

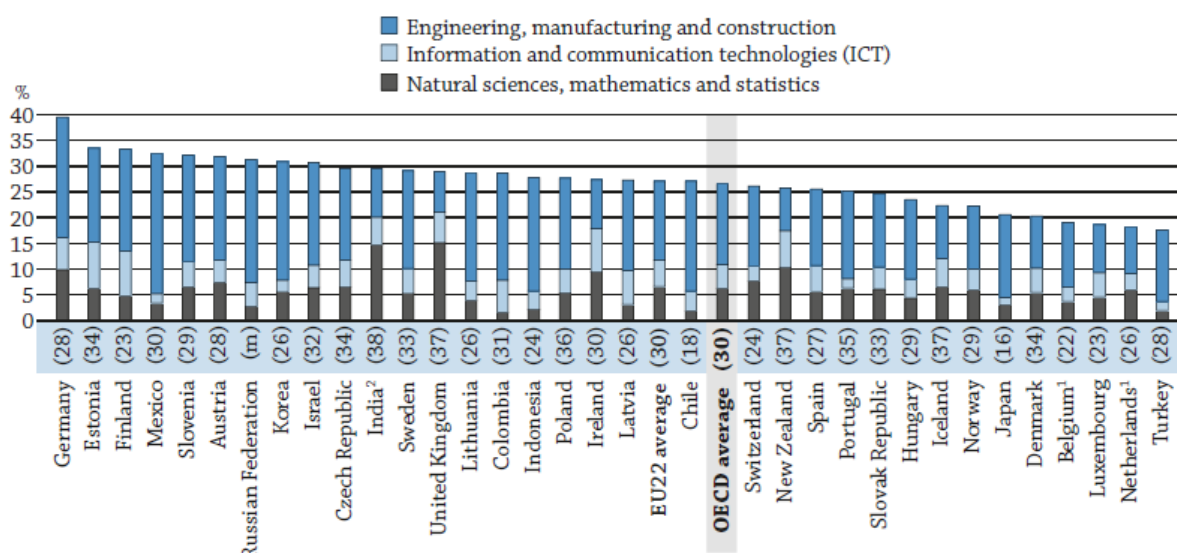
EDUCATION AT A GLANCE 2017

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 the 35 OECD countries and a number of partner countries.

Switzerland

- In Switzerland, the most popular fields of study among tertiary graduates study are **business, administration and law (28%)**; **health and welfare (15%)**; and **engineering, manufacturing and construction (15%)**. This is consistent with trends across OECD and EU22 countries.
- As in other OECD countries, **women in Switzerland tend to be under-represented in science-related fields and over-represented in social sciences and education**.
- **Vocational programmes are popular in Switzerland**. More students are enrolled in vocational upper secondary programmes than general programmes. Overall, 70% of people aged 25-34 with upper secondary or post-secondary non-tertiary qualifications have participated in work-study programmes.
- **Higher rates of employment come with higher levels of educational attainment**. Employment rates for tertiary-educated adults are among the highest across OECD countries.

Figure 1. Distribution of new entrants to tertiary education, by STEM field of study and share of women in these fields (2015)



Note: The number in parentheses corresponds to the share of female new entrants in STEM (science, technology, engineering and mathematics) fields of study.

1. Excludes new entrants at doctoral level.

2. Year of reference 2014.

Countries are ranked in descending order of the share of new entrants to tertiary education in STEM fields.

Source: OECD/UIS/Eurostat (2017), Table C3.1a. See *Source* section for more information and Annex 3 for notes (www.oecd.org/education/education-at-a-glance-19991487.htm).

