

## **Chapter 4. Definitions and classifications of the OECD international education statistics**

*This chapter sets out the definitions and classifications used for the collection of OECD international education statistics, for students and graduates, educational personnel, school organisation and the curriculum, educational institutions and educational expenditure.*

Chapter 5 covers the definition and classification of educational programmes alongside guidance on the implementation of the International Standard Classification of Education (ISCED 2011) (OECD/Eurostat/UNESCO Institute for Statistics, 2015<sup>[1]</sup>) ((n.a.), 2011<sup>[2]</sup>).

The key definitions in each section are highlighted to distinguish them from the rest of the text, which discusses issues of interpretation and practical implementation. While much has been done over the years to improve the clarity of these definitions, this work is not exhaustive and the text discusses any remaining areas of ambiguity.

## 4.1. Students and graduates

### 4.1.1. Students and student enrolments

In the OECD international education statistics, a **student** is defined as any individual participating in formal educational programmes (OECD, 2017<sup>[3]</sup>). The term “student” applies to pupils and students alike. Formal education is institutionalised, intentional and planned, and provided by public organisations and recognised private bodies. It consists primarily of initial education designed for children and young people before they first enter the labour market. It also includes other types of education such as vocational, special needs and adult education provided they are recognised as part of the formal education system by the relevant national education authorities.

**Enrolment** or **registration** is the act of officially enlisting in a programme of study. A student may enrol in more than one programme.

Two statistics measure the activity of students:

1. **Number of students enrolled** refers to the count of students studying in a given education programme during the reference period of the data collection.
2. **Number of registrations (or enrolments)** refers to the count of enrolments within the reference period.

Both measures yield the same result if every individual is enrolled in only one programme during the reference period but they differ when students are enrolled in multiple programmes. Both measures can be useful for understanding enrolments: the **number of students enrolled** is more likely to be used to calculate participation rates within the population at large and to profile the student body, while the **number of registrations** is more likely to be used to assess total educational activity, resource allocation and operational efficiency.

For cross-national comparability, where national data collection systems permit, the number of students enrolled should reflect the number of students enrolled at the beginning of the reference school or academic year. Preferably, the end (or near the end) of the first month of the reference year should be chosen. If several rounds of data collection are conducted per year, the one closest to the end of the first month of the reference academic year should be used. Exceptions may need to be made at the early childhood and tertiary levels of education. Early childhood education may have gradual inflows of children, making it preferable to take an average over several dates. At the tertiary level, student enrolment may not be stable enough at the beginning of the academic year and therefore a count at a later point may be considered. Alternatively, for these levels, counting students over a whole reference period (a year) may provide more realistic results than taking a single snapshot count.

In all cases, the recommended method for calculating enrolment rates will depend on the purpose for which the indicator is to be used. For example, when calculating expenditure per student in order to align with the financial reference year a full-year count of full-time equivalent (FTE) students will be preferred, but for comparing enrolment rates the snapshot method is recommended.

It is more and more common for students to enrol in different programmes at different levels and institutions. Consequently, care must be taken to avoid double counting. For instance, when students enrol in multiple fields of education as part of their programme of study, they should be divided proportionately between the fields of education according to the percentage of instruction devoted to each field (UNESCO-UIS, 2014<sup>[4]</sup>).

For example, if a programme consists of 70% instruction in biology and 30% in chemistry and there are 100 full-time students attending this programme, then 70 full-time students should be reported under the biology category and 30 full-time students under the chemistry category. If countries cannot divide students in this way, they should classify them according to the main emphasis of the programme. A similar approach is followed when students enrol in multiple types of programmes (e.g. programmes with different orientations, i.e. general/vocational or destinations, i.e. with direct access to the labour market or not).

Some double counting may occur when students enrol in more than one institution in the same reference period, however. Such cases are difficult to identify and eliminate. Such double counting is likely to be relatively insignificant, but it is worth mentioning.

#### *4.1.2. New entrants*

Data on new entrants are required in order to measure the intake in education levels/programmes.

Students can be considered as either **new entrants** or **re-entrants** (repeaters, see Section 4.1.3).

**A new entrant** is a student who is enrolled in a programme during the current reference period but who was not enrolled in that programme in the previous reference year.

A new entrant to a level of education is a student who, during the course of the reference academic year, enters any programme in a given level of education for the first time, irrespective of whether the student entered the programme at the beginning or at an advanced stage of the programme (e.g. by virtue of credits gained for relevant work experience or courses taken at another level of education). If a student enters more than one programme at the same ISCED level in the same reference year, the highest programme within the level is used.

New entrants to an ISCED level must be distinguished from new entrants to an education programme that does not represent a new level. Entrants to an education programme that is preceded by a programme at the same level are excluded. For programmes which span two ISCED levels, as participants enter the first grade of the higher ISCED level, they are reported as new entrants to that ISCED level, even though from a national point of view they are continuing their education within the same programme.

New entrants to tertiary education are new entrants at ISCED levels 5, 6 or 7 who are entering tertiary education for the first time, i.e. with no previous education at any other tertiary level. Students who enter an ISCED 5 programme and then decide to enter an ISCED 6 programme, for example, are not counted as new entrants to tertiary education.

Foreign or international students enrolling for the first time in a country are counted by default as new entrants, regardless of their previous education in other countries, if in practice countries are not able to identify their previous education.

#### *4.1.3. Repeaters and over-age students*

A **repeater** is defined as a student who enrolls in the same grade or year of study of the same educational programme for a second or further time.

Repeaters must be distinguished from students who enrol in second and further educational programmes at the same level after having completed an earlier programme at that level (returnees to a second programme). A repeater is one who is predominantly repeating the same subject matter within the programme. Repeaters include re-entrants to the same programme.

**Over-age students** are students who are older than the official school-age range for the educational programme they are enrolled in and are defined as those at least two years older than each grade's intended age.

#### *4.1.4. Graduates*

A **graduate** is an individual who, during the reference school or academic year, has successfully completed an education programme. Each graduate is counted only once, even if they graduate from different levels or programmes within the same year. For example, if students graduate from more than one programme at the same ISCED level in the reference year for the data collection, it is the highest programme within the level that counts. This is particularly important at secondary and tertiary levels of education where a sequence of programmes may exist within a given level of education.

The requirements for successful completion of an education programme are normally stipulated in the programme specifications. These usually include attendance requirements and/or a demonstrated acquisition of expected knowledge, skills and competencies. Successful completion must be distinguished from simple completion of a programme which is achieved solely through fulfilling attendance requirements.

The acquisition of the knowledge, skills and competencies forming the learning objective of an education programme is normally validated by:

- passing (i.e. succeeding in) a final, curriculum-based examination or series of examinations
- accumulating the specified number of study credits
- a successful formal assessment of the knowledge, skills and competencies acquired.

In formal education, successful completion usually results in a qualification recognised by relevant national education authorities. However, education programmes at ISCED levels 1 and 2 (and occasionally at ISCED levels 3 or 4) do not always conclude with a qualification. In this case, other criteria can be considered to determine successful completion, such as having attended the full final year of the programme or gaining access to a higher level of education.

Some programmes at ISCED levels 2 or 3 do not give access to programmes at a higher ISCED level. Successful completion of these programmes is also considered to be completion or partial completion of the level if the programme meets the following criteria:

- it has a duration of at least two years of study at the given ISCED level
- the cumulative duration since the start of ISCED level 1 is at least 8 years for ISCED level 2 programmes and at least 11 years for ISCED level 3 programmes.

Adult education is a special case. It applies to formal education taken by adults to improve their technical or professional qualifications, further develop their abilities and enrich their knowledge by completing a level of education, to acquire, refresh or update their knowledge, skills and competencies in a particular field. This also includes what may be referred to as “continuing education”, “recurrent education” or “second chance education”. Many countries do not recognise adult education as part of the formal education system and therefore exclude it from data collection. Where formal adult education programmes do exist, their graduates should be assigned to the most appropriate ISCED levels rather than treated as a separate level of education, even if the typical entry age and duration differ from formal initial education programmes.

For educational attainment purposes, any recognised qualifications obtained from the successful completion of short programmes are classified at a lower ISCED level than the programme itself.

#### *4.1.5. Number of graduates*

**Graduates** in the reference period can be either **first-time graduates** or **repeat graduates**.

The **flow of graduates** within the reference period records the number of students who have graduated during that time. Students are counted as graduating in the year in which they complete all the requirements of the programme. For example, a student who completed the final year of an upper secondary programme prior to the reference year but passed the final examination during the reference year is counted as graduating in the reference year.

A **first-time graduate at a given level of education** is a person who, during the reference school or academic year, successfully completed an education programme at the given level for the first time. First-time graduates only include those who have never graduated from programmes at the same ISCED level before. The number of first-time graduates is in general smaller than the total of all graduates in the reference year. First-time graduates normally graduate from the first degree or qualification level in the national degree structure. In some countries, however, students may also graduate for the first time from second or further degrees.

A **first-time graduate at the tertiary level** is a person who, during the reference school or academic year, successfully completed an education programme at the tertiary level for the first time, i.e. at ISCED level 5, 6 or 7.

The sum of first-time graduates and repeat graduates in any year gives the total number of graduations for that year. It is permissible to double count individuals across categories over time. For example, a student obtaining a degree for the first time at ISCED level 6 in the reference year who had obtained a qualification at ISCED level 5 in an earlier year can be counted as a first-time graduate at ISCED level 6 – but not as a first-time graduate at the tertiary level.

The **stock of graduates**, in contrast to the flow of graduates in a given reference year, reports the number of graduates at any point in time and is used to analyse the educational attainment of the population. The educational attainment of the population is calculated

based on the highest level of education completed by each individual member of the population.

#### **4.1.6. Grade of students**

A grade is a specific stage of instruction in initial education, usually covered during one academic year. Students in the same grade are usually of similar age. Grades are also referred to as “classes”, “cohorts” or “years”.

Students generally remain within the same grade for the duration of the school year and, on successful completion, proceed to the next grade the following year. If they do not successfully complete a grade then they may repeat it.

Students taking subjects in more than one grade are allocated to the grade where they spend the greatest amount of their time. Students not classifiable by grade (e.g. adults in adult education) are allocated to the category “grade unknown”.

#### **4.1.7. Age of students**

##### *Student age*

According to the common reference point for age, students, graduates and new entrants are classified by their age as of the 1<sup>st</sup> of January of the year in which the school or academic year ends, e.g. 1 January 2016 for academic year 2015/16. An individual born on 31 December 2004 will thus be counted as 11 years old, whereas one born on 1 January 2004 would be counted as 12 years old.

The choice of a common reference date, such as the 1<sup>st</sup> of January, can be problematic when the school years being reported vary greatly between countries. This particularly applies in Japan, Korea and New Zealand where the school year begins early in the year and so a reference date of 1<sup>st</sup> January would record students’ ages at the end of the school year. This is in contrast to most other countries where the 1<sup>st</sup> of January falls towards the start of the school year. This difference may affect the comparability of net enrolment rates for a single year age group, particularly before and after compulsory schooling. Therefore, those countries may choose a reference date closer to the start of the school year.

##### *Typical age*

The typical age is the conventional age of graduation from or entry into an education level. The typical age of entry into an education level is defined as the age range which covers at least half of the entry (which takes into account the number of new entrants of each age but also the total number of men and women at that age). The typical age of graduation from an education level is also defined as the age range covering at least half of those graduating. The typical age is calculated taking into account the reference date for students’ ages, which is by default the 1<sup>st</sup> of January of the reference year.

