

C 1 EDUCATION AND QUALIFICATION

The total number of school-leavers qualified for tertiary education (C 1–1) in Germany has increased between 1993 and 2013 from 290,000 to almost 520,000. Since the mid-1990s, the number of newly enrolled tertiary students (C 1–2) has also risen sharply. This trend can be observed in all of the OECD countries and is more pronounced in most of the analogue countries than it is in Germany. Thus, between 1995 and 2010, the OECD average entry rate has increased by approximately 24 percentage points, from 37 to 61 percent. In Germany, the entry rate increased between 1995 and 2010 by 16 percentage points to 42 percent.

In the winter semester of 2011/12, approximately 265,000 students without German citizenship were enrolled at German tertiary education institutions (C 1–3), the highest number recorded to date. From among these, mobile foreign students (*Bildungsausländer*) made up the largest group with 193,000 students. The number of mobile foreign students grew by 4.3 percent as compared with the previous year. Their proportion of all students, however, declined by 0.2 percentage points to 8.1 percent. This decline is attributable to a strong domestic demand caused by the suspension of mandatory military services and a double-intake in school-leavers, which is owing to a reduction of the mandatory period for upper secondary school in nearly all of the federal states.

In 2011, the number of graduates in the subjects groups of engineering and mathematics/natural sciences developed along varying lines (C 1–4). While the number of first-degree graduates in the subjects group of mathematics/natural sciences increased by only 2 percent as compared with the previous year, the engineering sciences recorded an above-average increase of 11 percent. The proportion of graduates in the subjects group of engineering as a percentage of all first-degree graduates increased to 18.1 percent; an increase of 1.2 percentage points. The proportion of engineering graduates as a percentage of the total number of first-degree graduates thus continues to be well below 1990 levels. Yet, in absolute terms, engineering sciences reached a new high, with more than 55,000 graduates.

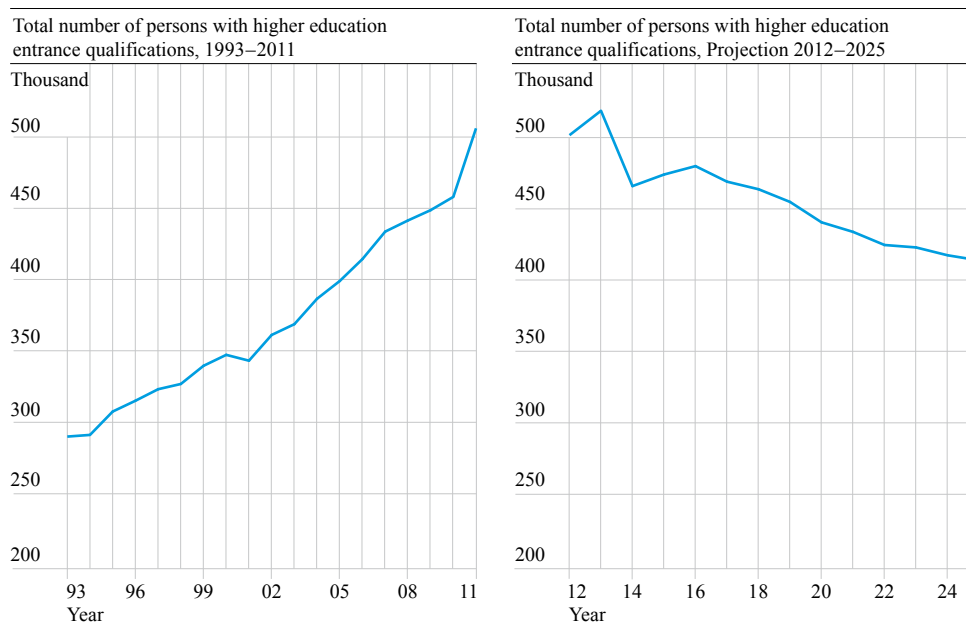
Participation in further training in Germany (C 1–5) experienced a downward trend over the period examined. The largest participation in further training is recorded among highly qualified individuals, irrespective of whether they are economically active (9.3 percent) or unemployed (9 percent). In contrast, training participation among low-skilled workers (1.6 percent) and unemployed individuals (2.4 percent) is lagging behind considerably. It can be observed that participation in further training increases according to a person's level of education.

