

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

METADATA

Target 4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations

4.5.6 Expenditure on education by source of funding (public, private, international) as a percentage of GDP

Definition

Expenditure on education by financing unit (public, private, international sources) expressed as a percentage of the Gross Domestic Product (GDP) in a given financial year.

The indicator reports on:

1. Initial government expenditure on education as a percentage of GDP;
2. Initial private expenditure on education (household) as a percentage of GDP;
3. Initial private expenditure on education (other non-educational private entities) as a percentage of GDP;
4. International expenditure on education as a percentage of GDP;
5. Expenditure on education (public, private, international) as a percentage of GDP;
6. Expenditure on education (public, households, ODA) as a percentage of GDP.

The concepts used in this definition are defined in the National Education Accounts developed and published by UNESCO in 2016 and are summarized here.

- **Financing unit (see UNESCO 2016b:22):** The NEA defines financing units as “institutional units which provide financial resources to the domain” of education. The NEA distinguishes between financing units that finance education and producing units that provide education. These may be the same entity (e.g.: a ministry of education) but are considered separately in the NEA. The NEA offers the following categorization of financing units: (1) general government which includes all levels of government), (2) private sector, and (3) rest-of-world (international) includes external financing including those of



international development partners. For the purpose of this proposal, private includes only households. In practice, the definition of households would need to vary by country and correspond to those from which expenditure data is collected. Rest-of-world includes Overseas Development Assistance (ODA), which would follow the OECD definition, and non-ODA. The choice to follow the OECD definition is also pragmatic given that the OECD CRA is the primary source of data on ODA flows.

- **Initial financing (see UNESCO 2016b:29):** The NEA distinguishes between initial and final financing to reflect the fact that financing units can transfer funding among each other. Initial financing includes direct expenditure on education by a financing unit as well as transfers to other units that are earmarked for education. Initial financing excludes any transfers being received that are earmarked for education. The intent with initial financing is to understand how much of its financing it is, on its own accord, allocating to education.

Purpose

To assess the emphasis of public, private, international financing of education relative to the national economic wealth. The indicator reflects the commitment of public, private, and international to invest in human capital development.

Calculation method

Expenditure on education or initial expenditure on education (i.e. including transfers paid but excluding transfers received, when applied) in a given financial year from a given source of funding (public, private, international) expressed as percentage of the GDP for the same financial year.

$$XGDP_FS_{s,t} = \frac{X_{s,t}}{GDP_t}$$

Where:

$XGDP_FS_{s,t}$ = Expenditure on education from source s of funding as a percentage of GDP in financial year t

$X_{s,t}$ = Expenditure on education or initial expenditure on education from source s in financial year t

GDP_t = Gross domestic product in financial year t

s = *public, private, International.*



Interpretation

This indicator provides a comparative measure of education expenditure across the three sources of funding. In general, high values of the indicator denote great commitment for education. For example, a high education expenditure from public source reflects the extent of Government policy priority for education.

Type of data source

Administrative data, Household survey data (for private expenditure), financial data from ministries of finance or education.

Disaggregation

By source of funding (public, private –households; other private entities-, international -ODA; non-ODA-).

Data required

The UIS Education Survey and the UOE Survey collect all the information needed to calculate initial general government financing, initial private sector household financing, and ODA; however, in practice, coverage is generally low, particularly for household initial financing and for low and middle-income countries. As a result, alternative data sources and methodologies are defined subsequently.

The following methodology is based on the variable names described in UNESCO (2020) *UOE Data Collection Manual 2020* and reflects definitions used by the OECD in OECD (2018). Note that the definition of initial general government financing corresponds to the definition used in the OECD's (2018) *Handbook for internationally comparable education statistics* (see pp. 114).

Table 1. UIS Education Survey and UOE data sources and calculation method

Indicator	Calculation method for numerator (Variables refer to the UOE manual--denominator is GDP and described below)
Initial government expenditure on education as a percentage of GDP (%)	General government total expenditure on education (G20) <i>minus</i> the sum of transfers to government from international agencies and other foreign sources (F10) ¹
Initial private expenditure (household) on education as a percentage of GDP (%)	Household total expenditure on education ² (H20)
Initial private expenditure (other non-educational private entities) on education as a percentage of GDP (%)	Non-educational private-entities total expenditure on education (E20)
International expenditure on education as a percentage of GDP (%)	OECD CRS - ODA earmarked for education expenditure (see discussion below)
	Total international expenditure (F20) <i>minus</i> Rest-of-world - ODA

¹ International transfers to government are recorded under F6, F7, F8 as well as direct expenditure of the government units that receive the transfers (UOE manual page 64)

² Household expenditure is reported as net of government transfers received (e.g.: stipends, etc). Note that data reported by the OECD is used as the preferred data source.