#### **4.1.8. Internationally mobile and foreign students**

Students can be considered as either national students or internationally mobile students (shortened elsewhere mainly to 'international students').

**Internationally mobile students** are individuals who have physically crossed an international border between two countries with the objective of participating in

educational activities in the country of destination, where the country of destination is different from their country of origin. Mobile students are enrolled as regular students in any semester/term of a programme taught in the country of destination with the intention of graduating from it in the country of destination and are expected to physically attend most of the courses taught. In other words, distance learners are not considered to be internationally mobile.

The measurement of student mobility depends to a large extent on country-specific immigration legislation and constraints on data availability. Countries may define international students as students who received their previous education in another country or alternatively as those who are not residents of their country of study, depending on which operational definition is most appropriate to their national context.

**Foreign students** are students who are not citizens of the country in which they are pursuing education, but have not moved to the country with the sole intention of pursuing education; they may have arrived as the result of other movements, such as immigration.

The status of internationally mobile student is thus dependent on the crossing of an international border for the purpose of education and not on formal residence status in the reporting country of destination. Usual residence is not a criterion to define mobility. For example, “commuter students”, who live at home and commute to their classes in another country are considered mobile if they are studying at tertiary level in a different country from the one in which they were awarded their upper secondary leaving certificate. Nor can citizenship be used as sole criterion to define mobility status. For example, students who are citizens of the destination country but received their prior certificate abroad (also known as “homecoming nationals”) are classified as mobile students for the destination country.

**Students in exchange programmes** who undertake part of their studies at an educational institution abroad are not counted as internationally mobile students in the country to which they exchange. Exchange programmes (or short-term postings) are characterised as normally lasting between three months and less than a full academic year. The defining characteristic of such students is that they are given credits for their stay abroad by their home institution where they originally enrolled and do not obtain their qualifications from the institution to which they exchange.

The status of internationally mobile student is maintained for as long as continued education at the same level of education lasts. This may involve several consecutive education programmes with no or only minor gaps (less than a year) in between. Note that all tertiary programmes are considered as belonging to the same level. Internationally mobile students entering a programme at one level of tertiary education remain internationally mobile if upon graduation they continue in a programme at another level outside their country of origin.

Countries that do not have information on international students available may report foreign students instead. This risks overestimating international mobility. When no other suitable measure exists, country of citizenship may be used – but only as a last resort.

#### ***4.1.9. Full-time, part-time and full-time equivalents***

##### *Full-time and part-time students*

Students are classified as full-time or part-time on the basis of their intended study load within the reference period. The full-time/part-time distinction is therefore an attribute of

the student's study pattern rather than an attribute of the organisation of the educational programme.

A **full-time student** is one committed within the reference period to an intended study load of at least 75% of the normal full-time annual study load, where:

- The intended study load is the study time or resource commitment expected of a student enrolled in the given education programme during a single school or academic year. For predominantly classroom-based study, time in the classroom would be an adequate measure of this. This is a proxy measure for the amount of instruction time that a student receives and can be counted in hours of instruction during the reference school or academic year, the number of course credits taken, or some combination of the two.
- The normal full-time annual study load is the study time or resource commitment expected of a typical student to complete a full-time full-year of a given education programme.

Conversely, a **part-time student** is one whose intended study load is less than 75% of the normal full-time annual study load.

The distinction between full-time and part-time programmes may also be based on the characteristics of the education programmes themselves. In practice, the national context tends to dictate which methods countries use to categorise students as full-time or part-time and these tend to vary by level of education. For primary and secondary education, the most frequent measure is student attendance at the institution or time in the classroom, whereas at tertiary level study load is more likely to be measured in terms of instructional hours and credit accumulation.

In the particular case of combined school- and work-based programmes, the work-based component is considered a mandatory requirement to fulfil the programme. Therefore, students participating in these dual system apprenticeship programmes are classified as full-time students even though the school-based component comprises only part of the programme.

#### *Converting head-count data to full-time equivalents*

The conversion of student head counts to full-time equivalents (FTEs) aims to express study loads in a single standard unit which equates to a full-time, full-year student. To determine the FTE of a given student, intended study load is divided by the corresponding normal annual study load for the reference period.

For example if the normal study load during the reference school or academic year is 30 hours per week, someone who studies 15 hours per week would have an FTE of 0.5. Given the definitions of full-time and part-time stated above it is possible for a full-time student to have an FTE of less than one. For example, a student who studies 90% of the normal annual study load is recorded as full-time but their FTE is 0.9. It is also possible for a full-time student to have an FTE of more than one if they are enrolled in more than one education programme or ISCED level during the reference academic year.

When converting student head-count data to FTEs, it is recommended:

- Where data and norms on individual participation are available:

$$\text{FTE} = \frac{\text{Actual study load}}{\text{normal study load}} \times \frac{\text{Actual duration of study during reference period}}{\text{normal duration of study during reference period}}$$

So, for example if the normal study load for a full-time student during the reference period is 30 hours per week for 20 weeks, a student who studies 30 hours per week for 10 weeks would have an FTE of 0.5.

- Where data and norms on individual student study loads are not available, then a full-time student is considered equal to one FTE. Most countries will use this assumption for the primary and secondary level of education. If equivalent programmes exist separately as full-time and part-time programmes, then the ratio of the theoretical durations of these programmes can be used as a proxy for the conversion of part-time student head counts into full-time equivalents.

**Early childhood education is a special case**, since the concepts used to define full-time and part-time participation are not easily applicable to ISCED level 0. The daily or weekly hours that represent a typical full-time enrolment in an educational programme at ISCED level 0 vary widely between countries. Currently, no consensus has been reached on a methodology for calculating FTEs for early childhood education, but it is recommended to consider all enrolments as full-time.

## 4.2. Educational personnel

### 4.2.1. Coverage of data on personnel

The term “**education personnel**” is used for teachers and other personnel engaging in a broad number of activities including:

- student instruction
- professional support for students (whether academic or health/social support)
- management and administration of the education service (both within and outside educational institutions)
- maintenance and operations of educational institutions
- provision of services to educational institutions as a subcontractor.

These last are included if the personnel hired by the subcontractor are working exclusively or mainly (i.e. at least 90% of the time) for the school or educational institution throughout the period of the contract. For example, if the preparation of school meals is subcontracted to a catering company, but company staffs are working exclusively at the school for which they provide food, they are included as if they were employed by the educational institution.

Therefore, educational personnel refer to all those employed in educational institutions covering both instructional institutions (such as schools, colleges and universities) and non-instructional institutions. This includes staff employed by national, regional and local levels of government who administer the education system as well as staff in entities providing support or ancillary services.

There are, however, certain exclusions:

- Personnel from subcontracted services which cannot be distinguished from other non-education services provided by the subcontractor. A typical example would be that of a local transport company carrying out the school bus service as well as other activities during the day. Similar situations might be encountered for

building maintenance and school cleaning.

- Retired teachers, including those who retired early, regardless of whether their salary is still reported under expenditure on teacher salaries.
- Educational personnel in the work-based component of combined school- and work-based programmes. This approach is designed to improve comparability across countries because virtually no country is able to report personnel in the work-based component.

When determining the number of educational personnel, only individuals are counted, irrespective of their assignments to specific programmes, levels or grades. Each staff member is counted only once. If staff are assigned to more than one level or grade or have more than one contract, numbers are divided proportionately according to the percentage of contractual working hours devoted to each programme, level or grade during the reference school or academic year.

Personnel for whom the teaching function and the management function are equally important are treated as teachers and recorded as such. For example, a full-time teacher with some management responsibilities who teaches for 60% of the average teaching time of a full-time teacher will be counted as one full-time teacher and as 0.6 of a full-time equivalent.

**Special case:** some analyses may wish to record the teaching responsibilities of all staff whether classified as education personnel or not. For this purpose, school management personnel who spend at least 0.25 of their working time teaching to a group or class of students will be considered as having at least some teaching responsibilities.

#### *4.2.2. Classification of educational personnel by function*

The classification of educational personnel is intended to serve as a framework to classify schools and other education system personnel for all levels of education (ISCED 2011 levels from 0 to 8). The classification is based on the primary or major functions performed by staff and organises them into four main functional categories, three of which are further broken down into sub-functions with specialised types of personnel:

- 1. instructional personnel**
  - a. classroom teachers (ISCED 0-4); academic staff (ISCED 5-8)
  - b. teachers' aides (ISCED 0-4); teaching/research assistants (ISCED 5-8)
- 2. professional support for students**
  - a. pedagogical support (ISCED 0-4); academic support (ISCED 5-8)
  - b. health and social support (ISCED 0-8)
- 3. management/quality control/administration**
  - a. school or institutional-level management (ISCED 0-8)
  - b. higher-level management (ISCED 0-8)
  - c. school or institutional-level administrative personnel (ISCED 0-8)
  - d. higher-level administrative personnel (ISCED 0-8)
- 4. maintenance and operations personnel (ISCED 0-6)**

The following sections describe each of these categories in greater detail.

### *Instructional personnel*

#### Classroom teachers and academic staff

A **classroom teacher (ISCED 0-4)** is defined as a person who plans, organises and conducts a group of activities with the aim of developing students' knowledge, skills and competencies as stipulated by educational programmes. Teachers are employed in a professional capacity to guide and direct the learning experiences of students, irrespective of their training, qualifications or delivery mechanism. This category includes:

- professional personnel whose primary or major activity is direct student instruction
- special education teachers in whichever setting they teach
- other teachers who work with a whole class in a classroom, in small groups in a resource room, or one-to-one inside or outside a regular classroom.

This category excludes:

- educational staff whose primary function is something other than teaching, such as managerial or administrative functions
- student teachers and teachers' aides.

Early childhood education is a special case. ISCED level 0 programmes are often delivered by staff with varying levels of qualification, depending on their role in the institution in which they are employed. For the purposes of reporting, reference should be made to the relevant regulatory framework for detail on requirements for persons providing or delivering an education programme to children in the years prior to primary school (such as pedagogical qualifications, training or accreditation at various staffing levels).

**Academic staff (ISCED 5-8)** includes personnel whose primary or major assignment is instruction or research. This includes personnel who hold an academic rank with such titles as professor, associate professor, assistant professor, instructor or lecturer and personnel with other titles (such as dean, director, associate dean, assistant dean, chair or head of department), if their principal activity is instruction or research.

This category excludes student teachers, teachers' aides and paraprofessionals.

#### Teachers' aides and teaching/research assistants

**Teachers' aides (ISCED 0-4)** include not professionally qualified personnel who support teachers in providing instruction to students and other paraprofessional personnel who are employed on a full-time or part-time basis by an education system.

It excludes student teachers or other personnel who do not get paid for their employment. At early childhood education level, support personnel are not regarded as teachers' aides unless they perform educational functions involving groups of pupils on a regular basis.

**Teaching/research assistants (ISCED 5-8)** includes all students employed on a part-time basis for the primary purpose of assisting in classroom or laboratory instruction or in the conduct of research. Personnel in these positions are typically graduate students who

hold such titles as teaching assistant, teaching associate, teaching fellow or research assistant, or equivalent personnel with other titles.

