

CHAPTER C: FINANCIAL RESOURCES INVESTED IN EDUCATION

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Description: This document is intended to provide guidance as to the methodology used during the data collection for each indicator, the references to the sources and the specific notes for each country.

How to read this document: Annex 3 is organised by chapters. Click on each link below in order to be redirected to the indicator and the information related to it.

Table 1: Specific notes by country in the different indicators

		C1	C2	C3	C4	C5	C6	C7
OECD	Australia	AUS	AUS					
	Austria	AUT	AUT					
	Belgium	BEL	BEL	BEL	BEL	BFL,BF	BEL	
	Canada	CAN	CAN					
	Chile	CHL				CHL	CHL	
	Colombia	COL					COL	
	Costa Rica							
	Czech Republic	CZE						
	Denmark	DNK					DNK	
	Estonia	EST	EST					
	Finland	FIN	FIN			FIN		
	France	FRA	FRA					
	Germany	DEU				DEU		
	Greece	GRC	GRC	GRC			GRC	
	Hungary	HUN	HUN					
	Iceland						ISL	
	Ireland	IRL	IRL		IRL	IRL		
	Israel	ISR	ISR					
	Italy				ITA	ITA		
	Japan		JPN	JPN	JPN	JPN		
	Korea	KOR	KOR					
	Latvia							
	Lithuania	LTU	LTU	LTU	LTU		LTU	
	Luxembourg	LUX	LUX		LUX			
	Mexico	MEX	MEX	MEX			MEX	
	Netherlands					NLD		
	New Zealand	NZL	NZL	NZL	NZL		NZL	
	Norway	NOR	NOR					
	Poland	POL	POL	POL	POL		POL	
	Portugal							
	Slovak Republic	SVK	SVK					
	Slovenia					SVN		
Spain	ESP							
Sweden	SWE							
Switzerland	CHE				CHE			
Turkey								
United Kingdom					ENG			
United States	USA	USA			USA			
Partners	Argentina							
	Brazil	BRA	BRA		BRA		BRA	
	China							
	India							
	Indonesia							
	Russian Federation	RUS						
	Saudi Arabia							
	South Africa							

INDICATOR C1: How much is spent per student on educational institutions?

Methodology

For general information on methodology, please refer to the *OECD Handbook for Internationally Comparative Education Statistics: Concepts, Standards, Definitions and Classifications* (<https://doi.org/10.1787/9789264304444-en>).

Expenditure per student on educational institutions at a particular level of education is calculated by dividing total expenditure on educational institutions at that level by the corresponding full-time equivalent enrolment. Additionally, as data collected for expenditure on education is usually based on the financial reference year and data on students is based on the reference school year, adjustments were made for countries in which the financial year and the school year do not coincide (see Table X1.3 and X1.4) in order to compute expenditure per student.

In order to match the enrolment data with the financial year 2018, a weighted average of the enrolment data for the academic years 2017/18 and 2018/19 was calculated. The data were weighted in accordance with the proportion of each school year that fell within the financial year 2018.

Some exceptions to this methodology are:

Estonia: The number of students is not adjusted to the financial year for data before 2014.

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Sources

Data on expenditure and full-time equivalent students are based on the UOE data collection on education systems administered annually by UNESCO, the OECD and Eurostat for all OECD and partner countries. Available data from Argentina, China, India, Indonesia, Saudi Arabia and South Africa are from the UNESCO Institute of Statistics (UIS).

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Notes on specific countries

Expenditure by educational institutions on ancillary services, such as student meals, room and board on campus and student transport, should include fees paid by students and families for those services. However, countries' coverage of private spending on ancillary services is uneven. While a number of countries exclude private spending on ancillary services, Australia, France, Hungary, Norway, Spain, Turkey and the United States provide information on private spending on ancillary services.

Australia: Australia has updated its data sources and revised the methodology used to compile this data, resulting in a significant break in the series. Expenditure data from 2018 onwards should not be compared with previous data. In some cases, finance data has been apportioned across ISCED levels using enrolment data as a proxy. Expenditure on vocational programs (ISCED 2 to 4) and short-cycle tertiary programs (ISCED 5) is underestimated since expenditure data for private vocational institutions is incomplete. It is likely that private institutions receive most of their funding from household direct expenditure and these institutions enrol more than half of all students at these levels. Hence, the main effect of not having this data is likely to be that household expenditure is underestimated at these levels. This also means that expenditure per full-time equivalent student is underestimated for these levels, especially for private institutions. The coverage of expenditure and enrolment data for private vocational institutions has changed over time. In addition, due to the limited availability of data it is difficult to ensure the coverage of enrolments matches the coverage of expenditure for these institutions. Expenditure per full-time equivalent student is underestimated for vocational students.

Austria: Expenditure on R&D in the tertiary sector is partially excluded. Some expenditure by public institutions other than the former Federal Ministry for Science, Research and Economy is excluded (social insurance bodies, chambers of trade and crafts, and federal funds – *Sozialversicherungsträger, Kammern, Bundesfonds*). Public expenditure on education by the Health ministry is generally reported on ISCED level 4. Besides, some very small programmes were regrouped according to the centre of gravity of the institutions in charge of the provision.

Expenditures on compensation of personnel in private institutions do not include expenditure on retirement (i.e. pension schemes).

Belgium: Data on the German-speaking Community are not integrated into the data for Belgium in the 2017 UOE data collection. French and Flemish Communities differ in the type of expenditure reported. While the French Community refer to actual expenditure data, the Flemish Community refer to budgeted accrual expenditure data.

Brazil: All tables and charts in Indicator C1 present information on public expenditure on public educational institutions instead of total expenditure on educational institutions.

Canada: Expenditure on “Primary, secondary and post-secondary non-tertiary education” and on “Primary to Tertiary education” does not include expenditure on post-secondary non-tertiary education. Beginning in the financial year 2017-2018, there has been a change in methodology resulting in an increase in total expenditure for ISCED 0-2 and a small decrease in ISCED 3.

Chile: Government expenditure data is reported on an accrual accounting basis. For Chile, payments made by households outside of educational institutions, as well as regional government expenditure, is negligible. As of 2016, the methodology to report enrolled students in upper secondary general versus vocational programmes was updated to better reflect the Chilean education system. That is, the first two years of upper secondary education are taught under a general formation programme in sciences and humanities. After the successful completion of the second year, students can opt to continue in a differentiated general or vocational programme for the remaining two years of upper secondary education. This update explains the significant increase in expenditure per student in vocational upper secondary education, compared to previous years.

Colombia: Expenditure per student is calculated as expenditure divided by the total headcount of students, which is equivalent to full-time equivalents because there are no part-time students.

Czech Republic: Level 5 in ISCED 2011 includes only students of conservatoires. And data from other Ministries than the Ministry of Education is excluded.

Denmark: The allocation of expenditure on primary and lower secondary education is estimated on the basis of the corresponding enrolment. Trend analysis of the expenditures must be done with caution due to the different data sources used in different years.