4.5.6 Expenditure on education by source of funding (public, private, international) as a percentage of GDP



Total initial expenditure on education as a percentage of GDP	The sum of the above five indicators (if data is available for all five)
Total initial expenditure on education (from public, households, and ODA) as a percentage of GDP	As above but excluding Private sector - non-household initial financing of education as a percentage of GDP and Rest-of-world - non-ODA financing of education as a percentage of GDP as for most countries these values are not observed

Table 2 presents non-UOE data sources used in the calculation.

Table 2. Non-UIS Education Survey or UOE data sources

Variable	Data source
GDP	World Bank current GDP in local currency units (indicator NY.GDP.MKTP.CN)
OECD CRS ODA	The sum of Official Development Assistance (ODA) and other official flows gross disbursements allocated to education reported to the OECD's Creditor Reporting System (CRS). Note that funds not reported to OECD CRS are treated as non-ODA (and would be captured only through the UIS Education Survey/UOE Survey variable E20)

Given that many data points are missing from the UIS Education Survey/UOE database for private-sector financing and international transfers, Table 3 presents alternative data sources used and the order of priority in which they are used. When alternative data sources are used, they are indicated in the indicator data point's footnote.

Table 3. Alternative data sources

Variable	Alternative data source
Total international transfers to government (F10)	OECD CRS ODA: see above
Private-sector household expenditure on education (H20)	Household survey data: The GEMR has estimated private sector household expenditure based on the proportion of household consumption allocated to education using household survey reports as well as data from IMHE on household consumption as a proportion of GDP (see UNESCO 2022:398). This method has been extended to increase the number of countries by the UIS.

Finally, two total initial financing indicators are reported. The first, "Total initial expenditure on education as a percent of GDP" is the sum of the preceding five sub-indicators presented in Table 1. However, given that data availability for initial private sector non-household financing and initial rest-of-world non-ODA financing is limited, a second indicator is presented with the main data sources, "Total initial expenditure on education (from public, households, and ODA) as a percent of GDP" is reported.



Note that for the current data version, Initial government expenditure on education as a percentage of GDP (%) is reported only if it lies between 1 and 10 percent of GDP. The other indicators are reported if they lie between zero and 10 percent of GDP.

Limitations

The indicator inherits any limitations related to the reporting of general government expenditure on education (UIS/UOE G20), see meta-data related to SDG 1.a.2 for education. Specific to this indicator and its methodology, the additional issues also exist. First, UIS uses the World Bank's estimate of GDP which may result in different estimates of financing as percent of GDP depending on the denominator used by other reporting organizations. Second, ODA is defined as flows reported to the OECD's CRS by definition of this indicator--this is because data on ODA that is not reported to the CRS is not easily available. Third, the use of household survey data sources to estimate total household expenditure on education is limited by the comparability of reported household expenditure across countries: these include differences in whether expenditure is collected for a specific child or the household as a whole, differences in the recall period, and differences in items included under education that households are asked to report on. These limitations are described in more detail in the 2021/2022 GEMR (UNESCO 2022:398) and in EFW 2022 (UNESCO and World Bank 2022:20). Finally, data on transfers from the households to government earmarked for education (e.g.: tuition fees paid to public universities) that are recorded on government budgets would result in double counting (e.g.: recorded as household expenditure but also as general government expenditure). Review of World Bank BOOST data reveals that the availability of this data is quite limited and for those where revenues to education ministries are available tend to be quite small.

References

OECD's (2018) *Handbook for internationally comparable education statistics*. Paris: OECD

UNESCO (2020) *UOE Data Collection Manual 2020*. Paris: UNESCO

UNESCO (2022) *Global education monitoring report, 2021/2: non-state actors in education: who chooses? who loses?* Paris: UNESCO

UNESCO and World Bank (2022) *Education Finance Watch*. Washington, D.C.: World Bank