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UIS Education Data Release: September 2018



Introduction

On 26 September 2018, the UNESCO Institute for Statistics (UIS) released new education data for the reference year 2017 on the UIS website as well as the UIS online database and various digital products.

The UIS is the official source of data used to monitor progress towards Sustainable Development Goal on education (SDG 4) and the Education 2030 Agenda. The UIS leading role in the monitoring of the SDG 4-Education 2030 Agenda is articulated around five main lines of action: support to Member States, development and implementation of standards, development of indicators, data collection, dissemination and analysis.

UIS data can be accessed and downloaded free of charge online from two platforms: UIS.Stat database at <http://data.uis.unesco.org/> or via the UIS API Portal at: <https://apiportal.uis.unesco.org/>. UIS.Stat is an online database that enables users to build their own data tables and graphs while the API portal provides programmatic access to the UIS statistical data and metadata to allow developers and researchers to build websites and applications that make rich use of the UIS dissemination data. It also provides third parties with fast, uniform and robust access to our data.

The UIS website, which offers a range of publications, visualisation tools and other digital products, can be accessed at: <http://uis.unesco.org>.

As of September 2018, the UIS has moved to one main education data release in September of each year. This release includes national data and regional averages for the school or reference year ending in the previous year and includes data collected from administrative and household surveys, including educational attainment and literacy statistics. Following this release, national data are updated in February of the following year, completing the UIS publication of education data for the round of surveys conducted in the previous reference year.

Please see the annex for a short description of UIS data collection and validation processes.

UIS education data are commonly used to identify the strengths and weaknesses of school systems, especially in developing countries struggling to meet the rising demand for education. Every year, UIS data are featured in high-level publications and databases, such as the UIS global education database and the SDG 4 Data Digest (UIS), the World Development Indicators (World Bank), Education at a Glance (OECD), the State of the World's Children (UNICEF), the Global Education Monitoring Report as well as the SDG progress report and the Global SDG Database (United Nations Statistical Division).



Coverage of the education data release

Around 5,000 variables, including 32 SDG 4 indicators (most of which have time series data ranging from 1970 to 2017) were published for more than 200 countries and territories. This includes both country-level data as well as aggregates for relevant regional and income groupings.

The current data release includes new data for:

- 95 countries with 2017 or more recent data on enrolment, teachers and related indicators for pre-primary, primary, secondary and post-secondary non-tertiary education;
- 58 countries with 2017 data on tertiary education;
- 57 countries with 2017 data on education finance and expenditure;
- 38 countries with more recent data on literacy;
- 80 countries with more recent data on educational attainment.

There are different factors that explain why data are missing for a country or an indicator. Most commonly, the UIS did not receive all of the data necessary to calculate the indicator for the country in a particular year. In some cases, indicators were not published because the UIS or the country identified inconsistencies in the reported data. When this happens, the UIS engages with the country to try to resolve the issue. This explains why there are usually more countries reporting data to the UIS than those for which data are published.

The data covered in the September 2018 data release cover a wide range of topics including: entry, participation and progression in school from early childhood education to tertiary education; learning outcomes; equity; literacy; educational attainment; international student mobility; human and financial resources invested in education; school resources and facilities; information and communication technologies in education; national regulations on free and compulsory education; and the structure of national education systems.

Table 1 in the annex presents the main indicators and variables by topic and the related disaggregation.

SDG 4 indicators included in the release

There are 43 SDG 4 indicators (11 global indicators and 32 thematic indicators) to monitor SDG 4-Education 2030 Agenda. The UIS is the custodian agency responsible for the development and production of data for almost all of the SDG 4 indicators (41 out of 43). This responsibility is shared with partner organizations.

The Technical Cooperation Group on the Indicators for SDG 4 – Education 2030 (TCG) serves as a platform to discuss and develop the indicators used for monitoring the Education 2030 targets. The TCG is composed of 38 regionally-representative members from UNESCO Member States, international partners,



civil society and the Co-Chair of Education 2030 Steering Committee, with the UIS hosting its Secretariat. Each year the TCG meets and approves a certain number of indicators for monitoring in the current year. The UIS release includes the latest available data for 32 out of the 33 SDG 4 global and thematic indicators adopted by the TCG for monitoring in 2018.

Table 2 in the annex presents the SDG 4 indicators published in this release and **Table 3** presents the remaining SDG 4 indicators for which no data are available.

