

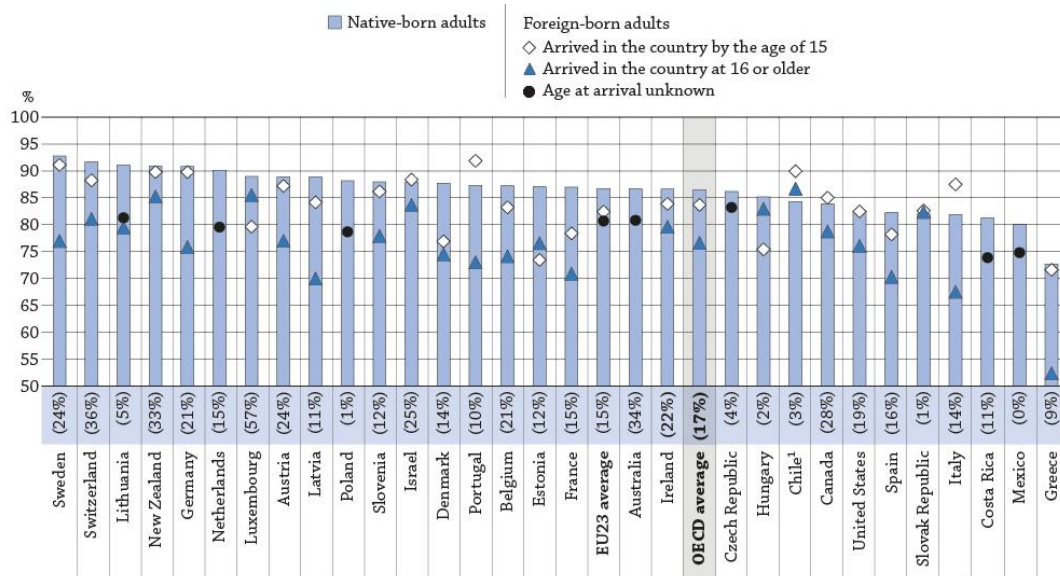
## EDUCATION AT A GLANCE 2018

*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.

### Denmark

- Even though **foreign-born adults who arrived in the country aged 16 or over are more likely to be tertiary educated than their native-born counterparts**, they are less likely to be employed.
- **About one-third of young adults aged between 25 and 29 years old are still enrolled in education**, twice the OECD average.
- In Denmark, 81% of adults whose highest attainment is upper secondary education are employed, 6 percentage points above the OECD average.
- At the lower secondary level, **public schools benefit from relatively high levels of autonomy**, as they are responsible for half the decisions regarding resource management, and one-third of those concerning personnel management.
- Denmark's early childhood education and care (ECEC) system is one of the most developed among OECD countries, **with 90% of children already enrolled in ECEC services at the age of 2**.

**Figure 1. Employment rates of native- and foreign-born 25-64 year-olds with tertiary education, by age at arrival in the country (2017)**



Note: The percentage in parentheses represents the share of foreign-born adults among 25-64 year-olds.

1. Year of reference differs from 2017. Refer to the source table for details.

Countries are ranked in descending order of the employment rate of tertiary-educated native-born adults.

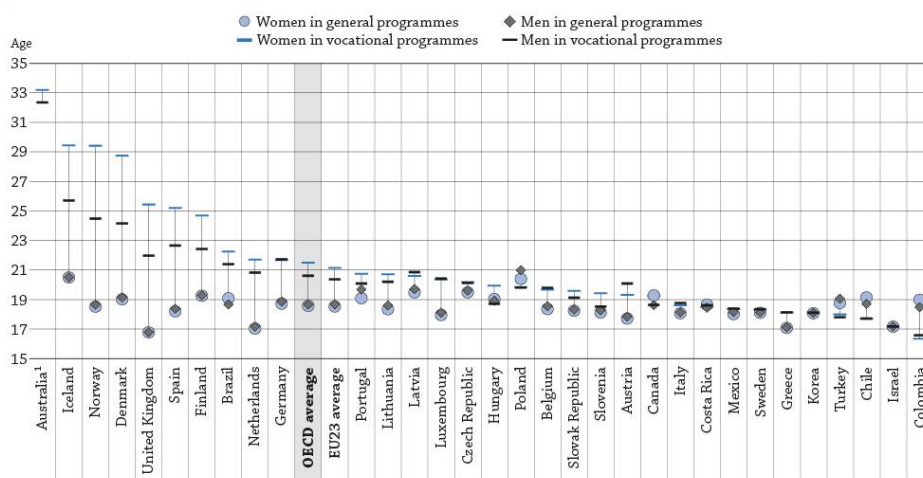
Source: OECD/ILO (2018), Table A3.4. See Source section for more information and Annex 3 for notes (<http://dx.doi.org/10.1787/eag-2018-36-en>).

