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BULLETIN

RESEARCH AND DEVELOPMENT IN THE REPUBLIC OF SERBIA, 2024



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Belgrade, 2025

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PREFACE

The Statistical Office of the Republic of Serbia publishes the results of the regular annual statistical survey on research and development organizations entitled “Annual Report on Research and Development – Form IR”. The results refer to 2024 and are published for the territory of the Republic of Serbia and the regions: Beogradski region, Region Vojvodine, Region Šumadije and Zapadne Srbije, and Region Južne and Istočne Srbije.

R&D organizations and their activity are classified according to the type, size class and scientific field. Employees in the R&D activity are shown by occupation, scientific qualifications, type of employment and working hours, as well as by full-time equivalent. The data on research personnel, by age, have been published annually since 2007. In tables on research projects, finalised and non-finalised works are shown by type, ordering party and scientific field. The bulletin contains a tabulated presentation of funds for R&D work by origin, costs by source and use, as well as a presentation of investments in the R&D activity.

All the data are available on the level of scientific field, both for R&D organizations and R&D projects.

The survey data have been published since 1965 in statistical bulletins of the Federal Statistical Office, and since 2002 by the Statistical Office of the Republic of Serbia.

Belgrade, 2025

Acting Director
Branko Josipović

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Legal basis

The survey "Annual Report on Research and Development" is carried out on the basis of the Law on Official Statistics ("Official Journal of the RS", number 104/2009).

METHODOLOGICAL BASIS

Objective and scope of the statistical survey

The R&D activity, as an activity of particular importance for the Republic of Serbia, is an integral part of the international, scientific, educational, cultural and artistic world. R&D is an activity of special significance for the complete development of the Republic of Serbia based on knowledge, experience and skills, combined with tertiary education is the principle factor and catalyst of economic and social growth.

R&D is a systematic creative work undertaken in view of discovering new stock of knowledge, in order to raise the general civilization level of the society and to use the knowledge in all social fields. The Annual Report on Research and Experimental Development (hereinafter: R&D) provides data on the scientific potential:

- number of organizations and units engaged in the R&D activity: by type, scientific field and section of economic activity;
- personnel: by sex, educational attainment, occupation, type of employment, working hours, full-time equivalent (FTE) and age;
- funds (receipts, expenditure and investments): by type of research, funding sources and use;
- results of R&D work: R&D works (finalised works, on-going works and published works): by type of research, scientific field.

Reporting units, statistical units

The population of the research and unit of observation of the statistical survey are all organisations engaged in the R&D activity, whether the latter is the principal activity or not.

Survey coverage

The reporting units of the survey are:

- R&D institutes and institutes of national interest for the Republic of Serbia; independent R&D organisations, business entities and institutions which principal or predominant activity is R&D.
- R&D units incorporated in enterprises or institutions.
- Tertiary educational institutions (faculties and arts academies), which activity, pursuant to the Law, is education and R&D-related, have been covered by this survey since 1978;
- Non-profit organisations – associations engaged in this activity.

Method, timetable and sources for data collection

The survey is conducted annually and the questionnaires are sent to reporting units the third week of March. A unique questionnaire is used for all reporting units, which fill in the form IR in April of the current year, and data refer to the previous (reference) year, i.e. to the state at the end of the reference year.

Data on the R&D activity of tertiary education institutions and institutes are collected on full coverage (all faculties/academies, whatever the ownership, all R&D institutes), while the data on the R&D activity of business entities are collected based on the registered activity and final financial statements (investments in science are presented in the statistical annex AOP 9091). Also, the report of the Tax Administration on the adopted decisions on tax benefits for business entities that had investments in scientific research or innovative activities is used.

All data on the number of R&D organisations and employees are shown as of 31 December of the reference year, while those on R&D works, receipts and expenditure refer to the whole year.

The main data sources are: human resources records on employees appointed to R&D, accounting records on realised receipts and accounted investments in R&D, as well as records of specialised services on the result of R&D activities – projects, works, etc.

List and definitions of main concepts - indicators

Type of R&D organisation: R&D organisations are institutions and other legal entities, as well as units incorporated in business entities and institutions, which activity is completely or predominantly R&D-related. All the organisations are classified into:

- independent R&D institutes;
- Centres of excellence: the status of the centre can be acquired by an institute, i.e. tertiary education institution or their organisational part(s) if they have achieved in a five-year period ultimate and internationally recognised scientific and professional results in a specific scientific discipline based on what they have an extended international scientific, technical and technological co-operation;
- Tertiary education institution;
- R&D units of business entities;
- Non-profit organisations/associations.

Sector of performance is determined according to the division of the economic activity in which R&D is performed. There are five sectors:

- **Business sector** covers business entities and organisations which primary activity is the market production of goods and services, and their sale at economically significant prices, as well as R&D units incorporated in a business entity.
- **Government sector** includes organisations, department offices and other bodies, other than tertiary education, furnishing common and free services which cannot be provided to society under market conditions and reflects the economical and social policy of society. By definition, this sector covers: activities of the administration, defence and public order; health, education, culture, recreation and other social services.
- **Tertiary education** sector covers universities with incorporated units, faculties and academies and R&D institutes whatever their funding sources and legal status. This sector includes R&D institutes and clinics operating under the direct control of or administered by the tertiary education organisation.
- **Non-profit sector** covers non-market, private non-profit organisation serving households free of charge or at low cost. These organisations may be created by citizens' associations in order to provide goods and services to the members of the association or for general purposes. This sector includes professional associations, charitable organisations, humanitarian organisations, trade associations, consumers' associations, etc.
- **Sector "abroad"** covers organisations and individuals located beyond the political boundaries of the country, as well as related land owned by these organisations. It also includes all international organisations, including their facilities on the national territory.

Personnel:

- **Researcher** is a person with at least tertiary educational attainment, i.e. having at least completed undergraduate academic studies and who is engaged in R&D work and holding the title pursuant to the Law. Depending on realised results in R&D, the researcher can acquire the research title: researcher-apprentice and researcher-associate, and the scientific title: senior scientific associate and scientific advisor.
- **Assistant-researchers** do not have R&D knowledge, they cooperate directly with researchers by performing professional activities concerning R&D duties, but are not holders of the R&D project (laboratory technicians, librarians, IT specialists, lectors, etc.).
- **Technicians** are persons whose main duties require technical knowledge and experience in one or more areas in engineering, natural, social sciences and humanities. They perform within R&D scientific and technical duties that include the application of concepts and operational methods, and the use of R&D equipment, usually under researcher's supervision.
- **Other personnel** (auxiliary) includes the employees who carry out all activities contributing directly to performing R&D, which are not conducted by researchers or technicians and professional personnel. These activities include secretary and other administrative work, management of materials or equipment required for the implementation of the R&D project, such as planning, information and financial support, legal services, assistance in assembling, maintaining, repairing scientific equipment and instruments. Managers and administrators are also included here and are mainly engaged in financial and personnel issues and general administration if their activities are directly connected with R&D projects (treasurers, recorders, secretaries, jurists, etc.). Also, other personnel dealing with ancillary activities in R&D organisations includes employees in workshops, on agricultural land, couriers, switchboard operators, employees engaged in the maintenance of buildings, equipment and rolling stock, suppliers, etc.
- **It excludes** the employees engaged in protection and security service or canteen employees, cleaning staff and related personnel (building concierge, doormen, cleaning ladies, coffee makers, etc.) even though their salaries and wages are included in other current costs when measuring R&D expenditure.

R&D projects and studies: shown are works completed from 1st January to 31st December, whatever their beginning. Works not being ordered by ordering parties are excluded.

- **Basic researches** covers those researches that enlarge the general stock of scientific facts and knowledge that determine the areas of human knowledge, whose obtained results are not or are not necessarily directly applied practically. Basic researches discover phenomena, processes, causal connections and principles in nature, society and human thinking, primarily to advance human knowledge and acquire basic knowledge, which is further used as a ground for applied and experimental researches as well as for those that do not have direct commercial objectives.
- **Applied researches** are theoretical or experimental works undertaken to acquire new knowledge, and focused on resolving a practical task, i.e. realise a practical objective. Applied researches broaden and deepen current knowledge in order to resolve specific issues. They are undertaken to examine possible applications of the results of basic researches or to define new methods or procedures for achieving a practical objective set in advance. Therefore, applied researches are focused on discovering new scientific knowledge, applying that knowledge for the purpose of achieving particular commercial objectives.
- **Experimental (development) research** is a systematic work activity based on the results of the basic and applied researches, i.e. practical experiences, which is primarily focused on introducing new ones or on considerable improvement of existing processes, products and services. These are processes that occur between invention and production: design experimenting and development of prototypes, experiments, pilot projects, models, new solution. These researches have an extremely practical objective, their main feature is a clear use, therefore a direct and quickly achieved benefit in a narrow area. Experimental researches are also called technological improvements.

Level of data representativeness

All data are available for R&D organisations, scientific fields, type of research, type of employment and personnel's working hours, level of certain activity classes (2010 CA) and according to the territorial principle (up to NSTJ 2 level).

Survey organisation

The Statistical Office of the Republic of Serbia, with the help of the Ministry of Science, Technological Development and Innovation, prepares and carries out the survey on R&D organisations.

The Office defines and produces uniform methodological basis and tools for the survey, compiles address records of reporting units, prints the questionnaires and other materials for the carrying out of the survey, sends the questionnaires to the reporting units, collects the questionnaires, controls the coverage, response accuracy and data completeness, transmit data electronically, makes calculation and logical controls, processes the data and publishes the results for the Republic of Serbia in the "Statistical Yearbook of Serbia", Statistical Release „Research and development activity“, as well as in this bulletin.

Harmonisation with international recommendations, standards and practice

The methodology for this survey is harmonised with international standards to the greatest possible extent (as much as allowed by our laws), methodological recommendations from the Frascati Manual, with the exception of some financial indicators, which are difficult to present due to differences in financing the R&D work of our country in relation to most of EU member countries and other international organisations.

SURVEY TOOLS

Questionnaires and instructions for filling the questionnaires

- questionnaire: IR;
- instructions for filling in the questionnaires;
- web questionnaire is available on the website of the Statistical Office of the Republic of Serbia www.stat.gov.rs.

List of nomenclatures and classifications used in the survey

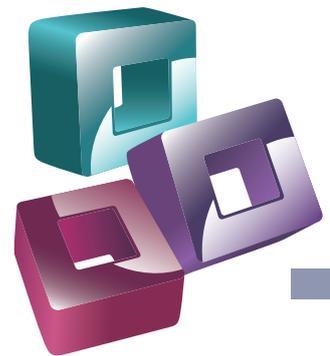
- Classification of Activities – CA ("Official Journal of the RS", number 54/2010)
- Nomenclature of statistical territorial units NSTJ ("Official Journal of the RS", number 109/09 and 46/10)
- Classification of scientific fields FORD (Fields of Research and Development, OECD 2015), Frascati Manual
- International Standard Classification of Education ISCED-F 2013 (the classifications and nomenclature are available on the website of the Statistical Office of the Republic of Serbia, www.stat.gov.rs)

Previous editions

Data on R&D organizations for previous years are available in the bulletins of the Federal Statistical Office, and since 2002 they have been published by the Statistical Office of the Republic of Serbia.

Symbols

- = nil
- ... = data not available
- 1) = footnote
- 0 = data value under 0.1 of measurement unit



RESEARCH AND DEVELOPMENT, 2024

Table 1.1. R&D organizations by sectors and fields of science, 2024

	Total	Business sector	Government sector	Tertiary education	Non-profit sector
REPUBLIC OF SERBIA	487	316	60	107	4
Natural sciences	155	124	14	16	1
Engineering and technology	181	149	10	22	-
Medical and health sciences	22	9	4	9	-
Agricultural and veterinary sciences	32	15	11	6	-
Social sciences	72	17	10	42	3
Humanities and arts	25	2	11	12	-
Beogradski region	279	169	52	55	3
Natural sciences	95	71	12	12	-
Engineering and technology	92	75	7	10	-
Medical and health sciences	12	4	4	4	-
Agricultural and veterinary sciences	16	5	8	3	-
Social sciences	44	12	10	19	3
Humanities and arts	20	2	11	7	-
Region Vojvodine	114	85	5	23	1
Natural sciences	35	31	1	2	1
Engineering and technology	48	41	3	4	-
Medical and health sciences	7	4	-	3	-
Agricultural and veterinary sciences	8	6	1	1	-
Social sciences	14	3	-	11	-
Humanities and arts	2	-	-	2	-
Region Šumadije i Zapadne Srbije	45	29	2	14	-
Natural sciences	8	6	1	1	-
Engineering and technology	21	19	-	2	-
Medical and health sciences	1	-	-	1	-
Agricultural and veterinary sciences	6	3	1	2	-
Social sciences	8	1	-	7	-
Humanities and arts	1	-	-	1	-
Region Južne i Istočne Srbije	49	33	1	15	-
Natural sciences	17	16	-	1	-
Engineering and technology	20	14	-	6	-
Medical and health sciences	2	1	-	1	-
Agricultural and veterinary sciences	2	1	1	-	-
Social sciences	6	1	-	5	-
Humanities and arts	2	-	-	2	-
Region Kosovo i Metohija	...	...	...	...	...

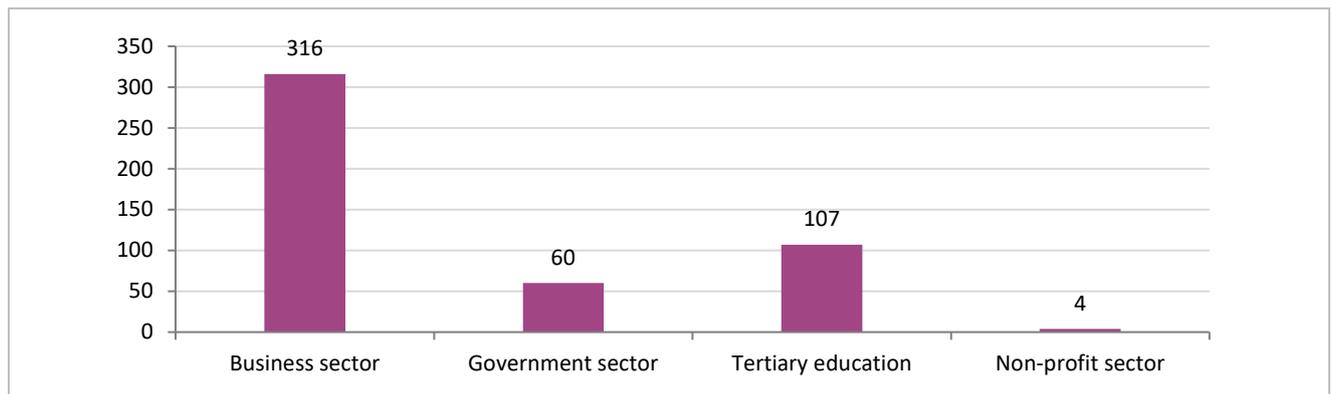
Graph. 1. R&D organizations by sectors and fields of science, 2024

Table 2.1. Full-time and part-time employees engaged in R&D activities, by sectors, fields of science and sex, 2024 (head count)

	Total		Researchers		Assistant-researchers		Technicians		Other personnel	
	All	Women	All	Women	All	Women	All	Women	All	Women
REPUBLIC OF SERBIA	30810	15616	19323	10191	3130	1464	5668	2608	2689	1353
Natural sciences	8290	4208	4912	2743	1257	503	938	468	1183	494
Engineering and technology	10315	4116	5552	2293	904	338	3395	1273	464	212
Medical and health sciences	3756	2368	2881	1747	269	180	352	251	254	190
Agricultural and veterinary sciences	2411	1309	1218	674	175	91	450	244	568	300
Social sciences	4016	2284	3058	1641	406	274	393	265	159	104
Humanities and arts	2022	1331	1702	1093	119	78	140	107	61	53
Non-financial sector	8827	3107	2793	937	1630	583	3160	1124	1244	463
Natural sciences	3252	1147	823	288	918	296	525	204	986	359
Engineering and technology	5168	1747	1857	594	533	187	2570	888	208	78
Medical and health sciences	109	75	12	9	70	50	19	9	8	7
Agricultural and veterinary sciences	174	79	45	19	52	26	42	20	35	14
Social sciences	114	56	54	26	49	22	4	3	7	5
Humanities and arts	10	3	2	1	8	2	-	-	-	-
Government sector	6345	3654	3952	2403	335	179	1329	674	729	398
Natural sciences	2472	1589	1894	1224	106	53	325	214	147	98
Engineering and technology	1454	664	570	297	121	62	632	241	131	64
Medical and health sciences	271	194	234	165	7	7	21	15	9	7
Agricultural and veterinary sciences	1158	632	398	250	73	37	272	138	415	207
Social sciences	507	280	431	220	4	3	60	49	12	8
Humanities and arts	483	295	425	247	24	17	19	17	15	14
Tertiary education	15630	8851	12572	6848	1165	702	1177	809	716	492
Natural sciences	2566	1472	2195	1231	233	154	88	50	50	37
Engineering and technology	3693	1705	3125	1402	250	89	193	144	125	70
Medical and health sciences	3376	2099	2635	1573	192	123	312	227	237	176
Agricultural and veterinary sciences	1079	598	775	405	50	28	136	86	118	79
Social sciences	3387	1944	2567	1392	353	249	327	212	140	91
Humanities and arts	1529	1033	1275	845	87	59	121	90	46	39
Non-profit sector	8	4	6	3	-	-	2	1	-	-
Social sciences	8	4	6	3	-	-	2	1	-	-
Beogradski region	16656	8800	10546	5761	1776	813	2325	1186	2009	1040
Natural sciences	5835	3084	3459	1974	621	269	677	376	1078	465
Engineering and technology	4027	1619	2187	932	569	177	951	359	320	151
Medical and health sciences	1978	1269	1366	836	194	126	195	130	223	177
Agricultural and veterinary sciences	1357	758	783	443	119	62	239	129	216	124
Social sciences	2181	1244	1616	858	226	149	207	149	132	88
Humanities and arts	1278	826	1135	718	47	30	56	43	40	35
Non-financial sector	3591	1356	1070	404	870	314	601	228	1050	410
Natural sciences	2062	800	449	177	408	138	309	148	896	337
Engineering and technology	1244	406	549	196	326	96	243	59	126	55
Medical and health sciences	103	72	7	6	70	50	19	9	7	7
Agricultural and veterinary sciences	72	24	12	-	18	8	28	10	14	6
Social sciences	100	51	51	24	40	20	2	2	7	5
Humanities and arts	10	3	2	1	8	2	-	-	-	-
Government sector	5290	3074	3476	2135	281	150	1155	576	378	213
Natural sciences	2324	1514	1769	1165	99	49	318	209	138	91
Engineering and technology	1149	479	353	169	87	44	592	215	117	51
Medical and health sciences	271	194	234	165	7	7	21	15	9	7
Agricultural and veterinary sciences	556	312	264	169	60	30	145	71	87	42
Social sciences	507	280	431	220	4	3	60	49	12	8
Humanities and arts	483	295	425	247	24	17	19	17	15	14

Table 2.1. Full-time and part-time employees engaged in R&D activities, by sectors, fields of science and sex, 2024 (head count) (continued)

	Total		Researchers		Assistant-researchers		Technicians		Other personnel	
	All	Women	All	Women	All	All	Women	All	Women	All
Tertiary education	7767	4366	5994	3219	625	349	567	381	581	417
Natural sciences	1449	770	1241	632	114	82	50	19	44	37
Engineering and technology	1634	734	1285	567	156	37	116	85	77	45
Medical and health sciences	1604	1003	1125	665	117	69	155	106	207	163
Agricultural and veterinary sciences	729	422	507	274	41	24	66	48	115	76
Social sciences	1566	909	1128	611	182	126	143	97	113	75
Humanities and arts	785	528	708	470	15	11	37	26	25	21
Non-profit sector	8	4	6	3	-	-	2	1	-	-
Social sciences	8	4	6	3	-	-	2	1	-	-
Region Vojvodine	9718	4482	5224	2570	1010	459	2968	1229	516	224
Natural sciences	1699	734	806	431	560	197	228	77	105	29
Engineering and technology	5064	2022	2457	1017	240	122	2283	852	84	31
Medical and health sciences	907	583	756	463	9	8	141	112	1	-
Agricultural and veterinary sciences	849	435	301	158	45	23	187	98	316	156
Social sciences	1074	643	815	462	147	105	104	70	8	6
Humanities and arts	125	65	89	39	9	4	25	20	2	2
Non-financial sector	4607	1556	1332	410	671	235	2430	868	174	43
Natural sciences	955	265	213	58	463	139	189	46	90	22
Engineering and technology	3584	1259	1105	344	179	82	2230	815	70	18
Medical and health sciences	6	3	5	3	-	-	-	-	1	-
Agricultural and veterinary sciences	54	26	6	3	25	13	10	7	13	3
Social sciences	8	3	3	2	4	1	1	-	-	-
Government sector	891	482	366	203	49	26	150	80	326	173
Natural sciences	66	26	52	17	4	2	1	-	9	7
Engineering and technology	305	185	217	128	34	18	40	26	14	13
Agricultural and veterinary sciences	520	271	97	58	11	6	109	54	303	153
Tertiary education	4220	2444	3526	1957	290	198	388	281	16	8
Natural sciences	678	443	541	356	93	56	38	31	6	-
Engineering and technology	1175	578	1135	545	27	22	13	11	-	-
Medical and health sciences	901	580	751	460	9	8	141	112	-	-
Agricultural and veterinary sciences	275	138	198	97	9	4	68	37	-	-
Social sciences	1066	640	812	460	143	104	103	70	8	6
Humanities and arts	125	65	89	39	9	4	25	20	2	2
Region Šumadije i Zapadne Srbije	2026	1104	1621	893	152	94	151	56	102	61
Natural sciences	366	212	300	169	51	33	15	10	-	-
Engineering and technology	322	87	220	66	11	3	74	8	17	10
Medical and health sciences	492	300	394	243	52	35	16	9	30	13
Agricultural and veterinary sciences	138	77	110	57	2	-	9	8	17	12
Social sciences	461	240	386	201	19	8	37	21	19	10
Humanities and arts	247	188	211	157	17	15	-	-	19	16
Non-financial sector	299	87	161	44	36	17	87	17	15	9
Natural sciences	71	36	40	16	22	15	9	5	-	-
Engineering and technology	190	33	102	20	7	1	74	8	7	4
Agricultural and veterinary sciences	32	16	19	8	2	-	3	3	8	5
Social sciences	6	2	-	-	5	1	1	1	-	-
Government sector	113	72	94	57	3	2	10	9	6	4
Natural sciences	82	49	73	42	3	2	6	5	-	-
Agricultural and veterinary sciences	31	23	21	15	-	-	4	4	6	4

Table 2.1. Full-time and part-time employees engaged in R&D activities, by sectors, fields of science and sex, 2024 (head count) (continued)

	Total		Researchers		Assistant-researchers		Technicians		Other personnel	
	All	Women	All	Women	All	All	Women	All	Women	All
Tertiary education	1614	945	1366	792	113	75	54	30	81	48
Natural sciences	213	127	187	111	26	16	-	-	-	-
Engineering and technology	132	54	118	46	4	2	-	-	10	6
Medical and health sciences	492	300	394	243	52	35	16	9	30	13
Agricultural and veterinary sciences	75	38	70	34	-	-	2	1	3	3
Social sciences	455	238	386	201	14	7	36	20	19	10
Humanities and arts	247	188	211	157	17	15	-	-	19	16
Region Južne i Istočne Srbije	2410	1230	1932	967	192	98	224	137	62	28
Natural sciences	390	178	347	169	25	4	18	5	-	-
Engineering and technology	902	388	688	278	84	36	87	54	43	20
Medical and health sciences	379	216	365	205	14	11	-	-	-	-
Agricultural and veterinary sciences	67	39	24	16	9	6	15	9	19	8
Social sciences	300	157	241	120	14	12	45	25	-	-
Humanities and arts	372	252	267	179	46	29	59	44	-	-
Non-financial sector	330	108	230	79	53	17	42	11	5	1
Natural sciences	164	46	121	37	25	4	18	5	-	-
Engineering and technology	150	49	101	34	21	8	23	6	5	1
Agricultural and veterinary sciences	16	13	8	8	7	5	1	-	-	-
Government sector	51	26	16	8	2	1	14	9	19	8
Agricultural and veterinary sciences	51	26	16	8	2	1	14	9	19	8
Tertiary education	2029	1096	1686	880	137	80	168	117	38	19
Natural sciences	226	132	226	132	-	-	-	-	-	-
Engineering and technology	752	339	587	244	63	28	64	48	38	19
Medical and health sciences	379	216	365	205	14	11	-	-	-	-
Social sciences	300	157	241	120	14	12	45	25	-	-
Humanities and arts	372	252	267	179	46	29	59	44	-	-
Region Kosovo i Metohija	...	...	...	...	...	...	...	...	...	...

Table 2.2. Full-time and part-time employees engaged in R&D activities by sectors, fields of science and sex, expressed in full-time equivalent, 2024

	Total		Researchers		Assistant-researchers		Technicians		Other personnel	
	All	Women	All	Women	All	All	Women	All	Women	All
REPUBLIC OF SERBIA	28332.6	14427.9	17751.7	9385.7	2723.9	1296.9	5329	2473	2528	1272.3
Natural sciences	7689.1	3965.8	4589.5	2596.7	1103.3	448.7	847.1	442.2	1149.2	478.2
Engineering and technology	9386.1	3729.2	4958.6	2035.3	777.8	300.4	3240.5	1214.9	409.2	178.6
Medical and health sciences	3363.3	2105.7	2548.6	1522.6	239.1	159.4	337.0	240.2	238.6	183.5
Agricultural and veterinary sciences	2221.8	1222.6	1180.6	655.9	129.9	69.3	391.4	215.5	519.9	281.9
Social sciences	3714.5	2107.3	2821.8	1504.3	361.9	246.6	374.6	254.0	156.2	102.4
Humanities and arts	1957.8	1297.3	1652.6	1070.9	111.9	72.5	138.4	106.2	54.9	47.7
Non-financial sector	7974.1	2845.4	2484.6	838.8	1328.3	485.0	2960.4	1070.2	1200.8	451.4
Natural sciences	2888.6	1023.4	696.1	238.4	774.5	247.8	449.8	181.5	968.2	355.7
Engineering and technology	4784.2	1661.2	1696.7	558.2	430.2	165.5	2460.1	864.2	197.2	73.3
Medical and health sciences	104.3	71.4	9.9	7.6	67.8	47.8	19.0	9.0	7.6	7.0
Agricultural and veterinary sciences	120.8	55.4	42.1	17.4	28.0	13.6	28.4	12.5	22.3	11.9
Social sciences	66.2	31	37.8	16.2	19.8	8.3	3.1	3.0	5.5	3.5
Humanities and arts	10.0	3.0	2.0	1.0	8.0	2.0	-	-	-	-
Government sector	6132.6	3540.4	3864	2349.9	308.4	167.5	1272.1	644.2	688.1	378.8
Natural sciences	2438.8	1573.4	1869.7	1213.1	103.9	52.3	321.9	211.7	143.3	96.3
Engineering and technology	1428.5	647.6	552.1	284.1	117.0	60.2	630.2	240.8	129.2	62.5
Medical and health sciences	232.0	167.3	202	144.6	7.0	7.0	14.0	8.7	9.0	7.0
Agricultural and veterinary sciences	1054.1	584.5	395.0	248.5	52.5	28.0	227.0	117.0	379.6	191.0
Social sciences	503.5	277.7	427.5	217.7	4.0	3.0	60.0	49.0	12.0	8.0
Humanities and arts	475.7	289.9	417.7	241.9	24.0	17.0	19.0	17.0	15.0	14.0
Tertiary education	14220.3	8040.5	11399.5	6196.4	1087.2	644.4	1094.5	757.6	639.1	442.1
Natural sciences	2361.7	1369.0	2023.7	1145.2	224.9	148.6	75.4	49.0	37.7	26.2
Engineering and technology	3173.4	1420.4	2709.8	1193.0	230.6	74.7	150.2	109.9	82.8	42.8
Medical and health sciences	3027	1867	2336.7	1370.4	164.3	104.6	304.0	222.5	222.0	169.5
Agricultural and veterinary sciences	1046.9	582.7	743.5	390	49.4	27.7	136.0	86.0	118	79
Social sciences	3139.2	1797	2352.9	1269.8	338.1	235.3	309.5	201.0	138.7	90.9
Humanities and arts	1472.1	1004.4	1232.9	828	79.9	53.5	119.4	89.2	39.9	33.7
Non-profit sector	5.6	1.6	3.6	0.6	-	-	2.0	1.0	-	-
Social sciences	5.6	1.6	3.6	0.6	-	-	2.0	1.0	-	-
Beogradski region	15372.3	8146.7	9788.1	5348.4	1515.6	717.6	2153	1093.8	1915.6	986.9
Natural sciences	5494.2	2943.2	3289.7	1897.1	500.8	228.7	645.5	367.2	1058.2	450.2
Engineering and technology	3602.0	1420.7	1927.3	809.1	500.3	164.5	881.0	312.1	293.4	135.0
Medical and health sciences	1848.5	1166.0	1247.4	742.4	190.1	122.9	188.0	123.7	223.0	177.0
Agricultural and veterinary sciences	1204.8	690.5	748.0	426.5	93.9	50.7	186.8	105.3	176.1	108
Social sciences	2005.5	1131.5	1487.8	776.1	189.9	125.6	197.3	143.3	130.5	86.5
Humanities and arts	1217.3	794.8	1087.9	697.2	40.6	25.2	54.4	42.2	34.4	30.2
Non-financial sector	3190	1223.9	948.6	364.4	655.1	249.0	551.0	205.6	1035.3	404.9
Natural sciences	1892.3	741.6	411.4	161.9	296.4	103.4	292.3	141.6	892.2	334.7
Engineering and technology	1077.4	364.4	482.1	181.5	257.3	83.5	216.9	45.7	121.1	53.7
Medical and health sciences	100.1	69.1	6.3	5.3	67.8	47.8	19.0	9.0	7.0	7.0
Agricultural and veterinary sciences	55.8	19.3	11.5	-	14.0	6.0	20.8	7.3	9.5	6.0
Social sciences	54.4	26.5	35.3	14.7	11.6	6.3	2.0	2.0	5.5	3.5
Humanities and arts	10.0	3.0	2.0	1.0	8.0	2.0	-	-	-	-
Government sector	5118.4	2982.8	3420.8	2099.5	259.5	140.7	1099.2	547.3	338.9	195.3
Natural sciences	2307.7	1504.4	1759.6	1158.8	98.0	48.7	315.8	207.6	134.3	89.3
Engineering and technology	1147.4	479.0	353.0	169.0	87.0	44.0	590.4	215.0	117.0	51.0
Medical and health sciences	232.0	167.3	202.0	144.6	7.0	7.0	14.0	8.7	9.0	7.0
Agricultural and veterinary sciences	452.1	264.5	261.0	167.5	39.5	21.0	100.0	50.0	51.6	26.0
Social sciences	503.5	277.7	427.5	217.7	4.0	3.0	60.0	49.0	12.0	8.0
Humanities and arts	475.7	289.9	417.7	241.9	24.0	17.0	19.0	17.0	15.0	14.0



Table 2.2. Full-time and part-time employees engaged in R&D activities by sectors, fields of science and sex, expressed in full-time equivalent, 2024 (continued)