Estonia: There has been significant change in classification of institutions since year 2017. Major part of ISCED 0-3 independent private institutions were classified as government dependent private institutions due to core funding received from government agencies. Government dependent private universities (ISCED 6-8) were classified as public universities due to overall control criteria. These changes lead to non-compatibility by type of institution between year 2016 and year 2017. Due to differences in the source of data and methodological changes, trend data for years 2014-2016 are not totally comparable with previous years information. Since 2017, there is additional change of data source for public universities that make up large part of expenditure of tertiary education in Estonia. In addition, private component of expenditure on education is underestimated as methodology to include data for payments outside educational institutions and scholarships/grants to households and students has yet to be developed.

Finland: Finland's vocational education system (ISCED 3 vocational, ISCED 4 vocational) was revised in 2018. This had an impact on legislation, qualification system, financing, monitoring and provision of vocational education. The changes affect the data from school year 2018-19 and calendar year 2018 onwards. Due to the changes in the vocational education system the data is not wholly comparable to previous years.

France: The main source used for data on education expenditure is the French Education Account, which is a national satellite account of the National Accounts. Adjustments are made to take into consideration the differences from the scope of the UOE data collection. The expenditure on ISCED level 4 is not allocated by orientation (general or vocational), the amounts are reallocated between general and vocational programmes depending on the number of students enrolled. Household expenditure includes tuition fees, student transportation, dining halls, dormitories/halls of residence, and educational goods and services purchased by households outside educational institutions (books and supplies). Scholarships are allocated to general purposes; thus, it is not possible to distinguish between the part attributable to educational institutions and the one which is not attributable to educational institutions. A correction has been made to the 2012 data to remove the double counting of some expenditure for ancillary services. The expenses and number of students from CPGE, BTS enrolled in “lycées” are reported at the tertiary education level.

Germany: Expenditure for instruction by enterprises in the so-called „dual system” (i.e. programmes that combine school- and work-based instruction) is included in this indicator (ISCED 3 and 4).

To separate expenditure for instruction from R&D expenditure at universities (ISCED 6 to 8) R&D coefficients are applied. The R&D coefficients and the underlying methodological assumptions have been reviewed in the years 2016 and 2017. Starting from reporting year 2016, the Federal Statistical Office applies a new method for the

determination of the R&D coefficients that leads to breaks in time series. There are different R&D coefficients and methods for the different types of universities and colleges within the higher education sector.

Greece: Payments of private entities to independent private institutions is only partially covered. As a consequence, the total private expenditure on educational institutions and the total public and private expenditure on educational institutions are underestimated.

Hungary: The expenditure on primary to upper secondary levels (ISCED levels 1 to 3) is estimated on the basis of the number of students at each level.

Ireland: Ireland undertook a review of expenditure data that went as far back as 2015; therefore, data before 2015 cannot be compared to those of 2015 and after. Ancillary services at the primary to post-secondary non-tertiary level include only school transport. For Ireland the changes from 2014 to 2015 are largely driven by the substantial increase in GDP in 2015. For more information on this increase see [http://www.cso.ie/en/media/csoie/newsevents/documents/pr_GDPexplatorynote.pdf](http://www.cso.ie/en/media/csoie/newsevents/documents/pr_GDPexplinatorynote.pdf). In 2016 Ireland produced a modified GNI (GNI*) that was recommended by the Economic Statistics Review Group and is designed to exclude globalisation effects that are disproportionately impacting the measurement size of the Irish Economy.

Israel: Ancillary services are included in total expenditure on educational institutions. Classification of public institutions, private and governmental NPIs, has been made according to the definitions of the SNA. Expenditure by non-profit institutions of own sources is not included as well as other minor expenditure items: Expenditure in non-university schools attached to hospitals for training of nurses and other para-medical professionals, expenditure on vocational schools of the Israeli Defense Forces. The number of students in those categories was excluded also from the data collection. Scholarships not attributable to tuition were excluded from tuition. From 2012, the "Yeshiva" has been classified at Upper secondary – General schools (ISCED 3). The students of Hebrew teaching, Adults courses, training courses and supplementary training for adults, supervised by the ministry of economy and industry, were classified in ISCED5. Some minor expenditure items were excluded from the data collection (e.g. Expenditures on education from international sources, expenditure in non-university schools attached to hospitals from training of nurses and certain other Para-medical professionals, expenditure in vocational schools of the Israeli Defense Forces).

Korea: Expenditure on some educational programmes provided by ministries other than the Ministry of Education is excluded (police college, polytechnic college, military academy, etc.) There were some significant changes in the methodology used in the data collection. For financial year 2014, Korea mapped undistributed programmes, which included municipal and national expenditure by the Ministry of Education, to ISCED 0-8 levels (mainly to ISCED 0-3). Since the financial year 2015, Korea has removed 'carryover' and 'reserve fund' from the previous year for the all education levels. Due to differences in the methodology adopted in 2015 fiscal year, trend data are reported as missing as they would not be comparable. In addition, at the tertiary level, ancillary services are not separated but included in total expenditure on educational institutions. Expenditures on public institutions may be over-represented because of the inclusion of undistributed programmes.

Lithuania: Expenditure in primary, lower secondary (general and vocational), upper secondary (general and vocational) and post-secondary non-tertiary education levels are estimated by breaking down the aggregated figures based on the number of full-time equivalent students enrolled in general and vocational programs at the corresponding ISCED level. Household payments outside education institutions are estimated using Household Budget Survey data and Consumer price indices.

Luxembourg: Expenditure of central level of government (i.e. for development of curricula, psychological aid or academic/professional guidance, or part of transport services) has been attributed to public institutions only, even if student from private institutions benefit from part of these services. As a consequence, expenditure on private institutions is underestimated. The small difference between general and vocational programmes is due to the fact that expenditure occurring during the time spent in class is included. All other expenditure (for example expenditure of private enterprises) is not included in the calculation so that the costs of vocational programmes (especially dual programmes) are underestimated.

Mexico: Data refers to budget expenditure instead of actual expenditure. A new method is used since EAG 2020 to calculate household expenditure on education. Accordingly, expenditure data from 2018 onwards should not be compared with previous data.

New Zealand: "Upper Secondary" as used in EAG includes programmes done both as part of the initial compulsory school system, and programmes done in post-schooling institutions. Post-school ISCED 3 relates to qualifications at levels 1-3 on the New Zealand Qualification Framework, and while these programmes are at the same ISCED level as school-based qualifications, they are not part of the upper secondary school system in New Zealand. Initial school-based upper secondary education is generally-oriented, while the large majority of post-school study at ISCED 3 is vocational. Both systems have different funding and regulatory arrangements, and different types of students. While initial upper secondary mainly relates to students aged 15-18, adults of any age can enrol in post-

school programmes at ISCED 3. Care is therefore needed when making inferences about New Zealand's initial upper secondary schooling system from "total upper secondary" results in EAG, as they reflect an average of these two different systems. While general and vocational education at ISCED 3 level is not exclusively split between initial and post-initial schooling in New Zealand, to better help policy makers and other readers interpret and use EAG ISCED 3 comparisons, all New Zealand results relating to New Zealand's initial schooling upper secondary system have been reported as "upper secondary general" (ISCED 34), while all results relating to New Zealand's post-schooling ISCED 3 system (level 1-3 qualifications on the NZQF) have been reported as "upper secondary vocational" (ISCED 35). In 2018, changes in the way people participating in formal education in the workplace are counted and the availability of a new survey on students in private institutions made the figures on students at ISCED 35 and above non-comparable to those of previous years. Changes were implemented also in the methodology to allocate resources across educational levels at ISCED 35 and above. For these reasons, values of all Finance indicators cannot be compared to those of previous years.

