra, Angola, Bahrain, Belarus, Bosnia and Herzegovina, Burundi, Congo, Eswatini, Iraq, Monaco, Nicaragua, Sri Lanka, Timor-Leste.*

---

[10] See the document "National Population Data: criteria for use in indicator calculation by the UIS".

How is the School Age Population (SAP) distributed by countries where national population is used and countries where UNPD population is used? **Table 14** presents the SAP for the two groups of countries for 2020, 2021, and 2022 for selected levels of education.

Table 14. School age population (both sexes) (in millions) for pre-primary, primary, lower secondary, and upper secondary education by source of population data, 2020 to 2023

	Year	ISCED 0	ISCED 1	ISCED 2	ISCED 3	ISCED 2t3
School age population (SAP)	2020	472.9	745.5	407.5	394.7	802.2
	2021	471.6	751.0	412.5	398.1	810.5
	2022	467.6	754.5	418.5	402.2	820.7
	2023	446.8	737.7	409.9	394.4	804.3
Of which						
- SAP calculated from national population data	2020	180.7	261.6	167.1	178.7	345.7
	2021	178.5	260.8	167.5	177.9	345.4
	2022	175.3	259.9	168.7	178.2	346.9
	2023	123.9	182.0	119.9	134.7	254.6
- SAP calculated from UNPD population data	2020	292.2	483.8	240.5	216.0	456.5
	2021	293.1	490.2	245.0	220.1	465.1
	2022	292.3	494.6	249.7	224.1	473.8
	2023	322.8	555.8	290.0	259.7	549.7
% of SAP based on national population data	2020	38.2	35.1	41.0	45.3	43.1
	2021	37.9	34.7	40.6	44.7	42.6
	2022	37.5	34.4	40.3	44.3	42.3
	2023	27.7	24.7	29.3	34.1	31.7

Notes: of the 210 countries for which UIS collects education data, national population data were available for 76 countries in 2020, 75 in 2021 and in 2022, and 55 in 2023.

12 Economic statistics

Data on economic indicators, such as gross domestic product (GDP) and purchasing power parity (PPP), are World Bank estimates as of June 2024. For countries where GDP estimates are not published by the World Bank[11], data are obtained from national source. Exchange rates data are sourced from the December 2023 release by the United Nations Statistics Division (UNSD). This data release uses the purchasing power parities (PPP) conversion factor, GDP (local currency unit per international dollar), of the most recent World Bank International Comparison Program of 2017. Data on total general government expenditure (all sectors) come from the April 2024 release of the International Monetary Fund's (IMF) World Economic Outlook database.

---

[11] Andorra, Bermuda, China, Macao Special Administrative Region, Cook Islands, Costa Rica, Monaco, Nicaragua, Paraguay, Republic of Korea, Tokelau, Turks and Caicos Islands.

13 Methodological notes for education survey data

13.1 Countries that reported data that could not be released

Table 15 below presents a summary of the number of countries for which data were reported but not released, grouped by key causes for the Education Surveys.

Table 15. Formal Education Survey – summary of causes preventing the publication of datasets

Issues preventing the publication of parts of datasets recently received for reference year 2022 or 2023	Number of countries
Trend is not consistent and no explanation available (2) or countries requesting to suppress the data (6)	8
Inconsistency between population estimate and the submitted enrolment data	1
Coverage issues	1

Note: the table includes only countries where the data received through is not published. There are new or updated data being published for 192 countries.

13.2 Methodological notes: Non-finance indicators

Education data and indicators are based on the [International Standard Classification of Education](#) (ISCED) 2011. ISCED 2011 was implemented starting with the 2014 education data collection and covers the entire formal education system, including both formal initial education programmes and formal adult education programmes. For the years before 2014, the UIS Survey of Formal Education did not cover formal adult education programmes. Data for countries involved in the UOE data collection did not cover formal adult education programmes for the years 2004–2012. These limitations should be taken into consideration when comparing time series data.

