

HEAD OFFICE OF THE GERMAN SCIENCE AND HUMANITIES COUNCIL

Cologne 30 09 2024

BASIC DATA ON UNIVERSITIES AND RESEARCH ESTABLISHMENTS IN GERMANY

Number of universities (winter semester 2023/2024, without colleges of public administration): 395 (universities: 106, colleges of education: 6, colleges of theology: 16, art academies: 53, universities of applied sciences: 212), of which 116 (29 %) are privately-funded and 36 (9 %) are church-funded. 151 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. Twenty universities (5 %) are members of the Graduate School for Applied Research in North Rhine-Westphalia.

13.2 % of students in higher education in Germany are enrolled at private universities, 1.1 % at church universities (winter semester 2023/2024). 60 % of first-year students (233,632) and 62 % of all students (1,745,731) study at a doctorate-granting university (winter semester 2023/2024). 35,393 students (122.3 %), of which 4,395 are first-year students (1.1 %), study at a university which awards cooperative doctoral degrees. 165,998 students (5.9 %), of which 22,249 are first-year students (5.7 %) study at a member university of the Graduate School for Applied Research in North Rhine-Westphalia.

Universities (without colleges of public administration)	2019	2020	2021	2022	2023
First-year students ¹	491,672	472,189	454,393	456,380	463,316
at universities ²	288,066	264,632	253,126	259,282	267,120
at universities of applied sciences ³	203,606	207,557	201,267	197,098	196,196
Average age ⁴	19.4	19.3	19.4	19.4	19.3
Students	2,837,451	2,888,030	2,885,809	2,860,624	2,809,615
at universities ²	1,814,305	1,818,035	1,791,332	1,765,199 ¹⁰	1,726,047
at universities of applied sciences	1,023,146	1,069,995	1,094,477	1,095,425 ¹¹	1,083,568
Non-German students	411,403	416,251	440,613	457,847	469,485
From Germany	91,558	91,562	90,985	90,334	89,546
From abroad	319,845	324,689	349,628	367,513	379,939
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	457,256
at universities ²	286,850	257,816	281,654	270,249	265,869
of which bachelor degrees ⁴	111,619	98,853	108,185	100,175	96,825
of which master degrees ⁵	98,616	89,801	95,422	93,954	92,328
of which teaching degrees ⁶	46,166	42,940	47,958	46,792	47,318
at universities of applied sciences	182,907	175,389	191,405	190,909	191,387
of which bachelor degrees ⁴	134,173	128,983	140,392	137,442	135,812
of which master degrees ⁵	46,608	44,600	49,181	51,700	53,871
Average duration of study (bachelor) ⁷	7.1	7.2	7.2	7.3	7.4
Average graduation age (bachelor) ³ ⁸	23.4	23.3	23.3	23.4	23.5
Average graduation age (master) ³	26.1	26.1	26.1	26.1	26.2
Doctorates	28,690	26,220	28,146	27,689	26,569
Average graduation age (Ph.D.) ³	30.5	30.5	30.6	30.6	30.7
Habilitations	1,518	1,533	1,621	1,535	1,592
Average age (habilitations) ⁹	41.6	41.3	41.7	41.6	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.).

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Universities ¹	2016	2017	2018	2019	2020	2021	2022
University staff ² ³	333,534	337,800	344,948	371,134	383,386	390,544	393,161
Professors	25,051	25,355	25,432	25,817	26,089	25,580	26,601
Other scientific staff	102,862	104,742	106,893	111,468	114,344	110,929	116,701
Non-scientific staff	205,622	207,704	212,623	233,850	242,954	247,315	249,860
Staff at universities of applied sciences ² ⁴	60,207	61,608	62,132	65,269	66,442	69,360	71,099
Professors	17,793	18,095	18,339	18,762	19,027	18,785	19,927
Other scientific staff	18,541	19,010	19,210	24,584	20,266	19,852	21,729
Non-scientific staff	23,873	24,503	24,584	26,433	27,148	28,454	29,442

|¹ Without colleges of public administration. - |² In full-time equivalents, without third-party means. -

|³ Including colleges of education, colleges of theology and art academies. - |⁴ Including the dual university Baden-Württemberg.

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 (2022) 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 (2023)	21,149	32,784	47,054	54,912	38,041
Doctorates (2023)	1,569	3,768	7,488	8,111	4,486
Habilitations (2023)	186	166	196	955	51
Staff (FTEs without third-party means, 2022)	17,533	44,182	34,443	137,321	46,167
Professors	4,382	13,409	6,129	4,456	12,602
Other scientific staff	10,423	24,355	16,231	46,564	20,501
Non-scientific staff	2,727	6,418	12,083	86,301	13,064
Students per scientific staff (2022) ⁶	21.0	28.4	14.0	3.9	23.1
Students per professor (2022) ⁷	70.9	80.0	51.2	45.1	60.6
Graduation rates (2022) ⁸	73.3	79.4	59.8	85.9	66.8
Third-party means/prof. in Euro (2022) ⁹	138,790	88,830	363,930	563,250	247,570

|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 2022 and before in relation to first-year students 2014. The overall share was 73.1 %. - |⁹ The overall relation was 220,670 Euro.