Norway: Expenditure on ancillary services at primary education (ISCED 1) consist only of transportation. Expenditure on ancillary services from lower secondary education up to short-cycle tertiary education (ISCED 3-5) includes transportation and common expenses and support functions related education (not directly linked to core education). At tertiary level (ISCED 6-8), expenditure on ancillary services includes welfare services and contributions to housing on campus. Public spending on educational core services is included for all ISCED levels as well as public spending on university research. Private spending covers tuition fees in early childhood education (ISCED 0), private upper secondary programmes (ISCED 3), post-secondary non-tertiary programmes (ISCED 4), short-cycle tertiary programmes (ISCED 5), and private long-cycle tertiary programmes (ISCED 6-8). Total expenditure on public educational institutions at long-cycle tertiary level does not include direct expenditure from international sources, except international payments to educational institutions for R&D expenditure. Due to changes in the method used to allocate expenditure on education across ISCED level 2 and above, 2018 data should not be compared to those of previous years.

Poland: Total expenditure on education from international sources does not include direct expenditure on private institutions, Private expenditure does not include households' payments for private tutoring and for goods and services not required for participation. From 2017 private expenditure paid to institutions for ancillary services has been estimated. The relatively high expenditure in short-cycle tertiary programmes (ISCED 5) is due to a very small number of students at this level. As a result of the structural reform of the Polish education system (started in the school year 2017/18), data for ISCED levels 1-3 for year 2017 are not fully comparable with those of previous years.

Russian Federation: The low value of R&D expenditure per student is explained by specific organisational structure of the research sector in the Russian Federation. The substantial part of research, especially theoretical ones, is carried out by the institutes of Academy of Science rather than in the higher education sector.

Slovak Republic: Part of expenditure on ISCED levels 1 to 5 is estimated on the basis of the number of students at each level. ISCED level 5 include students of conservatories and students of secondary vocational schools studying short-cycle tertiary programs. Private expenditure - and hence total expenditure - are underestimated due to the lack of data on capital expenditure in private institutions and payments for private tutoring.

Spain: Expenditure for retirement of personnel other than teachers in public institutions is not included. Expenditure on ancillary services at the tertiary level is overestimated, as part of this expenditure is not addressed directly to universities themselves, but to institutions providing these services to university students. However, this does not affect the total level of expenditure at the tertiary level. Information for Vocational ISCED 2 programmes are integrated with General ISCED 2 in the data collection but they have a very reduced weight compared with general programmes.

Sweden: Private expenditure in Upper secondary non-tertiary level and in Short-cycle Tertiary education are underestimated; as a consequence, at those ISCED levels total expenditure on educational institutions is underestimated as well. A new method is used since EAG 2019 to estimate the split of expenditure between general and vocational at ISCED 3. The new method is allocating a larger share of expenditures to the general programs.

Switzerland: Private expenditure for dual-track VET programmes undertaken by enterprises at the upper secondary level is included.

United States: Funds for major federal R&D centres administered by universities are excluded.

See also notes on *Indicator C2*.

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INDICATOR C2: What proportion of national wealth is spent on educational institutions?

Methodology

For general information on methodology, please refer to the *OECD Handbook for Internationally Comparative Education Statistics: Concepts, Standards, Definitions and Classifications* (<https://doi.org/10.1787/9789264304444-en>).

GDP data

Statistics on educational expenditure relate to the financial year 2018. For countries in which GDP is not reported for the same reference period as data on educational funding, GDP is estimated as: $w_{t-1} (GDP_{t-1}) + w_t (GDP_t)$, where w_t and w_{t-1} are the weights for the respective portions of the two reference periods for GDP that fall within the educational financial year. Adjustments were made for Australia, Canada, Japan, New Zealand, the United Kingdom and the United States (see Annex 2).

Sources

Data on expenditure on educational institutions are based on the UOE data collection on education systems administered annually by UNESCO, the OECD and Eurostat for all OECD and partner countries. Available data from Argentina, China, India, Indonesia, Saudi Arabia and South Africa are from the UNESCO Institute of Statistics (UIS).

Data on GDP has been obtained from the OECD National Accounts Statistics Database.

Notes on specific countries

Australia: Australia has updated its data sources and revised the methodology used to compile this data, resulting in a significant break in the series. Expenditure data from 2018 onwards should not be compared with previous data. Expenditure on vocational programs (ISCED 2 to 4) and short-cycle tertiary programs (ISCED 5) is underestimated since expenditure data for private vocational institutions is incomplete. It is likely that private institutions receive most of their funding from household direct expenditure and these institutions enrol more than half of all students at these levels. Hence, the main effect of not having this data is likely to be that household expenditure is underestimated at these levels. Some finance data has been apportioned across ISCED levels using enrolment data as a proxy.

Austria: Public expenditure on education by the Health ministry is generally reported on ISCED level 4. Besides, some very small programmes were regrouped according to the centre of gravity of the institutions in charge of the provision. Expenditures on compensation of personnel in private institutions do not include expenditure on retirement (i.e. pension schemes).

Belgium: French and Flemish Communities differ in the type of expenditure reported. While the French Community refer to actual expenditure data, the Flemish Community refer to budgeted accrual expenditure data. Prior to 2016, private expenditure was slightly underestimated since payments to independent private institutions were not integrated. Change in total expenditure on educational institutions as a percentage of GDP are influenced by the integration of independent private institutions since the school year 2016-2017 as well as by the creation of short-cycle tertiary programmes in 2009-2010 in the Flemish Community.

Brazil: All tables and charts in Indicator C2 present information on public expenditure on public educational institutions instead of total expenditure on educational institutions.

Canada: Expenditure on “Primary, secondary and post-secondary non-tertiary education” and on “Primary to Tertiary education” does not include expenditure on post-secondary non-tertiary education.

Estonia: There has been significant change in classification of institutions since year 2017. Major part of ISCED 0-3 independent private institutions were classified as government dependent private institutions due to core funding received from government agencies. Government dependent private universities (ISCED 6-8) were classified as public universities due to overall control criteria. These changes lead to non-compatibility by type of institution between year 2016 and year 2017. Due to differences in the source of data and methodological changes, trend data for years 2014-2016 are not totally comparable with previous years information. Since 2017, there is additional change of data source for public universities that make up large part of expenditure of tertiary education in Estonia. In addition, private component of expenditure on education is underestimated as methodology to

include data for payments outside educational institutions and scholarships/grants to households and students has yet to be developed.

