**Section:** Finances

## **Education Expenditures by Country**

In 2019, the United States spent \$15,500 per full-time-equivalent (FTE) student on elementary and secondary education, which was 38 percent higher than the average of Organization for Economic Cooperation and Development (OECD) member countries of \$11,300 (in constant 2021 U.S. dollars). At the postsecondary level, the United States spent \$37,400 per FTE student, which was more than double the average of OECD countries (\$18,400; in constant 2021 U.S. dollars).

This indicator uses information from the Organization for Economic Cooperation and Development (OECD) to compare countries' expenditures on education using two measures: expenditures on public and private education institutions per full-time-equivalent (FTE) student and total government and private expenditures on education institutions as a percentage of gross domestic product (GDP). The OECD is an organization of 38 countries (as of 2021) that collects and publishes an array of data on its member countries. Education expenditures are from public revenue sources (governments) and private revenue sources, and they include current and capital expenditures. Private sources include payments from households for school-based expenses such as tuition, transportation fees, book rentals, and food services, as well as public funding via subsidies to households, private fees for education services, and other private spending that goes through educational institutions. The total government and private expenditures on education institutions as a percentage of GDP measure allows for a comparison of countries' expenditures relative to their ability to finance education. Purchasing power parity (PPP) indexes are used to convert other currencies into U.S. dollars. Monetary amounts are in constant 2021 dollars based on national GDP deflators and PPP indexes.1

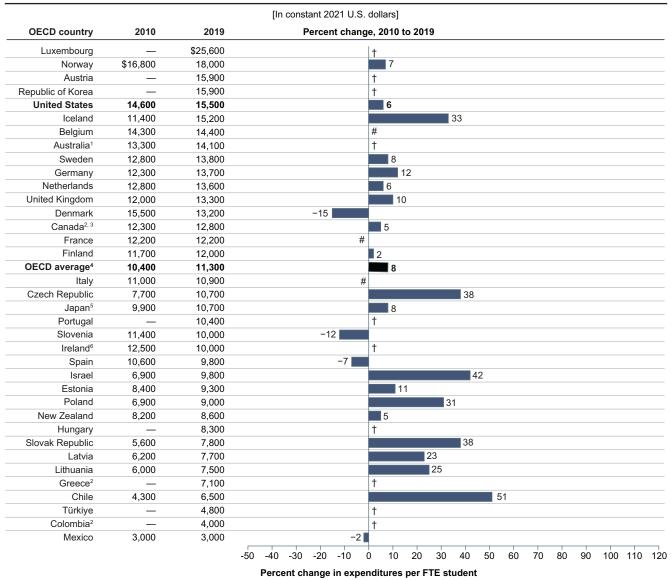
# Education Expenditures per Full-Time-Equivalent (FTE) Student

Expenditures per FTE student at the elementary/ secondary level varied across OECD countries² in 2019, ranging from \$3,000 in Mexico to \$25,600 in Luxembourg. The United States spent \$15,500 per FTE student at the elementary/secondary level, which was 38 percent higher than the average of OECD countries³ reporting data (\$11,300). The United States had the fifth highest expenditures per FTE student at the elementary/ secondary level in 2019 after Luxembourg, Norway (\$18,000), and Austria and the Republic of Korea (\$15,900 each). Note that expenditures per FTE student reflect the average spent per student, not necessarily the amount spent on each student. For instance, in the United States, expenditures per student vary at the state and local levels.4

Expenditures per FTE student at the postsecondary level also varied across OECD countries<sup>5</sup> in 2019, ranging from \$4,200 in Greece to \$56,600 in Luxembourg. Expenditures per FTE student at this level for the United States (\$37,400) were second highest, after Luxembourg, and more than double the average of OECD countries reporting data (\$18,400).

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Figure 1. Expenditures and percentage change in expenditures per full-time-equivalent (FTE) student for elementary and secondary education, by Organization for Economic Cooperation and Development (OECD) country: 2010 and 2019



Not available.

Index.aspx. See Digest of Education Statistics 2022, table 605.10.

<sup>†</sup> Not applicable

<sup>#</sup> Rounds to zero

<sup>1</sup> Methodology and/or data sources have been revised between 2010 and 2019. As a result, percentage changes in expenditures between 2010 and 2019 are not

<sup>&</sup>lt;sup>2</sup> Elementary and secondary education expenditures exclude postsecondary nondegree programs. Postsecondary nondegree figures are treated as negligible.

