COUNTRY NOTE

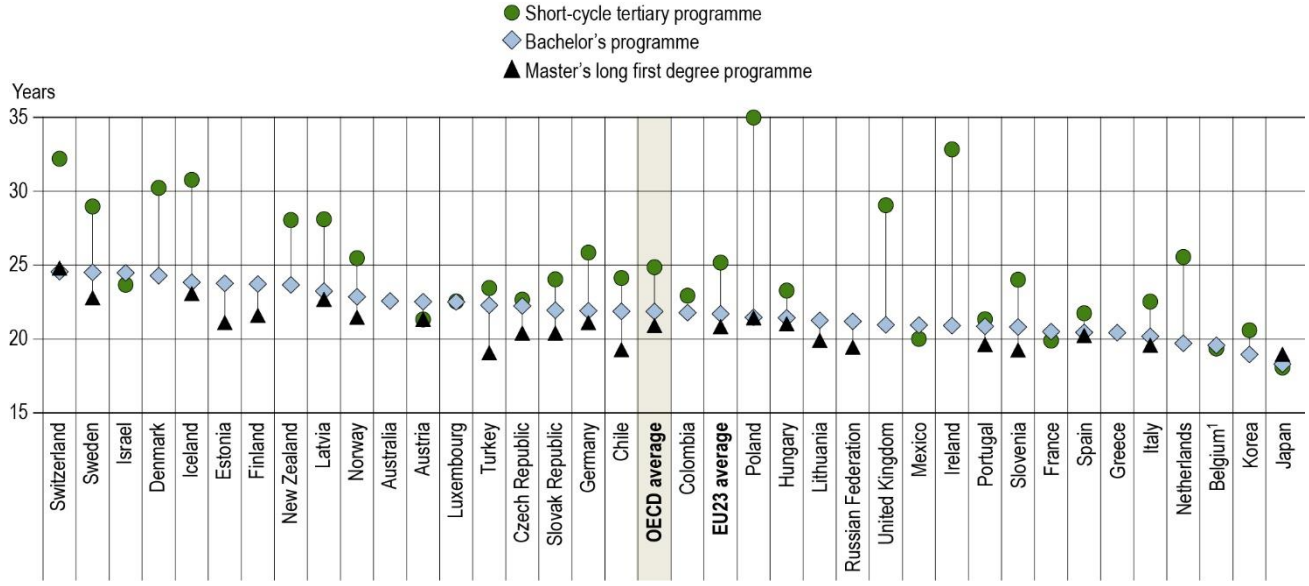
EDUCATION AT A GLANCE 2019

Education at a Glance: OECD Indicators (OECD, 2019[1]) 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.

Japan

- Japan has a well-developed tertiary education system. **Over half of 25-64 year-olds had attained tertiary education in 2018**, 13 percentage points higher than the OECD average. However, its students are rather homogenous – **Japan has relatively low shares of adult and international students** compared to OECD countries.
- The Japanese government spent 7.8% of its total expenditure on primary to tertiary education in 2016, less than the OECD average. **Public expenditure on education fell between 2010 and 2016**, despite total government expenditure increasing in the same period.
- Gender inequality in employment persists in Japan, including the education sector. **Women make up the smallest share of secondary and tertiary teaching staff among OECD countries**.
- Although enrolment of children under the age of 3 in early childhood education and care (ECEC) **increased from 19% in 2010 to 30% in 2017, it remains below the OECD average of 36%.** In contrast, 91% of 3-5 year-olds were enrolled in ECEC in 2017, higher than the OECD average of 87%.

Figure 1. Average age of first-time entrants by level of education (2017)



Note: Data for master's long first degree may rely on small sample sizes.
1. Short-cycle tertiary: data refers to the Flemish Community of Belgium only.
Countries are ranked in descending order of the average age for first-time entrants into bachelor's programmes in 2017.
Source**:** OECD / UIS / Eurostat (2019), Table B4.1. See *Source* section for more information and Annex 3 for notes (https://doi.org/10.1787/f8d7880d-en).