Finland: Government transfers and payments to private entities, except financial aid to students, are excluded. Expenditure on education not leading to a formal degree or qualification is also not included.

France: The expenses and number of students from CPGE, BTS enrolled in “lycées” are reported at the tertiary education level.

Greece: Payments of private entities to independent private institutions is only partially covered. As a consequence, the total private expenditure on educational institutions and the total public and private expenditure on educational institutions are underestimated.

Hungary: Up to 2011, data do not include private expenditure on private educational institutions.

Ireland: Ireland undertook a review of expenditure data that went as far back as 2015; therefore, data before 2015 cannot be compared to those of 2015 and after. The changes from 2014 to 2015 are largely driven by the substantial increase in GDP in 2015. For more information on this increase see: http://www.cso.ie/en/media/csoie/newsevents/documents/pr_GDPexplanatorynote.pdf. In 2016 Ireland produced a modified GNI (GNI*) that was recommended by the Economic Statistics Review Group and is designed to exclude globalisation effects that are disproportionately impacting the measurement size of the Irish Economy.

Israel: Expenditure by non-profit institutions of own sources is not included as well as other minor expenditure items: Expenditure in non-university schools attached to hospitals for training of nurses and other para-medical professionals, expenditure on vocational schools of the Israeli Defense Forces. Scholarships not attributable to tuition were excluded from tuition. From 2012, the "Yeshiva" has been classified at Upper secondary – General schools (ISCED 3). The students of Hebrew teaching, Adults courses, training courses and supplementary training for adults, supervised by the ministry of economy and industry, were classified in ISCED5. Some minor expenditure items were excluded from the data collection (e.g. Expenditures on education from international sources, expenditure in non-university schools attached to hospitals from training of nurses and certain other Para-medical professionals, expenditure in vocational schools of the Israeli Defense Forces).

Japan: Expenditure on “specialised training colleges, general course”, “miscellaneous schools” and educational administration are not allocated by any educational levels. In order to reduce the burden of household educational costs, High School Tuition Support Fund have commenced in April 2010. This system supports funds for students to reduce the burden of household educational costs. Refund is unnecessary. In addition, in April 2014 the central government started giving subsidies to the local governments, which support high school students who are in a sudden change of household budget and/or who try to re-enter high school despite experiencing the dropout of school in the past.

Korea: Expenditure on some educational programmes provided by ministries other than the Ministry of Education is excluded (police college, polytechnic college, military academy, etc.) There were some significant changes in the methodology used in the data collection. For financial year 2014, Korea mapped undistributed programmes, which included municipal and national expenditure by the Ministry of Education, to ISCED 0-8 levels (mainly to ISCED 0-3). Since the financial year 2015, Korea has removed 'carryover' and 'reserve fund' from the previous year for the all education levels. Due to differences in the methodology adopted in 2015 fiscal year compared to previous years, trend data are reported as missing as they would not be comparable. In addition, public loans (used in computing the initial source of funds) do not include the government-guaranteed student loans by the Korea Student Aid Foundation (KOSAF). Because the loans are funded by bonds of the KOSAF, a government-affiliated institute, they are classified as private loans.

Lithuania: Expenditure in primary, lower secondary (general and vocational), upper secondary (general and vocational) and post-secondary non-tertiary education levels are estimated by breaking down the aggregated figures based on the number of full-time equivalent students enrolled in general and vocational programs at the corresponding ISCED level. Household payments outside education institutions are estimated using Household Budget Survey data and Consumer price indices.

Luxembourg: At the tertiary level, Luxembourg spends more than half of public budget to fund Luxembourgish students studying abroad. As public funds devoted to students abroad are not taken into account in Chapter C, expenditure on tertiary education as a percentage of GDP and of total government expenditure is largely underestimated.

Mexico: Data refers to budget expenditure instead of actual expenditure. A new method is used since EAG 2020 to calculate household expenditure on education. Accordingly, expenditure data from 2018 onwards should not be compared with previous data.

New Zealand: In 2018, changes in the way people participating in formal education in the workplace are counted and the availability of a new survey on students in private institutions made the figures on students at ISCED 35

and above non-comparable to those of previous years. Changes were implemented also in the methodology to allocate resources across educational levels at ISCED 35 and above. For these reasons, values of all Finance indicators cannot be compared to those of previous years.

Norway: Educational expenditures are reported as percent of Mainland GDP (excluding off-shore oil and international shipping). Comparisons with earlier editions are inadvisable as the total GDP was used before 2011. Moreover, due to changes in the method used to allocate expenditure on education across ISCED level 2 and above, 2018 data should not be compared to those of previous years.

Poland: Total expenditure on education from international sources does not include direct expenditure on private institutions, As a result of the structural reform of the polish education system started in the school year 2017/18, data for ISCED levels 1-3 for year 2017 are not fully comparable with those of previous years.

Slovak Republic: Private expenditure - and hence total expenditure - are underestimated due to the lack of data on capital expenditure in private institutions and payments for private tutoring.

Spain: Information for Vocational ISCED 2 programmes are integrated with General ISCED 2 in the data collection but they have a very reduced weight compared with general programmes.

Sweden: Private expenditure in Upper secondary non-tertiary level and in Short-cycle Tertiary education are underestimated; as a consequence, at those ISCED levels total expenditure on educational institutions is underestimated as well. A new method is used since EAG 2019 to estimate the split of expenditure between general and vocational at ISCED 3. The new method is allocating a larger share of expenditures to the general programs.

United States: Data for ISCED levels 5-8 include most ISCED 4 level education, which generally occurs at institutions offering programs at ISCED level 5 or higher. Distributions of funds among ISCED levels 0, 1, 2, and 3 are estimated.

See also notes on *Indicator C1*.

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INDICATOR C3: How much public and private investment on educational institutions is there?

Methodology

For general information on methodology, please refer to the OECD Handbook for Internationally Comparative Education Statistics: Concepts, Standards, Definitions and Classifications (<https://doi.org/10.1787/9789264304444-en>).

Sources

Data on expenditure on educational institutions are based on the UOE data collection on education systems administered annually by UNESCO, the OECD and Eurostat for all OECD and partner countries. Available data from Argentina, China, India, Indonesia, Saudi Arabia and South Africa are from the UNESCO Institute of Statistics (UIS).

Notes on specific countries

Australia: Australia has updated its data sources and revised the methodology used to compile this data, resulting in a significant break in the series. Expenditure data from 2018 onwards should not be compared with previous data. Expenditure on vocational programs (ISCED 2 to 4) and short-cycle tertiary programs (ISCED 5) is underestimated since expenditure data for private vocational institutions is incomplete. It is likely that private institutions receive most of their funding from household direct expenditure and these institutions enrol more than half of all students at these levels. Hence, the main effect of not having this data is likely to be that household expenditure is underestimated at these levels. Some finance data has been apportioned across ISCED levels using enrolment data as a proxy.

Austria: Public expenditure on education by the Health ministry is generally reported on ISCED level 4. Besides, some very small programmes were regrouped according to the centre of gravity of the institutions in charge of the provision. Expenditures on compensation of personnel in private institutions do not include expenditure on retirement (i.e. pension schemes).

