Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
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
Indicator 4.a.1: Proportion of schools with access to: (a) electricity; (b) the Internet for pedagogical purposes; (c) computers for pedagogical purposes; (d) adapted infrastructure and materials for students with disabilities; (e) basic drinking water; (f) single-sex basic sanitation facilities; and (g) basic handwashing facilities (as per the WASH indicator definitions)

Institutional information

Organization(s):

UNESCO Institute for Statistics (UNESCO-UIS)

Concepts and definitions

Definition:

The percentage of schools by level of education (primary education) with access to the given facility or service.

Rationale:

The indicator measures access in schools to key basic services and facilities necessary to ensure a safe and effective learning environment for all students.

A high value indicates that schools have good access to the relevant services and facilities. Ideally each school should have access to all these services and facilities.

Concepts:

Electricity: Regularly and readily available sources of power (e.g. grid/mains connection, wind, water, solar and fuel-powered generator, etc.) that enable the adequate and sustainable use of ICT infrastructure for educational purposes.

Internet for pedagogical purposes: Internet that is available for enhancing teaching and learning and is accessible by pupils. Internet is defined as a worldwide interconnected computer network, which provides pupils access to a number of communication services including the World Wide Web and carries e-mail, news, entertainment and data files, irrespective of the device used (i.e. not assumed to be only via a computer) and thus can also be accessed by mobile telephone, tablet, PDA, games machine, digital TV etc.). Access can be via a fixed narrowband, fixed broadband, or via mobile network.

Computers for pedagogical use: Use of computers to support course delivery or independent teaching and learning needs. This may include activities using computers or the Internet to meet information needs for research purposes; develop presentations; perform hands-on exercises and experiments; share information; and participate in online discussion forums for educational purposes. A computer is a programmable electronic device that can store, retrieve and process data, as well as share information in

a highly-structured manner. It performs high-speed mathematical or logical operations according to a set of instructions or algorithms. Computers include the following types:

- A desktop computer usually remains fixed in one place; normally the user is placed in front of it, behind the keyboard;

- A laptop computer is small enough to carry and usually enables the same tasks as a desktop computer; it includes notebooks and netbooks but does not include tablets and similar handheld devices; and

- A tablet (or similar handheld computer) is a computer that is integrated into a flat touch screen, operated by touching the screen rather than using a physical keyboard.

Adapted infrastructure is defined as any built environment related to education facilities that are accessible to all users, including those with different types of disability, to be able to gain access to use and exit from them. Accessibility includes ease of independent approach, entry, evacuation and/or use of a building and its services and facilities (such as water and sanitation), by all of the building's potential users with an assurance of individual health, safety and welfare during the course of those activities .

Adapted materials include learning materials and assistive products that enable students and teachers with disabilities/functioning limitations to access learning and to participate fully in the school environment.

Accessible learning materials include textbooks, instructional materials, assessments and other materials that are available and provided in appropriate formats such as audio, braille, sign language and simplified formats that can be used by students and teachers with disabilities/functioning limitations.

Basic drinking water is defined as a functional drinking water source (MDG ‘improved’ categories) on or near the premises and water points accessible to all users during school hours.

Basic sanitation facilities are defined as functional sanitation facilities (MDG ‘improved’ categories) separated for males and females on or near the premises.

Basic handwashing facilities are defined as functional handwashing facilities, with soap and water available to all girls and boys.

Comments and limitations:

The indicator measures the existence in schools of the given service or facility but not its quality or operational state.

Methodology

Computation Method:

The number of schools in a given level of education with access to the relevant facilities is expressed as a percentage of all schools at that level of education.

$$PS_{n,f} = \frac{S_{n,f}}{S_n}$$

where:

PSn,f = percentage of schools at level n of education with access to facility f

Sn,f = schools at level n of education with access to facility f

Sn = total number of schools at level n of education

Disaggregation:

By level of education.

Treatment of missing values:

- At country level

  The UIS estimates certain key items of data that may be missing or incomplete in order to have publishable estimates at the country level. Where this is not possible the UIS imputes missing values for use only for calculating regional and global aggregates.

  In all cases estimates are based on evidence from the country itself (eg information from the data provider on the size of the missing component, via correspondence, publications or data on the Ministry's or National Statistical Office's Webpage, or via surveys conducted by other organizations) or on data from the country for a previous year.
  Where data are available for a country for both an earlier and a more recent year than the missing year, a simple linear interpolation is made. Where data are only available for an earlier year, the most recent value is used as an estimate. Similarly, where data are only available for a more recent year, the last value is used as an estimate.
  Where the relevant data are not available at all for a country, estimates may be based on another variable which is clearly linked to the item being estimated. For example, schools with access to basic services or facilities may be estimated from the total number of schools.

  Where no data are available for the country in any year that can inform the estimate, the unweighted average for the region in which the country lies is used.

  Currently no estimates are made for this indicator for the purpose of having publishable country-level data.

- At regional and global levels

  Regional and global aggregates are derived from both publishable and imputed national data. Publishable data are the data submitted to the UIS by Member States or the result of an explicit estimation made by the Institute based on pre-determined standards. In both cases, these data are sent to Member States for review before they are considered publishable by the UIS.

  When data are not available for all countries, the UIS imputes national data for the sole purpose of calculating regional averages. These imputed data are not published nor otherwise disseminated.

  The regional and global aggregates are then calculated as weighted averages using the denominator of the indicator as the weight.

Regional aggregates:

Regional and global aggregates are calculated as weighted averages using the denominator of the indicator as the weight. As described previously, where publishable data are not available for a given country or year, values are imputed for the purpose of calculating the regional and global aggregates.

Sources of discrepancies:

Nationally-published figures may differ from the international ones because of differences between national education systems and the International Standard Classification of Education (ISCED); or differences in coverage (i.e. the extent to which different types of education – e.g. private or special education – are included in one rather than the other).

Data Sources

Description:

Administrative data from schools and other providers of education or training.

Collection process:

The UNESCO Institute for Statistics produces time series based on data reported by Ministries of Education or National Statistical Offices. The data are gathered through the annual Survey of Formal Education (on access to electricity, drinking water, sanitation and handwashing facilities) and through the Survey on ICTs in Education (on access to electricity, Internet and computers). Data on adapted infrastructure are not collected currently. Countries are asked to report data according to the levels of education defined in the International Standard Classification of Education (ISCED) to ensure international comparability of resulting indicators.

The data received are validated using electronic error detection systems that check for arithmetic errors and inconsistencies and trend analysis for implausible results. Queries are taken up with the country representatives reporting the data so that corrections can be made (of errors) or explanations given (of implausible but correct results). During this process countries are also encouraged to provide estimates for missing or incomplete data items.

In addition, countries also have an opportunity to see and comment on the main indicators the UIS produces in an annual “country review” of indicators.

Data Availability

Description:

70 countries for electricity and computers, 100 countries for Internet, water and sanitation. Hand-washing facilities are being collected for the first time in 2016. Adapted infrastructure is not yet collected at the global level.

