COUNTRY NOTE

EDUCATION AT A GLANCE 2020

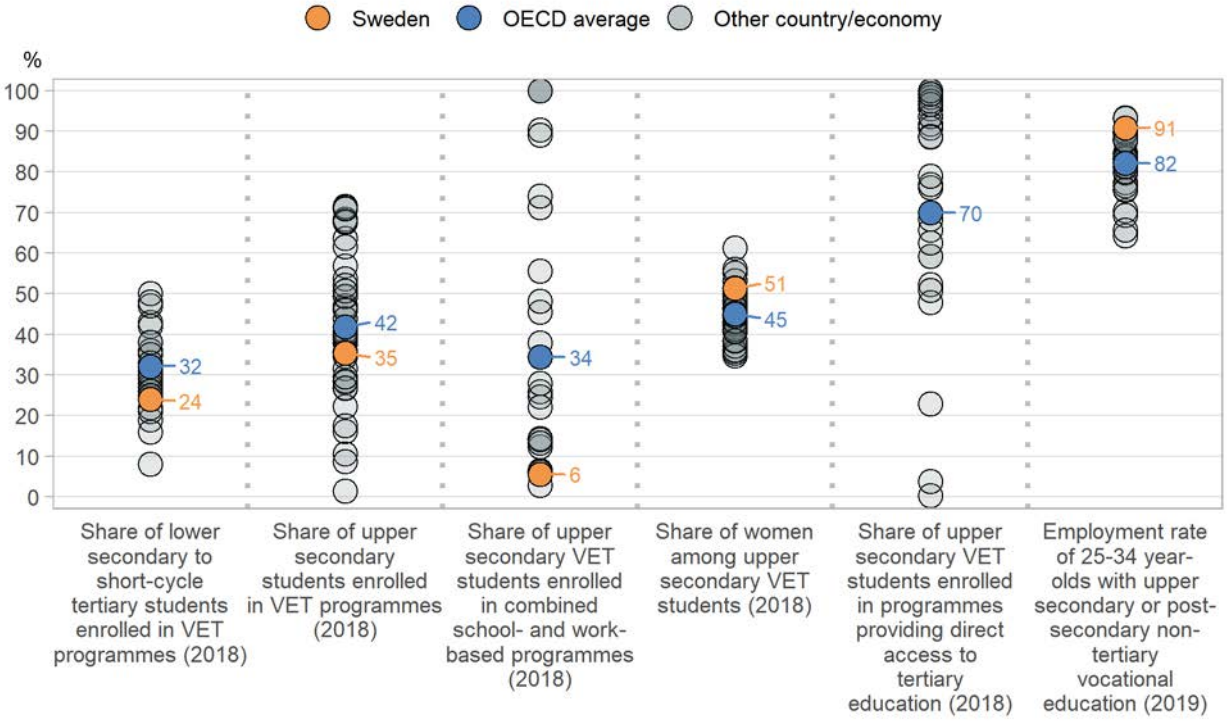
Education at a Glance: OECD Indicators is the authoritative source for information on the state of education around the world. It provides data on the structure, finances and performance of education systems in OECD and partner countries.

Sweden

Participation and outcomes of vocational education and training

- Vocational education and training (VET) programmes attract a diverse range of students, including those seeking qualifications and technical skills to enter the labour market, adults wishing to increase their employability by developing their skills further, and students who may seek entry into higher education later on.
- About one in three students from lower secondary to short-cycle tertiary level are enrolled in a VET programme on average across OECD countries. However, there are wide variations across countries, ranging from less than 20% of students enrolled in vocational education to more than 45% in a few countries. In Sweden, 24% of students are enrolled in vocational programmes, lower than the OECD average (32%), with the majority of lower secondary to short-cycle tertiary VET students (83%) found in upper secondary education (Figure 1).

Figure 1. Snapshot of vocational education



Note: Only countries and economies with available data are shown. The years shown in parentheses is the most common year of reference for OECD and partner countries. Refer to the source table for more details.
Source: OECD (2020), indicator A3 and B7. See Education at a Glance Database. http://stats.oecd.org/ for more information and Annex 3 for notes (https://doi.org/10.1787/69096873-en).