In an international comparison of the qualification levels of the workforce (C 1–6), it can be observed that Germany ranks low in terms of employment of graduates (ISCED 5a and 6). However, Germany has traditionally had a high proportion of workers with intermediate or vocational qualifications (ISCED 4 and 5b). Together, these two groups represent nearly 37 percent of employees. With regard to these important qualification levels, Germany ranks above the European average of 35.5 percent and is in the leading group of European countries.³⁸³

School-leavers qualified for higher education in Germany

C 1–1

Persons with higher education entrance qualification: school-leavers who have obtained entitlement to enter general or subject-specific tertiary education at a university or a university of applied sciences.



Source (actual values): *Statistisches Bundesamt* (various years).

Source (projected values): statistical publications of the Conference of Ministers of Education and Cultural Affairs (*Kultusministerkonferenz*), in: Leszczensky et al. (2013).

Share of new tertiary students in the relevant age group in selected OECD countries (figures in percent)

C 1–2

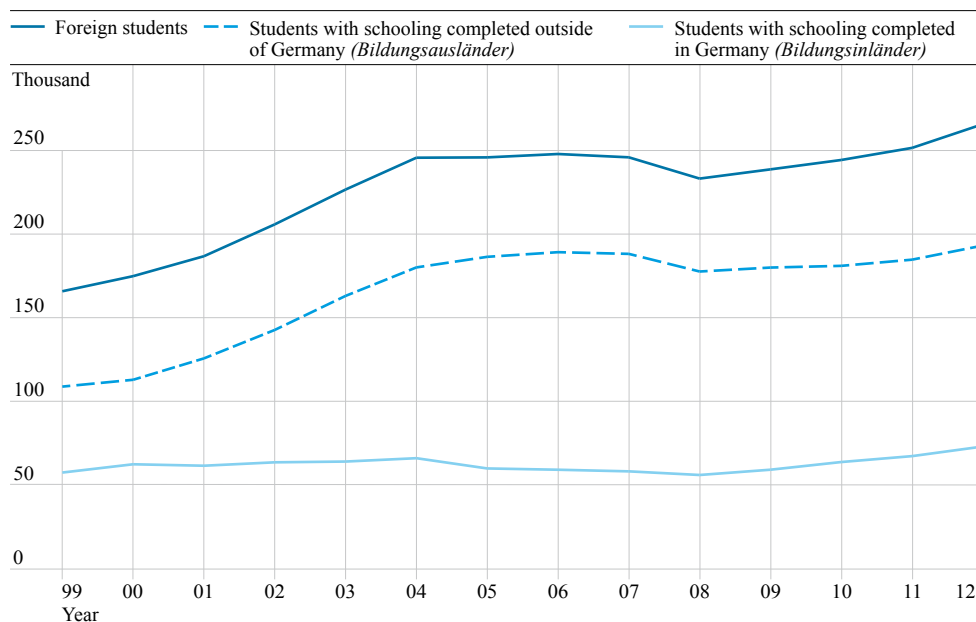
Entrance rate: proportion of newly enrolled students as a percentage of the population in the relevant age group. The entrance rate measures the extent to which demographic potential is exploited for the development of academic human capital.

