

## Education Expenditures by Country

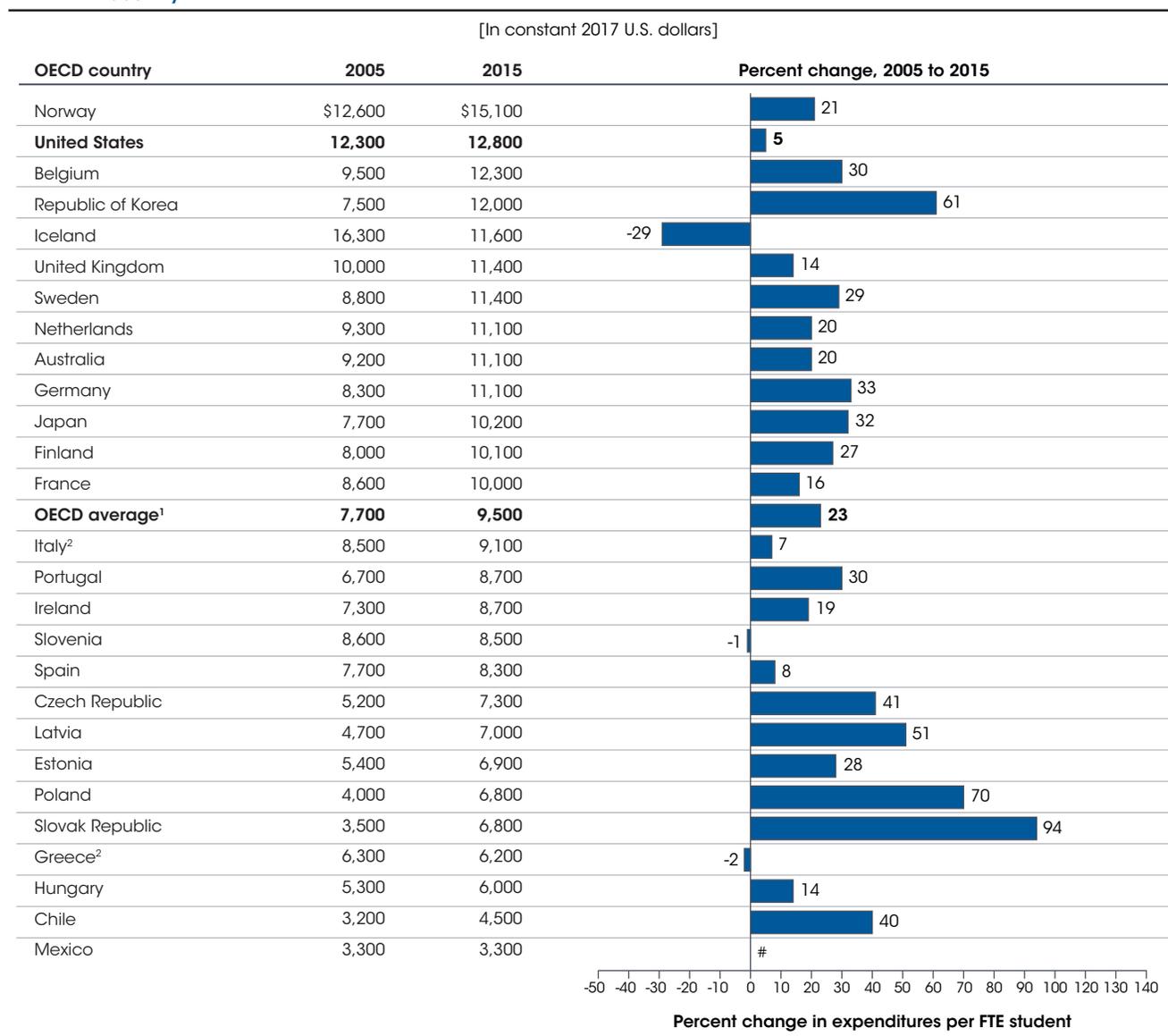
*In 2015, the United States spent \$12,800 per full-time-equivalent (FTE) student on elementary and secondary education, which was 35 percent higher than the Organization for Economic Cooperation and Development (OECD) average of \$9,500 (in constant 2017 U.S. dollars). At the postsecondary level, the United States spent \$31,000 per FTE student, which was 93 percent higher than the average of OECD countries (\$16,100).*

This indicator uses material 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 36 countries 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 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 the educational institution. 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 2017 dollars based on national Consumer Price Indexes.<sup>1</sup>

Expenditures per FTE student at the elementary/secondary level varied widely across OECD countries<sup>2</sup> in 2015, ranging from \$3,300 in Mexico to \$20,900 in Luxembourg. The United States spent \$12,800 per FTE student at the elementary/secondary level, which was 35 percent higher than the average<sup>3</sup> of \$9,500 for OECD member countries reporting data.

