

Summary of main proposed changes from 2020 Recommendations

1. The introductory section has been amended for clearer context and improved definition of the subject matter, as well as to clarify the relevance to countries using administrative sources for their censuses.
2. Links to UNESCO resources have been updated.
3. The recommended age threshold for collecting information on educational attainment has been changed from 10 to 15 years, following a proposal from the Steering Group, and in line with the majority practice among countries responding to the CES questionnaire on 2020-round practices. A sentence has been added acknowledging that this differs from the threshold recommended in the UNSD Principles and Recommendations.
4. The non-core topic ‘computer literacy’ has been removed. Only three CES countries reported that they used the census to collect or compile information on this topic in the 2020 round. The widespread displacement of desktop or laptop computers by the proliferation of tablets and handheld devices in recent years, as well as the almost complete penetration of device use among populations in the UNECE region, renders computer literacy of little or no utility as a measure of education among CES countries.

Educational characteristics

Introduction

This chapter covers the topics related to both formal and non-formal education that may be collected or compiled as part of a census. In the text that follows, references to ‘collecting’ or ‘asking for’ information, and to ‘census questions’, are applicable to countries using field enumeration for part or all of their census. Those using administrative sources, which are more constrained in their ability to adjust the sources to meet census purposes, may interpret such references as guidance for classifying and presenting information on educational characteristics.

The United Nations Educational, Scientific and Cultural Organization (UNESCO) defines an educational programme as “a coherent set or sequence of educational activities or communication designed and organized to achieve pre-determined learning objectives or accomplish a specific set of educational tasks over a sustained period”¹. Within this definition, educational activities are “deliberate activities involving some form of communication intended to bring about learning”².

¹ UNESCO Institute for Statistics (UIS). 2012. *International Standard Classification of Education: ISCED 2011*. Montreal: UIS., paragraph 11. Available at <https://uis.unesco.org/sites/default/files/documents/international-standard-classification-of-education-isced-2011-en.pdf>.

² *Ibid.*, paragraph 12.

While most such educational activities are likely to be undertaken at schools or universities (or their equivalents), it is possible that education can be provided outside these institutions. The definitions given in the International Standard Classification of Education (ISCED) specifically note that the communication required to constitute education may be “between two or more persons or an inanimate medium and persons” and “may be verbal or non-verbal, direct/face-to-face or indirect/remote, and may involve a wide variety of channels and media”³. For the purpose of international comparisons, countries should compile their data in accordance with the latest revision of ISCED.⁴

Educational attainment (core topic)

Educational attainment is defined as the highest ISCED level successfully completed by an individual. Educational attainment is usually measured with respect to the highest education programme successfully completed, which is typically certified by a recognized qualification.

It is recommended that data on educational attainment be collected for all persons aged 15 years and over. Some countries may decide to apply a lower age threshold to meet national needs (the *Principles and Recommendations* issued by UNSD propose a threshold of age 5 years, and previous editions of the present Recommendations proposed a threshold of ten years of age). To permit international comparisons, any tabulations of educational attainment not cross-classified by detailed age should distinguish at least between persons aged less than 15 years and those aged 15 years and over, and between persons aged less than 25 years and those aged 25 years and over.

Countries may also consider collecting further information on levels of education not successfully completed. This may be achieved by collecting or compiling information on whether a higher level than the one attained has been started and interrupted, or if studies are ongoing at the higher level. Alternatively, a question on the highest grade completed may be appropriate. Recognized intermediate qualifications are classified at a lower level than the programme itself. Information on intermediate qualifications or on the highest grade completed can thus be used to identify those who have or have not completed a given level of education.

The data collected should, in all cases, be coded according to ISCED-A (Attainment) levels. The following ISCED-A levels should be distinguished:

- (a) ISCED level 0: Less than primary education
- (b) ISCED level 1: Primary education
- (c) ISCED level 2: Lower secondary education
- (d) ISCED level 3: Upper secondary education
- (e) ISCED level 4: Post-secondary non-tertiary education
- (f) ISCED level 5: Short-cycle tertiary education
- (g) ISCED level 6: Bachelor’s or equivalent level
- (h) ISCED level 7: Master’s or equivalent level
- (i) ISCED level 8: Doctoral or equivalent level.

³ *Ibid.*, paragraph 13.

⁴ *Ibid.* Detailed information and resources on ISCED can be found at <https://isced.uis.unesco.org/>

For the classification of educational attainment, ISCED-A level 0 has a different meaning in ISCED 2011 than for the classification of education programmes, ISCED-P (see paragraph xx): it means not having successfully completed ISCED level 1. This includes individuals who: have never attended an education programme; have attended some early childhood education (defined as ISCED level 0 in the classification of education programmes); or have attended some primary education but have not successfully completed ISCED level 1.

