

HEAD OFFICE OF THE GERMAN SCIENCE AND HUMANITIES COUNCIL

Cologne 17 01 2024

BASIC DATA ON UNIVERSITIES AND RESEARCH ESTABLISHMENTS IN GERMANY

Number of universities (winter semester 2022/23, without colleges of public administration): 389 (universities: 106, colleges of education: 6, colleges of theology: 16, art academies: 53, universities of applied sciences: 208), of which 111 (29 %) are privately-funded and 36 (9 %) are church-funded.

12.7 % of students in higher education in Germany are enrolled at private universities, 1.1 % at church universities (winter semester 2022/2023).

149 of the German universities (38 %) have the right to award doctoral degrees. Nine universities (2 %) have the right to award doctoral degrees in cooperation with another university. 55 % of first-year students (249,372) and 62 % of all students (1,787,397) study at a doctorate-granting university (winter semester 2022/2023). 37,585 students (1.3 %), of which 4,240 are first-year students (0.9 %), study at a university which awards cooperative doctoral degrees.

Universities (without colleges of public administration)	2019	2020	2021	2022	2023 ¹²
First-year students ¹	491,672	472,189	454,393	456,380	460,189
at universities ²	288,066	264,632	253,126	259,282	263,233
at universities of applied sciences ³	203,606	207,557	201,267	197,098	196,956
Average age ⁴	19.4	19.3	19.4	19.4	.
Students	2,837,451	2,888,030	2,885,809	2,860,624	2,813,639
at universities ²	1,814,305	1,818,035	1,791,332	1,765,199 ¹⁰	1,724,146
at universities of applied sciences	1,023,146	1,069,995	1,094,477	1,095,425 ¹¹	1,089,493
Non-German students	411,403	416,251	440,613	457,847	.
From Germany	91,558	91,562	90,985	90,334	.
From abroad	319,845	324,689	349,628	367,513	.
Non-German students from the EU	100,950	96,335	102,775	102,248	.
German students abroad	137,900	133,500	137,700	.	.
Degrees	469,757	433,905	473,059	461,158	.
at universities ²	286,850	257,816	281,654	270,249	.
of which bachelor degrees ⁴	111,619	98,853	108,185	100,175	.
of which master degrees ⁵	98,616	89,801	95,422	93,954	.
of which teaching degrees ⁶	46,166	42,940	47,958	46,792	.
at universities of applied sciences	182,907	175,389	191,405	190,909	.
of which bachelor degrees ⁴	134,173	128,983	140,392	137,442	.
of which master degrees ⁵	46,608	44,600	49,181	51,700	.
Average duration of study (bachelor) ⁷	7.1	7.2	7.2	7.3	.
Average graduation age (bachelor) ³ ⁸	23.4	23.3	23.3	23.4	.
Average graduation age (master) ³	26.1	26.1	26.1	26.1	.
Doctorates	28,690	26,220	28,146	27,689	.
Average graduation age (Ph.D.) ³	30.5	30.5	30.6	30.6	.
Habilitations	1,518	1,533	1,621	1,535	.
Average age (habilitations) ⁹	41.6	41.3	41.7	41.6	.

| 1 Students who are enrolled at a university in Germany for the first time (excluding students in the first year of a second degree course at a German university). - | 2 Including colleges of education, colleges of theology and art academies. - | 3 Median; including colleges of public administration. - | 4 Without B.Ed. - | 5 Without M.Ed. - | 6 Including B.Ed. and M.Ed. - | 7 First-time graduates; in semesters. - | 8 First-time graduates; in years. - | 9 Arithmetic average. - | 10 Of which 731,985 BA and 393,970 MA students (without B.Ed. and M.Ed.). - | 11 Of which 883,155 BA and 195,110 MA students (without B.Ed. and M.Ed.). - | 12 First preliminary results.

Universities ¹	2016	2017	2018	2019	2020	2021	2022
University staff ²	557,510	566,745	578,315	593,430	612,900	627,650	630,075
<i>of which financed from the ordinary budget</i>	<i>438,480</i>	<i>444,985</i>	<i>454,395</i>	<i>466,170</i>	<i>482,565</i>	<i>494,745</i>	<i>496,765</i>
Professors	27,080	27,380	27,555	27,745	28,125	28,595	28,900
Other scientific staff	262,445	266,530	270,885	273,195	280,000	286,825	285,065
Non-scientific staff	268,980	272,830	279,875	292,490	304,775	312,230	316,115
Staff at universities of applied sciences	127,795	131,230	133,840	136,780	138,655	144,870	148,400
<i>of which financed from the ordinary budget</i>	<i>97,425</i>	<i>97,790</i>	<i>99,165</i>	<i>102,055</i>	<i>103,840</i>	<i>106,430</i>	<i>107,080</i>
Professors	19,305	19,700	20,020	20,235	20,560	21,020	21,585
Other scientific staff	75,215	77,270	79,300	80,780	81,535	85,635	86,980
Non-scientific staff	33,275	34,260	34,520	35,770	36,560	38,210	39,835

| ¹ Without colleges of public administration. - | ² Including colleges of education, colleges of theology and art academies.