	Total		Researchers		Assistant-researchers		Technicians		Other personnel	
	All	Women	All	Women	All	All	Women	All	Women	All
Tertiary education	7058.3	3938.4	5415.1	2883.9	601.0	327.9	500.8	339.9	541.4	386.7
Natural sciences	1294.2	697.2	1118.7	576.4	106.4	76.6	37.4	18.0	31.7	26.2
Engineering and technology	1377.2	577.3	1092.2	458.6	156.0	37.0	73.7	51.4	55.3	30.3
Medical and health sciences	1516.4	929.6	1039.1	592.5	115.3	68.1	155.0	106.0	207.0	163.0
Agricultural and veterinary sciences	696.9	406.7	475.5	259	40.4	23.7	66.0	48.0	115.0	76.0
Social sciences	1442	825.7	1021.4	543.1	174.3	116.3	133.3	91.3	113.0	75.0
Humanities and arts	731.6	501.9	668.2	454.3	8.6	6.2	35.4	25.2	19.4	16.2
Non-profit sector	5.6	1.6	3.6	0.6	-	-	2.0	1.0	-	-
Social sciences	5.6	1.6	3.6	0.6	-	-	2.0	1.0	-	-
Region Vojvodine	9142.3	4239.8	4860.0	2399.9	926.9	420.4	2867	1200.8	488.4	218.7
Natural sciences	1516.2	663.3	707.9	383.4	544.1	190.0	173.2	61.9	91.0	28.0
Engineering and technology	4826.2	1931.9	2295.0	949.6	200.1	104.8	2251.6	848.7	79.5	28.8
Medical and health sciences	890.5	574.4	739.9	454.4	9.0	8.0	141.0	112.0	0.6	-
Agricultural and veterinary sciences	812.0	416.1	298.6	156.4	25.0	12.6	180.6	93.2	307.8	153.9
Social sciences	972.9	589.6	730.1	417.6	139.7	101.0	95.6	65.0	7.5	6.0
Humanities and arts	124.5	64.5	88.5	38.5	9.0	4.0	25.0	20.0	2.0	2.0
Non-financial sector	4330.7	1470.2	1233.2	373.3	612.1	212.7	2336.7	845.0	148.7	39.2
Natural sciences	820.0	220.0	161.5	36.1	448.3	132.0	134.2	30.9	76.0	21.0
Engineering and technology	3483.7	1238.3	1062.0	332.0	155.6	77.1	2198.8	811.9	67.3	17.3
Medical and health sciences	4.2	2.3	3.6	2.3	-	-	-	-	0.6	-
Agricultural and veterinary sciences	17.0	7.1	3.6	1.4	5.0	2.6	3.6	2.2	4.8	0.9
Social sciences	5.8	2.5	2.5	1.5	3.2	1.0	0.1	-	-	-
Government sector	862.1	465.1	343.8	189.6	44.3	24.2	149.8	79.8	324.2	171.5
Natural sciences	61.0	25.5	47.7	16.5	3.3	2.0	1.0	-	9.0	7.0
Engineering and technology	281.1	168.6	199.1	115.1	30.0	16.2	39.8	25.8	12.2	11.5
Agricultural and veterinary sciences	520.0	271.0	97.0	58.0	11.0	6.0	109.0	54.0	303.0	153.0
Tertiary education	3949.5	2304.5	3283	1837	270.5	183.5	380.5	276.0	15.5	8.0
Natural sciences	635.2	417.8	498.7	330.8	92.5	56.0	38.0	31.0	6.0	-
Engineering and technology	1061.4	525.0	1033.9	502.5	14.5	11.5	13.0	11.0	-	-
Medical and health sciences	886.3	572.1	736.3	452.1	9.0	8.0	141.0	112.0	-	-
Agricultural and veterinary sciences	275.0	138.0	198.0	97.0	9.0	4.0	68.0	37.0	-	-
Social sciences	967.1	587.1	727.6	416.1	136.5	100.0	95.5	65.0	7.5	6.0
Humanities and arts	124.5	64.5	88.5	38.5	9.0	4.0	25.0	20.0	2.0	2.0
Region Šumadije i Zapadne Srbije	1579.8	888.5	1295.0	726.0	110.7	68.2	96.1	46.1	78.0	48.2
Natural sciences	321.2	188.4	268.7	154.3	41.1	26.0	11.4	8.1	-	-
Engineering and technology	187.2	55.1	139.9	43.6	7.0	2.4	31.0	4.8	9.3	4.3
Medical and health sciences	246.0	150.0	197.0	121.5	26.0	17.5	8.0	4.5	15.0	6.5
Agricultural and veterinary sciences	138.0	77.0	110.0	57.0	2.0	-	9.0	8.0	17.0	12.0
Social sciences	443.4	232.0	370.2	193.4	18.3	8.0	36.7	20.7	18.2	9.9
Humanities and arts	244.0	186.0	209.2	156.2	16.3	14.3	-	-	18.5	15.5
Non-financial sector	185.8	60.3	109.7	31.4	22.5	9.8	41.3	12.8	12.3	6.3
Natural sciences	43.6	22.2	24.8	9.8	12.5	8.4	6.3	4.0	-	-
Engineering and technology	104.2	20.1	65.9	13.6	3.0	0.4	31.0	4.8	4.3	1.3
Agricultural and veterinary sciences	32.0	16.0	19.0	8.0	2.0	-	3.0	3.0	8.0	5.0
Social sciences	6.0	2.0	-	-	5.0	1.0	1.0	1.0	-	-
Government sector	101.1	66.5	83.4	52.8	2.6	1.6	9.1	8.1	6.0	4.0
Natural sciences	70.1	43.5	62.4	37.8	2.6	1.6	5.1	4.1	-	-
Agricultural and veterinary sciences	31.0	23.0	21.0	15.0	-	-	4.0	4.0	6.0	4.0

Table 2.2. Full-time and part-time employees engaged in R&D activities by sectors, fields of science and sex, expressed in full-time equivalent, 2024 (continued)

	Total		Researchers		Assistant-researchers		Technicians		Other personnel	
	All	Women	All	Women	All	All	Women	All	Women	All
Tertiary education	1292.9	761.7	1101.9	641.8	85.6	56.8	45.7	25.2	59.7	37.9
Natural sciences	207.5	122.7	181.5	106.7	26.0	16.0	-	-	-	-
Engineering and technology	83.0	35.0	74.0	30.0	4.0	2.0	-	-	5.0	3.0
Medical and health sciences	246.0	150.0	197.0	121.5	26.0	17.5	8.0	4.5	15.0	6.5
Agricultural and veterinary sciences	75.0	38.0	70.0	34.0	-	-	2.0	1.0	3.0	3.0
Social sciences	437.4	230.0	370.2	193.4	13.3	7.0	35.7	19.7	18.2	9.9
Humanities and arts	244.0	186.0	209.2	156.2	16.3	14.3	-	-	18.5	15.5
Region Južne i Istočne Srbije	2238.2	1152.9	1808.6	911.4	170.7	90.7	212.9	132.3	46.0	18.5
Natural sciences	357.5	170.9	323.2	161.9	17.3	4.0	17.0	5.0	-	-
Engineering and technology	770.7	321.5	596.4	233.0	70.4	28.7	76.9	49.3	27.0	10.5
Medical and health sciences	378.3	215.3	364.3	204.3	14.0	11.0	-	-	-	-
Agricultural and veterinary sciences	67.0	39.0	24.0	16.0	9.0	6.0	15.0	9.0	19.0	8.0
Social sciences	292.7	154.2	233.7	117.2	14.0	12.0	45.0	25.0	-	-
Humanities and arts	372.0	252.0	267.0	179.0	46.0	29.0	59.0	44.0	-	-
Non-financial sector	267.6	91.0	193.1	69.7	38.6	13.5	31.4	6.8	4.5	1.0
Natural sciences	132.7	39.6	98.4	30.6	17.3	4.0	17.0	5.0	-	-
Engineering and technology	118.9	38.4	86.7	31.1	14.3	4.5	13.4	1.8	4.5	1.0
Medical and health sciences	-	-	-	-	-	-	-	-	-	-
Agricultural and veterinary sciences	16.0	13.0	8.0	8.0	7.0	5.0	1.0	-	-	-
Government sector	51.0	26.0	16.0	8.0	2.0	1.0	14.0	9.0	19.0	8.0
Agricultural and veterinary sciences	51.0	26.0	16.0	8.0	2.0	1.0	14.0	9.0	19.0	8.0
Tertiary education	1919.6	1035.9	1599.5	833.7	130.1	76.2	167.5	116.5	22.5	9.5
Natural sciences	224.8	131.3	224.8	131.3	-	-	-	-	-	-
Engineering and technology	651.8	283.1	509.7	201.9	56.1	24.2	63.5	47.5	22.5	9.5
Medical and health sciences	378.3	215.3	364.3	204.3	14.0	11.0	-	-	-	-
Social sciences	292.7	154.2	233.7	117.2	14.0	12.0	45.0	25.0	-	-
Humanities and arts	372.0	252.0	267.0	179.0	46.0	29.0	59.0	44.0	-	-
Region Kosovo i Metohija	...	...	...	...	...	...	...	...	...	...

Table 3.1. Full-time and part-time researchers, by academic titles, sectors, fields of science and sex, 2024 (head count)

	Full-time and part-time researchers							
	Total		Doctors of science		Master's degree/specialisation		University degree	
	All	Women	All	Women	All	Women	All	Women
REPUBLIC OF SERBIA	19323	10191	12397	6673	4128	2316	2798	1202
Natural sciences	4912	2743	3138	1852	1035	594	739	297
Engineering and technology	5552	2293	2734	1190	1478	688	1340	415
Medical and health sciences	2881	1747	2061	1215	420	273	400	259
Agricultural and veterinary sciences	1218	674	982	530	176	104	60	40
Social sciences	3058	1641	2321	1172	581	359	156	110
Humanities and arts	1702	1093	1161	714	438	298	103	81
Non-financial sector	2793	937	376	153	926	341	1491	443
Natural sciences	823	288	117	45	212	82	494	161
Mathematics	22	7	-	-	-	-	22	7
Computer and information sciences	603	173	48	8	129	40	426	125
Chemical sciences	129	72	57	33	64	32	8	7
Earth and related environmental sciences	13	3	1	-	3	-	9	3
Other natural sciences	56	33	11	4	16	10	29	19
Engineering and technology	1857	594	216	90	683	242	958	262
Civil engineering	10	1	2	1	2	-	6	-
Electrical engineering, electronic engineering and information engineering	1296	403	77	24	487	164	732	215
Mechanical engineering	137	20	47	9	45	8	45	3
Chemical engineering	18	8	15	8	-	-	3	-
Materials engineering	3	-	1	-	-	-	2	-
Medical engineering	10	4	1	-	6	4	3	-
Environmental engineering	55	20	-	-	16	6	39	14
Environmental biotechnology	2	1	-	-	-	-	2	1
Industrial biotechnology	3	1	3	1	-	-	-	-
Nano-technology	29	12	-	-	15	8	14	4
Other technologies and engineering	294	124	70	47	112	52	112	25
Medical and health sciences	12	9	1	-	4	3	7	6
Clinical medicine	6	5	-	-	-	-	6	5
Medical biotechnology	4	2	1	-	3	2	-	-
Other medical sciences	2	2	-	-	1	1	1	1
Agricultural and veterinary sciences	45	19	28	9	8	3	9	7
Agricultural sciences, forestry and fisheries	22	10	17	8	4	1	1	1
Agricultural biotechnology	7	-	4	-	2	-	1	-
Other agricultural sciences	16	9	7	1	2	2	7	6
Social sciences	54	26	12	8	19	11	23	7
Economics and business	39	20	12	8	12	8	15	4
Media and communications	14	6	-	-	6	3	8	3
Other social sciences	1	-	-	-	1	-	-	-
Humanities and arts	2	1	2	1	-	-	-	-
History and archeology	2	1	2	1	-	-	-	-
Government sector	3952	2403	2884	1766	846	532	222	105
Natural sciences	1894	1224	1401	908	453	289	40	27
Mathematics	294	175	212	122	46	28	36	25
Computer and information sciences	52	17	29	8	21	8	2	1
Physical sciences	726	450	531	328	195	122	-	-
Earth and related environmental sciences	13	-	7	-	6	-	-	-
Biological sciences	509	401	377	307	130	93	2	1
Other natural sciences	300	181	245	143	55	38	-	-
Engineering and technology	570	297	324	181	127	78	119	38
Civil engineering	23	16	18	12	4	3	1	1
Electrical engineering, electronic engineering and information engineering	48	18	30	10	18	8	-	-
Materials engineering	44	27	33	19	11	8	-	-
Environmental biotechnology	128	76	111	66	17	10	-	-
Industrial biotechnology	41	19	33	17	5	1	3	1
Other technologies and engineering	286	141	99	57	72	48	115	36
Medical and health sciences	234	165	155	109	53	40	26	16
Basic medicine	123	83	69	45	28	22	26	16
Other medical sciences	111	82	86	64	25	18	-	-

Table 3.1. Full-time and part-time researchers, by academic titles, sectors, fields of science and sex, 2024 (head count) (continued)

	Full-time and part-time researchers							
	Total		Doctors of science		Master's degree/specialisation		University degree	
	All	Women	All	Women	All	Women	All	Women
Agricultural and veterinary sciences	398	250	324	202	46	29	28	19
Agricultural sciences, forestry and fisheries	16	8	12	6	4	2	-	-
Animal and dairy science	31	15	25	11	6	4	-	-
Veterinary sciences	28	17	21	13	1	-	6	4
Agricultural biotechnology	269	169	216	134	31	20	22	15
Other agricultural sciences	54	41	50	38	4	3	-	-
Social sciences	431	220	313	156	114	63	4	1
Psychology	71	41	51	26	20	15	-	-
Economics and business	69	43	60	38	6	4	3	1
Sociology	80	35	54	24	26	11	-	-
Law	58	27	41	19	17	8	-	-
Political science	124	48	86	31	37	17	1	-
Other social sciences	29	26	21	18	8	8	-	-
Humanities and arts	425	247	367	210	53	33	5	4
History and archeology	218	92	196	82	19	8	3	2
Languages and literature	128	95	105	76	23	19	-	-
Art (art, history of arts, performing arts, music)	23	18	17	13	6	5	-	-
Other humanities	56	42	49	39	5	1	2	2
Tertiary education	12572	6848	9136	4753	2352	1441	1084	654
Natural sciences	2195	1231	1620	899	370	223	205	109
Mathematics	1029	610	733	436	149	94	147	80
Computer and information sciences	378	170	251	107	76	37	51	26
Physical sciences	89	33	67	25	22	8	-	-
Chemical sciences	167	103	141	87	21	15	5	1
Earth and related environmental sciences	304	152	260	125	42	25	2	2
Biological sciences	228	163	168	119	60	44	-	-
Engineering and technology	3125	1402	2194	919	668	368	263	115
Civil engineering	445	218	312	152	67	33	66	33
Electrical engineering, electronic engineering and information engineering	1503	618	976	337	442	235	85	46
Mechanical engineering	343	93	244	65	3	-	96	28
Chemical engineering	216	141	178	116	38	25	-	-
Materials engineering	25	15	-	-	25	15	-	-
Environmental engineering	196	90	171	76	14	8	11	6
Other technologies and engineering	397	227	313	173	79	52	5	2
Medical and health sciences	2635	1573	1905	1106	363	230	367	237
Basic medicine	1484	842	1284	700	41	32	159	110
Health science	27	9	24	6	3	3	-	-
Other medical sciences	1124	722	597	400	319	195	208	127
Agricultural and veterinary sciences	775	405	630	319	122	72	23	14
Agricultural sciences, forestry and fisheries	353	178	301	146	48	29	4	3
Veterinary sciences	119	64	101	54	-	-	18	10
Other agricultural sciences	303	163	228	119	74	43	1	1
Social sciences	2567	1392	1995	1007	444	283	128	102
Economics and business	635	344	530	286	81	48	24	10
Education	544	331	420	244	116	81	8	6
Law	512	223	441	171	62	44	9	8
Political science	105	42	75	28	30	14	-	-
Media and communications	140	97	76	59	63	37	1	1
Other social sciences	631	355	453	219	92	59	86	77
Humanities and arts	1275	845	792	503	385	265	98	77
Languages and literature	516	383	374	245	71	67	71	71
Phylosophy, ethics and religion	392	237	252	151	137	85	3	1
Art (art, history of arts, performing arts, music)	276	175	111	76	142	95	23	4
Other humanities	91	50	55	31	35	18	1	1
Non-profit sector	6	3	1	1	4	2	1	-
Social sciences	6	3	1	1	4	2	1	-
Economics and business	4	2	-	-	3	2	1	-
Education	1	-	-	-	1	-	-	-
Law	1	1	1	1	-	-	-	-

Table 3.1. Full-time and part-time researchers, by academic titles, sectors, fields of science and sex, 2024 (head count) (continued)

	Full-time and part-time researchers							
	Total		Doctors of science		Master's degree/specialisation		University degree	
	All	Women	All	Women	All	Women	All	Women
Beogradski region	10546	5761	7441	4117	1995	1177	1110	467
Natural sciences	3459	1974	2302	1365	751	452	406	157
Engineering and technology	2187	932	1331	605	387	177	469	150
Medical and health sciences	1366	836	1162	689	150	107	54	40
Agricultural and veterinary sciences	783	443	627	350	109	63	47	30
Social sciences	1616	858	1231	630	353	218	32	10
Humanities and arts	1135	718	788	478	245	160	102	80
Non-financial sector	1070	404	268	126	270	112	532	166
Natural sciences	449	177	71	37	88	42	290	98
Mathematics	22	7	-	-	-	-	22	7
Computer and information sciences	262	81	2	-	30	12	230	69
Chemical sciences	97	53	57	33	40	20	-	-
Earth and related environmental sciences	13	3	1	-	3	-	9	3
Other natural sciences	55	33	11	4	15	10	29	19
Engineering and technology	549	196	173	80	162	59	214	57
Civil engineering	1	-	-	-	-	-	1	-
Electrical engineering, electronic engineering and information engineering	256	88	51	19	73	27	132	42
Mechanical engineering	80	16	45	9	35	7	-	-
Chemical engineering	18	8	15	8	-	-	3	-
Environmental engineering	16	4	-	-	2	2	14	2
Industrial biotechnology	3	1	3	1	-	-	-	-
Nano-technology	2	2	-	-	2	2	-	-
Other technologies and engineering	173	77	59	43	50	21	64	13
Medical and health sciences	7	6	-	-	-	-	7	6
Clinical medicine	6	5	-	-	-	-	6	5
Other medical sciences	1	1	-	-	-	-	1	1
Agricultural and veterinary sciences	12	-	10	-	2	-	-	-
Agricultural biotechnology	6	-	4	-	2	-	-	-
Other agricultural sciences	6	-	6	-	-	-	-	-
Social sciences	51	24	12	8	18	11	21	5
Economics and business	37	18	12	8	12	8	13	2
Media and communications	14	6	-	-	6	3	8	3
Humanities and arts	2	1	2	1	-	-	-	-
History and archeology	2	1	2	1	-	-	-	-
Government sector	3476	2135	2552	1582	706	449	218	104
Natural sciences	1769	1165	1320	870	411	269	38	26
Mathematics	294	175	212	122	46	28	36	25
Physical sciences	726	450	531	328	195	122	-	-
Earth and related environmental sciences	13	-	7	-	6	-	-	-
Biological sciences	509	401	377	307	130	93	2	1
Other natural sciences	227	139	193	113	34	26	-	-
Engineering and technology	353	169	181	100	55	31	117	38
Civil engineering	23	16	18	12	4	3	1	1
Electrical engineering, electronic engineering and information engineering	48	18	30	10	18	8	-	-
Materials engineering	44	27	33	19	11	8	-	-
Environmental biotechnology	36	21	36	21	-	-	-	-
Industrial biotechnology	41	19	33	17	5	1	3	1
Other technologies and engineering	161	68	31	21	17	11	113	36
Medical and health sciences	234	165	155	109	53	40	26	16
Basic medicine	123	83	69	45	28	22	26	16
Other medical sciences	111	82	86	64	25	18	-	-

Table 3.1. Full-time and part-time researchers, by academic titles, sectors, fields of science and sex, 2024 (head count) (continued)

	Full-time and part-time researchers							
	Total		Doctors of science		Master's degree/specialisation		University degree	
	All	Women	All	Women	All	Women	All	Women
Agricultural and veterinary sciences	264	169	216	137	20	13	28	19
Animal and dairy science	31	15	25	11	6	4	-	-
Veterinary sciences	28	17	21	13	1	-	6	4
Agricultural biotechnology	172	111	137	87	13	9	22	15
Other agricultural sciences	33	26	33	26	-	-	-	-
Social sciences	431	220	313	156	114	63	4	1
Psychology	71	41	51	26	20	15	-	-
Economics and business	69	43	60	38	6	4	3	1
Sociology	80	35	54	24	26	11	-	-
Law	58	27	41	19	17	8	-	-
Political science	124	48	86	31	37	17	1	-
Other social sciences	29	26	21	18	8	8	-	-
Humanities and arts	425	247	367	210	53	33	5	4
History and archeology	218	92	196	82	19	8	3	2
Languages and literature	128	95	105	76	23	19	-	-
Art (art, history of arts, performing arts, music)	23	18	17	13	6	5	-	-
Other humanities	56	42	49	39	5	1	2	2
Tertiary education	5994	3219	4620	2408	1015	614	359	197
Natural sciences	1241	632	911	458	252	141	78	33
Mathematics	156	59	92	35	43	19	21	5
Computer and information sciences	378	170	251	107	76	37	51	26
Physical sciences	89	33	67	25	22	8	-	-
Chemical sciences	167	103	141	87	21	15	5	1
Earth and related environmental sciences	223	104	192	85	30	18	1	1
Biological sciences	228	163	168	119	60	44	-	-
Engineering and technology	1285	567	977	425	170	87	138	55
Civil engineering	307	145	211	100	36	15	60	30
Electrical engineering, electronic engineering and information engineering	260	108	205	78	55	30	-	-
Mechanical engineering	247	68	173	47	1	-	73	21
Chemical engineering	150	103	130	88	20	15	-	-
Materials engineering	25	15	-	-	25	15	-	-
Environmental engineering	149	67	134	57	10	6	5	4
Other technologies and engineering	147	61	124	55	23	6	-	-
Medical and health sciences	1125	665	1007	580	97	67	21	18
Basic medicine	725	394	693	372	15	8	17	14
Health science	27	9	24	6	3	3	-	-
Other medical sciences	373	262	290	202	79	56	4	4
Agricultural and veterinary sciences	507	274	401	213	87	50	19	11
Agricultural sciences, forestry and fisheries	112	62	93	51	19	11	-	-
Veterinary sciences	119	64	101	54	-	-	18	10
Other agricultural sciences	276	148	207	108	68	39	1	1
Social sciences	1128	611	905	465	217	142	6	4
Economics and business	298	161	262	143	33	17	3	1
Education	276	181	225	135	51	46	-	-
Law	268	116	227	87	39	27	2	2
Political science	105	42	75	28	30	14	-	-
Media and communications	140	97	76	59	63	37	1	1
Other social sciences	41	14	40	13	1	1	-	-
Humanities and arts	708	470	419	267	192	127	97	76
Languages and literature	305	226	226	147	8	8	71	71
Phylosophy, ethics and religion	211	114	115	59	93	54	3	1
Art (art, history of arts, performing arts, music)	157	102	57	43	77	55	23	4
Other humanities	35	28	21	18	14	10	-	-
Non-profit sector	6	3	1	1	4	2	1	-
Social sciences	6	3	1	1	4	2	1	-
Economics and business	4	2	-	-	3	2	1	-
Education	1	-	-	-	1	-	-	-
Law	1	1	1	1	-	-	-	-

Table 3.1. Full-time and part-time researchers, by academic titles, sectors, fields of science and sex, 2024 (head count) (continued)

	Full-time and part-time researchers							
	Total		Doctors of science		Master's degree/specialisation		University degree	
	All	Women	All	Women	All	Women	All	Women
Region Vojvodine	5224	2570	2612	1339	1468	737	1144	494
Natural sciences	806	431	498	290	153	74	155	67
Engineering and technology	2457	1017	881	385	902	417	674	215
Medical and health sciences	756	463	308	198	244	142	204	123
Agricultural and veterinary sciences	301	158	255	131	43	27	3	-
Social sciences	815	462	611	307	97	67	107	88
Humanities and arts	89	39	59	28	29	10	1	1
Non-financial sector	1332	410	80	17	530	175	722	218
Natural sciences	213	58	44	8	66	18	103	32
Computer and information sciences	207	54	44	8	61	15	102	31
Chemical sciences	6	4	-	-	5	3	1	1
Engineering and technology	1105	344	31	6	459	154	615	184
Civil engineering	5	1	2	1	-	-	3	-
Electrical engineering, electronic engineering and information engineering	969	303	26	5	404	135	539	163
Mechanical engineering	15	1	2	-	10	1	3	-
Materials engineering	3	-	1	-	-	-	2	-
Environmental engineering	39	16	-	-	14	4	25	12
Environmental biotechnology	2	1	-	-	-	-	2	1
Nano-technology	27	10	-	-	13	6	14	4
Other technologies and engineering	45	12	-	-	18	8	27	4
Medical and health sciences	5	3	1	-	4	3	-	-
Medical biotechnology	4	2	1	-	3	2	-	-
Other medical sciences	1	1	-	-	1	1	-	-
Agricultural and veterinary sciences	6	3	4	3	-	-	2	-
Agricultural sciences, forestry and fisheries	3	2	3	2	-	-	-	-
Agricultural biotechnology	1	-	-	-	-	-	1	-
Other agricultural sciences	2	1	1	1	-	-	1	-
Social sciences	3	2	-	-	1	-	2	2
Economics and business	2	2	-	-	-	-	2	2
Other social sciences	1	-	-	-	1	-	-	-
Government sector	366	203	251	136	111	66	4	1
Natural sciences	52	17	29	8	21	8	2	1
Computer and information sciences	52	17	29	8	21	8	2	1
Engineering and technology	217	128	143	81	72	47	2	-
Environmental biotechnology	92	55	75	45	17	10	-	-
Other technologies and engineering	125	73	68	36	55	37	2	-
Agricultural and veterinary sciences	97	58	79	47	18	11	-	-
Agricultural biotechnology	97	58	79	47	18	11	-	-
Tertiary education	3526	1957	2281	1186	827	496	418	275
Natural sciences	541	356	425	274	66	48	50	34
Mathematics	460	308	357	234	54	41	49	33
Earth and related environmental sciences	81	48	68	40	12	7	1	1
Engineering and technology	1135	545	707	298	371	216	57	31
Civil engineering	37	22	29	17	8	5	-	-
Electrical engineering, electronic engineering and information engineering	934	398	553	189	324	178	57	31
Other technologies and engineering	164	125	125	92	39	33	-	-
Medical and health sciences	751	460	307	198	240	139	204	123
Other medical sciences	751	460	307	198	240	139	204	123
Agricultural and veterinary sciences	198	97	172	81	25	16	1	-
Agricultural sciences, forestry and fisheries	198	97	172	81	25	16	1	-
Social sciences	812	460	611	307	96	67	105	86
Economics and business	127	58	95	46	17	8	15	4
Education	89	62	76	49	11	11	2	2
Law	128	59	113	45	10	9	5	5
Other social sciences	468	281	327	167	58	39	83	75
Humanities and arts	89	39	59	28	29	10	1	1
Art (art, history of arts, performing arts, music)	33	17	25	15	8	2	-	-
Other humanities	56	22	34	13	21	8	1	1

Table 3.1. Full-time and part-time researchers, by academic titles, sectors, fields of science and sex, 2024 (head count) (continued)

	Full-time and part-time researchers							
	Total		Doctors of science		Master's degree/specialisation		University degree	
	All	Women	All	Women	All	Women	All	Women
Region Šumadije i Zapadne Srbije	1621	893	1068	577	300	185	253	131
Natural sciences	300	169	162	98	52	23	86	48
Engineering and technology	220	66	97	34	50	20	73	12
Medical and health sciences	394	243	292	162	26	24	76	57
Agricultural and veterinary sciences	110	57	88	43	18	10	4	4
Social sciences	386	201	281	142	91	49	14	10
Humanities and arts	211	157	148	98	63	59	-	-
Non-financial sector	161	44	20	7	59	19	82	18
Natural sciences	40	16	1	-	30	10	9	6
Computer and information sciences	14	1	1	-	11	1	2	-
Chemical sciences	26	15	-	-	19	9	7	6
Engineering and technology	102	20	5	1	25	8	72	11
Electrical engineering, electronic engineering and information engineering	11	-	-	-	4	-	7	-
Mechanical engineering	42	3	-	-	-	-	42	3
Medical engineering	5	1	1	-	2	1	2	-
Other technologies and engineering	44	16	4	1	19	7	21	8
Agricultural and veterinary sciences	19	8	14	6	4	1	1	1
Agricultural sciences, forestry and fisheries	19	8	14	6	4	1	1	1
Government sector	94	57	69	42	25	15	-	-
Natural sciences	73	42	52	30	21	12	-	-
Other natural sciences	73	42	52	30	21	12	-	-
Agricultural and veterinary sciences	21	15	17	12	4	3	-	-
Other agricultural sciences	21	15	17	12	4	3	-	-
Tertiary education	1366	792	979	528	216	151	171	113
Natural sciences	187	111	109	68	1	1	77	42
Mathematics	187	111	109	68	1	1	77	42
Engineering and technology	118	46	92	33	25	12	1	1
Electrical engineering, electronic engineering and information engineering	118	46	92	33	25	12	1	1
Medical and health sciences	394	243	292	162	26	24	76	57
Basic medicine	394	243	292	162	26	24	76	57
Agricultural and veterinary sciences	70	34	57	25	10	6	3	3
Agricultural sciences, forestry and fisheries	43	19	36	14	4	2	3	3
Other agricultural sciences	27	15	21	11	6	4	-	-
Social sciences	386	201	281	142	91	49	14	10
Economics and business	153	87	118	61	30	22	5	4
Education	130	53	86	38	38	11	6	4
Law	50	23	37	15	13	8	-	-
Other social sciences	53	38	40	28	10	8	3	2
Humanities and arts	211	157	148	98	63	59	-	-
Languages and literature	211	157	148	98	63	59	-	-
Region Južne i Istočne Srbije	1932	967	1276	640	365	217	291	110
Natural sciences	347	169	176	99	79	45	92	25
Engineering and technology	688	278	425	166	139	74	124	38
Medical and health sciences	365	205	299	166	-	-	66	39
Agricultural and veterinary sciences	24	16	12	6	6	4	6	6
Social sciences	241	120	198	93	40	25	3	2
Humanities and arts	267	179	166	110	101	69	-	-
Non-financial sector	230	79	8	3	67	35	155	41
Natural sciences	121	37	1	-	28	12	92	25
Computer and information sciences	120	37	1	-	27	12	92	25
Other natural sciences	1	-	-	-	1	-	-	-

Table 3.1. Full-time and part-time researchers, by academic titles, sectors, fields of science and sex, 2024 (head count) (continued)

	Full-time and part-time researchers							
	Total		Doctors of science		Master's degree/specialisation		University degree	
	All	Women	All	Women	All	Women	All	Women
Engineering and technology	101	34	7	3	37	21	57	10
Civil engineering	4	-	-	-	2	-	2	-
Electrical engineering, electronic engineering and information engineering	60	12	-	-	6	2	54	10
Medical engineering	5	3	-	-	4	3	1	-
Other technologies and engineering	32	19	7	3	25	16	-	-
Agricultural sciences	8	8	-	-	2	2	6	6
Other agricultural sciences	8	8	-	-	2	2	6	6
Government sector	16	8	12	6	4	2	-	-
Agricultural and veterinary sciences	16	8	12	6	4	2	-	-
Agricultural sciences, forestry and fisheries	16	8	12	6	4	2	-	-
Tertiary education	1686	880	1256	631	294	180	136	69
Natural sciences	226	132	175	99	51	33	-	-
Mathematics	226	132	175	99	51	33	-	-
Engineering and technology	587	244	418	163	102	53	67	28
Civil engineering	101	51	72	35	23	13	6	3
Electrical engineering, electronic engineering and information engineering	191	66	126	37	38	15	27	14
Mechanical engineering	96	25	71	18	2	-	23	7
Chemical engineering	66	38	48	28	18	10	-	-
Environmental engineering	47	23	37	19	4	2	6	2
Other technologies and engineering	86	41	64	26	17	13	5	2
Medical and health sciences	365	205	299	166	-	-	66	39
Basic medicine	365	205	299	166	-	-	66	39
Social sciences	241	120	198	93	40	25	3	2
Economics and business	57	38	55	36	1	1	1	1
Education	49	35	33	22	16	13	-	-
Law	66	25	64	24	-	-	2	1
Other social sciences	69	22	46	11	23	11	-	-
Humanities and arts	267	179	166	110	101	69	-	-
Phylosophy, ethics and religion	181	123	137	92	44	31	-	-
Art (art, history of arts, performing arts, music)	86	56	29	18	57	38	-	-
Region Kosovo i Metohija	...	...	...	...	...	...	...	...