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## Even though foreign-born adults often fare as well as native-born ones in terms of educational attainment, they integrate less well into the labour market

- In Denmark, 46% of foreign-born adults who arrived in the country aged 16 or over have attained tertiary education, 8 percentage points higher than the share for native-born adults. Similarly, only 20% have not attained upper secondary education, a comparable share to that of adults born in the country (18%). The high tertiary attainment rate among foreign-born adults who arrived after the age of 15 suggests that Denmark attracts a lot of foreign adults who are already tertiary educated, and/or international students to its tertiary educational institutions.
- Denmark is indeed an attractive country for foreign international students: 11% of students in Denmark are international, almost twice the OECD average and 2 percentage points higher than the EU23 average. This is particularly true for short-cycle tertiary programmes, where 16% of students are international in Denmark, compared to only 3% on average across OECD countries. A much higher share of international students than the OECD average can also be found at the master's and doctoral levels.
- The educational attainment of foreign-born adults who arrived in Denmark by the age of 15, follows a completely different path from those who arrived when they were older. Up to 36% have not attained upper secondary education, twice the share of native-born adults. This suggests that adapting to the Danish primary and secondary education system is not straightforward for foreign students, especially if the language they speak at home is different from that in which classes are taught at school.
- Despite higher tertiary attainment rates overall, young adults who recently arrived in Denmark are more likely to be neither employed nor in education or training (NEET) than their native-born peers: 20% of 16-29 year-olds who arrived in Denmark at or after the age of 16 are NEET, 9 percentage points higher than native-born young adults, and 6 percentage points higher than foreign-born young adults who arrived in the country by the age of 15. This underlines the importance of early arrival and education in the country for the integration of immigrants into the labour market. However, NEET rates for both native- and foreign-born young adults are slightly lower than the OECD averages, showing that overall Denmark is doing quite well in integrating young people into its educational system and labour market.
- The integration of all foreign-born adults into the labour market, however, is less well-achieved. Across all levels of educational attainment, the employment rates of foreign-born 25-64 year-olds in Denmark are at least 10 percentage points lower than those of their native-born counterparts (Figure 1). The employment gaps between foreign-born and native-born adults in Denmark are higher than those found on average across OECD countries, for all educational attainment levels. There is no substantial difference in employment rates between foreign-born adults who arrived in the country by the age of 15 compared to those who have arrived aged 16 or older, meaning that age at migration does not seem to have a lasting effect on later integration into the labour market.

**Figure 2. Average age of first-time upper secondary graduates, by programme orientation and gender (2016)**



1. Year of reference 2015.

Countries are ranked in descending order of the average age of women in vocational programmes.

Source: OECD/UIS/Eurostat (2018), Education at a Glance Database, <http://stats.oecd.org/>. See Source section at the end of this indicator for more information and Annex 3 for notes (<http://dx.doi.org/10.1787/eag-2018-36-en>).

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## Students remain in education longer than in other OECD countries, especially in vocational education and training programmes

- Many young adults in Denmark keep on studying after the age of 25. The enrolment rate of 25-29 year-olds in formal education is 32%, double the averages in OECD (16%) and EU23 (15%) countries and the highest enrolment rate across all OECD countries for that age group. In addition, up to 55% of 20-24 year-olds are still enrolled in education, 13 percentage points above the OECD average.
- This might be partly due to the fact that students in Denmark attend upper secondary education on average later than students in other OECD countries. The average age of enrolment into upper secondary programmes in Denmark is 21, one of the oldest across OECD countries. Over half of 19-year-olds and up to 28% of 20-year-olds are enrolled in secondary education in Denmark, compared to only 26% and 13% respectively across OECD countries.
- Almost three-quarters of students in upper secondary vocational programmes are older than the typical age of 20 years old. In addition, while students generally graduate from upper secondary general programmes at 19, they do so at 24 for women and 29 for men on average for vocational ones (Figure 2). Students in vocational programmes make up 41% of all students in upper secondary education, and 80% of those are in combined school- and work-based programmes.
- Upper secondary programmes offer relatively good pathways to the labour market – up to 81% of adults with an upper secondary qualification are employed, only about 5 percentage points below the employment rate for tertiary-educated adults, whereas the average employment premium for tertiary education over upper secondary education is 10 percentage points across OECD countries.