Selected groups of subjects Universities (without colleges of public administration)	Humanities	Law, econom- ics, social sciences	Mathematics, natural sciences	Medicine, health sciences	Engineering
First-year students (2022)	48,375	173,150	50,640	27,460	125,475
Students (2022)	310,475	1,072,570	314,040	200,905	763,945
Non-German students (2021)	40,610	125,825	50,810	21,860	184,785
Degrees (2021) ¹	46,190	185,710	45,685	25,460	125,975
at universities ²	44,560	91,635	42,400	15,785	54,565
of which bachelor degrees ³	12,945	39,185	15,355	1,505	22,845
of which master degrees ⁴	8,540	33,010	14,245	1,740	29,505
of which teaching degrees ⁵	21,865	9,750	10,350	320	740
at universities of applied sciences	1,630	94,075	3,285	9,675	71,410
of which bachelor degrees ³	1,235	69,495	2,135	7,505	48,660
of which master degrees ⁴	385	24,065	1,150	2,060	21,800
Ph.D. students (2022)	21,780	33,600	47,244	54,005	37,585
Doctorates (2022)	1,725	3,910	7,755	8,720	4,415
Habilitations (2022)	213	156	161	870	68
Staff (2022)	37,980	104,340	72,680	197,235	103,545
Professors	4,730	14,690	6,465	5,140	13,270
Other scientific staff	33,810	94,700	56,980	84,295	85,390
Non-scientific staff	4,165	9,640	15,700	112,935	18,160
Students per scientific staff (2021) ⁶	21.1	28.5	14.1	3.9	23.5
Students per professor (2021) ⁷	72.8	81.7	51.9	45.3	62.5
Graduation rates (2021) ⁸	75.4	83.0	61.8	89.2	68.3
Third-party means/prof. in Euro (2021) ⁹	129,140	81,840	342,060	554,530	225,860

| ¹ Without doctorates. - | ² Including colleges of education, colleges of theology and art academies. - | ³ Without B.Ed. - | ⁴ Without M.Ed. - | ⁵ Including B.Ed. and M.Ed. - | ⁶ Students per scientific staff in full-time equivalents; the overall ratio was 15.6. - | ⁷ The overall ratio was 62.9. - | ⁸ Including colleges of public administration; share of students graduating in 2021 and before in relation to first-year students 2013. The overall share was 75.2 %. - | ⁹ The overall relation was 207,920 Euro.

Reference date 1 st september	2016	2017	2018	2019	2020	2021	2022	2023
Degree programs at universities ¹	12,685	13,128	13,535	13,822	13,868	14,061	14,292	14,613
of which bachelor degree programs	4,977	5,162	5,212	5,307	5,351	5,383	5,487	5,613
of which master degree programs	6,135	6,390	6,706	6,906	6,951	7,089	7,173	7,341
of which state and church degrees	1,285	1,283	1,284	1,284	1,281	1,296	1,344	1,350
Degree programs at universities of applied sciences ²	5,782	5,883	6,157	6,323	6,491	6,776	7,033	7,279
of which bachelor degree programs	3,494	3,515	3,655	3,733	3,817	3,956	4,109	4,253
of which master degree programs	2,223	2,313	2,446	2,536	2,626	2,772	2,876	2,979

| ¹ Including colleges of education, colleges of theology and art academies. - | ² Including the dual university Baden-Württemberg; without colleges of public administration.

States	First-year students 2023 ¹	Prognosis of first-year students ²		R&D share in GDP 2021 ³	Share of R&D staff 2021 ⁴
		2025	2030		
Baden-Württemberg	67,592	61,400	62,200	5.64	29.2
Bavaria	78,392	52,600	64,600	3.39	19.7
Berlin	35,534	28,400	29,700	3.35	18.3
Brandenburg	9,293	8,200	8,600	1.72	10.5
Bremen	6,858	5,400	5,500	3.18	18.3
Hamburg	17,756	11,200	11,500	2.16	15.3
Hessen	40,014	33,700	34,800	3.09	15.9
Meckl.-Vorpommern	5,694	6,400	6,700	1.77	9.4
Lower Saxony	31,565	31,800	31,900	2.72	14.3
North Rhine-Westphalia	106,063	96,600	98,400	2.21	12.0
Rhineland-Palatinate	18,256	20,500	20,500	2.78	13.5
Saarland	5,704	4,100	4,100	1.95	11.2
Saxony	18,457	19,500	21,200	3.09	16.6
Saxony-Anhalt	8,344	9,900	10,300	1.59	8.9
Schleswig-Holstein	10,425	9,500	9,700	1.68	8.8
Thuringia	19,305	10,000	10,500	2.74	13.7
Germany	479,252	409,100	430,200	3.13	16.8

| ¹ Including colleges of public administration; first preliminary results. Including private universities and universities financed by the church. Therefore the numbers are higher than the prognosis for the state universities. - | ² By the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany 2021, state universities only. The prognosis for all universities is 468,900 first year students in 2025 and 490,400 in 2030. - | ³ Share of total expenditure for R&D in the GDP of a state in percent. - | ⁴ Per 1,000 working population.