Special attention must be paid to establishing the appropriate level/grade equivalence for persons who received their education under a different system from that currently in place in a country, such as a previous educational regime or a foreign educational system. In the latter case, countries may wish to collect information on the foreign country (or foreign system followed in the same country) from which the education was received.

Necessary deviations from the recommended definitions and classifications resulting from specificities of the national education system should be explained in the census reports and relevant metadata. If national priorities make it necessary to publish the results using the designations used for the schools within a country, then the categories distinguished for national users should be mapped to those needed for international comparisons. Countries coding educational attainment to a national standard classification can establish correspondence with the most recent version of ISCED, either through double coding or through mapping from the detailed attainment categories of the national classification to the ISCED classification.⁵

It is important to recognize that under certain circumstances a level of education may have been completed successfully even though a relevant qualification was not obtained. It is recommended that educational attainment data and data on qualifications are collected separately, or in such a way that it is possible to draw this distinction. If data are not collected separately, or the distinction is not possible, this should be made clear in any census publications.

Educational qualifications (non-core topic)

An 'educational qualification' is the official confirmation, usually in the form of a document, certifying the successful completion of an education programme or a stage of a programme. Qualifications can be obtained through:

- (a) successful completion of a full education programme
- (b) successful completion of a stage of an education programme (intermediate qualifications), or
- (c) validation of acquired knowledge, skills and competencies, independent of participation in an education programme.

It is suggested that information on educational qualifications be collected at least for all persons who have successfully completed a course of study at the post-secondary level of education. Such information should include the title of the highest degree, diploma or certificate received, with an indication of the field of study if the title does not make this clear.

⁵ The UNESCO Institute for Statistics maintains a database with ISCED mappings at <https://isced.uis.unesco.org/data-mapping/>

Field of education and training (non-core topic)

Field of education and training, as defined in ISCED, is the broad domain, branch or area of content covered by an education programme or qualification.

Beside educational attainment, the field of education and training of a person represents a second important dimension of their qualifications. Information on the distribution of educated persons by field of education and training is important for examining the match between the supply and the demand for suitably qualified workers within the labour market. It is equally crucial for planning and regulating the production capacities of different levels, types and branches of educational institutions and training programmes. Titles, degrees, diplomas and further training received, as well as experience gained on the job, constitute additional components of a qualification.

Information on the field of education and training should primarily be collected for persons within the adult population who have attained secondary education or above. This means that the information collected should relate principally to persons aged 15 years and over who have completed secondary, post-secondary or tertiary education or other organized education and training programmes at equivalent levels of education. Data collected on fields of education and training should be coded according to the *International Standard Classification of Education: Fields of Education and Training 2013 (ISCED-F 2013)*.⁶ In general, the field of education and training should be collected with reference to the highest level of qualification achieved.

Interdisciplinary or multidisciplinary studies

It may not be straightforward to identify the exact field(s) of education and training of persons with interdisciplinary or multidisciplinary specializations. In these cases, countries should identify the major or principal field of education and training. Where there is insufficient information available to determine the relative shares of learning credits or intended learning time, the programme or qualification should be classified in the field listed first in its title. Where a main subject cannot be identified because the programme or qualification covers several fields, none of which dominates, the programme or qualification should be classified in an inter-disciplinary category. However, for national purposes countries may wish to identify specialization in different ways depending on the planned use of this information and data processing capacities.

The most common approach is to collect information that identifies only one principal field of education and training. However, this results in loss of information about the other fields. Another approach is to accept multiple responses to the census question (or allow multiple fields in administrative records), in which case appropriate data processing facilities for handling and tabulating multiple responses must be in place. If necessary, the data collection and processing procedures could be adapted to enable the distinction between principal and secondary fields of education and training.

⁶ UNESCO Institute for Statistics (UIS). 2014. *International Standard Classification of Education: Fields of Education and Training 2013 (ISCED-F 2013)*. Montreal: UIS. Available from <https://uis.unesco.org/sites/default/files/documents/international-standard-classification-of-education-fields-of-education-and-training-2013-detailed-field-descriptions-2015-en.pdf>

To facilitate international comparison, countries that follow established national nomenclature should adopt the classifications and coding of fields of education and training of the most recent version of ISCED. Countries coding 'field of education and training' to a national standard classification can establish correspondence with the most recent version of ISCED either through double coding or through mapping from the national classification of fields to the ISCED classification. Guidance on classifying education programmes within the ISCED framework is available in *International Standard Classification of Education: Fields of Education and Training 2013 (ISCED-F 2013)*. The classification is accompanied by a comprehensive description of each field, with detailed examples of subjects that are included and excluded within each field.