## Schools enjoy relatively high autonomy, with generous compensation for school heads

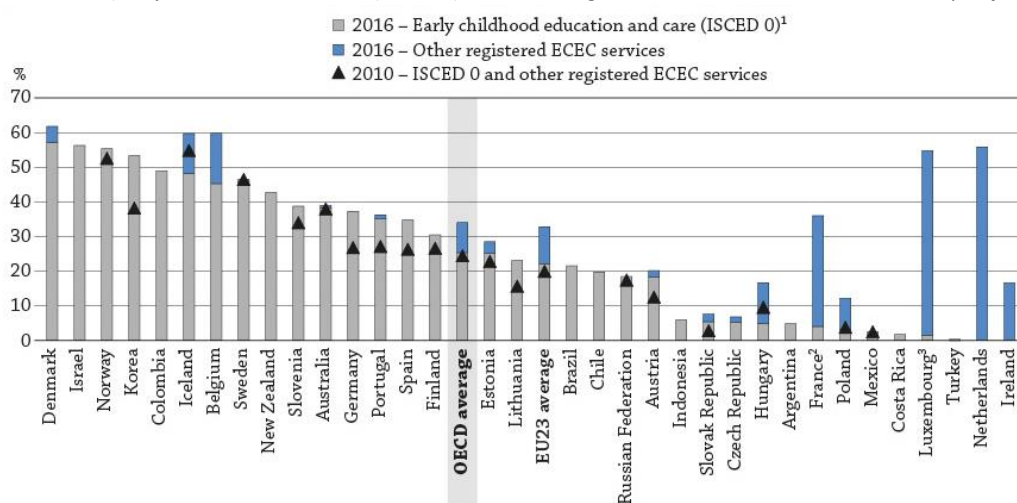
- In Denmark, just over half of decisions in lower secondary public education are made either at the local or the school level, 4 percentage points above the OECD average, underlining how schools and the municipality have relatively high autonomy over the governance of schools.
- Interestingly, up to 33% of decisions about personnel management and 50% of resource-management decisions are made at the school level, well above the OECD averages in both cases (23% and 30% respectively). On the other hand, one-third of decisions about the organisation of instruction are made at the school level in Denmark, 17 percentage points below the OECD average. More importantly, none of the decisions about planning and structures are made at the school level, as 50% of them are made at the central level. It follows that school autonomy in Denmark is skewed towards the management of personnel and resources, more so than in most OECD countries.
- In terms of the organisation of instruction time, it is important to note that Denmark has the third shortest school holidays among OECD countries, totalling 11 weeks over the school year, behind only Mexico and Switzerland. In comparison, in 21 OECD and partner countries and economies primary school children enjoy at least 14 weeks of The break between school years is particularly short, at only 6 weeks.
- Teachers at all educational levels are well paid in Denmark compared to other OECD countries when they start working. However their wage progression is quite limited, and the salary a lower secondary teacher can have at the top of the scale is almost USD 5 000<sup>1</sup> lower than the OECD average.
- While teachers at the lower and upper secondary levels earn less than full-time full-year workers with tertiary education, lower secondary school heads earn 15% more and upper secondary heads 51% more. School heads in upper secondary education earn USD 98 400 in Denmark, compared with USD 68 900 on average across OECD countries.

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<sup>1</sup> Values reported in equivalent US dollars (USD) have been converted using purchasing power parities (PPPs) for GDP.