### *Professional support for students*

#### Pedagogical and academic support

**Pedagogical support (ISCED 0-4)** includes professional staff providing services to students to support their instructional programme such as guidance counsellors, librarians, educational media specialists and attendance officers. In many cases, these personnel were originally licensed as teachers but then moved into other professional positions in education systems.

**Academic support (ISCED 5-8)** includes all personnel whose primary responsibility is to support students' academic programmes. It covers the same categories of staff included under pedagogical support as well as other professional support staff employed in tertiary education institutions.

#### Health and social support

This category includes all personnel employed in education systems who provide health and social support services to students such as:

- health professionals such as doctors, dentists, ophthalmologists, optometrists, hygienists, nurses and diagnosticians
- psychiatrists and psychologists
- speech pathologists and audiologists
- occupational therapists
- social workers.

### *Management, quality control and administration*

#### School or institution-level management

- **School-level management (ISCED 0-4)** covers professional personnel whose primary or major responsibility is leadership, school management and/or administration. It includes school heads, principals, assistant principals, headmasters, assistant headmasters, head teachers, assistant head teachers and other management staff with similar responsibilities. It does not include receptionists, secretaries, clerks and other staff who support the administrative activities of the school.
- **Institution-level management (ISCED 5-8)** covers personnel whose primary or major responsibility is the management of the institution, or a recognised department or subdivision of the institution. This category includes personnel with the following titles or their equivalents, if their primary activity is administrative: president, vice president, dean, director, chancellor, associate dean, assistant dean, executive officer or department head.

### Higher-level management

**Higher-level management (ISCED 0-4)** covers personnel whose primary or major responsibility is quality control and the management of the education system at levels above that of the school. These personnel may be employed by local boards of education, state or regional ministries or departments of education, or by national ministries or departments of education. Their work may involve direct administration or other functions that support the operation of education systems such as planning, evaluation, budgeting and accounting, and public information. This category includes the following types of personnel: superintendents of schools, associate and assistant superintendents, commissioners of education, associate and assistant commissioners, directors of instruction and curriculum, directors of planning and evaluation, and other equivalent titles. This category excludes personnel whose main activity is teaching but have some management responsibilities.

**Higher-level management (ISCED 5-8)** covers personnel with similar functions described above for ISCED 0-4. It also includes other administrative/management positions specific to the tertiary education sector.

### School or institution-level administrative personnel

**School-level administrative personnel (ISCED 0-4)** covers all personnel who support the administration and management of the school. This category includes receptionists, secretaries, typists and word processors, bookkeepers and clerks, and photocopying assistants.

**Institution-level administrative personnel (ISCED 5-8)** covers all personnel with similar functions described above for ISCED 0-4, and other personnel who support the administrative / management functions of the institutions. These other personnel include: accountants, analysts, auditors, computer programmers, systems analysts, evaluators, financial aid officers, grant developers, lawyers, network administrators, public relations / informational services officers, registrars, and others with similar functions and responsibilities.

### *Higher-level administrative personnel at all ISCED levels*

This category covers personnel who support the administrative or management functions of the education system at the higher level. These personnel may be employed by local boards of education, state or regional ministries or departments of education, or by national ministries or departments of education.

### *Maintenance and operations personnel*

At all ISCED levels, maintenance and operations personnel include personnel who support the maintenance and operation of schools, school security, and ancillary services such as the transportation of students to and from school, and food services operations. It includes the following types of personnel:

- masons, carpenters, electricians, locksmiths, maintenance repairers, painters and paperhangers, plasterers, plumbers, and vehicle mechanics
- bus drivers and other vehicle operators, construction workers, gardeners and groundskeepers, bus monitors and crossing guards, cooks/food caterers, custodians, food servers, dormitory supervisors, and security guards.

### *4.2.3. Age of educational personnel*

As when reporting the ages of students (see Section 4.1.7), educational personnel are classified by their age as of 1<sup>st</sup> January of the year in which the school or academic year ends (for example 1 January 2016 for academic year 2015/16). For example, in a country where the school year runs from September to August, a teacher born on 31 December 1985 will be reported as aged 30 for the academic year 2015/16, whereas one born on 1 January 1986 will be reported as aged 29.

Countries where the 1<sup>st</sup> of January falls at the end of the school year may choose to reference the ages of personnel at some time closer to the start of the school year and redistribute the ages on the same basis as the estimation described for student data in Section 4.1.7. The strict comparability of the reference dates for the ages of personnel is, however, likely to be less of an issue than it is for the student data where the calculation of participation rates are more sensitive to reporting differences.

Educational personnel not classifiable by age are allocated to the category “age unknown”.

### *4.2.4. Employment status of educational personnel*

#### *Full-time and part-time educational personnel*

The classification of educational personnel into full-time and part-time staff is done on the basis of contractual working time. This classification is regarded as an attribute of their individual contract of employment rather than as an attribute of the educational programmes or the provision of education in general in which they are involved.

Full-time employment in each country will be defined differently but will usually be based on the number of normal or statutory working hours which are expected of a full-time employee. The normal or statutory working hours of educational personnel are those needed to meet the requirements according to the official national policies or laws of full-time employment at a specific level of education, or in the job or role in which they are employed, over a full school or academic year.

In order to determine whether educational personnel are full-time or part-time, their contractual working hours should be compared to the normal or statutory number of hours for full-time educational personnel according to the national norms or conventions at the given level of education.

The definitions of full-time and part-time educational personnel in the OECD education statistics are stated relative to these national norms for each category of educational staff as follows:

**Full-time educational personnel** are defined as employees who are employed for at least 90% of the normal or statutory working hours of educational personnel in the same job or role at the given level of education over a complete school year.

**Part-time educational personnel** are employed for less than 90% of the normal or statutory working hours of educational personnel in the same job or role at the given level of education.

Note that the 90% cut-off point for educational personnel is different from the 75% cut-off point for students. This reflects the greater standardisation within countries on the normal

working hours of full-time educational personnel in a given job or role compared with the intended study load of full-time students.

#### *Converting head-count data to full-time equivalents*

Head counts of educational personnel are converted to FTEs in a similar way to students. The aim is to express working hours during the reference period as a single standard unit which equates to full-time, full-year educational personnel. FTEs are determined by dividing contractual working hours by the corresponding normal or statutory working hours for the reference period.

For example if the normal or statutory working hours during the reference school or academic year is 30 hours per week, someone who works 15 hours per week would have an FTE of 0.5. Given the definitions of full-time and part-time given earlier it is possible for full-time educational personnel to have an FTE of less than one. For example, a teacher who works 90% of the normal or statutory working hours of a full-time teacher should be recorded as full-time but their FTE should be 0.9. It is also possible for full-time educational personnel to represent more than 1 FTE if they have more than one employment contract during the reference school or academic year. In these cases, they should be reported as full-time educational personnel but with FTEs greater than 1.

The conversion to FTEs is often difficult for non-teaching educational personnel. Some countries collect data on the number of contracted hours worked in a typical week for certain categories of non-teaching staff, which are then converted into FTEs as above.

#### *Classification of educational personnel involved in multiple education programmes*

It can be difficult to classify educational personnel whose work is divided between different types of institutions (public/private), different levels of education, different orientations (general/vocational) or between different functions (such as teaching and administration). In this case, the calculation of head counts and FTEs will differ:

**For reporting head counts:** first, the total number of educational personnel is split into those who are full-time and those who are part-time by aggregating their contractual working hours over all of their activities. The full-time and part-time numbers are then pro-rated between education levels, education programmes, types of institutions and functions on the basis of the most appropriate data available relating to the split.

For example, in the absence of any better information, the numbers of educational personnel who work exclusively in public and private institutions respectively can be used to pro-rate the numbers who share their time between the two.

**For reporting full-time equivalents,** educational personnel are apportioned to the different levels, education programmes, types of institutions and functions in proportion to the amount of contractual working time that they spend on each function. For example, a teacher whose working time totals 0.8 of an FTE teacher, and who spends 50% of their time teaching ISCED 2 and 50% teaching ISCED 3 should be allocated as 0.4 FTE to each of ISCED 2 and ISCED 3.

#### *4.2.5. Classification of teachers by the orientation of education programmes*

Teaching staff can be involved in the instruction of students on programmes with different orientations: general, pre-vocational or vocational.

The criterion used to classify teachers is the characteristics of the education programmes followed by the students, rather than the specific subjects taught by the teachers.

In countries which do not have a reporting system which classifies teachers directly by the level and orientation of the programmes they teach, then, for the purpose of reporting head-count data, teachers are pro-rated according to the time they are assigned to the corresponding levels and type of educational programmes. Teachers in different types of programmes are divided in proportion to their contractual working hours. For the reporting of full-time equivalents, teachers are apportioned according to their contractual working time in the respective programmes.

#### *4.2.6. Teachers' working time, teaching time and non-teaching time*

**Teachers' working time** is defined as the number of hours per year that a full-time teacher is expected to work according to the formal policy of that country. This should exclude overtime, non-specified preparation time and days that the school is closed for public holidays, vacations, and festivities. Days or periods of self-regulated professional development which take place during school holidays should also not be reported as working time. To account for non-specified working time in countries where teachers are also subject to other labour regulations (like those that pertain to public employees), the working time of the relevant part of the labour force is also measured (i.e. the statutory working time of public employees).

**Working time in school** is defined as the working time teachers are supposed to be at school, including both teaching and non-teaching time.

**Teachers' working time** can be divided into **teaching time** and **non-teaching time**:

**Teaching time** is defined as the number of hours per year that a full-time teacher teaches a group or class of students according to the formal policy in that country each year. Activities such as professional development days, student examination days, attendance at conferences, and time devoted to the preparation of classes should not be counted as teaching time. Teaching time is calculated as the net contact time for instruction, excluding any time allocated for breaks of ten minutes or more, and days that the school is closed for holidays. To ensure measures of teaching time are comparable, teaching periods must be transformed into 60-minute periods (e.g. a 45-minute lesson = 0.75 hour).

The formula used to calculate hours of teaching time per year is the following product:

$$\prod (\text{Number of teaching days per year}, \text{Number of teaching hours per day})$$

Where the number of teaching days per year = number of teaching days per week multiplied by the number of teaching weeks per year minus the number of days that the school is closed for holidays. The number of teaching hours per day is converted into 60-minute periods, excluding breaks of ten minutes or longer.

An exception to the use of this formula is the calculation of teaching time at the pre-primary and primary level, where short breaks are included if the classroom teacher is responsible for the class during these breaks. However, even at these levels, lunch breaks should not be included.

All data relating to teachers' working and teaching time should refer to the situation that applies according to the formal policy in each country. This formal policy may be framed in terms of minimum, maximum or typical requirements. Where the regulations vary within the country (e.g. by region, school type or teacher group), weighted averages of

these regulations can be used, according to the number of teachers to which the variations apply. When this is impractical, countries should consider the teaching and working requirements of the typical teacher.

**Non-teaching time** refers to the number of hours a full-time teacher spends per year, according to the formal policy, on:

- teaching-related tasks, such as lesson preparation, correction of assignments and tests, supervision activities, meetings about student reporting, annual exams, and meetings with parents
- general school tasks, such as providing student support, cultural activities, meetings, supervision of students during breaks and administrative tasks
- professional development activities, such as observational visits to other schools, attending internal or external conferences, workshops and training.