School attendance (non-core topic)

School attendance is defined as regular attendance at any accredited educational institution or programme, public or private, for organized learning at any level of education. Instruction in a particular skill delivered by a provider that is not part of the recognized educational structure of the country (for example, in-service training courses in factories), is not considered 'school attendance' for census purposes.

Data on school attendance should refer to the census reference time. If the census is taken during a school vacation period, school attendance during the period just before the vacation should be taken into account.

The concept of school attendance is different from, but complementary to, that of enrolment as normally covered by school statistics. Attendance means the day-to-day presence of participants at an institution of learning. Enrolment refers to the formal registration of the participant at the start of the course, for example the registration of a school pupil at the start of the school year. A person may be enrolled but does not attend, for example, due to illness. A person attending a training programme may not be formally enrolled in a school or an educational institution.

The definition of attendance as day-to-day presence at an institution of learning is most relevant to primary and secondary education. There may be other instances where a person is enrolled and participating actively in a course of education to achieve a qualification, but does not attend any institution regularly. Examples of this include participation via an Internet-based course of study, correspondence courses and certain modes of tertiary education, which require only infrequent attendance.

Depending on national priorities, the data collected may be restricted to attendance in primary and secondary education. More broadly they may refer to all modes of participation in all levels of education, and information on active participation in a course of study towards a qualification may be gathered. In every case it should be possible to draw a distinction between each type of participation, and this should be made clear in the relevant census reports and/or metadata.

Information on school attendance relates typically to the population of official school age, which in general ranges from 5 to 29 years but which varies from country to country depending on the national education system. In cases where data collection is extended to cover attendance in early childhood education, and/or other systematic education and training programmes organized for adults in productive and service enterprises, community-

based organizations and other non-educational institutions, the age range may be adjusted as appropriate. Note that those persons 'outside the labour force' (see paragraphs xxx in the Chapter 'Economic characteristics') who are classified as 'students' will include only a subset of all persons attending school, since some of those attending school will either be classified as 'employed' or as 'unemployed'.

The data collected should, in all cases, be coded according to ISCED-P (Programme) levels. The following ISCED-P levels should be distinguished:

- (a) ISCED level 0: Early childhood education
- (b) ISCED level 1: Primary education
- (c) ISCED level 2: Lower secondary education
- (d) ISCED level 3: Upper secondary education
- (e) ISCED level 4: Post-secondary non-tertiary education
- (f) ISCED level 5: Short-cycle tertiary education
- (g) ISCED level 6: Bachelor's or equivalent level
- (h) ISCED level 7: Master's or equivalent level
- (i) ISCED level 8: Doctoral or equivalent level.

Literacy (non-core topic)

Literacy has been understood historically as the ability both to read and to write, distinguishing people as either literate or illiterate. A person who can, with understanding, both read and write a short, simple statement on their everyday life is, by this definition, considered to be literate. A person who cannot, with understanding, both read and write such a statement on their everyday life is considered to be illiterate. A person capable of reading and writing only figures and their own name should be considered illiterate, as should a person who can read but not write and one who can read and write only a phrase that has been memorized. It is now widely accepted, however, that literacy is a continuum of skills rather than a binary variable with only the values 'literate' and 'illiterate'. As such, countries should consider distinguishing broad levels of actual literacy skills during data collection.

Literacy is an applied skill and needs ideally to be measured in relation to a particular task such as reading, with understanding, a news article or writing a letter or message. Reading and writing may be measured separately to allow simpler questions to be asked and to enhance analytical power.

The collection and tabulation of statistics on literacy during the population census should not be based on inferred correlations between literacy, school attendance and educational attainment.

The language or languages in which a person can read and write is independent of literacy. In multilingual countries, however, information on the ability to read and write in a particular language may be essential for informing educational policy (for more on language, see paragraphs xx-xx in the chapter Ethnocultural characteristics).

UNESCO recommends that literacy tests should be administered in order to verify, as well as improve, the quality of literacy data. Standardized questions can be used to increase comparability. UNESCO's reference database of model questions can be consulted. However, administering a literacy test to all household members in the course of enumeration may prove impractical and costly. Instead, administering such a test to a sample of respondents may be considered. Alternatively, a simple question on reading and writing literacy may be more appropriate.

It is suggested that data on literacy be collected for all persons ten years of age and over. To permit international comparisons of data on literacy, however, any tabulations of literacy not cross-classified by detailed age should at least distinguish between persons under 15 years of age and those 15 years of age and over.