Prior to 2018, data for SDG Indicator 4.3.3 *Participation rate in technical and vocational programmes (15- to 24-year-olds), by sex* do not include enrolment in technical and vocational short-cycle tertiary programmes (ISCED 5) as the UIS only collected data up to ISCED level 4 – although the indicator covers all technical and vocational programmes. As of 2018, the UIS started collecting and incorporated enrolment at the ISCED 5 level in the calculation of this indicator. On average, participation rates are approximately 1.6% higher with inclusion of the ISCED 5 programmes. Caution is required when comparing this indicator over time.

There are cases where an indicator should not exceed a maximum theoretical value (e.g., the adjusted net enrolment rate) but inconsistencies between demographic and school data may have resulted in the indicator exceeding the theoretical limit. In these cases, "capping" has been applied, while maintaining the same gender ratio. For more details, please refer to the definition of capping in the [UIS Glossary.](#)

Since the September 2020 Data Release, the UIS has replaced all parity indices, including the gender parity index, by adjusted parity indices. Adjusted parity indices are limited to a range of 0 to 2, are symmetrical around 1, and are therefore easier to interpret. Unadjusted parity indices, which were disseminated previously, have no upper bound and are not symmetrical around 1.

13.3 Methodological notes: Education finance indicators

Expenditure on early childhood education or from international sources – both of which are often comparatively small – have been treated as negligible in cases where data were in fact missing. In these cases, the totals may be underestimated.

The number of students considered in the calculation of SDG Indicator 4.5.4 on initial funding per student is the number of full-time and part-time students.

Following the approval of the TCG and the IAEG-SDG on the new metadata multiple sources have been used to report for two benchmark indicators, Framework for Action, Government expenditure on Education as a percentage of GDP; and global Indicator 1.a.2, Government expenditure on Education as a percentage of Total Government Expenditure. More information is available in the metadata document.

14   Country notes

Australia: For the reference year 2019, due to several changes introduced in both the data sources and methodology used to calculate and compile Australia's Finance collection, it is not possible to reproduce them in the trend file, resulting in a significant break in series. As a result of these changes, expenditure data from before the reference year 2020 is not comparable with previous years' data.

For the reference years 2020 and 2021, Australia has updated its data sources and revised the methodology used to compile finance data to incorporate historical revisions. A historical revision to non-government schools was implemented in Australia's 2020-21 Government Finance Statistics annual data, resulting in changes of data at International Standard Classification of Education (ISCED) levels 1, 24, and 34. Non-government schools previously classified as non-profit institutions serving households have been re-classified to private, non-financial corporations from 1985. This reclassification also necessitates a change to the transactions between commonwealth and state governments and non-government schools. Caution should be taken if comparing data for the reference years 2020 and 2021.

Azerbaijan: Education data for the years 1998 to 2021 do not cover Nagorno-Karabakh, whereas the 2022 World Population Prospects data do. The population data used for the calculation of indicators were provided by national authorities and exclude Nagorno-Karabakh.

Belgium: the definition of internationally mobile students has changed in the country from 2013. Therefore, the historical trend of inbound mobile students' needs to be interpreted with caution.

Enrolment data do not include the German-speaking Community. Data on independent private institutions refer to the European Schools. For these reasons, enrolment figures have a lower coverage than the population, which leads to an underestimation of enrolment rates.

Bolivia, Plurinational State of: The rate of out-of-school adolescents of lower secondary (ISCED 2) and upper secondary (ISCED 3) age does not include data on students enrolled in tertiary education (ISCED 5 to 8). This means that the number of out-of-school youth could be overestimated.

Brazil: A break in the time series of pre-primary and primary indicators occurred in 2013 due to the following changes in the national education system:

- The duration of pre-primary education changed from 3 years to 2 years.
- The entry age to primary education changed from 7 years to 6 years and the duration from 4 years to 5 years.

Bulgaria: National population data used for the UIS February 2024 Refresh have undergone significant changes between May 2024 and July 2024. For some age groups, the differences exceed 10%. This change substantially impacts the value of population-based SDG indicators, particularly enrolment rates, published in this September 2024 Release.