Some of these activities may take place inside or outside of the school, depending on the formal policy in that country.

**Actual teaching time** is the annual average number of hours that full-time teachers teach a group or class of students, including overtime. The data can be gathered from administrative registers, statistical databases, representative sample surveys or other representative sources.

#### 4.2.7. *Teachers' statutory and actual salaries*

The **annual gross statutory salary** consists of teachers' pay according to existing salary scales including any additional benefits that all teachers receive and that constitute a regular part of the annual base salary, such as a thirteenth month or holiday bonus. These salary scales can be based on regulations or agreements between stakeholders, such as teachers' unions, local authorities or school boards.

For example in Spain, the *trienios* (a small salary supplement added to the salary of teachers after every three-year period of service) and the *sexenios* (a salary supplement added after each six-year period and related to in-service training) are included in the annual gross statutory salary figures.

This approach can be considered as the gross salary from the employee's point of view, since it includes any social security contributions and pension scheme contributions that are paid by employees, even if they are deducted automatically from the employee's gross salary by the employer. However, it excludes any employers' premiums for social security and pension contributions. For example a teacher in the United Kingdom receives a monthly gross salary from which some 6% is automatically deducted as the employee's contribution towards the national insurance scheme. Separately, the teacher's employer pays an employer's contribution towards the scheme. In this case, the gross salary reported is the salary before the deduction of the 6% but not including the employer's contribution.

Data on statutory salaries are collected at four points on the salary scale (for a specific level of qualifications of teachers, as explained in Section 4.2.8.): starting salaries, salaries after 10 years of experience, salaries after 15 years of experience and salaries at the top of the scale.

- Starting salaries refer to the average scheduled gross annual salary for a full-time teacher at the beginning of his or her teaching career.

- Salaries after 10 and 15 years' experience refer to the scheduled annual salary of a full-time classroom teacher with 10 and 15 years' experience.
- Salaries at the top of the scale refer to the maximum salaries of a full-time classroom teacher.

Progression in the salary range (from starting point to the top) only reflects pay increases resulting from the number of years in service. It excludes salary increases due to other factors, such as the completion of continuing professional development activities.

Teachers may acquire other compensation, such as bonuses and allowances on top of their statutory salaries, in addition to the amount received on the basis of educational qualification and experience. These may be awarded for teaching in remote areas, for participating in school improvement projects or special activities, for taking on management responsibilities in addition to teaching duties (such as serving as a head of department or co-ordinator of teachers in a particular class/grade), or for excellence in teaching performance.

The **actual gross salary** is the annual money earnings actually received by qualified full-time teachers as direct payment for labour services provided, before taxes. It is the gross salary from the employee's point of view, since it includes the portion of any social security and pension scheme contributions paid by employees, even if deducted automatically from the employees' gross salary by the employer. However, it excludes any employers' contributions towards social security and pension schemes. Work-related payments such as annual bonuses, result-related bonuses, extra pay for holidays and sick-leave pay from employer(s) should also be included. Income from other sources, such as government social transfers, investment income and any other income not directly related to their profession are not to be included. These data can be derived from a variety of sources, including administrative registers, statistical databases, representative sample surveys and other representative sources.

#### Remarks

Definitions here might be different from those in Section 4.5.5 because they refer to different data sources.

#### **4.2.8. Teacher qualifications**

A fully qualified teacher is one who has fulfilled all the training requirements for teaching (a certain subject) and meets all other administrative requirements, such as a successful probation period, according to the formal policy of a country (e.g. a bachelor's degree plus a competitive examination plus an induction programme). The qualification level refers to the entry point to the teaching profession. In a few countries, all teachers must obtain further qualifications to move up in the salary range. Professional experience or number of years in service can also be recognised as further qualifications. In this case, the qualification level will be considered to be that of the starting teachers, even though teachers with a certain number of years' service may have further qualifications. Sometimes, changes in the qualification level are compulsory for all teachers after a certain number of years in the teaching profession.

The **minimum level of qualification or training** required to teach at a given ISCED level is defined as the minimum duration and type of training required for entry into the profession in the reference year. It does not include any eventual further requirements to become a licensed teacher in the public school system, such as completing probation years. In a few countries, the minimum qualification requirements to enter the teaching

profession may have changed over time. As a result, the minimum level of qualification of teachers with 10 or 15 years of experience and at the end of their careers may be different from the stated qualification level for starting teachers.

The **higher than minimum qualification (if most prevalent) to enter the teaching profession in the reference year** is defined as the level of qualification and training higher than the minimum that is held by the largest proportion of teachers (among all teachers at a given level of education) and recognised through a specific salary range. Information on teachers with this qualification is collected to give a more representative perspective in countries where most teachers hold a qualification higher than the minimum to enter the teaching profession and which is also recognised by the compensation system. In all other countries, the most prevalent qualification is considered to be the minimum qualification. In a few countries, the most prevalent qualification for teachers with 10 or more years of experience may be different from the most prevalent qualification at entry to the profession in the reference year, especially when qualification requirements have changed over time.

The **maximum level of qualification or training** is defined as the highest level of qualification recognised from the point of view of compensation. The maximum qualification may correspond with the minimum qualification or a higher than minimum qualification to enter the teaching profession that is held by the largest proportion of teachers. In a few countries, the maximum qualification requirements for teachers with 10 or more years of experience may be different from the maximum qualification at entry to the profession in the reference year.

The **most prevalent level of attainment** refers to the ISCED 2011 level of attainment reached by the greatest proportion of teachers in the system at a given time (e.g. the reference year of the reported data).

### 4.3. School organisation and curriculum

#### 4.3.1. Instruction time

Two measures of instruction time are collected: intended and actual instruction time.

##### *Intended instruction time*

**Intended instruction time** is defined as the amount of time a student ought to receive instruction from a classroom teacher during the year.

Intended instruction time includes:

- the amount of instruction time a public school is expected to provide to students on all subjects integrated into the compulsory and non-compulsory curriculum (see Section 4.3.2) on the school premises
- time spent on out-of-school activities which are a formal part of the compulsory programmes.

Intended instruction time excludes:

- breaks between classes or other types of interruptions
- non-compulsory time outside the school day
- time dedicated to homework activities

- individual tutoring or private study
- days when schools are closed for festivities, such as national holidays, and days when students are not expected to be at school because of teacher development days or examination periods.

**Table 4.1. List of study areas (subjects) used in the questionnaire:**

Term	Definition
Reading, writing and literature (L1)	Covers skills such as spelling, reading and writing in the language of instruction and includes subjects such as grammar, the language of instruction and literature. It can be considered as the first language taught to students. If there are two languages of instruction in almost every public school, then the hours allocated to reading, writing and literature in both languages of instruction should be reported.
Mathematics	Covers all numeracy skills and subjects such as arithmetic, algebra, geometry and statistics.
Natural sciences	Includes subjects such as science, physics, chemistry, biology, environmental sciences and ecology.
Social sciences	Includes subjects such as history, geography and all related studies. May also include community studies, social and political instruction, and philosophy or civics education.
Languages (2-5)	Includes subjects that develop students' knowledge of a language viewed in the curriculum as "foreign" (or modern) languages, other national languages and/or regional and minority languages. This definition of languages in the curriculum is educationally based and unrelated to the political status of the languages.
Physical education and health	Includes subjects such as education in sports and health-enhancing physical activities, as well as time devoted to instruction in competitive and traditional games, gymnastics, swimming, athletics, dance or other activities that develop pupils' physical and social competences (including knowledge, skills, psychomotor co-ordination, co-operation and leadership) and an active healthy lifestyle.
Arts education	Includes subjects such as arts, history of arts, music, visual arts, drama, music and dance performance, photography, and creative handicraft.
Religion/ ethics/ moral education	Includes subjects whose aim it is to teach the principles and history of one or more religions and subjects such as ethics whose aim it is to determine how to live and behave in accordance with human and social principles.
Information and communication technologies (ICT)	Includes subjects such as informatics, information and communication technologies or computer science. These subjects include a wide range of topics concerned with the new technologies used for the processing and transmission of digital information, including computers, computerised networks (including the Internet), microelectronics, multimedia, software and programming.
Technology	Includes subjects that provide knowledge on the practical use of scientific or technological discoveries that use specific instruments and processes, such as construction, electricity, electronics, graphics and design.
Practical and vocational skills	Includes vocational skills (preparation for a specific occupation), accountancy, business studies, career education, clothing and textiles, driving and road security, home economics, nursing, secretarial studies, tourism and hospitality, woodwork, metalwork, and sewing.
Other subjects	Includes different subjects that cannot be classified within the other groups or which specifically reflect national concerns. The following types of subjects could be included in this category: Latin, ancient Greek, classical studies, minority languages that have not been reported in the Languages 2-5 columns, environmental education, and personal development and well-being. The "other subjects" must be part of the compulsory curriculum to be provided by schools. Form time, assemblies and tutoring should only be included if they are compulsory, have an educational component and are aimed at all students.
Compulsory subjects with flexible timetable (total time devoted to...)	Includes the total amount of instruction time indicated by the central authorities for a given group of subjects, which regional authorities, local authorities, schools or teachers allocate to individual subjects. There is flexibility in the time spent on a subject, but not in the subjects to be taught. For example, central authorities may define the total number of hours that students should be studying reading, writing and literature; mathematics; science; and modern foreign languages per year and schools may choose how to distribute this time between these individual subjects.
Compulsory options chosen by the students	Includes the total amount of instruction time on one or more subjects that pupils have to select (from a set of subjects that it is compulsory for schools to offer) in order to cover part of their compulsory instruction time. This only applies if students have a choice between different subjects and not a choice within a subject category. For example, students may be able to choose between studying a second foreign language or computer science or economics, but it is compulsory for them to study one of these options.
Compulsory flexible subjects chosen by schools	Includes the total amount of compulsory instruction time indicated by the central authorities, which regional authorities, local authorities, schools or teachers allocate to subjects of their choice (or subjects they chose from a list defined by central education authorities). For example, schools may be able to choose between offering religious education or more science, or art but, but it is compulsory for the school to offer one of these subjects and the students must study it.
Non-compulsory curriculum	Includes the total amount of instruction time to which students are entitled beyond the compulsory hours of instruction and that almost every public school is expected to provide. Subjects can vary from school to school or from region to region and take the form of elective subjects. For example, students may have the possibility to take an enriched maths course or to study an additional foreign language, above the compulsory hours of instruction. Students are not required to choose one of these elective subjects, but all public schools are expected to offer them the possibility. Please note that additional activities before/after classes offered by the school are not per se part of non-compulsory curriculum if they can be considered as non-formal instruction. For example, non-compulsory education excludes additional activities such as morning care classes or after-school care classes, even if they are officially regulated.

Although instruction time can be recorded in different units in different countries, it is converted into hours (of 60 minutes) per grade for the purpose of comparing statistics on educational indicators.

The subject areas taught during compulsory education vary depending on the country. They have therefore been grouped into more general subject areas, in order to be able to compare the collected information. The scope, however, is not identical for each of the subject categories. Certain subject categories (e.g. natural sciences) cover several taught subjects (physics, chemistry or biology), whereas others are more specific (e.g. technology). Table 4.1 defines the subject categories that are included in the data collection on instruction time.