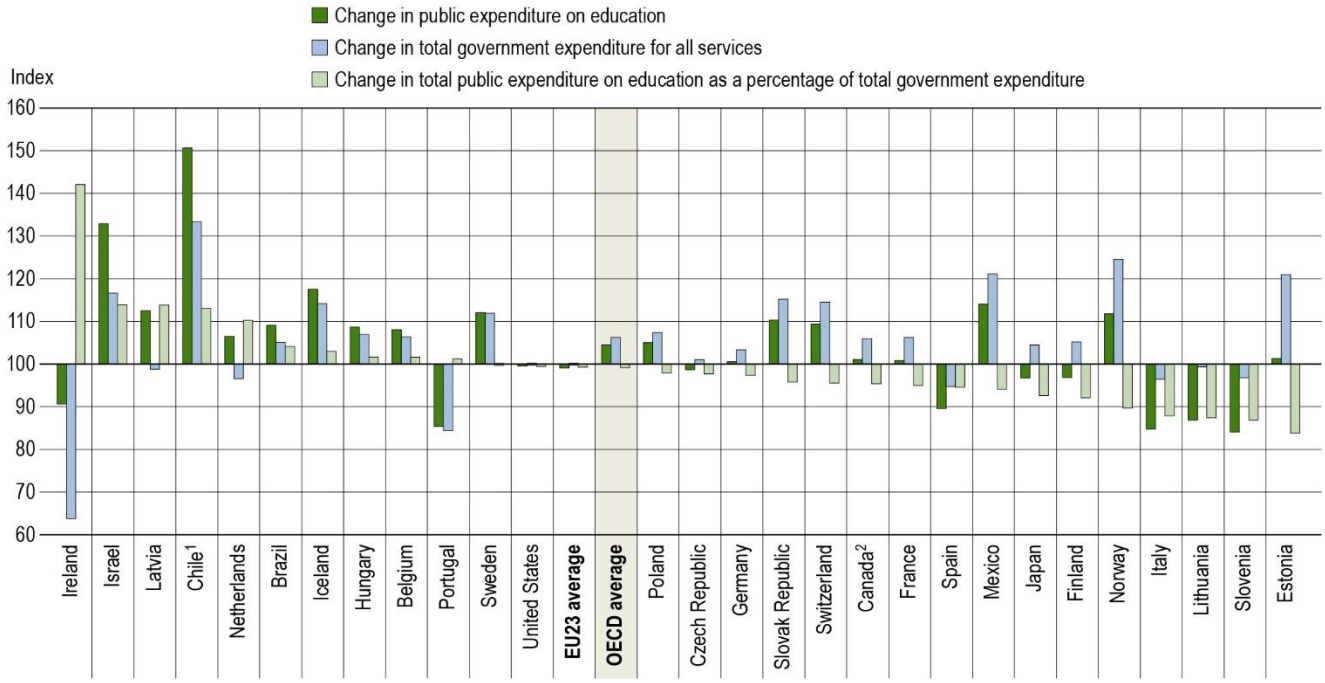
Japan has a well-developed tertiary education system with a high attainment rate but enrolment of adult and international students is low