- VET is an important part of upper secondary education in most OECD countries. On average, 35% of all upper secondary students opt for VET programmes in Sweden, a lower proportion than the OECD average of 42% (Figure 1). Certain fields of study are more common than others at this level. In Sweden, the most common broad field is engineering, manufacturing and construction with 44% of upper secondary vocational graduates earning a qualification in this field, compared to 33% on average across OECD countries.
- The organisation and delivery of upper secondary VET programmes varies considerably from country to country. In combined school- and work-based programmes, between 25% and 90% of the curriculum is taught as work-based learning, while the remainder is organised within the school environment. In Sweden, 6% of upper secondary vocational students are enrolled in combined school- and work-based programmes, which is lower than the OECD average of 34% (Figure 1).
- The average age of enrolment in upper secondary vocational programmes across OECD countries (21 years) tends to be higher than for general programmes (17 years), a pattern also found in Sweden. The average age of enrolment in upper secondary education is higher for students in vocational programmes (24 years) than for students in general programmes (21 years). The share of upper secondary vocational students tends to increase with age. This is not the case in Sweden, where the share of upper secondary students enrolled in VET is 32% among 15-19 year-olds (OECD average: 37%), and 32% among 20-24 year-olds (OECD average: 62%).
- Vocational upper secondary students are typically less likely to complete their qualification than those from general programmes. Sweden follows this pattern as the completion rate for upper secondary education (within the theoretical duration of the programme) is lower among students enrolled in vocational programmes (71%) than among those in general ones (76%).
- To support upper secondary vocational students' transition to post-secondary education and improve their career prospects, many countries have created direct pathways from vocational programmes to higher levels of education. This is less the case in Sweden where vocational programmes are mostly designed for direct entry into the labor market. Although most upper secondary vocational students are enrolled in programmes that do not offer the chance of direct access to tertiary education, they are can take additional courses to gain eligibility to the level.
- In 2019, 21% of 25-34 year-olds in Sweden held an upper secondary or post-secondary non-tertiary vocational qualification as their highest educational level while 14% held a general one. The employment rate of younger adults with a vocational upper secondary or post-secondary non-tertiary education tend to be higher than the employment rate of those with general qualifications at this level (by 9 percentage points on average across OECD countries). Sweden follows this pattern, as 91% of 25-34 year-olds with an upper secondary or post-secondary non-tertiary vocational qualification are employed compared with 72% of those with a general qualification (Figure 1).
- In some countries, including Sweden, the employment rate of younger adults with upper secondary vocational programmes is higher than for adults with tertiary education. Most of these countries have upper secondary or post-secondary vocational programmes with strong and integrated work-based learning or/and vocational programmes designed to offer students direct entry to the labour market. Similarly to most OECD countries, the employment advantage in Sweden decreases with age. Among 45-54 year-olds, this employment rate of adults with vocational upper secondary or post-secondary non-tertiary qualification is 93% and 89% for adults with a general qualification.
- On average across OECD countries, adults with an upper secondary or post-secondary non-tertiary vocational education have similar earnings to their peers with a general education at this level. While the difference in relative earnings between adults with general and vocational upper secondary or post-secondary non-tertiary attainment is less than 5 percentage points in about one quarter of OECD and partner countries, it is 7 percentage points in favour of general qualifications in Sweden.

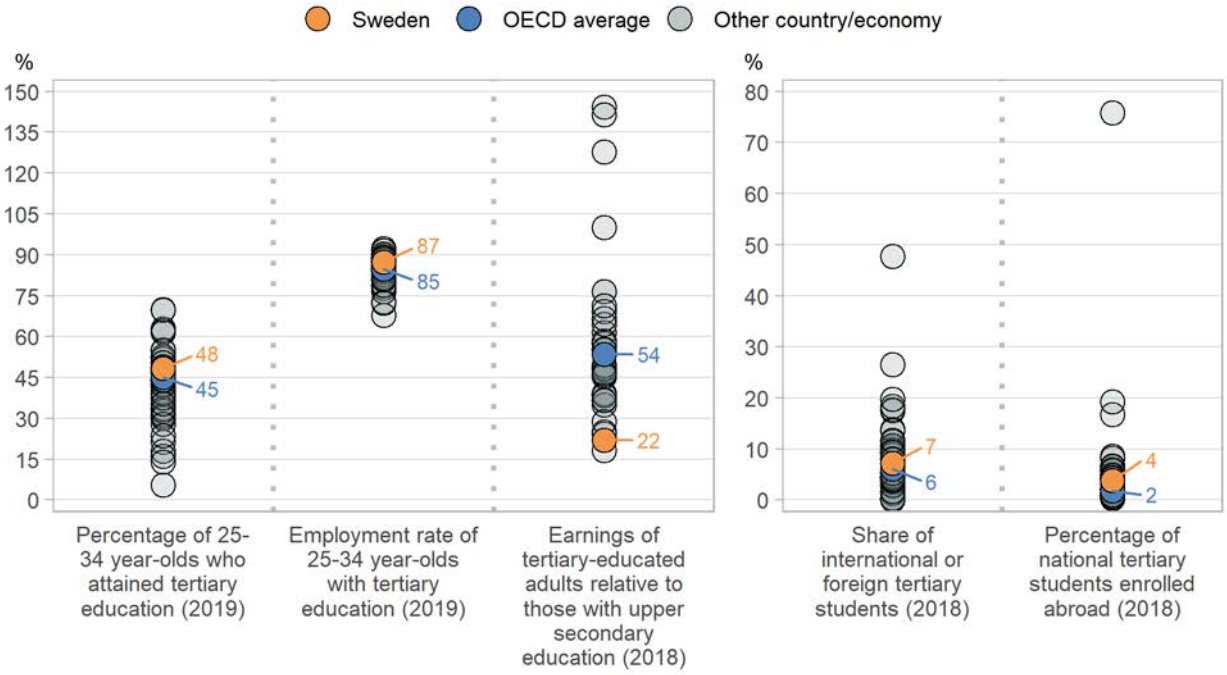
- Poorer labour-market prospects of VET qualifications combined with higher tertiary attainment may have contributed to the decline in the share of adults with an upper secondary vocational qualification across generations in many countries. In Sweden, among those with upper secondary or post-secondary non-tertiary education as their highest attainment, 64% of 55-64 year-olds (older adults), compared with 59% of 25-34 year-olds (younger adults) held a vocational qualification. In comparison, the equivalent OECD averages are 72% for older adults and 59% for younger adults.