#### *Actual instruction time*

**Actual instruction time** is defined as the average instruction time, by subject, in each grade in schools. Actual instruction time refers to the instruction time actually provided in schools, taking into account the cancellation of lessons for a variety of reasons (e.g. school closures, teacher absenteeism and strikes).

Actual instruction time is especially relevant for countries without central recommendations on the intended curriculum and countries that delegate the setting of instruction time to schools or local authorities. Additionally, for countries with regulations on the distribution of intended instruction time, data on the actual instruction time will help to present the national situation in a more accurate way.

#### **4.3.2. Curriculum**

The **national curriculum** is usually set out in a document describing the common goals, objectives and quality and/or content criteria of a national school system. This document may take the form of standards (defined objectives and achievement criteria at given levels of education and in specific subjects of study areas) without allocating actual time or mentioning subjects. It may also resemble a timetable, specifying the number of periods for each subject and in each grade by programme. It may also indicate the extent to which decisions on curriculum content and final time allocation can be made at the local or school level.

The intended (or prescribed) curriculum's goals, structure, subjects and notional student workload may be based on the regulations or standards of the top-level authority responsible for education. The top-level authority is usually the state, but in some countries the competencies lie (or are shared) with sub-state entities such as regions. The regulations or standards may document the different elements of the curriculum as a whole, as well as the instruction time linked to each subject. Alternatively, they might only include information on the goals and the content of the subjects, and delegate the distribution of instruction time to other complementary documents. All of these sources of information may be used to collect data about the time allocation between subjects and educational stages.

The intended curriculum comprises both compulsory and non-compulsory parts of the curriculum.

The **compulsory curriculum** refers to the amount and allocation of instruction time that has to be provided in almost every public school and must be attended by almost all public sector students. The compulsory curriculum may be flexible in various ways, giving local authorities, schools, teachers and/or students varying degrees of freedom to

choose the subjects and/or the allocation of compulsory instruction time (see Section 4.3.1). Its goals, structure, subjects and students' notional workload may be based on regulations or standards from the central (top-level) authority responsible for education. Again, this central authority is usually the state, but in some countries the competence lies (or is shared) with sub-state entities, such as regions.

The **non-compulsory curriculum** is included when almost all public sector students are entitled to instruction time above the compulsory hours of instruction. For example, educational authorities may expect almost every public school to allocate resources to teaching elective subjects. These subjects often vary from school to school or from region to region, and may take the form of non-compulsory elective subjects.

### 4.3.3. Classes and class size

Data on average class sizes are collected for primary and lower secondary education.

A **class** is a group of students who receive tuition together.

**Class size** is simply the number of students in the group who receive tuition together. In general, the calculation of average class size is simply the total number of students divided by the total number of classes. Students attending special-needs programmes are excluded from this data collection to ensure comparability between countries.

At primary and secondary education levels, class size is computed by **division**. A **division**, often commonly referred to as a class, is made up of the students who are following a common course of study. Students may only be registered in one division, and grouped together based on the highest number of common courses, usually compulsory studies. A division is therefore the pedagogical structure in which each student is enrolled.

In some cases, divisions can be further divided into sub-groups according to the modules being taught. While the concept of average class size can be applied to either the division or the sub-group, this manual uses the average class size per division, as divisions are more commonly used than sub-groups to partition programmes across education levels.

For example, if a teacher has a division of 28 pupils during 8 hours, and this division is also divided in two sub-groups of 14 students during 1 hour for a specific module, then the average size of the class is considered to be the number of students per division =  $28/1=28$ , without consideration for the sub-groups. For more details on class-size calculations see Chapter 7, Section 7.9.2.

## 4.4. Educational institutions

Although educational institutions are no longer a statistical unit for the purpose of regular international data collections (data on the number of educational institutions are no longer collected), the definition of educational institutions is crucial in defining the coverage of educational expenditure. In the context of lifelong learning, educational institutions remain important because of their role in formal education.

### 4.4.1. Basic definition

**Educational institutions** are defined as entities that provide either core or peripheral educational goods and services to individuals and other educational institutions.

This definition leaves some ambiguity surrounding the definition of institutions as separately identifiable statistical units. In particular, the issue of whether an institution with several campuses should be regarded as a single or multiple institutions still needs to be properly addressed. Further complications arise where campuses are located in another country and in the area of distance learning, where courses are Internet based. Further work is needed in this area.

For instance, an institution in country A may have a campus or outpost in country B (i.e. a foreign campus). Country B should report enrolments and finance for the foreign campus in the same manner as it reports activities of its domestic educational institutions. The mobile status of the students at these campuses should be determined as for all other students. Foreign campuses which in practice do not accept students from the host country (for example schools provided for the children of military personnel based outside their home country) should be treated in the same way as other foreign campuses.

Whether or not an entity qualifies as an educational institution is not contingent upon which public or private authority (if any) has responsibility for it. For example, tertiary institutions are classified as educational institutions regardless of which ministry or other authority may have ultimate responsibility for them. In some countries, the ministry of agriculture or defence might have responsibility for some institutions.

#### *4.4.2. Instructional and non-instructional educational institutions*

**Instructional educational institutions** are institutions such as schools, colleges and universities, whose main purpose is to provide educational programmes for students and which fall within the scope of education statistics. Instructional institutions are typically where students enrol in order to study educational programmes. Such institutions are normally accredited or sanctioned by the relevant national education authorities or equivalent authorities. Instructional educational institutions may also be operated by private organisations, such as religious bodies, special interest groups or private educational and training enterprises, both for profit and non-profit.

The generic term “school” is often used to refer to instructional institutions at the primary, secondary and post-secondary non-tertiary levels, and “universities” to those at the tertiary level.

**Non-instructional educational institutions** are educational institutions providing education-related administrative, advisory or professional services for individuals or other educational institutions. Non-instructional educational institutions include the following types of entities:

- **Entities administering educational institutions:** institutions such as national, state, and provincial ministries or departments of education; other bodies that administer education at various levels of government (e.g. the administrative offices of local education authorities and education officers of municipalities, and central agencies responsible for the remuneration of staff or pension payments); and analogous bodies in the private sector (e.g. diocesan offices administering Catholic schools and agencies administering admissions to universities).
- **Entities providing support services** to other educational institutions including institutions that provide educational support and materials as well as operation and maintenance services for buildings. These may be part of general-purpose units of public authorities. An example of an institution providing educational support in Greece is the Textbook Publishing Organisation (OEDB) whose chief

responsibility is to publish and distribute all books and printed material necessary for all levels of education. The OEDB is an agency overseen by the Ministry of Education, but not formally part of it.

- **Entities providing ancillary services:** separate organisations providing education-related services such as vocational and psychological counselling, placement, transportation of students, and student meals and housing. In many countries, general-purpose units of public authorities (states or municipalities) provide maintenance and ancillary services such as administering student transport. Although they cannot be defined as educational institutions as a whole, the expenditure and personnel committed to the education-related services they provide should be included in data collection. In that sense, general-purpose units of public authorities should be treated as educational institutions to the extent that they provide services to schools or students.

#### 4.4.3. *Classifying public and private institutions*

##### *Basic classification criteria*

Educational institutions are classified as either public or private. Private institutions are further divided into government-dependent and independent private institutions.

An institution is classified as **public** or **private** depending on whether a public agency or a private entity has overall control over it. Overall control is decided with reference to who has the power to determine the general policies and activities of the institution and to appoint the officers managing it. Overall control will usually also extend to the decision to open or close the institution. As many institutions are under the operational control of a governing body, the constitution of that body will also have a bearing on the classification.

An institution is classified as **public** if it is controlled and managed:

- directly by a public education authority or agency of the country where it is located
- directly by a government agency or by a governing body (such as a council or committee), most of whose members are appointed by a public authority or elected by public franchise.

An institution is classified as **private** if:

- overall control and management rest with a non-governmental organisation (e.g. a church, trade union, business enterprise or foreign or international agency)
- the governing board consists mostly of members not selected by a public agency.

##### Remarks

**Classification criteria:** when classifying educational institutions as either public or private, only the school-based component of combined school- and work-based programmes should be considered. Similarly, the classification of students as enrolled in public or private institutions should consider only the school-based component of such programmes. For example, if a student performs the school-based component in a public school and the work-based component in a private enterprise, this student should be counted under the “public” heading.

**Source of funds:** the extent to which an institution receives its funding from public or private sources does not determine its classification as a public or private institution. For example, a privately managed school could obtain all of its funding from public sources and a publicly controlled institution could derive most of its funds from tuition fees paid by households.

**Ownership:** whether or not a public or private body owns the buildings and site of a school is not crucial to its classification status. The term “ownership” may refer to the ownership of school buildings and site, or alternatively ownership of the institution in the sense of ultimate management control. Only in the latter sense is ownership relevant for classifying institutions.

**Regulation:** privately managed but publicly funded schools may be subject to some regulation or control by public authorities, but these institutions should nevertheless be classified as private, provided that they are ultimately subject to private control. Public regulation may extend to areas such as the curriculum, staffing appointments and admissions policies. In practice, publicly regulated private schools may pose problems of classification where the extent of regulation is on a par with that of publicly controlled schools. This may especially be the case at tertiary level where institutions may be autonomous and self-governing but subject to considerable public control. Control over such functions as the selection and dismissal of staff, the setting of curricula, the examination and testing of students, and the admission of students may all be shared between a public authority and a governing board. It is also not uncommon for private schools in many countries to be required to teach the national curriculum and be subject to more or less the same regulations as public schools, in return for public funding of these schools.

**Legal basis:** in the case of some institutions, a legal basis for their foundation may exist in a public charter, deed of trust or even legislation enacted by parliament. In general, the legal instrument on which the institution is founded affects its classification status only to the extent that such a legal instrument enables a public authority to exercise ultimate authority or control over the institution. The issue of public recognition or licensing of private schools should not be confused with the issue of overall control.

### *Difficult cases*

In many countries, the public authorities lay down minimum conditions for private schools (both government-dependent and independent) in relation to the curriculum or qualifications of staff.

Some countries have autonomous, self-governing universities, which are owned and managed by self-perpetuating governing boards made up of private members, but are publicly chartered and considered to be performing a “public” function. Nevertheless, these institutions should be classified as private.

In other cases, a public agency may have granted so much educational and fiscal autonomy to individual schools (sometimes vesting authority in school governing boards composed of private members), that few significant elements of public control or governance remain. Nevertheless, these institutions should be classified as public as it was the choice of the public agency which had overall control to grant additional freedom to the schools.

In still other cases, the degree of public regulation of nominally privately owned and managed institutions may be so great that few vestiges of private decision-making authority remain. Nevertheless, these institutions should be classified as private.

European schools, established for the children of personnel of the European institutions, should be classified as private institutions, because they are not directly controlled or managed by a public education authority or agency of the country in which they are located. In fact, they are managed by an intergovernmental institution, the Board of Governors, pursuant to a distinct international treaty. They are classified as private independent institutions, because most of their core funding comes from the European Commission’s operating budget, with less than 50% coming from government agencies of the host countries.

### *Distinguishing between government-dependent and independent private institutions*

The terms “**government-dependent**” and “**independent**” refer only to the degree to which a private institution is dependent on funding from government sources; they do not refer to the degree of government direction or regulation.

A **government-dependent private institution** is a private institution that receives 50% or more of its core funding from government agencies, or one whose teaching personnel are paid by a government agency or through government directly.