StatLink <http://dx.doi.org/10.1787/888933558306>

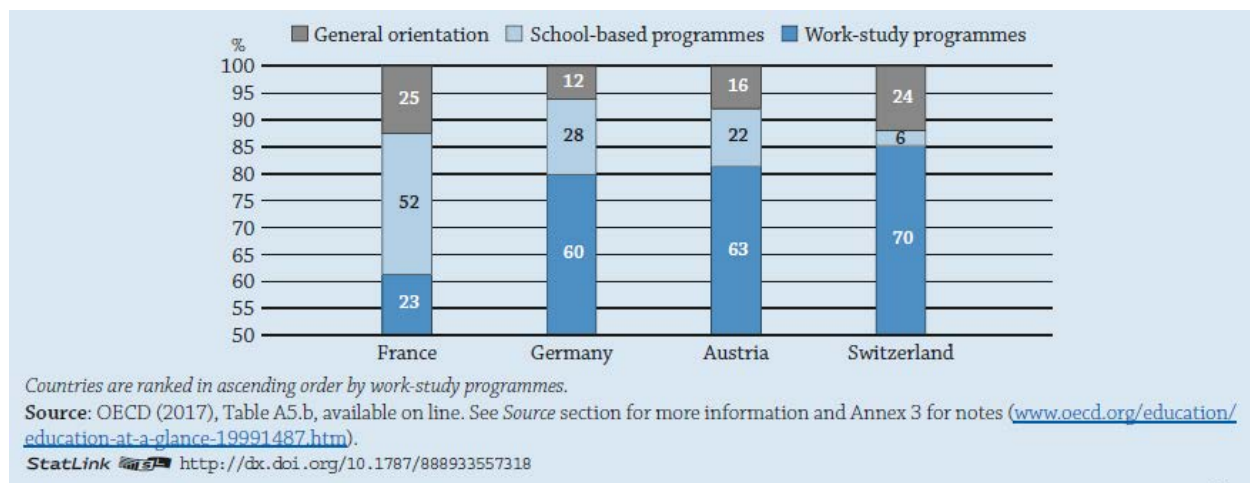
International students are attracted to Switzerland's science and research programmes

- In Switzerland, in common with almost all OECD countries, the largest share of students pursue and complete their tertiary education in the domains of business, administration and law. Health and welfare, and engineering, manufacturing and construction are also popular fields of study. However, 25% of tertiary graduates in Switzerland studied science, technology, engineering, and mathematics (STEM) fields, slightly more than the OECD average of 23%. At the bachelor's level, almost 24% of graduates studied a STEM field but the share jumps to 49% at the doctoral level. This higher rate of STEM studies at the doctoral level is quite consistent across OECD countries; in some countries, such as Canada, France and Luxembourg, over half of all doctoral students graduated from STEM tracks.
- Of the STEM tracks, women in Switzerland are more likely to enrol in fields such as natural sciences, mathematics and statistics than more traditionally male-dominated fields such as engineering, manufacturing and construction. In 2015, 43% of new tertiary entrants into natural sciences, mathematics and statistics in Switzerland were women, but only 17% of entrants into engineering, manufacturing and construction. Women in Switzerland are more likely to enrol in health and welfare, education, and social sciences (over 70% of new entrants in these fields are women), which is relatively consistent with most OECD countries.
- International students make up 17% of the tertiary-level student population in Switzerland; this exceeds the OECD and EU22 totals of 6% and 8% respectively. Over 50% of doctoral students are international and the country comes second only to Luxembourg among OECD countries for its share of international students at this level. As a result, Switzerland has 20 international students for every 100 national students home and abroad, one of the highest ratios after some of the English-speaking countries such as New Zealand (26) and the United Kingdom (22). International students favour science-related fields in Switzerland: the share of international students enrolled in natural sciences, mathematics and statistics is almost three times that of national ones.
- If current patterns of entry continue, 83% of young adults in Switzerland will enter tertiary education during their lifetime: 60% are expected to enter a bachelor's or equivalent programme, compared to 22% for master's programmes and almost 5% at the doctoral level. First-time entrants to tertiary education in Switzerland tend to be older than on average across OECD countries, at 25 years rather than 22, which suggests there is a value placed on gaining workplace experience before entering tertiary education, and a culture of lifelong learning.