Belgium: French and Flemish Communities differ in the type of expenditure reported. While the French Community refer to actual expenditure data, the Flemish Community refer to budgeted accrual expenditure data. Prior to 2016, private expenditure was slightly underestimated since data on payments to independent private institutions were not collected/not available. Change in the share of public, private and international expenditure on educational institutions are influenced by the integration of independent private institutions since the school year 2016-2017 as well as by the creation of short-cycle tertiary programmes in 2009-2010 in the Flemish Community.

Canada: Expenditure on “Primary, secondary and post-secondary non-tertiary education” and on “Primary to Tertiary education” does not include expenditure on post-secondary non-tertiary education.

Estonia: There has been significant change in classification of institutions since year 2017. Major part of ISCED 0-3 independent private institutions were classified as government dependent private institutions due to core funding received from government agencies. Government dependent private universities (ISCED 6-8) were classified as public universities due to overall control criteria. These changes lead to non-compatibility by type of institution between year 2016 and year 2017. Due to differences in the source of data and methodological changes, trend data for years 2014-2016 are not totally comparable with previous years information. Since 2017, there is additional change of data source for public universities that make up large part of expenditure of tertiary education in Estonia. In addition, private component of expenditure on education is underestimated as methodology to include data for payments outside educational institutions and scholarships/grants to households and students has yet to be developed.

France: The expenses and number of students from CPGE, BTS enrolled in “lycées” are reported at the tertiary education level.

Greece: Payments of private entities to independent private institutions is only partially covered. As a consequence, the total private expenditure on educational institutions and the total public and private expenditure on educational institutions are underestimated.

Israel: Expenditure by non-profit institutions of own sources is not included as well as other minor expenditure items: Expenditure in non-university schools attached to hospitals for training of nurses and other para-medical professionals, expenditure on vocational schools of the Israeli Defense Forces. Scholarships not attributable to

tuition were excluded from tuition. From 2012, the "Yeshiva" has been classified at Upper secondary – General schools (ISCED 3). The students of Hebrew teaching, Adults courses, training courses and supplementary training for adults, supervised by the ministry of economy and industry, were classified in ISCED5. Some minor expenditure items were excluded from the data collection (e.g. Expenditures on education from international sources, expenditure in non-university schools attached to hospitals from training of nurses and certain other Para-medical professionals, expenditure in vocational schools of the Israeli Defense Forces).

Japan: High School Tuition Support Fund have commenced in April 2010. This system supports funds for students to reduce the burden of household educational costs. Refund is unnecessary. In addition, in April 2014 the central government started giving subsidies to the local governments, which support high school students who are in a sudden change of household budget and/or who try to re-enter high school despite experiencing the dropout of school in the past.

Korea: Expenditure on some educational programmes provided by ministries other than the Ministry of Education is excluded (police college, polytechnic college, military academy, etc.) There were some significant changes in the methodology used in data collection. For financial year 2014, Korea mapped undistributed programmes, which included municipal and national expenditure by the Ministry of Education, to ISCED 0-8 levels (mainly to ISCED 0-3). Since the financial year 2015, Korea has removed 'carryover' and 'reserve fund' from the previous year for the all education levels. Due to differences in the methodology adopted in 2015 fiscal year, trend data are reported as missing as they would not be comparable.

Lithuania: Expenditure in primary, lower secondary (general and vocational), upper secondary (general and vocational) and post-secondary non-tertiary education levels are estimated by breaking down the aggregated figures based on the number of full-time equivalent students enrolled in general and vocational programs at the corresponding ISCED level. Household payments outside education institutions are estimated using Household Budget Survey data and Consumer price indices.

Mexico: Data refers to budget expenditure instead of actual expenditure. A new method is used since EAG 2020 to calculate household expenditure on education. Accordingly, expenditure data from 2018 onwards should not be compared with previous data.

New Zealand: In 2018, changes in the way people participating in formal education in the workplace are counted and the availability of a new survey on students in private institutions made the figures on students at ISCED 35 and above non-comparable to those of previous years. Changes were implemented also in the methodology to allocate resources across educational levels at ISCED 35 and above. For these reasons, values of all Finance indicators cannot be compared to those of previous years.

Norway: Trend analysis of the private expenditures must be done with caution due to the different data sources used in different years. Moreover, due to changes in the method used to allocate expenditure on education across ISCED level 2 and above, 2018 data should not be compared to those of previous years

Poland: Total expenditure on education from international sources does not include direct expenditure on private institutions, As a result of the structural reform of the polish education system started in the school year 2017/18, data for ISCED levels 1-3 for year 2017 are not fully comparable with those of previous years.

Slovak Republic: Private expenditure - and hence total expenditure - are underestimated due to the lack of data on capital expenditure in private institutions and payments for private tutoring.

Spain: Information for Vocational ISCED 2 programmes are integrated with General ISCED 2 in the data collection but they have a very reduced weight compared with general programmes.

Sweden: Private expenditure in Upper secondary non-tertiary level and in Short-cycle Tertiary education are underestimated; as a consequence, at those ISCED levels total expenditure on educational institutions is underestimated as well. A new method is used since EAG 2019 to estimate the split of expenditure between general and vocational at ISCED 3. The new method is allocating a larger share of expenditures to the general programs.

See notes on Indicators [C1](#) and [C2](#).

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INDICATOR C4: What is the total public spending on education?

Methodology

For general information on methodology, please refer to the *OECD Handbook for Internationally Comparative Education Statistics: Concepts, Standards, Definitions and Classifications* (<https://doi.org/10.1787/9789264304444-en>).

Sources

Data on total public expenditure are based on the UOE data collection on education systems administered annually by UNESCO, the OECD and Eurostat for all OECD and partner countries. Available data from Argentina, China, India, Indonesia, Saudi Arabia and South Africa are from the UNESCO Institute of Statistics (UIS).

Notes on specific countries

Australia: Australia has updated its data sources and revised the methodology used to compile this data, resulting in a significant break in the series. Expenditure data from 2018 onwards should not be compared with previous data. Some finance data has been apportioned across ISCED levels using enrolment data as a proxy.

Austria: Public expenditure on education by the Health ministry is generally reported on ISCED level 4. Besides, some very small programmes were regrouped according to the centre of gravity of the institutions in charge of the provision. Expenditures on compensation of personnel in private institutions do not include expenditure on retirement (i.e. pension schemes).

Belgium: Change in total public expenditure on education as a percentage of total government expenditure are influenced by the integration of independent private institutions since the school year 2016-2017 as well as by the creation of short-cycle tertiary programmes in 2009-2010 in the Flemish Community.

Brazil: All tables and charts in Indicator C4 present information on public expenditure on public educational institutions instead of public expenditure on all educational institutions.

Canada: Expenditure on “Primary, secondary and post-secondary non-tertiary education” and on “Primary to Tertiary education” does not include expenditure on post-secondary non-tertiary education.