Time series:

2007-2015

Calendar

Data collection:

January 2017 (for electricity, water, sanitation and handwashing facilities). End of 2016 (for Internet and computers).

Data release:

November/December 2016 (for electricity, water, sanitation and handwashing facilities). Late 2017 (for Internet and computers).

Data providers

Ministries of Education and/or National Statistical Offices.

Data compilers

Name:

UNESCO Institute for Statistics

References

URL:

http://www.uis.unesco.org/Pages/default.aspx

References:

The proportion of schools with access to electricity, the Internet for pedagogical purposes and computers for pedagogical purposes: see Guide to Measuring Information and Communication Technologies (ICT) in Education, UIS Technical Paper No. 2.

WASH Monitoring Indicators:
http://www.unicef.org/wash/files/4_WSSCC_JMP_Fact_Sheets_4_UK_LoRes.pdf

UIS Questionnaires on Statistics of Information and Communication Technologies (ICT) in Education and the Regional Module for Africa: http://www.uis.unesco.org/UISQuestionnaires/Pages/default.aspx.

Related indicators

6.1, 6.2, 7.1, 9.c, 17.8

Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
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 and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries
Indicator 4.b.1: Volume of official development assistance flows for scholarships by sector and type of study

Institutional information

Organization(s):

Organisation for Economic Co-operation and Development (OECD)

Concepts and definitions

Definition:

Gross disbursements of total ODA from all donors for scholarships.

Rationale:

Total ODA flows to developing countries quantify the public effort that donors provide to developing countries for scholarships.

Concepts:

ODA: The DAC defines ODA as "those flows to countries and territories on the DAC List of ODA Recipients and to multilateral institutions which are

i) provided by official agencies, including state and local governments, or by their executive agencies; and
ii) each transaction is administered with the promotion of the economic development and welfare of developing countries as its main objective; and

is concessional in character and conveys a grant element of at least 25 per cent (calculated at a rate of discount of 10 per cent). (See http://www.oecd.org/dac/stats/officialdevelopmentassistancedefinitionandcoverage.htm)

Scholarships: Financial aid awards for individual students and contributions to trainees. The beneficiary students and trainees are nationals of developing countries. Financial aid awards include bilateral grants to students registered for systematic instruction in private or public institutions of higher education to follow full-time studies or training courses in the donor country. Estimated tuition costs

of students attending schools financed by the donor but not receiving individual grants are not included here, but under item imputed student costs (CRS sector code 1520). Training costs relate to contributions for trainees from developing countries receiving mainly non-academic, practical or vocational training in the donor country.

Comments and limitations:
Data in the Creditor Reporting System are available from 1973. However, the data coverage is considered complete from 1995 for commitments at an activity level and 2002 for disbursements.

Data for scholarships are only available since 2010 when the new typology of aid was introduced in DAC statistics.

Methodology

Computation Method:

The sum of ODA flows from all donors to developing countries for scholarships.

Disaggregation:

This indicator can be disaggregated by donor, recipient country, type of finance, etc.

Treatment of missing values:

- At country level

  Due to high quality of reporting, no estimates are produced for missing data.

- At regional and global levels

  Not applicable.

Regional aggregates:

Global and regional figures are based on the sum of ODA flows for scholarships.

Sources of discrepancies:

DAC statistics are standardized on a calendar year basis for all donors and may differ from fiscal year data available in budget documents for some countries.

Data Sources

Description:

The OECD/DAC has been collecting data on official and private resource flows from 1960 at an aggregate level and 1973 at an activity level through the Creditor Reporting System (CRS data are considered complete from 1995 for commitments at an activity level and 2002 for disbursements).

Data for scholarships are only available since 2010 when the new typology of aid was introduced in DAC statistics.

The data are reported by donors according to the same standards and methodologies (see here: http://www.oecd.org/dac/stats/methodology.htm).

Data are reported on an annual calendar year basis by statistical reporters in national administrations (aid agencies, Ministries of Foreign Affairs or Finance, etc.

Collection process:

A statistical reporter is responsible for the collection of DAC statistics in each providing country/agency. This reporter is usually located in the national aid agency, Ministry of Foreign Affairs or Finance etc.

Data Availability

Description:

On a recipient basis for all developing countries eligible for ODA.

Time series:

Data are available from 2010.

Calendar

Data collection:

Data are published on an annual basis in December for flows in the previous year.

Detailed 2015 flows was published in December 2016.

Data providers

Data are reported on an annual calendar year basis by statistical reporters in national administrations (aid agencies, Ministries of Foreign Affairs or Finance, etc.

Data compilers

OECD

References

URL:

www.oecd.org/dac/stats

References:

See all links here: http://www.oecd.org/dac/stats/methodology.htm

Related indicators

Other ODA indicators.

Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
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

Indicator 4.c.1: Proportion of teachers in: (a) pre-primary; (b) primary; (c) lower secondary; 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

Institutional information

Organization(s):

UNESCO Institute for Statistics (UNESCO-UIS)

Concepts and definitions

Definition:

The percentage of teachers by level of education taught (pre-primary, primary, lower secondary and upper secondary education) who have received at least the minimum organized pedagogical teacher training pre-service and in-service required for teaching at the relevant level in a given country

Rationale:

Teachers play a key role in ensuring the quality of education provided. Ideally all teachers should receive adequate, appropriate and relevant pedagogical training to teach at the chosen level of education and be academically well-qualified in the subject(s) they are expected to teach. This indicator measures the share of the teaching work force which is pedagogically well-trained.

A high value indicates that students are being taught by teachers who are pedagogically well-trained to teach.

Concepts:

A teacher is trained if they have received at least the minimum organized pedagogical teacher training pre-service and in-service required for teaching at the relevant level in a given country.

Comments and limitations:

It is important to note that national minimum training requirements can vary widely from one country to the next. This variability between countries lessens the usefulness of global tracking because the indicator would only show the percent reaching national standards, not whether teachers in different countries have similar levels of training. Further work would be required if a common standard for teacher training is to be applied across countries.

Methodology

Computation Method:

The number of teachers in a given level of education who are trained is expressed as a percentage of all teachers in that level of education.

PTTn = TTn

Tn

where:

PTTn = percentage of trained teachers at level n of education

TTn = trained teachers at level n of education

Tn = total teachers at level n of education

n = 02 (pre-primary), 1 (primary), 2 (lower secondary), 3 (upper secondary) and 23 (secondary)

Disaggregation:

By sex, level of education and type of institution (public/private).

Treatment of missing values:

- At country level

  The UIS estimates certain key items of data that may be missing or incomplete in order to have publishable estimates at the country level. Where this is not possible the UIS imputes missing values for use only for calculating regional and global aggregates.

