

C 1 EDUCATION AND QUALIFICATION

The proportion of gainfully employed persons with tertiary education qualifications (ISCED 6, ISCED 5A and 5B) of the total labour force amounts to 29 percent in Germany (C 1–1). When including the level of ISCED 4 – which comprises equivalent further education qualifications and accounts for a total of 8.2 percent of Germany’s labour force – the share of gainfully employed persons with tertiary or equivalent qualifications was at 37.3 percent in 2012 and thus higher than in the previous year (36.6 percent).

This trend is attributable to the fact that Germany’s university entry rate has continuously increased in recent years (C 1–2). Between 2001 and 2011 alone, the rate of persons with higher education entrance qualification in Germany increased from 32 to 46 percent. Moreover, the number and the proportion of individuals eligible for tertiary education in Germany has grown steadily ever since 1970 (C 1–3). With around 506,500 school-leavers with higher education entrance qualification, the number of potential tertiary education entrants reached its peak in 2011, representing a share of 57 percent of school-leavers per cohort. In 1970, this proportion was still at only 11 percent, and in 1980 at around 22 percent.

However, as a result of Germany’s ageing population, the number of persons with higher education entrance qualification is expected to decrease from 2014. Yet, according to the most recent estimates, the number will still be well above 400,000 until the year 2025. It is to be expected that the proportion of school-leavers with higher education entrance qualification of all school-leavers will amount to around 60 percent.

As a result of the sharp increase in the number of first-year students, the number of university graduates in Germany has also increased since 2007. With 309,621 first-time graduates, the year 2012 marked a new record high (C 1–4). Since 2000, the number of first-time graduates thus increased by approximately 75 percent. At the same time, however, graduate numbers within the STEM subject group developed very differently over a longer period of time. Most recently (since 2012) the subjects group of mathematics/natural sciences experienced a 2.7 percent decline in the number of graduates (reaching a proportion of 15.6 percent), while the subjects group of engineering displayed a sharp rise (8.3 percent) in the number of graduates, reaching a proportion of 19.5 percent.

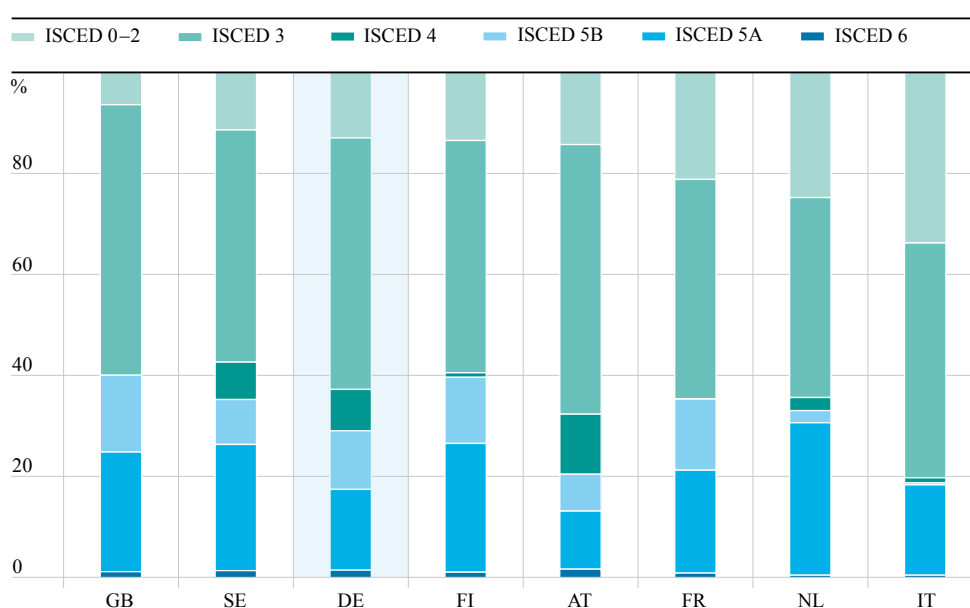
Germany continues to be successful in attracting international university students. In the winter semester of 2012/2013 approximately 282,200 foreign students were enrolled at German tertiary education institutions (C 1–5). The total number of foreign students has increased by 6.4 percent compared to the previous year and has thus reached a new high. Foreign students account for approximately 11 percent of all students enrolled in Germany.

Participation in further training of persons of working age (15 to 64 years) remained at 4.8 percent and was thus unchanged in 2012 compared to 2011. Broken down by employment status, participation in further training was at the highest among gainfully employed persons (5.8 percent) and at the lowest among economically inactive persons (1.7 percent). Since 2008, a slight negative trend in training participation can be observed, which, again, has been most pronounced among economically inactive and unemployed persons.⁴⁷⁹

Qualification level of the workforce in selected EU countries in 2012 (figures in percent)

C 1–1

The classification of qualification levels is based on the International Standard Classification of Education (ISCED).⁴⁸⁰
 ISCED 0–2: pre-primary, primary and lower secondary education
 ISCED 3: qualification to study at a university of applied science or completion of an apprenticeship
 ISCED 4: qualification to study at a university of applied sciences/university an completion of apprenticeship
 ISCED 5B: master craftsman or technician training, or an equivalent degree from a university of applied sciences
 ISCED 5A: degree from a tertiary education institution
 ISCED 6: completion of doctoral degree

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Source: Eurostat, European Labour Force Survey. Calculations by NIW. In: Baethge et al. (2014).