- Over half of Japanese 25-64 year-olds had attained tertiary education in 2018, 13 percentage points higher than the OECD average of 39%. If current entry patterns continue, nearly 80% of young adults in Japan will enter tertiary education for the first time during their lifetime, one of the highest entry rates among OECD countries. Japan's high tertiary attainment rate is driven by short-cycle tertiary education programmes. Over one-third of first-time entrants into tertiary education in 2017 enrolled at this level, 18 percentage points higher than the OECD average of 17%. Around two-thirds were enrolled in bachelor's programmes, 13 percentage below the average.
- Graduates from short-cycle tertiary education programmes have the same employment rate as those with an upper secondary education in Japan, 81%. In contrast, 76% of adults with upper secondary education and 82% of those with short-cycle tertiary education were employed on average across OECD countries.
- Young adults benefit the most from higher education learning opportunities in Japan. The average age of new entrants to short-cycle tertiary and bachelor's programmes is 18 years old, and 19 years old for master's long first degree programmes, the youngest across OECD countries (Figure 1). Lifelong learning is less prevalent in Japan than in other countries. Around 40% of 25-64 year-olds participated in formal and/or non-formal education and training in 2012, compared to 50% in neighbouring Korea and 59% in the United States. As Japan approaches the era of 100-year lifespans, the tradition of three defined stages of education, work and retirement may become unrealistic (Gratton and Scott, 2016[2]) and the importance of lifelong learning may increase. Low levels of participation in lifelong learning in Japan may be explained by several factors including time and financial constraints, limited labour-market relevance and low levels of interest and motivation (OECD, 2018[3]). Policies to promote adult education involve increasing the flexibility and relevance of tertiary education provision in co-ordination with businesses and other stakeholders, as well as providing some financial support (Central Council for Education, 2018[4]).
- The share of international tertiary students in Japan increased from 3% in 2013 to 4% in 2017. Although the share of international students is still 2 percentage points below the OECD average of 6%, Japan attracted the fourth largest number of international students among non-English speaking OECD and partner countries (after the Russian Federation, Germany and France). Over 90% of international students in Japan came from Asia. Attracting more international students is one of the government's priorities, not only to increase diversity but also to ensure the sustainability of the Japanese tertiary education system as the number of 18-year-olds is projected to fall by 30% by 2040 (Central Council for Education, 2018[4]). The government aims to double the number of international students between 2013 and 2023 and has implemented several policies to achieve this (Ministry of Education, Culture, Sports, Science and Technology, 2019[5]). For example, it plans to increase the number of programmes delivered in English and support international students to learn Japanese and find a job after graduation. The government also aims to align Japanese tertiary education programmes with international standards and is considering establishing branch campuses abroad (Central Council for Education, 2018[4]).
- Japan appears to have a more selective admission system than other OECD countries. Around half of OECD countries have at least some institutions with open admission systems that provide all applicants with the required qualification level an automatic right of access to tertiary education. In Japan, however, applicants are usually assessed on the basis of their performance in a standardised national test and/or examinations administered by each institution. Institutions may also take applicants' performance at upper secondary schools into account and use interviews, portfolios and other mechanisms to assess their suitability for admission. However, it should be noted that the levels of selectivity differs depending on the profile of institutions (size, region, sector, subjects offered, etc.). Around 40% of private universities and junior colleges did not fill their government-allocated enrolment quotas in 2018, due to the combination of a private sector-led expansion in tertiary education and a decline in the youth population (The Promotion and Mutual Aid Corporation for Private Schools of Japan, 2018[6]).

Public expenditure on education fell between 2010 and 2016, despite total government expenditure rising

Figure 2. Index of change in total public expenditure on education as a share of total government expenditure (2010 and 2016)

Primary to tertiary education (2010 = 100, constant prices)



1. Year of reference 2017.
2. Primary education includes pre-primary programmes.

Countries are ranked in descending order of the change in total public expenditure on education as a percentage of total government expenditure.

Source: OECD/UIS/Eurostat (2019), Table C4.3. See *Source* section for more information and Annex 3 for notes (https://doi.org/10.1787/f8d7880d-en).

- Japan spent 4.0% of its gross domestic product (GDP) on primary to tertiary educational institutions in 2016, 0.9 percentage points below the OECD average. However, as Japan is the world's third largest economy, its annual expenditure per student on primary to tertiary educational institutions (USD 12 100[1]) is above the OECD average.
- The Japanese government spent 7.8% of its total expenditure on primary to tertiary education in 2016, 3 percentage points below the OECD average. This represents a decrease of 0.6 percentage points compared to 2010, when total public expenditure on primary to tertiary institutions amounted to 8.4% of total government expenditure. This decrease is the combined result of lower public expenditure on education (-3.3%) and higher total government spending (+4.4%) compared to 2010 most notably in other areas such as social security (Figure 2).
- Over 90% of education expenditure at the primary, secondary and post-secondary non-tertiary levels came from public sources in 2016, similar to the OECD average. However, only 31% of education expenditure at tertiary level was funded by public sources, one of the lowest shares among OECD countries, whereas 53% was sourced from households and 17% from other private entities. The high levels of tuition fees have been a concern for Japanese tertiary education for a while. Public tertiary education institutions on average charged USD 5 200 per year for bachelor's programmes during the academic year 2017/18, rising to USD 8 800 on average for private institutions. This has left many

[1] Values reported in equivalent US dollars (USD) have been converted using purchasing power parities (PPPs) for GDP.