  For the purposes of calculating the percentage of trained teachers, the UIS may make one or more of the following:

  • An adjustment to account for over- or under-reporting, for example:

    o To include teachers in a type of education – such as private education or special education – not reported by the country; and/or

    o To include teachers in a part of the country not reported by the country.

  • An estimate of the number of trained teachers in each level of education if the country only reported data for combined levels (eg total secondary rather than lower and upper secondary separately).

  In all cases estimates are based on evidence from the country itself (eg information from the data provider on the size of the missing component, via correspondence, publications or data on the Ministry's or National Statistical Office's Webpage, or via surveys conducted by other organizations) or on data from the country for a previous year. These figures may be published: (i) as observed data if the missing items are found in a national source; (ii) as national estimates

if the country is persuaded to produce estimates and submit them in place of missing data; or (iii) as UIS estimates, if the estimates are made by the UIS.

- At regional and global levels

  Regional and global aggregates are derived from both publishable and imputed national data. Publishable data are the data submitted to the UIS by Member States or the result of an explicit estimation made by the Institute based on pre-determined standards. In both cases, these data are sent to Member States for review before they are considered publishable by the UIS.

  When data are not available for all countries, the UIS imputes national data for the sole purpose of calculating regional averages. These imputed data are not published nor otherwise disseminated.

  Where data are available for a country for both an earlier and a more recent year than the missing year, a simple linear interpolation is made. Where data are only available for an earlier year, the most recent value is used as an estimate. Similarly, where data are only available for a more recent year, the last value is used as an estimate.

  Where the relevant data are not available at all for a country, estimates may be based on another variable which is clearly linked to the item being estimated. For example, trained teachers may be based on total teachers.

  Where no data are available for the country in any year that can inform the estimate, the unweighted average for the region in which the country lies is used.

Regional aggregates:

Regional and global aggregates are calculated as weighted averages using the denominator of the indicator as the weight. As described previously, where publishable data are not available for a given country or year, values are imputed for the purpose of calculating the regional and global aggregates.

Sources of discrepancies:

Nationally-published figures may differ from the international ones because of differences between national education systems and the International Standard Classification of Education (ISCED); or differences in coverage (i.e. the extent to which different types of education – e.g. private or special education – are included in one rather than the other).

Data Sources

Description:

Administrative data from schools and other organized learning centres.

Collection process:

The UNESCO Institute for Statistics produces time series based on teachers' data reported by Ministries of Education or National Statistical Offices. The data are gathered through the annual Survey of Formal Education. Countries are asked to report data according to the levels of education defined in the

International Standard Classification of Education (ISCED) to ensure international comparability of resulting indicators.

The data received are validated using electronic error detection systems that check for arithmetic errors and inconsistencies and trend analysis for implausible results. Queries are taken up with the country representatives reporting the data so that corrections can be made (of errors) or explanations given (of implausible but correct results). During this process countries are also encouraged to provide estimates for missing or incomplete data items.

In addition, countries also have an opportunity to see and comment on the main indicators the UIS produces in an annual “country review” of indicators.

Data Availability

Description:

113 for primary (at least once in the period 2010-2015) Developed regions 6, Caucasus and Central Asia 6, Northern Africa 4, Sub-Saharan Africa 44, Eastern Asia 3, South-Eastern Asia 8, Southern Asia 6, Western Asia 6, Latin America and the Caribbean 27, Oceania 4.

Time series:

1998-2015

Calendar

Data collection:

January 2017.

Data release:

November/December 2016.

Data providers

Ministries of Education and/or National Statistical Offices.

Data compilers

UNESCO Institute for Statistics

References

URL:

http://www.uis.unesco.org/Pages/default.aspx

References:

The Survey of Formal Education Instruction Manual
http://www.uis.unesco.org/UISQuestionnaires/Documents/UIS_ED_M_2016.pdf

UIS Questionnaire on Students and Teachers (ISCED 0-4)
http://www.uis.unesco.org/UISQuestionnaires/Pages/default.aspx.

Related indicators

1.2, 1.4, 1.a, 2.1, 2.2, 2.3, 3.7, 3.c, 3.d, 5.1, 5.5, 5.b, 8.6, 8.7, 10.2, 12.8, 13.3, 13.b

Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
Target 4.1: By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes
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)

Institutional information

Organization(s):

UNESCO Institute for Statistics (UNESCO-UIS)

Concepts and definitions

Definition:

Percentage of children and young people in Grade 2 or 3 of primary education, at the end of primary education and the end of lower secondary education achieving at least a minimum proficiency level in (a) reading and (b) mathematics. The minimum proficiency level will be measured relative to new common reading and mathematics scales currently in development.

Rationale:

The indicator is a direct measure of the learning outcomes achieved in the two subject areas at the end of the relevant stages of education. The three measurement points will have their own established minimum standard. There is only one threshold that divides students into above and below minimum:

> (a) Below minimum is the proportion or percentage of students who do not achieve a minimum standard as set up by countries according to the globally-defined minimum competencies.
>
> (b) Above minimum is the proportion or percentage of students who have achieved the minimum standards. Due to heterogeneity of performance levels set by national and cross-national assessments, these performance levels will have to be mapped to the globally-defined minimum performance levels. Once the performance levels are mapped, the global education community will be able to identify for each country the proportion or percentage of children who achieved minimum standards.

Concepts:

Minimum proficiency level is the benchmark of basic knowledge in a domain (mathematics or reading) measured through learning assessments. For example, the Programme for International Student Assessment (PISA) reading test has six proficiency levels, of which Level 2 is described as the minimum proficiency level. In Trends in International Mathematics and Science Study (TIMSS) and Progress in International Reading Literacy Study (PIRLS), there are four proficiency levels: Low, Intermediate, High and Advanced. Students reaching the Intermediate benchmark are able to apply basic knowledge in a variety of situations, similar to the idea of minimum proficiency. Currently, there are no common

standards validated by the international community or countries. The indicator shows data published by each of the agencies and organizations specialised in cross-national learning assessments.

Comments and limitations:

While data from many national assessments are available now, every country sets its own standards so the performance levels might not be comparable. One option is to link existing regional assessments based on a common framework. Furthermore, assessments are typically administered within school systems, the current indicators cover only those in school and the proportion of in-school target populations might vary from country to country due to varied out-of-school children populations. Assessing competencies of children and young people who are out of school would require household-based surveys. Assessing children in households is under consideration but may be very costly and difficult to administer and unlikely to be available on the scale needed within the next 3-5 years. Finally, the calculation of this indicator requires specific information on the ages of children participating in assessments to create globally-comparable data. The ages of children reported by the head of the household might not be consistent and reliable so the calculation of the indicator may be even more challenging. Due to the complication in assessing out-of-school children and the main focus on improving education system, the UIS is taking a stepping stone approach. It will concentrate on assessing children in school in the medium term, where much data are available, then develop more coherent implementation plan to assess out-of-school children in the longer term.

Methodology

Computation Method:

The indicator is calculated as the percentage of children and/or young people at the relevant stage of education achieving or exceeding a pre-defined proficiency level in a given subject.