<sup>&</sup>lt;sup>3</sup> Elementary and secondary education expenditures include preprimary education (for children ages 3 and older)

<sup>&</sup>lt;sup>4</sup> The Organization for Economic Cooperation and Development (OECD) average refers to the mean of the data values for all reporting OECD countries (including those that had been invited to become members and were under review, referred to as the accession process), to which each country reporting data contributes equally. Postsecondary nondegree programs included in both secondary and postsecondary programs.

<sup>6</sup> Methodology has been revised due to a large GDP increase in 2015, resulting in a break in trend expenditure data for years prior to 2015.

NOTE: Costa Rica and Switzerland are excluded from this figure because data on expenditures were unavailable for 2010 and 2019. All education expenditure data in this figure were calculated using International Standard Classification of Education (ISCED) 2011. Expenditures for ISCED level 4 (postsecondary nondegree programs) are included in elementary and secondary education expenditures unless otherwise noted. Data adjusted to U.S. dollars using the purchasing power parity (PPP) index. Constant dollars based on national gross domestic product deflators and PPP indexes, available in the OECD database cited in the SOURCE note below. Data are collected for the financial year ending in the reported year for each country. For more information on the financial year reported by OECD countries, see Annex Table X1.3 here: https://stat.link/3ha7ok. Includes only data that had been validated for consistency and accuracy by OECD and the relevant country as of January 19, 2023. Some data have been revised from previously published figures. Although rounded numbers are displayed, the figures are based on unrounded data SOURCE: Organization for Economic Cooperation and Development (OECD), Online Education Database. Retrieved January 19, 2023, from https://stats.oecd.org/

#### **Education Expenditures by Country**

In 2019, the average of OECD countries' expenditures per FTE student at the elementary/secondary level was \$11,300, compared with \$10,400 in 2010.6 Of the 26 OECD countries with comparable data available in both years, inflation-adjusted expenditures per FTE student in 2019 were

- higher than in 2010 in 20 countries, including the United States (ranging from less than one-half of 1 percent higher in Belgium to 51 percent higher in Chile); and
- lower than in 2010 in 6 countries (France, Italy, Mexico, Spain, Slovenia, and Denmark).

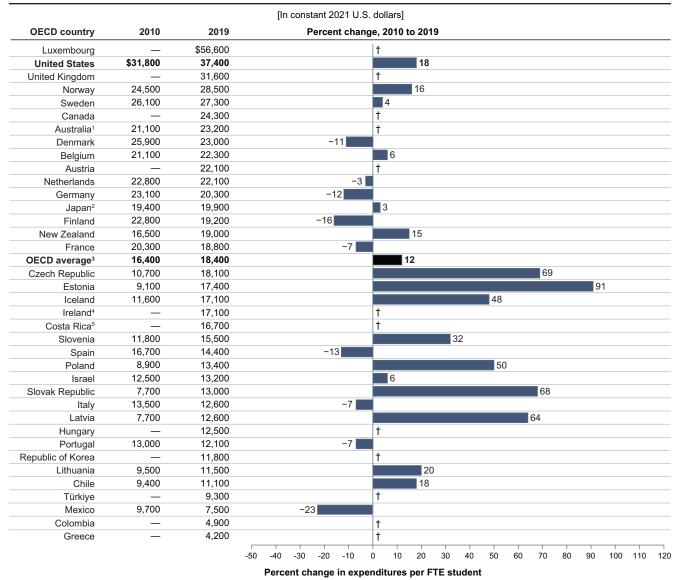
**Chapter:** 5/International Comparisons

**Section:** Finances

In the United States, expenditures per FTE student were 6 percent higher in 2019 (\$15,500) than in 2010 (\$14,600). Fourteen countries had higher positive percentage changes in expenditures than the United States.

**Section:** Finances

Figure 2. Expenditures and percentage change in expenditures per full-time-equivalent (FTE) student for postsecondary education, by Organization for Economic Cooperation and Development (OECD) country: 2010 and 2019



Not available.