Expenditures per FTE student at the postsecondary level also varied across OECD countries in 2015, ranging from \$4,100 in Greece to \$49,900 in Luxembourg. The United States spent \$31,000 per FTE student at the postsecondary level, which was 93 percent higher than the average of \$16,100 for OECD member countries reporting data.

**Figure 1. Expenditures and percentage change in expenditures per full-time-equivalent (FTE) student for elementary and secondary education from 2005 to 2015, by Organization for Economic Cooperation and Development (OECD) country**

# Rounds to zero.

<sup>1</sup> Refers to the mean of the data values for all reporting Organization for Economic Cooperation and Development (OECD) countries, to which each country reporting data contributes equally. The average includes all current OECD countries for which a given year's data are available, even if they were not members of OECD in that year.

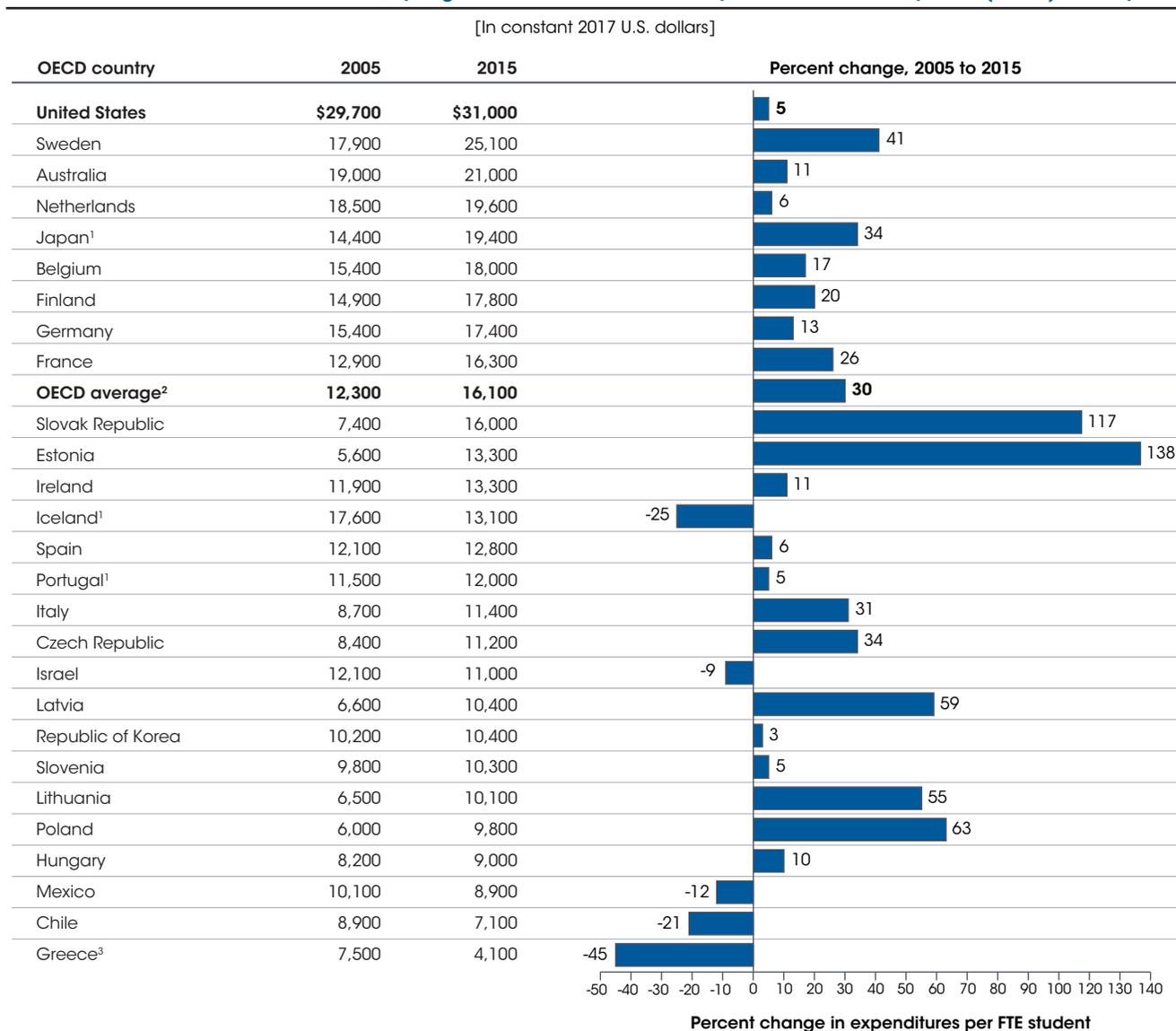
<sup>2</sup> Education expenditures exclude postsecondary non-higher education.

