

## First Release

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# DOCTORS OF SCIENCE, 2023

According to the data of the Croatian Bureau of Statistics, a total of 806 persons obtained their degree of doctors of science in 2023. The share of women in that number amounted to 454, that is, 56.3%.

### More women than men among doctors of science

Out of the total of 806 doctors of science, 65.6% of them obtained their degree at the University of Zagreb, 10.9% at the University of Split, 9.9% at the University of Osijek, 8.3% at the University of Rijeka, 3.5% at the University of Zadar, 0.7% both at the University North, Koprivnica, and at the Catholic University of Croatia, Zagreb, and 0.4% at the University of Slavonski Brod.

The highest share of female doctors of science obtained their degree at the University of Zadar, 64.3%, followed by the University of Osijek, 61.3%, the University of Rijeka, 56.7%, the University of Zagreb, 56.0%, the University of Split, 53.4%, the University North, Koprivnica, and the Catholic University of Croatia, Zagreb, 50.0% at each. There were no female doctors of science at the University of Slavonski Brod.

### Biomedicine and health – the most often chosen field of doctoral dissertations

The majority of doctoral dissertations in 2023 were defended in the field of Biomedicine and health (26.5%), followed by the field of Engineering (19.7%), Social sciences (19.5%), Natural sciences (14.1%), Humanities (10.5%), Biotechnical sciences (6.2%) and Interdisciplinary fields of science (3.0%). The smallest number of doctoral dissertations were defended in Artistic field (0.5%).

There were 7.1% of doctors of science who have already obtained a master's degree.

### The largest number of doctors of science in the 30 to 34 age group

Regarding age, the largest number of doctors of science was classified in the 30 – 34 age group (34.0%). There were 12.3% of doctors of science in the up-to-29 age group, 20.6% of doctors of science in the 35 – 39 age group, 12.7% in the 40 – 44 age group, 8.9% in the 45 – 49 age group and 11.5% in the 50-and-over age group.

### The largest number of doctors of science employed in Education

The largest number of doctors of science were employed in the following activities: 46.8% in Education, 21.3% in Human health and social welfare, 14.6% in Professional, scientific and technical activities, and 3.7% in Public administration and defence; compulsory social security. There were 12.7% of doctors of science employed in other activities, while 0.9% of them were unemployed.

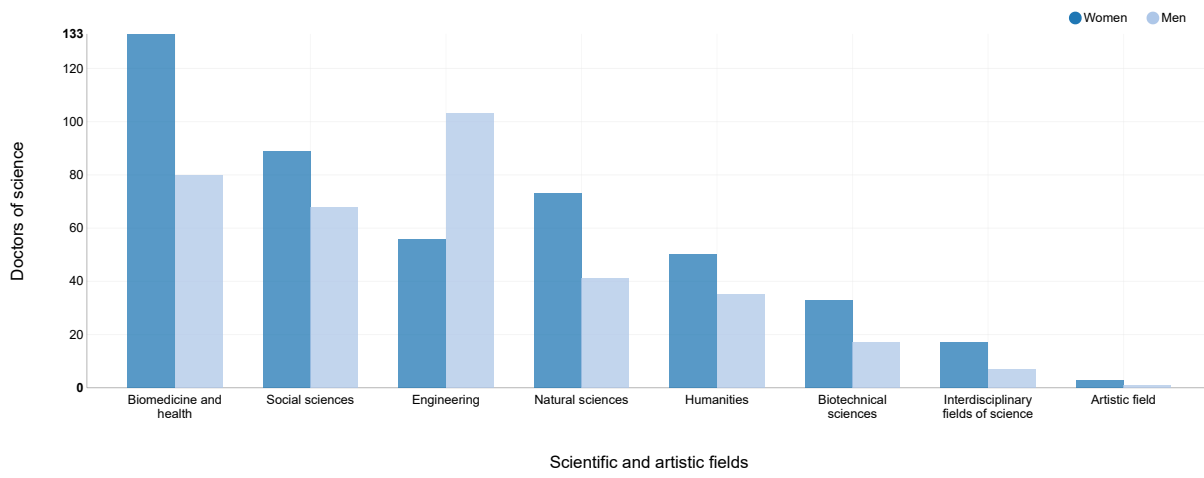
### The costs of studies mostly paid by employers

Regarding the costs of postgraduate university studies leading to a doctoral degree, 46.9% of them were paid by employers, 36.6% by doctors of science themselves, the costs for 12.3% of doctors of science were allocated from the State Budget, while the costs of 4.2% of doctors of science belonged to the category Other.