Performance above the minimum level, PLtn,s,above minimum = p

where p is the percentage of students in a learning assessment at stage of education n, in subject s in any year (t-i) where 0 ? i ? 5, who has achieved the level of proficiency that is greater than a pre-defined minimum standard, Smin. The minimum standard is defined by the global education community taking into consideration regional differences.

Disaggregation:

By age or age-group of students, sex, location, socio-economic status, migrant status and ethnicity. Disability status is not currently available in most national and cross-national learning assessments but could be considered for future assessments.

Treatment of missing values:

- At country level

  None by data compiler.

- At regional and global levels

  None by data compiler.

Regional aggregates:

Regional and global aggregates are not currently available for this indicator.

Data Sources

Description:

Various cross-national learning assessments including: Programme d'analyse des systèmes éducatifs de la CONFEMEN (PASEC), Progress in International Reading Literacy Study (PIRLS), Programme for International Student Assessment (PISA), Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ), Tercer Estudio Regional Comparativo y Explicativo (TERCE) and Trends in International Mathematics and Science Study (TIMSS). (a) Short-term strategy: Use national large-scale representative assessment data from cross-national assessments even though the performance levels may not be directly comparable. (b) Medium-term strategy: Use a global reporting scale based on either a new test or the statistical linking of national, regional and cross-national assessments.

Collection process:

For cross-national learning assessments, data were provided by the respective organizations responsible for each assessment.

Data Availability

Description:

79 countries

Time series:

Latest year available in the period 2010-2015.

Calendar

Data collection:

Various. Each learning assessment has its own data collection cycle.

Data release:

July 2016

Data providers

Name:

Bodies responsible for conducting learning assessments (including Ministries of Education, National Statistical Offices and other data providers). For cross-national assessments, the data providers are the International Association for the Evaluation of Educational Achievement (IEA), Laboratorio Latinoamericano de Evaluación de la Calidad de la Educación (LLECE), the Organisation for Economic Co-operation and Development (OECD), Programme d'Analyse des Systèmes Educatifs de la CONFEMEN (PASEC) and Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ).

Data compilers

UNESCO Institute for Statistics

References

URL:

http://www.uis.unesco.org/Pages/default.aspx

References:

Programme d'analyse des systems éducatifs de la CONFEMEN (PASEC):

http://www.pasec.confemen.org/

Progress in International Reading Literacy Study (PIRLS): http://www.iea.nl/pirls_2016.html

Programme for International Student Assessment (PISA): https://www.oecd.org/pisa/aboutpisa/

The Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ):

http://www.sacmeq.org/?q=sacmeq-projects/sacmeq-iv

Tercer Estudio Regional Comparativo y Explicativo (TERCE): http://www.unesco.org/new/es/santiago/education/education-assessment-llece/third-regional-comparative-and-explanatory-study-terce/

Trends in International Mathematics and Science Study (TIMSS): http://www.iea.nl/timss_2015.html

Related indicators

1.2, 1.4, 1.5, 2.1, 2.2, 2.3, 3.1, 3.3, 3.4, 3.7, 3.c, 4.5, 5.3, 5.4, 5.5, 5.b, 7.a, 8.6, 8.7, 8.b, 10.2, 10.6, 12.8, 13.3, 13.b, 16.a

Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
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
Indicator 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

Institutional information

Organization(s):

United Nations Children's Fund (UNICEF)

Concepts and definitions

Definition:

The proportion of children under 5 years of age who are developmentally on track in health, learning and psychosocial well-being is currently being measured by the percentage of children aged 36-59 months who are developmentally on-track in at least three of the following four domains: literacy-numeracy, physical, socio-emotional and learning.

Rationale:

Early childhood development (ECD) sets the stage for life-long thriving. Investing in ECD is one of the most critical and cost-effective investments a country can make to improve adult health, education and productivity in order to build human capital and promote sustainable development. ECD is equity from the start and provides a good indication of national development. Efforts to improve ECD can bring about human, social and economic improvements for both individuals and societies.

Methodology

Computation Method:

The number of children under the age of five who are developmentally on track in health, learning and psychosocial well-being divided by the total number of children under the age of five in the population multiplied by 100.

Disaggregation:

Age, sex, place of residence, wealth, geographic location, caregiver education and other background characteristics.

Treatment of missing values:

- At country level

  When data for a country are entirely missing, UNICEF does not publish any country-level estimate

- At regional and global levels

  The regional average is applied to those countries within the region with missing values for the purposes of calculating regional aggregates only but are not published as country-level estimates.

Regional aggregates:

Global aggregates are weighted averages of all the sub-regions that make up the world. Regional aggregates are weighted averages of all the countries within the region.

Data Sources

Description:

Household surveys such as UNICEF-supported MICS have been collecting data on this indicator (through the Early Childhood Development Index or ECDI) in low- and middle-income countries since around 2010. Many of the individual items included in the ECDI are collected through other mechanisms in high-income (OECD) countries as well.

Collection process:

UNICEF undertakes an annual process to update its global databases, called Country Reporting on Indicators for the Goals (CRING). This exercise is done in close collaboration with UNICEF country offices with the purpose of ensuring that UNICEF global databases contain updated and internationally comparable data. UNICEF Country Offices are invited to submit, through an online system, any updated data for a number of key indicators on the well-being of women and children. Updates sent by the country offices are then reviewed by sector specialists at UNICEF headquarters to check for consistency and overall data quality of the submitted estimates. This review is based on a set of objective criteria to ensure that only the most recent and reliable information is included in the databases. Once reviewed, feedback is made available on whether or not specific data points are accepted, and if not, the reasons why. New data points that are accepted are then entered into UNICEF's global databases and published in the State of the World's Children statistical tables, as well as in all other data-driven publications/material. The updated databases are also posted online at data.unicef.org.

UNICEF also searches throughout the year for additional sources of data that are vetted by the UNICEF country office before they are included in the global databases.

Data Availability

Description:

Comparable data are available for 58 low- and middle-income countries

Time series:

Since 2010

Calendar

NA

Data providers

Description:

National Statistical Offices (in most cases)

Data compilers

UNICEF

References

URL:

data.unicef.org

References:

http://data.unicef.org/ecd/development-status.html

Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
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
Indicator 4.2.2: Participation rate in organized learning (one year before the official primary entry age), by sex

Institutional information

Organization(s):

UNESCO Institute for Statistics (UNESCO-UIS)

Concepts and definitions

Definition:

The participation rate in organized learning (one year before the official primary entry age), by sex as defined as the percentage of children in the given age range who participate in one or more organized learning programme, including programmes which offer a combination of education and care. Participation in early childhood and in primary education are both included. The age range will vary by country depending on the official age for entry to primary education.

Rationale:

The indicator measures children's exposure to organized learning activities in the year prior to the start of primary school. A high value of the indicator shows a high degree of participation in organized learning immediately before the official entrance age to primary education.