NOTE: Switzerland is excluded from this figure because data on expenditures were unavailable for 2010 and 2019. All education expenditure data in this figure were calculated using International Standard Classification of Education (ISCED) 2011. Includes both government and private expenditures. Includes expenditures on both public and private institutions unless otherwise noted. Data adjusted to U.S. dollars using the purchasing power parity (PPP) index. Constant dollars based on national gross domestic product deflators and PPP indexes, available in the OECD database cited in the SOURCE note below. Data are collected for the financial year ending in the reported year for each country. For more information on the financial year reported by OECD countries, see Annex Table X1.3 here: https://stat.link/3ha7ok. Includes only data that had been validated for consistency and accuracy by OECD and the relevant country as of January 19, 2023. Some data have been revised from previously published figures. Although rounded numbers are displayed, the figures are based on unrounded data

SOURCE: Organization for Economic Cooperation and Development (OECD), Online Education Database. Retrieved January 19, 2023, from https://stats.oecd.org/Index. aspx. See Digest of Education Statistics 2022, table 605.10.

<sup>†</sup> Not applicable.

Methodology and/or data sources have been revised between 2010 and 2019. As a result, percentage changes in expenditures between 2010 and 2019 are not

<sup>&</sup>lt;sup>2</sup> Postsecondary nondegree programs included in both secondary and postsecondary programs.

<sup>&</sup>lt;sup>3</sup> The Organization for Economic Cooperation and Development (OECD) average refers to the mean of the data values for all reporting OECD countries (including those that had been invited to become members and were under review, referred to as the accession process), to which each country reporting data contributes equally.

Methodology has been revised due to a large GDP increase in 2015, resulting in a break in trend expenditure data for years prior to 2015.

<sup>&</sup>lt;sup>5</sup> Includes public institutions only.

#### **Education Expenditures by Country**

In 2019, the average of OECD countries' expenditures per FTE student at the postsecondary level was \$18,400, compared with \$16,400 in 2010.7 Of the 25 OECD countries with comparable data available in both years, inflation-adjusted expenditures per FTE in 2019 were

- higher than in 2010 in 16 countries, including the United States (ranging from 3 percent higher in Japan to 91 percent higher in Estonia); and
- lower than in 2010 in 9 countries (the Netherlands, Italy, Portugal, France, Denmark, Germany, Spain, Finland, and Mexico).

In the United States, expenditures per FTE student at the postsecondary level were 18 percent higher in 2019 (\$37,400) than in 2010 (\$31,800).

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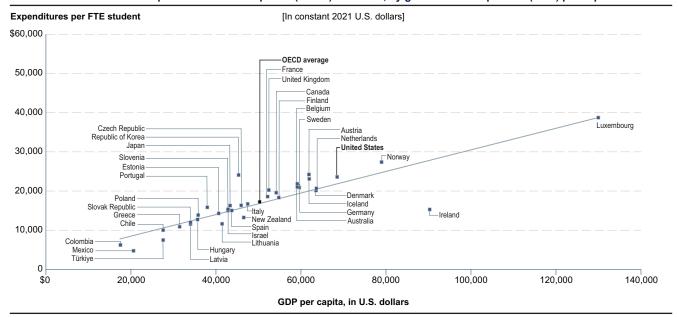
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### **Education Expenditures per FTE Student and Gross** Domestic Product (GDP) per Capita

A country's wealth, defined as GDP per capita, is associated with its education expenditures per FTE student. The average GDP per capita across OECD countries in 2019 was \$50,200.

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Figure 3. Expenditures per full-time-equivalent (FTE) student for elementary and secondary education in selected Organization for Economic Cooperation and Development (OECD) countries, by gross domestic product (GDP) per capita: 2019