Estonia: There has been significant change in classification of institutions since year 2017. Major part of ISCED 0-3 independent private institutions were classified as government dependent private institutions due to core funding received from government agencies. Government dependent private universities (ISCED 6-8) were classified as public universities due to overall control criteria. These changes lead to non-compatibility by type of institution between year 2016 and year 2017. Due to differences in the source of data and methodological changes, trend data for years 2014-2016 are not totally comparable with previous years information. Since 2017, there is additional change of data source for public universities that make up large part of expenditure of tertiary education in Estonia. In addition, private component of expenditure on education is underestimated as methodology to include data for payments outside educational institutions and scholarships/grants to households and students has yet to be developed.

France: The expenses and number of students from CPGE, BTS enrolled in “lycées” are reported at the tertiary education level.

Ireland: Ireland undertook a review of expenditure data that went as far back as 2015; therefore, data before 2015 cannot be compared to those of 2015 and after. In 2016 Ireland produced a modified GNI (GNI*) that was recommended by the Economic Statistics Review Group and is designed to exclude globalisation effects that are disproportionately impacting the measurement size of the Irish Economy.

Israel: Expenditure by non-profit institutions of own sources is not included as well as other minor expenditure items: Expenditure in non-university schools attached to hospitals for training of nurses and other para-medical professionals, expenditure on vocational schools of the Israeli Defense Forces. Scholarships not attributable to tuition were excluded from tuition. From 2012, the "Yeshiva" has been classified at Upper secondary – General schools (ISCED 3). The students of Hebrew teaching, Adults courses, training courses and supplementary training for adults, supervised by the ministry of economy and industry, were classified in ISCED5. Some minor expenditure items were excluded from the data collection (e.g. Expenditures on education from international sources,

expenditure in non-university schools attached to hospitals from training of nurses and certain other Para-medical professionals, expenditure in vocational schools of the Israeli Defense Forces).

Italy: Households' payments outside educational institutions are estimated on the basis of the annual Household Budget Survey (HBS). Due to methodological changes, a break in the series occurred. At ISCED levels 0-4, a break in series occurs between 2017 and 2018 data.

Japan: High School Supplemental Scholarship Fund has commenced in April 2014. This system provides grants for supplemental educational costs apart from course tuition. Regional final funds include expenditures for independent private institutions by local final funds, and expenditures for local institutions by regional final funds are included in local final funds. Central transfers to regional governments include local initial funds, and regional and local final funds include each parts of these final funds.

Korea: Expenditure on some educational programmes provided by ministries other than the Ministry of Education is excluded (police college, polytechnic college, military academy, etc.) There were some significant changes in the methodology used in data collection. For financial year 2014, Korea mapped undistributed programmes, which included municipal and national expenditure by the Ministry of Education, to ISCED 0-8 levels (mainly to ISCED 0-3). Since the financial year 2015, Korea has removed 'carryover' and 'reserve fund' from the previous year for the all education levels. Due to differences in the methodology adopted in 2015 fiscal year, trend data are reported as missing as they would not be comparable.

Lithuania: Expenditure in primary, lower secondary (general and vocational), upper secondary (general and vocational) and post-secondary non-tertiary education levels are estimated by breaking down the aggregated figures based on the number of full-time equivalent students enrolled in general and vocational programs at the corresponding ISCED level. Household payments outside education institutions are estimated using Household Budget Survey data and Consumer price indices.

Luxembourg: At the tertiary level, Luxembourg spends more than half of public budget to fund Luxembourgish students studying abroad. As public funds devoted to students abroad are not taken into account in Chapter C, expenditure on tertiary education as a percentage of GDP and of total government expenditure is largely underestimated. **Mexico:** Data refers to budget expenditure instead of actual expenditure.

New Zealand: In 2018, changes in the way people participating in formal education in the workplace are counted and the availability of a new survey on students in private institutions made the figures on students at ISCED 35 and above non-comparable to those of previous years. Changes were implemented also in the methodology to allocate resources across educational levels at ISCED 35 and above. For these reasons, values of all Finance indicators cannot be compared to those of previous years.

Norway: Due to changes in the method used to allocate expenditure on education across ISCED level 2 and above, 2018 data should not be compared to those of previous years.

Poland: Total expenditure on education from international sources does not include direct expenditure on private institutions, As from year 2016, methodological changes have been introduced in order to improve the calculation of initial funds from Central Government. Accordingly, data on net transfers to local governments since year 2016 are not fully comparable with those of previous years. In addition, as a result of the structural reform of the polish education system started in the school year 2017/18, data for ISCED levels 1-3 for year 2017 are not fully comparable with those of previous years.

Slovak Republic: Private expenditure - and hence total expenditure - are underestimated due to the lack of data on capital expenditure in private institutions and payments for private tutoring.

Spain: Information for Vocational ISCED 2 programmes are integrated with General ISCED 2 in the data collection but they have a very reduced weight compared with general programmes.

Sweden: A new method is used since EAG 2019 to estimate the split of expenditure between general and vocational at ISCED 3. The new method is allocating a larger share of expenditures to the general programs.

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INDICATOR C5: How much do tertiary students pay and what public support do they receive?

Methodology

For general information on methodology, please refer to the *OECD Handbook for Internationally Comparative Education Statistics: Concepts, Standards, Definitions and Classifications* (<https://doi.org/10.1787/9789264304444-en>)

Sources

Data on tuition fees and public support are based on the Ad-Hoc Survey on Tuition Fees and Financial Support to Students carried out by the OECD on a two-year basis. Data collected in 2021 are exploited for the 2021 and 2022 editions of Education at a Glance. Data on enrolment are based on the UOE 2020 enrolment questionnaire.

Notes on specific countries and economies

Australia: In Table C5.1, the average tuition fees for national students in public institutions are affected by the proportion of students that are partially funded by the government. Most students in bachelor's programmes and almost all students in doctoral programmes are enrolled in places that are fully government-funded. However, at short-cycle tertiary level and master's level a higher proportion of students are enrolled in places that are not government-funded (students pay full-fees).

French Community of Belgium: Tuition fees of Bachelor student (ISCED 6) only enrolled in Hautes écoles and Ecoles supérieures des arts de type court.

Canada: Data only include information on the federal portion of student financial assistance, which represents 60% of student loans provided in the provinces participating in the Canada Student Loans Program (CSLP). In addition, the province of Quebec is the only province that does not participate in the CSLP and therefore is excluded from the figures. Tuition fees at the Masters level exclude Executive and Regular MBA.

Chile: Tertiary education institutions have the autonomy to set and modify the amount of tuition fees charged for their programmes. The number of students could be different from UOE enrolment at each level. Public scholarships/grants are directly transferred to tertiary education institutions. Figures on financial support to students exclude scholarships/grants provided by the private sector and scholarships provided by tertiary education institutions. Figures include benefits that are delivered on the basis of the Socio-economic Accreditation Form (FUAS).

England (United Kingdom): Data on tuition fees refer to England only.

Estonia: Studying at all public institutions has been free of charge since the reform in 2013. However public universities charge some tuition fees to students who: a) study part-time; b) study in curricula that is in another language than Estonian; c) have been delated from the matriculation register and matriculated again at the same curriculum within two years. Tuition fees for public institutions presented in this chapter refer to the tuition fees that a student has to pay if he/she meets these three criteria. There are also tuition fees in private higher educational institutions for all students. Professional higher educational institutions are state owned and learning is free of charge.