Table 3.2. Full-time and part-time researchers, by academic titles, sectors, fields of science and sex, expressed in full-time equivalent, 2024

	Full-time and part-time researchers							
	Total		Doctors of science		Master's degree/specialisation		University degree	
	All	Women	All	Women	All	Women	All	Women
REPUBLIC OF SERBIA	17751.7	9385.7	11604.2	6279.0	3607.2	2006.6	2540.3	1100.1
Natural sciences	4589.5	2596.7	3120.6	1875.8	817.0	463.7	651.9	257.2
Engineering and technology	4958.6	2035.3	2372.0	1011.8	1345.9	630.9	1240.7	392.6
Medical and health sciences	2548.6	1522.6	1828.9	1061.2	360.2	232.8	359.5	228.6
Agricultural and veterinary sciences	1180.6	655.9	949.5	513.4	174.5	103.5	56.6	39.0
Social sciences	2821.8	1504.3	2189.5	1116.2	485.3	283.2	147.0	104.9
Humanities and arts	1652.6	1070.9	1143.7	700.6	424.3	292.5	84.6	77.8
Non-financial sector	2484.6	838.8	351.8	143.6	808.2	304.7	1324.6	390.5
Natural sciences	696.1	238.4	110.8	43.0	163.6	66.1	421.7	129.3
Mathematics	17.9	5.3	-	-	-	-	17.9	5.3
Computer and information sciences	496.0	134.4	42.3	6.0	90.3	30.1	363.4	98.3
Chemical sciences	117.6	64.7	57.0	33.0	55.7	27.3	4.9	4.4
Earth and related environmental sciences	13.0	3.0	1.0	-	3.0	-	9.0	3.0
Other natural sciences	51.6	31.0	10.5	4.0	14.6	8.7	26.5	18.3
Engineering and technology	1696.7	558.2	201.3	85.1	625.3	228.9	870.1	244.2
Civil engineering	10.0	1.0	2.0	1.0	2.0	-	6.0	-
Electrical engineering, electronic engineering and information engineering	1213.6	387.2	72.0	22.3	451.2	158.1	690.4	206.8
Mechanical engineering	115.0	18.2	44.6	8.7	43.3	8.0	27.1	1.5
Chemical engineering	16.0	7.0	14.0	6.0	-	-	2.0	1.0
Materials engineering	1.6	-	0.1	-	-	-	1.5	-
Medical engineering	9.7	4.0	1.0	-	6.0	4.0	2.7	-
Environmental engineering	55.0	20.0	-	-	16.0	6.0	39.0	14.0
Environmental biotechnology	2.0	1.0	-	-	-	-	2.0	1.0
Industrial biotechnology	0.3	0.1	0.3	0.1	-	-	-	-
Nano-technology	7.1	3.0	-	-	2.0	2.0	5.1	1.0
Other technologies and engineering	266.4	116.7	67.3	47.0	104.8	50.8	94.3	18.9
Medical and health sciences	9.9	7.6	1.0	-	2.6	2.3	6.3	5.3
Clinical medicine	6.0	5.0	-	-	-	-	6.0	5.0
Medical biotechnology	2.6	1.3	1.0	-	1.6	1.3	-	-
Other medical sciences	1.3	1.3	-	-	1.0	1.0	0.3	0.3
Agricultural and veterinary sciences	42.1	17.4	25.6	7.4	7.5	3.0	9.0	7.0
Agricultural sciences, forestry and fisheries	19.6	8.4	14.6	6.4	4.0	1.0	1.0	1.0
Agricultural biotechnology	6.5	-	4.0	-	1.5	-	1.0	-
Other agricultural sciences	16.0	9.0	7.0	1.0	2.0	2.0	7.0	6.0
Social sciences	37.8	16.2	11.1	7.1	9.2	4.4	17.5	4.7
Economics and business	22.8	10.2	11.1	7.1	2.2	1.4	9.5	1.7
Media and communications	14.0	6.0	-	-	6.0	3.0	8.0	3.0
Other social sciences	1.0	-	-	-	1.0	-	-	-
Humanities and arts	2.0	1.0	2.0	1.0	-	-	-	-
History and archeology	2.0	1.0	2.0	1.0	-	-	-	-
Government sector	3864.0	2349.9	2967.5	1827.6	676.3	418.6	220.2	103.7
Natural sciences	1869.7	1213.1	1526.3	996.7	303.9	189.7	39.5	26.7
Mathematics	293.1	174.8	211.1	121.8	46.0	28.0	36.0	25.0
Computer and information sciences	47.7	16.5	25.2	7.5	20.5	8.0	2.0	1.0
Physical sciences	723.9	448.9	672.9	423.9	51.0	25.0	-	-
Earth and related environmental sciences	13.0	-	7.0	-	6.0	-	-	-
Biological sciences	506.5	398.6	375.3	305.6	129.7	92.3	1.5	0.7
Other natural sciences	285.5	174.3	234.8	137.9	50.7	36.4	-	-
Engineering and technology	552.1	284.1	312.8	173.9	120.6	72.2	118.7	38.0
Civil engineering	23.0	16.0	18.0	12.0	4.0	3.0	1.0	1.0
Electrical engineering, electronic engineering and information engineering	48.0	18.0	30.0	10.0	18.0	8.0	-	-
Materials engineering	44.0	27.0	33.0	19.0	11.0	8.0	-	-
Environmental biotechnology	127.7	76.0	110.7	66.0	17.0	10.0	-	-
Industrial biotechnology	41.0	19.0	33.0	17.0	5.0	1.0	3.0	1.0
Other technologies and engineering	268.4	128.1	88.1	49.9	65.6	42.2	114.7	36.0
Medical and health sciences	202.0	144.6	133.9	95.1	42.1	33.5	26.0	16.0
Basic medicine	97.1	66.9	52.2	34.5	18.9	16.4	26.0	16.0
Other medical sciences	104.9	77.7	81.7	60.6	23.2	17.1	-	-



Table 3.2. Full-time and part-time researchers, by academic titles, sectors, fields of science and sex, expressed in full-time equivalent, 2024 (continued)

	Full-time and part-time researchers							
	Total		Doctors of science		Master's degree/specialisation		University degree	
	All	Women	All	Women	All	Women	All	Women
Agricultural and veterinary sciences	395.0	248.5	323.0	202.0	45.0	28.5	27.0	18.0
Agricultural sciences, forestry and fisheries	16.0	8.0	12.0	6.0	4.0	2.0	-	-
Animal and dairy science	31.0	15.0	25.0	11.0	6.0	4.0	-	-
Veterinary sciences	28.0	17.0	21.0	13.0	1.0	-	6.0	4.0
Agricultural biotechnology	266.0	167.5	215.0	134.0	30.0	19.5	21.0	14.0
Other agricultural sciences	54.0	41.0	50.0	38.0	4.0	3.0	-	-
Social sciences	427.5	217.7	309.5	153.7	114.0	63.0	4.0	1.0
Psychology	70.5	40.5	50.5	25.5	20.0	15.0	-	-
Economics and business	69.0	43.0	60.0	38.0	6.0	4.0	3.0	1.0
Sociology	77.7	33.2	51.7	22.2	26.0	11.0	-	-
Law	57.3	27.0	40.3	19.0	17.0	8.0	-	-
Political science	124.0	48.0	86.0	31.0	37.0	17.0	1.0	-
Other social sciences	29.0	26.0	21.0	18.0	8.0	8.0	-	-
Humanities and arts	417.7	241.9	362.0	206.2	50.7	31.7	5.0	4.0
History and archeology	213.9	89.4	194.2	80.7	16.7	6.7	3.0	2.0
Languages and literature	126.3	94.0	103.3	75.0	23.0	19.0	-	-
Art (art, history of arts, performing arts, music)	23.0	18.0	17.0	13.0	6.0	5.0	-	-
Other humanities	54.5	40.5	47.5	37.5	5.0	1.0	2.0	2.0
Tertiary education	11399.5	6196.4	8284.8	4307.7	2120.2	1282.8	994.5	605.9
Natural sciences	2023.7	1145.2	1483.5	836.1	349.5	207.9	190.7	101.2
Mathematics	1016.0	603.0	727.0	434.1	146.5	92.7	142.5	76.2
Computer and information sciences	351.5	156.9	237.6	102.2	71.7	31.7	42.2	23.0
Physical sciences	54.0	21.1	34.8	13.1	19.2	8.0	-	-
Chemical sciences	167.0	103.0	141.0	87.0	21.0	15.0	5.0	1.0
Earth and related environmental sciences	208.5	98.5	176.4	81.0	31.1	16.5	1.0	1.0
Biological sciences	226.7	162.7	166.7	118.7	60.0	44.0	-	-
Engineering and technology	2709.8	1193.0	1857.9	752.8	600.0	329.8	251.9	110.4
Civil engineering	394.0	187.5	276.0	132.0	55.0	24.5	63.0	31.0
Electrical engineering, electronic engineering and information engineering	1270.2	522.2	798.8	266.3	391.5	211.5	79.9	44.4
Mechanical engineering	343.0	93.0	244.0	65.0	3.0	-	96.0	28.0
Chemical engineering	160.3	106.2	125.8	85.4	34.5	20.8	-	-
Materials engineering	25.0	15.0	-	-	25.0	15.0	-	-
Environmental engineering	172.1	78.9	152.1	66.9	12.0	7.0	8.0	5.0
Other technologies and engineering	345.2	190.2	261.2	137.2	79.0	51.0	5.0	2.0
Medical and health sciences	2336.7	1370.4	1694.0	966.1	315.5	197.0	327.2	207.3
Basic medicine	1286.3	719.8	1137.3	618.3	28.0	20.0	121.0	81.5
Health science	26.1	9.0	23.1	6.0	3.0	3.0	-	-
Other medical sciences	1024.3	641.6	533.6	341.8	284.5	174.0	206.2	125.8
Agricultural and veterinary sciences	743.5	390.0	600.9	304.0	122.0	72.0	20.6	14.0
Agricultural sciences, forestry and fisheries	353.0	178.0	301.0	146.0	48.0	29.0	4.0	3.0
Veterinary sciences	88.3	49.0	72.7	39.0	-	-	15.6	10.0
Other agricultural sciences	302.2	163.0	227.2	119.0	74.0	43.0	1.0	1.0
Social sciences	2352.9	1269.8	1868.8	955.3	359.6	215.3	124.5	99.2
Economics and business	554.6	299.5	466.4	252.6	64.9	36.9	23.3	10.0
Education	518.7	318.2	395.8	233.3	114.9	78.9	8.0	6.0
Law	462.0	198.5	408.0	164.8	47.8	28.5	6.2	5.2
Political science	105.0	42.0	75.0	28.0	30.0	14.0	-	-
Media and communications	124.2	80.3	103.7	72.8	19.5	6.5	1.0	1.0
Other social sciences	588.4	331.3	419.9	203.8	82.5	50.5	86.0	77.0
Humanities and arts	1232.9	828.0	779.7	493.4	373.6	260.8	79.6	73.8
Languages and literature	512.5	381.5	372.3	244.3	69.2	66.2	71.0	71.0
Phylosophy, ethics and religion	386.2	232.5	250.2	147.5	133.0	84.0	3.0	1.0
Art (art, history of arts, performing arts, music)	243.2	164.0	102.2	70.6	136.4	92.6	4.6	0.8
Other humanities	91.0	50.0	55.0	31.0	35.0	18.0	1.0	1.0

Table 3.2. Full-time and part-time researchers, by academic titles, sectors, fields of science and sex, expressed in full-time equivalent, 2024 (continued)

	Full-time and part-time researchers							
	Total		Doctors of science		Master's degree/specialisation		University degree	
	All	Women	All	Women	All	Women	All	Women
Non-profit sector	3.6	0.6	0.1	0.1	2.5	0.5	1.0	-
Social sciences	3.6	0.6	0.1	0.1	2.5	0.5	1.0	-
Economics and business	2.5	0.5	-	-	1.5	0.5	1.0	-
Education	1.0	-	-	-	1.0	-	-	-
Law	0.1	0.1	0.1	0.1	-	-	-	-
Beogradski region	9788.1	5348.4	7150.1	3960.8	1616.5	944.9	1021.5	442.7
Natural sciences	3289.7	1897.1	2342.9	1415.9	579.8	338.6	367.0	142.6
Engineering and technology	1927.3	809.1	1166.0	516.4	313.6	145.9	447.7	146.8
Medical and health sciences	1247.4	742.4	1087.0	622.1	107.1	81.0	53.3	39.3
Agricultural and veterinary sciences	748.0	426.5	596.9	335.0	107.5	62.5	43.6	29.0
Social sciences	1487.8	776.1	1186.1	606.3	275.4	161.6	26.3	8.2
Humanities and arts	1087.9	697.2	771.2	465.1	233.1	155.3	83.6	76.8
Non-financial sector	948.6	364.4	255.2	120.2	215.6	94.5	477.8	149.7
Natural sciences	411.4	161.9	69.8	37.0	78.8	37.5	262.8	87.4
Mathematics	17.9	5.3	-	-	-	-	17.9	5.3
Computer and information sciences	233.4	69.6	1.3	-	22.7	8.8	209.4	60.8
Chemical sciences	96.5	53.0	57.0	33.0	39.5	20.0	-	-
Earth and related environmental sciences	13.0	3.0	1.0	-	3.0	-	9.0	3.0
Other natural sciences	50.6	31.0	10.5	4.0	13.6	8.7	26.5	18.3
Engineering and technology	482.1	181.5	162.3	75.1	127.1	52.6	192.7	53.8
Civil engineering	1.0	-	-	-	-	-	1.0	-
Electrical engineering, electronic engineering and information engineering	206.6	79.2	46.9	17.3	43.0	22.1	116.7	39.8
Mechanical engineering	76.9	15.7	42.6	8.7	34.3	7.0	-	-
Chemical engineering	16.0	7.0	14.0	6.0	-	-	2.0	1.0
Environmental engineering	16.0	4.0	-	-	2.0	2.0	14.0	2.0
Industrial biotechnology	0.3	0.1	0.3	0.1	-	-	-	-
Nano-technology	0.5	0.5	-	-	0.5	0.5	-	-
Other technologies and engineering	164.8	75.0	58.5	43.0	47.3	21.0	59.0	11.0
Medical and health sciences	6.3	5.3	-	-	-	-	6.3	5.3
Clinical medicine	6.0	5.0	-	-	-	-	6.0	5.0
Other medical sciences	0.3	0.3	-	-	-	-	0.3	0.3
Agricultural and veterinary sciences	11.5	-	10.0	-	1.5	-	-	-
Agricultural biotechnology	5.5	-	4.0	-	1.5	-	-	-
Other agricultural sciences	6.0	-	6.0	-	-	-	-	-
Social sciences	35.3	14.7	11.1	7.1	8.2	4.4	16.0	3.2
Economics and business	21.3	8.7	11.1	7.1	2.2	1.4	8.0	0.2
Media and communications	14.0	6.0	-	-	6.0	3.0	8.0	3.0
Humanities and arts	2.0	1.0	2.0	1.0	-	-	-	-
History and archeology	2.0	1.0	2.0	1.0	-	-	-	-
Government sector	3420.8	2099.5	2656.9	1653.9	547.4	342.9	216.5	102.7
Natural sciences	1759.6	1158.8	1455.5	961.9	266.6	171.2	37.5	25.7
Mathematics	293.1	174.8	211.1	121.8	46.0	28.0	36.0	25.0
Physical sciences	723.9	448.9	672.9	423.9	51.0	25.0	-	-
Earth and related environmental sciences	13.0	-	7.0	-	6.0	-	-	-
Biological sciences	506.5	398.6	375.3	305.6	129.7	92.3	1.5	0.7
Other natural sciences	223.1	136.5	189.2	110.6	33.9	25.9	-	-
Engineering and technology	353.0	169.0	181.0	100.0	55.0	31.0	117.0	38.0
Civil engineering	23.0	16.0	18.0	12.0	4.0	3.0	1.0	1.0
Electrical engineering, electronic engineering and information engineering	48.0	18.0	30.0	10.0	18.0	8.0	-	-
Materials engineering	44.0	27.0	33.0	19.0	11.0	8.0	-	-
Environmental biotechnology	36.0	21.0	36.0	21.0	-	-	-	-
Industrial biotechnology	41.0	19.0	33.0	17.0	5.0	1.0	3.0	1.0
Other technologies and engineering	161.0	68.0	31.0	21.0	17.0	11.0	113.0	36.0
Medical and health sciences	202.0	144.6	133.9	95.1	42.1	33.5	26.0	16.0
Basic medicine	97.1	66.9	52.2	34.5	18.9	16.4	26.0	16.0
Other medical sciences	104.9	77.7	81.7	60.6	23.2	17.1	-	-



Table 3.2. Full-time and part-time researchers, by academic titles, sectors, fields of science and sex, expressed in full-time equivalent, 2024 (continued)

	Full-time and part-time researchers							
	Total		Doctors of science		Master's degree/specialisation		University degree	
	All	Women	All	Women	All	Women	All	Women
Agricultural and veterinary sciences	261.0	167.5	215.0	137.0	19.0	12.5	27.0	18.0
Animal and dairy science	31.0	15.0	25.0	11.0	6.0	4.0	-	-
Veterinary sciences	28.0	17.0	21.0	13.0	1.0	-	6.0	4.0
Agricultural biotechnology	169.0	109.5	136.0	87.0	12.0	8.5	21.0	14.0
Other agricultural sciences	33.0	26.0	33.0	26.0	-	-	-	-
Social sciences	427.5	217.7	309.5	153.7	114.0	63.0	4.0	1.0
Psychology	70.5	40.5	50.5	25.5	20.0	15.0	-	-
Economics and business	69.0	43.0	60.0	38.0	6.0	4.0	3.0	1.0
Sociology	77.7	33.2	51.7	22.2	26.0	11.0	-	-
Law	57.3	27.0	40.3	19.0	17.0	8.0	-	-
Political science	124.0	48.0	86.0	31.0	37.0	17.0	1.0	-
Other social sciences	29.0	26.0	21.0	18.0	8.0	8.0	-	-
Humanities and arts	417.7	241.9	362.0	206.2	50.7	31.7	5.0	4.0
History and archeology	213.9	89.4	194.2	80.7	16.7	6.7	3.0	2.0
Languages and literature	126.3	94.0	103.3	75.0	23.0	19.0	-	-
Art (art, history of arts, performing arts, music)	23.0	18.0	17.0	13.0	6.0	5.0	-	-
Other humanities	54.5	40.5	47.5	37.5	5.0	1.0	2.0	2.0
Tertiary education	5415.1	2883.9	4237.9	2186.6	851.0	507.0	326.2	190.3
Natural sciences	1118.7	576.4	817.6	417.0	234.4	129.9	66.7	29.5
Mathematics	151.5	58.2	91.5	35.0	41.0	18.2	19.0	5.0
Computer and information sciences	351.5	156.9	237.6	102.2	71.7	31.7	42.2	23.0
Physical sciences	54.0	21.1	34.8	13.1	19.2	8.0	-	-
Chemical sciences	167.0	103.0	141.0	87.0	21.0	15.0	5.0	1.0
Earth and related environmental sciences	168.0	74.5	146.0	61.0	21.5	13.0	0.5	0.5
Biological sciences	226.7	162.7	166.7	118.7	60.0	44.0	-	-
Engineering and technology	1092.2	458.6	822.7	341.3	131.5	62.3	138.0	55.0
Civil engineering	306.5	145.0	211.0	100.0	35.5	15.0	60.0	30.0
Electrical engineering, electronic engineering and information engineering	123.5	34.5	103.0	24.0	20.5	10.5	-	-
Mechanical engineering	247.0	68.0	173.0	47.0	1.0	-	73.0	21.0
Chemical engineering	95.4	68.5	78.9	57.7	16.5	10.8	-	-
Materials engineering	25.0	15.0	-	-	25.0	15.0	-	-
Environmental engineering	148.1	66.9	133.1	56.9	10.0	6.0	5.0	4.0
Other technologies and engineering	146.7	60.7	123.7	55.7	23.0	5.0	-	-
Medical and health sciences	1039.1	592.5	953.1	527.0	65.0	47.5	21.0	18.0
Basic medicine	725.0	394.0	693.0	372.0	15.0	8.0	17.0	14.0
Health science	26.1	9.0	23.1	6.0	3.0	3.0	-	-
Other medical sciences	288.0	189.5	237.0	149.0	47.0	36.5	4.0	4.0
Agricultural and veterinary sciences	475.5	259.0	371.9	198.0	87.0	50.0	16.6	11.0
Agricultural sciences, forestry and fisheries	112.0	62.0	93.0	51.0	19.0	11.0	-	-
Veterinary sciences	88.3	49.0	72.7	39.0	-	-	15.6	10.0
Other agricultural sciences	275.2	148.0	206.2	108.0	68.0	39.0	1.0	1.0
Social sciences	1021.4	543.1	865.4	445.4	150.7	93.7	5.3	4.0
Economics and business	222.5	117.6	202.6	110.0	17.6	6.6	2.3	1.0
Education	265.6	175.2	215.0	129.6	50.6	45.6	-	-
Law	263.8	114.0	229.8	92.0	32.0	20.0	2.0	2.0
Political science	105.0	42.0	75.0	28.0	30.0	14.0	-	-
Media and communications	124.2	80.3	103.7	72.8	19.5	6.5	1.0	1.0
Other social sciences	40.3	14.0	39.3	13.0	1.0	1.0	-	-
Humanities and arts	668.2	454.3	407.2	257.9	182.4	123.6	78.6	72.8
Languages and literature	303.3	225.3	224.3	146.3	8.0	8.0	71.0	71.0
Phylosophy, ethics and religion	205.2	109.5	113.2	55.5	89.0	53.0	3.0	1.0
Art (art, history of arts, performing arts, music)	124.7	91.5	48.7	38.1	71.4	52.6	4.6	0.8
Other humanities	35.0	28.0	21.0	18.0	14.0	10.0	-	-
Non-profit sector	3.6	0.6	0.1	0.1	2.5	0.5	1.0	-
Social sciences	3.6	0.6	0.1	0.1	2.5	0.5	1.0	-
Economics and business	2.5	0.5	-	-	1.5	0.5	1.0	-
Education	1.0	-	-	-	1.0	-	-	-
Law	0.1	0.1	0.1	0.1	-	-	-	-

Table 3.2. Full-time and part-time researchers, by academic titles, sectors, fields of science and sex, expressed in full-time equivalent, 2024 (continued)

	Full-time and part-time researchers							
	Total		Doctors of science		Master's degree/specialisation		University degree	
	All	Women	All	Women	All	Women	All	Women
Region Vojvodine	4860.0	2399.9	2389.6	1238.9	1384.2	694.9	1086.2	466.1
Natural sciences	707.9	383.4	449.8	266.3	127.7	66.1	130.4	51.0
Engineering and technology	2295.0	949.6	785.0	339.0	864.1	403.0	645.9	207.6
Medical and health sciences	739.9	454.4	297.6	192.8	240.1	139.8	202.2	121.8
Agricultural and veterinary sciences	298.6	156.4	252.6	129.4	43.0	27.0	3.0	-
Social sciences	730.1	417.6	546.1	283.9	80.3	49.0	103.7	84.7
Humanities and arts	88.5	38.5	58.5	27.5	29.0	10.0	1.0	1.0
Non-financial sector	1233.2	373.3	70.8	13.4	488.2	164.2	674.2	195.7
Natural sciences	161.5	36.1	39.0	6.0	43.6	13.6	78.9	16.5
Computer and information sciences	158.0	33.6	39.0	6.0	41.1	12.1	77.9	15.5
Chemical sciences	3.5	2.5	-	-	2.5	1.5	1.0	1.0
Engineering and technology	1062.0	332.0	29.2	6.0	441.0	148.3	591.8	177.7
Civil engineering	5.0	1.0	2.0	1.0	-	-	3.0	-
Electrical engineering, electronic engineering and information engineering	950.8	298.9	25.1	5.0	398.9	134.2	526.8	159.7
Mechanical engineering	13.5	1.0	2.0	-	9.0	1.0	2.5	-
Materials engineering	1.6	-	0.1	-	-	-	1.5	-
Environmental engineering	39.0	16.0	-	-	14.0	4.0	25.0	12.0
Environmental biotechnology	2.0	1.0	-	-	-	-	2.0	1.0
Nano-technology	6.6	2.5	-	-	1.5	1.5	5.1	1.0
Other technologies and engineering	43.5	11.6	-	-	17.6	7.6	25.9	4.0
Medical and health sciences	3.6	2.3	1.0	-	2.6	2.3	-	-
Medical biotechnology	2.6	1.3	1.0	-	1.6	1.3	-	-
Other medical sciences	1.0	1.0	-	-	1.0	1.0	-	-
Agricultural and veterinary sciences	3.6	1.4	1.6	1.4	-	-	2.0	-
Agricultural sciences, forestry and fisheries	0.6	0.4	0.6	0.4	-	-	-	-
Agricultural biotechnology	1.0	-	-	-	-	-	1.0	-
Other agricultural sciences	2.0	1.0	1.0	1.0	-	-	1.0	-
Social sciences	2.5	1.5	-	-	1.0	-	1.5	1.5
Economics and business	1.5	1.5	-	-	-	-	1.5	1.5
Other social sciences	1.0	-	-	-	1.0	-	-	-
Government sector	343.8	189.6	236.0	128.4	104.1	60.2	3.7	1.0
Natural sciences	47.7	16.5	25.2	7.5	20.5	8.0	2.0	1.0
Computer and information sciences	47.7	16.5	25.2	7.5	20.5	8.0	2.0	1.0
Engineering and technology	199.1	115.1	131.8	73.9	65.6	41.2	1.7	-
Environmental biotechnology	91.7	55.0	74.7	45.0	17.0	10.0	-	-
Other technologies and engineering	107.4	60.1	57.1	28.9	48.6	31.2	1.7	-
Agricultural and veterinary sciences	97.0	58.0	79.0	47.0	18.0	11.0	-	-
Agricultural biotechnology	97.0	58.0	79.0	47.0	18.0	11.0	-	-
Tertiary education	3283.0	1837.0	2082.8	1097.1	791.9	470.5	408.3	269.4
Natural sciences	498.7	330.8	385.6	252.8	63.6	44.5	49.5	33.5
Mathematics	458.2	306.8	355.2	232.8	54.0	41.0	49.0	33.0
Earth and related environmental sciences	40.5	24.0	30.4	20.0	9.6	3.5	0.5	0.5
Engineering and technology	1033.9	502.5	624.0	259.1	357.5	213.5	52.4	29.9
Civil engineering	37.0	22.0	29.0	17.0	8.0	5.0	-	-
Electrical engineering, electronic engineering and information engineering	882.9	392.0	520.0	186.6	310.5	175.5	52.4	29.9
Other technologies and engineering	114.0	88.5	75.0	55.5	39.0	33.0	-	-
Medical and health sciences	736.3	452.1	296.6	192.8	237.5	137.5	202.2	121.8
Other medical sciences	736.3	452.1	296.6	192.8	237.5	137.5	202.2	121.8
Agricultural and veterinary sciences	198.0	97.0	172.0	81.0	25.0	16.0	1.0	-
Agricultural sciences, forestry and fisheries	198.0	97.0	172.0	81.0	25.0	16.0	1.0	-
Social sciences	727.6	416.1	546.1	283.9	79.3	49.0	102.2	83.2
Economics and business	125.4	58.0	93.4	46.0	17.0	8.0	15.0	4.0
Education	87.4	61.3	75.1	50.0	10.3	9.3	2.0	2.0
Law	88.5	39.3	82.8	35.9	3.5	1.2	2.2	2.2
Other social sciences	426.3	257.5	294.8	152.0	48.5	30.5	83.0	75.0
Humanities and arts	88.5	38.5	58.5	27.5	29.0	10.0	1.0	1.0
Art (art, history of arts, performing arts, music)	32.5	16.5	24.5	14.5	8.0	2.0	-	-
Other humanities	56.0	22.0	34.0	13.0	21.0	8.0	1.0	1.0



Table 3.2. Full-time and part-time researchers, by academic titles, sectors, fields of science and sex, expressed in full-time equivalent, 2024 (continued)

	Full-time and part-time researchers							
	Total		Doctors of science		Master's degree/specialisation		University degree	
	All	Women	All	Women	All	Women	All	Women
Region Šumadije i Zapadne Srbije	1295.0	726.0	855.0	472.6	262.4	163.4	177.6	90.0
Natural sciences	268.7	154.3	152.6	94.8	37.2	17.9	78.9	41.6
Engineering and technology	139.9	43.6	53.8	20.0	43.4	17.7	42.7	5.9
Medical and health sciences	197.0	121.5	146.0	81.0	13.0	12.0	38.0	28.5
Agricultural and veterinary sciences	110.0	57.0	88.0	43.0	18.0	10.0	4.0	4.0
Social sciences	370.2	193.4	266.6	135.8	89.6	47.6	14.0	10.0
Humanities and arts	209.2	156.2	148.0	98.0	61.2	58.2	-	-
Non-financial sector	109.7	31.4	17.8	7.0	44.3	14.6	47.6	9.8
Natural sciences	24.8	9.8	1.0	-	19.4	6.4	4.4	3.4
Computer and information sciences	7.2	0.6	1.0	-	5.7	0.6	0.5	-
Chemical sciences	17.6	9.2	-	-	13.7	5.8	3.9	3.4
Engineering and technology	65.9	13.6	2.8	1.0	20.9	7.2	42.2	5.4
Electrical engineering, electronic engineering and information engineering	10.5	-	-	-	4.0	-	6.5	-
Mechanical engineering	24.6	1.5	-	-	-	-	24.6	1.5
Medical engineering	4.7	1.0	1.0	-	2.0	1.0	1.7	-
Other technologies and engineering	26.1	11.1	1.8	1.0	14.9	6.2	9.4	3.9
Agricultural and veterinary sciences	19.0	8.0	14.0	6.0	4.0	1.0	1.0	1.0
Agricultural sciences, forestry and fisheries	19.0	8.0	14.0	6.0	4.0	1.0	1.0	1.0
Government sector	83.4	52.8	62.6	39.3	20.8	13.5	-	-
Natural sciences	62.4	37.8	45.6	27.3	16.8	10.5	-	-
Other natural sciences	62.4	37.8	45.6	27.3	16.8	10.5	-	-
Agricultural and veterinary sciences	21.0	15.0	17.0	12.0	4.0	3.0	-	-
Other agricultural sciences	21.0	15.0	17.0	12.0	4.0	3.0	-	-
Tertiary education	1101.9	641.8	774.6	426.3	197.3	135.3	130.0	80.2
Natural sciences	181.5	106.7	106.0	67.5	1.0	1.0	74.5	38.2
Mathematics	181.5	106.7	106.0	67.5	1.0	1.0	74.5	38.2
Engineering and technology	74.0	30.0	51.0	19.0	22.5	10.5	0.5	0.5
Electrical engineering, electronic engineering and information engineering	74.0	30.0	51.0	19.0	22.5	10.5	0.5	0.5
Medical and health sciences	197.0	121.5	146.0	81.0	13.0	12.0	38.0	28.5
Basic medicine	197.0	121.5	146.0	81.0	13.0	12.0	38.0	28.5
Agricultural and veterinary sciences	70.0	34.0	57.0	25.0	10.0	6.0	3.0	3.0
Agricultural sciences, forestry and fisheries	43.0	19.0	36.0	14.0	4.0	2.0	3.0	3.0
Other agricultural sciences	27.0	15.0	21.0	11.0	6.0	4.0	-	-
Social sciences	370.2	193.4	266.6	135.8	89.6	47.6	14.0	10.0
Economics and business	150.0	85.9	115.7	60.6	29.3	21.3	5.0	4.0
Education	118.1	47.4	74.1	32.4	38.0	11.0	6.0	4.0
Law	49.3	22.3	37.0	15.0	12.3	7.3	-	-
Other social sciences	52.8	37.8	39.8	27.8	10.0	8.0	3.0	2.0
Humanities and arts	209.2	156.2	148.0	98.0	61.2	58.2	-	-
Languages and literature	209.2	156.2	148.0	98.0	61.2	58.2	-	-
Region Južne i Istočne Srbije	1808.6	911.4	1209.5	606.7	344.1	203.4	255.0	101.3
Natural sciences	323.2	161.9	175.3	98.8	72.3	41.1	75.6	22.0
Engineering and technology	596.4	233.0	367.2	136.4	124.8	64.3	104.4	32.3
Medical and health sciences	364.3	204.3	298.3	165.3	-	-	66.0	39.0
Agricultural and veterinary sciences	24.0	16.0	12.0	6.0	6.0	4.0	6.0	6.0
Social sciences	233.7	117.2	190.7	90.2	40.0	25.0	3.0	2.0
Humanities and arts	267.0	179.0	166.0	110.0	101.0	69.0	-	-
Non-financial sector	193.1	69.7	8.0	3.0	60.1	31.4	125.0	35.3
Natural sciences	98.4	30.6	1.0	-	21.8	8.6	75.6	22.0
Computer and information sciences	97.4	30.6	1.0	-	20.8	8.6	75.6	22.0
Other natural sciences	1.0	-	-	-	1.0	-	-	-

Table 3.2. Full-time and part-time researchers, by academic titles, sectors, fields of science and sex, expressed in full-time equivalent, 2024 (continued)

	Full-time and part-time researchers							
	Total		Doctors of science		Master's degree/specialisation		University degree	
	All	Women	All	Women	All	Women	All	Women
Engineering and technology	86.7	31.1	7.0	3.0	36.3	20.8	43.4	7.3
Civil engineering	4.0	-	-	-	2.0	-	2.0	-
Electrical engineering, electronic engineering and information engineering	45.7	9.1	-	-	5.3	1.8	40.4	7.3
Medical engineering	5.0	3.0	-	-	4.0	3.0	1.0	-
Other technologies and engineering	32.0	19.0	7.0	3.0	25.0	16.0	-	-
Agricultural sciences	8.0	8.0	-	-	2.0	2.0	6.0	6.0
Other agricultural sciences	8.0	8.0	-	-	2.0	2.0	6.0	6.0
Government sector	16.0	8.0	12.0	6.0	4.0	2.0	-	-
Agricultural and veterinary sciences	16.0	8.0	12.0	6.0	4.0	2.0	-	-
Agricultural sciences, forestry and fisheries	16.0	8.0	12.0	6.0	4.0	2.0	-	-
Tertiary education	1599.5	833.7	1189.5	597.7	280.0	170.0	130.0	66.0
Natural sciences	224.8	131.3	174.3	98.8	50.5	32.5	-	-
Mathematics	224.8	131.3	174.3	98.8	50.5	32.5	-	-
Engineering and technology	509.7	201.9	360.2	133.4	88.5	43.5	61.0	25.0
Civil engineering	50.5	20.5	36.0	15.0	11.5	4.5	3.0	1.0
Electrical engineering, electronic engineering and information engineering	189.8	65.7	124.8	36.7	38.0	15.0	27.0	14.0
Mechanical engineering	96.0	25.0	71.0	18.0	2.0	-	23.0	7.0
Chemical engineering	64.9	37.7	46.9	27.7	18.0	10.0	-	-
Environmental engineering	24.0	12.0	19.0	10.0	2.0	1.0	3.0	1.0
Other technologies and engineering	84.5	41.0	62.5	26.0	17.0	13.0	5.0	2.0
Medical and health sciences	364.3	204.3	298.3	165.3	-	-	66.0	39.0
Basic medicine	364.3	204.3	298.3	165.3	-	-	66.0	39.0
Social sciences	233.7	117.2	190.7	90.2	40.0	25.0	3.0	2.0
Economics and business	56.7	38.0	54.7	36.0	1.0	1.0	1.0	1.0
Education	47.6	34.3	31.6	21.3	16.0	13.0	-	-
Law	60.4	22.9	58.4	21.9	-	-	2.0	1.0
Other social sciences	69.0	22.0	46.0	11.0	23.0	11.0	-	-
Humanities and arts	267.0	179.0	166.0	110.0	101.0	69.0	-	-
Phylosophy, ethics and religion	181.0	123.0	137.0	92.0	44.0	31.0	-	-
Art (art, history of arts, performing arts, music)	86.0	56.0	29.0	18.0	57.0	38.0	-	-
Region Kosovo i Metohija	...	...	...	...	...	...	...	...