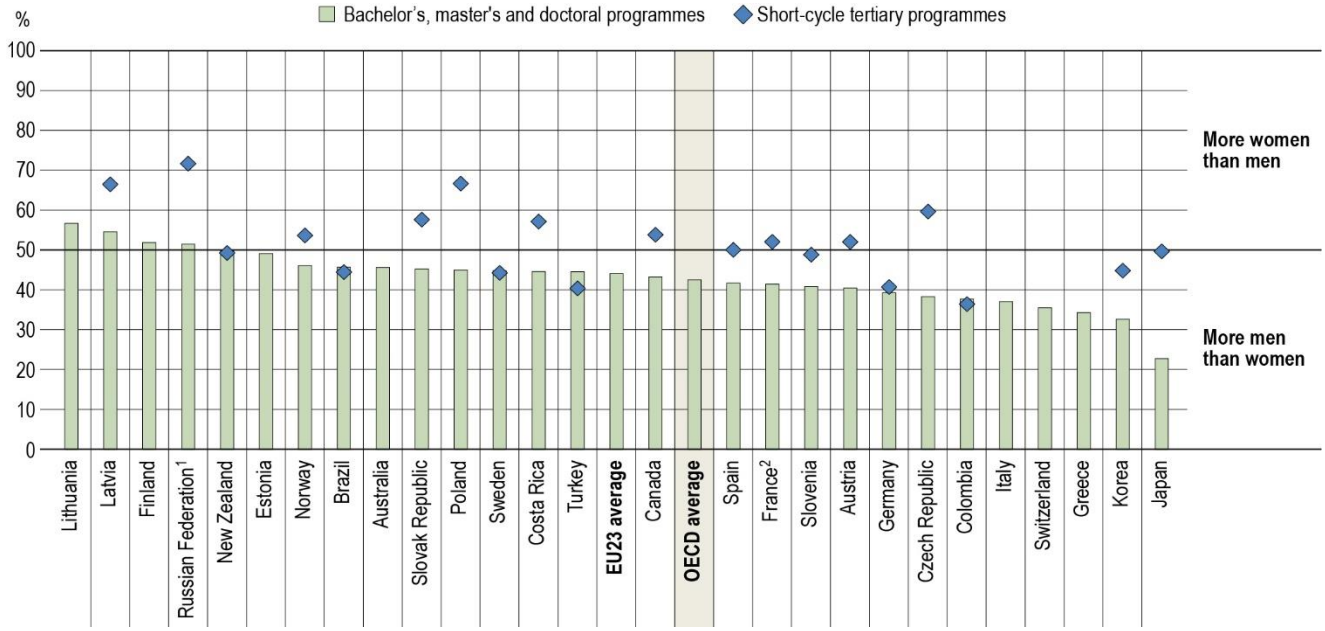
students facing large debts on graduation, on average USD 28 300. From 2020, the government plans to increase financial support for student from low-income families by reducing tuition fees and increasing grants (Ministry of Education, Culture, Sports, Science and Technology, 2018[7]).

Japan has the smallest share of female secondary and tertiary teaching staff of all OECD countries

- In many OECD countries, including Japan, women are more likely to participate in tertiary education than men, but are less likely to be employed. In Japan, 64% of 25-34 year-old women had completed tertiary education in 2018, compared to 58% of young men. The gender gap in tertiary attainment is 6 percentage points, lower than the OECD average of 12 percentage points (38% for men and 51% for women). Tertiary-educated young women are less likely to be employed than men in Japan, a trend also observed on average across OECD countries. In 2018, 81% of tertiary-educated women in Japan were employed compared to 94% of men. In comparison, 81% of tertiary-educated women and 89% of men were employed on average across the OECD. In addition, Japanese women in all age groups are more likely to be employed as non-regular workers (e.g. fixed-term and part-time workers), who are often paid substantially less than regular employees (OECD, 2019[8]).

Figure 3. Gender distribution of teachers in tertiary education (2017)

Percentage of women among teaching staff in public and private institutions



1. Tertiary includes programmes outside tertiary level.
2. Public institutions only.

Countries are ranked in descending order of the share of female teachers in bachelor's, master's and doctoral programmes.

Source: OECD/UIS/Eurostat (2019), Education at a Glance Database, http://stats.oecd.org. See *Source* section for more information and Annex 3 for notes (https://doi.org/10.1787/f8d7880d-en).

- Women are over-represented at lower levels of tertiary education and under-represented at higher levels in Japan. In 2017, nearly two-thirds of first-time entrants to short-cycle tertiary education programmes were women, compared to 45% of first-time entrants to bachelor's programmes. Women represented less than one-third of graduates at the doctoral level, the lowest among OECD countries (31% compared to the OECD average of 47%). This gender imbalance at the doctoral level persists in academia. Although the share of women among tertiary teaching staff increased from 19% in 2010 to 28% in 2017, it was still the lowest among OECD countries. In 2017, women represented 23% of tertiary teaching staff in bachelor's, master's and doctoral programmes, 20 percentage points lower than the OECD average. Half

of tertiary teaching staff in short-cycle tertiary education programmes were women, around the average of OECD countries with available data (Figure 3).