The rising demand for tertiary education

- The expansion of tertiary education is a worldwide trend. Between 2009 and 2019, the share of 25-34 year-olds with a tertiary degree increased in all OECD and partner countries. In Sweden, the share increased by 6 percentage points during this period, lower than the average increase across OECD countries (9 percentage points). In 2019, 48% of 25-34 year-olds had a tertiary degree in Sweden compared to 45% on average across OECD countries (Figure 2).
- From the gender perspective, younger women are more likely than younger men to achieve tertiary education in all OECD countries. In Sweden, 56% of 25-34 year-old women had a tertiary qualification compared to 41% of their male peers, while on average across OECD countries the shares are 51% of younger women and 39% of younger men.
- In Sweden, the average age of first-time entrants to tertiary education in 2018 was 25 years, higher than the OECD average of 22 years. Structural factors, such as admission procedures, the typical age at which students graduate from upper secondary education, or cultural perceptions of the value of professional or personal experiences outside of education may explain the differences in the average age of entry to tertiary education across countries.
- If current entry patterns continue, it is estimated that 49% of young adults will enter tertiary education for the first time in their life before the age of 25 on average across OECD countries (excluding international students). In Sweden, 41% of young adults will enter tertiary education by that age and most of them will enter at bachelor's or equivalent level.
- Short-cycle tertiary programmes are generally designed to be vocationally oriented and represent the second most common route of entry into tertiary education on average across OECD countries, after bachelor’s programmes. If current entry patterns continue, 3% of adults are expected to enter short-cycle tertiary education before the age of 25 in Sweden, compared to 10% on average across OECD countries. In Sweden, women make up 50% of students in such programmes, compared to 52% on average across OECD countries.
- Young people can face barriers to labour market entry as they transition from school to work, but higher educational attainment increases their likelihood of being employed and is associated with higher incomes. On average across OECD countries, the employment rate in 2019 was 61% for 25-34 year-olds without upper secondary education, 78% for those with upper secondary or post-secondary non-tertiary education as their highest attainment and 85% for those with tertiary education. In Sweden, the shares are 65% for below upper secondary, 83% for upper secondary or post-secondary non-tertiary and 87% for tertiary attainment. Having a tertiary degree also carries a considerable earnings advantage in most OECD and partner countries. In Sweden, in 2018, 25-64 year-olds with a tertiary degree with income from full-time, full-year employment earned 22% more than full-time, full-year workers with upper secondary education compared to 54% on average across OECD countries (Figure 2).
- International student mobility has been expanding quite consistently in the past twenty years. In 2018, 5.6 million tertiary students worldwide had crossed a border to study, more than twice the number in 2005. In Sweden, the share of foreign or international students increased from 6% in 2014 to 7% in 2018. Meanwhile 4% of Swedish tertiary students are enrolled abroad compared to 2% in total across OECD countries (Figure 2). English-speaking countries are the most attractive

student destinations overall in the OECD area, with Australia, Canada, the United Kingdom and the United States receiving more than 40% of all internationally mobile students in OECD and partner countries. Among students leaving Sweden to study, the most popular destination country is the United States.

Figure 2. Snapshot of tertiary education



Note: Only countries and economies with available data are shown. The years shown in parentheses is the most common year of reference for OECD and partner countries. Refer to the source table for more details.
Source: OECD (2020), indicator A1, A3, A4 and B6. See Education at a Glance Database http://stats.oecd.org/for more information and Annex 3 for notes (https://doi.org/10.1787/69096873-en).