**Figure 3. Enrolment rates of children under the age of 3 in early childhood education and care, by type of service (2010 and 2016)**

*All ECEC services (early childhood education (ISCED 0) and other registered ECEC services outside the scope of ISCED 0)*



**Note:** Early childhood education = ISCED 0, other registered ECEC services = ECEC services outside the scope of ISCED 0, because they are not in adherence with all ISCED criteria. To be classified in ISCED 0, ECEC services should: 1) have adequate intentional educational properties; 2) be institutionalised (usually school-based or otherwise institutionalised for a group of children); 3) have an intensity of at least two hours per day of educational activities and a duration of at least 100 days a year; 4) have a regulatory framework recognised by the relevant national authorities (e.g. curriculum); and 5) have trained or accredited staff (e.g. requirement of pedagogical qualifications for educators).

1. According to ISCED criteria.

2. Data for “Other registered ECEC services” come from the survey “Enquête Modes de garde et d’accueil des jeunes enfants 2013” conducted by the statistical division of the French Ministry for Solidarities and Health (DREES). Figures refer to the primary custody arrangements.

3. Year of reference 2014 instead of 2016 for children under the age of 3 enrolled in “Other registered ECEC services”. Data come from the OECD family database ([www.oecd.org/els/family/database.htm](http://www.oecd.org/els/family/database.htm)).

Countries are ranked in descending order of the enrolment rates in ISCED 0 of children under the age of 3 in 2016.

**Source:** OECD (2018), Table B2.1a. See Source section at the end of this indicator for more information and Annex 3 for notes (<http://dx.doi.org/10.1787/eag-2018-36-en>).

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## Denmark has one of the most developed early childhood education and care systems across OECD countries

- While enrolment in early childhood education and care (ECEC) is near universal (above 90%) in 12 OECD countries for children aged 3 and older, Denmark has already reached 90% enrolment among 2-year-olds. Denmark has the highest enrolment rates for children under the age of 3 among OECD countries (62%), followed by Belgium (60%) and Iceland (60%) (Figure 3). The ECEC services provided for children under 3 in Denmark are mostly early childhood development programmes (ISCED 01), regulated services which include an educational component from the start.
- Over three-quarters of children enrolled in ECEC are in public institutions, with the others attending government-dependent private institutions. This underlines the priority Denmark gives to ECEC.
- Furthermore, neither household income tertile nor mothers’ educational attainment makes a statistically significant difference to the enrolment rate of children under the age of 3 in Denmark, which is rare across OECD countries. As the first years of education are crucial to a child’s development, the equality of access for children from deprived socio-economic backgrounds is a very positive feature of the Danish ECEC system.

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This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

### Note regarding data from Israel


The statistical data for Israel are supplied by and are under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Lithuania was not an OECD member at the time of preparation of Education at a Glance and is therefore not included in the zone aggregates mentioned in the publication. However this country note, produced at a later stage, includes updated figures for the OECD and EU averages including Lithuania and therefore may differ from the figures mentioned in Education at a Glance.

### References

OECD (2018), *Education at a Glance 2018: OECD Indicators*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/eag-2018-en>.

**For more information on Education at a Glance 2018** and to access the full set of Indicators, visit [www.oecd.org/education/education-at-a-glance-19991487.htm](http://www.oecd.org/education/education-at-a-glance-19991487.htm).

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.

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<http://gpseducation.oecd.org/CountryProfile?primaryCountry=DNK&treshold=10&topic=EO>.

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## Key Facts for Denmark in Education at a Glance 2018