Table 4.1. Full-time and part-time researchers and assistant-researchers, by age and sex, 2024

	Researchers				Assistant-researchers			
	Full-time		Part-time		Full-time		Part-time	
	All	Women	All	Women	All	Women	All	Women
REPUBLIC OF SERBIA	16485	8760	2838	1431	2394	1170	736	294
Under 25	331	186	56	25	40	23	24	6
25–34	4528	2510	632	309	572	308	250	101
35–44	4599	2492	768	404	764	348	249	106
45–54	4049	2092	763	379	627	276	136	51
55–64	2762	1406	570	294	372	211	68	29
65 and over	216	74	49	20	19	4	9	1
Non-financial sector	2223	767	570	170	1104	422	526	161
Under 25	29	14	29	12	14	8	19	4
25–34	1110	395	266	83	273	111	211	71
35–44	648	232	147	36	414	142	170	57
45–54	281	83	87	21	282	112	90	20
55–64	133	41	35	17	111	49	29	9
65 and over	22	2	6	1	10	-	7	-
Government sector	3793	2309	159	94	283	154	52	25
Under 25	36	21	1	-	2	-	2	-
25–34	999	639	38	27	56	36	8	6
35–44	1211	743	57	33	89	48	14	6
45–54	971	586	31	16	59	28	13	7
55–64	557	315	26	14	74	40	15	6
65 and over	19	5	6	4	3	2	-	-
Tertiary education	10466	5684	2106	1164	1007	594	158	108
Under 25	266	151	26	13	24	15	3	2
25–34	2417	1476	327	198	243	161	31	24
35–44	2739	1517	564	335	261	158	65	43
45–54	2797	1423	644	341	286	136	33	24
55–64	2072	1050	508	262	187	122	24	14
65 and over	175	67	37	15	6	2	2	1
Non-profit sector	3	-	3	3	-	-	-	-
25-34	2	-	1	1	-	-	-	-
35–44	1	-	-	-	-	-	-	-
45-54	-	-	1	1	-	-	-	-
55–64	-	-	1	1	-	-	-	-
Beogradski region	9192	5039	1354	722	1304	649	472	164
Under 25	125	63	23	5	19	9	18	5
25–34	2304	1345	261	131	324	155	152	60
35–44	2485	1428	333	185	384	209	171	67
45–54	2332	1243	388	216	350	146	89	21
55–64	1828	924	317	170	214	126	36	10
65 and over	118	36	32	15	13	4	6	1
Non-financial sector	824	334	246	70	491	205	379	109
Under 25	8	2	10	2	7	3	15	3
25–34	325	119	93	25	155	57	133	46
35–44	236	114	73	21	163	80	138	47
45–54	139	62	46	11	123	49	72	11
55–64	99	36	19	10	37	16	17	2
65 and over	17	1	5	1	6	-	4	-
Government sector	3382	2075	94	60	241	131	40	19
Under 25	34	20	-	-	2	-	1	-
25–34	865	559	16	11	44	28	5	3
35–44	1071	660	28	19	75	42	8	4
45–54	881	537	23	13	50	22	11	6
55–64	513	295	22	13	67	37	15	6
65 and over	18	4	5	4	3	2	-	-

Table 4.1. Full-time and part-time researchers and assistant-researchers, by age and sex, 2024 (continued)

	Researchers				Assistant-researchers			
	Full-time		Part-time		Full-time		Part-time	
	All	Women	All	Women	All	Women	All	Women
Tertiary education	4983	2630	1011	589	572	313	53	36
Under 25	83	41	13	3	10	6	2	2
25–34	1112	667	151	94	125	70	14	11
35–44	1177	654	232	145	146	87	25	16
45–54	1312	644	318	191	177	75	6	4
55–64	1216	593	275	146	110	73	4	2
65 and over	83	31	22	10	4	2	2	1
Non-profit sector	3	-	3	3	-	-	-	-
25–34	2	-	1	1	-	-	-	-
35–44	1	-	-	-	-	-	-	-
45–54	-	-	1	1	-	-	-	-
55–64	-	-	1	1	-	-	-	-
Region Vojvodine	4593	2258	631	312	867	393	143	66
Under 25	112	66	25	14	4	3	3	-
25–34	1573	786	169	83	160	96	53	20
35–44	1407	676	198	95	324	107	44	19
45–54	1011	476	151	77	236	114	23	15
55–64	453	238	81	41	138	73	17	12
65 and over	37	16	7	2	5	-	3	-
Non-financial sector	1183	352	149	58	578	203	93	32
Under 25	7	6	16	8	2	2	2	-
25–34	672	233	73	29	104	47	51	18
35–44	367	101	42	13	247	61	19	6
45–54	119	11	15	6	151	60	13	6
55–64	17	1	2	2	70	33	5	2
65 and over	1	-	1	-	4	-	3	-
Government sector	323	177	43	26	38	21	11	5
Under 25	2	1	1	-	-	-	1	-
25–34	106	63	13	12	11	7	2	2
35–44	106	57	20	13	12	6	6	2
45–54	73	40	4	-	8	5	2	1
55–64	36	16	4	1	7	3	-	-
65 and over	-	-	1	-	-	-	-	-
Tertiary education	3087	1729	439	228	251	169	39	29
Under 25	103	59	8	6	2	1	-	-
25–34	795	490	83	42	45	42	-	-
35–44	934	518	136	69	65	40	19	11
45–54	819	425	132	71	77	49	8	8
55–64	400	221	75	38	61	37	12	10
65 and over	36	16	5	2	1	-	-	-
Region Šumadije i Zapadne Srbije	1016	600	605	293	75	45	77	49
Under 25	28	16	4	3	4	2	1	-
25–34	298	187	124	63	24	14	21	15
35–44	311	190	171	99	25	17	24	15
45–54	228	135	169	60	18	10	19	12
55–64	143	68	132	67	4	2	12	7
65 and over	8	4	5	1	-	-	-	-
Non-financial sector	65	24	96	20	14	5	22	12
Under 25	-	-	2	1	-	-	-	-
25–34	26	10	44	9	4	2	4	2
35–44	15	6	22	2	2	1	7	3
45–54	9	4	18	4	6	2	4	2
55–64	13	3	10	4	2	-	7	5
65 and over	2	1	-	-	-	-	-	-

Table 4.1. Full-time and part-time researchers and assistant-researchers, by age and sex, 2024 (continued)

	Researchers				Assistant-researchers			
	Full-time		Part-time		Full-time		Part-time	
	All	Women	All	Women	All	Women	All	Women
Government sector	72	49	22	8	2	1	1	1
25–34	22	13	9	4	1	1	1	1
35–44	31	23	9	1	1	-	-	-
45–54	13	8	4	3	-	-	-	-
55–64	5	4	-	-	-	-	-	-
65 and over	1	1	-	-	-	-	-	-
Tertiary education	879	527	487	265	59	39	54	36
Under 25	28	16	2	2	4	2	1	-
25–34	250	164	71	50	19	11	16	12
35–44	265	161	140	96	22	16	17	12
45–54	206	123	147	53	12	8	15	10
55–64	125	61	122	63	2	2	5	2
65 and over	5	2	5	1	-	-	-	-
Region Južne i Istočne Srbije	1684	863	248	104	148	83	44	15
Under 25	66	41	4	3	13	9	2	1
25–34	353	192	78	32	64	43	24	6
35–44	396	198	66	25	31	15	10	5
45–54	478	238	55	26	23	6	5	3
55–64	338	176	40	16	16	10	3	-
65 and over	53	18	5	2	1	-	-	-
Non-financial sector	151	57	79	22	21	9	32	8
Under 25	14	6	1	1	5	3	2	1
25–34	87	33	56	20	10	5	23	5
35–44	30	11	10	-	2	-	6	1
45–54	14	6	8	-	2	1	1	1
55–64	4	1	4	1	2	-	-	-
65 and over	2	-	-	-	-	-	-	-
Government sector	16	8	-	-	2	1	-	-
25–34	6	4	-	-	-	-	-	-
35–44	3	3	-	-	1	-	-	-
45–54	4	1	-	-	1	1	-	-
55–64	3	-	-	-	-	-	-	-
Tertiary education	1517	798	169	82	125	73	12	7
Under 25	52	35	3	2	8	6	-	-
25–34	260	155	22	12	54	38	1	1
35–44	363	184	56	25	28	15	4	4
45–54	460	231	47	26	20	4	4	2
55–64	331	175	36	15	14	10	3	-
65 and over	51	18	5	2	1	-	-	-
Region Kosovo i Metohija	...	...	...	...	...	...	...	...

Table 5.1. Full-time and part-time assistant-researchers, by academic titles, sectors, fields of science and sex, 2024 (head count)

	Full-time and part-time assistant-researchers									
	Total		Doctors of science		Master's degree/specialisation		University degree		Secondary and other education	
	All	Women	All	Women	All	Women	All	Women	All	Women
REPUBLIC OF SERBIA	3130	1464	242	123	977	507	1445	649	466	185
Natural sciences	1257	503	73	15	412	180	533	240	239	68
Engineering and technology	904	338	71	42	227	106	493	148	113	42
Medical and health sciences	269	180	6	3	100	63	115	81	48	33
Agricultural and veterinary sciences	175	91	12	9	38	17	85	42	40	23
Social sciences	406	274	69	48	129	89	185	120	23	17
Humanities and arts	119	78	11	6	71	52	34	18	3	2
Non-financial sector	1630	583	81	18	488	206	770	285	291	74
Natural sciences	918	296	60	11	316	116	363	130	179	39
Engineering and technology	533	187	17	6	114	52	328	113	74	16
Medical and health sciences	70	50	1	1	18	14	24	18	27	17
Agricultural and veterinary sciences	52	26	-	-	17	10	26	15	9	1
Social sciences	49	22	-	-	23	14	26	8	-	-
Humanities and arts	8	2	3	-	-	-	3	1	2	1
Government sector	335	179	26	16	148	83	125	53	36	27
Natural sciences	106	53	7	2	51	30	44	17	4	4
Engineering and technology	121	62	14	9	70	36	37	17	-	-
Medical and health sciences	7	7	1	1	4	4	2	2	-	-
Agricultural and veterinary sciences	73	37	2	2	11	4	29	9	31	22
Social sciences	4	3	1	1	2	1	1	1	-	-
Humanities and arts	24	17	1	1	10	8	12	7	1	1
Tertiary education	1165	702	135	89	341	218	550	311	139	84
Natural sciences	233	154	6	2	45	34	126	93	56	25
Engineering and technology	250	89	40	27	43	18	128	18	39	26
Medical and health sciences	192	123	4	1	78	45	89	61	21	16
Agricultural and veterinary sciences	50	28	10	7	10	3	30	18	-	-
Social sciences	353	249	68	47	104	74	158	111	23	17
Humanities and arts	87	59	7	5	61	44	19	10	-	-
Beogradski region	1776	813	98	59	444	255	953	390	281	109
Natural sciences	621	269	11	2	110	71	353	154	147	42
Engineering and technology	569	177	55	36	136	57	337	76	41	8
Medical and health sciences	194	126	6	3	86	58	75	48	27	17
Agricultural and veterinary sciences	119	62	12	9	20	6	47	24	40	23
Social sciences	226	149	10	8	77	50	116	74	23	17
Humanities and arts	47	30	4	1	15	13	25	14	3	2
Non-financial sector	870	314	14	5	137	67	514	185	205	57
Natural sciences	408	138	1	-	27	15	243	88	137	35
Engineering and technology	326	96	9	4	67	23	220	66	30	3
Medical and health sciences	70	50	1	1	18	14	24	18	27	17
Agricultural and veterinary sciences	18	8	-	-	2	1	7	6	9	1
Social sciences	40	20	-	-	23	14	17	6	-	-
Humanities and arts	8	2	3	-	-	-	3	1	2	1

Table 5.1. Full-time and part-time assistant-researchers, by academic titles, sectors, fields of science and sex, 2024 (head count) (continued)

	Full-time and part-time assistant-researchers									
	Total		Doctors of science		Master's degree/specialisation		University degree		Secondary and other education	
	All	Women	All	Women	All	Women	All	Women	All	Women
Government sector	281	150	25	16	114	66	106	41	36	27
Natural sciences	99	49	6	2	45	26	44	17	4	4
Engineering and technology	87	44	14	9	45	25	28	10	-	-
Medical and health sciences	7	7	1	1	4	4	2	2	-	-
Agricultural and veterinary sciences	60	30	2	2	8	2	19	4	31	22
Social sciences	4	3	1	1	2	1	1	1	-	-
Humanities and arts	24	17	1	1	10	8	12	7	1	1
Tertiary education	625	349	59	38	193	122	333	164	40	25
Natural sciences	114	82	4	-	38	30	66	49	6	3
Engineering and technology	156	37	32	23	24	9	89	-	11	5
Medical and health sciences	117	69	4	1	64	40	49	28	-	-
Agricultural and veterinary sciences	41	24	10	7	10	3	21	14	-	-
Social sciences	182	126	9	7	52	35	98	67	23	17
Humanities and arts	15	11	-	-	5	5	10	6	-	-
Region Vojvodine	1010	459	129	55	395	175	369	182	117	47
Natural sciences	560	197	62	13	285	102	151	63	62	19
Engineering and technology	240	122	8	2	70	41	107	51	55	28
Medical and health sciences	9	8	-	-	-	-	9	8	-	-
Agricultural and veterinary sciences	45	23	-	-	14	10	31	13	-	-
Social sciences	147	105	59	40	26	22	62	43	-	-
Humanities and arts	9	4	-	-	-	-	9	4	-	-
Non-financial sector	671	235	67	13	329	133	217	79	58	10
Natural sciences	463	139	59	11	275	96	101	29	28	3
Engineering and technology	179	82	8	2	43	29	98	44	30	7
Agricultural and veterinary sciences	25	13	-	-	11	8	14	5	-	-
Social sciences	4	1	-	-	-	-	4	1	-	-
Government sector	49	26	1	-	31	15	17	11	-	-
Natural sciences	4	2	1	-	3	2	-	-	-	-
Engineering and technology	34	18	-	-	25	11	9	7	-	-
Agricultural and veterinary sciences	11	6	-	-	3	2	8	4	-	-
Tertiary education	290	198	61	42	35	27	135	92	59	37
Natural sciences	93	56	2	2	7	4	50	34	34	16
Engineering and technology	27	22	-	-	2	1	-	-	25	21
Medical and health sciences	9	8	-	-	-	-	9	8	-	-
Agricultural and veterinary sciences	9	4	-	-	-	-	9	4	-	-
Social sciences	143	104	59	40	26	22	58	42	-	-
Humanities and arts	9	4	-	-	-	-	9	4	-	-
Region Šumadije i Zapadne Srbije	152	94	1	1	61	34	49	37	41	22
Natural sciences	51	33	-	-	9	6	25	21	17	6
Engineering and technology	11	3	-	-	6	2	2	1	3	-
Medical and health sciences	52	35	-	-	14	5	17	14	21	16
Agricultural and veterinary sciences	2	-	-	-	2	-	-	-	-	-
Social sciences	19	8	-	-	14	7	5	1	-	-
Humanities and arts	17	15	1	1	16	14	-	-	-	-

Table 5.1. Full-time and part-time assistant-researchers, by academic titles, sectors, fields of science and sex, 2024 (head count) (continued)

	Full-time and part-time assistant-researchers									
	Total		Doctors of science		Master's degree/specialisation		University degree		Secondary and other education	
	All	Women	All	Women	All	Women	All	Women	All	Women
Non-financial sector	36	17	-	-	10	4	22	13	4	-
Natural sciences	22	15	-	-	6	4	15	11	1	-
Engineering and technology	7	1	-	-	2	-	2	1	3	-
Agricultural and veterinary sciences	2	-	-	-	2	-	-	-	-	-
Social sciences	5	1	-	-	-	-	5	1	-	-
Government sector	3	2	-	-	3	2	-	-	-	-
Natural sciences	3	2	-	-	3	2	-	-	-	-
Tertiary education	113	75	1	1	48	28	27	24	37	22
Natural sciences	26	16	-	-	-	-	10	10	16	6
Engineering and technology	4	2	-	-	4	2	-	-	-	-
Medical and health sciences	52	35	-	-	14	5	17	14	21	16
Social sciences	14	7	-	-	14	7	-	-	-	-
Humanities and arts	17	15	1	1	16	14	-	-	-	-
Region Južne i Istočne Srbije	192	98	14	8	77	43	74	40	27	7
Natural sciences	25	4	-	-	8	1	4	2	13	1
Engineering and technology	84	36	8	4	15	6	47	20	14	6
Medical and health sciences	14	11	-	-	-	-	14	11	-	-
Agricultural and veterinary sciences	9	6	-	-	2	1	7	5	-	-
Social sciences	14	12	-	-	12	10	2	2	-	-
Humanities and arts	46	29	6	4	40	25	-	-	-	-
Non-financial sector	53	17	-	-	12	2	17	8	24	7
Natural sciences	25	4	-	-	8	1	4	2	13	1
Engineering and technology	21	8	-	-	2	-	8	2	11	6
Agricultural and veterinary sciences	7	5	-	-	2	1	5	4	-	-
Government sector	2	1	-	-	-	-	2	1	-	-
Agricultural and veterinary sciences	2	1	-	-	-	-	2	1	-	-
Tertiary education	137	80	14	8	65	41	55	31	3	-
Engineering and technology	63	28	8	4	13	6	39	18	3	-
Medical and health sciences	14	11	-	-	-	-	14	11	-	-
Social sciences	14	12	-	-	12	10	2	2	-	-
Humanities and arts	46	29	6	4	40	25	-	-	-	-
Region Kosovo i Metohija	...	...	...	...	...	...	...	...	...	...

Table 5.2. Full-time and part-time assistant-researchers, by academic titles, sectors, fields of science, expressed in full-time equivalent, 2024

	Full-time and part-time assistant-researchers									
	Total		Doctors of science		Master's degree/specialisation		University degree		Secondary and other education	
	All	Women	All	Women	All	Women	All	Women	All	Women
REPUBLIC OF SERBIA	2723.9	1296.9	277.1	150.7	860.8	450.1	1246.4	555.2	339.6	140.9
Natural sciences	1103.3	448.7	80.6	22.0	367.9	159.0	462.9	207.1	191.9	60.6
Engineering and technology	777.8	300.4	68.6	41.2	200.5	97.9	444.0	137.0	64.7	24.3
Medical and health sciences	239.1	159.4	6.0	3.0	91.3	59.6	104.3	71.8	37.5	25.0
Agricultural and veterinary sciences	129.9	69.3	11.7	9.0	29.2	10.6	67.5	35.7	21.5	14.0
Social sciences	361.9	246.6	99.9	70.2	101.7	71.8	139.3	89.6	21.0	15.0
Humanities and arts	111.9	72.5	10.3	5.3	70.2	51.2	28.4	14.0	3.0	2.0
Non-financial sector	1328.3	485.0	73.2	13.7	421.4	179.0	626.4	232.9	207.3	59.4
Natural sciences	774.5	247.8	49.1	6.0	297.5	111.4	294.8	98.8	133.1	31.6
Engineering and technology	430.2	165.5	15.1	5.7	94.0	46.9	282.9	104.1	38.2	8.8
Medical and health sciences	67.8	47.8	1.0	1.0	18.0	14.0	21.8	15.8	27.0	17.0
Agricultural and veterinary sciences	28.0	13.6	-	-	8.2	3.6	12.8	9.0	7.0	1.0
Social sciences	19.8	8.3	5.0	1.0	3.7	3.1	11.1	4.2	-	-
Humanities and arts	8.0	2.0	3.0	-	-	-	3.0	1.0	2.0	1.0
Government sector	308.4	167.5	44.8	28.0	126.6	69.8	117.5	51.7	19.5	18.0
Natural sciences	103.9	52.3	25.8	14.0	32.1	17.3	42.0	17.0	4.0	4.0
Engineering and technology	117.0	60.2	14.0	9.0	67.5	35.5	35.5	15.7	-	-
Medical and health sciences	7.0	7.0	1.0	1.0	4.0	4.0	2.0	2.0	-	-
Agricultural and veterinary sciences	52.5	28.0	2.0	2.0	11.0	4.0	25.0	9.0	14.5	13.0
Social sciences	4.0	3.0	1.0	1.0	2.0	1.0	1.0	1.0	-	-
Humanities and arts	24.0	17.0	1.0	1.0	10.0	8.0	12.0	7.0	1.0	1.0
Tertiary education	1087.2	644.4	159.1	109.0	312.8	201.3	502.5	270.6	112.8	63.5
Natural sciences	224.9	148.6	5.7	2.0	38.3	30.3	126.1	91.3	54.8	25.0
Engineering and technology	230.6	74.7	39.5	26.5	39.0	15.5	125.6	17.2	26.5	15.5
Medical and health sciences	164.3	104.6	4.0	1.0	69.3	41.6	80.5	54.0	10.5	8.0
Agricultural and veterinary sciences	49.4	27.7	9.7	7.0	10.0	3.0	29.7	17.7	-	-
Social sciences	338.1	235.3	93.9	68.2	96.0	67.7	127.2	84.4	21.0	15.0
Humanities and arts	79.9	53.5	6.3	4.3	60.2	43.2	13.4	6.0	-	-
Beogradski region	1515.6	717.6	142.8	91.9	364.7	210.8	801.6	325.7	206.5	89.2
Natural sciences	500.8	228.7	30.8	14.0	77.2	50.8	284.8	129.3	108.0	34.6
Engineering and technology	500.3	164.5	53.9	35.7	117.6	51.9	302.8	70.3	26.0	6.6
Medical and health sciences	190.1	122.9	6.0	3.0	84.3	57.1	72.8	45.8	27.0	17.0
Agricultural and veterinary sciences	93.9	50.7	11.7	9.0	20.0	6.0	40.7	21.7	21.5	14.0
Social sciences	189.9	125.6	36.4	29.2	51.4	32.8	81.1	48.6	21.0	15.0
Humanities and arts	40.6	25.2	4.0	1.0	14.2	12.2	19.4	10.0	3.0	2.0
Non-financial sector	655.1	249.0	13.5	4.7	91.7	46.8	399.7	149.3	150.2	48.2
Natural sciences	296.4	103.4	1.6	-	19.4	10.8	176.2	65.0	99.2	27.6
Engineering and technology	257.3	83.5	7.9	3.7	48.6	17.9	185.8	60.3	15.0	1.6
Medical and health sciences	67.8	47.8	1.0	1.0	18.0	14.0	21.8	15.8	27.0	17.0
Agricultural and veterinary sciences	14.0	6.0	-	-	2.0	1.0	5.0	4.0	7.0	1.0
Social sciences	11.6	6.3	-	-	3.7	3.1	7.9	3.2	-	-
Humanities and arts	8.0	2.0	3.0	-	-	-	3.0	1.0	2.0	1.0

Table 5.2. Full-time and part-time assistant-researchers, by academic titles, sectors, fields of science, expressed in full-time equivalent, 2024 (continued)

	Full-time and part-time assistant-researchers									
	Total		Doctors of science		Master's degree/specialisation		University degree		Secondary and other education	
	All	Women	All	Women	All	Women	All	Women	All	Women
Government sector	259.5	140.7	44.5	28.0	95.5	53.7	100.0	41.0	19.5	18.0
Natural sciences	98.0	48.7	25.5	14.0	26.5	13.7	42.0	17.0	4.0	4.0
Engineering and technology	87.0	44.0	14.0	9.0	45.0	25.0	28.0	10.0	-	-
Medical and health sciences	7.0	7.0	1.0	1.0	4.0	4.0	2.0	2.0	-	-
Agricultural and veterinary sciences	39.5	21.0	2.0	2.0	8.0	2.0	15.0	4.0	14.5	13.0
Social sciences	4.0	3.0	1.0	1.0	2.0	1.0	1.0	1.0	-	-
Humanities and arts	24.0	17.0	1.0	1.0	10.0	8.0	12.0	7.0	1.0	1.0
Tertiary education	601.0	327.9	84.8	59.2	177.5	110.3	301.9	135.4	36.8	23.0
Natural sciences	106.4	76.6	3.7	-	31.3	26.3	66.6	47.3	4.8	3.0
Engineering and technology	156.0	37.0	32.0	23.0	24.0	9.0	89.0	-	11.0	5.0
Medical and health sciences	115.3	68.1	4.0	1.0	62.3	39.1	49.0	28.0	-	-
Agricultural and veterinary sciences	40.4	23.7	9.7	7.0	10.0	3.0	20.7	13.7	-	-
Social sciences	174.3	116.3	35.4	28.2	45.7	28.7	72.2	44.4	21.0	15.0
Humanities and arts	8.6	6.2	-	-	4.2	4.2	4.4	2.0	-	-
Region Vojvodine	926.9	420.4	115.5	50.0	373.8	168.1	352.4	169.5	85.2	32.8
Natural sciences	544.1	190.0	49.8	8.0	277.0	102.0	157.5	61.0	59.8	19.0
Engineering and technology	200.1	104.8	7.2	2.0	66.6	40.5	100.9	48.5	25.4	13.8
Medical and health sciences	9.0	8.0	-	-	-	-	9.0	8.0	-	-
Agricultural and veterinary sciences	25.0	12.6	-	-	5.2	3.6	19.8	9.0	-	-
Social sciences	139.7	101.0	58.5	40.0	25.0	22.0	56.2	39.0	-	-
Humanities and arts	9.0	4.0	-	-	-	-	9.0	4.0	-	-
Non-financial sector	612.1	212.7	54.7	8.0	311.3	126.6	207.4	71.8	38.7	6.3
Natural sciences	448.3	132.0	47.5	6.0	267.0	96.0	108.0	27.0	25.8	3.0
Engineering and technology	155.6	77.1	7.2	2.0	42.1	29.0	93.4	42.8	12.9	3.3
Agricultural and veterinary sciences	5.0	2.6	-	-	2.2	1.6	2.8	1.0	-	-
Social sciences	3.2	1.0	-	-	-	-	3.2	1.0	-	-
Government sector	44.3	24.2	0.3	-	28.5	14.5	15.5	9.7	-	-
Natural sciences	3.3	2.0	0.3	-	3.0	2.0	-	-	-	-
Engineering and technology	30.0	16.2	-	-	22.5	10.5	7.5	5.7	-	-
Agricultural and veterinary sciences	11.0	6.0	-	-	3.0	2.0	8.0	4.0	-	-
Tertiary education	270.5	183.5	60.5	42.0	34.0	27.0	129.5	88.0	46.5	26.5
Natural sciences	92.5	56.0	2.0	2.0	7.0	4.0	49.5	34.0	34.0	16.0
Engineering and technology	14.5	11.5	-	-	2.0	1.0	-	-	12.5	10.5
Medical and health sciences	9.0	8.0	-	-	-	-	9.0	8.0	-	-
Agricultural and veterinary sciences	9.0	4.0	-	-	-	-	9.0	4.0	-	-
Social sciences	136.5	100.0	58.5	40.0	25.0	22.0	53.0	38.0	-	-
Humanities and arts	9.0	4.0	-	-	-	-	9.0	4.0	-	-
Region Šumadije i Zapadne Srbije	110.7	68.2	5.3	1.3	51.3	30.7	26.7	22.2	27.4	14.0
Natural sciences	41.1	26.0	-	-	7.7	5.2	16.8	14.8	16.6	6.0
Engineering and technology	7.0	2.4	-	-	5.3	2.0	1.4	0.4	0.3	-
Medical and health sciences	26.0	17.5	-	-	7.0	2.5	8.5	7.0	10.5	8.0
Agricultural and veterinary sciences	2.0	-	-	-	2.0	-	-	-	-	-
Social sciences	18.3	8.0	5.0	1.0	13.3	7.0	-	-	-	-
Humanities and arts	16.3	14.3	0.3	0.3	16.0	14.0	-	-	-	-

Table 5.2. Full-time and part-time assistant-researchers, by academic titles, sectors, fields of science, expressed in full-time equivalent, 2024 (continued)

	Full-time and part-time assistant-researchers									
	Total		Doctors of science		Master's degree/specialisation		University degree		Secondary and other education	
	All	Women	All	Women	All	Women	All	Women	All	Women
Non-financial sector	22.5	9.8	5.0	1.0	8.4	3.6	8.2	5.2	0.9	-
Natural sciences	12.5	8.4	-	-	5.1	3.6	6.8	4.8	0.6	-
Engineering and technology	3.0	0.4	-	-	1.3	-	1.4	0.4	0.3	-
Agricultural and veterinary sciences	2.0	-	-	-	2.0	-	-	-	-	-
Social sciences	5.0	1.0	5.0	1.0	-	-	-	-	-	-
Government sector	2.6	1.6	-	-	2.6	1.6	-	-	-	-
Natural sciences	2.6	1.6	-	-	2.6	1.6	-	-	-	-
Tertiary education	85.6	56.8	0.3	0.3	40.3	25.5	18.5	17.0	26.5	14.0
Natural sciences	26.0	16.0	-	-	-	-	10.0	10.0	16.0	6.0
Engineering and technology	4.0	2.0	-	-	4.0	2.0	-	-	-	-
Medical and health sciences	26.0	17.5	-	-	7.0	2.5	8.5	7.0	10.5	8.0
Social sciences	13.3	7.0	-	-	13.3	7.0	-	-	-	-
Humanities and arts	16.3	14.3	0.3	0.3	16.0	14.0	-	-	-	-
Region Južne i Istočne Srbije	170.7	90.7	13.5	7.5	71.0	40.5	65.7	37.8	20.5	4.9
Natural sciences	17.3	4.0	-	-	6.0	1.0	3.8	2.0	7.5	1.0
Engineering and technology	70.4	28.7	7.5	3.5	11.0	3.5	38.9	17.8	13.0	3.9
Medical and health sciences	14.0	11.0	-	-	-	-	14.0	11.0	-	-
Agricultural and veterinary sciences	9.0	6.0	-	-	2.0	1.0	7.0	5.0	-	-
Social sciences	14.0	12.0	-	-	12.0	10.0	2.0	2.0	-	-
Humanities and arts	46.0	29.0	6.0	4.0	40.0	25.0	-	-	-	-
Non-financial sector	38.6	13.5	-	-	10.0	2.0	11.1	6.6	17.5	4.9
Natural sciences	17.3	4.0	-	-	6.0	1.0	3.8	2.0	7.5	1.0
Engineering and technology	14.3	4.5	-	-	2.0	-	2.3	0.6	10.0	3.9
Agricultural and veterinary sciences	7.0	5.0	-	-	2.0	1.0	5.0	4.0	-	-
Government sector	2.0	1.0	-	-	-	-	2.0	1.0	-	-
Agricultural and veterinary sciences	2.0	1.0	-	-	-	-	2.0	1.0	-	-
Tertiary education	130.1	76.2	13.5	7.5	61.0	38.5	52.6	30.2	3.0	-
Engineering and technology	56.1	24.2	7.5	3.5	9.0	3.5	36.6	17.2	3.0	-
Medical and health sciences	14.0	11.0	-	-	-	-	14.0	11.0	-	-
Social sciences	14.0	12.0	-	-	12.0	10.0	2.0	2.0	-	-
Humanities and arts	46.0	29.0	6.0	4.0	40.0	25.0	-	-	-	-
Region Kosovo i Metohija	...	...	...	...	...	...	...	...	...	...