OECD Countries	1995	2000	2002	2004	2006	2008	2009	2010	2010 ¹⁾
Australia	–	59	77	70	84	87	94	96	67
Germany	26	30	35	37	35	36	40	42	36
Finland	39	71	71	73	76	70	69	68	–
France	–	37	37	–	–	–	–	–	–
Great Britain	–	47	48	52	57	57	61	63	41
Italy	–	39	50	55	56	51	50	49	–
Japan	31	35	39	40	45	48	49	51	–
Canada	–	–	–	–	–	–	–	–	–
Korea	41	45	–	49	59	71	71	71	–
Netherlands	44	53	54	56	58	62	63	65	61
Switzerland	17	29	–	38	38	38	41	44	33
Sweden	57	67	75	79	76	65	68	76	65
Spain	–	47	49	44	43	41	46	52	–
USA	–	43	64	63	64	64	70	74	–
OECD average	37	47	52	53	56	56	59	61	–
Other G20 countries									
China	–	–	–	–	–	–	17	17	–

¹⁾ Adjusted rate; foreign first-year students not included.

Sources: OECD (eds.): *Bildung auf einen Blick* (Education at a Glance) – OECD Indicators (various years), in: Leszczensky et al. (2013).

C 1-3 Foreign students at German tertiary education institutions



Foreign students are persons without German citizenship. These can be divided into students who obtained their higher education entrance qualification in Germany (*Bildungsinländer*), and students who obtained their higher education entrance qualification abroad (*Bildungsausländer*).

Source: *Statistisches Bundesamt* as well as Main Reports; research in HIS-ICE, in: Leszczensky et al. (2013).

C 1-4 Graduates and subject structure rate

	1993	1995	2000	2005	2008	2010	2011
Total number of graduates	173,756	197,015	176,654	207,936	260,498	294,330	307,271
Percentage of women	39.8	41.2	45.6	50.8	52.2	52.1	51.4
Percentage of university students	65.2	63.6	64.3	60.8	62.4	62.0	65.5
Linguistics, cultural studies	22,601	27,125	29,911	35,732	50,680	54,808	56,140
Percentage for subject group	13.0	13.8	16.9	17.2	19.4	18.6	0.2
Law, business and social sciences	53,170	66,538	62,732	76,566	87,196	102,315	105,589
Percentage for subject group	30.6	33.8	35.5	36.8	33.5	34.9	34.4
Medicine/health sciences	13,515	12,075	10,620	11,817	14,345	15,222	15,686
Percentage for subject group	7.8	6.1	6.0	5.7	5.5	5.2	5.1
Agriculture, forestry, nutrition sciences	5,477	5,527	4,761	5,312	6,363	6,215	6,563
Percentage for subject group	3.2	2.8	2.7	2.6	2.4	2.1	2.1
Art and art-related subjects	7,045	7,280	7,630	9,678	11,185	11,820	12,525
Percentage for subject group	4.1	3.7	4.3	4.7	4.3	4.0	4.1
Mathematics, natural sciences	24,519	27,800	21,844	30,737	43,333	48,561	49,593
Percentage for subject group	14.1	14.1	12.4	14.8	16.6	16.5	16.1
Engineering sciences	44,629	47,295	35,725	34,339	42,558	49,860	55,631
Percentage for subject group	25.7	24	20.2	16.5	16.3	16.9	18.1

Subject structure rate: the subject structure rate indicates the percentage of first-degree graduates who have completed their studies in a particular subject or group of subjects.

Source: *Statistisches Bundesamt*, as well as research in HIS/ICE, in: Leszczensky et al. (2013).

Further training according to employment status and qualification level (figures in percent)

C 1–5

Further training rate:
proportion of persons who
participated in a further
education measure within
four weeks prior to the time
of the survey.