Source	Main topics in <i>Education at a Glance</i>	Denmark		OECD average		EU23 average	
	Equity						
	Educational attainment of 25-34 year-olds by gender	2017					
Table A1.2		% Men	% Women	% Men	% Women	% Men	% Women
	Below upper secondary	21%	13%	17%	14%	16%	12%
	Upper secondary or post-secondary non-tertiary	41%	32%	46%	37%	48%	39%
	Tertiary	38%	55%	38%	50%	36%	49%
	Percentage of 15-29 year-olds NEETs by country of birth	2017					
Table A2.3	Native-born	11%		13%		12%	
	Foreign-born	17%		18%		19%	
	Employment rates of native- and foreign-born 25-64 year-olds, by educational attainment	2017					
Table A3.4		Native-born	Foreign-born	Native-born	Foreign-born	Native-born	Foreign-born
	Below upper secondary	64%	53%	56%	60%	55%	57%
	Upper secondary or post-secondary non-tertiary	83%	69%	76%	72%	76%	71%
	Tertiary	88%	76%	87%	79%	87%	78%
	Earnings of 25-64 women relative to men, by educational attainment	2016					
Table A4.3	Below upper secondary	84%		78%		79%	
	Upper secondary or post-secondary non-tertiary	81%		78%		79%	
	Tertiary	76%		74%		75%	
	Share of girls among repeaters in secondary general programmes	2016					
Table B1.3	Lower secondary	41%		39%		38%	
	Upper secondary	48%		42%		42%	
	Percentage of women and men entering doctoral programmes by field of study	2016					
Table B4.1		% Men	% Women	% Men	% Women	% Men	% Women
	Natural sciences, mathematics and statistics	19%	11%	22%	20%	20%	19%
	Engineering, manufacturing and construction	34%	17%	22%	10%	23%	11%
	Health and welfare	24%	42%	12%	19%	11%	18%
	First-time tertiary graduates	2016					
Table B5.1	Share of female first-time tertiary graduates	56%		57%		58%	
	Participation of 25-64 year-olds in formal and/or non-formal education	2012 <sup>1</sup>					
Table A7.1	Participation of native-born adults and foreign-born adults who arrived in the country by the age of 25	67%		49%		n.a.	
	Participation of foreign-born adults who arrived in the country at 26 or older	58%		48%		n.a.	
	Early childhood education and care (ECEC)						
	Enrolment rates in ECEC at age 3	2016					
Table B2.1a	ECEC services (ISCED 0) and other registered ECEC services	97%		76%		82%	
	Share of children enrolled in pre-primary education (ISCED 02), by type of institution	2016					
Table B2.2	Public institutions	79%		68%		75%	
	Private institutions	21%		32%		25%	
	Expenditure on pre-primary level (ISCED 02)	2015					
Table B2.3a	Annual expenditure per child in USD (converted to PPPs)	**		USD 8 426		USD 8 163	
	Vocational education and training (VET)						
	Percentage of upper secondary students enrolled in vocational education, by programme orientation	2016					
Table B1.3	All vocational programmes	41%		44%		47%	
	Combined school- and work-based programmes	33%		11%		11%	
	Share of women among upper secondary graduates, by programme orientation	2016					
Figure B3.1	General programmes	54%		54%		55%	
	Vocational programmes	50%		46%		45%	
	Total expenditure on upper secondary educational institutions per full-time equivalent student, by programme orientation	2015					
Table C1.1	General programmes	**		USD 8 981		USD 9 235	
	Vocational programmes	**		USD 10 831		USD 11 115	
	Tertiary education						
	Share of international or foreign students, by education level <sup>2</sup>	2016					
Table B6.1	Bachelor's or equivalent	6%		4%		6%	
	Master's or equivalent	19%		12%		13%	
	Doctoral or equivalent	34%		26%		23%	
	All tertiary levels of education	11%		6%		9%	
	Share of first-time tertiary graduates by education level	2016					
Table B5.1	Short-cycle tertiary	18%		14%		10%	
	Bachelor's or equivalent	73%		75%		76%	
	Master's or equivalent	9%		10%		14%	
	Employment rate of 25-64 year-olds, by educational attainment	2017					
Table A3.1	Short-cycle tertiary	85%		81%		82%	
	Bachelor's or equivalent	84%		84%		83%	
	Master's or equivalent	89%		88%		88%	
	Doctoral or equivalent	94%		92%		92%	
	All tertiary levels of education	86%		85%		85%	
	Relative earnings of full-time full-year 25-64 year-old workers, by educational attainment (upper secondary education = 100)	2016					
Table A4.1	Short-cycle tertiary	116		123		125	
	Bachelor's or equivalent	111		145		137	
	Master's, doctoral or equivalent	166		191		175	
	All tertiary levels of education	129		155		152	