NOTE: Austria, Canada, Denmark, Israel, Lithuania, Luxembourg, New Zealand, Switzerland, and Turkey are excluded from this figure because data on expenditures were not available for either 2005 or 2015. Includes both government and private expenditures. Expenditures for International Standard Classification of Education (ISCED) level 4 (postsecondary non-higher education) are included in elementary and secondary education unless otherwise noted. Data adjusted to U.S. dollars using the purchasing power parity (PPP) index. Constant dollars based on national Consumer Price Indexes, available on the OECD database cited in the SOURCE note below. 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 11, 2019, from <https://stats.oecd.org/Index.aspx>. See *Digest of Education Statistics 2018*, table 605.10.

Across OECD countries, expenditures per FTE student at the elementary/secondary level were generally higher in 2015 than in 2005, after adjusting for inflation. Countries with the highest expenditures per FTE student at the elementary/secondary level in 2015 generally had among the highest expenditures in 2005, and countries with the lowest expenditures per FTE student at this level in 2015 generally had among the lowest expenditures in 2005. In 2015, the average of OECD countries' expenditures per FTE student at the elementary/secondary level was \$9,500, compared with \$7,700 in 2005. Of the 27 OECD countries with data available in both years, the average expenditures per FTE student at the elementary/

secondary level were higher in 2015 than in 2005 in 23 countries, including the United States. In the United States, expenditures per FTE student were 5 percent higher in 2015 (\$12,800) than in 2005 (\$12,300). Of the 23 countries with expenditures per FTE student that were higher in 2015 than in 2005, the percentage increases ranged from a low of 5 percent in the United States to a high of 94 percent in the Slovak Republic. Three countries (Iceland, Greece, and Slovenia) had expenditures per FTE student at the elementary/secondary level that were lower in 2015 than in 2005. In Mexico, expenditures per FTE student at the elementary/secondary level were nearly the same in 2015 as in 2005 (both \$3,300).

**Figure 2. Expenditures and percentage change in expenditures per full-time-equivalent (FTE) student for postsecondary education from 2005 to 2015, by Organization for Economic Cooperation and Development (OECD) country**

<sup>1</sup> Postsecondary non-higher education included in both secondary and postsecondary education in one or both data years (2005 and 2015).

<sup>2</sup> Refers to the mean of the data values for all reporting Organization for Economic Cooperation and Development (OECD) countries, to which each country reporting data contributes equally. The average includes all current OECD countries for which a given year's data are available, even if they were not members of OECD in that year.

<sup>3</sup> 2015 education expenditures include public institutions only.