	2003	2004	2005	2006	2007	2008	2009	2010	2011
Gainfully employed persons	4.1	6.7	5.7	5.1	5.2	5.4	5.1	5.0	5.0
low (ISCED 0–2)	1.7	3.9	2.1	1.6	1.4	1.6	1.1	1.4	1.6
medium (ISCED 3–4)	3.2	5.0	4.2	3.6	4.0	3.9	3.9	3.6	3.7
high (ISCED 5–6)	7.7	11.9	11.2	10.5	10.2	11.0	9.6	9.9	9.3
Unemployed persons	2.8	3.8	2.4	2.1	2.5	3.6	3.3	3.1	3.9
low (ISCED 0–2)	1.4	2.4	1.7	0.4	2.0	2.3	2.3	2.7	2.4
medium (ISCED 3–4)	2.9	3.7	2.3	2.4	2.3	4.1	3.6	2.7	3.8
high (ISCED 5–6)	5.6	7.4	4.4	6.0	5.2	4.4	5.1	7.0	9.0
Persons outside the labour force	1.3	3.0	1.2	1.0	0.8	1.0	1.0	1.2	1.0
low (ISCED 0–2)	0.5	1.7	0.6	0.5	0.3	0.3	0.7	0.6	0.6
medium (ISCED 3–4)	1.9	3.7	1.6	1.2	1.0	1.3	1.1	1.6	1.3
high (ISCED 5–6)	2.2	4.8	2.0	1.9	1.8	2.4	2.0	2.0	1.1

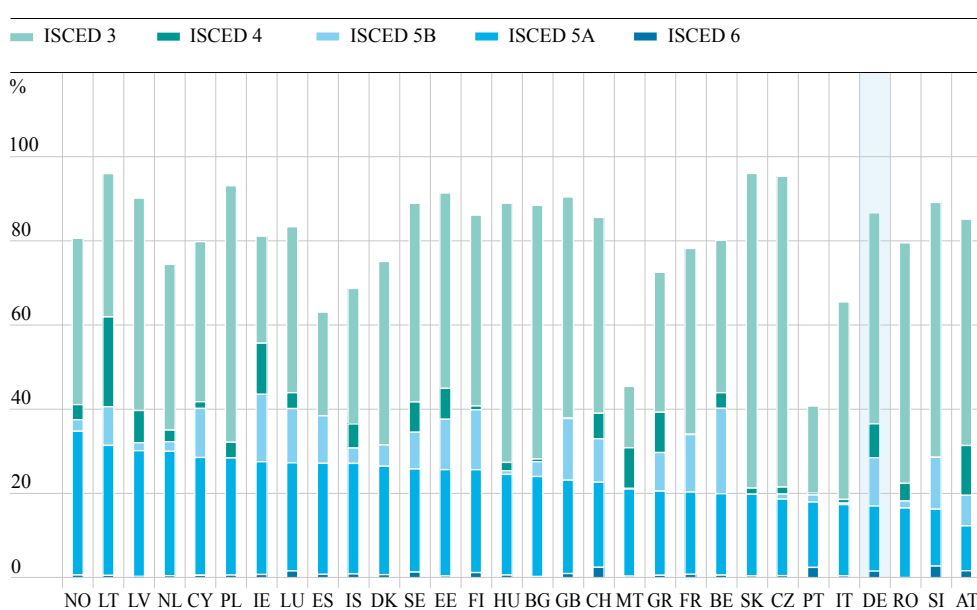
Total population: all persons from the age of 15 to 64 years (excluding school-going juveniles, apprentices and students).
For information on ISCED, cf. C 1–6.

Source: Eurostat, European Labour Force Survey (micro-data). Calculations by NIW, in: Leszczensky et al. (2013).

Qualification level of the European workforce in 2011 (figures in percent)

C 1–6

The classification of qualification levels is based on the International Standard Classification of Education (ISCED).³⁸⁴
ISCED 3: qualification to study at a university of applied sciences/university or completion of an apprenticeship
ISCED 4: qualification to study at a university of applied sciences/university and completion of an apprenticeship
ISCED 5B: Master craftsman or technician training, or equivalent degree from a university of applied sciences
ISCED 5A: degree from a tertiary education institution
ISCED 6: completion of doctoral degree



Source: Eurostat, European Labour Force Survey. Calculations by NIW, in: Leszczensky et al. (2013).