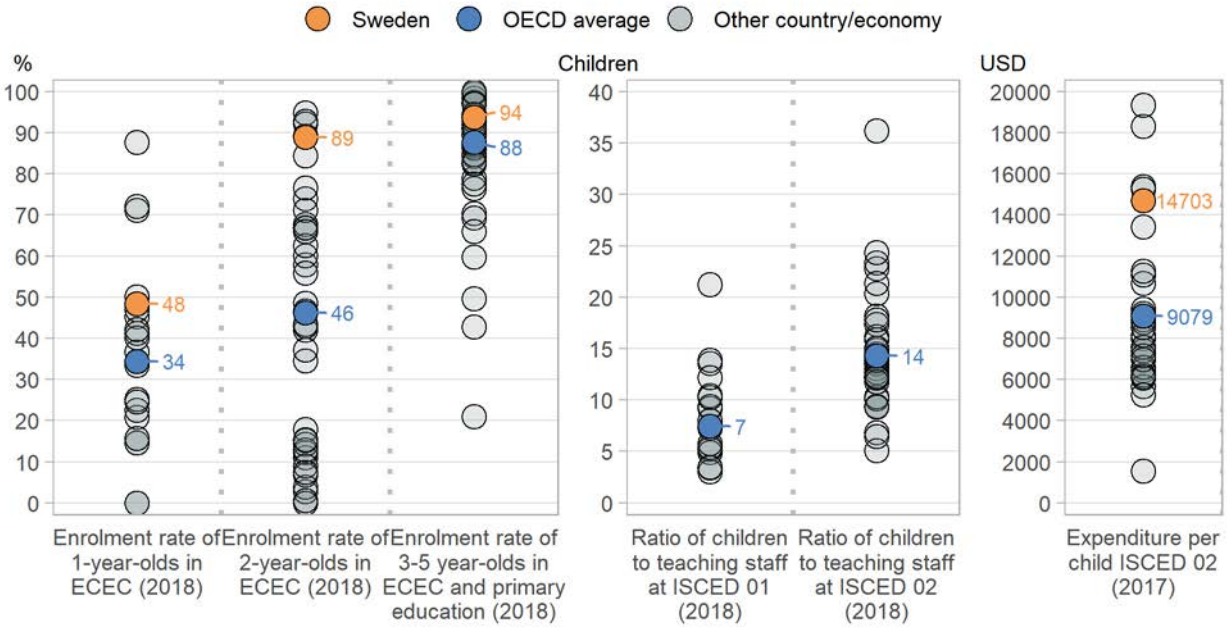
Starting strong

- Early childhood education and care (ECEC) has experienced a surge of policy attention in OECD countries in recent decades, with a focus on children under the age of 3 in many countries. In Sweden, 48% of 1-year-olds were enrolled in a formal ECEC programme (ISCED 0) in 2018, above the OECD average of 34%. Among 2-year-olds, the enrolment rate at ISCED 0 is 89% in Sweden, 43 percentage points above the OECD average of 46% (Figure 3).
- In many OECD countries, ECEC begins for most children long before they turn 5 and there are universal legal entitlements to a place in ECEC services for at least one or two years before the start of compulsory schooling. While compulsory education begins at age 6 in Sweden, 94% of 3-5 year-olds in 2018 are enrolled in ECEC programmes and primary education in Sweden, compared to 88% on average across OECD countries (Figure 3).
- Public provision of early childhood education and care is an important factor in ensuring broad access to affordable ECEC. On average across OECD countries, more than one in two of the children in early childhood educational development services (ISCED 01) are enrolled in private institutions. In Sweden, 20% of children enrolled in ISCED 01 programmes attend private ECEC institutions. Enrolment in private institutions is usually less common for 3-5 year-olds, who are

usually enrolled in pre-primary education (ISCED 02), than for younger children. In Sweden, 18% of children attending pre-primary education are enrolled in private institutions, compared to one in three children on average across OECD countries.

- Sustained public financial support is critical for the growth and quality of ECEC programmes. In 2017, annual total expenditure in pre-primary settings (ISCED 02) averaged USD 14 703 per child in Sweden, higher than the average across OECD countries (USD 9 079) (Figure 3).

Figure 3. Snapshot of early childhood education and care



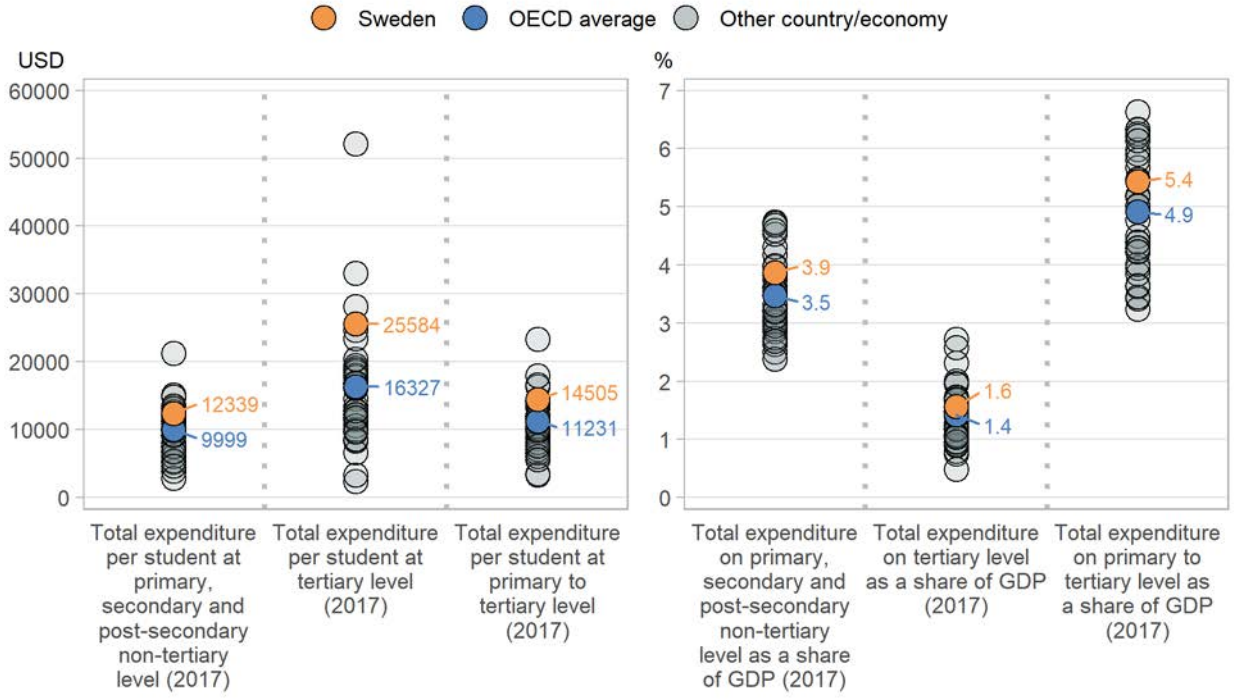
Note: Only countries and economies with available data are shown. Annual expenditure per child is shown in equivalent USD converted using PPPs. The years shown in parentheses is the most common year of reference for OECD and partner countries. Refer to the source table for more details.
Source: OECD (2020), indicator B2. See Education at a Glance Database http://stats.oecd.org/ for more information and Annex 3 for notes (https://doi.org/10.1787/69096873-en).