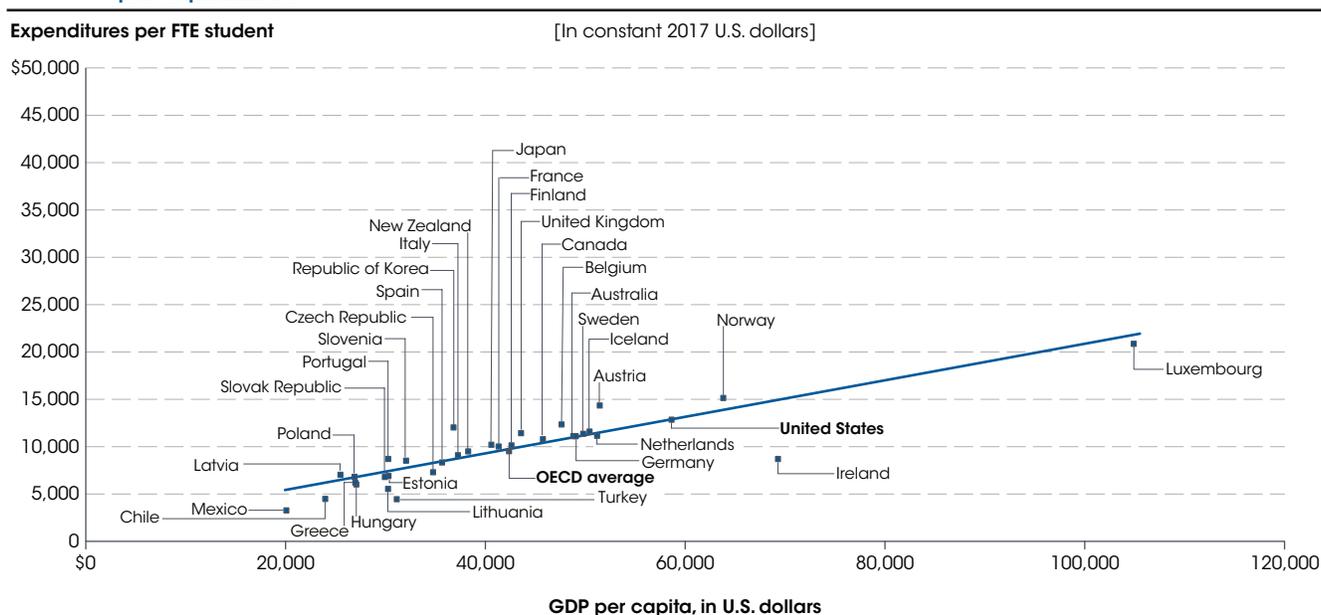
NOTE: Austria, Canada, Denmark, Luxembourg, New Zealand, Norway, Switzerland, Turkey, and the United Kingdom are excluded from this figure because data on expenditures were not available for either 2005 or 2015. Includes both government and private expenditures. Data adjusted to U.S. dollars using the purchasing power parity (PPP) index. Constant dollars based on national Consumer Price Indexes, available on the OECD database cited in the SOURCE note below. 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 11, 2019, from <https://stats.oecd.org/Index.aspx>. See *Digest of Education Statistics 2018*, table 605.10.

In 2015, the average of OECD countries' expenditures per FTE student at the postsecondary level was \$16,100, compared with \$12,300 in 2005. Of the 27 OECD countries with data available in both years, expenditures per FTE student at the postsecondary level were higher in 2015 than in 2005 in 22 countries, including the United States. In the United States, expenditures per FTE student at the postsecondary level were 5 percent higher in 2015 (\$31,000) than in 2005 (\$29,700). Of the 22 countries with expenditures per FTE student that were higher in 2015 than in 2005, the percentage increase in

expenditures per FTE student at the postsecondary level ranged from a low of 3 percent in the Republic of Korea to a high of 138 percent in Estonia. While the United States had among the smallest percentage increases in expenditures per FTE student at the postsecondary level between 2005 and 2015, it had the highest expenditures per FTE student in both 2005 and 2015 among the OECD countries reporting data in both years. Five countries (Greece, Iceland, Chile, Mexico, and Israel) had expenditures per FTE student at the postsecondary level that were lower in 2015 than in 2005.

**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: 2015**



— Linear relationship between spending and country wealth for 33 OECD countries reporting data (elementary/secondary):  $r^2 = .77$ ; slope = 0.19; intercept = 1,675. NOTE: Denmark, Israel, and Switzerland are excluded from this figure because data on expenditures were not available in 2015. Includes both government and private expenditures. GDP per capita data are estimated or provisional for Greece, Mexico, and Turkey. Expenditures for International Standard Classification of Education (ISCED) level 4 (postsecondary non-higher education) are included in elementary and secondary education unless otherwise noted. Data on expenditures for Canada, Greece, and Italy do not include postsecondary non-higher education. Data on expenditures for Canada include preprimary education. Data adjusted to U.S. dollars using the purchasing power parity (PPP) index. Constant dollars based on national Consumer Price Indexes, available on the OECD database cited in the SOURCE note below. "OECD average" refers to the mean of the data values for all reporting Organization for Economic Cooperation and Development (OECD) countries, to which each country reporting data contributes equally. The average includes all current OECD countries for which a given year's data are available, even if they were not members of OECD in that year. SOURCE: Organization for Economic Cooperation and Development (OECD), Online Education Database, retrieved January 11, 2019, from <https://stats.oecd.org/Index.aspx>. See *Digest of Education Statistics 2018*, table 605.10.