Reference date 1 st september	2017	2018	2019	2020	2021	2022	2023	2024
Degree programs at universities ¹	13,128	13,535	13,822	13,868	14,061	14,292	14,613	14,613
of which bachelor degree programs	5,162	5,212	5,307	5,351	5,383	5,487	5,613	5,619
of which master degree programs	6,390	6,706	6,906	6,951	7,089	7,173	7,341	7,345
of which state and church degrees	1,283	1,284	1,284	1,281	1,296	1,344	1,350	1,363
Degree programs at universities of applied sciences ²	5,883	6,157	6,323	6,491	6,776	7,033	7,279	7,438
of which bachelor degree programs	3,515	3,655	3,733	3,817	3,956	4,109	4,253	4,349
of which master degree programs	2,313	2,446	2,536	2,626	2,772	2,876	2,979	3,048

| 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 2022 ³	Share of R&D staff 2022 ⁴
		2025	2030	2035		
Baden-Württemberg	68,364	60,200	61,200	64,100	5.65	30.1
Bavaria	77,998	54,900	68,900	74,700	3.40	20.4
Berlin	36,180	27,500	28,900	30,700	3.23	18.2
Brandenburg	9,583	7,400	7,900	8,400	1.69	10.9
Bremen	6,336	5,400	5,600	6,000	3.19	18.4
Hamburg	18,784	11,000	11,400	12,300	2.08	15.6
Hessen	40,291	32,700	33,900	36,700	3.10	16.4
Meckl.-Vorpommern	5,622	5,700	6,100	6,400	1.72	9.7
Lower Saxony	30,546	29,000	29,900	32,500	2.69	14.7
North Rhine-Westphalia	105,947	86,700	89,800	98,800	2.22	12.3
Rhineland-Palatinate	18,453	17,100	17,400	18,800	2.81	14.1
Saarland	5,530	4,100	4,300	4,600	1.92	11.7
Saxony	18,922	16,600	18,000	19,100	3.02	16.8
Saxony-Anhalt	8,460	8,000	8,300	8,700	1.58	9.1
Schleswig-Holstein	10,435	8,500	8,600	9,200	1.68	9.0
Thuringia	20,511	8,800	9,300	9,700	2.76	14.1
Germany	481,962	383,700	409,600	440,700	3.07	17.2

| 1 Including colleges of public administration. 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 461,900 first year students in 2025, 489,300 in 2030 and 526.200 in 2035. - | 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 2022 ¹	of which scientists	Institutional Funding ²		
				Federal	States	Total ⁷
Federal Research Agencies with R&D tasks	48	10,760	5,808	2,657.6	-	2,657.6
State and communal research institutes ³	.	2,334	1,266	-	.	.
Helmholtz Centres ⁴	18	36,258	19,206	3,687.8	418.6	4,106.4
Max Planck Society ⁵	85	16,879	9,860	1,231.5	915.1	2,146.6
Fraunhofer-Gesellschaft ⁴	74	21,432	10,087	854.0	207.3	1,061.3
Leibniz Association ⁵	96	13,715	7,207	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: 2024). - | 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 2016, 2017, 2019, 2020, 2021, 2022 und 2023)

	Students per teaching staff	Student Ratio ¹	Ratio of graduates ²	Higher education expenditure/GDP	Share of R&D Staff ³	R&D Expenditure				
						in billion Euro ⁴	Percentage of GDP	Percentage Industry ⁶	Percentage State ⁶	of which Defence ⁷
Australia	20	37	56	1.8	.	25.0	1.66	.	.	6.3
Belgium	22	42	50	1.5	24.7	24.8	3.41	2.19	0.59	1.1
Canada	.	34	67	2.0	15.2	38.4	1.70	0.80	0.49	3.3
Denmark	16	38	49	1.9	21.8	12.2	2.89	1.72	0.83	0.4
Finland	14	39	39	1.6	20.7	9.4	2.96	1.74	0.76	1.9
France	18	37	52	1.6	17.1	77.9	2.18	1.23	0.72	8.8
Germany	11	49	39	1.3	17.2	159.9	3.13 ⁵	1.96	0.94	5.3
Italy	20	36	31	1.0	12.6	39.8	1.32	0.77	0.50	0.6
Japan	.	.	66	1.4	13.8	183.6	3.41	2.67	0.51	1.8
Netherlands	14	43	55	1.8	18.4	27.7	2.30	1.28	0.70	2.9
Norway	9	41	57	1.9	18.3	9.7	1.56	0.82	0.88	3.2
Sweden	10	30	54	1.5	20.3	22.3	3.41	2.06	0.79	4.0
Switzerland	14	32	52	1.6	17.8	21.5	3.41	2.18	0.89	0.5
Spain	13	40	52	1.4	12.9	30.5	1.44	0.71	0.53	2.6
UK	14	31	60	2.1	13.9	93.8	2.90	1.70	0.56	13.1
USA	13	32	52	2.3	17.1	844.2	3.59	2.51	0.65	49.1
OECD	16	35	48	1.5	15.1	1,925.7	2.73	1.77	0.62	17.9
China	21	.	.	.	8.7	742.4	2.56	2.02	0.45	.
Russia	13	.	62	1.0	10.6	43.8	1.10	0.32	0.74	.

| 1 Percentage of 20-to-24-year-olds enrolled in higher education among the population of the same age. - | 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.