New SDG 4 or SDG 4-related indicators added in this release:

1. **SDG 4.3.2:** Gross enrolment ratio for tertiary education, by sex – added household survey indicator Gross Attendance Rate (GAR), disaggregated by sex, location and wealth;
2. **SDG 4.3.3** Participation rate in technical and vocational programmes (15 to 24-year-olds) – indicator was expanded to cover ISCED levels 4 and 5;
3. **SDG 4.4.1** Proportion of youth and adults with information and communications technology (ICT) skills, by type of skill added data by sex;
4. **SDG 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 – split into categories based on the parity indices and added additional indices for the new/updated indicators;
5. **SDG 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 added data by sex, socio-economic status and immigrations status;
6. **SDG 4.6.3** Participation rate of illiterate youth/adults in literacy programmes – indicator added;
7. **SDG 4.7.2** Percentage of schools that provide life skills-based HIV and sexuality education – indicator added;
8. **SDG 4.a.2** Percentage of students experiencing bullying in the last 12 months – indicator added;
9. **SDG 4.a.3** Number of attacks on students, personnel and institutions – indicator added;
10. Start of the academic school year (pre-primary to post-secondary non tertiary education) – indicator added;
11. End of the academic school year (pre-primary to post-secondary non tertiary education) – indicator added;
12. Start of the academic school year (tertiary education)-indicator added;
13. End of the academic school year (tertiary education) – indicator added.



Annex

Data collection and validation processes

To produce the data, the UIS collects data through harmonized education surveys sent to Member States on an annual basis. The UIS administers the following education surveys to Member States:

- Survey of Formal Education: which collects data on the number of students, teachers and educational expenditure for all levels of education. For countries under the responsibility of the Organisation for Economic Development and Eurostat, this survey is jointly administered between UIS and the two organizations.
- Questionnaire on Educational Attainment Statistics;
- Questionnaire on Literacy Statistics.

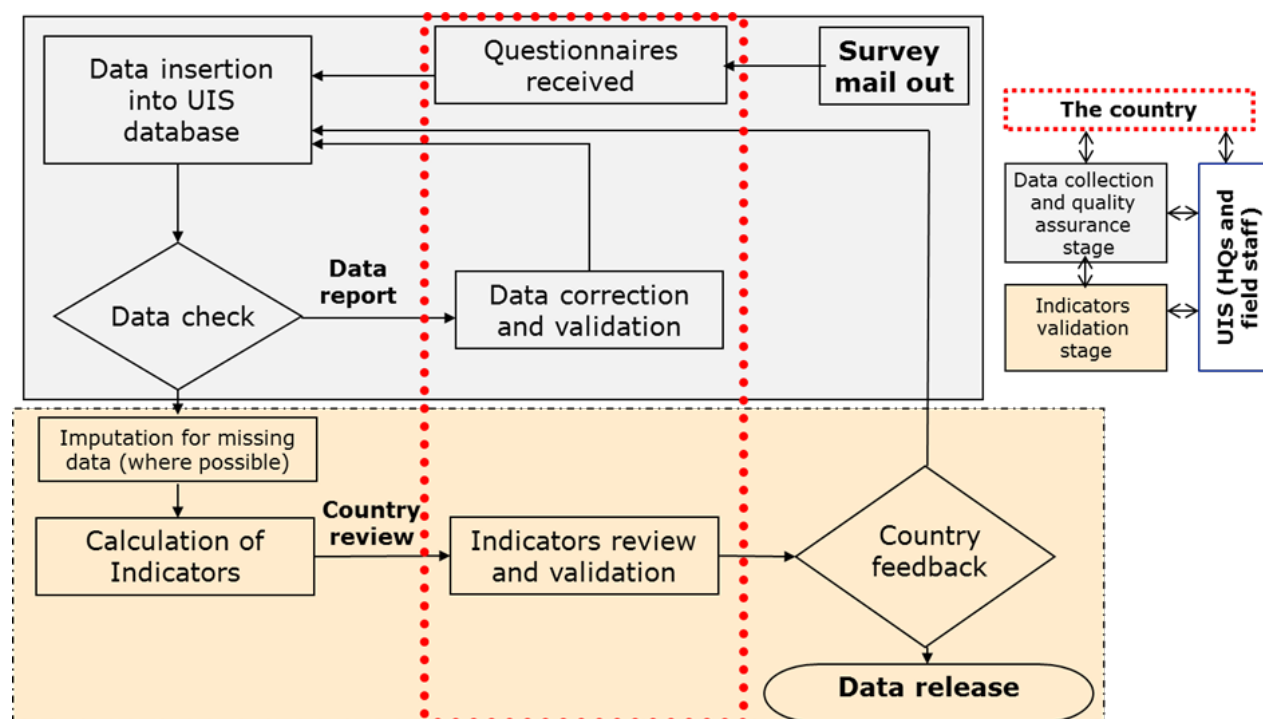
In 2018, the UIS also administered version 2.0 of its Catalogue of Learning Assessment (CLA 2.0) to collect national data for some specific SDG 4 indicators on learning outcomes, ICT skills, literacy and numeracy skills.