Science funding (selection) in million Euro	Target 2022			Target 2023		
	Federal	States	Total	Federal	States	Total
German research foundation – basic funding	1,528.5	880.9	2,409.4	1,570.4	911.3	2,481.7
Excellence initiative	399.8	133.3	533.0	399.8	133.3	533.0
University pact 2020 – additional first-year students	839.3	781.6	1,620.9	407.2	499.3	906.4
Research construction projects at universities	316.8	316.8	633.5	316.8	316.8	633.5

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Extra-university research organisations (selection)	Number of institutes	R&D Staff 2021 ¹	of which scientists	Institutional Funding ²		
				Federal	States	Total ⁷
Federal Research Agencies with R&D tasks	48	10,663	5,677	2,839.8	-	2,839.8
State and communal research institutes ³	.	2,410	1,331	-	.	.
Helmholtz Centres ⁴	18	36,273	18,854	3,687.8	418.6	4,106.4
Max Planck Society ⁵	85	16,130	9,554	1,231.5	915.1	2,146.6
Fraunhofer-Gesellschaft ⁴	74	21,026	10,685	854.0	207.3	1,061.3
Leibniz Association ⁵	96	13,553	6,998	793.4	605.5	1,399.0
Academy Programme ⁵	8	.	.	37.6	37.6	75.1
German National Academy of Sciences Leopoldina ⁶	1	.	.	11.2	2.7	13.9
Wissenschaftskolleg zu Berlin ⁵	1	.	.	3.9	3.9	7.8

|¹ Full-time equivalents. - |² Target 2023 in million Euro (Federal Research Agencies with R&D tasks: 2022). - |³ Without Leibniz Association. - |⁴ Funding ratio Federal Government : States 90 : 10. - |⁵ The MPG, the Academy programme, the Wissenschaftskolleg zu Berlin and most of the Leibniz institutes are financed fifty-fifty by the Federal Government and the states. - |⁶ Funding ratio Federal Government: States 80 : 20. - |⁷ Rounding differences.

Key figures on higher education and R&D expenditure (OECD data for the years 2008, 2009, 2010, 2015, 2016, 2019, 2020, 2021, 2022 and 2023)

	Students per teaching staff	Ratio of first-year students ¹	Ratio of graduates ¹	Higher education expenditure/GDP	Share of R&D Staff ²	R&D Expenditure				
						in billion Euro ³	Percentage of GDP	Percentage Industry ⁵	Percentage State ⁵	of which Defence ⁶
Australia	.	.	54	1.9	.	22.1	1.80	1.39	0.78	6.4
Belgium	22	62	51	1.5	23.9	21.5	3.43	2.21	0.59	1.1
Canada	14	55	49	1.8	20.4	9.8	2.76	1.72	0.83	0.4
Denmark	12	49	35	1.3	16.7	139.4	3.13 ⁵	1.96	0.93	5.3
Finland	13	46	40	1.5	21.0	8.3	2.99	1.73	0.76	1.9
France	17	.	50	1.5	17.3	71.1	2.22	1.23	0.72	8.8
Germany	21	50	28	0.9	14.3	36.9	1.45	0.78	0.51	0.6
Italy	10	.	65	1.4	13.8	163.3	3.30	2.57	0.51	1.8
Japan	.	53	66	2.2	15.3	32.5	1.55	0.69	0.48	2.2
Netherlands	15	53	55	1.7	17.7	23.6	2.27	1.28	0.70	3.6
Norway	10	58	55	1.9	18.3	7.9	1.94	0.84	0.90	3.2
Sweden	10	43	49	1.6	19.2	19.7	3.40	2.06	0.79	2.2
Switzerland	15	43	52	1.6	17.8	20.4	3.36	2.21	0.90	0.6
Spain	13	64	49	1.3	12.5	25.4	1.43	0.72	0.54	4.4
UK	14	58	57	2.0	13.9	90.0	2.91	1.71	0.57	13.1
USA	13	43	51	2.5	16.1	741.8	3.46	2.35	0.69	46.8
OECD	17	52	47	1.4	14.5	1.656.9	2.72	1.76	0.63	18.3
China	19	.	18	.	7.7	614.4	2.43	1.90	0.46	.
Russia	13	.	62	1.0	10.6	44.1	1.10	0.32	0.74	.

|¹ Percentage of first-year students in higher education among under-25-year-olds. - |² Percentage of 25-to-34-year-olds with a degree in higher education among the population of the same age. - |³ Per 1,000 working population. - |⁴ US-\$ Purchasing Power Parity. - |⁵ The target of 3.5 % by 2025 was confirmed in the coalition agreement for 2021-2025. - |⁶ Based on GDP; the remainder is financed by the private sector. - |⁷ Percentage of Defence Budget compared to the total of R&D expenses by the Federal Government and the states.