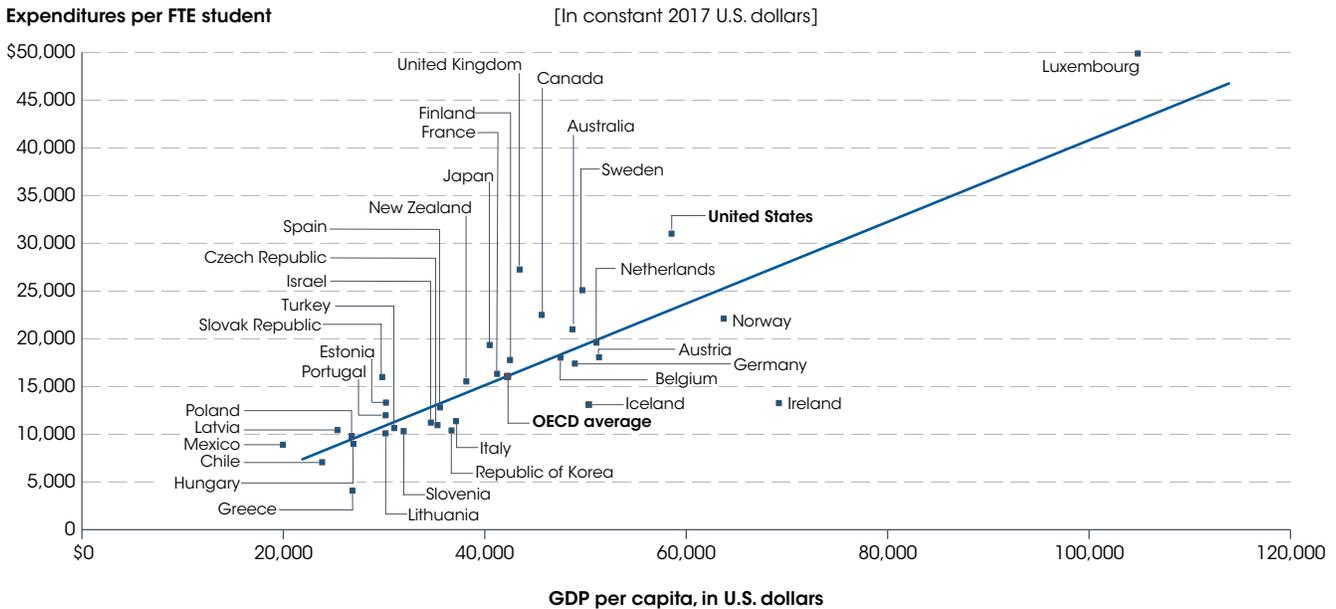
A country's wealth (defined as GDP per capita) is positively associated with its education expenditures per FTE student at the elementary/secondary and postsecondary levels. In 2015, of the 14 countries with a GDP per capita greater than the average of OECD countries that also reported data for elementary/secondary education expenditures per FTE student, 13 countries had elementary/secondary education expenditures per

FTE student that were higher than the average of OECD countries. These 13 countries were Luxembourg, Norway, the United States, Austria, the Netherlands, Iceland, Sweden, Germany, Australia, Belgium, Canada, the United Kingdom, and Finland. The exception was Ireland, which had lower elementary/secondary expenditures per FTE student than the average of OECD countries (\$8,700 vs. \$9,500).

Of the 19 countries with a GDP per capita lower than the average of OECD countries that also reported data for elementary/secondary education expenditures per FTE student, 16 countries also had elementary/secondary education expenditures per FTE student that were lower than the average of OECD countries. These 16 countries were New Zealand, Italy, Spain, the Czech Republic,

Slovenia, Turkey, Estonia, Portugal, Lithuania, the Slovak Republic, Hungary, Greece, Poland, Latvia, Chile, and Mexico. The exceptions were France, Japan, and the Republic of Korea, which had expenditures per FTE student at the elementary/secondary level that were higher than the average of OECD countries.