To avoid duplication of efforts and minimize the reporting burden on Member States, the UIS collects also education data directly from partner's organizations or extracts the information directly from recognized online databases (e.g MICS and DHS surveys). To calculate education indicators, the UIS collects also demographic data from the United Nations Population Division and economic data from the World Bank and the International Monetary Fund.

UIS data are based on the following data sources: administrative data (government administrative records, schools censuses), household surveys, population censuses and leaning assessment surveys. The UIS has put in place a rigorous system to validate data with Member States. First, data are carefully reviewed to ensure that they are complete and comply with international standards and definitions, such as the International Standard Classification of Education. Second, the UIS sends a detailed data report to the respondents who submitted the country data, documenting the issues found during data processing and requesting clarification and/or updated figures. Finally, the UIS sends a file with calculated education indicators to national authorities for their review and approval (see diagram below for the UIS data quality assurance process).



Figure 1. Data collection and validation process



Summary of the published data

Table 1. Content of the UIS data release

Topics	Main variables and indicators	Breakdowns
Out of school children, adolescents and youth	<ul style="list-style-type: none"> - Absolute numbers and rates of out of school children, adolescents and youth - Parity indices 	<ul style="list-style-type: none"> - Sex - Level of education - Age group - Income and location (household survey data)
Access to education	<ul style="list-style-type: none"> - Absolute number of new entrants, intake ratios and entry rates (gross and net) - Parity indices 	<ul style="list-style-type: none"> - Sex - Level of education - Age group
Participation in education	<ul style="list-style-type: none"> - Absolute number of students, enrolment and attendance rates (gross and net) - School life expectancy - Participation rates 	<ul style="list-style-type: none"> - Sex - Level of education - Sector (public, private) - Programme orientation (general, vocational) - Type of education (initial, adult) - Field of education - Income and location (household survey data)



Topics	Main variables and indicators	Breakdowns
Progression in education	<ul style="list-style-type: none"> - Absolute numbers of repeaters and graduates - Repetition ,drop-out and survival rates - Promotion and transition rates - Completion and graduation rates - Parity indices 	<ul style="list-style-type: none"> - Sex - Level of education - Field of education - Grade - Income and location (household survey data on completion rates)
Literacy	<ul style="list-style-type: none"> - Literacy rates - Illiterate population 	<ul style="list-style-type: none"> - Sex - Age group
Educational attainment	<ul style="list-style-type: none"> - Share of population by educational attainment - Minimum level of education completed - Means years of schooling - Parity indices 	<ul style="list-style-type: none"> - Sex - Level of education
International student mobility in tertiary education	<ul style="list-style-type: none"> - Absolute number of inbound students - Absolute number of outbound students - Mobility ratios (inbound and outbound) 	<ul style="list-style-type: none"> - Sex - Country of origin - Host region - Region of origin
Human resources	<ul style="list-style-type: none"> - Absolute number of teachers - Percentage of trained teachers - Percentage of qualified teachers - Student-teachers ratios - Teacher attrition rates - Parity indices 	<ul style="list-style-type: none"> - Sex - Level of education - Programme orientation - Sector - Teaching experience - Contract type
Educational expenditure	<ul style="list-style-type: none"> - In millions - As a percentage of GDP - As a percentage of total government expenditure - Distribution of expenditure - Initial expenditure per student 	<ul style="list-style-type: none"> - Level of Education - Sector - Nature of spending (current, capital, staff salary, text books) - PPP\$ - GDP per capita - US\$ - Constant US\$ - Constant PPP\$
School facilities and teaching conditions	<ul style="list-style-type: none"> - Percentage of school with access to basic facilities: toilets; drinking water; handwashing facilities; electricity; internet for pedagogical purpose - Class size (Africa only) - Textbooks per students (Africa only) 	<ul style="list-style-type: none"> - Level of education - Subject matter - Grade
Adult education (Latin America and the Caribbean only)	<ul style="list-style-type: none"> - Participation in adult education programmes 	<ul style="list-style-type: none"> - Sex - Type of adult education programmes - Level of education
Disparities in teacher's training, deployment, characteristics and working conditions at	<ul style="list-style-type: none"> - Teachers' count and distribution - Teacher's training and experiences - Teachers' professional status 	<ul style="list-style-type: none"> - Sex - Level of education - Age