- In Japan, women are under-represented among school teachers. Although 64% of primary teachers are women in Japan, women made up 43% of teaching staff at lower secondary level and 31% at upper secondary level, compared to 69% at lower secondary and 60% at upper secondary level on average across OECD countries. Women are also less likely to take on school leadership positions. Only 23% of school principals at primary level were women in 2018. At lower secondary level, only 7% of principals were women, the lowest share across OECD countries (OECD, 2019[9]).

Improving access to early childhood education and care for children under 3 remains a challenge

- Japan spent 0.2% of its GDP on early childhood education and care (ECEC) in 2016, the lowest share among OECD countries. Annual ECEC expenditure per child was approximately USD 7 500 in 2016, lower than the OECD average of about USD 8 600. Around half of expenditure on ECEC came from private sources in 2016, the second highest among OECD countries after the United Kingdom. In addition, three-quarters of children were enrolled in private ECEC institutions (ISCED 0) in 2017, compared to one-third on average across OECD countries. As of October 2019, the government plans to increase public expenditure on ECEC by providing ECEC services free of charge to all children aged 3-5, and to children under the age of 3 from low income families (Cabinet Office, Government of Japan, 2019[10]).
- Despite the relatively high share of the costs borne by private sources, 91% of 3-5 year-olds were enrolled in ECEC in 2017, higher than the OECD average of 87%. The enrolment of children under 3, on the other hand, was 30%, lower than the OECD average of 36%. This rate increased by 11 percentage points between 2010 and 2017, one of the largest increases among OECD countries. This increase may partly be explained by an increase in childcare capacity as the government increased the number of childcare service providers by 40% between 2014 and 2018. However, as the number of women in the labour force has increased rapidly, there are still around 20 000 children waiting to be enrolled in ECEC (Ministry of Health, Labour and Welfare, 2018[11]). It has been argued that ensuring access to ECEC is one way of closing the gender gap in employment (OECD, 2019[8]). The government plans to further increase its childcare capacity and eliminate waiting lists by 2020 (Ministry of Health, Labour and Welfare, 2018[11]).

References

Cabinet Office, Government of Japan (2019), *Youjikyouiku hoiku no mushouka [Free Early Childhood Education and Care]*, https://www.youhomushouka.go.jp/ (accessed on 25 August 2019). [10]

Central Council for Education (2018), *2040 nen ni muketa koutou kyouiku no gurando dezain (Grand Design for Higher Education toward 2040)*, Central Council for Education, http://www.mext.go.jp/component/b_menu/shingi/toushin/__icsFiles/afieldfile/2018/12/17/1411360_7_2.pdf. [4]

Gratton, L. and A. Scott (2016), *The 100-Year Life: Living and Working in an Age of Longevity*, Bloomsbury Information, London. [2]

Ministry of Education, Culture, Sports, Science and Technology (2019), *Top Global University Japan*, https://tgu.mext.go.jp/en/index.html (accessed on 26 June 2019). [5]

Ministry of Education, Culture, Sports, Science and Technology (2018), *Koutoukyouiku no syuugaku shien shin seido [New Student Support in Tertiary Education]*, http://www.mext.go.jp/a_menu/koutou/hutankeigen/index.htm (accessed on 10 July 2019). [7]

Ministry of Health, Labour and Welfare (2018), *Hoikusyo tou kanren jyoukyou torimatome [Data on early childhood education and care institutions]*, https://www.mhlw.go.jp/stf/houdou/0000176137_00002.html (accessed on 11 July 2019). [11]

OECD (2019), *Education at a Glance 2019: OECD indicators*, OECD Publishing, Paris, https://doi.org/10.1787/f8d7880d-en. [1]

OECD (2019), *OECD Economic Surveys: Japan 2019*, OECD Publishing, Paris, https://dx.doi.org/10.1787/fd63f374-en. [8]

OECD (2019), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://dx.doi.org/10.1787/1d0bc92a-en. [9]

OECD (2018), *Education Policy in Japan: Building Bridges towards 2030*, Reviews of National Policies for Education, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264302402-en. [3]

The Promotion and Mutual Aid Corporation for Private Schools of Japan (2018), *Heisei 30 nendo shiritudaigaku tankidaigaku tou nyugakushigan doukou [Enrolment Trends in Private Tertiary Education Institutions 2018]*, The Promotion and Mutual Aid Corporation for Private Schools of Japan, Tokyo, https://www.shigaku.go.jp/files/shigandoukouH30.pdf (accessed on 10 July 2019). [6]

For more information on Education at a Glance 2019 and to access the full set of Indicators, visit 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.