The country confirmed the change, indicating that the National Statistical Institute revised the national population data based on the 2021 Bulgaria demographic census. This revision was necessary due to large discrepancies between the census results and current population estimates. The revision covers a ten-year period from 2012 to 2021. The reference data for ages used during the demographic census is as of December 31st, 2021. To better align with education data, the population data provided to the UIS was shifted one year forward.

China: Two Special Administrative Regions – Hong Kong and Macao – are reported separately from data for China. The country asked the UIS not to publish data derived from PISA as this only covers four provinces (Beijing, Shanghai, Jiangsu, and Guangdong).

To maintain consistency in the time series data on international mobile students, students from mainland China studying in Macao and Hong Kong are reported as international students. However, these students do not strictly meet the definition of international mobile students.

Columbia: due to data quality issues, the country asked to put all education finance indicators dirty.

Cyprus: Education data for Cyprus do not cover areas that are not under control of the national government. The population data used for the calculation of indicators were provided by national authorities and only cover the population living in government-controlled areas.

Czechia: On the basis of basis of Article 33 of the Charter of Fundamental Rights and Freedoms, which is part of the Constitution of Czechia, citizens have the right to free education at basic and secondary schools (ISCED levels 1 to 3), regardless of whether they are studying longer than the standard period of study, including in cases where a citizen is studying a second (third, fourth, ...) programme at secondary school. The 13 years of free education published by the UIS show the theoretical ideal passage through the education system. It would be stated quite correctly that free education at ISCED levels 1 to 3 is not limited.

Ecuador: The source of the education data used is the *Archivo Maestro de Instituciones Educativas* (AMIE). Indicators were calculated with a capping factor and with national population estimates. Therefore, indicators for Ecuador are not comparable with the data officially published by the country.

Estonia: The country has an integrated pre-primary education programme. Pupil's age is used as a proxy to disaggregate data for early childhood educational programmes between ISCED 0 category 1 (early childhood educational development) and ISCED 0 category 2 (pre-primary). Enrolment of children aged 2 years and younger is mapped as early childhood educational development and enrolment of children aged 3 years and older is mapped as pre-primary. The number of repeaters since 2008 are calculated with a different methodology than the one used for previous years.

Therefore, the time series are not comparable. For 2013, the ages for enrolment in early childhood education were calculated as of 1 September and not as of 1 January as in later years.

France: There is a change in methodology in 2006 and 2013 that limits the comparability of time series for SDG Indicator *4.3.3 participation rate in technical and vocational programmes (15- to 24-year-olds), by sex.*

Germany: As of 2009, there is no concept of repeaters in grades 1 to 2 of primary education. This explains a decrease in 2009 in the time series "Percentage of repeaters in primary education".

China, Hong Kong SAR: Starting from the school year 2008/09, the Government of Hong Kong Special Administrative Region of China is committed to providing 12 years of free primary and secondary education to all eligible local children in public schools. It is mandatory for parents to ensure their children, aged 6 to 15, attend school. Consequently, the rate of out-of-school children is expected to be 0% at the primary and lower secondary education levels, and low at the upper secondary level. Additionally, the gross intake ratio to the last grade of primary and lower secondary general education programmes is expected to be 100%.

Kazakhstan: As of 2020, the structure of the national education system has changed. The entrance age to primary education was set at 6 years old since the reference year 2020 (the school year 2019/2020). Consequently, the theoretical ages in effect starting in 2020 are 6 to 9 years for primary education, 10 to 14 years for lower secondary education, and 15 to 16 years for upper secondary education. Breaks in the time series between 2019 and 2020 can be explained by the change in the education structure.

Lithuania: For 2005 and from 2007 to 2012, enrolment (ENRL) for primary education includes only full-time students. And, for 2004 to 2012, ENRL for secondary education (lower and upper) includes only full-time students as well.