Topics	Main variables and indicators	Breakdowns
sub-national level (Asia only)		
Education Systems	<ul style="list-style-type: none"> - School entrance ages and durations - Number of years of free and compulsory education - Start and end of the academic year 	<ul style="list-style-type: none"> - Level of education
School-age population	<ul style="list-style-type: none"> - School-age population 	<ul style="list-style-type: none"> - Level of education - Sex - Grade

Table 2. 32 SDG 4 indicators for which UIS is publishing data in this release

Target	Indicator	Breakdown
Target 4.1. By 2030, ensure all girls and boys complete free, equitable and quality primary and secondary education leading to relevant	4.1.1 Proportion of children and young people (a) in Grade 2 or 3; (b) at the end of primary education; and (c) at the end of lower secondary education achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex	<ul style="list-style-type: none"> - Level of education - Sex - Grade - Location - Subject (Math, Reading) - Socio-economic status - Immigrant status - Language spoken at home
	4.1.2 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	<ul style="list-style-type: none"> - Level of education - Grade - Subject
	4.1.3 Gross intake ratio to the last grade (primary education, lower secondary education)	<ul style="list-style-type: none"> - Level of education - Sex
	4.1.4 Completion rate (primary education, lower secondary education, upper secondary education)	<ul style="list-style-type: none"> - Level of education - Sex - Income - Location
	4.1.5 Out-of-school rate (primary education, lower secondary education, upper secondary education)	<ul style="list-style-type: none"> - Level of education - Sex - Income and location (household survey data)
	4.1.6 Percentage of children over-age for grade (primary education, lower secondary education)	<ul style="list-style-type: none"> - Level of education - Sex
	4.1.7 Number of years of (a) free and (b) compulsory primary and secondary	<ul style="list-style-type: none"> - Level of education



Target	Indicator	Breakdown
	education guaranteed in legal frameworks	
Target 4.2 By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education	4.2.1 Proportion of children under 5 years of age who are developmentally on track in health, learning and psychosocial well-being, by sex	- Sex dimension not yet available
	4.2.2 Participation rate in organized learning (one year before the official primary entry age), by sex	- Sex
	4.2.4 Gross early childhood education enrolment ratio in (a) pre-primary education and (b) and early childhood educational development	- Level of early childhood education - Sex
	4.2.5 Number of years of (a) free and (b) compulsory pre-primary education guaranteed in legal frameworks	- Level of education
Target 4.3 By 2030, ensure equal access for all women and men to affordable quality technical, vocational and tertiary education, including university	4.3.1 Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex	- Sex
	4.3.2 Gross enrolment ratio for tertiary education	- Sex - Income and location (household survey data)
	4.3.3 Participation rate in technical-vocational programmes (15 to 24-year-olds)	- Sex
Target 4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship	4.4.1 Proportion of youth and adults with information and communications technology (ICT) skills, by type of skill	- Sex - Type of skill
	4.4.3 Youth/adult educational attainment rates by age group, economic activity status, levels of education and programme orientation	- Level of education - Sex
Target 4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations	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	- Sex - Math and Reading - Location - Language spoken at home - Immigrant status - Location - Socio-economic status
	4.5.4 Education expenditure per student by level of education and source of funding	- Level of education - GDP per Capita - Constant PPP\$ - Source of funding (Government/household)
	4.5.5 Percentage of total aid to education allocated to least developed countries	- Not further broken down
Target 4.6 By 2030, ensure that all youth and a substantial	4.6.1 Percentage of population in a given age group achieving at least a fixed level	- Type of skill (Literacy, Numeracy)