An **independent private institution** is a private institution that receives less than 50% of its core funding from government agencies and whose teaching personnel are not paid by a government agency.

**Core funding** refers to the funds that support the basic or core educational services of the institutions. It therefore excludes:

- funds provided specifically for research projects
- payments for services purchased or contracted by private organisations
- fees and subsidies received for ancillary services, such as lodging and meals.

Tuition fees and other fees paid to institutions by students should not be considered as government funds unless the fees are financed by government scholarships or loans to the students or households and the student has no choice but to use the fee in that class of institution.

The classification of institutions as government-dependent or independent should be made for classes of institutions rather than for individual institutions. For example, if a country has a number of church-affiliated upper secondary schools, the determination should depend on whether such schools in general receive a majority of their core funding from government sources. If the answer is yes, then all the schools in the category should be considered government-dependent, even if some individual schools in the class may happen to receive less than half of their core funds from government sources.

## 4.5. Educational expenditure

This section provides specific and detailed definitions and concepts used in the compilation of international statistics on educational finance and expenditure from all sources on formal education. This includes government expenditure, including expenditure from all government ministries and agencies financing or supporting education programmes; and expenditure from international and private sources.

### *4.5.1. The framework for educational expenditure*

Data on education finance and expenditure are reported for the same programmes as for students, teaching staff and graduates. This means they cover spending on formal education programmes which are delivered within the national territory, irrespective of the citizenship of students enrolled in these programmes and irrespective of the type of institutions (instructional or non-instructional educational institutions, public or private) (UNESCO-UIS / OECD / EUROSTAT, 2017<sup>[5]</sup>).

Expenditure on education includes expenditure on core educational goods and services, such as teaching staff, school buildings, and schoolbooks and teaching materials, and

peripheral educational goods and services such as ancillary services, general administration and other activities.

Ideally, international comparisons of educational expenditure should be defined in terms of the educational goods and services which are purchased in relation to the educational programmes within the scope of each data collection. In practice, educational institutions are most commonly used as defining units rather than educational goods and services, reflecting the traditional interest in how much schools, colleges and universities cost. But while an institutional dimension is important, international comparisons may be problematic because some of the goods and services provided by educational institutions in one country may be provided outside educational institutions in another country. Differentiating the spending devoted to educational and non-educational goods and services offered by institutions also provides for an analysis of the expenditure devoted to core educational purposes. Finally, the source of funds dedicated to education spending assesses who the major contributors are and the impact this may have on the access and provision of education.

It is therefore important to consider a framework for educational finance data built around three dimensions (Figure 4.1):

- the location of service providers (within or outside of institutions)
- the goods and services provided or purchased (core and peripheral goods)
- the source of funds that finance the provision or purchase of these goods and services (from public, private and international sources).

The first dimension – represented by the horizontal axis in the diagram below – relates to the location where spending occurs. Spending on educational institutions includes spending on teaching institutions such as schools and universities, and non-teaching institutions such as education ministries and other agencies directly involved in providing and supporting education. Spending on education outside these institutions covers expenditure on educational good and services purchased outside institutions, such as books, computers and fees for private tutoring. It also deals with student living costs and costs of student transport not provided by educational institutions.

The second dimension – represented by the vertical axis in the diagram below – classifies the goods and services that are purchased. Educational core goods and services include all expenditure directly related to instruction and education. It covers all expenditure on teachers, maintenance of school buildings, teaching materials, books, tuition outside schools and administration of schools. However, not all expenditure on educational institutions can be classified as direct educational or instructional expenditure. Educational institutions in many OECD countries offer various ancillary services – such as meals, transport, housing, etc. – in addition to teaching services to support students and their families. At the tertiary level, spending on research and development can be significant. Additionally, not all spending on educational goods and services occurs within educational institutions. For example, families may purchase textbooks and materials themselves or seek private tutoring for their children. In this sense, "non-instruction" expenditure covers all expenditure broadly related to student living costs or services provided by institutions for the general public.

Table 4.2. Source of funding for educational goods and services by location of the service provider

Type of goods and services		Location of service providers		
		Spending on educational institutions <i>(e.g. schools, universities, educational administration and student welfare services)</i>	Spending on education outside educational institutions <i>(e.g. private purchases of educational goods and services, including private tutoring)</i>	
Spending on core educational goods and services		Public and international funds <i>e.g. public spending on instructional services in educational institutions</i>	Publicly subsidised private funds <i>e.g. subsidised private spending on books, materials or fees for private tutoring</i>	
		Publicly subsidised private funds <i>e.g. subsidised private spending on instructional services in educational institutions</i>	Private funds <i>e.g. private spending on books and other school materials or private tutoring</i>	
		Private funds <i>e.g. private spending on tuition fees</i>		
Educational peripheral goods and services	Spending on research and development	Public and international funds <i>e.g. public spending on university research</i>		
		Private funds <i>e.g. funds from private industry for research and development in educational institutions</i>		
	Spending on educational services other than instruction	Public and international funds <i>e.g. public spending on ancillary services such as meals, transport to schools, or housing on the campus</i>		Publicly subsidised private funds <i>e.g. subsidised private spending on student living costs or reduced prices for transport</i>
		Public subsidised private funds <i>e.g. public subsidies for lodging, meals, health services, or other welfare services furnished to students by the educational institutions</i>		Private funds <i>e.g. private spending on fees for ancillary services</i>
		Private funds <i>e.g. private spending on student living costs or transport</i>		

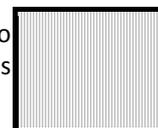
Public and international funds



Private funds (net of subsidies)



Public subsidies to private entities



The third dimension – represented by the colours in Table 4.2 – distinguishes among the sources from which funding originates. These include the public sector and international agencies (indicated by light blue), and households and other private entities (indicated by medium-blue). Where private expenditure on education is subsidised by public funds, this is indicated by cells in the grey colour. The uncoloured cells indicate the parts of the framework that are excluded from the coverage of the finance indicators in *Education at a Glance*.

#### **4.5.2. Accounting principles**

In keeping with the system used by many countries to record government expenditures and revenues, educational expenditure data are compiled on a cash accounting rather than an accrual accounting basis. That is to say that expenditure (both capital and current) is recorded in the year in which the payments occurred. This means in particular that:

- Capital acquisitions are counted fully in the year in which the expenditure occurs.
- Depreciation of capital assets is not recorded as expenditure, although expenditure on repairs and maintenance is recorded in the year it occurs. This can result in sharp fluctuations in expenditure from year to year owing to the onset or completion of school building projects which, by their nature, are sporadic.
- Expenditure on student loans is recorded as the gross loan outlay in the year in which the loans are made, without subtracting repayments or interest payments from existing borrowers.

A notable exception to the cash accounting rules is the treatment of the retirement costs of educational personnel in situations where there are no (or only partial) ongoing employer contributions towards the future retirement benefits of the personnel. In these cases, countries are asked to impute these expenditures in order to arrive at a more internationally comparable cost of employing the personnel.

#### **4.5.3. What educational expenditure covers**

The coverage of the finance expenditure data includes:

- goods and services of educational institutions: all direct public, private and international expenditure whether educational or non-educational (e.g. ancillary services) but with one or two exceptions (see below)
- goods and services purchased outside educational institutions: private expenditure on educational goods and services
- public subsidies to students for student living costs: regardless of where or how the student spends these subsidies.

The coverage of the finance data excludes:

- research and development (R&D) outside of educational institutions, as this is clearly outside the scope of education
- private, non-subsidised expenditure on student living costs outside of educational institutions

- expenditure on non-formal educational activities: besides their formal educational programmes, some educational institutions offer educational activities such as evening courses for adults that are classified as leisure courses.

### *Expenditure on goods and services within educational institutions*

The following indicates what the expenditure data cover for goods and services provided by educational institutions, and presents difficult cases.

#### Coverage

The coverage of educational **core** goods and services includes:

- instruction costs (i.e. teaching costs), including in teaching hospitals as it relates to the teaching of medical students
- educational goods (books, materials, etc.) provided by institutions
- training of apprentices and other participants in combined school and work-based educational programmes at the workplace
- administration
- capital expenditure and rent
- special educational needs
- guidance.

The coverage of educational **peripheral** goods and services includes:

- R&D
- educational research and curriculum development (including teaching hospitals, see below)
- research and development performed at higher education institutions
- non-instructional goods and services (ancillary services)
- student transportation, school meals, student housing, boarding and student health services
- services for the general public provided by educational institutions.

The coverage of educational goods and services excludes:

- child care or day care provided by schools and other instructional institutions
- expenditure on non-formal educational programmes (such as leisure courses)
- activities of public authorities (such as ministries) that are not directly related to education (e.g. culture, sports and youth activities) unless provided as an ancillary service
- teaching hospitals' expenditure as it relates to patient care and other general expenditures not related to education
- debt servicing (i.e. payments of interest or repayments of the principal)
- depreciation of capital assets and capital charges

- goods and services taxes (GST)
- research and development outside of educational institutions.

The following sections provide special instructions concerning categories of spending on educational institutions which have posed problems for international comparability in the past.

#### Expenditure on research and development

Expenditure on R&D is defined according to the OECD Frascati Manual (OECD, 2002<sub>[6]</sub>). This includes all expenditure on research performed at universities and other tertiary education institutions, regardless of whether the research is financed from general institutional funds, through separate grants, or from contracts from public or private sponsors.

Expenditure on R&D excludes expenditure on independent, organisationally separate, government research institutions in cases where the connection between universities and research institutions is purely administrative.

Where R&D expenditure is embedded within general university budgets, problems can arise in separating expenditure on R&D from total expenditure. This embedded expenditure includes, for example, spending on the compensation of teaching staff who work part of their time on R&D. These elements need to be identified and staff costs need to be broken down for education and R&D activities. The OECD Frascati Manual suggests standard practices for the separation.

#### Teaching hospital expenditure

Expenditure by or on teaching hospitals (sometimes referred to as academic hospitals or university hospitals) is excluded from educational expenditure, particularly all costs of patient care and other general expenses of academic hospitals, even if such expenses are paid for by the education authorities.

However, teaching hospital expenditure that it is directly and specifically related to the training of medical students, and expenditure on R&D at teaching hospitals are included.

#### Expenditure on ancillary services

Ancillary services are defined as services provided by educational institutions that are peripheral to the main educational mission. The two main components of ancillary services are:

- Student welfare services at ISCED levels 0-3, student welfare services include such things as meals, school health services and transportation to and from school. At the tertiary level, they include halls of residence (dormitories, dining halls and health care).
- Services for the general public: these include such things as museums, radio and television broadcasting, sports, and recreational or cultural programmes.

All such ancillary services in educational institutions are included in the coverage of the expenditure data.

### Expenditure on free or subsidised transportation

The classification of some public expenditure is ambiguous, since it may be classified either as ancillary services or as public subsidies to students in kind. This applies especially to free or subsidised transport of students to travel to school or for students' use more generally.

Free or subsidised transport can be provided to students in two different forms:

- Special school buses organised to bring the students to the school. Such transportation is classified as an ancillary service offered by the educational institution.
- Free or subsidised tickets for (local) transport companies.

If the main purpose of the expenditure is to fund the students' transport to school, the expenditure is classified as expenditure on an ancillary service. If the purpose of the expenditure is to fund the general use of the transport system by the student, then the expenditure is recorded as subsidies to students in kind. Note that in the latter case, the allocation of the subsidy must be contingent on the recipient being a student.