Explore, compare and visualise more data and analysis using: EducationGPS

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

Questions can be directed to:	**Country note author:**
Marie-Helene Doumet	Shizuka Kato
Directorate for Education and Skills	Directorate for Education and Skills
Marie-Helene.DOUMET@oecd.org	Shizuka.KATO@oecd.org

On 25 May 2018, the OECD Council invited Colombia to become a Member. While Colombia is included in the OECD averages reported in this note, at the time of its preparation, Colombia was in the process of completing its domestic procedures for ratification and the deposit of Colombia's instrument of accession to the OECD Convention was pending.

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.

Key Facts for Japan in Education at a Glance 2019

Source	Main topics in *Education at a Glance*	Japan		OECD average	
Tertiary education					
	Educational attainment of 25-64 year-olds	**2018**			
Table A1.1	Short-cycle tertiary	21%		7%	
	Bachelor's or equivalent	31%		17%	
	Master's or equivalent	**		13%	
	Doctoral or equivalent	**		1%	
	Tertiary attainment of 25-34 year-olds, by gender	**2008**	**2018**	**2008**	**2018**
Table A1.2	Men	52%	58%	31%	38%
	Women	59%	64%	40%	51%
	Total	55%	61%	35%	44%
	Distribution of first-time tertiary entrants by education level	**2017**			
Table B4.1	Short-cycle tertiary	35%		17%	
	Bachelor's or equivalent	63%		76%	
	Master's or equivalent	2%		7%	
	Share of international or foreign students, by education level[1]	**2017**			
Table B6.1	Bachelor's or equivalent	3%		4%	
	Master's or equivalent	8%		13%	
	Doctoral or equivalent	18%		22%	
	All tertiary levels of education	4%		6%	
	Employment rate of 25-64 year-olds, by educational attainment	**2018**			
Table A3.1	Short-cycle tertiary	81%		82%	
	Bachelor's or equivalent	88%		84%	
	Master's or equivalent	**		88%	
	Doctoral or equivalent	**		92%	
	All tertiary levels of education	85%		85%	
	Employment rate of tertiary-educated 25-64 year-olds, by field of study	**2018**			
Table A3.4	Education	**		84%	
	Business and administration and law	**		86%	
	Engineering, manufacturing and construction	**		89%	
	Health and welfare	**		87%	
	Relative earnings of full-time full-year 25-64 year-old workers, by educational attainment (upper secondary education = 100)	**2017**			
Table A4.1	Short-cycle tertiary	**		120	
	Bachelor's or equivalent	**		144	
	Master's, doctoral or equivalent	**		191	
	All tertiary levels of education	**		157	
Upper secondary and vocational education and training (VET)					
	Upper secondary or post-secondary non-tertiary attainment rate	**2018**			
Table A1.2	Share of 25-34 year-olds with upper secondary or post-secondary non-tertiary as their highest attainment	**		41%	
	Percentage of first-time upper secondary graduates with a vocational qualification	**2017**			
Table B3.1	Vocational programmes	23%		40%	
	Age at graduation from upper secondary education, by programme orientation	**2017**			
Figure B3.1	General programmes	**		18	
	Vocational programmes	**		21	
	Share of women among upper secondary graduates, by programme orientation	**2017**			
Figure B3.2	General programmes	51%		55%	
	Vocational programmes	43%		46%	
	Employment, unemployment and inactivity rates of 25-34 year-olds, with upper secondary or post-secondary non-tertiary education	**2018**			
Table A3.3	Employment rate	**		78%	
	Unemployment rate	**		7%	
	Inactivity rate	**		16%	
	Total expenditure on upper secondary educational institutions, in USD[2] per full-time equivalent student, by programme orientation	**2016**			
Table C1.1	General programmes	**		USD 9 397	
	Vocational programmes	**		USD 10 922	
Early childhood education and care (ECEC)					
	Enrolment rate of 3-5 year-olds in education	**2017**			
Table B2.2	ECEC and primary education	91%		87%	
	Share of children enrolled in private institutions	**2017**			
Table B2.3	Pre-primary level (ISCED 02)	76%		34%	
	Ratio of children to teaching staff	**2017**			
Table B2.3	Pre-primary level (ISCED 02)	15		16	
	Expenditure on children aged 3-5 enrolled in education	**2016**			
Table B2.4	Annual expenditure per child, in USD[2] per child	**		USD 8 141	