Finland: Student union membership fee is usually mandatory. Membership fees are not substantial, usually around EUR 100 per academic year. Citizens of non-EU/European Economic Area countries, who do not have a permanent residence status in the area, are liable to tuition fees (programmes starting on August 1, 2017 or later (academic year 2017/18)). Fees are not charged to students who began their studies before August 1, 2017.

Flemish Community (Belgium): Tuition fee data refer only to the tuition fees for those students enrolled in first degree bachelor's or Masters programme with a degree contract or credit contract. For non-EEA students, institutions have the autonomy to decide on the amount of the tuition fee, except for some categories of students (refugees, asylum seekers,...). For Associate degree programmes in adult education, some students pay a lower fee (for example unemployed students who follow a training not recognised by the Flemish Employment and Vocational Training Service – VDAB) or pay no tuition fee (for example asylum seekers, people receiving a living wage, students following a training recognised by the Flemish Employment and Vocational Training Service). For the students enrolled in an associate degree – nursing programmes there is no tuition fee charged by the institutions.

France: In public tertiary institutions, tuition fees are set annually by a ministerial order and the amount is generally low. Students receiving a scholarship do not pay tuition fees. Private institutions set the amount of tuition fees: this information is difficult to collect and it is not possible to calculate an average amount. In France, there are no public loans for students.

French Community (Belgium): Tuition fees depend on the three different statuses of students (entitled to a scholarship, low income or not entitled to a scholarship). Students receiving a scholarship do not pay tuition fees. Tuition fees also depend on the type of institution (university or other institutions). Students from outside the European Union pay specific/additional tuition fees.

Germany: Data on tuition fees correspond to the academic year 2016/17.

Ireland: While the annual tuition fees charged to full-time national students in Ireland may exceed EUR 8 000, the majority of undergraduate students avail of the Free Fees Scheme and would pay an annual student contribution charge of EUR 3 000 towards the cost of their programme of study. National students in Ireland are only liable to pay the full rate of fees, if they are not eligible to avail of the Free Fees Scheme (a minority of Irish national students). If a student is liable to pay the full rate of fees, there are lower 'EU' fee rates and higher International (Non-EU) fee rates.

Italy: Each institution fixes scales for tuition fees dependent on the economic circumstances of the student's family, according to equity and solidarity criteria that respect the general rules determined at national level. Moreover, under particular conditions students are totally or partially exempted from fees. The annual average tuition fees are calculated on the basis of the actual tuition fee paid by each student; students totally exempted from fees are not included in the calculation of the averages.

Japan: Average amount of annual tuition fees charged by independent private institutions refers to fees in private universities for the first academic year.

Korea: In Korea, income-contingent loans (ICL) to be repaid upon employment have been adopted since 2010 in order to lessen the financial burden of student loan repayment. Since 2012, national scholarships based on household income level have been introduced to reduce tuition fees, and the amounts of these scholarships have increased substantially each year. Financial support for students has expanded through the introduction of various types of student loans, reducing loan interest rates, and expanding loans to compensate for students' living expenses.

Netherlands: Institutions can determine their own tuition fees for foreign students, with a mandatory minimum of the legal fee (EUR 2 006). The mandatory fee applies to all the students from the European Economic Area.

Norway: Even if tuition fees are charged for ISCED 5 programmes, 78% of all public institutions at ISCED 5 (and ISCED 4) in 2019 were tuition-free institutions, and 11% of all government-dependent private institutions were tuition-free institutions. These institutions are not taken into account in the averages presented in Table C5.1 and Figure C5.1. This is also the case in 2011/2012: 91% of all public institutions at ISCED 5 (and ISCED 4) were tuition-free institutions, and 6% of all government-dependent private institutions were tuition-free institutions.

A student can receive up to NOK 10 634 per month in basic support, depending on study load. Up to 40% of this amount can be converted into a grant depending on academic progression and income level. A Norwegian student can also receive up to NOK 63 070 per year in tuition support. PhD students do not get student support.

Sweden: National students are entitled to financial support for living expenses. PhD students are normally employed with salary, 72% employed by the institution, 16% employed outside the institution and the rest have scholarships or other support.

United States: Data on annual tuition fees charged by institutions are from academic year 2018/19 and are from the Integrated Postsecondary Education Data System (IPEDS). Data on annual tuition fees paid by students are from the National Postsecondary Student Aid Survey. For public institutions, fees charged to national students is based on in-state-tuition. The minimum fee charged by institutions is based on the 25th percentile and the maximum fee is based on the 75th percentile. For fees charged for ISCED 7, professional practice degrees, such as medicine and law, are excluded. Foreign students attending public institutions pay similar fees as out-of-state national students and foreign students attending private universities pay similar tuition as national students. However, foreign students at some public and private universities, may pay a 3rd tier of tuition specific for international students. This 3rd tier of tuition fees is set by the university.

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INDICATOR C6: On what resources and services is education funding spent?

Methodology

For general information on methodology, please refer to the OECD Handbook for Internationally Comparative Education Statistics: Concepts, Standards, Definitions and Classifications (<https://doi.org/10.1787/9789264304444-en>).

Sources

Data on current and capital expenditure by educational institutions are based on the UOE data collection on education systems administered annually by UNESCO, the OECD and Eurostat for all OECD and partner countries. Available data from Argentina, China, India, Indonesia, Saudi Arabia and South Africa are from the UNESCO Institute of Statistics (UIS).

Notes on specific countries

Australia: Australia has updated its data sources and revised the methodology used to compile this data, resulting in a significant break in the series. Expenditure data from 2018 onwards should not be compared with previous data. Expenditure on vocational programs (ISCED 2 to 4) and short-cycle tertiary programs (ISCED 5) is underestimated since expenditure data for private vocational institutions is incomplete. It is likely that private institutions receive most of their funding from household direct expenditure and these institutions enrol more than half of all students at these levels. Hence, the main effect of not having this data is likely to be that household expenditure is underestimated at these levels. Some finance data has been apportioned across ISCED levels using enrolment data as a proxy.

Austria: Public expenditure on education by the Health ministry is generally reported on ISCED level 4. Besides, some very small programmes were regrouped according to the centre of gravity of the institutions in charge of the provision. Expenditures on compensation of personnel in private institutions do not include expenditure on retirement (i.e. pension schemes).

Belgium: French and Flemish Communities differ in the type of expenditure reported. While the French Community refer to actual expenditure data, the Flemish Community refer to budgeted accrual expenditure data. Prior to 2016, private expenditure was slightly underestimated since data on payments to independent private institutions were not collected/not available.

Brazil: All tables and charts in Indicator C6 present information on public expenditure on public educational institutions instead of total expenditure on educational institutions. Current expenditure data include expenditures for inactive educational personnel. These expenditures refer to the resources currently used to supplement the future retirement of staff currently active. These expenditures represent an increase of 20% of the expenditure for the current active educational personnel."