**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: 2015**

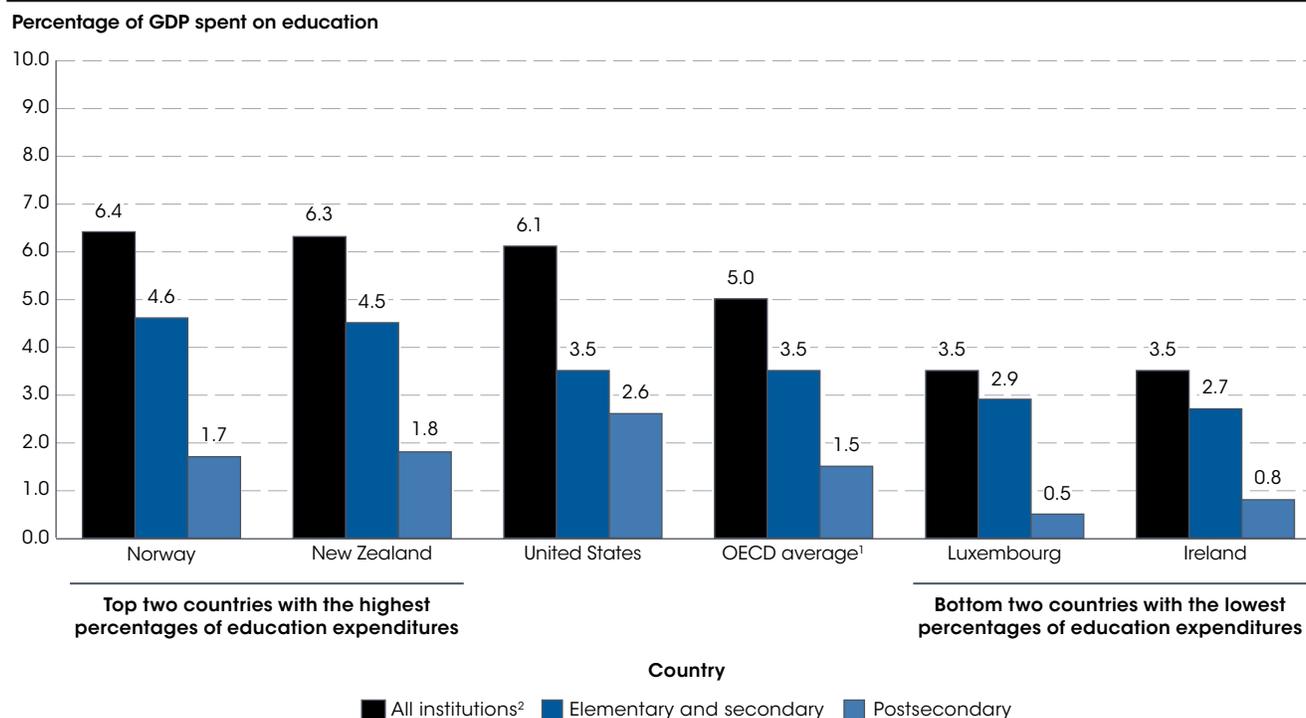


NOTE: Denmark, Israel, and Switzerland are excluded from this figure because data on expenditures were not available in 2015. Includes both government and private expenditures. GDP per capita data are estimated or provisional for Greece, Mexico, and Turkey. Expenditures for International Standard Classification of Education (ISCED) level 4 (postsecondary non-higher education) are included in elementary and secondary education unless otherwise noted. Data on expenditures for Canada, Greece, and Italy do not include postsecondary non-higher education. Data on expenditures for Canada include preprimary education. Data adjusted to U.S. dollars using the purchasing power parity (PPP) index. Constant dollars based on national Consumer Price Indexes, available on the OECD database cited in the SOURCE note below. "OECD average" refers to the mean of the data values for all reporting Organization for Economic Cooperation and Development (OECD) countries, to which each country reporting data contributes equally. The average includes all current OECD countries for which a given year's data are available, even if they were not members of OECD in that year. SOURCE: Organization for Economic Cooperation and Development (OECD), Online Education Database, retrieved January 11, 2019, from <https://stats.oecd.org/Index.aspx>. See *Digest of Education Statistics 2018*, table 605.10.