Malaysia: Data from SEA-PLM 2019 for SDG Indicator 4.5.2 Percentage of students in a) early grades, b) at the end of primary, and c) at the end of lower secondary education who have their first or home language as language of instruction is not published as per country request to SEAMEO.

Mexico: A break in the time series of pre-primary indicators occurs in 2014 due to the following changes in the national education system:

- The entry age to pre-primary education changed from 4 to 3 years.
- The duration of pre-primary education changed from 2 to 3 years.

Norway: The country has an integrated early childhood education programme. Pupils' ages are used as a proxy to disaggregate data for early childhood educational programmes between ISCED 0 category 1 (early childhood educational development) and ISCED 0 category 2 (pre-primary). Enrolment of children up to 2 years of age is mapped to early childhood educational development and enrolment of children aged 3 years and older is mapped to pre-primary.

Peru: The country asked the UIS to not publish data for PISA 2015 and 2018.

Republic of Moldova: The population data used to calculate indicators were provided by national authorities and exclude Transnistria, consistently with education data. Additionally, as of 2014, information provided by the country has been revised to use usual residential population. For this

reason, the population data time series were only available from 2014 to 2023, restricting the coverage of population-based education indicators to those years.

Russian Federation: As of 2015, information provided by the Russian Federation includes statistical data for the Autonomous Republic of Crimea and the city of Sevastopol, Ukraine, temporarily occupied by the Russian Federation. The population data used for the calculation of indicators were from the UN Population Division and do not cover the Autonomous Republic of Crimea and the city of Sevastopol.

Saudi Arabia: due to data quality issues, the country asked to put all education indicators non-publishable.

Serbia: The population data used for the calculation of indicators are aligned to Education data, and both datasets exclude Kosovo.

Singapore: Education data starting from 2016 refer to residents (citizens and permanent residents) with local addresses and those were away from Singapore for a cumulative period of less than 6 months in the past 12 months prior to the reference date (end of June each year). The data should only be used for the purpose of computing education indicators and should not be compared against other population data published by the Singapore government.

United Republic of Tanzania: Education data do not cover Zanzibar, whereas the 2022 World Population Prospects data do. The population of Zanzibar is approximately 3% of the total population of the United Republic of Tanzania. Population-based indicators are underestimated and should therefore be interpreted with caution.

United States of America: Policies on free/compulsory education may vary by state/subnational unit. Free education at ISCED 0 category 2 (pre-primary) is offered for one year in the majority of states and, in some cases, a second year of pre-Kindergarten is also free. Therefore, free/compulsory education estimates are a valid representation of the US average but vary by state.

15 UIS Resources

UIS data browser: https://databrowser.uis.unesco.org

SDG 4 Data Explorer: http://sdg4-data.uis.unesco.org/

Education Data and Statistics Commission (EDSC), formerly known as Technical Cooperation Group for SDG 4 Indicators (TCG): http://tcg.uis.unesco.org