Table 6.1. Engaged on the basis of work on contract or author contract (head count), 2024

	Engaged on the basis of work on contract or author contract							
	Total		Researchers		Assistant-researchers		Other	
	All	Women	All	Women	All	Women	All	Women
REPUBLIC OF SERBIA	4906	2353	4104	1969	497	224	305	160
Natural sciences	1461	757	1276	669	103	49	82	39
Engineering and technology	2021	782	1725	665	252	89	44	28
Medical and health sciences	260	182	201	129	-	-	59	53
Agricultural and veterinary sciences	142	76	130	71	3	2	9	3
Social sciences	633	327	489	237	108	68	36	22
Humanities and arts	389	229	283	198	31	16	75	15
Non-financial sector	856	393	606	304	209	77	41	12
Natural sciences	403	199	339	185	36	6	28	8
Engineering and technology	290	88	122	21	160	63	8	4
Medical and health sciences	135	95	135	95	-	-	-	-
Agricultural and veterinary sciences	2	1	-	-	1	1	1	-
Social sciences	20	9	9	3	10	6	1	-
Humanities and arts	6	1	1	-	2	1	3	-
Government sector	701	374	422	239	105	56	174	79
Natural sciences	220	108	147	60	41	27	32	21
Engineering and technology	146	75	68	37	42	14	36	24
Medical and health sciences	49	32	39	23	-	-	10	9
Agricultural and veterinary sciences	16	9	8	6	-	-	8	3
Social sciences	114	66	78	44	13	9	23	13
Humanities and arts	156	84	82	69	9	6	65	9
Tertiary education	3338	1577	3070	1420	178	88	90	69
Natural sciences	833	447	790	424	21	13	22	10
Engineering and technology	1585	619	1535	607	50	12	-	-
Medical and health sciences	76	55	27	11	-	-	49	44
Agricultural and veterinary sciences	124	66	122	65	2	1	-	-
Social sciences	493	246	396	184	85	53	12	9
Humanities and arts	227	144	200	129	20	9	7	6
Non-profit sector	11	9	6	6	5	3	-	-
Natural sciences	5	3	-	-	5	3	-	-
Social sciences	6	6	6	6	-	-	-	-
Beogradski region	2809	1424	2200	1119	339	156	270	149
Natural sciences	982	499	865	437	60	30	57	32
Engineering and technology	673	245	459	153	175	65	39	27
Medical and health sciences	251	177	192	124	-	-	59	53
Agricultural and veterinary sciences	130	68	119	64	2	1	9	3
Social sciences	384	206	282	143	71	44	31	19
Humanities and arts	389	229	283	198	31	16	75	15
Non-financial sector	734	355	548	289	170	60	16	6
Natural sciences	337	180	317	178	15	-	5	2
Engineering and technology	255	80	97	17	152	59	6	4
Medical and health sciences	132	94	132	94	-	-	-	-
Agricultural and veterinary sciences	1	-	-	-	-	-	1	-
Social sciences	3	-	1	-	1	-	1	-
Humanities and arts	6	1	1	-	2	1	3	-
Government sector	643	353	405	230	67	45	171	78
Natural sciences	210	105	138	57	40	27	32	21
Engineering and technology	106	63	68	37	5	3	33	23
Medical and health sciences	49	32	39	23	-	-	10	9
Agricultural and veterinary sciences	8	3	-	-	-	-	8	3
Social sciences	114	66	78	44	13	9	23	13
Humanities and arts	156	84	82	69	9	6	65	9
Tertiary education	1426	710	1241	594	102	51	83	65
Natural sciences	435	214	410	202	5	3	20	9
Engineering and technology	312	102	294	99	18	3	-	-
Medical and health sciences	70	51	21	7	-	-	49	44
Agricultural and veterinary sciences	121	65	119	64	2	1	-	-
Social sciences	261	134	197	93	57	35	7	6
Humanities and arts	227	144	200	129	20	9	7	6
Non-profit sector	6	6	6	6	-	-	-	-
Social sciences	6	6	6	6	-	-	-	-



Table 6.1. Engaged on the basis of work on contract or author contract (head count), 2024 (continued)

	Engaged on the basis of work on contract or author contract							
	Total		Researchers		Assistant-researchers		Other	
	All	Women	All	Women	All	Women	All	Women
Region Vojvodine	1516	681	1392	631	97	42	27	8
Natural sciences	415	225	368	208	24	10	23	7
Engineering and technology	985	411	939	397	42	13	4	1
Medical and health sciences	7	4	7	4	-	-	-	-
Agricultural and veterinary sciences	5	2	4	1	1	1	-	-
Social sciences	104	39	74	21	30	18	-	-
Non-financial sector	79	25	29	7	28	12	22	6
Natural sciences	51	13	17	4	13	3	21	6
Engineering and technology	9	2	3	-	5	2	1	-
Medical and health sciences	1	-	1	-	-	-	-	-
Agricultural and veterinary sciences	1	1	-	-	1	1	-	-
Social sciences	17	9	8	3	9	6	-	-
Government sector	41	12	1	-	37	11	3	1
Engineering and technology	40	12	-	-	37	11	3	1
Agricultural and veterinary sciences	1	-	1	-	-	-	-	-
Tertiary education	1391	641	1362	624	27	16	2	1
Natural sciences	359	209	351	204	6	4	2	1
Engineering and technology	936	397	936	397	-	-	-	-
Medical and health sciences	6	4	6	4	-	-	-	-
Agricultural and veterinary sciences	3	1	3	1	-	-	-	-
Social sciences	87	30	66	18	21	12	-	-
Non-profit sector	5	3	-	-	5	3	-	-
Natural sciences	5	3	-	-	5	3	-	-
Region Šumadije i Zapadne Srbije	199	84	179	73	14	8	6	3
Natural sciences	50	27	39	21	11	6	-	-
Engineering and technology	63	13	59	11	3	2	1	-
Agricultural and veterinary sciences	7	6	7	6	-	-	-	-
Social sciences	79	38	74	35	-	-	5	3
Non-financial sector	25	6	21	4	3	2	1	-
Natural sciences	1	-	1	-	-	-	-	-
Engineering and technology	24	6	20	4	3	2	1	-
Government sector	17	9	16	9	1	-	-	-
Natural sciences	10	3	9	3	1	-	-	-
Agricultural and veterinary sciences	7	6	7	6	-	-	-	-
Tertiary education	157	69	142	60	10	6	5	3
Natural sciences	39	24	29	18	10	6	-	-
Engineering and technology	39	7	39	7	-	-	-	-
Social sciences	79	38	74	35	-	-	5	3
Region Južne i Istočne Srbije	382	164	333	146	47	18	2	-
Natural sciences	14	6	4	3	8	3	2	-
Engineering and technology	300	113	268	104	32	9	-	-
Medical and health sciences	2	1	2	1	-	-	-	-
Social sciences	66	44	59	38	7	6	-	-
Non-financial sector	18	7	8	4	8	3	2	-
Natural sciences	14	6	4	3	8	3	2	-
Engineering and technology	2	-	2	-	-	-	-	-
Medical and health sciences	2	1	2	1	-	-	-	-
Tertiary education	364	157	325	142	39	15	-	-
Engineering and technology	298	113	266	104	32	9	-	-
Social sciences	66	44	59	38	7	6	-	-
Region Kosovo i Metohija	...	...	...	...	...	...	...	...

Table 6.2. Engaged on the basis of work on contract or author contract, expressed in full-time equivalent, 2024

	Engaged on the basis of work on contract or author contract							
	Total		Researchers		Assistant-researchers		Other	
	All	Women	All	Women	All	Women	All	Women
REPUBLIC OF SERBIA	3645.0	1712.4	3134.6	1450.2	308.2	135.0	202.2	127.2
Natural sciences	1067.5	544.7	910.4	470.4	92.0	43.5	65.1	30.8
Engineering and technology	1730.2	682.0	1553.2	605.9	137.4	49.7	39.6	26.4
Medical and health sciences	93.3	69.1	41.3	22.4	-	-	52.0	46.7
Agricultural and veterinary sciences	98.8	53.1	93.7	51.2	1.7	1.0	3.4	0.9
Social sciences	427.2	221.1	332.4	167.8	67.8	35.8	27.0	17.5
Humanities and arts	228.0	142.4	203.6	132.5	9.3	5.0	15.1	4.9
Non-financial sector	384.9	127.1	210.7	67.8	137.7	48.7	36.5	10.6
Natural sciences	159.0	56.2	97.2	42.9	35.5	6.0	26.3	7.3
Engineering and technology	185.7	51.2	88.9	12.5	90.7	35.4	6.1	3.3
Medical and health sciences	14.6	9.4	14.6	9.4	-	-	-	-
Agricultural and veterinary sciences	1.3	0.3	-	-	0.3	0.3	1.0	-
Social sciences	18.3	9.0	9.0	3.0	9.2	6.0	0.1	-
Humanities and arts	6.0	1.0	1.0	-	2.0	1.0	3.0	-
Government sector	444.3	238.6	288.7	142.9	60.3	37.0	95.3	58.7
Natural sciences	208.9	102.7	137.5	55.9	40.6	27.0	30.8	19.8
Engineering and technology	101.3	59.5	55.1	31.4	12.7	5.0	33.5	23.1
Medical and health sciences	16.1	9.6	13.1	6.9	-	-	3.0	2.7
Agricultural and veterinary sciences	4.8	2.1	2.4	1.2	-	-	2.4	0.9
Social sciences	93.2	54.3	71.4	40.6	6.1	4.4	15.7	9.3
Humanities and arts	20.0	10.4	9.2	6.9	0.9	0.6	9.9	2.9
Tertiary education	2814.4	1345.3	2633.9	1238.2	110.1	49.2	70.4	57.9
Natural sciences	699.5	385.7	675.7	371.6	15.8	10.4	8.0	3.7
Engineering and technology	1443.2	571.3	1409.2	562.0	34.0	9.3	-	-
Medical and health sciences	62.6	50.1	13.6	6.1	-	-	49.0	44.0
Agricultural and veterinary sciences	92.7	50.7	91.3	50.0	1.4	0.7	-	-
Social sciences	314.4	156.5	250.7	122.9	52.5	25.4	11.2	8.2
Humanities and arts	202.0	131.0	193.4	125.6	6.4	3.4	2.2	2.0
Non-profit sector	1.4	1.4	1.3	1.3	0.1	0.1	-	-
Natural sciences	0.1	0.1	-	-	0.1	0.1	-	-
Social sciences	1.3	1.3	1.3	1.3	-	-	-	-
Beogradski region	1800.5	883.3	1430.2	674.9	197.7	90.6	172.6	117.8
Natural sciences	605.4	294.8	507.6	242.4	56.0	27.9	41.8	24.5
Engineering and technology	548.0	204.1	415.9	140.6	93.8	37.2	38.3	26.3
Medical and health sciences	86.0	65.0	34.0	18.3	-	-	52.0	46.7
Agricultural and veterinary sciences	93.1	50.6	88.3	49.0	1.4	0.7	3.4	0.9
Social sciences	240.0	126.4	180.8	92.1	37.2	19.8	22.0	14.5
Humanities and arts	228.0	142.4	203.6	132.5	9.3	5.0	15.1	4.9
Non-financial sector	288.4	97.5	169.0	57.3	105.0	34.9	14.4	5.3
Natural sciences	96.5	38.9	77.0	36.9	14.5	-	5.0	2.0
Engineering and technology	169.5	48.3	76.7	11.1	87.5	33.9	5.3	3.3
Medical and health sciences	13.3	9.3	13.3	9.3	-	-	-	-
Agricultural and veterinary sciences	1.0	-	-	-	-	-	1.0	-
Social sciences	2.1	-	1.0	-	1.0	-	0.1	-
Humanities and arts	6.0	1.0	1.0	-	2.0	1.0	3.0	-
Government sector	424.0	232.3	277.9	138.7	51.3	35.0	94.8	58.6
Natural sciences	199.9	99.7	129.1	52.9	40.0	27.0	30.8	19.8
Engineering and technology	92.4	57.4	55.1	31.4	4.3	3.0	33.0	23.0
Medical and health sciences	16.1	9.6	13.1	6.9	-	-	3.0	2.7
Agricultural and veterinary sciences	2.4	0.9	-	-	-	-	2.4	0.9
Social sciences	93.2	54.3	71.4	40.6	6.1	4.4	15.7	9.3
Humanities and arts	20.0	10.4	9.2	6.9	0.9	0.6	9.9	2.9
Tertiary education	1086.8	552.2	982.0	477.6	41.4	20.7	63.4	53.9
Natural sciences	309.0	156.2	301.5	152.6	1.5	0.9	6.0	2.7
Engineering and technology	286.1	98.4	284.1	98.1	2.0	0.3	-	-
Medical and health sciences	56.6	46.1	7.6	2.1	-	-	49.0	44.0
Agricultural and veterinary sciences	89.7	49.7	88.3	49.0	1.4	0.7	-	-
Social sciences	143.4	70.8	107.1	50.2	30.1	15.4	6.2	5.2
Humanities and arts	202.0	131.0	193.4	125.6	6.4	3.4	2.2	2.0

Table 6.2. Engaged on the basis of work on contract or author contract, expressed in full-time equivalent, 2024 (continued)

	Engaged on the basis of work on contract or author contract							
	Total		Researchers		Assistant-researchers		Other	
	All	Women	All	Women	All	Women	All	Women
Non-profit sector	1.3	1.3	1.3	1.3	-	-	-	-
Social sciences	1.3	1.3	1.3	1.3	-	-	-	-
Region Vojvodine	1350.3	622.2	1273.2	595.5	53.8	20.3	23.3	6.4
Natural sciences	409.4	221.4	368.0	208.0	19.1	7.1	22.3	6.3
Engineering and technology	868.8	373.5	857.0	370.5	10.8	2.9	1.0	0.1
Medical and health sciences	7.0	4.0	7.0	4.0	-	-	-	-
Agricultural and veterinary sciences	4.3	1.3	4.0	1.0	0.3	0.3	-	-
Social sciences	60.8	22.0	37.2	12.0	23.6	10.0	-	-
Non-financial sector	72.8	22.5	28.1	7.0	23.9	10.2	20.8	5.3
Natural sciences	50.3	12.3	17.0	4.0	13.0	3.0	20.3	5.3
Engineering and technology	5.0	0.9	2.1	-	2.4	0.9	0.5	-
Medical and health sciences	1.0	-	1.0	-	-	-	-	-
Agricultural and veterinary sciences	0.3	0.3	-	-	0.3	0.3	-	-
Social sciences	16.2	9.0	8.0	3.0	8.2	6.0	-	-
Government sector	9.9	2.1	1.0	-	8.4	2.0	0.5	0.1
Engineering and technology	8.9	2.1	-	-	8.4	2.0	0.5	0.1
Agricultural and veterinary sciences	1.0	-	1.0	-	-	-	-	-
Tertiary education	1267.5	597.5	1244.1	588.5	21.4	8.0	2.0	1.0
Natural sciences	359.0	209.0	351.0	204.0	6.0	4.0	2.0	1.0
Engineering and technology	854.9	370.5	854.9	370.5	-	-	-	-
Medical and health sciences	6.0	4.0	6.0	4.0	-	-	-	-
Agricultural and veterinary sciences	3.0	1.0	3.0	1.0	-	-	-	-
Social sciences	44.6	13.0	29.2	9.0	15.4	4.0	-	-
Non-profit sector	0.1	0.1	-	-	0.1	0.1	-	-
Natural sciences	0.1	0.1	-	-	0.1	0.1	-	-
Region Šumadije i Zapadne Srbije	151.4	61.7	136.4	52.6	9.7	6.1	5.3	3.0
Natural sciences	40.7	23.5	31.8	18.0	8.9	5.5	-	-
Engineering and technology	47.2	8.3	46.1	7.7	0.8	0.6	0.3	-
Agricultural and veterinary sciences	1.4	1.2	1.4	1.2	-	-	-	-
Social sciences	62.1	28.7	57.1	25.7	-	-	5.0	3.0
Non-financial sector	9.9	2.0	8.8	1.4	0.8	0.6	0.3	-
Natural sciences	0.2	-	0.2	-	-	-	-	-
Engineering and technology	9.7	2.0	8.6	1.4	0.8	0.6	0.3	-
Government sector	10.4	4.2	9.8	4.2	0.6	-	-	-
Natural sciences	9.0	3.0	8.4	3.0	0.6	-	-	-
Agricultural and veterinary sciences	1.4	1.2	1.4	1.2	-	-	-	-
Tertiary education	131.1	55.5	117.8	47.0	8.3	5.5	5.0	3.0
Natural sciences	31.5	20.5	23.2	15.0	8.3	5.5	-	-
Engineering and technology	37.5	6.3	37.5	6.3	-	-	-	-
Social sciences	62.1	28.7	57.1	25.7	-	-	5.0	3.0
Region Južne i Istočne Srbije	342.8	145.2	294.8	127.2	47.0	18.0	1.0	-
Natural sciences	12.0	5.0	3.0	2.0	8.0	3.0	1.0	-
Engineering and technology	266.2	96.1	234.2	87.1	32.0	9.0	-	-
Medical and health sciences	0.3	0.1	0.3	0.1	-	-	-	-
Social sciences	64.3	44.0	57.3	38.0	7.0	6.0	-	-
Non-financial sector	13.8	5.1	4.8	2.1	8.0	3.0	1.0	-
Natural sciences	12.0	5.0	3.0	2.0	8.0	3.0	1.0	-
Engineering and technology	1.5	-	1.5	-	-	-	-	-
Medical and health sciences	0.3	0.1	0.3	0.1	-	-	-	-
Tertiary education	329.0	140.1	290.0	125.1	39.0	15.0	-	-
Engineering and technology	264.7	96.1	232.7	87.1	32.0	9.0	-	-
Social sciences	64.3	44.0	57.3	38.0	7.0	6.0	-	-
Region Kosovo i Metohija	...	...	...	...	...	...	...	...

Table 7.1. Research works (projects and studies), by sectors and territories, 2024

	Research works (projects and studies), by sectors and territories							
	Number of works				Value of scientific works, thous. RSD			
	Total	Basic	Applied	Development	Total	Basic	Applied	Development
REPUBLIC OF SERBIA	15379	8322	4340	2717	90580802	22839667	25396076	42345059
Non-financial sector	1524	326	414	784	41695812	1762314	9965828	29967670
Government sector	5678	3322	1549	807	23509347	10461363	6335572	6712412
Tertiary education	8166	4671	2369	1126	25358721	10615099	9078645	5664977
Non-profit sector	11	3	8	-	16922	891	16031	-
Beogradski region	10484	5743	2798	1943	58355510	17985967	13759334	26610209
Non-financial sector	1099	323	326	450	22662080	1728684	3822926	17110470
Government sector	4795	3067	981	747	20007017	10222240	3703301	6081476
Tertiary education	4582	2353	1483	746	15670382	6035043	6217076	3418263
Non-profit sector	8	-	8	-	16031	-	16031	-
Region Vojvodine	1918	557	948	413	26373022	1875193	10289064	14208765
Non-financial sector	159	1	59	99	17181467	7380	5463424	11710663
Government sector	495	6	430	59	3067783	7168	2433561	627054
Tertiary education	1261	547	459	255	6122881	1859754	2392079	1871048
Non-profit sector	3	3	-	-	891	891	-	-
Region Šumadije i Zapadne Srbije	1346	1071	186	89	3246026	1879834	774022	592170
Non-financial sector	72	1	23	48	1007021	1350	514224	491447
Government sector	252	249	2	1	322058	231955	86221	3882
Tertiary education	1022	821	161	40	1916947	1646529	173577	96841
Region Južne i Istočne Srbije	1631	951	408	272	2606244	1098673	573656	933915
Non-financial sector	194	1	6	187	845244	24900	165254	655090
Government sector	136	-	136	-	112489	-	112489	-
Tertiary education	1301	950	266	85	1648511	1073773	295913	278825
Region Kosovo i Metohija	...	...	...	...	...	...	...	...

Table 7.2. Research works (projects and studies), by sectors and fields of science, 2024

	Research works (projects and studies), by sectors and fields of science							
	Number of works				Value of scientific works, thous. RSD			
	Total	Basic	Applied	Development	Total	Basic	Applied	Development
REPUBLIC OF SERBIA	15379	8322	4340	2717	90580802	22839667	25396076	42345059
Natural sciences	3526	1878	926	722	37293578	10172604	9557603	17563371
Engineering and technology	3249	422	1466	1361	29853297	1982096	6521575	21349626
Medical and health sciences	745	371	89	285	2588017	1255400	484486	848131
Agricultural and veterinary sciences	1314	183	878	253	6545740	360308	4643675	1541757
Social sciences	3691	2791	804	96	8940966	5576401	2322391	1042174
Humanities and arts	2854	2677	177	-	5359204	3492858	1866346	-
Non-financial sector	1524	326	414	784	41695812	1762314	9965828	29967670
Natural sciences	436	108	145	183	21712288	947128	7583931	13181229
Engineering and technology	983	207	249	527	18446411	756194	1908285	15781932
Medical and health sciences	31	-	4	27	918674	-	312041	606633
Agricultural and veterinary sciences	37	1	11	25	388179	4186	93229	290764
Social sciences	30	4	4	22	220604	46650	66842	107112
Humanities and arts	7	6	1	-	9656	8156	1500	-
Government sector	5678	3322	1549	807	23509347	10461363	6335572	6712412
Natural sciences	1532	875	295	362	9730740	6371564	614436	2744740
Engineering and technology	743	67	337	339	5303866	253416	1768705	3281745
Medical and health sciences	146	139	5	2	664716	645716	13500	5500
Agricultural and veterinary sciences	734	116	540	78	4385881	223592	3604507	557782
Social sciences	1263	989	248	26	1559629	1183578	253406	122645
Humanities and arts	1260	1136	124	-	1864515	1783497	81018	-
Tertiary education	8166	4671	2369	1126	25358721	10615099	9078645	5664977
Natural sciences	1555	892	486	177	5849659	2853021	1359236	1637402
Engineering and technology	1523	148	880	495	6103020	972486	2844585	2285949
Medical and health sciences	568	232	80	256	1004627	609684	158945	235998
Agricultural and veterinary sciences	543	66	327	150	1771680	132530	945939	693211
Social sciences	2390	1798	544	48	7144702	4346173	1986112	812417
Humanities and arts	1587	1535	52	-	3485033	1701205	1783828	-
Non-profit sector	11	3	8	-	16922	891	16031	-
Natural sciences	3	3	-	-	891	891	-	-
Social sciences	8	-	8	-	16031	-	16031	-
Beogradski region	10484	5743	2798	1943	58355510	17985967	13759334	26610209
Natural sciences	2487	1201	712	574	28634170	8602686	3906045	16125439
Engineering and technology	1945	335	753	857	14278475	1470240	4507129	8301106
Medical and health sciences	542	189	72	281	1844086	934074	72841	837171
Agricultural and veterinary sciences	912	167	560	185	4214594	351557	2769429	1093608
Social sciences	2164	1575	543	46	5050620	3897605	900130	252885
Humanities and arts	2434	2276	158	-	4333565	2729805	1603760	-
Non-financial sector	1099	323	326	450	22662080	1728684	3822926	17110470
Natural sciences	318	106	92	120	15213523	920878	2257312	12035333
Engineering and technology	723	207	219	297	6524400	756194	1488779	4279427
Medical and health sciences	24	-	1	23	598460	-	2787	595673
Agricultural and veterinary sciences	13	1	9	3	125693	4186	5706	115801
Social sciences	14	3	4	7	190348	39270	66842	84236
Humanities and arts	7	6	1	-	9656	8156	1500	-
Government sector	4795	3067	981	747	20007017	10222240	3703301	6081476
Natural sciences	1203	626	215	362	9333574	6139609	614436	2579529
Engineering and technology	385	61	44	280	3822987	246248	756837	2819902
Medical and health sciences	146	139	5	2	664716	645716	13500	5500
Agricultural and veterinary sciences	538	116	345	77	2761596	223592	1984104	553900
Social sciences	1263	989	248	26	1559629	1183578	253406	122645
Humanities and arts	1260	1136	124	-	1864515	1783497	81018	-
Tertiary education	4582	2353	1483	746	15670382	6035043	6217076	3418263
Natural sciences	966	469	405	92	4087073	1542199	1034297	1510577
Engineering and technology	837	67	490	280	3931088	467798	2261513	1201777
Medical and health sciences	372	50	66	256	580910	288358	56554	235998
Agricultural and veterinary sciences	361	50	206	105	1327305	123779	779619	423907
Social sciences	879	583	283	13	3284612	2674757	563851	46004
Humanities and arts	1167	1134	33	-	2459394	938152	1521242	-
Non-profit sector	8	-	8	-	16031	-	16031	-
Social sciences	8	-	8	-	16031	-	16031	-
Region Vojvodine	1918	557	948	413	26373022	1875193	10289064	14208765
Natural sciences	324	7	195	122	6709657	419529	5146776	1143352
Engineering and technology	795	26	555	214	13608425	15759	1590942	12001724
Medical and health sciences	83	75	5	3	493832	175931	310581	7320

Table 7.2. Research works (projects and studies), by sectors and fields of science, 2024 (continued)

	Research works (projects and studies), by sectors and fields of science							
	Number of works				Value of scientific works, thous. RSD			
	Total	Basic	Applied	Development	Total	Basic	Applied	Development
Agricultural and veterinary sciences	116	-	85	31	1953242	-	1658736	294506
Social sciences	581	448	90	43	3325249	1243793	1319593	761863
Humanities and arts	19	1	18	-	282617	20181	262436	-
Non-financial sector	159	1	59	99	17181467	7380	5463424	11710663
Natural sciences	72	-	35	37	5730162	-	4878846	851316
Engineering and technology	58	-	19	39	11003597	-	187801	10815796
Medical and health sciences	6	-	3	3	316574	-	309254	7320
Agricultural and veterinary sciences	8	-	2	6	118691	-	87523	31168
Social sciences	15	1	-	14	12443	7380	-	5063
Government sector	495	6	430	59	3067783	7168	2433561	627054
Natural sciences	80	-	80	-	165211	-	-	165211
Engineering and technology	358	6	293	59	1480879	7168	1011868	461843
Agricultural and veterinary sciences	57	-	57	-	1421693	-	1421693	-
Tertiary education	1261	547	459	255	6122881	1859754	2392079	1871048
Natural sciences	169	4	80	85	813393	418638	267930	126825
Engineering and technology	379	20	243	116	1123949	8591	391273	724085
Medical and health sciences	77	75	2	-	177258	175931	1327	-
Agricultural and veterinary sciences	51	-	26	25	412858	-	149520	263338
Social sciences	566	447	90	29	3312806	1236413	1319593	756800
Humanities and arts	19	1	18	-	282617	20181	262436	-
Non-profit sector	3	3	-	-	891	891	-	-
Natural sciences	3	3	-	-	891	891	-	-
Region Šumadije i Zapadne Srbije	1346	1071	186	89	3246026	1879834	774022	592170
Natural sciences	277	251	15	11	1279330	872133	340779	66418
Engineering and technology	73	5	33	35	723911	29023	284232	410656
Medical and health sciences	106	106	-	-	144948	144948	-	-
Agricultural and veterinary sciences	149	16	97	36	199442	8751	103021	87670
Social sciences	357	309	41	7	241105	167689	45990	27426
Humanities and arts	384	384	-	-	657290	657290	-	-
Non-financial sector	72	1	23	48	1007021	1350	514224	491447
Natural sciences	26	1	14	11	351538	1350	283770	66418
Engineering and technology	30	-	9	21	559848	-	230454	329394
Agricultural and veterinary sciences	15	-	-	15	77822	-	-	77822
Social sciences	1	-	-	1	17813	-	-	17813
Government sector	252	249	2	1	322058	231955	86221	3882
Natural sciences	249	249	-	-	231955	231955	-	-
Agricultural and veterinary sciences	3	-	2	1	90103	-	86221	3882
Tertiary education	1022	821	161	40	1916947	1646529	173577	96841
Natural sciences	2	1	1	-	695837	638828	57009	-
Engineering and technology	43	5	24	14	164063	29023	53778	81262
Medical and health sciences	106	106	-	-	144948	144948	-	-
Agricultural and veterinary sciences	131	16	95	20	31517	8751	16800	5966
Social sciences	356	309	41	6	223292	167689	45990	9613
Humanities and arts	384	384	-	-	657290	657290	-	-
Region Južne i Istočne Srbije	1631	951	408	272	2606244	1098673	573656	933915
Natural sciences	438	419	4	15	670421	278256	164003	228162
Engineering and technology	436	56	125	255	1242486	467074	139272	636140
Medical and health sciences	14	1	12	1	105151	447	101064	3640
Agricultural and veterinary sciences	137	-	136	1	178462	-	112489	65973
Social sciences	589	459	130	-	323992	267314	56678	-
Humanities and arts	17	16	1	-	85732	85582	150	-
Non-financial sector	194	1	6	187	845244	24900	165254	655090
Natural sciences	20	1	4	15	417065	24900	164003	228162
Engineering and technology	172	-	2	170	358566	-	1251	357315
Medical and health sciences	1	-	-	1	3640	-	-	3640
Agricultural and veterinary sciences	1	-	-	1	65973	-	-	65973
Government sector	136	-	136	-	112489	-	112489	-
Agricultural and veterinary sciences	136	-	136	-	112489	-	112489	-
Tertiary education	1301	950	266	85	1648511	1073773	295913	278825
Natural sciences	418	418	-	-	253356	253356	-	-
Engineering and technology	264	56	123	85	883920	467074	138021	278825
Medical and health sciences	13	1	12	-	101511	447	101064	-
Social sciences	589	459	130	-	323992	267314	56678	-
Humanities and arts	17	16	1	-	85732	85582	150	-
Region Kosovo i Metohija	...	...	...	...	...	...	...	...

