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 4.1.2: Completion rate (primary education, lower secondary education, upper secondary education)

# Institutional information

## Organization(s):

UNESCO Institute for Statistics

# Concepts and definitions

## Definition:

Percentage of a cohort of children or young people aged 3-5 years above the intended age for the last grade of each level of education who have completed that grade.

## Concepts:

The intended age for the last grade of each level of education is the age at which pupils would enter the grade if they had started school at the official primary entrance age, had studied full-time and had progressed without repeating or skipping a grade.

For example, if the official age of entry into primary education is 6 years, and if primary education has 6 grades, the intended age for the last grade of primary education is 11 years. In this case, 14-16 years (11 + 3 = 14 and 11 + 5 = 16) would be the reference age group for calculation of the primary completion rate.

## Rationale:

The indicator is explicitly referenced in the text of target 4.1: '*ensure that all girls and boys complete […] primary and secondary education*'. A completion rate at or near 100% indicates that all or most children and adolescents have completed a level of education by the time they are 3 to 5 years older than the official age of entry into the last grade of that level of education. A low completion rate indicates low or delayed entry into a given level of education, high drop-out, high repetition, late completion, or a combination of these factors.

The completion rate can be used either as a self-standing indicator or in combination with SDG indicator 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). Combining the completion rate with indicator 4.1.1 provides information on the percentage of children or young people *in a cohort* who achieve a minimum level

of proficiency, and not only on the percentage of children *in school* who achieve minimum proficiency.

## Comments and limitations:

The age group 3-5 years above the official age of entry into the last grade for a given level of education was selected for the calculation of the completion rate to allow for some delayed entry or repetition. In countries where entry can occur very late or where repetition is common, some children or adolescents in the age group examined may still attend school and the eventual rate of completion may therefore be underestimated.

The indicator is calculated from household survey data and is subject to time lag in the availability of data. When multiple surveys are available, they may provide conflicting information due to the possible presence of sampling and non-sampling errors in survey data. The Technical Cooperation Group on the Indicators for SDG 4 - Education 2030 (TCG) has requested a refinement of the methodology to model completion rate estimates, following an approach similar to that used for the estimation of child mortality rates. The model would ensure that common challenges with household survey data, such as timeliness and sampling or non-sampling errors are addressed to provide up-to-date and more robust data.

# Methodology

## Computation method:

The number of persons in the relevant age group who have completed the last grade of a given level of education is divided by the total population (in the survey sample) of the same age group.

Formula:

$$CR_n = \frac{P_{C_n, AG_{a+3t5}}}{P_{AG_{a+3t5}}}$$

where:

$CR_n$ = completion rate for level n of education

$P_{C_n, Age_{a+3t5}}$ = population aged 3 to 5 years above the official entrance age *a* into the last grade of level *n* of education who completed level *n*

$P_{Age_{a+3t5}}$ = population aged 3 to 5 years above the official entrance age *a* into the last grade of level *n* of education

*n* = ISCED level 1 (primary education), 2 (lower secondary education), or 3 (upper secondary education)

## Treatment of missing values:

- ***At country level:***

The completion rate can be calculated from older cohorts who are outside of the age bracket specified in the definition of the indicator to obtain estimates for different years. Gaps in national time series can also be imputed. using the aforementioned model-based to estimate the completion rate.

- ***At regional and global levels:***

See above.

## Regional aggregates:

Global and regional estimates of the primary, lower secondary and upper secondary completion rate are derived by using the national population in the respective age groups as weights for aggregation of national values.

**Sources of discrepancies:**

National data are often collected and reported in reference to national systems of education. The mapping from a national classification to the International Standard Classification of Education (ISCED) is not always straightforward and can cause discrepancies between national and international indicator estimates.

## Methods and guidance available to countries for the compilation of the data at the national level:

Countries can calculate the completion rate using the methodology described in this document. ISCED mappings that help countries report their data in an internationally comparable framework are available on the website of the UNESCO Institute for Statistics (http://uis.unesco.org/en/isced-mappings).

## Quality assurance:

The process for quality assurance includes review of survey documentation, calculation of measures of reliability, examination of consistency of indicator values derived from different sources and, if necessary, consultation with data providers.

Before its annual data release and addition to the global SDG Indicators Database, the UNESCO Institute for Statistics submits all indicator values and notes on methodology to National Statistical Offices, Ministries of Education or other relevant agencies in individual countries for their review and feedback.

# Data sources

## Description:

The data can be obtained from population censuses and household surveys that collect information on the highest level of education completed by children and young people in a household. Typical

questions in a survey to collect data on educational attainment are:

- What is the highest level of education [name of household member] has attended?
- What is the highest grade of education [name of household member] has completed at that level?

Sources include publicly available data from Demographic and Health Surveys (DHS), Multiple Indicator Cluster Surveys (MICS), European Union Statistics on Income and Living Condition (EU-SILC), the Integrated Public Use Microdata Series (IPUMS), and national household surveys and censuses.

## Collection process:

Data from all publicly available household surveys and censuses with the required information are compiled and used to calculate the completion rate. For international comparability, national data are mapped to the International Standard Classification of Education (ISCED) before indicator calculation.

Indicator values intended for dissemination and addition to the global SDG Indicators Database are submitted by the UNESCO Institute for Statistics to National Statistical Offices, Ministries of Education or other relevant agencies in individual countries for their review and feedback.

# Data availability

## Description:

The primary completion rate is currently available for 122 countries, representing 51% of all countries worldwide. The lower secondary completion rate is available for 155 countries, representing 64% of all countries. Coverage for the upper secondary completion rate is similar, with data for 155 countries, representing 64% of all countries. The countries with completion rates are home to more than 90% of the global population.

## Time series:

The completion rate is available for the years since 2000. National time series are incomplete due to the infrequent implementation of household surveys and censuses but could, potentially, be reconstructed using the aforementioned model-based to estimate the completion rate.

## Disaggregation:

The indicator is disaggregated by sex, location, wealth and other dimensions specified in global indicator 4.5.1 (parity index).

# Calendar

## Data collection:

Household survey and census datasets are publicly available from the sources described above.

## Data release:

Completion rates are released twice per year by the UNESCO Institute for Statistics, around February and September.

# Data providers

Household survey and census datasets are publicly available from the sources described above.

# Data compilers

UNESCO Institute for Statistics.

# References

UNESCO Institute for Statistics (UIS). 2019. UIS.Stat online database.

- Primary completion rate: http://data.uis.unesco.org/index.aspx?queryid=3417
- Lower secondary completion rate: http://data.uis.unesco.org/index.aspx?queryid=3420
- Upper secondary completion rate: http://data.uis.unesco.org/index.aspx?queryid=3423

UNESCO Institute for Statistics (UIS) and Global Education Monitoring Report. 2019. World Inequality Database on Education (WIDE).

- Primary completion rate: https://www.education-inequalities.org/indicators/comp_prim_v2
- Lower secondary completion rate: https://www.education-inequalities.org/indicators/comp_lowsec_v2
- Upper secondary completion rate: https://www.education-inequalities.org/indicators/comp_upsec_v2

# Related indicators

Combined with SDG indicator 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 – the completion rate can provide information on the percentage of children in a given cohort who achieve minimum proficiency in reading and mathematics.