## 1 DOCTORS OF SCIENCE, BY UNIVERSITIES WHERE THEY OBTAINED DOCTOR'S DEGREE, SCIENTIFIC AND ARTISTIC FIELD OF DOCTORAL DISSERTATION AND SEX, 2023

	Total		Scientific and artistic field of doctoral dissertation							
	All	Women	Natural sciences	Engineering	Biomedicine and health	Biotechnical sciences	Social sciences	Humanities	Artistic field	Interdisciplinary fields of science
Total	806	454	114	159	213	50	157	85	4	24
University of Osijek	80	49	3	7	42	9	15	4	-	-
University of Rijeka	67	38	2	18	17	-	15	5	-	10
University North, Koprivnica	6	3	-	-	-	-	6	-	-	-
University of Slavonski Brod	3	-	-	3	-	-	-	-	-	-
University of Split	88	47	5	20	51	2	5	4	-	1
University of Zadar	28	18	-	-	-	-	10	17	-	1
University of Zagreb	528	296	104	111	103	39	104	51	4	12
Catholic University of Croatia, Zagreb	6	3	-	-	-	-	2	4	-	-

G-1 DOCTORS OF SCIENCE, BY SCIENTIFIC AND ARTISTIC FIELD OF DOCTORAL DISSERTATION AND SEX, 2023

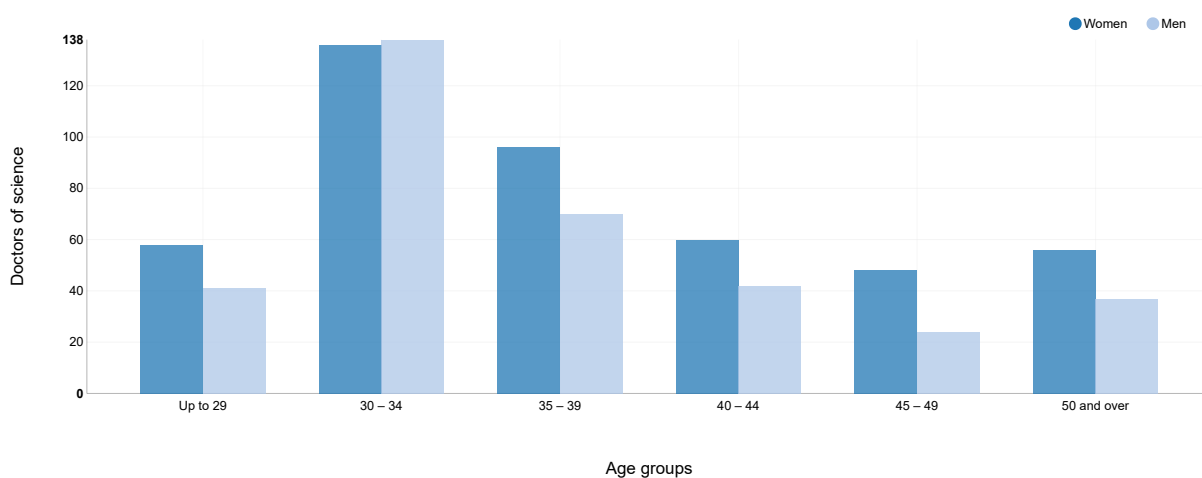


2 DOCTORS OF SCIENCE, BY SCIENTIFIC AND ARTISTIC FIELD OF DOCTORAL DISSERTATION, AGE GROUPS AND SEX, 2023

	Total		Age groups					
	All	Women	Up to 29	30 - 34	35 - 39	40 - 44	45 - 49	50 and over
Total	806	454	99	274	166	102	72	93
Natural sciences	114	73	35	49	17	5	4	4
Mathematics	6	5	1	4	1	-	-	-
Physics	26	6	6	14	3	1	-	2
Geological science	3	2	1	1	1	-	-	-
Chemistry	27	18	12	11	3	-	1	-
Biology	41	33	11	15	9	2	2	2
Geophysics	4	2	1	1	-	2	-	-
Interdisciplinary natural sciences	7	7	3	3	-	-	1	-
Engineering	159	56	23	77	23	11	7	18
Naval architecture	3	1	-	1	-	1	-	1
Electrical engineering	43	7	9	25	5	2	-	2
Architecture and town planning	6	4	-	1	1	-	1	3
Geodesy	2	-	-	2	-	-	-	-
Civil engineering	12	5	3	6	-	-	1	2
Graphic technology	6	4	-	1	3	2	-	-
Chemical engineering	9	7	2	5	1	1	-	-
Computer science	25	8	6	15	1	1	1	1
Mining, petroleum and geological engineering	4	1	-	3	1	-	-	-
Mechanical engineering	26	8	1	14	5	1	1	4
Technology of transport and traffic	10	2	1	-	2	2	1	4
Textile technology	6	6	-	1	2	1	2	-