Table 8.1. Gross domestic expenditure for R&D, by sectors and fields of science, 2024

Thous. RSD

	Gross domestic expenditure	Gross investments	Current costs		
			Total	Gross salaries	Material costs
REPUBLIC OF SERBIA	90580802	7111036	83469766	65612577	17857189
Natural sciences	37293578	1366423	35927155	29237587	6689568
Engineering and technology	29853297	5067587	24785710	19020448	5765262
Medical and health sciences	2588017	58398	2529619	1773851	755768
Agricultural and veterinary sciences	6545740	267906	6277834	4892183	1385651
Social sciences	8940966	265327	8675639	6426016	2249623
Humanities and arts	5359204	85395	5273809	4262492	1011317
Non-financial sector	41695812	5039266	36656546	31992923	4663623
Natural sciences	21712288	476265	21236023	18486024	2749999
Engineering and technology	18446411	4511054	13935357	12425167	1510190
Medical and health sciences	918674	1011	917663	630497	287166
Agricultural and veterinary sciences	388179	50273	337906	263385	74521
Social sciences	220604	663	219941	179694	40247
Humanities and arts	9656	-	9656	8156	1500
Government sector	23509347	1087619	22421728	16809843	5611885
Natural sciences	9730740	663383	9067357	6858328	2209029
Engineering and technology	5303866	258391	5045475	3265694	1779781
Medical and health sciences	664716	38496	626220	426158	200062
Agricultural and veterinary sciences	4385881	52203	4333678	3557737	775941
Social sciences	1559629	26059	1533570	1317254	216316
Humanities and arts	1864515	49087	1815428	1384672	430756
Tertiary education	25358721	984151	24374570	16795988	7578582
Natural sciences	5849659	226775	5622884	3893235	1729649
Engineering and technology	6103020	298142	5804878	3329587	2475291
Medical and health sciences	1004627	18891	985736	717196	268540
Agricultural and veterinary sciences	1771680	165430	1606250	1071061	535189
Social sciences	7144702	238605	6906097	4915245	1990852
Humanities and arts	3485033	36308	3448725	2869664	579061
Non-profit sector	16922	-	16922	13823	3099
Natural sciences	891	-	891	-	891
Social sciences	16031	-	16031	13823	2208
Beogradski region	58355510	1995670	56359840	44219772	12140068
Natural sciences	28634170	919325	27714845	23141213	4573632
Engineering and technology	14278475	563866	13714609	9486845	4227764
Medical and health sciences	1844086	49200	1794886	1328145	466741
Agricultural and veterinary sciences	4214594	190848	4023746	3013966	1009780
Social sciences	5050620	203531	4847089	3899377	947712
Humanities and arts	4333565	68900	4264665	3350226	914439
Non-financial sector	22662080	371362	22290718	19600883	2689835
Natural sciences	15213523	143370	15070153	13723126	1347027
Engineering and technology	6524400	222664	6301736	5143554	1158182
Medical and health sciences	598460	21	598439	462195	136244
Agricultural and veterinary sciences	125693	4860	120833	108708	12125
Social sciences	190348	447	189901	155144	34757
Humanities and arts	9656	-	9656	8156	1500
Government sector	20007017	948118	19058899	13975553	5083346
Natural sciences	9333574	624372	8709202	6551760	2157442
Engineering and technology	3822987	180425	3642562	2188408	1454154
Medical and health sciences	664716	38496	626220	426158	200062
Agricultural and veterinary sciences	2761596	29679	2731917	2107301	624616
Social sciences	1559629	26059	1533570	1317254	216316
Humanities and arts	1864515	49087	1815428	1384672	430756
Tertiary education	15670382	676190	14994192	10629513	4364679
Natural sciences	4087073	151583	3935490	2866327	1069163
Engineering and technology	3931088	160777	3770311	2154883	1615428
Medical and health sciences	580910	10683	570227	439792	130435
Agricultural and veterinary sciences	1327305	156309	1170996	797957	373039
Social sciences	3284612	177025	3107587	2413156	694431
Humanities and arts	2459394	19813	2439581	1957398	482183
Non-profit sector	16031	-	16031	13823	2208
Social sciences	16031	-	16031	13823	2208
Region Vojvodine	26373022	4535479	21837543	17535125	4302418
Natural sciences	6709657	162331	6547326	4743765	1803561
Engineering and technology	13608425	4254126	9354299	8406621	947678
Medical and health sciences	493832	3279	490553	328910	161643

Table 8.1. Gross domestic expenditure for R&D, by sectors and fields of science, 2024 (continued) Thous. RSD

	Gross domestic expenditure	Gross investments	Current costs		
			Total	Gross salaries	Material costs
Agricultural and veterinary sciences	1953242	70765	1882477	1547127	335350
Social sciences	3325249	29651	3295598	2290813	1004785
Humanities and arts	282617	15327	267290	217889	49401
Non-financial sector	17181467	4260270	12921197	11219491	1701706
Natural sciences	5730162	126097	5604065	4250318	1353747
Engineering and technology	11003597	4093219	6910378	6764225	146153
Medical and health sciences	316574	155	316419	168302	148117
Agricultural and veterinary sciences	118691	40595	78096	25486	52610
Social sciences	12443	204	12239	11160	1079
Government sector	3067783	101540	2966243	2490269	475974
Natural sciences	165211	2013	163198	135272	27926
Engineering and technology	1480879	77966	1402913	1077286	325627
Agricultural and veterinary sciences	1421693	21561	1400132	1277711	122421
Tertiary education	6122881	173669	5949212	3825365	2123847
Natural sciences	813393	34221	779172	358175	420997
Engineering and technology	1123949	82941	1041008	565110	475898
Medical and health sciences	177258	3124	174134	160608	13526
Agricultural and veterinary sciences	412858	8609	404249	243930	160319
Social sciences	3312806	29447	3283359	2279653	1003706
Humanities and arts	282617	15327	267290	217889	49401
Non-profit sector	891	-	891	-	891
Natural sciences	891	-	891	-	891
Region Šumadije i Zapadne Srbije	3246026	419084	2826942	2145716	681226
Natural sciences	1279330	252828	1026502	816450	210052
Engineering and technology	723911	130941	592970	360440	232530
Medical and health sciences	144948	3875	141073	34476	106597
Agricultural and veterinary sciences	199442	4489	194953	165434	29519
Social sciences	241105	25783	215322	150971	64351
Humanities and arts	657290	1168	656122	617945	38177
Non-financial sector	1007021	314199	692822	481637	211185
Natural sciences	351538	192377	159161	113585	45576
Engineering and technology	559848	118445	441403	289991	151412
Agricultural and veterinary sciences	77822	3365	74457	64671	9786
Social sciences	17813	12	17801	13390	4411
Government sector	322058	37610	284448	242885	41563
Natural sciences	231955	36998	194957	171296	23661
Agricultural and veterinary sciences	90103	612	89491	71589	17902
Tertiary education	1916947	67275	1849672	1421194	428478
Natural sciences	695837	23453	672384	531569	140815
Engineering and technology	164063	12496	151567	70449	81118
Medical and health sciences	144948	3875	141073	34476	106597
Agricultural and veterinary sciences	31517	512	31005	29174	1831
Social sciences	223292	25771	197521	137581	59940
Humanities and arts	657290	1168	656122	617945	38177
Region Južne i Istočne Srbije	2606244	160803	2445441	1711964	733477
Natural sciences	670421	31939	638482	536159	102323
Engineering and technology	1242486	118654	1123832	766542	357290
Medical and health sciences	105151	2044	103107	82320	20787
Agricultural and veterinary sciences	178462	1804	176658	165656	11002
Social sciences	323992	6362	317630	84855	232775
Humanities and arts	85732	-	85732	76432	9300
Non-financial sector	845244	93435	751809	690912	60897
Natural sciences	417065	14421	402644	398995	3649
Engineering and technology	358566	76726	281840	227397	54443
Medical and health sciences	3640	835	2805	-	2805
Agricultural and veterinary sciences	65973	1453	64520	64520	-
Government sector	112489	351	112138	101136	11002
Agricultural and veterinary sciences	112489	351	112138	101136	11002
Tertiary education	1648511	67017	1581494	919916	661578
Natural sciences	253356	17518	235838	137164	98674
Engineering and technology	883920	41928	841992	539145	302847
Medical and health sciences	101511	1209	100302	82320	17982
Social sciences	323992	6362	317630	84855	232775
Humanities and arts	85732	-	85732	76432	9300
Region Kosovo i Metohija	...	...	...	...	...

Table 9.1. Sources of funds spent on R&D activities, 2024

Thous. RSD

	Total	Own	Government and local authorities	Private and public enterprises	Tertiary education	Non-profit institutions	Foreign ordering parties
REPUBLIC OF SERBIA	90580802	35713661	34186863	720443	1198805	32090	18728940
Natural sciences	37293578	18372791	11943525	204937	-	21228	6751097
Engineering and technology	29853297	8946972	9774050	249718	4542	5488	10872527
Medical and health sciences	2588017	1089475	990509	6786	-	-	501247
Agricultural and veterinary sciences	6545740	3289064	2825167	198392	-	-	233117
Social sciences	8940966	3244071	5132578	58283	148647	5374	352013
Humanities and arts	5359204	771288	3521034	2327	1045616	-	18939
Non-financial sector	41695812	23144963	1742040	244033	2592	200	16561984
Natural sciences	21712288	15063915	427566	88195	-	-	6132612
Engineering and technology	18446411	7146830	1208531	155838	2592	200	9932420
Medical and health sciences	918674	482512	3160	-	-	-	433002
Agricultural and veterinary sciences	388179	236606	88123	-	-	-	63450
Social sciences	220604	206444	14160	-	-	-	-
Humanities and arts	9656	8656	500	-	-	-	500
Government sector	23509347	5467904	16765867	177331	2190	1448	1094607
Natural sciences	9730740	1408612	7888508	95127	-	-	338493
Engineering and technology	5303866	550790	4155995	9693	1950	-	585438
Medical and health sciences	664716	11949	577736	6786	-	-	68245
Agricultural and veterinary sciences	4385881	2901151	1399652	65625	-	-	19453
Social sciences	1559629	315946	1172545	100	-	1448	69590
Humanities and arts	1864515	279456	1571431	-	240	-	13388
Tertiary education	25358721	7100428	15678431	299079	1194023	30442	1056318
Natural sciences	5849659	1899898	3626926	21615	-	21228	279992
Engineering and technology	6103020	1249352	4409524	84187	-	5288	354669
Medical and health sciences	1004627	595014	409613	-	-	-	-
Agricultural and veterinary sciences	1771680	151307	1337392	132767	-	-	150214
Social sciences	7144702	2721681	3945873	58183	148647	3926	266392
Humanities and arts	3485033	483176	1949103	2327	1045376	-	5051
Non-profit sector	16922	366	525	-	-	-	16031
Natural sciences	891	366	525	-	-	-	-
Social sciences	16031	-	-	-	-	-	16031
Beogradski region	58355510	26103741	25301687	599416	1048483	29370	5272813
Natural sciences	28634170	14367472	10619027	160559	-	21228	3465884
Engineering and technology	14278475	6310560	6923479	180717	2592	5288	855839
Medical and health sciences	1844086	679485	656568	6786	-	-	501247
Agricultural and veterinary sciences	4214594	1811289	2033521	197674	-	-	172110
Social sciences	5050620	2301427	2435917	51353	275	2854	258794
Humanities and arts	4333565	633508	2633175	2327	1045616	-	18939
Non-financial sector	22662080	17077988	1421503	198512	2592	-	3961485
Natural sciences	15213523	11798243	367362	43817	-	-	3004101
Engineering and technology	6524400	4853400	1053281	154695	2592	-	460432
Medical and health sciences	598460	165458	-	-	-	-	433002
Agricultural and veterinary sciences	125693	62243	-	-	-	-	63450
Social sciences	190348	189988	360	-	-	-	-
Humanities and arts	9656	8656	500	-	-	-	500
Government sector	20007017	4120964	15126877	167638	240	1448	589850
Natural sciences	9333574	1406990	7492964	95127	-	-	338493
Engineering and technology	3822987	452196	3290110	-	-	-	80681
Medical and health sciences	664716	11949	577736	6786	-	-	68245
Agricultural and veterinary sciences	2761596	1654427	1022091	65625	-	-	19453
Social sciences	1559629	315946	1172545	100	-	1448	69590
Humanities and arts	1864515	279456	1571431	-	240	-	13388
Tertiary education	15670382	4904789	8753307	233266	1045651	27922	705447
Natural sciences	4087073	1162239	2758701	21615	-	21228	123290
Engineering and technology	3931088	1004964	2580088	26022	-	5288	314726
Medical and health sciences	580910	502078	78832	-	-	-	-
Agricultural and veterinary sciences	1327305	94619	1011430	132049	-	-	89207
Social sciences	3284612	1795493	1263012	51253	275	1406	173173
Humanities and arts	2459394	345396	1061244	2327	1045376	-	5051
Non-profit sector	16031	-	-	-	-	-	16031
Social sciences	16031	-	-	-	-	-	16031
Region Vojvodine	26373022	6881141	6127375	87847	121701	240	13154718
Natural sciences	6709657	2648121	758347	41398	-	-	3261791
Engineering and technology	13608425	1766125	1965521	45457	1950	200	9829172
Medical and health sciences	493832	398970	94862	-	-	-	-

Table 9.1. Sources of funds spent on R&D activities, 2024 (continued)

Thous. RSD

	Total	Own	Government and local authorities	Private and public enterprises	Tertiary education	Non-profit institutions	Foreign ordering parties
Agricultural and veterinary sciences	1953242	1294284	597951	-	-	-	61007
Social sciences	3325249	709832	2491886	992	119751	40	2748
Humanities and arts	282617	63809	218808	-	-	-	-
Non-financial sector	17181467	4612108	98257	41398	-	200	12429504
Natural sciences	5730162	2573347	10328	41398	-	-	3105089
Engineering and technology	11003597	1609183	69799	-	-	200	9324415
Medical and health sciences	316574	316574	-	-	-	-	-
Agricultural and veterinary sciences	118691	103361	15330	-	-	-	-
Social sciences	12443	9643	2800	-	-	-	-
Government sector	3067783	1232829	1318554	9693	1950	-	504757
Natural sciences	165211	-	165211	-	-	-	-
Engineering and technology	1480879	98594	865885	9693	1950	-	504757
Agricultural and veterinary sciences	1421693	1134235	287458	-	-	-	-
Tertiary education	6122881	1035838	4710039	36756	119751	40	220457
Natural sciences	813393	74408	582283	-	-	-	156702
Engineering and technology	1123949	58348	1029837	35764	-	-	-
Medical and health sciences	177258	82396	94862	-	-	-	-
Agricultural and veterinary sciences	412858	56688	295163	-	-	-	61007
Social sciences	3312806	700189	2489086	992	119751	40	2748
Humanities and arts	282617	63809	218808	-	-	-	-
Non-profit sector	891	366	525	-	-	-	-
Natural sciences	891	366	525	-	-	-	-
Region Šumadije i Zapadne Srbije	3246026	1681342	1448647	5268	-	2480	108289
Natural sciences	1279330	979669	286128	-	-	-	13533
Engineering and technology	723911	484250	157821	-	-	-	81840
Medical and health sciences	144948	10540	134408	-	-	-	-
Agricultural and veterinary sciences	199442	5029	193695	718	-	-	-
Social sciences	241105	127883	93276	4550	-	2480	12916
Humanities and arts	657290	73971	583319	-	-	-	-
Non-financial sector	1007021	795573	125775	-	-	-	85673
Natural sciences	351538	314796	23209	-	-	-	13533
Engineering and technology	559848	468935	18773	-	-	-	72140
Agricultural and veterinary sciences	77822	5029	72793	-	-	-	-
Social sciences	17813	6813	11000	-	-	-	-
Government sector	322058	1622	320436	-	-	-	-
Natural sciences	231955	1622	230333	-	-	-	-
Agricultural and veterinary sciences	90103	-	90103	-	-	-	-
Tertiary education	1916947	884147	1002436	5268	-	2480	22616
Natural sciences	695837	663251	32586	-	-	-	-
Engineering and technology	164063	15315	139048	-	-	-	9700
Medical and health sciences	144948	10540	134408	-	-	-	-
Agricultural and veterinary sciences	31517	-	30799	718	-	-	-
Social sciences	223292	121070	82276	4550	-	2480	12916
Humanities and arts	657290	73971	583319	-	-	-	-
Region Južne i Istočne Srbije	2606244	1047437	1309154	27912	28621	-	193120
Natural sciences	670421	377529	280023	2980	-	-	9889
Engineering and technology	1242486	386037	727229	23544	-	-	105676
Medical and health sciences	105151	480	104671	-	-	-	-
Agricultural and veterinary sciences	178462	178462	-	-	-	-	-
Social sciences	323992	104929	111499	1388	28621	-	77555
Humanities and arts	85732	-	85732	-	-	-	-
Non-financial sector	845244	659294	96505	4123	-	-	85322
Natural sciences	417065	377529	26667	2980	-	-	9889
Engineering and technology	358566	215312	66678	1143	-	-	75433
Medical and health sciences	3640	480	3160	-	-	-	-
Agricultural and veterinary sciences	65973	65973	-	-	-	-	-
Government sector	112489	112489	-	-	-	-	-
Agricultural and veterinary sciences	112489	112489	-	-	-	-	-
Tertiary education	1648511	275654	1212649	23789	28621	-	107798
Natural sciences	253356	-	253356	-	-	-	-
Engineering and technology	883920	170725	660551	22401	-	-	30243
Medical and health sciences	101511	-	101511	-	-	-	-
Social sciences	323992	104929	111499	1388	28621	-	77555
Humanities and arts	85732	-	85732	-	-	-	-
Region Kosovo i Metohija	...	...	...	...	...	...	...



Table 9.2. Sources of funds spent on R&D activities, 2024

%

	Total	Own	Government and local authorities	Private and public enterprises	Tertiary education	Non-profit institutions	Foreign ordering parties
REPUBLIC OF SERBIA	100.0	39.4	37.7	0.8	1.3	0.0	20.7
Natural sciences	100.0	49.3	32.0	0.5	-	0.1	18.1
Engineering and technology	100.0	30.0	32.7	0.8	0.0	0.0	36.4
Medical and health sciences	100.0	42.1	38.3	0.3	-	-	19.4
Agricultural and veterinary sciences	100.0	50.2	43.2	3.0	-	-	3.6
Social sciences	100.0	36.3	57.4	0.7	1.7	0.1	3.9
Humanities and arts	100.0	14.4	65.7	0.0	19.5	-	0.4
Non-financial sector	100.0	55.5	4.2	0.6	0.0	0.0	39.7
Natural sciences	100.0	69.4	2.0	0.4	-	-	28.2
Engineering and technology	100.0	38.7	6.6	0.8	0.0	0.0	53.8
Medical and health sciences	100.0	52.5	0.3	-	-	-	47.1
Agricultural and veterinary sciences	100.0	61.0	22.7	-	-	-	16.3
Social sciences	100.0	93.6	6.4	-	-	-	-
Humanities and arts	100.0	89.6	5.2	-	-	-	5.2
Government sector	100.0	23.3	71.3	0.8	0.0	0.0	4.7
Natural sciences	100.0	14.5	81.1	1.0	-	-	3.5
Engineering and technology	100.0	10.4	78.4	0.2	0.0	-	11.0
Medical and health sciences	100.0	1.8	86.9	1.0	-	-	10.3
Agricultural and veterinary sciences	100.0	66.1	31.9	1.5	-	-	0.4
Social sciences	100.0	20.3	75.2	0.0	-	0.1	4.5
Humanities and arts	100.0	15.0	84.3	-	0.0	-	0.7
Tertiary education	100.0	28.0	61.8	1.2	4.7	0.1	4.2
Natural sciences	100.0	32.5	62.0	0.4	-	0.4	4.8
Engineering and technology	100.0	20.5	72.3	1.4	-	0.1	5.8
Medical and health sciences	100.0	59.2	40.8	-	-	-	-
Agricultural and veterinary sciences	100.0	8.5	75.5	7.5	-	-	8.5
Social sciences	100.0	38.1	55.2	0.8	2.1	0.1	3.7
Humanities and arts	100.0	13.9	55.9	0.1	30.0	-	0.1
Non-profit sector	100.0	2.2	3.1	-	-	-	94.7
Natural sciences	100.0	41.1	58.9	-	-	-	-
Social sciences	100.0	-	-	-	-	-	100.0
Beogradski region	100.0	44.7	43.4	1.0	1.8	0.1	9.0
Natural sciences	100.0	50.2	37.1	0.6	-	0.1	12.1
Engineering and technology	100.0	44.2	48.5	1.3	0.0	0.0	6.0
Medical and health sciences	100.0	36.8	35.6	0.4	-	-	27.2
Agricultural and veterinary sciences	100.0	43.0	48.2	4.7	-	-	4.1
Social sciences	100.0	45.6	48.2	1.0	0.0	0.1	5.1
Humanities and arts	100.0	14.6	60.8	0.1	24.1	-	0.4
Non-financial sector	100.0	75.4	6.3	0.9	0.0	-	17.5
Natural sciences	100.0	77.6	2.4	0.3	-	-	19.7
Engineering and technology	100.0	74.4	16.1	2.4	0.0	-	7.1
Medical and health sciences	100.0	27.6	-	-	-	-	72.4
Agricultural and veterinary sciences	100.0	49.5	-	-	-	-	50.5
Social sciences	100.0	99.8	0.2	-	-	-	-
Humanities and arts	100.0	89.6	5.2	-	-	-	5.2
Government sector	100.0	20.6	75.6	0.8	0.0	0.0	2.9
Natural sciences	100.0	15.1	80.3	1.0	-	-	3.6
Engineering and technology	100.0	11.8	86.1	-	-	-	2.1
Medical and health sciences	100.0	1.8	86.9	1.0	-	-	10.3
Agricultural and veterinary sciences	100.0	59.9	37.0	2.4	-	-	0.7
Social sciences	100.0	20.3	75.2	0.0	-	0.1	4.5
Humanities and arts	100.0	15.0	84.3	-	0.0	-	0.7
Tertiary education	100.0	31.3	55.9	1.5	6.7	0.2	4.5
Natural sciences	100.0	28.4	67.5	0.5	-	0.5	3.0
Engineering and technology	100.0	25.6	65.6	0.7	-	0.1	8.0
Medical and health sciences	100.0	86.4	13.6	-	-	-	-
Agricultural and veterinary sciences	100.0	7.1	76.2	9.9	-	-	6.7
Social sciences	100.0	54.7	38.5	1.6	0.0	0.0	5.3
Humanities and arts	100.0	14.0	43.2	0.1	42.5	-	0.2
Non-profit sector	100.0	-	-	-	-	-	100.0
Social sciences	100.0	-	-	-	-	-	100.0
Region Vojvodine	100.0	26.1	23.2	0.3	0.5	0.0	49.9
Natural sciences	100.0	39.5	11.3	0.6	-	-	48.6
Engineering and technology	100.0	13.0	14.4	0.3	0.0	0.0	72.2
Medical and health sciences	100.0	80.8	19.2	-	-	-	-

Table 9.2. Sources of funds spent on R&D activities, 2024 (continued)

%

	Total	Own	Government and local authorities	Private and public enterprises	Tertiary education	Non-profit institutions	Foreign ordering parties
Agricultural and veterinary sciences	100.0	66.3	30.6	-	-	-	3.1
Social sciences	100.0	21.3	74.9	0.0	3.6	0.0	0.1
Humanities and arts	100.0	22.6	77.4	-	-	-	-
Non-financial sector	100.0	26.8	0.6	0.2	-	0.0	72.3
Natural sciences	100.0	44.9	0.2	0.7	-	-	54.2
Engineering and technology	100.0	14.6	0.6	-	-	0.0	84.7
Medical and health sciences	100.0	100.0	-	-	-	-	-
Agricultural and veterinary sciences	100.0	87.1	12.9	-	-	-	-
Social sciences	100.0	77.5	22.5	-	-	-	-
Government sector	100.0	40.2	43.0	0.3	0.1	-	16.5
Natural sciences	100.0	-	100.0	-	-	-	-
Engineering and technology	100.0	6.7	58.5	0.7	0.1	-	34.1
Agricultural and veterinary sciences	100.0	79.8	20.2	-	-	-	-
Tertiary education	100.0	16.9	76.9	0.6	2.0	0.0	3.6
Natural sciences	100.0	9.1	71.6	-	-	-	19.3
Engineering and technology	100.0	5.2	91.6	3.2	-	-	-
Medical and health sciences	100.0	46.5	53.5	-	-	-	-
Agricultural and veterinary sciences	100.0	13.7	71.5	-	-	-	14.8
Social sciences	100.0	21.1	75.1	0.0	3.6	0.0	0.1
Humanities and arts	100.0	22.6	77.4	-	-	-	-
Non-profit sector	100.0	41.1	58.9	-	-	-	-
Natural sciences	100.0	41.1	58.9	-	-	-	-
Region Šumadije i Zapadne Srbije	100.0	51.8	44.6	0.2	-	0.1	3.3
Natural sciences	100.0	76.6	22.4	-	-	-	1.1
Engineering and technology	100.0	66.9	21.8	-	-	-	11.3
Medical and health sciences	100.0	7.3	92.7	-	-	-	-
Agricultural and veterinary sciences	100.0	2.5	97.1	0.4	-	-	-
Social sciences	100.0	53.0	38.7	1.9	-	1.0	5.4
Humanities and arts	100.0	11.3	88.7	-	-	-	-
Non-financial sector	100.0	79.0	12.5	-	-	-	8.5
Natural sciences	100.0	89.5	6.6	-	-	-	3.8
Engineering and technology	100.0	83.8	3.4	-	-	-	12.9
Agricultural and veterinary sciences	100.0	6.5	93.5	-	-	-	-
Social sciences	100.0	38.2	61.8	-	-	-	-
Government sector	100.0	0.5	99.5	-	-	-	-
Natural sciences	100.0	0.7	99.3	-	-	-	-
Agricultural and veterinary sciences	100.0	-	100.0	-	-	-	-
Tertiary education	100.0	46.1	52.3	0.3	-	0.1	1.2
Natural sciences	100.0	95.3	4.7	-	-	-	-
Engineering and technology	100.0	9.3	84.8	-	-	-	5.9
Medical and health sciences	100.0	7.3	92.7	-	-	-	-
Agricultural and veterinary sciences	100.0	-	97.7	2.3	-	-	-
Social sciences	100.0	54.2	36.8	2.0	-	1.1	5.8
Humanities and arts	100.0	11.3	88.7	-	-	-	-
Region Južne i Istočne Srbije	100.0	40.2	50.2	1.1	1.1	-	7.4
Natural sciences	100.0	56.3	41.8	0.4	-	-	1.5
Engineering and technology	100.0	31.1	58.5	1.9	-	-	8.5
Medical and health sciences	100.0	0.5	99.5	-	-	-	-
Agricultural and veterinary sciences	100.0	100.0	-	-	-	-	-
Social sciences	100.0	32.4	34.4	0.4	8.8	-	23.9
Humanities and arts	100.0	-	100.0	-	-	-	-
Non-financial sector	100.0	78.0	11.4	0.5	-	-	10.1
Natural sciences	100.0	90.5	6.4	0.7	-	-	2.4
Engineering and technology	100.0	60.0	18.6	0.3	-	-	21.0
Medical and health sciences	100.0	13.2	86.8	-	-	-	-
Agricultural and veterinary sciences	100.0	100.0	-	-	-	-	-
Government sector	100.0	100.0	-	-	-	-	-
Agricultural and veterinary sciences	100.0	100.0	-	-	-	-	-
Tertiary education	100.0	16.7	73.6	1.4	1.7	-	6.5
Natural sciences	100.0	-	100.0	-	-	-	-
Engineering and technology	100.0	19.3	74.7	2.5	-	-	3.4
Medical and health sciences	100.0	-	100.0	-	-	-	-
Social sciences	100.0	32.4	34.4	0.4	8.8	-	23.9
Humanities and arts	100.0	-	100.0	-	-	-	-
Region Kosovo i Metohija	...	...	...	...	...	...	...

Tabela 10.1. Gross domestic expenditure on R&D by groupings of activities, 2024

Thous. RSD

	Gross domestic expenditure	Gross investments	Current costs		
			Total	Gross salaries	Material costs
REPUBLIC OF SERBIA	90580802	7111036	83469766	65612577	17857189
Crop and animal production, hunting and related service activities	74762	25424	49338	80	49258
Extraction of crude petroleum and natural gas	1004018	-	1004018	1004018	-
Other mining and quarrying	498843	-	498843	481645	17198
Mining support service activities and geological exploration	20037	-	20037	10014	10023
Manufacture of food products	454454	1826	452628	290415	162213
Manufacture of chemicals and chemical products	67568	1181	66387	57540	8847
Manufacture of basic pharmaceutical products and pharmaceutical preparations	19365	-	19365	10179	9186
Manufacture of rubber and plastic products	264252	188759	75493	69672	5821
Manufacture of other non-metallic mineral products	26343	-	26343	26343	-
Manufacture of basic metals	125766	81018	44748	44748	-
Manufacture of fabricated metal products, except machinery and equipment	207358	30876	176482	135060	41422
Manufacture of computer, electronic and optical products	734351	23558	710793	557371	153422
Manufacture of electrical equipment	53444	214	53230	22565	30665
Manufacture of machinery and equipment, n.e.c.	84908	61576	23332	19772	3560
Manufacture of motor vehicles, trailers and semi-trailers	46646	-	46646	46646	-
Manufacture of furniture	5337	500	4837	1746	3091
Other manufacturing	29330	437	28893	21516	7377
Repair and installation of machinery and equipment	51278	4300	46978	39348	7630
Specialised construction activities	662230	13338	648892	108838	540054
Wholesale trade, except of motor vehicles and motorcycles	223871	-	223871	93232	130639
Retail trade, except of motor vehicles and motorcycles	10552	70	10482	10482	-
Land transport and transport via pipelines	7467	-	7467	-	7467
Publishing activities	199398	1760	197638	195498	2140
Motion picture, video and television programme production, sound recording and music publishing activities	413260	-	413260	411760	1500
Telecommunications	74008	-	74008	59308	14700
Computer programming, consultancy and related activities	14746095	165060	14581035	13947243	633792
Information service activities	334472	18909	315563	203469	112094
Activities auxiliary to financial services and insurance activities	3713	-	3713	3114	599
Real estate activities	17843	-	17843	17112	731
Management activities; management consultancy activities	242572	808	241764	215958	25806
Architectural and engineering activities; technical testing and analysis	9692152	4139662	5552490	5468468	84022
Scientific and development	34585140	1346276	33238864	25086010	8152854
Advertising and market research	124684	2511	122173	82410	39763
Other professional, scientific and technical activities	5811	269	5542	5320	222
Activities of travel agencies and tour operators; tourist reservation service and related activities	24500	9193	15307	15307	-
Education	25335798	984151	24351647	16773422	7578225
Human health activities	92254	9360	82894	63125	19769
Activities of membership organisations	16922	-	16922	13823	3099
Business sector	41695812	5039266	36656546	31992923	4663623
Crop and animal production, hunting and related service activities	74762	25424	49338	80	49258
Extraction of crude petroleum and natural gas	1004018	-	1004018	1004018	-
Other mining and quarrying	498843	-	498843	481645	17198
Mining support service activities and geological exploration	20037	-	20037	10014	10023
Manufacture of food products	454454	1826	452628	290415	162213
Manufacture of chemicals and chemical products	67568	1181	66387	57540	8847
Manufacture of basic pharmaceutical products and pharmaceutical preparations	19365	-	19365	10179	9186
Manufacture of rubber and plastic products	264252	188759	75493	69672	5821
Manufacture of other non-metallic mineral products	26343	-	26343	26343	-
Manufacture of basic metals	125766	81018	44748	44748	-
Manufacture of fabricated metal products, except machinery and equipment	207358	30876	176482	135060	41422
Manufacture of computer, electronic and optical products	734351	23558	710793	557371	153422
Manufacture of electrical equipment	53444	214	53230	22565	30665
Manufacture of machinery and equipment, n.e.c.	84908	61576	23332	19772	3560
Manufacture of motor vehicles, trailers and semi-trailers	46646	-	46646	46646	-
Manufacture of furniture	5337	500	4837	1746	3091
Other manufacturing	29330	437	28893	21516	7377
Repair and installation of machinery and equipment	51278	4300	46978	39348	7630

Tabela 10.1. Gross domestic expenditure on R&D by groupings of activities, 2024 (continued)

Thous. RSD

	Gross domestic expenditure	Gross investments	Current costs		
			Total	Gross salaries	Material costs
Specialised construction activities	662230	13338	648892	108838	540054
Wholesale trade, except of motor vehicles and motorcycles	223871	-	223871	93232	130639
Retail trade, except of motor vehicles and motorcycles	10552	70	10482	10482	-
Land transport and transport via pipelines	7467	-	7467	-	7467
Publishing activities	199398	1760	197638	195498	2140
Motion picture, video and television programme production, sound recording and music publishing activities	413260	-	413260	411760	1500
Telecommunications	74008	-	74008	59308	14700
Computer programming, consultancy and related activities	14746095	165060	14581035	13947243	633792
Information service activities	334472	18909	315563	203469	112094
Activities auxiliary to financial services and insurance activities	3713	-	3713	3114	599
Real estate activities	17843	-	17843	17112	731
Management activities; management consultancy activities	242572	808	241764	215958	25806
Architectural and engineering activities; technical testing and analysis	9692152	4139662	5552490	5468468	84022
Scientific and development	11269808	270528	10999280	8399136	2600144
Other professional, scientific and technical activities	5811	269	5542	5320	222
Activities of travel agencies and tour operators; tourist reservation service and related activities	24500	9193	15307	15307	-
Government sector	23509347	1087619	22421728	16809843	5611885
Scientific and development	23292409	1075748	22216661	16664308	5552353
Advertising and market research	124684	2511	122173	82410	39763
Human health activities	92254	9360	82894	63125	19769
Tertiary education	25358721	984151	24374570	16795988	7578582
Scientific and development	22923	-	22923	22566	357
Education	25335798	984151	24351647	16773422	7578225
Non-profit sector	16922	-	16922	13823	3099
Activities of membership organizations	16922	-	16922	13823	3099
Beogradski region	58355510	1995670	56359840	44219772	12140068
Other mining and quarrying	498843	-	498843	481645	17198
Manufacture of food products	55832	373	55459	41513	13946
Manufacture of chemicals and chemical products	53333	-	53333	46182	7151
Manufacture of rubber and plastic products	2911	-	2911	2615	296
Manufacture of fabricated metal products, except machinery and equipment	19507	-	19507	19507	-
Manufacture of computer, electronic and optical products	599412	5123	594289	485764	108525
Manufacture of electrical equipment	37088	-	37088	11609	25479
Manufacture of machinery and equipment, n.e.c.	5309	2011	3298	3298	-
Manufacture of furniture	3091	-	3091	-	3091
Repair and installation of machinery and equipment	44132	4300	39832	32202	7630
Specialised construction activities	662230	13338	648892	108838	540054
Wholesale trade, except of motor vehicles and motorcycles	179866	-	179866	75221	104645
Retail trade, except of motor vehicles and motorcycles	10552	70	10482	10482	-
Motion picture, video and television programme production, sound recording and music publishing activities	1500	-	1500	-	1500
Telecommunications	74008	-	74008	59308	14700
Computer programming, consultancy and related activities	12176202	56526	12119676	11584540	535136
Information service activities	120768	18909	101859	87957	13902
Real estate activities	17843	-	17843	17112	731
Management activities; management consultancy activities	134418	796	133622	112627	20995
Architectural and engineering activities; technical testing and analysis	267165	61247	205918	184059	21859
Scientific and development	27511072	1144916	26366156	20088988	6277168
Advertising and market research	124684	2511	122173	82410	39763
Education	15647459	676190	14971269	10606947	4364322
Human health activities	92254	9360	82894	63125	19769
Activities of membership organizations	16031	-	16031	13823	2208
Non-financial sector	22662080	371362	22290718	19600883	2689835
Other mining and quarrying	498843	-	498843	481645	17198
Manufacture of food products	55832	373	55459	41513	13946
Manufacture of chemicals and chemical products	53333	-	53333	46182	7151



Tabela 10.1. Gross domestic expenditure on R&D by groupings of activities, 2024 (continued)