Investing in education

- Annual expenditure per student on educational institutions from primary to tertiary level provides an indication of the investment countries make in each student. In 2017, Sweden spent more on primary to tertiary educational institutions per full-time student than the OECD average, investing a total of USD 14 505 per student compared to USD 11 231 on average across OECD countries (Figure 4).
- The way education is provided influences how resources are allocated between levels of education and between public and private institutions. In 2017, Sweden spent USD 12 339 per student at non-tertiary level (primary, secondary and post-secondary non-tertiary education), USD 2 340 higher than the OECD average of USD 9 999. At tertiary level, Sweden invested USD 25 584 per student, USD 9 257 more than the OECD average (Figure 4). Expenditure on research and development represents more than half of total expenditure at this level compared to about a third on average across OECD countries.

- Expenditure per student on private educational institutions is higher than on public institutions on average across OECD countries. However, this is not the case in Sweden, where total expenditure on public institutions from primary to tertiary level amounts to USD 14 846 per student, compared to USD 12 545 on private ones.
- In most OECD countries, expenditure per upper secondary student varies according to programme orientation. Spending per student on upper secondary vocational programmes tends to be higher than for upper secondary general ones due to the higher cost of equipment, lower student-to-teacher ratios, and work-based requirements of such programmes. On average across OECD countries, expenditure per student in upper secondary vocational programmes was USD 1 470 higher than in general programmes in 2017. Sweden follows the same pattern: spending per student amounted to USD 14 723 in upper secondary vocational programmes, USD 3 646 higher than spending per student on general ones at the same level.
- The share of national wealth devoted to educational institutions is higher in Sweden than on average among OECD countries. In 2017, Sweden spent 5.4% of gross domestic product (GDP) on primary to tertiary educational institutions, which is 0.5 percentage points higher than the OECD average. Across levels of education, Sweden devoted an above average share of GDP than the OECD average at non-tertiary levels and a slightly above average share at tertiary level (Figure 4).
- Between 2012 and 2017, expenditure per student from primary to tertiary education increased by an average annual growth rate of 1.3% across OECD countries. In Sweden, expenditure on educational institutions grew at an average rate of 3% a year, while the number of students grew on average by 2.4% per year. This resulted in an average annual growth rate of 0.6% in expenditure per student over this period.
- There are no tuition fees for a bachelor's degree for national students in Sweden but loans can be granted to cover living expenses. While loans may reduce the upfront cost, students are required to repay them once they start work. In Sweden, students' average debt on graduation is USD 19 416.
- Capital costs represent a lower than average share of expenditure on primary to tertiary institutions in Sweden. At primary, secondary and post-secondary non-tertiary level, capital costs account for 4% of total spending on educational institutions, 3 percentage points below the OECD average. At the tertiary level, capital costs represent 4%, lower than the average across OECD countries of 10%.
- Compensation of teachers and other staff employed in educational institutions represents the largest share of current expenditure from primary to tertiary education. In 2017, Sweden allocated 67% of its current expenditure to staff compensation, compared to 74% on average across OECD countries. Staff compensation tends to make up a smaller share of current expenditure on tertiary institutions due to the higher costs of facilities and equipment at this level. In Sweden, staff compensation represents 65% of current expenditure on tertiary institutions compared to 68% at non-tertiary levels. On average across OECD countries, the share is 67% at tertiary level and 77% at non-tertiary level.

Figure 4. Snapshot of the financial resources invested in educational institutions



Note: Only countries and economies with available data are shown. Expenditure in national currencies is converted into equivalent USD by dividing the national currency figure by the purchasing power parity (PPP) index for GDP. The years shown in parentheses is the most common year of reference for OECD and partner countries. Refer to the source table for more details.
Source: OECD (2020), indicator C1 and C2. See Education at a Glance Database http://stats.oecd.org/ for more information and Annex 3 for notes (https://doi.org/10.1787/69096873-en).