Canada: Expenditure on "Primary, secondary and post-secondary non-tertiary education" and on "Primary to Tertiary education" does not include expenditure on post-secondary non-tertiary education.

Chile: Fundación Integra, one of Chile's most relevant providers of Early Childhood Education and Care (ECEC) had been classified as a Government-dependent private institution until the 2017 edition of Education at a Glance, whilst it is classified as a Public institution in the UOE 2018 edition. This change was made given Foundation's reliance on public funds and their reliance on the Government of Chile for their governance, considering that the Foundation's board is presided by the First Lady.

Colombia: Values of indicators on expenditure by nature are underestimated because expenditure by regional and local government are not included in the total.

Estonia: There has been significant change in classification of institutions since year 2017. Major part of ISCED 0-3 independent private institutions were classified as government dependent private institutions due to core funding received from government agencies. Government dependent private universities (ISCED 6-8) were classified as public universities due to overall control criteria. These changes lead to non-compatibility by type of institution between year 2016 and year 2017. Due to differences in the source of data and methodological changes, trend data for years 2014-2016 are not totally comparable with previous years information. Since 2017, there is additional change of data source for public universities that make up large part of expenditure of tertiary education in Estonia. In addition, private component of expenditure on education is underestimated as methodology to

include data for payments outside educational institutions and scholarships/grants to households and students has yet to be developed.

France: The expenses and number of students from CPGE, BTS enrolled in “lycées” are reported at the tertiary education level.

Greece: Payments of private entities to independent private institutions is only partially covered. As a consequence, the total private expenditure on educational institutions and the total public and private expenditure on educational institutions are underestimated.

Iceland: Capital expenditure in private institutions is reported as current expenditure.

Israel: Total personnel compensation includes taxes on employment. Current expenditure other than compensation of personnel includes other expenditures and consumption of fixed capital. Some minor expenditure items were excluded from the data collection (e.g. Expenditures on education from international sources, expenditure in non-university schools attached to hospitals from training of nurses and certain other Para-medical professionals, expenditure in vocational schools of the Israeli Defense Forces).

Korea: Expenditure on some educational programmes provided by ministries other than the Ministry of Education is excluded (police college, polytechnic college, military academy, etc.) There were some significant changes in the methodology used in the data collection. For financial year 2014, Korea mapped undistributed programmes, which included municipal and national expenditure by the Ministry of Education, to ISCED 0-8 levels (mainly to ISCED 0-3). Since the financial year 2015, Korea has removed 'carryover' and 'reserve fund' from the previous year for the all education levels. Due to differences in the methodology adopted in 2015 fiscal year, trend data are reported as missing as they would not be comparable. Expenditures on public institutions may be over-represented because of the inclusion of undistributed programmes.

Lithuania: Expenditure in primary, lower secondary (general and vocational), upper secondary (general and vocational) and post-secondary non-tertiary education levels are estimated by breaking down the aggregated figures based on the number of full-time equivalent students enrolled in general and vocational programs at the corresponding ISCED level. Household payments outside education institutions are estimated using Household Budget Survey data and Consumer price indices.

Mexico: Data refers to budget expenditure instead of actual expenditure. A new method is used since EAG 2020 to calculate household expenditure on education. Accordingly, expenditure data from 2018 onwards should not be compared with previous data.

New Zealand: In 2018, changes in the way people participating in formal education in the workplace are counted and the availability of a new survey on students in private institutions made the figures on students at ISCED 35 and above non-comparable to those of previous years. Changes were implemented also in the methodology to allocate resources across educational levels at ISCED 35 and above. For these reasons, values of all Finance indicators cannot be compared to those of previous years.

Norway: Due to changes in the method used to allocate expenditure on education across ISCED level 2 and above, 2018 data should not be compared to those of previous years.

Poland: Total expenditure on education from international sources does not include direct expenditure on private institutions, As a result of the structural reform of the polish education system started in the school year 2017/18, data for ISCED levels 1-3 for year 2017 are not fully comparable with those of previous years.

Slovak Republic: Private expenditure - and hence total expenditure - are underestimated due to the lack of data on capital expenditure in private institutions and payments for private tutoring.

Spain: Information for Vocational ISCED 2 programmes are integrated with General ISCED 2 in the data collection but they have a very reduced weight compared with general programmes.

Sweden: School and university buildings are rented. Rent payments are included in current expenditure. A new method is used since EAG 2019 to estimate the split of expenditure between general and vocational at ISCED 3. The new method is allocating a larger share of expenditures to the general programs. Private expenditure in Upper secondary non-tertiary level and in Tertiary education are underestimated; as a consequence, at those ISCED levels total expenditure on educational institutions is underestimated as well.

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INDICATOR C7: Which factors influence teachers' salary cost?

Methodology

For general information on methodology, please refer to the *OECD Handbook for Internationally Comparative Education Statistics: Concepts, Standards, Definitions and Classifications* (<https://doi.org/10.1787/9789264304444-en>)

Methodology for textbox C7.2 – “What could be the trade-offs of decreasing class size by one student? (2019)”

The salary cost of teachers per student (SCS) is calculated as:

$$SCS = \text{Teacher salary} * \text{Instruction time} * \frac{1}{\text{Teaching time}} * \frac{1}{\text{Theoretical Class Size}}$$

If class size decreases by one student (*Estimated class size* – 1), the level of each factor (keeping all others constant) is found by solving for each factor separately:

$$\text{Teacher salary} = SCS * \text{Teaching time} * \frac{1}{\text{Instruction time}} * (\text{Theoretical class size} - 1)$$

$$\text{Instruction time} = SCS * \text{Teaching time} * \frac{1}{\text{Teacher salary}} * (\text{Theoretical class size} - 1)$$

$$\text{Teaching time} = \text{Instruction time} * \text{Teacher salary} * \frac{1}{SCS} * \frac{1}{(\text{Theoretical class size} - 1)}$$

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Sources

Data referring to the 2019 school year are based on the UNESCO, OECD and Eurostat (UOE) data collection on education statistics and on the Survey on Teachers and the Curriculum, which were both administered by the OECD in 2020. These are the specific sources for each factor included in the indicator:

Instruction time: Instruction time in compulsory general education in public institutions for reference year 2019 is taken from Tables D1.1 and D1.2 in Indicator D1 in EAG 2020.

Teaching time: Net statutory contact time in public institutions for reference year 2019 is taken from Table D4.2 of Indicator D4 in EAG 2020.

Teachers' salary: Annual statutory salary of teachers with 15 years of experience and the most prevalent qualifications in public institutions for reference year 2019 is taken from Table D3.1 available in EAG 2020.

Student-teacher ratio: Student-teacher ratio for reference year 2019 is available in Indicator D2 of EAG 2021. However, in order to align with the other indicators used, only the student-teacher ratios in public institutions are used. This data is available in the Education at a Glance database at <http://stats.oecd.org/>.

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Notes on specific countries

For country-specific notes on the four factors, please refer to the section corresponding to the source indicator in Annex 3. The source indicator for each factor is indicated in the *Sources* section above.