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-Länder	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2011 ¹⁾
Germany	32	35	36	37	36	35	34	36	40	42	46	40
France	37	37	39	–	–	–	–	–	–	–	39	–
Great Britain	46	48	48	52	51	57	55	57	61	63	64	–
Japan	37	39	40	40	41	45	46	48	49	51	52	–
Korea	49	–	47	49	54	59	61	71	71	71	69	–
Sweden	69	75	80	79	76	76	73	65	68	76	72	59
Switzerland	33	–	38	38	37	38	39	38	41	44	44	33
USA	42	64	63	63	64	64	65	64	70	74	72	–
OECD average	48	52	53	53	54	56	56	56	59	61	60	–
China	–	–	–	–	–	–	–	–	17	17	19	–

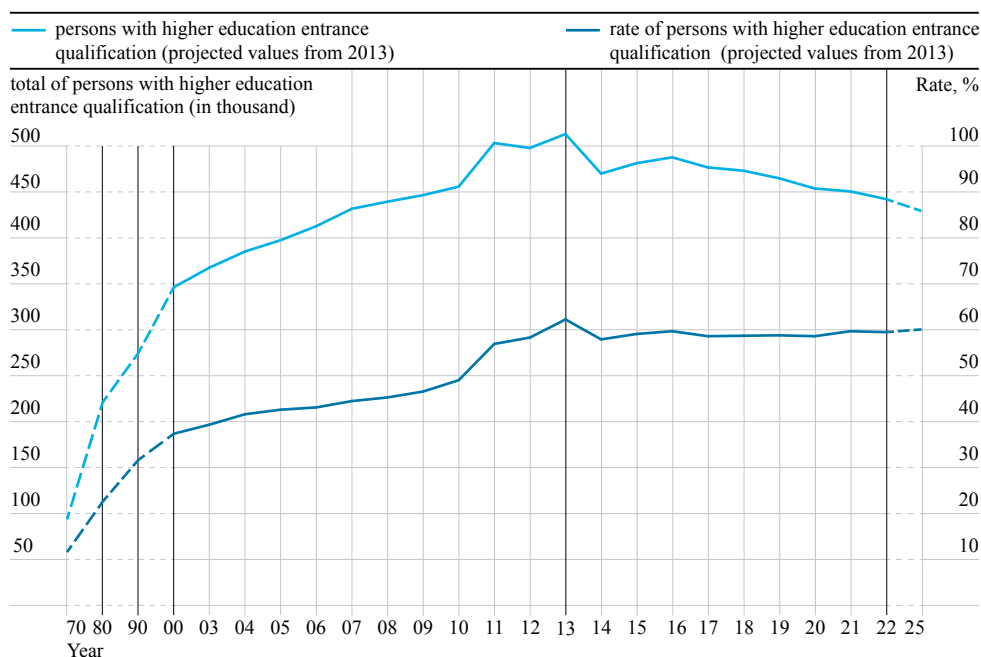
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¹⁾ Adjusted rate without international first-year students.

Sources: OECD (ed.): Education at a Glance, OECD Indicators, various years. In: Baethge et al. (2014).

C 1-3 School-leavers qualified for higher education in Germany 1970 to 2025, projection from 2013

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Source (actual values): *Statistisches Bundesamt* (various years), Source (projected values): statistical publications of the Conference of Ministers of Education and Cultural Affairs (*Kultusministerkonferenz*). In: Baethge et al. (2014).

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. Entrance rate: proportion of newly enrolled students as a percentage of the population in the relevant age group.

C 1-4 Number of first-time graduates and subjects structure rates

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	2000	2005	2007	2009	2010	2011	2012
Total number of graduates	176,654	207,936	239,877	287,997	294,330	307,271	309,621
Percentage of women	45.6	50.8	51.8	51.7	52.1	51.4	51.3
Percentage of university graduates	64.3	60.8	62.4	62.0	62.0	62.1	61.3
Linguistics, cultural studies	29,911	35,732	43,827	53,003	54,808	56,140	55,659
Percentage for subject group	16.9	17.2	18.3	18.4	18.6	18.3	18.0
Law, business and social sciences	62,732	76,566	85,838	101,391	102,315	105,589	105,024
Percentage for subject group	35.5	36.8	35.8	35.2	34.9	34.4	33.9
Human medicine/ healthcare sciences	10,620	11,817	13,358	15,142	15,222	15,686	15,856
Percentage for subject group	6.0	5.7	5.6	5.3	5.2	5.1	5.1
Agriculture, forestry, nutrition sciences	4,761	5,312	5,661	6,787	6,215	6,563	6,405
Percentage for subject group	2.7	2.6	2.4	2.3	2.1	2.1	2.1
Art and art-related subjects	7,630	9,678	10,399	11,541	11,820	12,525	12,866
Percentage for subject group	4.3	4.7	4.3	4.0	4	4.1	4.2
Mathematics, natural sciences	21,844	30,737	38,417	47,782	48,561	49,593	48,231
Percentage for subject group	12.4	14.8	16	16.6	16.5	16.1	15.6
Engineering sciences	35,725	34,339	38,065	47,004	49,860	55,631	60,259
Percentage for subject group	20.2	16.5	15.9	16.3	16.9	18.1	19.5