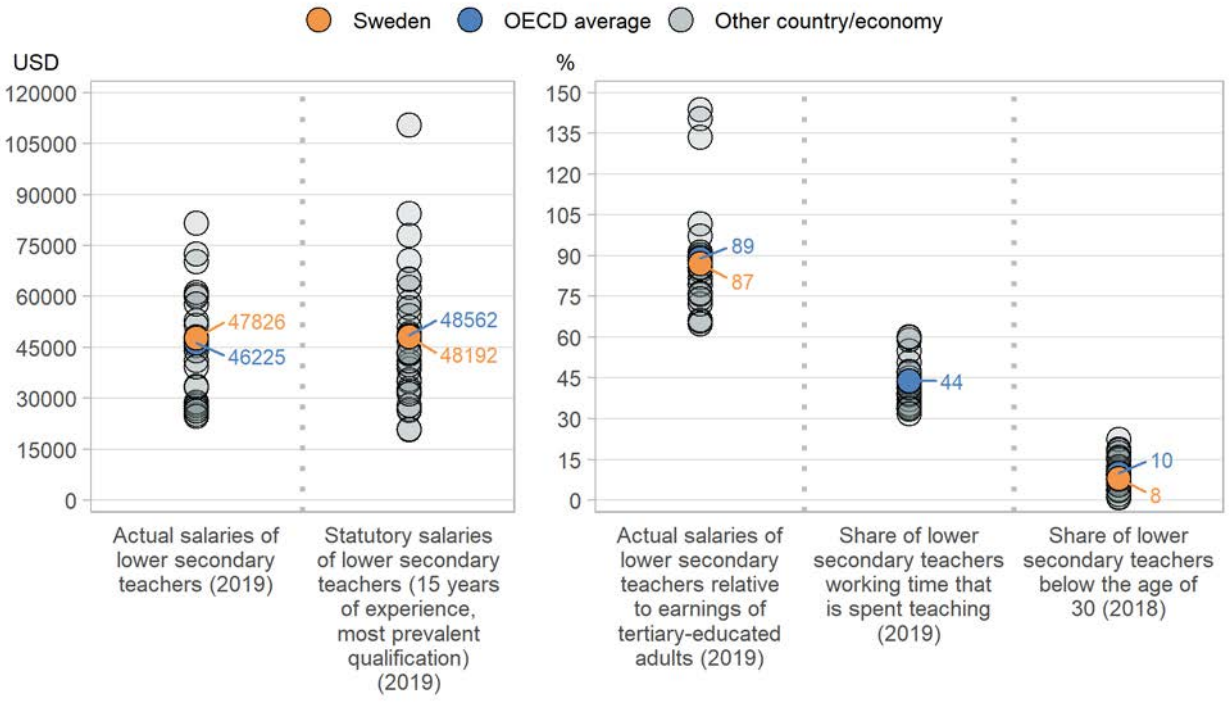
Working conditions of school teachers

- The salaries of school staff, and in particular teachers and school heads, represent the largest single expenditure in formal education. Their salary levels also have a direct impact on the attractiveness of the teaching profession. In most OECD countries and economies, statutory salaries of teachers (and school heads) in public educational institutions increase with the level of education they teach. In most OECD countries and economies, they also increase with experience. On average, statutory salaries of teachers with maximum qualifications at the top of their salary scales are 78-80% higher than those of teachers with the minimum qualifications at the start of their career at pre-primary (ISCED 02), primary and general lower and upper secondary levels. In Sweden, maximum actual salaries are 17% to 32% higher than minimum salaries at each level of education.
- Between 2005 and 2019, the statutory salaries of teachers with 15 years of experience and the most prevalent qualifications increased between 5-7% at primary and general lower and upper secondary levels, on average across OECD countries, despite a decrease of salaries following the 2008 financial crisis. In Sweden, teachers' salaries at these levels increased by 20%-29%.
- Teachers' actual salaries reflect their statutory salaries and additional work-related payments. Average actual salaries depend also on the characteristics of the teaching population such as their age, level of experience and qualification level. In Sweden, teachers' average actual salaries amount to USD 40 627 at the pre-primary level (ISCED 02) (slightly higher than the OECD average of USD 38 677), USD 46 032 at the primary level (slightly higher than the OECD average of

USD 43 942), USD 47 826 at the general lower secondary level (slightly higher than the OECD average of USD 46 225) and USD 48 849 at the general upper secondary level (slightly lower than the OECD average of USD 49 778) (Figure 5).

- Teachers' average actual salaries remain lower than those of tertiary-educated workers in almost all countries, and at almost all levels of education. Teachers' average actual salaries at pre-primary (ISCED 02), primary and general secondary levels of education are 80-94% of the earnings of tertiary-educated workers on average across OECD countries and economies. In Sweden, the proportion ranges from 74% at pre-primary level (ISCED 02) 84% at primary level to 87% at lower secondary level and 89% at the upper secondary level (Figure 5).
- Large proportions of teachers in many OECD countries will reach retirement age in the next decade, while the size of the school-age population is projected to increase in some countries, putting many governments under pressure to recruit and train new teachers. In Sweden, 10% of primary teachers are considered young teachers (under the age of 30), which is lower than the OECD average of 12%. On average across OECD countries, the proportion of young teachers decreases at other levels of education, to 10% in lower secondary education and 8% in upper secondary education. In Sweden, the proportion of young teachers decreases to 8% at lower secondary level and to 6% at upper secondary level (Figure 5).