At the postsecondary level in 2015, of the 14 countries with a GDP per capita that was higher than the average of OECD countries that also reported data for postsecondary education expenditures per FTE student, 12 also had postsecondary education expenditures per FTE student that were higher than the average of OECD countries. The two exceptions were Ireland and Iceland, both of which had lower expenditures per FTE student at the postsecondary level (\$13,300 and \$13,100, respectively) than the average of OECD countries (\$16,100). Of

the 20 countries with a lower GDP per capita than the average of OECD countries that also reported data for postsecondary education expenditures per FTE student, 18 countries had education expenditures per FTE student that were lower than the average of OECD countries at the postsecondary level. The two exceptions were Japan and France; both countries reported higher postsecondary expenditures per FTE student (\$19,400 and \$16,300, respectively) than the average of OECD countries.

**Figure 5. Government and private expenditures on education institutions as a percentage of gross domestic product (GDP) for Organization for Economic Cooperation and Development (OECD) countries with the two highest and lowest percentages of expenditures for all institutions, by level of education: 2015**



<sup>1</sup> Refers to the mean of the data values for all reporting Organization for Economic Cooperation and Development (OECD) countries, to which each country reporting data contributes equally. The average includes all current OECD countries for which a given year's data are available, even if they were not members of OECD in that year.

<sup>2</sup> Includes expenditures that could not be reported by level of education.

NOTE: Expenditures for International Standard Classification of Education (ISCED) level 4 (postsecondary non-higher education) are included in elementary and secondary education. Although rounded numbers are displayed, the figures are based on unrounded data.

SOURCE: Organization for Economic Cooperation and Development (OECD), Online Education Database, retrieved November 28, 2018, from <https://stats.oecd.org/Index.aspx>. See *Digest of Education Statistics 2018*, table 605.20.

Among the 34 OECD countries reporting data in 2015, there were 17 countries that spent a higher percentage of GDP on total government and private expenditures on education institutions than the average of OECD countries of 5.0 percent. Norway reported the highest total education expenditures as a percentage of GDP (6.4 percent), followed by New Zealand (6.3 percent), the United Kingdom (6.2 percent), and the United States (6.1 percent). Conversely, 17 countries spent a percentage of GDP on total education expenditures that was lower than the average of OECD countries. Ireland and Luxembourg reported the lowest total education expenditures as a percentage of GDP (both 3.5 percent), followed by Hungary, the Czech Republic, and Greece (all 3.8 percent).

In terms of countries' total government and private expenditures on education institutions by education level in 2015, the percentage of GDP that the United States spent on elementary/secondary education (3.5 percent)

was nearly the same as the average of OECD countries. Fifteen other countries also spent a percentage of GDP on elementary/secondary education that was greater than or equal to the average of OECD countries. Seven of these 16 total countries spent 4.0 percent or more of GDP on elementary/secondary education. In contrast, 18 countries spent a percentage of GDP on elementary/secondary education that was less than the average of OECD countries.

At the postsecondary level, the percentage of GDP that the United States spent on total government and private expenditures (2.6 percent) was higher than the average of OECD countries (1.5 percent) and higher than the percentages of all other OECD countries reporting data. In addition to the United States, only three other countries spent 2.0 percent or more of GDP on postsecondary education: Canada (2.4 percent), Australia (2.0 percent), and Chile (2.0 percent).

**Endnotes:**

<sup>1</sup> National Consumer Price Indexes are available at the OECD Online Education Database (<https://stats.oecd.org/Index.aspx>).

<sup>2</sup> Denmark and Switzerland are excluded from all analyses on expenditures on public and private education institutions per FTE student because expenditure data at the elementary/secondary and postsecondary levels were not available in 2015.

Israel is excluded from analyses of expenditures per FTE student at the elementary/secondary level because 2015 expenditure data were not available for this level.

<sup>3</sup> Average of OECD countries reported are the simple average of the individual country values.

**Reference tables:** *Digest of Education Statistics 2018*, tables 605.10 and 605.20

**Related indicators and resources:** [Enrollment Rates by Country](#); [International Comparisons: Reading Literacy at Grade 4](#); [International Comparisons: Science, Reading, and Mathematics Literacy of 15-Year-Old Students](#); [International Comparisons: U.S. 4th-, 8th-, and 12th-Graders' Mathematics and Science Achievement](#); [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