Source: *Statistisches Bundesamt*, as well as research in HIS/ICE. In: Baethge et al. (2014).

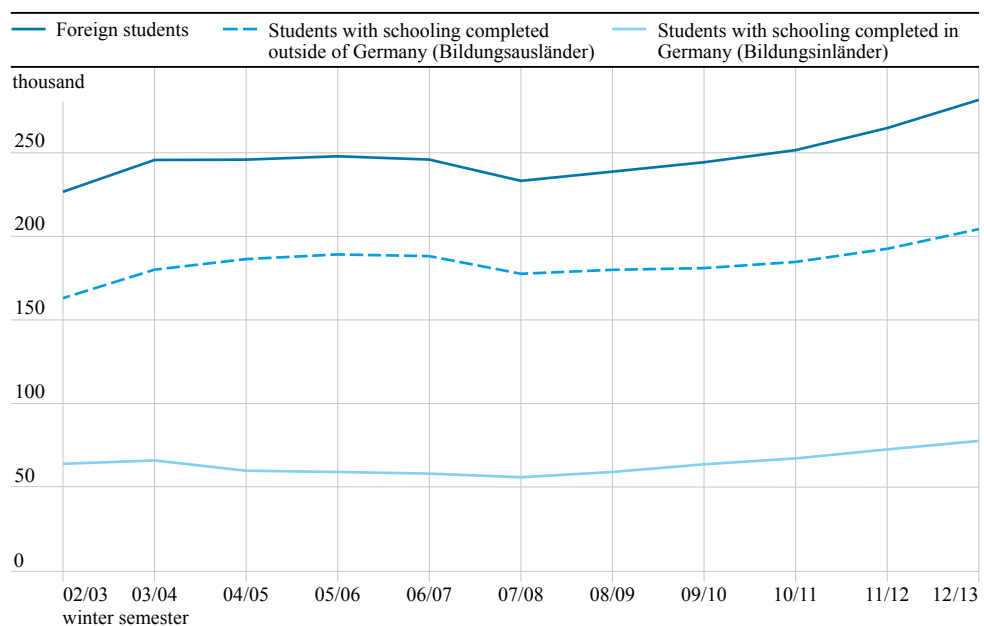
First-time graduates and subjects structure rate: the subjects structure rate indicates the percentage of first-degree graduates who have completed their studies in a particular subject or group of subjects. First-time graduates are persons who successfully complete a first degree.

Foreign students at German tertiary education institutions

C 1–5

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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 research in HIS/ICE. In: Baethge et al. (2014).

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

C 1–6

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

	2004	2005	2006	2007	2008	2009	2010	2011	2012
Gainfully employed persons	6.8	6.3	5.9	6.0	6.1	5.9	5.8	5.8	5.8
low (ISCED 0–2)	3.9	2.4	2.1	1.9	2.1	1.9	1.8	1.7	1.6
medium (ISCED 3–4)	5.0	4.7	4.5	4.6	4.7	4.5	4.5	4.4	4.3
high (ISCED 5–6)	12.1	12.1	11.5	11.8	11.8	11.0	10.5	10.6	10.6
Unemployed persons	3.9	3.2	3.4	3.6	4.3	4.5	4.1	3.6	3.6
low (ISCED 0–2)	2.4	2.3	2.4	2.7	2.9	3.1	3.0	2.7	2.7
medium (ISCED 3–4)	3.7	3.0	3.2	3.5	4.5	4.2	4.0	3.5	3.4
high (ISCED 5–6)	7.8	6.1	7.0	7.1	7.6	9.1	7.1	6.2	6.4
Inactive persons	2.8	2.2	2.1	2.0	2.2	2.1	2.1	1.9	1.7
low (ISCED 0–2)	1.7	1.4	1.4	1.4	1.5	1.6	1.5	1.5	1.5
medium (ISCED 3–4)	3.5	2.5	2.2	2.2	2.3	2.2	2.1	1.8	1.6
high (ISCED 5–6)	4.6	4.3	4.4	4.0	4.6	3.9	3.8	3.5	3.0

All figures are provisional. Re. ISCED cf. C 1–1

Total population: all persons from the age of 15 to 64 years (excluding school-going juveniles, vocational trainees and students)

Source: European Labour Force Survey (special evaluation). Calculations by NIW. In: Cordes et al. (2014).