Linear relationship between spending and country wealth for 36 OECD countries reporting data (elementary/secondary): R<sup>2</sup> = .76; slope = 0.18; intercept = 2,075. NOTE: Costa Rica and Switzerland are excluded from this figure because data on expenditures were not available for 2019. All education expenditure data in this figure were calculated using International Standard Classification of Education (ISCED) 2011. Expenditures for ISCED level 4 (postsecondary nondegree programs) are included in elementary and secondary education except for Canada, Colombia, and Greece. Data on expenditures for Canada include preprimary education. In Japan, postsecondary nondegree programs were included in both secondary and postsecondary programs. Data adjusted to U.S. dollars using the purchasing power parity (PPP) index. Constant dollars based on national gross domestic product deflators and PPP indexes, available in the OECD database cited in the SOURCE note below The Organization for Economic Cooperation and Development (OECD) average refers to the mean of the data values for all reporting OECD countries (including those that had been invited to become members and were under review, referred to as the accession process), to which each country reporting data contributes equally. Data are collected for the financial year ending in the reported year for each country. For more information on the financial year reported by OECD countries, see Annex Table X1.3 here: https://stat.link/3ha7ok. Includes only data that had been validated for consistency and accuracy by OECD and the relevant country as of January 19, 2023. SOURCE: Organization for Economic Cooperation and Development (OECD), Online Education Database. Retrieved January 19, 2023, from https://stats.oecd.org/Inde aspx. See Digest of Education Statistics 2022, table 605.10.

GDP per capita is positively associated with education expenditures per FTE student at the elementary/ secondary level. In other words, in countries where GDP was higher, educational expenditures also tended to be higher, and vice versa. In 2019, of the 16 countries with a higher GDP per capita than the average of OECD countries,8

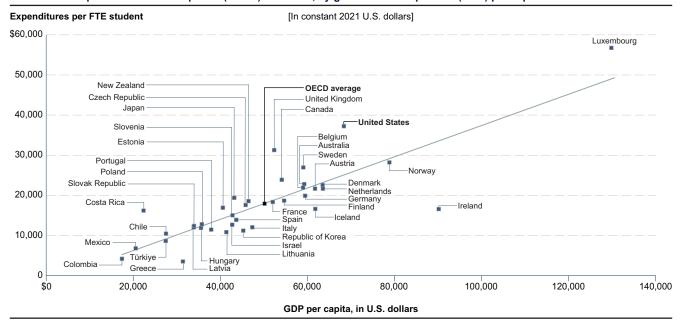
- 15 countries also had elementary/secondary education expenditures per FTE student that were higher than the \$11,300 average of OECD countries (the 15 countries were France, the United Kingdom, Canada, Finland, Belgium, Sweden, Australia, Germany, Austria, Iceland, Denmark, the Netherlands, the United States, Norway, and Luxembourg); and
- 1 country (Ireland) had lower elementary/secondary expenditures per FTE student (\$10,000) than the average of OECD countries.

Of the 20 countries with a GDP per capita lower than the average of OECD countries,9

- 19 countries also had elementary/secondary education expenditures per FTE student that were lower than the average of OECD countries in 2019 (the 19 countries were Colombia, Mexico, Türkiye, Chile, Greece, Latvia, the Slovak Republic, Hungary, Poland, Portugal, Estonia, Lithuania, Israel, Slovenia, Japan, Spain, the Czech Republic, New Zealand, and Italy); and
- 1 country (the Republic of Korea) had higher elementary/secondary expenditures per FTE student (\$15,900) than the average for OECD countries.

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Figure 4. Expenditures per full-time-equivalent (FTE) student for postsecondary education in selected Organization for Economic Cooperation and Development (OECD) countries, by gross domestic product (GDP) per capita: 2019



— Linear relationship between spending and country wealth for 37 OECD countries reporting data (elementary/secondary):  $R^2 = .71$ ; slope = 0.39; intercept = -696. NOTE: Switzerland is excluded from this figure because data on expenditures were not available for 2019. All education expenditure data in this figure were calculated using International Standard Classification of Education (ISCED) 2011. Includes both government and private expenditures. Includes expenditures on both public and private institutions except for Costa Rica. Data on expenditures for Costa Rica include public institutions only. Data on expenditures for Japan include ISCED level 4 (postsecondary nondegree programs), which were also included in secondary education expenditures. Data adjusted to U.S. dollars using the purchasing power parity (PPP) index. Constant dollars based on national gross domestic product deflators and PPP indexes, available in the OECD database cited in the SOURCE note below. The Organization for Economic Cooperation and Development (OECD) average refers to the mean of the data values for all reporting OECD countries (including those that had been invited to become members and were under review, referred to as the accession process), to which each country reporting data contributes equally. Data are collected for the financial year ending in the reported year for each country. For more information on the financial year reported by OECD countries, see Annex Table X1.3 here: <a href="https://statt.link/3ha70k">https://statt.link/3ha70k</a>. Includes only data that had been validated for consistency and accuracy by OECD and the relevant country as of January 19, 2023. SOURCE: Organization or Economic Cooperation and Development (OECD), Online Education Database. Retrieved January 19, 2023, from <a href="https://statts.oecd.org/Index.aspx.">https://statts.oecd.org/Index.aspx.</a> See Digest of Education Statistics 2022, table 605.10.