Thous. RSD

	Gross domestic expenditure	Gross investments	Current costs		
			Total	Gross salaries	Material costs
Manufacture of rubber and plastic products	2911	-	2911	2615	296
Manufacture of fabricated metal products, except machinery and equipment	19507	-	19507	19507	-
Manufacture of computer, electronic and optical products	599412	5123	594289	485764	108525
Manufacture of electrical equipment	37088	-	37088	11609	25479
Manufacture of machinery and equipment, n.e.c.	5309	2011	3298	3298	-
Manufacture of furniture	3091	-	3091	-	3091
Repair and installation of machinery and equipment	44132	4300	39832	32202	7630
Specialised construction activities	662230	13338	648892	108838	540054
Wholesale trade, except of motor vehicles and motorcycles	179866	-	179866	75221	104645
Retail trade, except of motor vehicles and motorcycles	10552	70	10482	10482	-
Motion picture, video and television programme production, sound recording and music publishing activities	1500	-	1500	-	1500
Telecommunications	74008	-	74008	59308	14700
Computer programming, consultancy and related activities	12176202	56526	12119676	11584540	535136
Information service activities	120768	18909	101859	87957	13902
Real estate activities	17843	-	17843	17112	731
Management activities; management consultancy activities	134418	796	133622	112627	20995
Architectural and engineering activities; technical testing and analysis	267165	61247	205918	184059	21859
Scientific and development	7698070	208669	7489401	6236404	1252997
Government sector	20007017	948118	19058899	13975553	5083346
Scientific and development	19790079	936247	18853832	13830018	5023814
Advertising and market research	124684	2511	122173	82410	39763
Human health activities	92254	9360	82894	63125	19769
Tertiary education	15670382	676190	14994192	10629513	4364679
Scientific and development	22923	-	22923	22566	357
Education	15647459	676190	14971269	10606947	4364322
Non-profit sector	16031	-	16031	13823	2208
Activities of membership organizations	16031	-	16031	13823	2208
Region Vojvodine	26373022	4535479	21837543	17535125	4302418
Crop and animal production, hunting and related service activities	74762	25424	49338	80	49258
Extraction of crude petroleum and natural gas	1004018	-	1004018	1004018	-
Mining support service activities and geological exploration	20037	-	20037	10014	10023
Manufacture of food products	332649	-	332649	184382	148267
Manufacture of rubber and plastic products	5746	-	5746	4615	1131
Manufacture of other non-metallic mineral products	26343	-	26343	26343	-
Manufacture of computer, electronic and optical products	8150	2284	5866	2964	2902
Manufacture of machinery and equipment, n.e.c.	8446	1520	6926	3366	3560
Manufacture of motor vehicles, trailers and semi-trailers	46646	-	46646	46646	-
Other manufacturing	29330	437	28893	21516	7377
Repair and installation of machinery and equipment	7146	-	7146	7146	-
Wholesale trade, except of motor vehicles and motorcycles	44005	-	44005	18011	25994
Land transport and transport via pipelines	7467	-	7467	-	7467
Motion picture, video and television programme production, sound recording and music publishing activities	411760	-	411760	411760	-
Computer programming, consultancy and related activities	2238757	91394	2147363	2071035	76328
Information service activities	213704	-	213704	115512	98192
Activities auxiliary to financial services and insurance activities	3713	-	3713	3114	599
Management activities; management consultancy activities	90341	-	90341	89941	400
Architectural and engineering activities; technical testing and analysis	9318906	4077958	5240948	5233679	7269
Scientific and development	6327013	153331	6173682	4434991	1738691
Other professional, scientific and technical activities	5811	269	5542	5320	222
Activities of travel agencies and tour operators; tourist reservation service and related activities	24500	9193	15307	15307	-
Education	6122881	173669	5949212	3825365	2123847
Activities of membership organizations	891	-	891	-	891
Business sector	17181467	4260270	12921197	11219491	1701706
Crop and animal production, hunting and related service activities	74762	25424	49338	80	49258
Extraction of crude petroleum and natural gas	1004018	-	1004018	1004018	-

Tabela 10.1. Gross domestic expenditure on R&D by groupings of activities, 2024 (continued)

Thous. RSD

	Gross domestic expenditure	Gross investments	Current costs		
			Total	Gross salaries	Material costs
Mining support service activities and geological exploration	20037	-	20037	10014	10023
Manufacture of food products	332649	-	332649	184382	148267
Manufacture of rubber and plastic products	5746	-	5746	4615	1131
Manufacture of other non-metallic mineral products	26343	-	26343	26343	-
Manufacture of computer, electronic and optical products	8150	2284	5866	2964	2902
Manufacture of machinery and equipment, n.e.c.	8446	1520	6926	3366	3560
Manufacture of motor vehicles, trailers and semi-trailers	46646	-	46646	46646	-
Other manufacturing	29330	437	28893	21516	7377
Repair and installation of machinery and equipment	7146	-	7146	7146	-
Wholesale trade, except of motor vehicles and motorcycles	44005	-	44005	18011	25994
Land transport and transport via pipelines	7467	-	7467	-	7467
Motion picture, video and television programme production, sound recording and music publishing activities	411760	-	411760	411760	-
Computer programming, consultancy and related activities	2238757	91394	2147363	2071035	76328
Information service activities	213704	-	213704	115512	98192
Activities auxiliary to financial services and insurance activities	3713	-	3713	3114	599
Management activities; management consultancy activities	90341	-	90341	89941	400
Architectural and engineering activities; technical testing and analysis	9318906	4077958	5240948	5233679	7269
Scientific and development	3259230	51791	3207439	1944722	1262717
Other professional, scientific and technical activities	5811	269	5542	5320	222
Activities of travel agencies and tour operators; tourist reservation service and related activities	24500	9193	15307	15307	-
Government sector	3067783	101540	2966243	2490269	475974
Scientific and development	3067783	101540	2966243	2490269	475974
Tertiary education	6122881	173669	5949212	3825365	2123847
Education	6122881	173669	5949212	3825365	2123847
Non-profit sector	891	-	891	-	891
Activities of membership organizations	891	-	891	-	891
Region Šumadije i Zapadne Srbije	3246026	419084	2826942	2145716	681226
Manufacture of chemicals and chemical products	14235	1181	13054	11358	1696
Manufacture of rubber and plastic products	255595	188759	66836	62442	4394
Manufacture of basic metals	125766	81018	44748	44748	-
Manufacture of fabricated metal products, except machinery and equipment	180851	30876	149975	108553	41422
Manufacture of computer, electronic and optical products	31980	1033	30947	13205	17742
Manufacture of electrical equipment	16356	214	16142	10956	5186
Manufacture of furniture	2246	500	1746	1746	-
Computer programming, consultancy and related activities	67965	4479	63486	42357	21129
Management activities; management consultancy activities	17813	12	17801	13390	4411
Architectural and engineering activities; technical testing and analysis	106081	457	105624	50730	54894
Scientific and development	510191	43280	466911	365037	101874
Education	1916947	67275	1849672	1421194	428478
Business sector	1007021	314199	692822	481637	211185
Manufacture of chemicals and chemical products	14235	1181	13054	11358	1696
Manufacture of rubber and plastic products	255595	188759	66836	62442	4394
Manufacture of basic metals	125766	81018	44748	44748	-
Manufacture of fabricated metal products, except machinery and equipment	180851	30876	149975	108553	41422
Manufacture of computer, electronic and optical products	31980	1033	30947	13205	17742
Manufacture of electrical equipment	16356	214	16142	10956	5186
Manufacture of furniture	2246	500	1746	1746	-
Computer programming, consultancy and related activities	67965	4479	63486	42357	21129
Management activities; management consultancy activities	17813	12	17801	13390	4411
Architectural and engineering activities; technical testing and analysis	106081	457	105624	50730	54894
Scientific and development	188133	5670	182463	122152	60311
Government sector	322058	37610	284448	242885	41563
Scientific and development	322058	37610	284448	242885	41563



Tabela 10.1. Gross domestic expenditure on R&D by groupings of activities, 2024 (continued)

Thous. RSD

	Gross domestic expenditure	Gross investments	Current costs		
			Total	Gross salaries	Material costs
Tertiary education	1916947	67275	1849672	1421194	428478
Education	1916947	67275	1849672	1421194	428478
Region Južne i Istočne Srbije	2606244	160803	2445441	1711964	733477
Manufacture of food products	65973	1453	64520	64520	-
Manufacture of basic pharmaceutical products and pharmaceutical preparations	19365	-	19365	10179	9186
Manufacture of fabricated metal products, except machinery and equipment	7000	-	7000	7000	-
Manufacture of computer, electronic and optical products	94809	15118	79691	55438	24253
Manufacture of machinery and equipment, n.e.c.	71153	58045	13108	13108	-
Publishing activities	199398	1760	197638	195498	2140
Computer programming, consultancy and related activities	263171	12661	250510	249311	1199
Scientific and development	236864	4749	232115	196994	35121
Education	1648511	67017	1581494	919916	661578
Business sector	845244	93435	751809	690912	60897
Manufacture of food products	65973	1453	64520	64520	-
Manufacture of basic pharmaceutical products and pharmaceutical preparations	19365	-	19365	10179	9186
Manufacture of fabricated metal products, except machinery and equipment	7000	-	7000	7000	-
Manufacture of computer, electronic and optical products	94809	15118	79691	55438	24253
Manufacture of machinery and equipment, n.e.c.	71153	58045	13108	13108	-
Publishing activities	199398	1760	197638	195498	2140
Computer programming, consultancy and related activities	263171	12661	250510	249311	1199
Scientific and development	124375	4398	119977	95858	24119
Government sector	112489	351	112138	101136	11002
Scientific and development	112489	351	112138	101136	11002
Tertiary education	1648511	67017	1581494	919916	661578
Education	1648511	67017	1581494	919916	661578
Region Kosovo i Metohija	...	...	...	...	...

Tabela 11.1. Expenditures for the purchase of R&D services from third persons,

2024

Thous. RSD

	Total expenditures for R&D services purchase
REPUBLIC OF SERBIA	4410958
Subjects in the country	3864147
Business subjects	2800054
Government sector (public R&D institutions)	634874
Private R&D institutes/laboratories	129073
Universities and other tertiary education institutions	294986
Private non-profit organisations	5160
Subjects abroad	546811
Business subjects	531477
Government sector (public R&D institutions)	10822
Private R&D institutes/laboratories	2708
Universities and other tertiary education institutions	1582
International organisations	222
Business sector	3054515
Subjects in the country	2607330
Business subjects	1612548
Government sector (public R&D institutions)	611181
Private R&D institutes/laboratories	120140
Universities and other tertiary education institutions	258778
Private non-profit organisations	4683
Subjects abroad	447185
Business subjects	446749
Private R&D institutes/laboratories	126
Universities and other tertiary education institutions	88
International organisations	222
Government sector	977736
Subjects in the country	904169
Business subjects	874033
Government sector (public R&D institutions)	21629
Private R&D institutes/laboratories	7593
Universities and other tertiary education institutions	914
Subjects abroad	73567
Business subjects	72925
Universities and other tertiary education institutions	642
Tertiary education	377476
Subjects in the country	351417
Business subjects	312242
Government sector (public R&D institutions)	2064
Private R&D institutes/laboratories	1340
Universities and other tertiary education institutions	35294
Private non-profit organisations	477
Subjects abroad	26059
Business subjects	11803
Government sector (public R&D institutions)	10822
Private R&D institutes/laboratories	2582
Universities and other tertiary education institutions	852
Non-profit sector	1231
Subjects in the country	1231
Business subjects	1231
Beogradski region	3989467
Subjects in the country	3487970
Business subjects	2556914
Government sector (public R&D institutions)	610787
Private R&D institutes/laboratories	32293
Universities and other tertiary education institutions	287499
Private non-profit organisations	477
Subjects abroad	501497
Business subjects	486805
Government sector (public R&D institutions)	10822
Private R&D institutes/laboratories	2708
Universities and other tertiary education institutions	940
International organisations	222

Tabela 11.1. Expenditures for the purchase of R&D services from third persons,
2024 (continued)

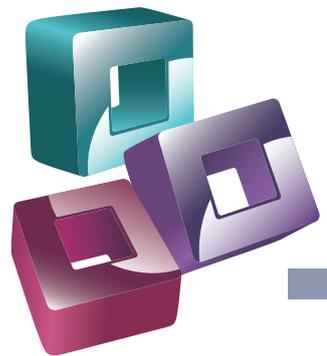
Thous. RSD

	Total expenditures for R&D services purchase
Business sector	2660562
Subjects in the country	2257457
Business subjects	1369953
Government sector (public R&D institutions)	608600
Private R&D institutes/laboratories	23360
Universities and other tertiary education institutions	255544
Subjects abroad	403105
Business subjects	402669
Private R&D institutes/laboratories	126
Universities and other tertiary education institutions	88
International organisations	222
Government sector	954105
Subjects in the country	881772
Business subjects	873701
Government sector (public R&D institutions)	123
Private R&D institutes/laboratories	7593
Universities and other tertiary education institutions	355
Subjects abroad	72333
Business subjects	72333
Tertiary education	373569
Subjects in the country	347510
Business subjects	312029
Government sector (public R&D institutions)	2064
Private R&D institutes/laboratories	1340
Universities and other tertiary education institutions	31600
Private non-profit organisations	477
Subjects abroad	26059
Business subjects	11803
Government sector (public R&D institutions)	10822
Private R&D institutes/laboratories	2582
Universities and other tertiary education institutions	852
Non-profit sector	1231
Subjects in the country	1231
Business subjects	1231
Region Vojvodine	353277
Subjects in the country	319737
Business subjects	195253
Government sector (public R&D institutions)	23115
Private R&D institutes/laboratories	94701
Universities and other tertiary education institutions	1985
Private non-profit organisations	4683
Subjects abroad	33540
Business subjects	32898
Universities and other tertiary education institutions	642
Business sector	329644
Subjects in the country	297338
Business subjects	194921
Government sector (public R&D institutions)	1745
Private R&D institutes/laboratories	94701
Universities and other tertiary education institutions	1288
Private non-profit organisations	4683
Subjects abroad	32306
Business subjects	32306
Government sector	23385
Subjects in the country	22151
Business subjects	332
Government sector (public R&D institutions)	21370
Universities and other tertiary education institutions	449
Subjects abroad	1234
Business subjects	592
Universities and other tertiary education institutions	642
Tertiary education	248
Subjects in the country	248
Universities and other tertiary education institutions	248

Tabela 11.1. Expenditures for the purchase of R&D services from third persons,
2024 (continued)

Thous. RSD

	Total expenditures for R&D services purchase
Region Šumadije i Zapadne Srbije	27914
Subjects in the country	26408
Business subjects	24688
Government sector (public R&D institutions)	336
Private R&D institutes/laboratories	1139
Universities and other tertiary education institutions	245
Subjects abroad	1506
Business subjects	1506
Business sector	27701
Subjects in the country	26195
Business subjects	24475
Government sector (public R&D institutions)	336
Private R&D institutes/laboratories	1139
Universities and other tertiary education institutions	245
Subjects abroad	1506
Business subjects	1506
Tertiary education	213
Subjects in the country	213
Business subjects	213
Region Južne i Istočne Srbije	40300
Subjects in the country	30032
Business subjects	23199
Government sector (public R&D institutions)	636
Private R&D institutes/laboratories	940
Universities and other tertiary education institutions	5257
Subjects abroad	10268
Business subjects	10268
Business sector	36608
Subjects in the country	26340
Business subjects	23199
Government sector (public R&D institutions)	500
Private R&D institutes/laboratories	940
Universities and other tertiary education institutions	1701
Subjects abroad	10268
Business subjects	10268
Government sector	246
Subjects in the country	246
Government sector (public R&D institutions)	136
Universities and other tertiary education institutions	110
Tertiary education	3446
Subjects in the country	3446
Business subjects	3446
Region Kosovo i Metohija	...



ANNEX

Survey code: 021010

ANNUAL REPORT FOR DEVELOPMENT AND RESEARCH FOR BUSINESS SUBJECTS AND CENTRES OF EXCELLENCE, FACULTIES AND NON-PROFIT ORGANISATIONS IN 2024

The obligation to provide data is stipulated in Article 26, and penalty provisions in case of non-response or provision of incomplete and erroneous data in Article 52 of the Law on Official Statistics ("Official Gazette of the RS", number 104/2009).
Data shall be used for statistical purposes only and shall not be published as individual data.
All data shall be considered as confidential.

Dear Madams/Sirs, an electronic questionnaire is also foreseen for this survey and is available at the following web addresses: <https://pod2.stat.gov.rs/unos> or www.stat.gov.rs (in the section "Surveys").

This report is to be filled in by business subjects (enterprises), centres of excellence, technology transfer centres, innovation centres, business incubators and science parks; all faculties, scientific institutes and R&D institutes; all non-profit organisations/associations which, according to the Law on Science and Research ("Official Gazette of the RS", number 49/2019), carried out R&D activities in 2024. Before filling in the report, please read carefully the explanations accompanying every table as well as the Manual. **All financial indicators are to be indicated in thousands of dinars.** The report is due to be completed and sent not later than **April 22, 2025** at the following address: Statistical Office of the Republic of Serbia, Department of Education, Science and Culture Statistics, 11050 Belgrade Milana Rakica number 5.

I FULL NAME OF THE REPORTING UNIT

Please write down the title of the organisation as stated in the court register, i.e. registration application.

The research unit of the business subject shall write down the full title of the business subject in which it is incorporated in, as well as its title; it shall enter in the tables data **that refer only to this unit**, but not to the entire subject/institution.

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Registration number

II ADDRESS – MUNICIPALITY

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Street and number _____ Telephone number _____

The R&D units shall write down **their address**, not the one of the institution in which it is incorporated in and operate.

III ACTIVITY

_____ Write down the name and code according to the Classification of Activities, 2010

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IV FORM OF OWNERSHIP (circle the corresponding number)

- public 1
- private 2
- mixed 3
- other 4

V SCIENTIFIC FIELD

_____ Write down the name and code according to the Classification of scientific fields of research and development (annexed)

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1. FULL-TIME AND PART-TIME EMPLOYEES ENGAGED IN R&D ACTIVITIES, EXPRESSED IN THE NUMBER OF PHYSICAL PERSONS AND FULL-TIME EQUIVALENT, 2024

		Total number of employees engaged in R&D				Number of full-time employees engaged in R&D activities		Part-time employees engaged in R&D activities			
		Number of employees		Full-time equivalent				Number of employees		Full-time equivalent	
		All (5+7)	Women (6+8)	All (5+9)	Women (6+10)			All	Women	All	Women
a		1	2	3	4	5	6	7	8	9	10
01	Total (02 до 05)										
02	Researchers										
03	Assistant-researchers										
04	Technicians										
05	Other personnel										

The table should not contain the employees engaged in the service of protection and security, restaurants, maintenance and related activities (property guardians, gatekeepers, cleaning staff, baristas, etc.), even though their salaries are included in other current costs when expressing expenditure for R&D.

Columns 5 and 6 should contain full-time employees, i.e. persons who worked the whole year 90% and more of the working time in R&D.

Columns 7, 8, 9 and 10 should contain part-time employees (more than 10%, and less than 90% of the working time).

Data in columns 3, 4, 9 and 10 should be expressed with **one decimal**.

The manual for filling in data in columns 3, 4, 9 and 10 **about the full-time equivalent** (FTE)

Example: FTE

Part-time employees engaged in R&D (more than 10% and less than 90%)	Number of employees	Full-time equivalent (FTE)
Total number of employees	8	= 2.7
3 persons working the whole year only part-time	(3 x 0.5)	= 1.5
2 persons working the whole year less than 20% of the working time	(2 x 0.2)	= 0.4
1 persons employed full-time for one half of the year	(1 x 0.5)	= 0.5
2 persons employed for eight months for only 25% of the working time	(2 x 0.67 x 0.25)	= 0.3

Comment: Employees engaged full-time in R&D activities correspond to the one unit of full-time equivalent (= 1 FTE).

2. EMPLOYEES ENGAGED IN R&D ACTIVITIES ON SERVICE CONTRACT (SC) OR AUTHOR CONTRACT (AC), EXPRESSED IN PHYSICAL NUMBER OF PERSONS AND FULL-TIME EQUIVALENT, 2024

		Engaged on SC or AC in R&D activities			
		Number of employees		Full-time equivalent	
		All	Women	All	Women
a		1	2	3	4
01	All (02 to 05)				
02	Researchers				
03	Assistant-researchers				
04	Technicians				
05	Other personnel				

FTE is to be expressed the same way as in Table 1.

IMPORTANT: all the persons engaged in R&D activities in their reporting unit are to be included, whether they are employed in another institutions (e.g. faculty, institute and other).

3. EMPLOYEES ENGAGED IN R&D ACTIVITIES, BY EDUCATIONAL ATTAINMENT, EXPRESSED IN NUMBER OF PHYSICAL PERSONS AND FULL-TIME EQUIVALENT, 2024

		Total number of employees		Educational attainment							
				Doctor's degree		Master's degree/specialisation		University education		Secondary and other education	
		All	Women	All	Women	All	Women	All	Women	All	Women
a		1	2	3	4	5	6	7	8	9	10
Employees engaged in R&D activities (number of physical number)											
01	Total (02 to 05)										
02	Researchers									X	X
03	Assistant-researchers										
04	Technicians										
05	Other personnel										
Employees engaged in R&D activities (full-time equivalent)											
06	Total (07 to 10)										
07	Researchers									X	X
08	Assistant-researchers										
09	Technicians										
10	Other personnel										

Data in columns 1 and 2 (rows 01 to 05) in Table 3 should be equal to the data in columns 1 and 2 in Table 1.

Data in columns 1 and 2 (rows 06 to 10) in Table 3 should be equal to the data in columns 3 and 4 in Table 1.

Column 1 is equal to the sum of columns 3, 5, 7 and 9, also, column 2 is equal to the sum of columns 4, 6, 8 and 10.

4. EMPLOYEES ENGAGED IN R&d ACTIVITIES ON SERVICE CONTRACT (SC) OR AUTHOR CONTRACT (AC), BY EDUCATIONAL ATTAINMENT, EXPRESSED IN NUMBER OF PHYSICAL PERSONS AND FULL-TIME EQUIVALENT, 2024

	Total number of employees	Educational attainment									
		Doctorate's degree		Master's degree/specialisation		University education		Secondary and other education			
		All	Women	All	Women	All	Women	All	Women		
a	1	2	3	4	5	6	7	8	9	10	
Employees engaged in R&D activities on service contract or author contract (number of physical persons)											
01	Total (02 to 05)										
02	Researchers									X	X
03	Assistant-researchers										
04	Technicians										
05	Other personnel										
Employees engaged in R&D activities on service contract or author contract (full-time equivalent)											
06	Total (07 to 10)										
07	Researchers									X	X
08	Assistant-researchers										
09	Technicians										
10	Other personnel										

Data in columns 1 and 2 (rows 01 to 05) in Table 4 should be equal to the data in columns 1 and 2 in Table 2.

Data in columns 1 and 2 (rows 06 to 10) in Table 4 should be equal to the data in columns 3 and 4 in Table 2.

Column 1 should be equal to the sum of columns 3, 5, 7 and 9, also, column 2 should be equal to the sum of columns 4, 6, 8 and 10.

5. FULL-TIME AND PART-TIME EMPLOYEES ENGAGED IN R&D ACTIVITIES, BY AGE AND SEX, EXPRESSED IN NUMBER OF PHYSICAL PERSONS, 2024

		Researchers				Assistant-researchers				Technicians			
		Full-time employees		Part-time employees		Full-time employees		Part-time employees		Full-time employees		Part-time employees	
		All	Women	All	Women	All	Women	All	Women	All	Women	All	Women
a	1	2	3	4	5	6	7	8	9	10	11	12	
01	Total (02 to 07)												
02	Aged under 25												
03	25–34												
04	35–44												
05	45–54												
06	55–64												
07	65 and more												

In table 5, employees employed full-time and part-time in R&D activities, shown in Table 1, are to be classified by age groups.

Data on researchers, assistant-researchers and technicians in row 01 of this table should correspond to the data in Table 1.

6. FULL-TIME AND PART-TIME RESEARCHERS, BY CITIZENSHIP AND SEX, EXPRESSED IN NUMBER OF PHYSICAL PERSONS

Citizenship (by geographical position of the country)		Total number of researchers in 2024		Researchers who came to Serbia in 2024		Researchers who went abroad in 2024		Planned number of researchers for 2025
		All	Women	All	Women	All	Women	
a		1	2	3	4	5	6	7
01	All (02 to 09)							
02	Serbia							
03	EU member countries							
04	Other European countries							
05	North America							
06	Central and South America							
07	Asia							
08	Africa							
09	Other							

In Table 6, **researchers** employed full-time and part-time are to be classified by citizenship (geographical position of the country).

In columns 3 and 4 all the researchers who came from abroad between 01/01/2024 and 31/12/2024, and worked in R&D more than 3 months are to be indicated.

In columns 5 and 6 all the researchers who left Serbia between 01/01/2024 and 31/12/2024 are to be indicated.

Data in row 01 in columns 1 and 2 of this table should **correspond to the data in Table 1 in columns 1 and 2:**

Researchers – All

Researchers – women

7. EXPENDITURE FOR R&D ACTIVITIES, 2024 (in thousands RSD)

Expenditure for R&D			Spent in 2024	Planned for 2025		
a			1	2		
01	Total expenditure for R&D (02+08+13)					
02	Current costs	All (03+05+06+07)				
03		Labour costs and employees remunerations	Gross salaries and wages for all employees in R&D activities			
04			of which gross salaries and wages of researchers			
05			Social contributions borne by the employer (indirect and direct)			
06			Educational costs			
07			Other labour costs			
08			All (09+10+11+12)			
09			Other current costs	For payments based on service contracts and author contracts		
10		Purchase of services connected with R&D				
11		For material costs for R&D work (raw materials, equipment, energy)				
12		Other operating costs and expenses (administration costs and other)				
13		All (14+15+19+20)				
14		Investment costs	For land and buildings			
15	For machinery and equipment:					
16	Information and communication equipment					
17	Transport equipment					
18	Other machinery and equipment					
19	Investments into computer software					
20	Other intellectual property products (patents, licenses, studies, projects and other)					

Comment: The data in row 01 in Table 7 must be equal to the data in row 01 in Table 8.

8. SOURCES OF FUNDS SPENT ON R&D ACTIVITIES, 2024

Sources of funds			Amount in thousands of RSD	
01	Funds spent for R&D by sources – total (02 to 20)			
02	Sources of funding from Serbia	Own funds of the reporting unit		
03		Budgetary funds dedicated for R&D	From the Ministry of Education, Science and Technological Development	
04			From other ministries	
05			General funds of the university/faculty	
06		Funds for R&D from government funds, agencies and foundations		
07		Funds for R&D from local authorities' bodies		
08		Funds for R&D for business subjects	From other enterprises in the same group	
09			From other enterprises outside the group	
10		Funds from tertiary education institutions		
11		Funds for R&D from non-profit organisations		
12		Other funds for R&D from domestic sources		
13		Funds from abroad	Funds from enterprises in the same group	
14			Funds from other enterprises outside the group	
15	Funds for R&D from foreign governments			
16	Funds for R&D from universities and other tertiary education institutions			
17	Funds for R&D from non-profit organisations			
18	Funds for R&D from the European Commission			
19	Funds for R&D from international organisations			
20	Other foreign funds			

GENERAL DEFINITIONS AND EXPLANATIONS FOR FILLING IN THE FOR IR (R&D)

COVERAGE

This form serves to collect data on R&D activities carried out in Serbia in 2024: in business subjects (enterprises), technology transfer centres, innovation centres, business incubators and science parks; at faculties, universities, scientific institutes, as well as R&D institutions; in non-profit organisations/associations.

The status of of centre of excellence can be acquired by an institute, i.e. tertiary education institution or their organisational part, i.e. their organisational parts if they have achieved in a five-year period the highest and internationally recognised results in a specific scientific discipline based on which they have a developed international scientific, technical and technological cooperation.

An institute is a R&D organisation that carries out a R&D activity of general interest, under conditions stipulated by the law. An institute can be founded as an institution or as an enterprise. Depending on the type of research and activity, form of organisation and financing modality of its activity, an institute can perform the R&D activity as: scientific institute and R&D institute. As to the ownership structure, an institute can be: State-owned and private.

A scientific institute is an institution which principal activity is composed of basic researches and applied researches that serve to valorise the results of basic researches.

A R&D institute is an organisation which principal activity is composed of applied and development researches dedicated to meet the needs of direct users of research results.

All tertiary education institutions (faculties, academies of arts, universities), whether State-owned, private or mixed in terms of ownership.

R&D organisations that can be accredited for this activity are: institutes, faculties, integrated universities, centres of excellence and R&D organisations in the field of defense and Army of Serbia.

DEFINITIONS OF THE R&D ACTIVITY

The R&D activity is a systematic creative work performed in view of acquiring new knowledge, in order to raise the general civilisation level of society and to use this knowledge in all areas of social development.

The scientific activity is carried out through basic research, applied and development research and by training the personnel for R&D work.

- **BASIC RESEARCH** is a creative, systematic activity focused on acquiring new knowledge on the origin and causes of phenomena and facts, without any particular application or use in view. The results of a basic research are often formulated as general principles, theories or rules.
- **APPLIED RESEARCH** is undertaken whether to establish a possibility to use the results of a research, having in mind its practical application, or to find new methods or ways that facilitate the achievement of a particular objective section in advance. This survey starts from existing knowledge and examine it thoroughly in view of solving specific issues.
- **DEVELOPMENT RESEARCH** is a creative systematic activity based on the results of the basis and applied research, and practical knowledge directed towards introducing new materials, products, devices, processes and methods.

METHODOLOGICAL BASIS

Methodological basis for this survey are international standards set by OECD and published in the FRASCATI Manual, 2015. All international classifications that are in the Annex for filling in the Annual report about R&D activity are applied. Detailed explanations are available in the Manual for filling in the form.

Additional explanations and instructions can be found in the Statistical Office of the Republic of Serbia, Milana Rakica No 5, Belgrade, Department for the statistics of education, science and culture, telephone number: +381 11 2412922, extension 425.