Aeronautics, rocket and space technology	2	-	1	-	1	-	-	-
Basic technical sciences	3	2	-	1	1	-	-	1
Interdisciplinary technical sciences	2	1	-	2	-	-	-	-
Biomedicine and health	213	133	17	54	62	34	20	26
Basic medical sciences	40	25	10	14	10	4	2	-
Clinical medicine	126	75	5	26	38	21	15	21
Public health and health care	7	4	-	1	2	1	2	1
Veterinary medicine	6	4	-	1	-	2	-	3
Dental medicine	20	14	1	6	9	3	1	-
Pharmacy	14	11	1	6	3	3	-	1
Biotechnical sciences	50	33	6	24	3	9	3	5
Agronomy	23	13	2	13	3	3	1	1
Forestry	3	1	-	2	-	1	-	-
Wood technology	2	1	-	1	-	-	1	-
Biotechnology	7	5	1	4	-	1	-	1
Food technology	8	8	2	3	-	-	-	3
Nutrition	5	3	1	-	-	3	1	-
Interdisciplinary biotechnical sciences	2	2	-	1	-	1	-	-
Social sciences	157	89	11	39	37	27	18	25
Economics	45	26	6	10	10	10	5	4
Law	12	9	1	2	-	2	3	4
Political science	2	1	-	1	-	1	-	-
Education and rehabilitation sciences	5	5	1	1	1	-	-	2
Information and communication sciences	27	14	-	5	3	6	4	9
Sociology	7	3	-	5	2	-	-	-
Psychology	17	10	-	6	7	3	1	-
Pedagogy	9	5	1	3	4	1	-	-
Kinesiology	19	7	2	3	6	4	3	1
Social work	9	8	-	1	3	-	2	3
Interdisciplinary social sciences	5	1	-	2	1	-	-	2
Humanities	85	50	3	22	22	13	15	10
Philosophy	7	5	1	3	2	-	1	-
Theology	5	1	-	2	1	1	1	-

Linguistics	28	20	-	6	8	5	4	5
History	13	4	1	3	2	3	4	-
History of arts	13	8	1	5	2	1	2	2
Science of arts	2	1	-	1	-	-	1	-
Archaeology	10	7	-	2	4	2	1	1
Ethnology and anthropology	2	2	-	-	1	-	-	1
Religious sciences (interdisciplinary field)	2	1	-	-	-	-	1	1
Interdisciplinary humanities	3	1	-	-	2	1	-	-
Artistic field	4	3	-	-	-	1	1	2
Visual arts	4	3	-	-	-	1	1	2
Interdisciplinary fields of science	24	17	4	9	2	2	4	3
Geography	5	3	1	1	1	-	1	1
Croatology	3	1	-	-	1	1	-	1
Educational sciences	6	6	2	-	-	1	2	1
Biotechnology in biomedicine	10	7	1	8	-	-	1	-

### G-2 DOCTORS OF SCIENCE, BY AGE GROUPS AND SEX, 2023



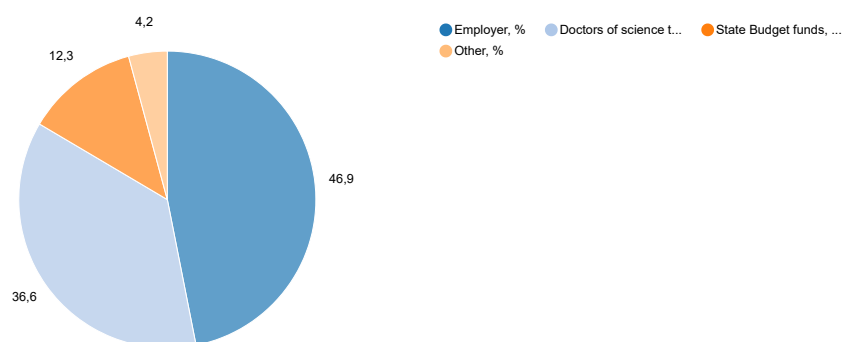
### 3 DOCTORS OF SCIENCE, BY SCIENTIFIC AND ARTISTIC FIELD OF DOCTORAL DISSERTATION AND MASTER'S THESIS, 2023