A country's wealth is also positively associated with its education expenditures per FTE student at the postsecondary level. At the postsecondary level in 2019, of the 16 countries with a higher GDP per capita than the average of OECD countries, <sup>10</sup>

- 14 countries, including the United States, also had postsecondary education expenditures per FTE student that were higher than the \$18,400 average of OECD countries; and
- 2 countries (Iceland and Ireland) had lower postsecondary education expenditures per FTE student (\$17,100 for each) than the average of OECD countries.

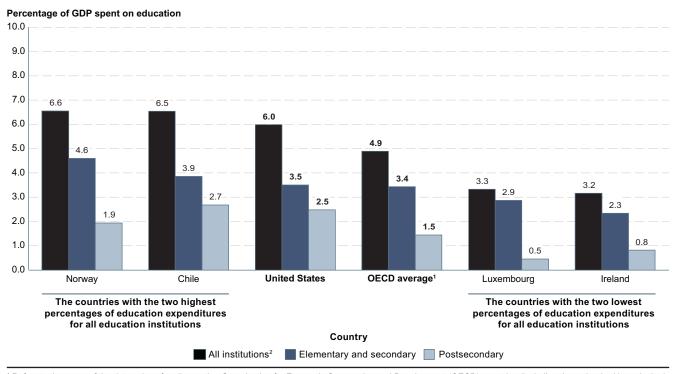
Of the 21 countries with a lower GDP per capita than the average of OECD countries,

- 19 countries also had postsecondary education expenditures per FTE student that were lower than the average of OECD countries; and
- 2 countries had expenditures per FTE student that were higher than the average of OECD countries: New Zealand (\$19,000), and Japan (\$19,900).

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#### **Education Expenditures as a Percentage of GDP**

Figure 5. Government and private expenditures on education institutions as a percentage of gross domestic product (GDP) for selected Organization for Economic Cooperation and Development (OECD) countries, by level of education: 2019



<sup>&</sup>lt;sup>1</sup> Refers to the mean of the data values for all reporting Organization for Economic Cooperation and Development (OECD) countries (including those that had been invited to become members and were under review, referred to as the accession process), to which each country reporting data contributes equally.
<sup>2</sup> Includes expenditures that could not be reported by level of education.

NOTE: Data for Costa Rica and Switzerland are not available for 2019. All data in this table were calculated using International Standard Classification of Education (ISCED) 2011. Expenditures for ISCED level 4 (postsecondary nondegree programs) are included in elementary and secondary education expenditures. Data are collected for the financial year ending in the reported year for each country. For more information on the financial year reported by OECD countries, see Annex Table X1.3 here: <a href="https://stat.link/3ha7ok">https://stat.link/3ha7ok</a>. Includes only data that had been validated for consistency and accuracy by OECD and the relevant country as of October 19, 2022. Detail may not sum to totals because of rounding.

SOURCE: Organization for Economic Cooperation and Development (OECD), Online Education Database. Retrieved October 19, 2022, from <a href="https://stats.oecd.org/Index.aspx">https://stats.oecd.org/Index.aspx</a>. See *Digest of Education Statistics 2022*, table 605.20.

Among the 36 OECD countries reporting data in 2019, the average total expenditures on education institutions constituted 4.9 percent of GDP. Norway reported the highest total expenditures on education institutions as a percentage of GDP (6.6 percent), followed by Chile (6.5 percent), Israel (6.2 percent), Australia (6.1 percent), and the United Kingdom and the United States (both 6.0 percent). Ireland reported the lowest total expenditures on education institutions as a percentage of GDP (3.2 percent), followed by Luxembourg (3.3 percent), Lithuania (3.5 percent), Greece (3.7 percent), Hungary and Italy (both 3.8 percent), the Slovak Republic (3.9 percent), and Japan (4.0 percent).