### Expenditure on day and evening child care

In some countries, institutions providing pre-primary and primary education also provide extended day or evening child care. In the interest of international comparability, the cost of such services from reported expenditure statistics, especially at ISCED levels 0 and 1 are excluded.

### Educational expenditure at the workplace to train participants in combined school and work-based training programmes

Expenditure by private companies on certain combined school- and work-based programmes that take place at the workplace, and public subsidies for such programmes, are regarded as expenditure by independent private educational institutions for the purposes of the indicators described in this handbook.

Expenditure on these programmes includes expenditure on the training itself (e.g. salaries and other compensation of instructors and other personnel, and costs of instructional materials and equipment). It excludes salaries or other compensation paid to students or apprentices.

For example, if the estimated total cost of a dual system apprenticeship programme to the employer is EUR 10 billion, of which EUR 6 billion is the estimated cost of training and EUR 4 billion is the cost of apprentices' salaries, social security contributions and other compensation, only the EUR 6 billion used for the cost of training would be included in educational expenditure.

### Measurement of expenditure on contributions to pension schemes

The employee cost reported for educational institutions includes the cost to the employer of contributions to retirement schemes for the currently active educational employees.

Retirement expenditure is defined, in principle, as the actual or imputed expenditure by employers or third parties (e.g. social security agencies, pension agencies or finance ministries) to finance retirement benefits for current educational personnel. Pension contributions made by the employees themselves, whether deducted automatically from

their gross salaries or otherwise, are not included in retirement expenditure of educational institutions.

Depending on the types of retirement schemes in operation in a country, estimates are sometimes used according to the type of pension system available:

- In a **fully funded**, contributory pension system, employers pay contributions for each of their current employees into a fund which is sufficient to pay the required pension when the employees retire. In this case, the expenditure on retirement to be reported equates to the current employer's contribution to the pension fund.
- In a **completely unfunded** retirement system, employers make no ongoing contributions into a fund and instead the government meets the cost of retirement as it arises. This is the type of scheme (sometimes called "pay as you go") used to provide pensions for civil servants in many countries. In this case, the expenditure on retirement must be estimated or imputed.
- Likewise, in **partially funded systems** where employers contribute to a retirement system but the contributions are inadequate to cover the full costs of future pensions, it is necessary to impute the contributions which make up the short fall. Thus, retirement expenditure is the sum of actual employers' (or third party) contributions and the imputed contribution needed to cover the projected funding gap.

The System of National Accounts 2008 (SNA 2008) as well as the European System of Accounts (ESVG 2010) for European Union (EU) countries gives some guidance on the reporting of imputed social contributions such as for retirement. This enhances comparability between countries and harmonisation with National Accounts methodology.

#### *Expenditure outside educational institutions*

This covers educational goods and services purchased outside institutions and mainly student living costs.

Educational goods and services purchased outside institutions, in the free market, include:

- Expenditure on educational goods which are needed for participation in the programmes and which are therefore imposed on the student either directly or indirectly by the educational institutions. Examples include school uniforms, books requested for instruction, athletic equipment and materials for arts lessons.
- Expenditure on educational goods which are not required by institutions, but which students and households choose to buy to support their study in the programmes in scope of the data collection. Examples include additional books or computers and learning software to be used at home.
- Fees for private out-of-school tuition related to the educational programmes being pursued. This will be the main type of educational service purchased outside institutions.
- Purchases from commercial enterprises operated or sponsored by educational institutions (such as university bookstores) are regarded as expenditure outside educational institutions.

Expenditure on educational goods and services purchased outside institutions will usually be measured by household expenditure surveys, so the definition of goods and services will tend to be dictated by those used in the national survey instrument. Care therefore needs to be taken to ensure that this does not result in double counting with expenditure on educational institutions and that student living costs are not included.

For example, if private expenditure on educational institutions is reported on the basis of school accounts, and includes fees paid by households for laboratory materials and art supplies besides tuition fees, the same fees should not be counted again as payments to outside institutions on the basis of household reports in educational expenditure surveys.

- Student living costs are accounted only if they are subsidised through financial aid to students by public or private entities. The rationale for including these subsidies is that in many countries, public and private scholarships, grants or loans are provided to students not primarily or exclusively to cover the tuition fees charged by educational institutions but rather to subsidise student living expenses. It is therefore desirable to capture this expenditure in order to provide a complete picture of total investment by public and other private entities in education.

Note, however, that fees paid by private households to educational institutions for ancillary services as for student accommodation is included in private expenditure regardless of whether it is subsidised or not.

This category excludes:

- students' foregone earnings
- expenditure on student living costs outside educational institutions which are not subsidised through financial aid to students by public or private entities.

#### *4.5.4. Sources of educational expenditure and types of transactions*

Sources of funds for educational expenditure are classified as:

- governmental (central, regional or local government)
- households and other private entities (including firms and religious institutions and other non-profit organisations)
- international agencies and other foreign sources.

These sources can be either initial or final payers of funds, depending on what type of transaction is involved. The data distinguish three types of financial transactions:

- **Type 1:** direct expenditure/payments to educational institutions (disaggregated according to the type of service provider to which, or for which, the payments are made: public institutions, government-dependent private institutions, and independent private institutions)
- **Type 2:** intergovernmental transfers of funds
- **Type 3:** Public-to-private transfers of funds.

Transfer transactions can be considered to have two sources of funds, depending on the indicator being calculated. The **initial source of funds** is the original source of the funds

before transfers have taken place while the **final source of funds** is after transfers have taken place.

The following sections describe each source of funds in more detail.

### *Public (government) sources of expenditure*

**Public expenditure** refers to spending by public authorities at all levels. It excludes expenditure not directly related to education (such as culture, sports or youth activities) unless these services/activities are provided as ancillary services by educational institutions. It includes expenditure on education by other ministries or equivalent institutions, for example health and agriculture. It also includes subsidies provided to households and other private entities (often in the form of financial aid to students) which can be attributable to educational institutions (e.g. fees) or not (e.g. private living costs outside of institutions).

Public expenditure on education includes expenditure by all levels of government, both education-specific authorities and other government agencies. Thus, central government expenditure includes not only expenditure by national education ministries, but also all expenditure on education by other central government ministries and authorities. Similarly, educational expenditure by regional and local governments includes not only expenditure by the regional or local agencies with primary responsibility for operating schools (e.g. provincial ministries of education or local education authorities) but also expenditure by other regional and local bodies that contribute to the financing of education.

### Classification of levels of government

Public expenditure is classified by the following three levels of government:

- central (national) government
- regional government (province, state, Land, etc.)
- local government (municipality, district, commune, etc.).

### Remarks

To clarify some ambiguities in this classification:

If a country only has two levels of government, the lower level usually must be designated as local rather than regional.

If there are four or more levels, the second level usually must be designated as regional and the third (and subsequent ones) as local.

If a city (such as the national capital) has dual status as both regional and local government, its expenditure is reported as expenditure of regional level of government (e.g. the *Stadtstaaten* of Hamburg, Bremen and Berlin in Germany).

Regional and local government responsibilities:

The terms “regional” and “local” apply to governments whose responsibilities are exercised within certain geographical subdivisions of a country. They do not apply to government bodies whose roles are not geographically circumscribed but are defined in terms of responsibility for particular services, functions or categories of students.

### Direct public expenditure on educational institutions

Direct expenditure on educational institutions by government may take two forms:

- Purchases by a government body of educational resources to be used by educational institutions. Examples include direct payments of teachers' salaries by a central or regional education ministry, direct payments by a municipality to building contractors for the construction of school buildings, and procurement of textbooks by a central or regional authority for subsequent distribution to local authorities or schools.
- Payments by a government body to educational institutions which are responsible for purchasing educational resources themselves. Examples of such payments include a government appropriation or block grant to a university, which the university then uses to pay staff salaries and to buy other resources, government allocations of funds to fiscally autonomous public schools, government subsidies to private schools, and government payments under contract to private companies conducting educational research.

The coverage of direct expenditure on educational institutions includes:

- Current expenditure on staff compensation (salaries for teaching and non-teaching staff, expenditure on retirement and other non-salary compensation).
- Expenditure designated for capital spending, ancillary services and R&D:
- Expenditure designated for capital spending: expenditure in this case must have been explicitly designated, or earmarked for capital investment. Actual capital expenditure (on buildings, equipment, etc.) may exceed the amount designated for capital if funds not specifically earmarked by governments for capital formation are used to finance capital outlays.
- Expenditure for ancillary services: the expenditure must have been explicitly designated, or earmarked for ancillary services. The amount actually spent for ancillary services may exceed the amount designated for ancillary services by public and other private sources plus fees paid by households in cases where funds not specifically earmarked by governments are used to finance ancillary services.
- Expenditure for R&D activities: although direct public expenditure for R&D activities is reported separately, it is desirable to include it in the data, broken down by public institutions, government-dependent private institutions and independent private institutions. The concept reflected in this category is the amount actually spent on R&D activities which are financed by central, regional or local levels of government.

The coverage of direct expenditure on educational institutions excludes:

- Expenditure on servicing debts (i.e. payments of interest on the amounts borrowed for educational purposes and repayments of the principal).
- Tuition payments received from students (or their families) enrolled in public schools under that body's jurisdiction, even if the tuition payments flow, in the first instance, to the government body rather than to the institution in question. Such tuition payments are reported as payments by students or households to public educational institutions.

### Intergovernmental transfers of funds

**Intergovernmental transfers** are transfers of funds specifically designated for education from one level of government to another. They are defined as net transfers from a higher level to a lower level of government. Every transfer from one level to another level is reported as expenditure at the level of government receiving the funds.

#### Remarks

Sometimes, central government transfers to local governments are “passed through” regional governments: that is, the regional governments are responsible for disbursing central government funds to local authorities. In cases where this disbursement is compulsory (i.e. regional governments may not retain the funds for their own use), the payments in question are classified as central government transfers to local rather than to regional governments.

### Public-to-private transfers of funds

Government transfers of funds to private entities fall into two distinct categories, public subsidies to households, and public subsidies to other private entities.

#### Public subsidies to households

This is financial aid to students in the form of scholarships and loans to students to cover tuition fees or living costs. There are two different forms of aid: scholarships and other grants, including child allowances and special public subsidies, and student loans.

Scholarships and other grants cover:

- **Scholarships and grants** including public scholarships and all kinds of similar public grants, such as fellowships, awards and bursaries for students. Government scholarships that are channelled through educational institutions for administrative purposes are considered government transfers to students. These scholarships and grants can be separately categorised as either those that are attributable to educational institutions (i.e. grants for payment of tuition and other fees) or those that are not. This distinction is important in determining expenditure by households on educational institutions net of subsidies.

**Special public subsidies** are all those transfers to households that are linked to specific spending by students and contingent upon the student status exclude all kinds of tuition costs, with the exception of tuition and other fees paid to institutions abroad. Only in exceptional cases will the payments go to educational institutions as fees for ancillary services, i.e. for lodging, meals, health services, or other welfare services furnished to students by the educational institutions. Those payments that go to institutions have to be treated with care so that subsidies attributable to institutions are separated out. The special subsidies include those for:

- transport
- medical expenses
- books and supplies
- social and recreational purposes
- study abroad
- other special subsidies.