Switzerland sees high enrolment in vocational education programmes

- In Switzerland, 40% of 15-19 year-olds are enrolled in vocational programmes compared with 25% in general ones. In contrast, on average across OECD countries, more students tend to be enrolled in general rather than vocational programmes.
- Among upper secondary students in Switzerland who are beyond the typical age of enrolment (i.e. over 24 years old), 88% are enrolled in vocational programmes, compared to the OECD and EU22 averages of 71% and 74% respectively.
- Graduates from vocational programmes tend to be slightly older than those graduating from general programmes (22 versus 20 years old), and 65% of people in Switzerland who receive an upper secondary vocational qualification are expected to do so before the age of 25.
- Women comprise 46% of all graduates from vocational programs in Switzerland, which is equivalent to the average across OECD countries. As in tertiary education, women tend to be over-represented in some fields and under-represented in others. For example, 90% of graduates from health and welfare upper secondary vocational programmes are women, but only 12% of graduates from engineering, manufacturing and construction ones. Gender imbalances in fields of study can translate into imbalances in the labour market, making gender parity more difficult to achieve in the workforce.
- Some 70% of 25-34 year-olds with upper secondary or post-secondary non-tertiary education participated in work-study programmes, while only 6% were in school-based vocational programmes (Figure 2). This profile differs from Austria, France and Germany where a larger proportion of individuals completed school-based programmes, with participation in work-study programmes ranging from 23% in France to 63% in Austria.

Figure 2. Percentage of 25-34 year-olds with upper secondary or post-secondary non-tertiary education, by programme orientation and type of vocational programmes (2015)



- Graduates from vocational programmes benefit from high employment rates in Switzerland: 89% of 25-34 year-olds who completed a work-study programme were employed as of 2015. This is higher than for individuals with the same qualifications in Austria, France and Germany, and higher than the employment rate for tertiary-educated adults (88%).

Higher levels of education have a greater impact on employment rates than on earnings in the Swiss labour market

- Swiss adults with all levels of education enjoy higher than average rates of employment than in other OECD countries. For example, for those with upper secondary and post-secondary non-tertiary qualifications, employment rates are 82% compared with 75% in OECD countries. The employment rate increases to 88% for those with a bachelor's, master's, or equivalent qualification and 92% for those with a doctorate. Tertiary-educated 25-64 year-olds who studied information and communication technologies or engineering, manufacturing and construction have the highest rates of employment in Switzerland (over 90% each).
- While employment prospects are better in Switzerland for more highly educated individuals than the OECD average, the earnings premium for tertiary education is not as pronounced. Individuals with a bachelor's level degree can expect to earn 37% more than those with upper secondary qualifications in Switzerland compared to 46% across OECD countries. At the master's and doctoral level the earning premium increases to 64%, compared to 98% on average across OECD countries.

Switzerland invests in students throughout their academic years

- In Switzerland, expenditure per student in primary to tertiary education was USD 17 4361 in 2014, including research and development activities. This is almost USD 7 000 higher than the average spending per student per year for OECD countries, and is second only to Luxembourg. Spending ranges from USD 15 177 at the primary level to USD 15 022 at the secondary level and USD 27 831 for tertiary students, which includes research and development activities. Cumulative expenditure per student for the expected duration of studies across primary and secondary education amounts to almost USD 200 000.
- Switzerland spends less per vocational student than on average in OECD countries, which is noteworthy given the importance of vocational education in the country. Switzerland allocates USD 9 030 per year for every student enrolled in a vocational programme, compared to USD 10 454 on average across OECD countries. However, 45% of funding for vocational programmes comes from private sources, which is significantly more than the OECD average of 14%. Although few countries have such a distribution of public and private funding of vocational

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

programmes, similar structures are noted in Germany, the Netherlands and New Zealand which all see around 40% of funding for vocational programmes coming from private sources.

- Switzerland spends a larger share of total government expenditure on education than the OECD average. From the primary to the tertiary level, including research and development activities, this amounts to 14.1%, compared to 11.3% on average among OECD countries. A low share of initial public funds (before transfers between levels of government) comes from the central government, just 4% compared to 55% on average among OECD countries, with the bulk of initial funding coming from regional governments (cantons). Funding for tertiary education is more centralised, but the bulk of initial and final funds (after taking transfers into account) still rest at the regional level.

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Note regarding data from Israel

The statistical data for Israel are supplied by and 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.

References

OECD (2017), *Education at a Glance 2017: OECD Indicators*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/eag-2017-en>.

For more information on Education at a Glance 2017 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 [OECD.Stat](http://dx.doi.org/10.1787/eag-data-en) as well as by following the **StatLinks**  under the tables and charts in the publication <http://dx.doi.org/10.1787/eag-data-en>.

Explore, compare and visualise more data and analysis using:  **EducationGPS**
<http://gpseducation.oecd.org/CountryProfile?primaryCountry=CHE&treshold=10&topic=EQ>.