Concepts:

An organized learning programme is one which consists of a coherent set or sequence of educational activities designed with the intention of achieving pre-determined learning outcomes or the accomplishment of a specific set of educational tasks. Early childhood and primary education programmes are examples of organized learning programmes.

Early childhood and primary education are defined in the 2011 revision of the International Standard Classification of Education (ISCED 2011). Early childhood education is typically designed with a holistic approach to support children's early cognitive, physical, social and emotional development and to introduce young children to organized instruction outside the family context. Primary education offers learning and educational activities designed to provide students with fundamental skills in reading, writing and mathematics and establish a solid foundation for learning and understanding core areas of knowledge and personal development. It focuses on learning at a basic level of complexity with little, if any, specialisation.

The official primary entry age is the age at which children are obliged to start primary education according to national legislation or policies. Where more than one age is specified, for example, in different parts of a country, the most common official entry age (i.e. the age at which most children in the country are expected to start primary) is used for the calculation of this indicator at the global level.

Comments and limitations:

Participation in learning programmes in the early years is not full time for many children, meaning that exposure to learning environments outside of the home will vary in intensity. The indicator measures the percentage of children who are exposed to organized learning but not the intensity of the programme, which limits the ability to draw conclusions on the extent to which this target is being achieved. More work is needed to ensure that the definition of learning programmes is consistent across various surveys and defined in a manner that is easily understood by survey respondents, ideally with complementary information collected on the amount of time children spend in learning programmes.

Methodology

Computation Method:

The number of children in the relevant age group who participate in an organized learning programme is expressed as a percentage of the total population in the same age range. The indicator can be calculated both from administrative data and from household surveys. If the former, the number of enrolments in organized learning programmes are reported by schools and the population in the age group one year below the official primary entry age is derived from population estimates. For the calculation of this indicator at the global level, population estimates from the UN Population Division are used. If derived from household surveys, both enrolments and population are collected at the same time.

PROL0t1,AG(a-1) = E0t1,AG(a-1)

SAPAG(a-1)

where:

PROL0t1,AG(a-1) = participation rate in organized learning one year before the official entry age a to primary education

E0t1,AG(a-1) = enrolment in early childhood or primary education (ISCED levels 0 and 1) aged one year below the official entry age a to primary education

SAPAG(a-1) = school-age population aged one year below the official entry age a to primary education

Disaggregation:

By age and sex from administrative sources, and by age, sex, location and income from household surveys.

Treatment of missing values:

- At country level

  The UIS estimates certain key items of data that may be missing or incomplete in order to have publishable estimates at the country level. Where this is not possible the UIS imputes missing values for use only for calculating regional and global aggregates.

  For the purposes of calculating participation rates by age, the UIS may make one or more of the following:

• An adjustment to account for over- or under-reporting, for example:

  o To include enrolments in a type of education – such as private education or special education – not reported by the country; and/or

  o To include enrolments in a part of the country not reported by the country.

• An estimate of the number of enrolments in the given age group if the age distribution was not reported by the country

• A redistribution of enrolments of unknown age (across known ages)

• An estimate of the population in the official age group for small countries (if neither the UN Population Division nor the country itself can provide estimates of their own).

In all cases estimates are based on evidence from the country itself (eg information from the data provider on the size of the missing component, via correspondence, publications or data on the Ministry's or National Statistical Office's Webpage, or via surveys conducted by other organizations) or on data from the country for a previous year. These figures may be published: (i) as observed data if the missing items are found in a national source; (ii) as national estimates if the country is persuaded to produce estimates and submit them in place of missing data; or (iii) as UIS estimates, if the estimates are made by the UIS.

The age distribution of enrolments is most commonly estimated from the age distribution reported in a previous year. If the country has never reported the age distribution of enrolments, the age distribution reported in another survey, if available, is used (such as Multiple Indicator Cluster Surveys (MICS) or Demographic Health Surveys (DHS)).

Enrolments of unknown age are redistributed across known ages if they constitute more than 5% of the total enrolments in that level of education. No estimation is made if they are 5% or less.

Population estimates by age for countries with small population – produced only where there are no other suitable estimates available either from UNPD or from the country itself – are made only for countries which have reported education data to the UIS and for which population estimates from a reliable source are available in some years.

- At regional and global levels

Regional and global aggregates are derived from both publishable and imputed national data. Publishable data are the data submitted to the UIS by Member States or the result of an explicit estimation made by the Institute based on pre-determined standards. In both cases, these data are sent to Member States for review before they are considered publishable by the UIS.

When data are not available for all countries, the UIS imputes national data for the sole purpose of calculating regional averages. These imputed data are not published nor otherwise disseminated.

Where data are available for a country for both an earlier and a more recent year than the missing year, a simple linear interpolation is made. Where data are only available for an earlier year, the most recent value is used as an estimate. Similarly, where data are only available for a more recent year, the last value is used as an estimate.

Where the relevant data are not available at all for a country, estimates may be based on another variable which is clearly linked to the item being estimated. For example, enrolments by age may be based on total enrolments.

Where no data are available for the country in any year that can inform the estimate, the unweighted average for the region in which the country lies is used.

Regional aggregates:

Regional and global aggregates are calculated as weighted averages using the denominator of the indicator as the weight. As described previously, where publishable data are not available for a given country or year, values are imputed for the purpose of calculating the regional and global aggregates.

Sources of discrepancies:

Nationally-published figures may differ from the international ones because of differences between national education systems and the International Standard Classification of Education (ISCED); or differences in coverage (i.e. the extent to which different types of education – e.g. private or special education – are included in one rather than the other) and/or between national and the United Nations Population Division (UNPD) population estimates.

Data Sources

Description:

Administrative data from schools and other centres of organized learning or from household surveys on enrolment by single year of age in early learning programmes; population censuses and surveys for population estimates by single year of age (if using administrative data on enrolment); administrative data from ministries of education on the official entrance age to primary education.

Collection process:

The UNESCO Institute for Statistics produces time series based on enrolment data reported by Ministries of Education or National Statistical Offices and population estimates produced by the UN Population Division. The enrolment data are gathered through the annual Survey of Formal Education. Countries are asked to report data according to the levels of education defined in the International Standard Classification of Education (ISCED) to ensure international comparability of resulting indicators.

The data received are validated using electronic error detection systems that check for arithmetic errors and inconsistencies and trend analysis for implausible results. Queries are taken up with the country representatives reporting the data so that corrections can be made (of errors) or explanations given (of implausible but correct results). During this process countries are also encouraged to provide estimates for missing or incomplete data items.

In addition, countries also have an opportunity to see and comment on the main indicators the UIS produces in an annual “country review” of indicators.

Data Availability

Description:

From administrative sources: 151 countries (at least once in the period 2010-2015) Developed regions 45, Caucasus and Central Asia 5, Northern Africa 3, Sub-Saharan Africa 34, Eastern Asia 2, South-Eastern Asia 9, Southern Asia 4, Western Asia 12, Latin America and the Caribbean 33, Oceania 4.