Scientific and artistic field of master's thesis	Total	Scientific and artistic field of doctoral dissertation							
		Natural sciences	Engineering	Biomedicine and health	Biotechnical sciences	Social sciences	Humanities	Artistic field	Interdisciplinary fields of science
Total	806	114	159	213	50	157	85	4	24
Natural sciences	2	2	-	-	-	-	-	-	-
Engineering	8	-	8	-	-	-	-	-	-
Biomedicine and health	7	-	-	7	-	-	-	-	-
Biotechnical sciences	1	-	-	-	1	-	-	-	-
Social sciences	28	-	-	-	-	25	3	-	-
Humanities	10	-	-	-	-	-	9	-	1
Artistic field	1	-	-	-	-	-	1	-	-
Not obtained master's degree	749	112	151	206	49	132	72	4	23

## 4 DOCTORS OF SCIENCE, BY ACTIVITY OF EMPLOYMENT, BY WAY OF PAYING FOR POSTGRADUATE DOCTORAL STUDY AND BY SEX, 2023

	Total		Way of paying for postgraduate doctoral study			
	All	Women	Employer	State Budget funds	Doctors of science themselves	Other
Total	806	454	378	99	295	34
Employees	799	450	378	99	290	32
Agriculture, forestry and fishing	9	5	6	1	1	1
Manufacturing	10	6	2	-	5	3
Electricity, gas, steam and air conditioning supply	3	2	1	-	2	-
Construction	3	1	-	-	2	1
Wholesale and retail trade; repair of motor vehicles and motorcycles	4	2	2	-	2	-
Transportation and storage	4	1	2	-	2	-
Accommodation and food service activities	1	1	-	-	1	-
Information and communication	19	6	7	2	8	2
Financial and insurance activities	11	4	7	1	3	-
Professional, scientific and technical activities	118	66	58	36	20	4
Administrative and support service activities	1	1	-	1	-	-
Public administration and defence; compulsory social security	30	18	10	1	19	-
Education	377	212	238	51	71	17
Human health and social work activities	172	106	35	5	129	3
Arts, entertainment and recreation	21	12	4	1	16	-
Other service activities	12	4	5	-	6	1
Activities of extraterritorial organisations	4	3	1	-	3	-
Unemployed	7	4	-	-	5	2

### G-3 DOCTORS OF SCIENCE, BY WAY OF PAYING FOR POSTGRADUATE DOCTORAL STUDY, 2023



## NOTES ON METHODOLOGY

### Sources and methods of data collection

Data are the result of the annual data processing of statistical sheets for doctors of science (ŠV-70 form), which are filled in by doctors of science or doctors of art at obtaining this degree.

### Coverage and comparability

The statistical survey covers all schools of higher education in the Republic of Croatia that establish and carry out the postgraduate university study for obtaining a doctoral degree or allow for obtaining a doctoral degree according to the Act on Higher Education and Scientific Activity (NN, No. 119/22).

Data are comparable to those from previous years.

### Definitions and explanations

**Doctor of science** is a person who defended a doctoral dissertation.

**Institution of higher education** is any institution authorised to organise and implement courses of study as well as scientific research, highly professional or artistic work. Institutions of higher education are divided in the following way: universities, faculties, art academies and polytechnics. Institutions of higher education may be public and private.

**University doctoral study** can be enrolled after the completion of a graduate university study or a university integrated undergraduate and graduate study or a university specialist study.

Postgraduate university doctoral study lasts for three years. After fulfilling all conditions and on public defending of a doctoral dissertation, a person obtains an academic degree of the doctor of science (Dr. Sc.) or the doctor of art (Dr. Art) with a reference to the field of study, in line with the Rule Book of Scientific and Artistic Disciplines, Fields and Branches (NN, Nos 118/09, 82/12, 32/13, 34/16 and 56/22).

#### Abbreviations

NN Narodne novine, official gazette of the Republic of Croatia

#### Symbols

- no occurrence

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