Questions can be directed to:

Marie-Hélène Doumet
Senior analyst
Directorate for Education and Skills
Marie-Helene.Doumet@oecd.org

Country note author:

Francesca Gottschalk
Directorate for Education and Skills
Francesca.Gottschalk@oecd.org

Key Facts for Switzerland in Education at a Glance 2017

Source	Main topics in <i>Education at a Glance</i>	Switzerland		OECD average	
Fields of study					
	Graduates in upper secondary vocational programmes	2015			
		%	% Women	%	% Women
Table A2.1	Business, administration and law	33%	62%	20%	66%
	Engineering, manufacturing and construction	33%	12%	34%	12%
	Health and welfare	14%	90%	12%	82%
	Services	9%	58%	17%	60%
	New entrants to tertiary education	2015			
		%	% Women	%	% Women
Table C3.1	Education	8%	72%	9%	78%
	Business, administration and law	29%	46%	23%	54%
	Engineering, manufacturing and construction	15%	17%	16%	24%
	Tertiary students enrolled, by mobility status	2015			
		International students ¹	National students	International students ¹	National students
Table C4.2.	Education	5%	10%	3%	8%
	Business, administration and law	21%	26%	27%	23%
	Engineering, manufacturing and construction	17%	14%	17%	12%
	Tertiary-educated 25-64 year-olds	2016			
Table A1.3	Education	9%		13%	
	Business, administration and law	28%		23%	
	Engineering, manufacturing and construction	19%		17%	
	Employment rate of tertiary-educated 25-64 year-olds	2016			
Table A5.3	Education	88%		83%	
	Business, administration and law	88%		85%	
	Engineering, manufacturing and construction	91%		87%	
Early childhood education					
	Enrolment rates in early childhood education at age 3	2015			
Table C2.1	ISCED 01 and 02	**		78%	
	Expenditure on all early childhood educational institutions	2014			
Table C2.3	As a percentage of GDP	0.2%		0.8%	
	Proportions of total expenditure from public sources	**		82%	
Vocational education and training (VET)					
	Enrolment in upper secondary education, by programme orientation	2015			
		General	Vocational	General	Vocational
Table C1.3	Enrolment rate among population aged 15-19 year-olds	25%	40%	37%	25%
	Graduation rates, by programme orientation	2015			
		General	Vocational	General	Vocational
Table A2.2	Upper secondary education - All ages	42%	72%	54%	44%
	Employment rate, by programme orientation	2016			
		General	Vocational	General	Vocational
Figure A5.3.	25-34 year-olds with upper secondary or post-secondary non-tertiary education as their highest educational attainment level	80%	87%	70%	80%
Tertiary education					
	Share of international or foreign students, by level of tertiary education	2015			
Table C4.1.	Bachelor's or equivalent	10%		4%	
	Master's or equivalent	28%		12%	
	Doctoral or equivalent	54%		26%	
	All tertiary levels of education	17%		6%	
	Educational attainment of 25-64 year-olds	2016			
Table A1.1	Short-cycle tertiary	**		8%	
	Bachelor's or equivalent	20%		16%	
	Master's or equivalent	18%		12%	
	Doctoral or equivalent	3%		1%	
	Employment rate of 25-64 year-olds, by educational attainment	2016			
Table A5.1	Short-cycle tertiary	**		81%	
	Bachelor's or equivalent	88%		83%	
	Master's or equivalent	88%		87%	
	Doctoral or equivalent	92%		91%	
	All tertiary levels of education	88%		84%	
	Relative earnings of full-time full-year 25-64 year-old workers, by educational attainment (upper secondary education = 100)	2015			
Table A6.1	Short-cycle tertiary	**		122	
	Bachelor's or equivalent	137		146	
	Master's, doctoral or equivalent	164		198	
	All tertiary levels of education	151		156	