Target	Indicator	Breakdown
proportion of adults, both men and women, achieve literacy and numeracy	of proficiency in functional (a) literacy and (b) numeracy skills, by sex	- Sex - Socio-economic status - Immigration status -
	4.6.2 Youth/adult literacy rate - Parity indices	- Sex - Age group
	4.6.3 Participation rate of illiterate youth/adults in literacy programmes	- -Sex
Target 4.7 By 2030, ensure all learners acquire knowledge and skills needed to promote sustainable development, including among others through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship, and appreciation of cultural diversity and of culture's contribution to sustainable development	4.7.2 Percentage of schools that provide life skills-based HIV and sexuality education	- Level of education - Sector
Target 4.a Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all	4.a.1 Proportion of schools with access to: electricity; Internet; computers; adapted infrastructure and materials for students with disabilities; basic drinking water; single-sex basic sanitation facilities; and basic handwashing facilities (as per the WASJ indicator definitions)	- Level of education - Sector - Infrastructure type
	4.a.2 Percentage of students experiencing bullying, corporal punishment, harassment, violence, sexual discrimination and abuse -Parity indices	- Sex - Socio-economic status - Immigrant status
	4.a.3 Number of attacks on students, personnel and institutions	- Not further broken down
Target 4.b By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training, information and communications technology, technical, engineering and scientific	4.b.1 Volume of official development assistance flows for scholarships by sector and type of study	- Not further broken down



Target	Indicator	Breakdown
programmes in developed countries and other developing countries		
Target 4.c By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing States	4.c.1 Proportion of teachers in: (a) pre-primary education; (b) primary education; (c) lower secondary education; and (d) upper secondary education who have received at least the minimum organized teacher training (e.g., pedagogical training) pre-service or in-service required for teaching at the relevant level in a given country, by sex	- Level of education - Sex
	4.c.2 Pupil-trained teacher ratio by education level	- Level of education
	4.c.3 Percentage of teachers qualified according to national standards by education level and type of institution	- Level of education; - Sex
	4.c.4 Pupil-qualified teacher ratio by education level	- Level of education
	4.c.6 Teacher attrition rate by education level	- Level of education; - Sex - Sector

SDG 4 indicators for which UIS is not publishing data in this release

The following table presents the SDG 4 indicators for which data are not currently available. These indicators require further methodological development and the UIS is actively working in coordination with the TCG on this.

The methodology and data collection have already been completed for the global indicator SDG 4.7.1 on education for global citizenship and for sustainable development. UNESCO is currently undertaking a consultation to complete its validation with Member States. This indicator is expected to be published by the UIS in February 2019.

Table 3. 11 SDG 4 indicators for which the UIS is not publishing data in this release

Target	Indicator
Target 4.2 By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education	4.2.3 Percentage of children under 5 years experiencing positive and stimulating home learning environments
Target 4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including	4.4.2 Percentage of youth/adults who have achieved at least a minimum level of proficiency in digital literacy skills



Target	Indicator
technical and vocational skills, for employment, decent jobs and entrepreneurship	
Target 4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations	4.5.2 Percentage of students in primary education whose first or home language is the language of instruction
	4.5.3 Extent to which explicit formula-based policies reallocate education resources to disadvantaged populations
Target 4.7 By 2030, ensure all learners acquire knowledge and skills needed to promote sustainable development, including among others through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship, and appreciation of cultural diversity and of culture's contribution to sustainable development	4.7.1 Extent to which (i) global citizenship education and (ii) education for sustainable development, including gender equality and human rights, are mainstreamed at all levels in: (a) national education policies, (b) curricula, (c) teacher education and (d) student assessment
	4.7.3 Extent to which the framework on the World Programme on Human Rights Education is implemented nationally (as per the UNGA Resolution 59/113)
	4.7.4 Percentage of students by age group (or education level) showing adequate understanding of issues relating to global citizenship and sustainability
	4.7.5 Percentage of 15-year-old students showing proficiency in knowledge of environmental science and geoscience
Target 4.b By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training, information and communications technology, technical, engineering and scientific programmes in developed countries and other developing countries	4.b.2 Number of higher education scholarships awarded by beneficiary country
Target 4.c By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing States	4.c.5 Average teacher salary relative to other professions requiring a comparable level of qualification
	4.c.7 Percentage of teachers who received in-service training in the last 12 months by type of training