Global Education Observatory: http://geo.uis.unesco.org

UIS education glossary: http://uis.unesco.org/en/glossary?wbdisable=true

UIS survey page: http://uis.unesco.org/uis-questionnaires

Decisions of the Conference of Education Data and Statistics

LASER for Education Information Ecosystem

Online tools for monitoring SDG 4

Tools and resources for monitoring SDG 4 indicator 4.1.1

National SDG 4 benchmarks and the SDG 4 scorecard

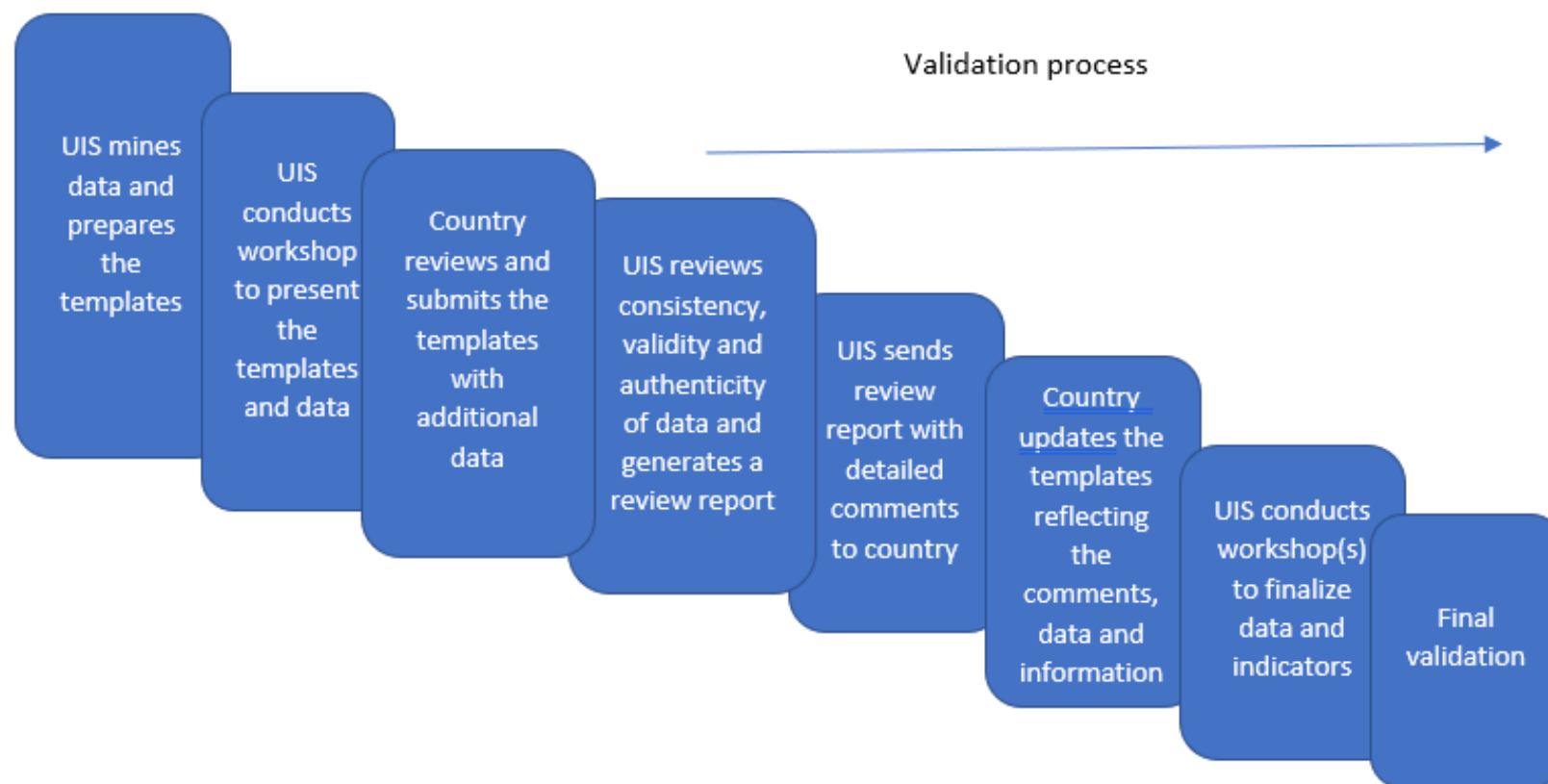UIS survey of formal education

SDG 4 UIS data digest and scorecard series

Tools

- Metadata (https://tcg.uis.unesco.org/methodological-toolkit/metadata/)
- Global Education Observatory (https://geo.uis.unesco.org/)
- Data browser (http://sdg4-data.uis.unesco.org/)
- Country profiles (https://tcg.uis.unesco.org/country-profile-new/)
- Dashboard to bridge global and regional education monitoring frameworks (https://tcg.uis.unesco.org/dashboard/)