Figure 5. Snapshot of teachers' working conditions



Note: Only countries and economies with available data are shown. Teachers' salaries are shown in equivalent USD converted using PPPs. The years shown in parentheses is the most common year of reference for OECD and partner countries. Refer to the source table for more details.

Source: OECD (2020), indicator D3, D4 and D5. See Education at a Glance Database http://stats.oecd.org/ for more information and Annex 3 for notes (https://doi.org/10.1787/69096873-en).

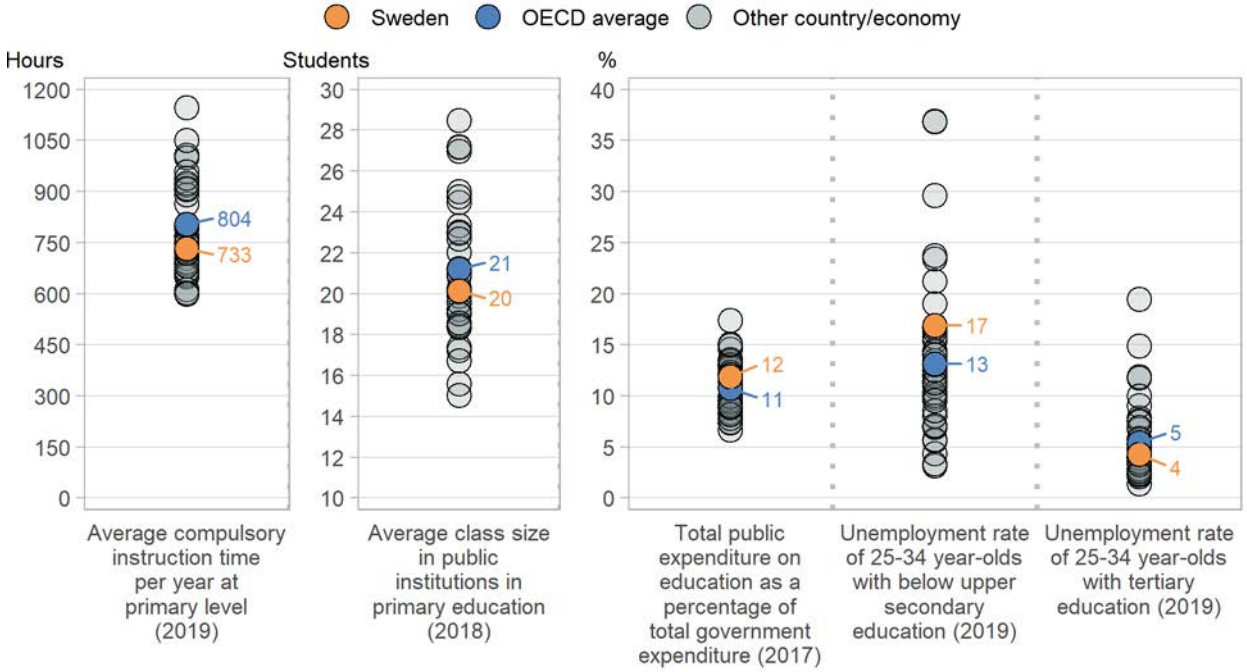
The impact of COVID-19 on education

- The global 2020 COVID-19 pandemic has sent shockwaves around the world. In a first effort to contain the virus, many countries have imposed a lockdown and schools and/or universities have closed for several months across all OECD and partner countries. In Sweden, upper secondary school, municipal adult education, higher vocational education and higher education were recommended to switch to distance education from 18 March to 15 June 2020. From 6 April 2020 smaller shares of students were allowed back to upper secondary school premises, mostly pupils that would otherwise not be able to graduate. Pre-school and lower secondary schools have remained opened. By the end of June, Sweden had experienced 13 weeks of effective school closures in some form, compared to 14 weeks on average across OECD countries (UNESCO, 2020). However, the actual impact in some countries may have been less severe as some of these periods included scheduled school breaks.
- Excluding the non-compulsory part of the curriculum, students in public institutions in Sweden attended classes for 733 hours per year on average at primary level and 830 hours at lower secondary level in 2019. Each week of school closure therefore represents about 21 hours of compulsory instruction time at the primary level and 23 hours of compulsory instruction time at lower secondary level during which students have physically not attended school (Figure 6). During this time, many OECD and partner countries, including Sweden, have turned to distance learning to ensure the continuity of education.
- School reopening in the context of the pandemic is contingent on the capacity to maintain a safe distance of 1-2 metres between pupils and staff. Countries with smaller class sizes may find it easier to comply with new restrictions on social distancing. In Sweden, the average class size at primary level is 20 students in public institutions, which is smaller than the OECD average of 21. In public lower secondary institutions, there are 22 students per class in Sweden, compared to 23 students per class on average across OECD countries. However, the need to reduce class size may depend on other factors such as physical space, the availability of rooms and staff, and personal decisions by students and staff on whether to return to school (Figure 6).
- While there is uncertainty about the likely overall impact of the COVID-19 pandemic on education expenditure, governments will face difficult decisions on the allocation of resources, as government funds are injected into the economy and the health sector. In 2017, public spending on primary to tertiary education as a share of government expenditure in Sweden was 12%, higher than the OECD average of 11% (Figure 6).
- As unemployment rises, private funding of education may also be at risk. The impact may be most severe in those countries and levels of education that rely most heavily on household expenditure, in particular early childhood education and care and tertiary education. This is less the case in Sweden. In pre-primary education (ISCED 02), private sources accounted for 6% of total expenditure in Sweden in 2017, lower than the OECD average of 17%. At tertiary level, 12% of total expenditure comes from private sources, compared to 29% on average across OECD countries.
- The crisis may have a severe impact on the internationalisation of higher education as the delivery of online course material and travel restrictions may raise questions among international students' perception on the value of obtaining their degree from an institution abroad. Sweden, with a higher share of international students than in total across the OECD, may be more strongly affected than other countries.