ANNEX

For filling in the Annual Report on Research and Development – IR

ANNEX number 1

CLASSIFICATION OF SCIENTIFIC FIELDS OF RESEARCH AND DEVELOPMENT (FORD 2015)

1	Natural sciences
101	Mathematics (Pure mathematics, Applied mathematics; Statistics and probability)
102	Computer and information sciences (Computer sciences, information science and bioinformatics)
103	Physical sciences (Atomic, molecular and chemical physics; Nuclear physics; Fluids and plasma physics; Optics, Acoustics; Astronomy)
104	Chemical sciences (Organic chemistry; Inorganic and nuclear chemistry; Physical chemistry, Polymer science, Electrochemistry; Colloid chemistry; Analytical chemistry)
105	Earth and related environmental sciences (Geosciences; Mineralogy; Palaeontology; Geochemistry and geophysics; Physical geography; Geology; Volcanology; Environmental sciences; Meteorology and atmospheric sciences; climatic research; Oceanography, Hydrology)
106	Biological sciences (Biology, Microbiology; Virology; Biochemistry and molecular biology; Biochemical research methods; Biophysics; Genetics, reproductive biology; developmental biology; Botany; Zoology, Ornithology, Entomology; freshwater biology, limnology; Ecology; Biodiversity conservation; Biology: theoretical, mathematical, thermal, cryobiology, biological rhythm, Evolutionary biology; other biological topics)
107	Other natural sciences
2	Engineering and technology
201	Civil engineering (Civil engineering; Architecture engineering; Construction engineering, Municipal and structural engineering; Transport engineering)
202	Electrical engineering, electronic engineering and information engineering (Electrical and electronic engineering; Robotics and automatic control; Automation and control systems; Communication engineering and systems; telecommunications; Computer hardware and architecture)
203	Mechanical engineering (Mechanical engineering; Applied mechanics; Thermodynamics; Nuclear related engineering; Audio engineering, reliability analysis)
204	Chemical engineering (plants, products)
205	Materials engineering (Materials engineering; Ceramics; Coating and films; Composites including laminates, reinforced plastics, cermets, combined natural and synthetic fibre fabrics; filled composites; Paper and wood; textiles; including synthetic dyes, colours, biomaterial fibres)
206	Medical engineering (Medical engineering; Medical laboratory technology including laboratory samples analysis; diagnostic technologies)
207	Environmental engineering (Environmental and geological engineering, geotechnics; Petroleum engineering, Energy and fuels; Remote sensing; Mining and mineral processing; Marine engineering, sea vessels; Ocean engineering)
208	Environmental biotechnology (Environmental biotechnology; Bioremediation, diagnostic biotechnologies in environmental management; environmental biotechnology related ethics)
209	Industrial biotechnology (Industrial biotechnology; Bioprocessing technologies, biocatalysis, fermentation; bioproducts biomaterials, bioplastics, biofuels, bio-derived bulk and fine chemicals, bio-derived novel materials)
210	Nano-technology (Nano-materials; Nano-processes)
211	Other engineering and technology (Food and beverages; Other engineering and technologies)
3	Medical and health sciences
301	Basic medicine (Anatomy and morphology; Human genetics; Immunology; Neurosciences including psychophysiology; Pharmacology and pharmacy; Toxicology; Physiology including cytology; Pathology)
302	Clinical medicine (Andrology; Obstetrics and gynaecology; Paediatrics; Cardiac and Cardiovascular systems; Peripheral vascular disease; Hematology; Respiratory systems; Emergency medicine; Anaesthesiology; Orthopaedics; Surgery; Radiology, nuclear medicine and medical imaging; Transplantation; Dentistry, oral surgery and medicine; Dermatology and venereal diseases; Allergy; Rheumatology; Endocrinology including diabetes; Gastroenterology and hepatology; Urology and nephrology; Oncology; Ophthalmology; Otorhinolaryngology; Psychiatry; Clinical neurology; Geriatrics and gerontology; General and internal medicine; other clinical medicine subjects)
303	Health science (Health policy and services; Nursing; Nutrition, Dietetics; Public and environmental health; Tropical medicine; Parasitology; Infectious diseases; epidemiology; Occupational health; Sport and fitness sciences; Social biomedical sciences; Medical ethics; Substance abuse)
304	Medical biotechnology (Health-related biotechnology; Technologies involving the manipulation of cells, tissues, organs or the whole organism; Technologies involving identifying the functioning of DNA, proteins and enzymes and how they influence the onset of disease and maintenance of well being; Biomaterials as related to medical implants, devices, sensors; Medical biotechnology related ethics)
305	Other medical sciences (Forensic science and other medical sciences)

4	Agricultural and veterinary sciences
401	Agricultural sciences, forestry and fisheries (Agriculture; Forestry; Fishery; Soil science; Horticulture, viticulture; Agronomy, plant breeding and plant protection)
402	Animal and dairy science (Animal and dairy science; Husbandry; Pets)
403	Veterinary science
404	Agricultural biotechnology (Agricultural biotechnology and food biotechnology; GM technology crops and livestock, livestock cloning, marker assisted selection, diagnostics - DNA chips and biosensing devices for the early/accurate detection of diseases; biomass feedstock production technologies, biopharming; agricultural biotechnology related ethics)
405	Other agricultural science
5	Social sciences
501	Psychology (Psychology including human - machine relations; Psychology, special, including therapy for learning, speech, hearing, visual and other physical and mental disabilities)
502	Economics and business (Economics, Econometrics; Industrial relations; Business and Management)
503	Educational science (General education including training, pedagogy, didactics; Special education for gifted persons and those with learning disabilities)
504	Sociology (Sociology; Demography; Anthropology, ethnology; Social topics - Gender studies, Social issues, Family studies, Social work)
505	Law (Law, criminology, penology)
506	Political science (Political science; public administration; organisation theory)
507	Social and economic geography (Environmental sciences - social aspects; Cultural and economic geography; Urban studies - Planning and development; Transport planning and social aspects of transport)
508	Media and communications (Journalism; Information science - social aspects; Library science; Media and socio-cultural communication)
509	Other social sciences (Social sciences interdisciplinary; Other social sciences)
6	Humanities and arts
601	History and archeology (History - history of science and technology to be 603, history of specific sciences to be under the respective headings; Archaeology)
602	Language and literature (General language studies; Specific languages; General literature studies; Literary theory; Linguistics)
603	Philosophy, ethics and religion (Philosophy, History and philosophy of science and technology; Ethics, except ethics related to specific subfields; Theology; Religious studies)
604	Arts: arts, history of arts, performing arts, music (Arts, Art history; Architectural design; Performing arts studies: Musicology, Theater science, Dramaturgy; Folklore studies; Studies on Film, Radio and Television)
605	Other humanities

Source: FORD – Fields of Science and Technology, OECD – 2015

ANNEX number 2

**CLASSIFICATION OF ACTIVITIES – 2010
REVIEW OF THE SECTIONS AND DIVISIONS OF THE CLASSIFICATION OF ACTIVITIES**

CODE	DESCRIPTION OF SECTIONS/DIVISIONS
A	AGRICULTURE, FORESTRY AND FISHING
01	Crop and animal production, hunting and related service activities
02	Forestry and tree felling
03	Fishing and aquaculture
B	MINING AND QUARRYING
05	Mining of coal and lignite
06	Extraction of crude petroleum and natural gas
07	Mining of metal ores
08	Other mining and quarrying
09	Mining support service activities
C	MANUFACTURING
10	Manufacture of food products
11	Manufacture of beverages
12	Manufacture of tobacco products
13	Manufacture of textiles
14	Manufacture of wearing apparel
15	Manufacture of leather and related products
16	Manufacture of wood and of products of wood, except furniture; manufacture of articles of straw and plaiting materials
17	Manufacture of paper and paper products
18	Printing and reproduction of recorded media
19	Manufacture of coke and refined petroleum products
20	Manufacture of chemicals and chemical products
21	Manufacture of basic pharmaceutical products and pharmaceutical preparations
22	Manufacture of rubber and plastic products
23	Manufacture of other non-metallic mineral products
24	Manufacture of basic metals
25	Manufacture of fabricated metal products, except machinery and equipment
26	Manufacture of computer, electronic and optical products
27	Manufacture of electrical equipment
28	Manufacture of machinery and equipment, n.e.c.
29	Manufacture of motor vehicles, trailers and semi-trailers
30	Manufacture of other transport equipment
31	Manufacture of furniture
32	Other manufacturing
33	Repair and installation of machinery and equipment
D	ELECTRICITY, GAS, STEAM AND AIR CONDITIONING SUPPLY
35	Electricity, gas, steam and air conditioning supply
E	WATER SUPPLY; SEWERAGE, WASTE MANGEMENT AND REMEDIATION ACTIVITIES
36	Water collection, treatment and supply
37	Sewerage
38	Water collection, treatment and disposal activities; material recovery
39	Remediation activities and other waste management services
F	CONSTRUCTION
41	Construction of buildings
42	Civil engineering
43	Specialised construction activities
G	WHOLESALE AND RETAIL TRADE; REPAIR OF MOTOR VEHICLES AND MOTORCYCLES
45	Wholesale and retail trade and repair of motor vehicles and motorcycles
46	Wholesale trade, except of motor vehicles and motorcycles
47	Retail trade, except of motor vehicles and motorcycles
H	TRANSPORTATION AND STORAGE
49	Land transport and transport via pipelines
50	Water transport

CODE	DESCRIPTION OF SECTIONS/DIVISIONS
51	Air transport
52	Wharehousing and support activities for transportation
53	Postal and courier activities
I	ACCOMMODATION AND FOOD SERVICE ACTIVITIES
55	Accommodation
56	Food and beverage service activities
J	INFORMATION AND COMMUNICATION
58	Publishing activities
59	Motion picture, video and television programme, production, sound recording and music publishing activities
60	Programming and broadcasting
61	Telecommunications
62	Computer programming, consultancy and related activities
63	Information service activities
K	FINANCIAL AND INSURANCE ACTIVITIES
64	Financial service activities, except insurance and pension funding
65	Insurance, reinsurance and pension funding, except compulsory social insurance
66	Activities auxiliary to financial services and insurance activities
L	REAL ESTATE ACTIVITIES
68	Real estate activities
M	PROFESSIONAL, SCIENTIFIC, INNOVATION AND TECHNICAL ACTIVITIES
69	Legal and accounting activities
70	Activities of head offices; management consultancy activities
71	Architectural and engineering activities; technical testing and analysis
72	Scientific and development
73	Advertising and market research
74	Other professional, scientific and technical activities
75	Veterinary activities
N	ADMINISTRATIVE AND SUPPORT SERVICE ACTIVITIES
77	Rental and leasing activities
78	Employment activities
79	Travel agency, tour operator and other reservation service and related activities
80	Security and investigation activities
81	Services to buildings and landscape activities
82	Office administrative, office support and other business support activities
O	STATE ADMINISTRATION AND DEFENSE; COMPULSORY SOCIAL SECURITY
84	Public administration and defense; compulsory social insurance
P	EDUCATION
85	Education
Q	HUMAN HEALTH AND SOCIAL WORK ACTIVITIES
86	Human health activities
87	Residential care activities
88	Social work activities without accommodation
R	ART; ENTERTAINMENT AND RECREATION
90	Creative, arts and entertainment activities
91	Libraries, archives, museums and other cultural activities
92	Gambling and betting activities
93	Sports activities, amusement and recreation activities
S	OTHER SERVICE ACTIVITIES
94	Activities of membership organisations
95	Repair of computers and personal and household goods
96	Other personal service activities
T	ACTIVITIES OF HOUSEHOLDS AS EMPLOYERS; UNDIFFERENTIATED GOODS AND SERVICE – PRODUCING ACTIVITIES OF HOUSEHOLDS FOR WON USE
97	Activities of households as employers of personnel
98	Undifferentiated goods – and services – producing activities of households for own use
U	ACTIVITIES OF EXTRATERRITORIAL ORGANIZATIONS AND BODIES
99	Activities of extraterritorial organizations and activities

MANUAL

for filling in the “Annual Report on R&D” for: business subjects and centres of excellence, faculties, scientific and R&D institutes and non-profit organisations/associations.

(Form: IR).

Manual

The objective of this manual is to facilitate the filling in of the questionnaire and to raise the quality of this task. The questionnaires are to be completed for all institutions and/or units where there are at least one researcher, scientist or engineer with full-time equivalent (FTE annually) working on a research and development.

The manual gradually explains every part of the questionnaire and, through examples, shows how to fill in the questionnaire correctly.

A tertiary education institution belonging to university (as a reporting unit) is taken as an example of correct completion of the questionnaire. The data shown in the mentioned examples in the manual are random and are to be used only as a trial.

The questionnaire refers to the measurement of entry in R&D: R&D personnel and R&D expenditures. R&D personnel are to be classified by educational attainment, titles, age and sex, expressed as the real number of persons and full-time equivalent (FTE). R&D expenditures show mainly so-called intramural expenditures, i.e. R&D expenditures within the reporting unit or sector to which the unit belongs to. They include current expenditures and capital investments in order to obtain data on who finances and who performs R&D. Scientific works, projects and studies presented as a R&D result.

The first page of the questionnaire /R&D form

The first page of the R&D questionnaire contains data on the title, registration number, address, activity, ownership form and scientific field of the reporting unit. The main difference of the R&D activity and activities other than R&D is the presence or absence of novelty or innovation elements to a greater extent. If an activity introduces considerable improvement in technical characteristics, components, materials and software, user's orientation or other functional characteristics, i.e. uses a new or considerably improved product, process or service as well as new organisational methods in business and labour organisation, it should be obligatorily included in this survey.

The code of the corresponding activity is to be copied down from the annexed Classification of Activities, 2010, which is to be transmitted to the reporting unit together with the R&D questionnaire/form. Also, the annexed Classification of Scientific Fields of Research and Development is to be used to write down the scientific field.

The coverage excludes activities that do not fall into R&D survey:

- routine tests and analyses of all forms, whether serving for the control of materials, components or products or being focused on their quality and quantity (tests and analysis that are part of a R&D process should be however included);
- market research, operating research, work studies, costs analysis, management activities, etc;
- experimental production where product improvement is not the primary goal;
- design costs aiming at monitoring fashion trends and activities of art modeling;
- legal and administrative operations relative to the application and registration of patents, operations relative to the sale of patents and licenses, experimental activities carried out only for the purpose of patent registration.

Table number 1

The first table to be filled in is on the second page of the questionnaire under number 1, entitled: *“Full-time or part-time employees engaged in R&D activities, expressed in number of physical persons and full-time equivalent in the reference year.”*

	Total number of employees engaged in R&D activities				Number of full-time employees engaged in R&D activities		Part-time employees engaged in R&D activities			
	Number of employees		Full-time equivalent				Number of employees		Full-time equivalent	
	Total (5+7)	Women (6+8)	Total (5+9)	Women (6+10)	Total	Women	Total	Women	Total	Women
a	1	2	3	4	5	6	7	8	9	10
01 Total (02 to 05)	54	29	32,5	18,5	11	8	43	21	21,5	10,5
02 Researchers	52	28	31,5	18,0	11	8	41	20	20,5	10,0
03 Assistant-researchers	2	1	1,0	0,5			2	1	1,0	0,5
04 Technicians										
05 Other staff										

Table 1 should cover the total number of employees engaged in R&D activities, who work full-time or part-time on those activities, by title, sex, number of physical persons and full-time equivalent (FTE).

The number of employees engaged in R&D activities should be indicated in the table, as the sum of full-time and part-times employees.

The real amount of time spent on R&D activities to full-time equivalent is to be indicated under part-time employees. The unit of measurement for the given data is the full-time equivalent (FTE). The abbreviation FTE will be used in the manual for full-time equivalent.

Concretely, our example shows that there are 43 employees who do not spend full-time on R&D activities (the data is in column 7 in table 1) but only 21.5 FTE. This means that their real contribution to R&D activities is 21.5 full-time employees engaged in R&D activities.

Full-time equivalent (FTE) is a unit of measurement of employees, which allows to compare the employees even though they work a different number of hours within the working week/year.

A full-time employee is counted as one (1) full-time equivalent or part-time FTE = 1. An employee who does not work full-time obtains a proportional value relative to the hours she/he has worked. For example: an employee not working full-time but 20 hours per week has a FTE value of 0.5 because full-time is 40 working hours per week. Mathematically: $20 : 40 = 0,5$.

The data related to full-time equivalent, in columns 3, 4, 9 and 10, are to be indicated in decimal numbers with one decimal.

Also, on the page of the R&D form containing Table 1 there is an additional instruction for entering data in columns 3, 4, 9 and 10 on full-time equivalent.

In the mentioned example for filling the table, there are 54 employees being engaged in R&D activities. Of 54 persons, 29 are women. The full-time equivalent for the total number of employees is 32,5, of which FTE for female employees is 18,5.

Row 02 refers to employees holding the title researchers. In our example, of 52 persons employed as researchers, 28 are women. The full-time equivalent for this category is 31.5 FTE, of which the female population is 18 FTE.

Row 03 refers to employees holding the title assistant-researchers. In our example there are two employees, of which one is a woman. The example shows that both persons are working part-time on R&D activities because the data about them is indicated in columns 7 and 8 where persons who work

part-time on R&D activities are indicated. The FTE for both persons is 1, of which 0.5 FTE is for the female person. The two assistant-researchers are working only part-time in the year on R&D activities.

At the end of Table 1, the values in categories “*Researchers*”, “*Assistant-researchers*”, “*Technical staff*” and “*Other staff*” are to be added up after having filled in Table 1. As there is no data in the other categories, except for “*Researchers*” row (02) and “*Assistant-researchers*” row (03), the values of the mentioned items are to be added up to obtain the sum in the first row (01) “*Total*”: 54 employees, of which 29 are women, who have a full-time equivalent FTE of 32.5, and of which the FTE for women is 18.5.

Also, the sum of columns 5 and 7 should correspond to the data from column 1, and the sum of columns 6 and 8 to the data from column 2.

To better understand this table, explanations from the Frascati Manual are indicated, which is the international standard produced by OECD (Organization for Economic Cooperation and Development) and which serves as the methodological basis for the survey on R&D.

A researcher is a person with at least tertiary educational attainment, i.e. having at least completed undergraduate academic studies and who is engaged in R&D work, and holding the title pursuant to the law.

Assistant-researchers do not have R&D knowledge, they cooperate directly with researchers by performing professional activities concerning R&D duties, but are not holders of the R&D project (laboratory technicians, librarians, IT specialists, lectors, etc.).

Technicians are persons whose main duties require technical knowledge and experience in one or more areas in engineering, natural, social sciences and humanities. They perform within R&D scientific and technical duties that include the application of concepts and operational methods, and the use of R&D equipment, usually under researcher’s supervision.

Other personnel (auxiliary) includes the employees who carry out all activities **contributing directly to performing R&D**, which are not conducted by researchers or technicians and professional personnel. These activities include secretary and other administrative work, management of materials or equipment required for the implementation of the R&D project, such as planning, information and financial support, legal services, assistance in assembling, maintaining, repairing scientific equipment and instruments. Managers and administrators are also included here and are mainly engaged in financial and personnel issues and general administration if their activities are directly connected with R&D projects (treasurers, recorders, secretaries, jurists, etc.). Also, other personnel dealing with ancillary activities in R&D organisations includes employees in workshops, on agricultural land, couriers, switchboard operators, employees engaged in the maintenance of buildings, equipment and rolling stock, suppliers, etc.

It excludes the employees engaged in protection and security service or canteen employees, cleaning staff and related personnel (building concierge, doormen, cleaning ladies, coffee makers, etc.) even though their salaries and wages are included in other current costs when measuring R&D expenditure.

There are three stages to value R&D personnel:

- Identification of the type of personnel that should be valued,
- Establishing their number,
- Establishing their activity in FTE.

One FTE researcher can be presented as researcher/year. Therefore, the persons who spend 30% of their time on R&D and the rest on other activities (teachers, university administration...) should be counted as 0.3 FTE. Similarly, if a FTE worker is employed in a R&D institution for a six-month period, this will be counted as 0.5 FTE. Considering that the length of a working day varies from one sector to another, as well as from one institution to another, it is impossible to express FTE in researcher/hours.

In practice, all those who participate with more than 90% of their time should be counted as 1 FTE, while those who are engaged less than 10% should be excluded from the valuation.

Table 2

Table 2 entitled “Persons engaged in R&D activities on the basis of a service contract (SC) or author contract (AC), expressed in number of physical persons and full-time equivalent, in the reference year”, should contain the number of employed persons who are involved in R&D activities based on a service contract or author contract by titles/occupations.

		Employees based on SC and AC in R&D			
		Number of employees		Full-time equivalent	
		All	Women	All	Women
<i>a</i>		<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
01	All (02 до 05)	1	1	0,3	0,3
02	Researchers	1	1	0,3	0,3
03	Assistant-researchers				
04	Technicians				
05	Other personnel				

Our example shows one employee who was engaged as *researcher* on service contract and was actually involved in R&D activities during 85 working days. It is worth knowing that one calendar year has on average 252 working days, when calculating FTE. The aforesaid is used to determine the full-time equivalent:

$$85 : 252 = 0,34.$$

As FTE is expressed with one decimal, the obtained quotient 0.34 is rounded to 0.3, which is at the same time the FTE - the value of the work of the employee performed in R&D.

It is very important to include all the persons engaged in R&D activities in their reporting units, whether those persons are employed in some other institutions or not (e.g. faculties, institutes, etc.).

Table 3

Table 3 entitled: “*Employees engaged in R&D activities, by educational attainment, expressed in physical number of persons and full-time equivalent, in the reference year*”, should be filled in with the total number of employees and their FTE, by title and educational attainment. Read the comments below Table 3 in the R&D questionnaire, reading:

- The data in columns 1 and 2 (rows 01 to 05) in Table 3 should correspond to the data in columns 1 and 2 in Table 1;
- The data in columns 1 and 2 (rows 06 to 10) in Table 3 should correspond to the data in columns 3 and 4 in Table 1;
- Column 1 equals the sum of columns 3, 5, 7 and 9, and column 2 equals the sum of columns 4, 6, 8 and 10.

	Total	Educational attainment									
		Doctor's degree		Master's degree/specialisation		University education		Secondary and other education			
		All	Women	All	Women	All	Women	All	Women	All	Women
<i>a</i>	1	2	3	4	5	6	7	8	9	10	
Employees engaged in R&D activities (number of physical persons)											
01	Total (02 to 05)	54	29	36	18	4	2	14	9		
02	Researchers	52	28	34	17	4	2	14	9	X	X
03	Assistant-researchers	2	1	2	1						
04	Technicians										
05	Other personnel										
Employees engaged in R&D activities (full-time equivalent)											
06	Total (07 до 10)	32,5	18,5	21,5	11,0	4,0	2,0	7,0	5,5		
07	Researchers	31,5	18,0	20,5	10,5	4,0	2,0	7,0	5,5	X	X
08	Assistant-researchers	1,0	0,5	1,0	0,5						
09	Technicians										
10	Other personnel										

By following the mentioned comments, when filling in the table one should first copy down the total number of employees and “women” from columns 1 and 2 in Table 1 into columns 1 and 2 (rows 01 to 05) of Table 3. After having copied down the total number of employees, 54 in column 1 and of women, 29 in column 2 of Table 3, the number of employees, holding the titles researchers and assistant-researchers, is to be copied from the same columns of Table 1 to Table 3. The given example shows that there are 52 researchers, of which 28 women, and 2 assistant-researchers, of which 1 woman. Afterwards, the number of employees - Total and by categories is to be broken down into selected educational attainment.

To fill in the second part of the table referring to the full-time equivalent, one should first copy from columns 3 and 4 of Table 1 the indicated FTE values into columns 1 and 2 (rows 06 to 10) of Table 3. Once the total FTE values of 32.5 in column 1 and 18.5 in column 2 of Table 3 are copied, the values for the titles researchers and assistant-researchers are to be copied from the same columns of Table 1 into Table 3. The data for researchers are 31.5 and 18 FTE, and 1 and 0.5 FTE for assistant-researchers. Afterwards, these values are to be broken down into selected educational attainment.

Table 4

Table 4, entitled “Employees engaged in R&D activities, based on service contract (SC) or author contract (AC), by educational attainment, expressed in number of physical persons and full-time equivalent, in the reference year”, should be filled in with the total number of employees being engaged based on the mentioned contracts, by title and educational attainment, and with their FTE.

		Total		Educational attainment							
				Doctor's degree		Master's degree/specialisation		University education		Secondary and other education	
		All	Women	All	Women	All	Women	All	Women	All	Women
<i>a</i>		1	2	3	4	5	6	7	8	9	10
Employees engaged in R&D activities based on service contract or author contract (number of physical persons)											
01	Total (02 to 05)	1	1	1	1						
02	Researchers	1	1	1	1					X	X
03	Assistant-researchers										
04	Technicians										
05	Other personnel										
Employees engaged in R&D activities based on service contract or author contract (full-time equivalent)											
06	Total (07 to 10)	0,3	0,3	0,3	0,3						
07	Researchers	0,3	0,3	0,3	0,3					X	X
08	Assistant-researchers										
09	Technicians										
10	Other personnel										

The given example shows that there is one employee, a woman, engaged in R&D activities based on a service contract. The person is a researcher and holds a doctor's degree. Table 2 shows that this person has 0.3 FTE relative to full-time so that the value of 0.3 FTE is to be copied into the corresponding places in Table 4.

The value 0.3 can be the result of work, where the researcher works 2.5 hours per day on R&D activities, or 12 hours per week or about 30% of the working time on annual level.

The data in columns 1 and 2 (rows 01 to 05) in Table 4 should equal the data in columns 1 and 2 of Table 2.

The data in columns 1 and 2 (rows 06 to 10) in Table 4 should equal the data in columns 3 and 4 of Table 2.

Column 1 equals the sum of columns 3, 5, 7 and 9, and column 2 equals the sum of columns 4, 6, 8 and 10.

Table 5

Table 5, entitled “*Full-time and part-time employees engaged in R&D activities, by age and sex, expressed in number of physical persons, in the reference year*”, should be filled in with the number of employees engaged in R&D activities classified by title and age group.

		Researchers				Assistant-researcher				Technicians			
		Full-time employees		Part-time employees		Full-time employees		Part-time employees		Full-time employees		Part-time employees	
		All	Women	All	Women	All	Women	All	Women	All	Women	All	Women
a		1	2	3	4	5	6	7	8	9	10	11	12
01	Total (02 to 07)	11	8	41	20			2	1				
02	Less than 25 years old	1	1										
03	25 – 34	8	6	13	5								
04	35 – 44			12	8			1	1				
05	45 – 54	1	1	7	2								
06	55 – 64			9	5			1					
07	65 and over	1											

In Table 5 the columns refer to the categories of employees by title, and within these categories by sub-category: *full-time and part-time employees*. The rows refer to age groups, where one should indicate employees by age group in the given intervals. At the end, each row should be added up in the column for all the indicated titles in order to obtain “*Total (02 to 07)*” under ordinal number 01.

The data in this table should match the data indicated in Table 1:

Full-time employees:

- Researchers: row 02, columns: 05, 06
- Assistant-researchers: row 03, columns: 05, 06
- Technicians: row 04, columns: 05, 06

Part-time employees:

- Researchers: row 02, columns: 07, 08
- Assistant-researchers: row 03, columns: 07, 08
- Technicians: row 04, columns: 07, 08

Table 6

Table 6, entitled: “*Full-time and part-time researchers, by citizenship and sex, expressed in number of physical persons*”, should be filled in with the number of researchers by citizenship (geographical location of the country). It is important that this table contain **the number of researchers**, not the total number of employees. These data are particularly important to monitor **researchers’ mobility**.

Citizenship (by geographical location of the country)		Total number of researchers in 20__.		Researchers who came to Serbia in 20__		Researchers who went abroad in 20__		Planned number of researchers for 20__
		All	Women	All	Women	All	Women	
a		1	2	3	4	5	6	7
01	All (02 до 09)	52	28	1	1			55
02	Serbia	52	28					
03	EU member countries							
04	Other European countries							
05	North America							
06	Central and South America							
07	Asia							
08	Africa							
09	Other							

Columns 3 and 4 contain all the researchers who came from abroad during the reference year and worked in R&D more than 3 months.

Columns 5 and 6 contain all the researchers who left Serbia during the reference year.

The data in row 01 in columns 1 and 2 of this table should **correspond to the data in Table 1 in columns 1 and 2**:

Researchers – all and researchers – women (row 02).

Table 7

In Table 7, entitled “Expenditures for R&D activities in the reference year (in thousands of RSD)“, one should indicate all financial funds spent for R&D activity in the reference year, as well as total planned funds for the next year.

Expenditures for R&D			Spent in 20__	Planned for 20__
a			1	2
01	Total expenditures for R&D (02+08+13)		39307	
02	Current costs	All (03+05+06+07)	32785	
03		Gross salaries and wages for all R&D employees	32785	
04		Of which gross salaries and wages of researchers	31690	
05		Social contributions borne by the employer (indirect and direct)		
06		Educational costs		
07		Other labour costs		
08			All (09+10+11+12)	5989
09	Other current costs	For payments on the basis of service contract and author contract	2369	
10		Purchase of R&D related services	609	
11		For material costs for R&D (raw materials, materials, energy)	1100	
12		Other operating costs and expenses (administration costs, etc.)	1911	
13	Investment costs	All (14+15+19+20)	533	
14		For land and buildings		
15		For machinery and equipment:	533	
16		Information and communication equipment	150	
17		Transport equipment	175	
18		Other machinery and equipment	208	
19		Investment in software		
20		Other intellectual property products (patents, licenses, studies, projects, etc.)		

The table is designed so to have spent funds grouped into two main categories: one represents current costs and the other one investment costs. Current costs have an additional sub-category entitled “*Labour costs and employees’ remunerations*“, and “*Other current costs*“. The given categories and sub-categories are further classified into cost classes. The sub-category “of which *Gross salaries and wages for researchers*“ is not included in the sum “all” (row 02) because it represents gross salaries and wages of all employees in R&D activity.

Labour costs of R&D personnel represent the largest item in current costs. *Other current costs* include non-capital investments in materials, equipment and services for R&D during a year. Additional costs and costs of administration personnel are counted in this group of costs, but costs of activities other than R&D should be deducted from them. Personnel costs include also costs for social and pension funds for R&D personnel. Costs of indirect services are also included, whether originating from the same reporting unit or not (warehousing costs, repair and maintenance of premises, printing of reports, etc.).

Investment costs are total annual costs of real estates for R&D for the reporting unit. They are to be completely indicated for the period in which they occurred and do not contain depreciation elements. They are composed of: costs for land and buildings, as well as of costs for machinery and equipment. The costs for land and buildings: land refers only to the land that is necessary for R&D (land for exploration, for laboratories and pilot installations) and for buildings intended for improvements, modifications and repairs. The share of these costs is difficult to establish so estimation is to be used.

The sub-category “*Information and communication equipment*”, “*Transport equipment*” and “*Other machinery and equipment*” under Investment costs are not to be counted in the sum of investment costs (all, row 13) because they represent a part of total investments in machinery and equipment.

The given example shows the purpose of spent resources through data that are to be indicated in corresponding cost classes. Funds are to be indicated in **thousands of dinars**.

The planned funds are to be entered only in the total amount, without breakdown by categories.

Table 8

Table 8, entitled, “*Sources of funds spent on R&D activities in the reference year*”, should be filled in with the sources of financing R&D work.

		Sources of funds	Amount in thousands of RSD	
		<i>a</i>	<i>1</i>	
01	Funds spent for R&D by sources - total (02 to 20)		39307	
02	Financing sources from Serbia	Own funds of the reporting units		
03		Budgetary funds for R&D	From the Ministry of Education, Science and Technological Development	37315
04			From other ministries	
05			General funds of universities/faculties	
06		Funds for R&D from government funds, agencies and foundations		
07		Funds for R&D from local authorities	202	
08		Funds for R&D from business subjects	From other enterprises in the same group	
09			From other enterprises outside the group	
10		Financial funds from abroad	Funds from tertiary education institutions	
11			Funds for R&D from non-profit organisations	
12	Other funds for R&D from domestic sources			
13	Funds from enterprises in the same group			
14	Funds from other enterprises outside the group		1567	
15	Funds from R&D from foreign governments			
16	Funds for R&D from universities and other tertiary education institutions			
17	Funds for R&D from non-profit organisations			
18	Funds for R&D from the European Commission			
19	Funds for R&D from international organisations			
20	Other foreign funds	223		

The data in row 01 should equal the data in row 01, column 1 in Table 7 (*Total expenditures for R&D*). The mentioned amounts should be indicated in **thousands of dinars**.

The sources are divided into two categories: the first category refers to domestic sources, and the second one to sources of financing from abroad.

This category includes a sub-category of financing sources. In domestic sources (from the Republic of Serbia), several sources are proposed (ministries, funds, agencies) grouped under the title “*Budgetary funds for R&D*” and “*Funds for R&D from business subjects*”. Row number 02 refers to funds from own sources spent for R&D activity.

The given example shows funds for R&D originating from the Ministry of Education, Science and Technological Development and to a smaller extent from local authorities, funds from other enterprises outside the group, as well as from other foreign funds.

Table 9

Table 9, entitled “Number and value of R&D works (projects and studies), by fields of science and types of research (include also projects financed by own funds), in the reference year”, should be filled in with the number of research work by fields of science and types of research, as well as amount of funds spent on R&D, distributed by type of research and fields of science.

Fields of science	Total		Type of researches					
			Basic		Applied		Experimental	
	Number of works	Value	Number of works	Value	Number of Works	Value	Number of Works	Value
a	1	2	3	4	5	6	7	8
01 All (02 to 08)	7	39307	5	37739			2	1568
02 Natural sciences, mathematics	7	39307	5	37739			2	1568
03 Engineering and technology								
04 Social sciences								
05 Humanities and arts								
06 Medical sciences								
07 Agricultural and veterinary sciences								
08 Multidisciplinary sciences								

For ongoing projects (non-finished), indicate the value of finalised stages until the end of the reference year. It is worth mentioning that the data in column 2 “Value”, in row 01 should match the data in row 01 in Table 7 “Total expenditures for R&D”. Also, it should be identical to the data indicated in row 01 in Table 8 “Funds spent for R&D by sources – total”.

The data for the value are to be indicated in **thousands of dinars**.

We stress out that for every indicated number of researches (works), one should indicate their value in thousands of dinars.

In our example there are 7 works and all of them belong to the field of science: natural sciences, mathematics, or which 5 belong to basic researches and 2 to experimental ones. Also, Table 9 shows that total funds were invested in natural sciences, mathematics. A minor amount of funds was invested in experimental researches, and more than 95% of funds in basic researches.

Use the classification in the Annex to establish to which field of science a research belongs to.

- **BASIC** research is a creative, systematic activity focused on acquiring new knowledge on the origin and causes of phenomena and facts, without any particular application or use in view. The results of a basic research are often formulated as general principles, theories or rules.

- **APPLIED** research is undertaken whether to establish a possibility to use the results of a research, having in mind its practical application, or to find new methods or ways that facilitate the achievement of a particular objective set in advance. This survey starts from existing knowledge and examines it thoroughly in view of solving specific issues.

- **EXPERIMENTAL (DEVELOPMENT)** research is a creative systematic activity based on the results of the basic and applied research, and practical knowledge directed towards introducing new materials, products, devices, processes and methods.

Table 10

In Table 10, entitled “Expenditures for the purchase of R&D related services in the reference year (in thousands of RSD)”, one should indicate the expenses for R&D performed for you by third persons.

	a	1
01	Total expenditures for the purchase of R&D services from (02+08):	10580
02	Subjects in the country (03 to 07)	10580
03	Business subjects	
04	Government sector (public research institutions)	10580
05	Private research institutes/laboratories	
06	University and other tertiary education institutions	
07	Private non-profit organizations	
08	Subjects abroad (09 to 14)	
09	Business subjects	
10	Government sector (public research institutions)	
11	Private research institutes/laboratories	
12	University and other tertiary education institutions	
13	Private non-profit organizations	
14	International organizations	

Expenses for the purchase of R&D services (extramural expenditures) are compensations for R&D work performed separately by an enterprise/institution outside your reporting unit. Financing or expenditures for extramural R&D works (i.e. R&D outside a statistical unit) is not to be included in the amount of extramural R&D - total, which is presented in Table 7.

The data are to be shown in **thousands of dinars**.

In the given example the reporting unit in the reference period purchased R&D services from the government sector (public research institutions) in the country.

At the end of the questionnaire, the date when the questionnaire was filled in should be entered, as well as the name and surname of the person who did it, contact telephone number or e-mail, as well as the name and surname of the reporting unit manager.

For more explanations please contact the Statistical Office of the Republic of Serbia in Belgrade at 011 2412 922, extension 425.

Annexe: - Classification of fields of science

- Classification of activities CA_2010

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