**Family or children's allowances** only includes allowances contingent upon student status and excludes any allowances independent of the educational status of a child.

For example, if a country provides family allowances for all children up to age 18 regardless of educational status and provides additional allowances for young people aged 19-25 who are enrolled in an educational institution, the allowances for 19-25 year-olds are included in scholarships and other grants, but the allowances for those aged 18 and below are excluded.

**Student loans**, including those not attributable to household payments for educational institutions, such as subsidies for student living costs, are reported on a gross basis, that is without subtracting or netting out repayments or interest payments from the borrowers (students or households). The cost to the government of servicing these loans (i.e. interest-rate subsidies and the cost of default payments) is not included. Thus, student loan expenditure represents the total value of loans paid by government to students during the reference year.

The rationale for measuring government loans to students on a gross rather than net basis is that it provides an appropriate measure of the financial aid provided to current participants in education in the current year. A net calculation of loan expenditure would be more appropriate for other purposes (e.g. for assessing the shares of public and private expenditure on education) but further work is needed to establish an internationally agreed method for doing this.

### **Public subsidies to other private entities**

Public subsidies to other private entities are transfers to entities specifically defined as non-educational institutions such as commercial companies or non-profit organisations. Such transactions include:

- transfers to business or labour associations providing adult education within the scope of the data collection
- subsidies to private companies (or labour organisations or associations of such entities) for the provision of training at the workplace as part of combined school and work-based programmes, including apprenticeship programmes
- the cost to government of supporting loans paid to students by private financial institutions (e.g. interest-rate subsidies, the cost of guaranteeing the loans and the cost of defaults on repayments).

### *Private sources*

Private expenditure on education can be categorised according to sources of education funds:

- Private expenditure by households, i.e. students and their families.
- Private expenditure by other private entities, i.e. private businesses and non-profit organisations, including religious organisations, charitable organisations, and business and labour associations. It also includes expenditure by private companies on the work-based element of school and work-based training of apprentices and students.

### Private expenditure by households

Household expenditure includes:

- transfers to households and students (public and private scholarships, grants or loans) and used for tuition fee payments to educational institutions
- payment for ancillary services provided by educational institutions
- costs borne by private households for the purchase of educational goods and services outside of educational institutions.

Household expenditure excludes the living expenses of students (such as costs of housing, meals, clothing and recreation).

**Payments to educational institutions:** in most countries, the main form of direct household expenditure on education are fees paid to educational institutions. These consist of:

- tuition fees
- other fees charged for educational services, such as registration fees, laboratory fees and charges for teaching materials plus fees paid for lodging, meals, health services
- fees paid for other welfare services furnished to students by the educational institutions.

Payments from students and households to institutions are reported as net amounts, that is, after subtracting any scholarships or other forms of financial aid (such as reductions in tuition fees or waivers of fees) provided to students by the educational institutions themselves.

For example, if the normal university tuition fee is USD 2 000 per student but some students are offered free tuition or charged only USD 1 000, the figures reflect the reduced amounts actually paid by students, not the hypothetical full tuition fees.

**Payment for ancillary services:** this includes household payments for lodging, meals, health services and other welfare services provided to students by the educational institutions.

**Payments for educational goods and services purchased outside educational institutions:**

- Educational **goods** purchased outside institutions should include books not supplied by educational institutions, school supplies, paper, school uniforms, athletic equipment, calculators and computers.
- Educational **services** purchased outside institutions will mainly consist of private expenditure on private tutoring outside school.

### Private expenditure by other private entities

Private expenditure by other private entities includes direct payments to educational institutions and subsidies to students or households.

**Direct payments to educational institutions:** is expenditure by other private entities on educational institutions, including:

- contributions or subsidies to vocational and technical schools from business or labour organisations
- payments by private companies to universities under contract for research, training or other services
- grants to educational institutions from non-profit organisations, such as private foundations
- charitable donations to educational institutions (other than from households)
- rents paid by private organisations and earnings from private endowment funds
- expenditure by private employers on the training of apprentices and other participants in combined school and work-based educational programmes
- public subsidies to other private entities for the provision of training at the workplace included as spending by other private entities.

**Subsidies to students or households:** consists of financial aid to students or households provided by other private entities, including:

- scholarships provided by businesses and religious or other non-profit organisations
- student loans from banks and other private lenders (even if such loans are guaranteed or subsidised by government, or made through programmes of private lending organised by the government).

As with public student loans, loans are reported as gross amounts, without subtracting payments of interest or repayments of the principal by the borrowers. Thus, the student loan expenditure here should represent the total value of loans paid by banks and private lenders to students during the reference year.

Government support of these private loans (in the form of interest subsidies or payments for defaulters) is reported as public subsidies to other private entities.

#### *Funds from international agencies and other foreign sources*

International funds consist of funds from public multilateral organisations for development aid to education. These organisations include multilateral development banks (the World Bank and regional development banks), United Nations agencies and other intergovernmental organisations, bilateral development co-operation government agencies, and international non-governmental organisations (NGOs) established in the receiving country. International funds also include other foreign grants for R&D at tertiary institutions.

Educational expenditure based on loans from intergovernmental organisations, such as World Bank loans, is included as gross loans, and excludes repayments to international organisations.

International funds can be reported as:

- International payments direct to public, government-dependent private and independent private institutions. An example would be a research grant from a foreign corporation to a public university.

- International payments direct to all type of educational institutions for R&D activities.
- Transfers of funds from international sources to central, regional and local governments.

Transfers of funds from international sources to governments are not automatically included in the total of expenditure on educational institutions. These payments are reported as a transfer and expenditure at the level of the recipient of the funds.

#### *4.5.5. Expenditure by resource category*

Within educational institutions, expenditure is broadly categorised as either current or capital expenditure and these two categories are the standard ones used in national income accounting:

- **Current expenditure** is expenditure on goods and services consumed within the current year, which needs to be made recurrently to sustain the production of educational services. Minor expenditure on items of equipment, below a certain cost threshold, is also reported as current spending.
- **Capital expenditure** is expenditure on assets that last longer than one year. It includes spending on construction, renovation and major repair of buildings, and expenditure on new or replacement equipment.

#### *Capital expenditure*

Capital expenditure represents the value of educational capital assets acquired or created during the year in question regardless of whether the capital expenditure was financed from current revenues or by borrowing. The cost of the depreciation of capital assets is not included. Capital expenditure excludes expenditure on debt servicing. This means that neither interest payments nor repayments of the principal are counted as part of capital or current spending.

#### *Current expenditure*

Current expenditure is broken down into the following categories:

- Expenditure on compensation of personnel, which includes:
  - Salaries, which are the gross salaries of educational personnel, before deduction of taxes, contributions for retirement or health care plans, and other contributions or premiums for social insurance or other purposes. Additional bonuses on top of basic salary (e.g. arising from the experience, age or other circumstances of the personnel) should be included.
  - Expenditure for retirement (pension schemes), which covers actual or imputed expenditure by employers or third parties to finance retirement benefits for current educational personnel. This expenditure excludes pension contributions made by the employees themselves, whether deducted automatically from their gross salaries or otherwise.
  - Expenditure on other non-salary compensation, which covers spending by employers or third parties on employee benefits other than pensions. These benefits may include such things as health care or health insurance, disability

insurance, unemployment compensation, maternity and childcare benefits, other forms of social insurance, non-cash supplements (such as free or subsidised housing), and free or subsidised child care.

Expenditure on compensation of personnel is also categorised by the type of personnel – distinguishing between expenditure on teaching and non-teaching staff (as defined in Section 4.2.5) including the appropriate portions of the compensation of staff who teach part-time.

Note that the breakdown of compensation of personnel into salaries and non-salary components is not requested for independent private institutions as it has not been possible to obtain these data for a significant number of countries. The underestimation of non-salary compensation, especially in countries where no reliable estimates exist for future pension liabilities of current expenditure, remains a significant potential bias in comparisons of expenditure data.

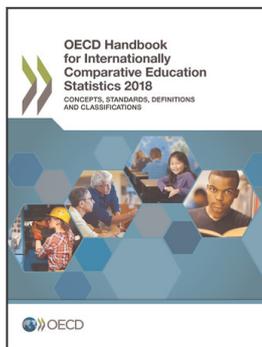
- Current expenditure other than compensation of personnel includes the following categories:
  - Expenditure on contracted and purchased services refers to expenditure on services obtained from external providers, as opposed to services produced by the education authorities or educational institutions themselves using their own personnel. The services most commonly obtained under contracts are: maintenance of school buildings and ancillary services, such as preparation of meals for students.
  - Rents paid for school buildings and other facilities. Expenditure on other resources covers the purchases of other resources used in education, such as teaching and learning materials, other materials and supplies, items of equipment not classified as capital, fuel, electricity, telecommunications, travel expenses, and insurance.
  - Required payments other than expenditure on educational resources: This can include, for example, any property taxes that educational institutions may be required to pay.
  - Financial aid to students is not included unless it is provided by the institution's own funds in the form of a reduction in tuition fees or waiver of fees and it exceeds household payments to the institution. This is because household expenditure payments to educational institutions are themselves calculated as net of institutional subsidies.

#### Remarks

Definitions here might differ from Section 4.2.7 because of references to different data sources.

## References

- (n.a.) (2011), *International Standard Classification of Education*, <http://www.uis.unesco.org> (accessed on 26 July 2018). [7]
- (n.a.) (2011), *International Standard Classification of Education*, <http://www.uis.unesco.org> (accessed on 26 July 2018). [2]
- OECD (2017), *OECD Handbook for Internationally Comparative Education Statistics: Concepts, Standards, Definitions and Classifications*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264279889-en>. [3]
- OECD (2002), *Frascati Manual 2002: Proposed Standard Practice for Surveys on Research and Experimental Development*, The Measurement of Scientific and Technological Activities, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264199040-en>. [6]
- OECD/Eurostat/UNESCO Institute for Statistics (2015), *ISCED 2011 Operational Manual: Guidelines for Classifying National Education Programmes and Related Qualifications*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264228368-en>. [1]
- UNESCO-UIS (2014), *ISCED Fields of Education and Training 2013 (ISCED-F 2013): Manual to Accompany the International Standard Classification of Education 2011; 2014*, UNESCO Institute for Statistics, Montreal, <http://dx.doi.org/10.15220/978-92-9189-150-4-en> (accessed on 18 April 2018). [4]
- UNESCO-UIS / OECD / EUROSTAT (2017), *UOE Data Collection on Formal Education. Manual on Concepts, Definitions and Classifications*, UNESCO-UIS / OECD / EUROSTAT, Montreal, Paris, Luxembourg, [http://uis.unesco.org/sites/default/files/documents/uoec2016manual\\_11072016\\_0.pdf](http://uis.unesco.org/sites/default/files/documents/uoec2016manual_11072016_0.pdf). [5]



**From:**

## **OECD Handbook for Internationally Comparative Education Statistics 2018**

Concepts, Standards, Definitions and Classifications

**Access the complete publication at:**

<https://doi.org/10.1787/9789264304444-en>

### **Please cite this chapter as:**

OECD (2018), "Definitions and classifications of the OECD international education statistics", in *OECD Handbook for Internationally Comparative Education Statistics 2018: Concepts, Standards, Definitions and Classifications*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/9789264304444-6-en>

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