Source	Main topics in *Education at a Glance*	Japan		OECD average	
Social outcomes and adult learning					
	Participation in formal and/or non-formal education, by educational attainment	**2016**			
Table A7.1	Below upper secondary	22%		n.a.	
	Upper secondary or post-secondary non-tertiary	32%		n.a.	
	Tertiary	56%		n.a.	
	Participation in cultural or sporting activities in the last 12 months, by educational attainment	**2015**			
Table A6.1	Below upper secondary	**		n.a.	
	Upper secondary or post-secondary non-tertiary	**		n.a.	
	Tertiary	**		n.a.	
Financial resources invested in education					
	Total expenditure on educational institutions, by level of education[2]	**2016**			
		USD/student	**% GDP**	**USD/student**	**% GDP**
Table C1.1 and C2.1	Primary	USD 8 978	1.1%	USD 8 470	1.5%
	Lower secondary	USD 10 546	0.7%	USD 9 884	0.9%
	Upper secondary	USD 11 863	0.8%	USD 10 368	2%
	Tertiary (including R&D)	USD 19 191	1.4%	USD 15 556	1.5%
	Share of expenditure on educational institutions, by final source of funds	**2016**			
		Public	**Private**	**Public**	**Private**
Table C3.1	Primary, secondary and post-secondary non-tertiary	92%	8%	90%	10%
	Tertiary (including R&D)	31%	69%	66%	32%
	Total public expenditure on primary to tertiary education	**2016**			
Table C4.1	As a percentage of total government expenditure	7.8%		10.8%	
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	**2017**			
		Teachers	**School heads**	**Teachers**	**School heads**
Table D3.2a	Pre-primary	**	**	0.78	**
	Primary	**	**	0.84	1.25
	Lower secondary (general programmes)	**	**	0.88	1.34
	Upper secondary (general programmes)	**	**	0.93	1.43
	Annual statutory salaries of teachers in public institutions, based on most prevalent qualifications, at different points in teachers' careers[2]	**2018**			
		Starting salary	**Salary after 15 years of experience**	**Starting salary**	**Salary after 15 years of experience**
Table D3.1a	Pre-primary	**	**	USD 31 276	USD 42 078
	Primary	USD 30 560	USD 51 339	USD 33 058	USD 45 947
	Lower secondary (general programmes)	USD 30 560	USD 51 339	USD 34 230	USD 47 675
	Upper secondary (general programmes)	USD 30 560	USD 51 321	USD 35 859	USD 49 804
	Organisation of teachers' working time in public institutions over the school year	**2018**			
		Net teaching time	**Total statutory working time**	**Net teaching time**	**Total statutory working time**
Tables D4.1a and D4.1b	Pre-primary	**	1 891 hours	1 024 hours	1 613 hours
	Primary	739 hours	1 891 hours	783 hours	1 612 hours
	Lower secondary (general programmes)	610 hours	1 891 hours	709 hours	1 634 hours
	Upper secondary (general programmes)	511 hours	1 891 hours	667 hours	1 629 hours
	Percentage of teachers who are 50 years old or over	**2017**			
Table D5.1	Primary to upper secondary	32%		36%	
	Share of female teachers, in public and private institutions	**2017**			
Table D5.2	Primary	64%		83%	
	Lower secondary	43%		69%	
	Total number of compulsory instruction time, by level of education	**2019**			
Table D1.1	Primary	4 621 hours		4 568 hours	
	Lower secondary	2 680 hours		3 022 hours	
	Upper secondary	**		**	
	Average class size by level of education	**2017**			
Table D2.1	Primary	27		21	
	Lower secondary	32		23	

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

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

2. Values reported in equivalent US dollars (USD) have been converted using purchasing power parities (PPPs) for GDP

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

Cut-off date for the data: 19 July 2019. Any updates on data can be found on line at http://dx.doi.org/10.1787/eag-data-en.