Publications

- SDG 4 Data Digest 2021: National SDG 4 benchmarks: fulfilling our neglected commitment (https://unesdoc.unesco.org/ark:/48223/pf0000380387)
- Setting Commitments: National SDG 4 benchmarks to transform education (2022) (https://unesdoc.unesco.org/ark:/48223/pf0000382076)
- SDG4 Scorecard progress report on national benchmarks: Focus on early childhood (2023) (https://unesdoc.unesco.org/ark:/48223/pf0000384295)
- SDG4 Scorecard progress report on national benchmarks: focus on teachers (2024) (https://unesdoc.unesco.org/ark:/48223/pf0000388411)
- Regional reports to bridge global and regional education monitoring frameworks (https://tcg.uis.unesco.org/regional-frameworks-for-sdg4/)

Annex 1. UIS validation process of the multi-year dynamic templates

Validation process

UIS mines data and prepares the templates

UIS conducts workshop to present the templates and data

Country reviews and submits the templates with additional data

UIS reviews consistency, validity and authenticity of data and generates a review report

UIS sends review report with detailed comments to country

Country updates the templates reflecting the comments, data and information

UIS conducts workshop(s) to finalize data and indicators

Final validation

Annex 2. List of Other Policy Relevant Indicators

Classroom teachers and academic staff by sex
Number of teachers by teaching level of education (early childhood educational development, pre-primary, primary, lower secondary, upper secondary, secondary, post-secondary non-tertiary, tertiary), by sex
Percentage of female teachers by teaching level of education (pre-primary, primary, lower secondary, upper secondary, secondary, post-secondary non-tertiary, tertiary)
School life expectancy
School life expectancy by level of education (pre-primary, primary, secondary, post-secondary non-tertiary, tertiary, primary and lower secondary, primary and secondary, primary to tertiary), by sex
Mean years of schooling
Mean years of schooling (primary level of education or higher), 25+ years, by sex
Number and rates of international mobile students (inbound and outbound)
Inbound internationally mobile students by continent of origin, both sexes
Inbound internationally mobile students by region of origin, both sexes
Inbound internationally mobile students by country of origin, both sexes
Outbound internationally mobile students by host region, both sexes
Net flow of internationally mobile students, both sexes
Inbound mobility rate, by sex
Outbound mobility ratio by host region, both sexes
Number of students and enrolment/attendance rates by level of education
Enrolment by level of education (early childhood educational development, pre-primary, primary, lower secondary, upper secondary, secondary, post-secondary non-tertiary, short-cycle tertiary, bachelor's or equivalent level, master's or equivalent level, doctor, or equivalent level), by sex
Gross enrolment ratio by level of education (primary, lower secondary, upper secondary, secondary, post-secondary non-tertiary, primary and lower secondary, primary and secondary, primary to tertiary), by sex
Total net enrolment rate by level of education (primary, lower secondary, upper secondary), by sex
Total net attendance rate in primary education (household survey data), by sex, location (urban/rural), wealth quintile
Total net attendance rate in lower secondary education (household survey data), by sex, location (urban/rural), wealth quintile
Total net attendance rate in upper secondary education (household survey data), by sex, location (urban/rural), wealth quintile
Graduation ratio from tertiary education
Gross graduation ratio from tertiary education (bachelor's or equivalent level, master's or equivalent level), by sex
Repetition rate by grade (primary and lower secondary education) and number of repeaters
Repeaters in primary education, by grade and sex
Repeaters in lower secondary general education, by grade and sex
Repetition rate in primary education, by grade and sex
Repetition rate in lower secondary general education, by grade and sex
Out-of-school children, adolescents and youth (number)
Number of out-of-school children of one year before than official primary entry age, by sex
Number of out-of-school children of primary school age, by sex