At the elementary/secondary level, total expenditures as a percentage of GDP in 2019 amounted to

- 4.0 percent or more in 7 countries (highest in Israel at 4.8 percent);
- 3.5 percent in the United States;
- 3.4 percent on average across OECD countries; and
- 2.3 percent (lowest) in Ireland.

At the postsecondary level, total expenditures as a percentage of GDP in 2019 amounted to

- 2.7 percent (highest) in Chile;
- 2.5 percent (second highest) in the United States;
- 1.5 percent on average across OECD countries; and
- 0.5 percent (lowest) in Luxembourg.

In addition to Chile and the United States, Canada (2.2 percent) was the only other country that spent more than 2.0 percent of GDP on postsecondary institutions.

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#### **Endnotes:**

<sup>1</sup> Gross domestic product deflators and purchasing power parity indexes are available at the OECD Online Education Database (https://stats.oecd.org/Index.aspx). The data used for this indicator can be found in the "CPIs and weights by COICOP by country" and "PPPs and exchange rates" tables. For more information on GDP deflators and PPP indexes, please see https://www.oecd-ilibrary.org/sites/ce188438-en/1/3/1/index. html?itemId=/content/publication/ce188438-en& csp =f8e3260 92da6dbbbef8fbfa1b8ad3d52&itemIGO=oecd&itemContentTyp e=book#section-d1e199-6539cc9538 and https://data.oecd.org/ conversion/purchasing-power-parities-ppp.htm.

<sup>2</sup> Costa Rica and Switzerland are excluded from analyses of expenditures per FTE student at the elementary/secondary level because 2019 expenditure data at this education level were not available for these countries.

<sup>3</sup> Throughout this indicator, the "average of OECD countries" refers to the simple average of the individual country values for all reporting OECD countries (including those that had been invited to become members and were under review, referred to as the accession process), to which each country reporting data contributes equally. Countries excluded from some analyses in this indicator may be included in the OECD average.

- <sup>4</sup> See <u>Digest of Education Statistics</u>, table 236.75 for more information on current expenditures on elementary/secondary education by state and jurisdiction.
- <sup>5</sup> Switzerland is excluded from analyses of expenditures per FTE student at the postsecondary level because 2019 expenditure data at this education level were not available.

<sup>6</sup> The 2010 average of OECD countries is based on 28 countries with available data, and the 2019 average of OECD countries is based on 36 countries. Users should exercise caution when comparing averages because of the impact of the inclusion or exclusion of countries from the calculations due to available data. The 2019 average of the 28 OECD countries with data available for both 2010 and 2019 is \$11,200.

<sup>7</sup> The 2010 average of OECD countries is based on 26 countries with available data, and the 2019 average of OECD countries is based on 37 countries. Users should exercise caution when comparing averages because of the impact of the inclusion or exclusion of countries from the calculations due to available data. The 2019 average of the 26 OECD countries with data available for both 2010 and 2019 is \$18,100.

8 In addition to these 16 countries, Switzerland also had a higher GDP per capita than the OECD average, but it is excluded from this analysis because it did not report data for elementary/ secondary education expenditures per FTE student.

9 In addition to these 20 countries, Costa Rica also had a lower GDP per capita than the OECD average, but it is excluded from this analysis because it did not report data for elementary/ secondary education expenditures per FTE student.

<sup>10</sup> In addition to these 16 countries, Switzerland also had a higher GDP per capita than the OECD average, but it is excluded from this analysis because it did not report data for postsecondary education expenditures per FTE student.

Reference tables: Digest of Education Statistics 2022, tables 605.10 and 605.20

Related indicators and resources: Enrollment Rates by Country; International Comparisons: Mathematics and Science Achievement at Grades 4 and 8; International Comparisons: Reading Literacy at Grade 4; International Comparisons: Reading, Mathematics, and Science Literacy of 15-Year-Old Students; International Educational Attainment; Public School **Expenditures** 

Glossary: Constant dollars; Consumer Price Index (CPI); Elementary school; Expenditures per pupil; Full-time-equivalent (FTE) enrollment; Gross domestic product (GDP); International Standard Classification of Education (ISCED); Organization for Economic Cooperation and Development (OECD); Postsecondary education; Purchasing Power Parity (PPP) indexes; Secondary school