- A decrease in the share of international students may have repercussions on the funding model of some higher education institutions, as foreign students may pay higher tuition fees than domestic ones. This is the case in Sweden: While tuition is free for students from within the European

Union/European Economic Area (EU/EEA), international and foreign students from outside the EU/EEA zone pay USD 14 909 per year for a bachelor's programme in a public institution.

- Unemployment may increase, as the economy struggles to cope with the reduced activity that resulted from the lockdown. Those with lower educational attainment are the most vulnerable, as they are the most unlikely to benefit from remote working. In 2019, before the pandemic hit, 17% of young adults with below upper secondary education in Sweden were unemployed compared to 4% of tertiary-educated 25-34 year-olds (Figure 6). In the aftermath of the 2008 financial crisis, the unemployment of young adults without an upper secondary education increased by 5.7 percentage points between 2008 and 2009 in Sweden compared to 1.4 percentage points among those with tertiary education.

Figure 6. Snapshot of indicators relevant to the impact of COVID-19 on education



Note: Only countries and economies with available data are shown. The years shown in parentheses is the most common year of reference for OECD and partner countries. Refer to the source table for more details.
Source: OECD (2020), indicator A3, D1, D2, and C4. See Education at a Glance Database http://stats.oecd.org/ for more information and Annex 3 for notes (https://doi.org/10.1787/69096873-en).

References

NICHD (2002), “Child Care Structure>Process>Outcome: Direct and indirect effects of caregiving quality on young children's development”, *Psychological Science*, Vol. 13, pp. 199-206.

OECD (2020), *Education at a Glance 2020: OECD Indicators*, OECD Publishing, Paris.

OECD/Eurostat/UNESCO Institute for Statistics (2015), *ISCED 2011 Operational Manual: Guidelines for Classifying National Education Programmes and Related Qualifications*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264228368-en.

Schleicher, A. and F. Reimers (2020), *Schooling disrupted schooling rethought: How the Covid-19 pandemic is changing education*, https://read.oecd-ilibrary.org/view/?ref=133_133390-1rtuknc0hi&title=Schooling-disrupted-schooling-rethought-How-the-Covid-19-pandemic-is-changing-education (accessed on 3 June 2020).

UNESCO (2020), *School closures caused by Coronavirus (Covid-19)*, https://en.unesco.org/covid19/educationresponse (accessed on 04 August 2020).

More information

For more information on Education at a Glance 2020 and to access the full set of Indicators, visit www.oecd.org/education/education-at-a-glance-19991487.htm

For more information on to the methodology used during the data collection for each indicator, the references to the sources and the specific notes for each country, visit Annex 3 of the publication (https://doi.org/10.1787/69096873-en).

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).

Updated data can be found on line at http://dx.doi.org/10.1787/eag-data-en and by following the *StatLinks* under the tables and charts in the publication.

Explore, compare and visualise more data and analysis using the Education GPS:

https://gpseducation.oecd.org/

The calculation on the number of weeks of school closures due to the COVID-19 pandemic is based on data from UNESCO (UNESCO, 2020). For general information on the methodology considered for the data, please refer to the methodological note.

Questions can be directed to:	**Country note authors:**
Marie-Helene Doumet Directorate for Education and Skills marie-helene.doumet@oecd.org	Etienne Albiser, Eric Charbonnier, Manon Costinot, Corinne Heckmann, Bruce Golding, Yanjun Guo, Simon Normandeau, Daniel Sanchez Serra, Markus Schwabe and Giovanni Maria Semeraro

On 15 May 2020, the OECD Council invited Costa Rica to become a Member. While Costa Rica is included in the OECD averages reported in this note, at the time of its preparation, Costa Rica was in the process of completing its domestic procedures for ratification and the deposit of the instrument of accession to the OECD Convention was pending.