Time series:

1998-2015

Calendar

Data collection:

June 2016 (developed regions) and January 2017 (developing regions)

Data release:

November/December 2016.

Data providers

Ministries of Education and/or National Statistical Offices.

Data compilers

UNESCO Institute for Statistics

References

URL:

http://www.uis.unesco.org/Pages/default.aspx

References:

The Survey of Formal Education Instruction Manual
http://www.uis.unesco.org/UISQuestionnaires/Documents/UIS_ED_M_2016.pdf and

UIS Questionnaire on Students and Teachers (ISCED 0-4)
http://www.uis.unesco.org/UISQuestionnaires/Pages/default.aspx.

Related indicators

1.4, 4.5

Goal 4 : Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
Target 4.3 : By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university

Indicator 4.3.1: Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex

Institutional information

Organization(s):

UNESCO Institute for Statistics (UNESCO-UIS)

Concepts and definitions

Definition:

The percentage of youth and adults in a given age range (e.g. 15-24 years, 25-64 years, etc.) participating in formal or non-formal education or training in a given time period (e.g. last 12 months).

Rationale:

To show the level of participation of youth and adults in education and training of all types. A high value indicates a large share of the population in the relevant age group is participating in formal and non-formal education and training.

Concepts:

Formal education and training is defined as education provided by the system of schools, colleges, universities and other formal educational institutions that normally constitutes a continuous 'ladder' of full-time education for children and young people, generally beginning at the age of 5 to 7 and continuing to up to 20 or 25 years old. In some countries, the upper parts of this 'ladder' are organized programmes of joint part-time employment and part-time participation in the regular school and university system.

Non-formal education and training is defined as any organized and sustained learning activities that do not correspond exactly to the above definition of formal education. Non-formal education may therefore take place both within and outside educational institutions and cater to people of all ages. Depending on national contexts, it may cover educational programmes to impart adult literacy, life-skills, work-skills, and general culture.

Comments and limitations:

Formal and non-formal education and training can be offered in a variety of settings including schools and universities, workplace environments and others and can have a variety of durations. Administrative data often capture only provision in formal settings such as schools and universities. Participation rates do not capture the intensity or quality of the provision nor the outcomes of the education and training on offer.

Methodology

Computation Method:

The number of people in selected age groups participating in formal or non-formal education or training is expressed as a percentage of the population of the same age.

PRAGi = EAGi

PAGi

where:

PRAGi = participation rate of the population in age group i in formal and non-formal education and training

EAGi = enrolment of the population in age group i in formal and non-formal education and training

PAGi = population in age group i

i = 15-24, 15 and above, 25-64 etc

Disaggregation:

By age and sex from administrative sources, and by age, sex, location and income from household surveys.

Treatment of missing values:

- At country level

  None by data compiler.

- At regional and global levels

  None by data compiler.

Regional aggregates:

Regional and global aggregates are not currently available for this indicator.

Sources of discrepancies:

None.

Data Sources

Description:

Administrative data from schools and other places of education and training or household survey data on participants in formal and non-formal education and training by single year of age; population censuses and surveys for population estimates by single year of age (if using administrative data on enrolment).

Collection process:

Data are collected from the respective organizations responsible for each survey.

Data Availability

Description:

32 countries (in 2011) Developing regions (31) Western Asia (1).

Time series:

2007, 2011

Calendar

Data collection:

Various depending on survey and country. The European Union’s Adult Education Survey will be run in 2016 and 2017.

Data release:

Various depending on survey and country.

Data providers

Ministries of Education and /or National Statistical Offices.

Data compilers

UNESCO Institute for Statistics

References

URL:

http://www.uis.unesco.org/Pages/default.aspx

References:

European Adult Education Survey (AES):
http://www.eui.eu/Research/Library/ResearchGuides/Economics/Statistics/DataPortal/AES.aspx

European Continuing Vocational Training Survey:
http://ec.europa.eu/eurostat/cache/metadata/en/trng_cvts_esms.htm

European Labour Force Survey:
http://ec.europa.eu/eurostat/cache/metadata/en/trng_lfs_4w0_esms.htm

Related indicators

1.4, 4.4, 4.5, 5.b, 8.5, 9.2

Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
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
Indicator 4.4.1:
Proportion of youth and adults with information and communications technology (ICT) skills, by type of skill

Institutional information

Organization(s):

UNESCO Institute for Statistics (UNESCO-UIS)

Concepts and definitions

Definition:

The proportion of youth and adults with information and communications technology (ICT) skills, by type of skill as defined as the percentage of youth (aged 15-24 years) and adults (aged 15 years and above) that have undertaken certain computer-related activities in a given time period (e.g. last three months).

Rationale:

ICT skills determine the effective use of information and communication technology. The lack of such skills continues to be one of the key barriers keeping people, and in particular women, from fully benefitting from the potential of information and communication technologies.

Concepts:

Computer-related activities to measure ICT skills include:

- Copying or moving a file or folder

- Using copy and paste tools to duplicate or move information within a document

- Sending e-mails with attached files (e.g. document, picture, and video)

- Using basic arithmetic formulae in a spreadsheet

- Connecting and installing new devices (e.g. modem, camera, printer)

- Finding, downloading, installing and configuring software

-Creating electronic presentations with presentation software (including text, images, sound, video or charts)

- Transferring files between a computer and other devices

- Writing a computer program using a specialised programming language

A computer refers to a desktop computer, a laptop (portable) computer or a tablet (or similar handheld computer). It does not include equipment with some embedded computing abilities, such as smart TV sets or cell phones.

Comments and limitations:

This indicator is relatively new but based on an internationally-agreed definition and methodology, which have been developed under the coordination of International Telecommunications Union (ITU), through its Expert Groups and following an extensive consultation process with countries. It is also one of the Partnerships on Measuring ICT for Development's Core List of Indicators, which was endorsed by the UN Statistical Commission in 2014.

The indicator is based on the responses provided by interviewees regarding certain computer-related activities that they have carried out in a reference period of time. However, it is not a direct assessment of skills nor do we know if those activities were undertaken effectively.

One main issue is that the definition of IEA assessment does not include programming while ITU definition does. Although both have application meaning using computer and computer with internet connection as a tool in everyday life, IEA's assessment of ICT skills definition is more restricted as compare to ITU's definition. If a common framework is to be established the definition of both will need to be harmonized.

Methodology

Computation Method:

The indicator is calculated as the percentage of people in a given population who have responded 'yes' to a selected number of variables e.g. the use of ICT skills in various subject areas or learning domains, the use of ICT skills inside or outside of school and/or workplace, the minimum amount of time spend using ICT skills inside and outside of school and/or workplace, availability of internet access inside or outside of school and/or workplace, etc.