Number of out-of-school adolescents of lower secondary school age, by sex
Number of out-of-school youth of upper secondary school age, by sex
Number of out-of-school children and adolescents of primary and lower secondary school age, by sex
Number of out-of-school adolescents and youth of secondary school age, by sex
Number of out-of-school children, adolescents and youth of primary and secondary school age, by sex
Percentage of graduates by field of education (tertiary education)
Distribution of tertiary graduates by field of study, by sex
Educational expenditure by nature of spending in public educational institutions
Current expenditure as a percentage of total expenditure in public institutions (pre-primary, primary, lower secondary, upper secondary, secondary, post-secondary non-tertiary, tertiary)
All staff compensation as a percentage of total expenditure in public institutions (pre-primary, primary, lower secondary, upper secondary, secondary, post-secondary non-tertiary, tertiary)
Teaching staff compensation as a percentage of total expenditure in public institutions (pre-primary, primary, lower secondary, upper secondary, secondary, post-secondary non-tertiary, tertiary)
Non-teaching staff compensation as a percentage of total expenditure in public institutions (pre-primary, primary, lower secondary, upper secondary, secondary, post-secondary non-tertiary, tertiary)
Current expenditure other than staff compensation as a percentage of total expenditure in public institutions (pre-primary, primary, lower secondary, upper secondary, secondary, post-secondary non-tertiary, tertiary)
Expenditure on schoolbooks and teaching material as % of total expenditure in public institutions, by level of education (primary, secondary)
Capital expenditure as a percentage of total expenditure in public institutions (pre-primary, primary, lower secondary, upper secondary, secondary, post-secondary non-tertiary, tertiary)
Percentage of students by programme orientation (ISCED 2, 3, 4 & 5)
Distribution of enrolment by programme orientation (general, vocational), and by level of education (in lower secondary, upper secondary, secondary, post-secondary non-tertiary, short-cycle tertiary education)
Number of illiterates / Percentage of illiterates who are female
Illiterate population, by age-group (15-24 years, 15+ years, 25-64 years, 65+ years), by sex
Percentage of illiterates who are female, by age-group (15-24 years, 15+ years, 25-64 years, 65+ years), by location (urban/rural)
Percentage of enrolment in private institutions by level of education
Distribution of enrolment by type of institution, by level of education (early childhood educational development, pre-primary, early childhood education, primary, lower secondary, upper secondary, secondary, post-secondary non-tertiary, tertiary)
Government expenditure on education (amount)
Government expenditure on education in PPP$ (millions), by level of education (pre-primary, primary, lower secondary, upper secondary, secondary, post-secondary non-tertiary, secondary and post-secondary non-tertiary vocational education, tertiary)
Government expenditure on education in constant PPP$, by level of education (pre-primary, primary, lower secondary, upper secondary, secondary, post-secondary non-tertiary, secondary and post-secondary non-tertiary vocational education, tertiary)
Government expenditure on education in US$, by level of education (pre-primary, primary, lower secondary, upper secondary, secondary, post-secondary non-tertiary, secondary and post-secondary non-tertiary vocational education, tertiary)
Government expenditure on education in constant US$, by level of education (pre-primary, primary, lower secondary, upper secondary, secondary, post-secondary non-tertiary, secondary and post-secondary non-tertiary vocational education, tertiary)
Survival rate by grade for primary education
Survival rate in primary education, by grade (grade 4, grade 5, last grade), by sex

Population of the official age / school age population
School age population by level of education, by level of education, by sex
Population at official entrance age by level of education (primary, secondary), by sex
Official entrance age and theoretical duration by level of education (years)
Official entrance age to each ISCED level of education (early childhood education, early childhood educational development, pre-primary, primary, lower secondary, upper secondary, post-secondary non-tertiary), and to compulsory education
Duration by level of education (early childhood education, early childhood educational development, pre-primary, primary, lower secondary, upper secondary, post-secondary non-tertiary), and of compulsory education
Start and end of academic school year (month, year)
Start and end of the academic year (pre-primary to post-secondary non-tertiary, and tertiary education)
Government expenditure on education as a percentage of GDP
Government expenditure on education as a percentage of GDP, by level of education (pre-primary, primary, lower secondary, upper secondary, secondary, post-secondary non-tertiary, secondary and post-secondary non-tertiary vocational education, tertiary)