Switzerland - Country Note - Education at a Glance 2017: OECD Indicators

Source	Main topics in <i>Education at a Glance</i>	Switzerland		OECD average	
Adult education and learning					
	Participation of 25-64 year-olds in adult education ²	2012		2012 ³	
Table C6.1a	Participation in formal education only	**		4%	
	Participation in non-formal education only	**		39%	
	Participation in both formal and non-formal education	**		7%	
	No participation in adult education	**		50%	
Financial investment in education					
	Annual expenditure per student, by level of education (in equivalent USD, using PPPs)	2014			
Table B1.1	Primary education	USD 15 177		USD 8 733	
	Secondary education	USD 15 022		USD 10 106	
	Tertiary (including R&D activities)	USD 27 831		USD 16 143	
	Total expenditure on primary to tertiary educational institutions	2014			
Table B2.1	As a percentage of GDP	4.7%		5.2%	
	Total public expenditure on primary to tertiary education	2014			
Table B4.1	As a percentage of total public expenditure	14.1%		11.3%	
Teachers					
	Actual salaries of teachers in public institutions relative to wages of full-time, full-year workers with tertiary education	2015			
Table D3.2a	Pre-primary school teachers	**		0.78	
	Primary school teachers	**		0.85	
	Lower secondary school teachers (general programmes)	**		0.88	
	Upper secondary school teachers (general programmes)	**		0.94	
	Annual statutory salaries of teachers in public institutions, based on typical qualifications, at different points in teachers' careers (in equivalent USD, using PPPs)	2015			
		Starting salary	Salary after 15 years of experience	Starting salary	Salary after 15 years of experience
Table D3.1a	Pre-primary school teachers	USD 50 203	**	USD 29 636	USD 39 227
	Primary school teachers	USD 54 968	**	USD 30 838	USD 42 864
	Lower secondary school teachers (general programmes)	USD 62 239	**	USD 32 202	USD 44 623
	Upper secondary school teachers (general programmes)	USD 69 865	**	USD 33 824	USD 46 631
	Organisation of teachers' working time in public institutions over the school year	2015			
		Net teaching time	Total statutory working time	Net teaching time	Total statutory working time
Table D4.1	Pre-primary school teachers	1073 hours	1920 hours	1001 hours	1608 hours
	Primary school teachers	1073 hours	1920 hours	794 hours	1611 hours
	Lower secondary school teachers (general programmes)	1073 hours	1920 hours	712 hours	1634 hours
	Upper secondary school teachers (general programmes)	1073 hours	1920 hours	662 hours	1620 hours
	Percentage of teachers who are 50 years old or over	2015			
Table D5.1	Primary education	34%		32%	
	Upper secondary education	42%		40%	
	Share of female teachers in public and private institutions	2015			
Table D5.2	Primary education	82%		83%	
	Upper secondary education	43%		59%	
	Tertiary education	34%		43%	
	Ratio of students to teaching staff	2015			
Table D2.2	Primary education	16		15	
	Secondary education	**		13	
	Tertiary education	**		16	
Equity					
	Intergenerational mobility in education ²	2012		2012 ³	
		Both parents have less than tertiary	At least one parent attained tertiary	Both parents have less than tertiary	At least one parent attained tertiary
Tables A4.1 and A4.2	Less than tertiary education (30-44 year-olds' own educational attainment)	**	**	69%	31%
	Tertiary-type B (30-44 year-olds' own educational attainment)	**	**	12%	16%
	Tertiary-type A and advanced research programmes (30-44 year-olds' own educational attainment)	**	**	20%	55%
Transition from school to work					
	Percentage of people not in employment, nor in education or training (NEET)	2016			
Table C5.1	18-24 year-olds	9%		15%	
Education and social outcomes					
	Percentage of adults who report having depression	2014			
		Men	Women	Men	Women
Table A8.1	Below upper secondary	6%	12%	10%	15%
	Upper secondary or post-secondary non-tertiary	7%	9%	6%	10%
	Tertiary	4%	8%	5%	6%

The reference year is the year cited or the latest year for which data are available.
Refer to Annex 3 for country-specific notes and for more information on data presented in this key facts table (www.oecd.org/education/education-at-a-glance-19991487.htm).

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

2. Data refer to ISCED-97 instead of ISCED-A 2011.

3. OECD average includes some countries with 2015 data.

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

Cut-off date for the data: 19 July 2017. Any updates on data can be found on line at <http://dx.doi.org/10.1787/eag-data-en>



From:

Education at a Glance 2017

OECD Indicators

Access the complete publication at:

<https://doi.org/10.1787/eag-2017-en>

Please cite this chapter as:

OECD (2017), "Switzerland", in *Education at a Glance 2017: OECD Indicators*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/eag-2017-69-en>

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