PICTa = ICTa

Pa

where:

PICTa,s = percentage of people in age group a who have ICT skill s

ICTa,s = number of people in age group a who have ICT skill s

Pa = population in age group a

Disaggregation:

By age or age-group of students, sex, location and socio-economic status if collected in the relevant survey.

Treatment of missing values:

- At country level

  None by data compiler.

- At regional and global levels

  None by data compiler.

Regional aggregates:

Regional and global aggregates are not currently available for this indicator.

Sources of discrepancies:

None

Data Sources

Description:

School or household surveys which collect data on the use of selected ICT skills.

Collection process:

Data were provided by the respective organizations responsible for each survey (Eurostat and ITU).

Data Availability

Description:

42 countries

Time series:

2005-2014

Calendar

Data collection:

Various. Each survey has its own data collection cycle.

Data release:

July 2016

Data providers

Name:

Bodies responsible for conducting household surveys or learning assessments (including Ministries of Education, National Statistical Offices and other data providers) in which information on the use of ICT skills is collected. For cross-national purposes, data providers include Eurostat and the International Telecommunication Union (ITU).

Data compilers

UNESCO Institute for Statistics

References

URL:

http://www.uis.unesco.org/Pages/default.aspx

References:

International Telecommunication Union:
http://www.itu.int/dms_pub/itu-d/opb/ind/D-IND-ITCMEAS-2014-PDF-E.pdf

Eurostat:

https://circabc.europa.eu/sd/a/50760cae-348b-4a8a-9569-a96a6704fb70/Methodological_Manual_2015_ISS.zip

Related indicators

4.5, 5.b, 8.5, 8.6, 8.b, 9.2, 9.c

Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
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

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

Institutional information

Organization(s):

UNESCO Institute for Statistics (UNESCO-UIS)

Concepts and definitions

Definition:

Parity indices require data for the specific groups of interest. They represent the ratio of the indicator value for one group to that of the other. Typically, the likely more disadvantaged group is placed in the numerator. A value of exactly 1 indicates parity between the two groups.

Rationale:

To measure the general level of disparity between two sub-populations of interest with regard to a given indicator. The further from 1 the parity index lies, the greater the disparity between the two groups of interest.

Concepts:

See metadata for relevant underlying indicator.

Comments and limitations:

The indicator is not symmetrical about 1 but a simple transformation can make it so (by inverting ratios that exceed 1 and subtracting them from 2). This will make interpretation easier.

Methodology

Computation Method:

The indicator value of the likely more disadvantaged group is divided by the indicator value of the other sub-population of interest.

DPI = [Indi]d

[Indi]a

where:

DPI = the Dimension (Gender, Wealth, Location, etc.) Parity Index

Indi = the Education 2030 Indicator i for which an equity measure is needed.

d = the likely disadvantaged group (e.g. female, poorest, etc.)

a = the likely advantaged group (e.g. male, richest, etc.)

Disaggregation:

None because the parity indices directly compare two sub-populations of interest.

Treatment of missing values:

- At country level

  The same as the underlying indicator.

- At regional and global levels

  The same as the underlying indicator.

Regional aggregates:

The same as the underlying indicator.

Sources of discrepancies:

The same as the underlying indicator.

Data Sources

Description:

The sources are the same as for the underlying indicators for this goal.

Collection process:

The same as the underlying indicator.

Data Availability

Depends on underlying indicator

Calendar

Data collection:

Depends on underlying indicator.

Data release:

Depends on underlying indicator.

Data providers

The same as the underlying indicator.

Data compilers

UNESCO Institute for Statistics

References

URL:

http://www.uis.unesco.org/Pages/default.aspx

References:

See references for each underlying indicator.

Related indicators

All equity targets and targets associated with the underlying indicators.

Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
Target 4.6: By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy

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

Institutional information

Organization(s):

UNESCO Institute for Statistics (UNESCO-UIS)

Concepts and definitions

Definition:

The proportion of youth (aged 15-24 years) and of adults (aged 15 years and above) have achieved or exceeded a given level of proficiency in (a) literacy and (b) numeracy. The minimum proficiency level will be measured relative to new common literacy and numeracy scales currently in development.

Rationale:

The indicator is a direct measure of the skill levels of youth and adults in the two areas: literacy and numeracy. There is only one threshold that divides youth and adults into above and below minimum level:

> (a) Below minimum level is the proportion of youth and adults who do not achieve the minimum standard as set-up by countries according to the globally defined minimum competencies.
>
> (b) Above minimum level is the proportion of youth and adults who have achieved the minimum standard. Due to heterogeneity of performance levels set by national and cross-national assessments, these performance levels will have to be mapped to the globally defined basic and proficiency levels. Once the performance levels are mapped, the global education community will be able to identify for each country the proportion of youth and adults above and below minimum level.

Concepts:

The fixed level of proficiency is the benchmark of basic knowledge in a domain (literacy or numeracy) measured through learning assessments. Currently, there are no common standards validated by the international community or countries. The indicator shows data published by each of the agencies and organizations specialised in cross-national learning assessments.

Comments and limitations:

The measurement of youth and adult skills requires some form of direct assessment. Using household surveys to measure learning can be costly and difficult to administer and may underestimate learning in

areas that are critical to daily life but are harder to assess in standardized approaches. The result may be inaccurate representations of what youth and adults know and can do, especially in relation to applying skills that may vary across contexts.

Methodology

Computation Method:

Proportion of youth and adults who have achieved above the minimum threshold of proficiency as defined for large-scale (sample representative) adult literacy assessment:

Performance achieve above minimum level, PLta,s,above minimum = p.

where p is the proportion of youth and adults at a national or cross-national adult literacy assessment at age group a, in learning domain s in any year (t-i) where 0 ? i ? 5, who has achieved above the minimum level of proficiency.

Disaggregation:

By age-group, sex, location, income and type of skill. Disability status is not currently available in most national and cross-national learning assessments.

Treatment of missing values:

- At country level

  None by data compiler.

- At regional and global levels

  None by data compiler.

Regional aggregates:

Regional and global aggregates are not currently available for this indicator.

Sources of discrepancies:

None.

Data Sources

Description:

This indicator is collected via skills' assessment surveys of the adult population (e.g., PIAAC, STEP, LAMP, RAMAA) and national adult literacy surveys.

Collection process:

Data are collected from the respective organizations responsible for each assessment.

Data Availability

Description:

31 countries (since 2012) Developing regions 22, Caucasus and Central Asia 2, Northern Africa 0, Sub-Saharan Africa 1, Eastern Asia 1, South-Eastern Asia 2, Southern Asia 1, Western Asia 0, Latin America and the Caribbean 2, Oceania 0.

Time series:

2012 onwards

Calendar

Data collection:

Various depending on survey and country.

Data release:

Various depending on survey and country.

Data providers

Bodies responsible for conducting learning assessments (including Ministries of Education, National Statistical Offices and other data providers).