## Denmark - Country Note - Education at a Glance 2018: OECD Indicators

Source	Main topics in <i>Education at a Glance</i>	Denmark		OECD average		EU23 average	
	Financial resources invested in education						
	Total expenditure on educational institutions per full-time equivalent student, by level of education (in equivalent USD, using PPPs)	2015					
Table C1.1	Primary	**		USD 8 539		USD 8 512	
	Secondary	**		USD 9 868		USD 9 882	
	Tertiary (excluding R&D activities)	**		USD 11 049		USD 10 919	
	Total expenditure on primary to tertiary educational institutions	2015					
Table C2.1	As a percentage of GDP	**		5.0%		4.6%	
	Share of expenditure on tertiary educational institutions by source of funds <sup>3</sup>	2015					
Figure C3.1	Public expenditure	**		73%		76%	
	Private expenditure	**		21%		19%	
	Public to private transfers	**		6%		4%	
	Total public expenditure on primary to tertiary education	2015					
Table C4.1	As a percentage of total government expenditure	**		11.1%		9.6%	
	Teachers, the learning environment and the organisation of schools						
	Actual salaries of teachers and school heads in public institutions relative to earnings of full-time, full-year workers with tertiary education	2016					
		Teachers	School heads	Teachers	School heads	Teachers	School heads
Table D3.2a	Pre-primary	0.68	0.76	0.82	**	0.83	1.1
	Primary	0.82	1.15	0.86	1.21	0.88	1.21
	Lower secondary (general programmes)	0.83	1.15	0.91	1.34	0.93	1.37
	Upper secondary (general programmes)	0.95	1.51	0.96	1.42	1	1.45
	Annual statutory salaries of teachers in public institutions, based on most prevalent qualifications, at different points in teachers' careers (in equivalent USD, using PPPs)	2017					
		Starting salary	Salary after 15 years of experience	Starting salary	Salary after 15 years of experience	Starting salary	Salary after 15 years of experience
Table D3.1a	Pre-primary	USD 41 274	USD 46 552	USD 30 229	USD 40 436	USD 29 096	USD 39 371
	Primary	USD 44 919	USD 51 506	USD 31 919	USD 44 281	USD 31 206	USD 43 486
	Lower secondary (general programmes)	USD 45 134	USD 52 183	USD 33 126	USD 46 007	USD 32 495	USD 45 472
	Upper secondary (general programmes)	USD 42 841	USD 55 675	USD 34 534	USD 47 869	USD 33 205	USD 47 615
	Organisation of teachers' working time in public institutions over the school year	2017					
		Net teaching time	Total statutory working time	Net teaching time	Total statutory working time	Net teaching time	Total statutory working time
Table D4.1	Pre-primary	**	1 680 hours	1 029 hours	1 628 hours	1 068 hours	1 569 hours
	Primary	**	1 680 hours	778 hours	1 620 hours	754 hours	1 553 hours
	Lower secondary (general programmes)	**	1 680 hours	701 hours	1 642 hours	665 hours	1 585 hours
	Upper secondary (general programmes)	405 hours	1 680 hours	655 hours	1 638 hours	633 hours	1 572 hours
	Percentage of teachers who are 50 years old or over	2016					
Table D5.1	Primary to upper secondary	**		35%		38%	
	Share of female teachers, in public and private institutions	2016					
Table D5.2	Primary	**		83%		86%	
	Lower secondary	**		69%		71%	
	Upper secondary	**		60%		63%	
	Tertiary	**		43%		44%	
	Average class size by level of education	2016					
Table D2.1	Primary	21		21		21	
	Lower secondary	21		23		23	

The reference year is the year cited or the latest year for which data are available.

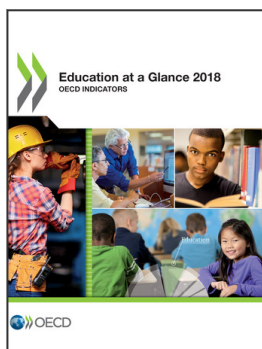
1. OECD average includes some countries with 2015 data.

2. For some countries, data on foreign students are provided instead of international students.

3. International expenditure is aggregated with public expenditure

\*\* Please refer to the source table for details on these data.

Cut-off date for the data: 18 July 2018. Any updates on data can be found on line at <http://dx.doi.org/10.1787/eag-data-en>.



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## Education at a Glance 2018

OECD Indicators

Access the complete publication at:

<https://doi.org/10.1787/eag-2018-en>

### Please cite this chapter as:

OECD (2018), “Denmark”, in *Education at a Glance 2018: OECD Indicators*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/eag-2018-43-en>

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