Data compilers

UNESCO Institute for Statistics

References

URL:

http://www.uis.unesco.org/Pages/default.aspx

References:

Programme for the International Assessment of Adult Competencies (PIAAC):

http://www.oecd.org/site/piaac/

STEP Skills Measurement Programme: http://microdata.worldbank.org/index.php/catalog/step/about

Action Research: Measuring Literacy Programme Participants' Learning Outcomes (RAMAA):

https://uil.unesco.org/literacy-and-basic-skills/assessment-and-monitoring-ramaa

Related indicators

1.2, 1.5, 2.1, 2.2, 2.3, 3.1, 3.3, 3.4, 3.7, 4.5, 5.3, 5.4, 5.5, 5.6, 8.5, 8.6, 8.b, 10.2, 12.8, 13.3, 13.b

Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
Target 4.7: By 2030, ensure that all learners acquire the 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
Indicator 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

Institutional information

Organization(s):

UNESCO Institute for Statistics (UNESCO-UIS)

Concepts and definitions

Definition:

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

Rationale:

This indicator focuses on the extent to which countries mainstream global citizenship education (GCED) and education for sustainable development (ESD), including climate change education, human rights and gender equality, in their education systems, specifically in policies, curricula, teacher education and student assessment.

It seeks to measure the quantity and quality of country inputs as well as whether the quality of GCED and ESD provision is adequate to fulfil their transformational potential.

The indicator should go beyond the level of “existence” or “mentioning” of GCED and ESD in policy, curricula, teacher education and student assessment. The share accorded to GCED and/or ESD in the curricula/timetables at different education levels could be used. Further, a comparative measure of the priority of GCED/ESD – as part of one or more subjects – relative to certain key learning domains, such as reading and mathematics - could be assessed. The extent of mainstreaming could be described on a multi-level scale, noting that this should cover intended and actual implementation.

The indicator provides important information on the level of national commitment towards the attainment of this target (for example whether political will/decisions and resources available have been translated into concrete policies, curricula, assessment) as well as the quality of the programmes provided, can predict the likelihood that desired student outcomes will be achieved. This indicator can be complemented by other thematic indicators on GCED and ESD that UNESCO proposes, which seek to

assess learning outcomes more directly in the cognitive, socio-emotional and behavioural domains. The indicator could be used to assess inputs to formal as well as non-formal education systems.

Acknowledging that evidence on how the policy guidance and implementation in policy, curricula, teacher training and student assessment actually work and what impact they may have, progress might be interpreted in relation to the comparative/ipsative priority and emphasis assigned to these areas over time, i.e. if and how existence, frequency, priority and scope of implementation change from one collection to the next.

Concepts:

Education for Sustainable Development (ESD): empowers learners to take informed decisions and responsible actions for environmental integrity, economic viability and a just society, for present and future generations, while respecting cultural diversity. It is about lifelong learning, and is an integral part of quality education.

Global Citizenship Education (GCED): GCED nurtures respect for all, building a sense of belonging to a common humanity and helping learners become responsible and active global citizens. GCED aims to empower learners to assume active roles to face and resolve global challenges and to become proactive contributors to a more peaceful, tolerant, inclusive and secure world.

Comments and limitations:

The indicator does not verify whether the national measures taken lead to desired changes in learning outcomes and does not assess learning outcomes directly. However, education policies, curricula, teacher education and student assessment, demonstrated in the indicator, are key intermediate outcomes of national commitment and effort to effectively implement GCED and ESD and to provide a conducive learning environment. This indicator also addresses SDG Targets 12.8 and 13.3.

Methodology

Computation Method:

The method of reporting this indicator has still to be defined. It will be based on an evaluation of reports submitted by countries describing how they are mainstreaming global citizenship education and education for sustainable development in their education policies and systems.

Disaggregation:

None

Treatment of missing values:

- At country level

  To be defined

- At regional and global levels

  Regional and global aggregates are not currently available for this indicator.

Regional aggregates:

Regional and global aggregates are not currently available for this indicator.

Sources of discrepancies:

None

Data Sources

Description:

In reference to UNESCO's mandate to monitor the implementation of 1974 Recommendation, every four years a survey questionnaire is sent to 195 UNESCO Member States. This is an established mechanism, on the basis of which countries systematically report to UNESCO on the status of implementation of the 1974 Recommendation; the survey questionnaire covers almost all aspects of the proposed indicator, as per the specific recommendations. UNESCO has been analyzing the survey results and reports to its General Conference on country status. During the 5th and latest consultation (2009-2012) of the 1974 Recommendation, 57 national reports were submitted to UNESCO. The statutory monitoring responsibility for 1974 Recommendation is the most important and relevant data collection mechanism that is already in place for this indicator as it covers all key conceptual aspects of GCED and ESD, including climate change education, especially in the areas of policy, curricula, teacher education and student assessment, which correspond exactly to the areas covered by this indicator. As per the request from the Executive Board, UNESCO revised the terminologies and the format of the survey tool to make it more relevant to the present time and easy to use, which will increase the response rate. The revised guidelines for reporting, including a questionnaire, were approved by the 199th Session of the Executive Board and it will be used for the data collection exercise launched in June 2016, due by end of 2016. Analysis of the past reports will also allow a time series review of the countries' support for GCED.

Salient guiding principles on sources and collection approaches as well as experiences on this topic can be derived from the global monitoring and evaluation work conducted as part of the decade for education for sustainable development (DESD, 2005-2014). Other human rights monitoring frameworks can also serve as additional sources for this indicator. Additional sources of data collection can also include education sector reviews or other thematic studies.

Collection process:

UNESCO Member States report on the implementation of the 1974 Recommendation following the revised guidelines for the 6th Consultation (2016) which includes a questionnaire.

Data Availability

Description:

With relation to the implementation of the 1974 Recommendation, data are currently available for 57 countries that have reported during the 5th Consultation. It is expected that following the ongoing revision of the questionnaire, the number of reporting countries will be substantially increased.

Time series:

Periodic reports every 4 years, most recently in 2016.

Calendar

Data collection:

Data collection launched in June 2016. Data will be collected and analyzed by late 2016/early

Data release:

To be defined

Data providers

UNESCO Member States via their National Commissions to UNESCO

Data compilers

UNESCO and the UNESCO Institute for Statistics

References

URL:

http://www.uis.unesco.org/Pages/default.aspx

References:

UNESCO. 18 C Resolutions. Recommendation concerning Education for International Understanding, Co-operation and Peace and Education relating to Human Rights and Fundamental Freedoms (1974): http://unesdoc.unesco.org/images/0011/001140/114040e.pdf#page=166

UNESCO. 199 EX/14 Part IV Annex. Draft Guidelines for the Preparation of Reports by Member States on the application of the Recommendation concerning Education for International Understanding, Co-operation and Peace and Education relating to Human Rights and Fundamental Freedoms (1974): http://unesdoc.unesco.org/images/0024/002438/243899e.pdf

Related indicators

12.8, 13.3