

# Research and development in the Republic of Serbia, 2012

Belgrade, 2013

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**570**

**BULLETIN**

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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 2012, the territory of the Republic of Serbia, Srbija – sever, Srbija – jug and to the regions: Beogradski region, Region Vojvodine, Region Sumadije and Zapadne Srbije, and Region Juzne i Istocne 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 (FTE). 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, while published works, inventions and patents are presented by publishing destination, i.e. sale, and by 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 on the number of R&D organizations and employees are shown as of 31/12/2012, while those on R&D works, receipts and expenditure refer to the whole 2012.

Statistical data in this bulletin are available on the level of scientific fields in which R&D organizations are classified, i.e. on the level of the scientific field of R&D works or innovations. 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, 2013

the Director  
Dragan Vukmirovic, PhD



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## METHODOLOGICAL EXPLANATIONS

### 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), as well as the Program of Official Statistics for 2011 – 2015 ("Official Journal of the RS", number 23/2011).

### 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, education and cultural world. R&D is an activity of particular importance for the complete development of the Republic of Serbia based on knowledge, and 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, ordering party and scientific party;
- innovations and patents: by scientific fields and R&D intensity.

#### Reporting units, statistical units

The population of the research and units 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. Excluded are R&D organisations created by the Ministry of the Interior. The new Law on the R&D Activity anticipates the monitoring of these organisations.

### **Method, timetable and sources for data collection**

The survey is conducted annually and the questionnaires are sent to reporting units the first week of June. Three questionnaires are used for that purpose, the first relating to business entities and centres of extraordinary values (technology and business incubators, science and technology parks), the second to faculties and institutes, and the third to non-profit organisations – associations. The reporting units fill in the R&D questionnaire in June of the current year, and data refer to the previous (reference) year, i.e. they are shown as of 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, regardless of the ownership, all R&D institutes), while data collection on the R&D activity of business entities and non-profit organisations/associations is sample-based. All data on the number of R&D organisations and employees are shown as of 31 December, 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 calculated investments in R&D, as well as records of specialised services on the result of R&D activities – projects, works, patents pending, 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;
- Centre of extraordinary values: 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.
- R&D units of business entities; - tertiary education institutions;
- 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:

- Non-financial sector covers business entities and organisations which primary activity is the market production of goods and services, and their sale at economically significant prices.
- This sector includes also private non-profit organisations, as well as incorporated R&D units.
- Government sector includes organisations, department offices and other bodies furnishing common services, other than tertiary education, which cannot be provided under market conditions and reflects the economical and social policy of the society. By definition, this sector covers: activities of the administration, defence and public order; health, education, culture, recreation and other social services; promotion of economic growth and living standard, and technological development. The legal, executive and institutional structure should be included in this sector, whether these are funded from regular or extraordinary budget.



- 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, humanitarian organizations, trade associations, consumers' associations, etc.
- Tertiary education sector covers universities, faculties and academies, 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.
- 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 basic 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 hold any research title; work directly with researchers in carrying out professional or technical works relative to R&D (laboratory technicians, engineers and technicians of technical sciences, designers, librarians, information assistant, computer experts, language editors, etc.).
- **Administrators** carry out exclusively or predominantly organisational, clerical, legal, administrative or financial work (treasurer, secretaries, jurists, etc.).
- Other personnel carry out supporting activities in R&D organisations (employed in workshops, on agricultural land, couriers, switchboard operators, maintenance workers, drivers, suppliers, etc.).
- Excluded are personnel engaged in protection and security, restaurants, hygiene maintenance, and related (guards, desk clerks, charwomen, etc.).

**R&D projects and studies:** shown are works completed from 1<sup>st</sup> January to 31<sup>st</sup> December of the reference year, whatever their beginning. Works not being ordered by ordering parties are excluded.

- **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.

**Inventions and patents:** an invention is a new technological solution to a specific problem that involves inventiveness and applicability. Patent and patent rights are acquired after recognition and registration of a granted right in the corresponding register.

**Industry classification according to R&D intensity (based on OECD standards):** high technology, medium-high technology, medium-low technology and low technology.

**Socio-economic objective classification (based on OECD standards):**

- Development of agriculture, forestry and fishing;
- Promotion of industrial development technology;
- Production and rational use of energy;
- Transport and telecommunications;
- Urban and rural planning;
- Combating pollution;
- Health;
- Social development and services;
- Exploration and exploitation of Earth and atmosphere;
- General advancement of knowledge;
- Civil space exploration;
- Defense.

**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 Education, Science and Technological Development, 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", 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

- questionnaires: IR-1, IR-2 and IR-3;
- instructions for filling in the questionnaires;
- Questionnaires are available on the website of the Statistical Office of the Republic of Serbia [www.stat.gov.rs](http://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)
- Fields of Science and Technology Classification, OECD 2006, Frascati Manual
- International Standard Classification of Education 97 (the classifications and nomenclature are available on the website of the Statistical Office of the Republic of Serbia, [www.stat.gov.rs](http://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
- $\bar{n}$  = average
- ( ) = incomplete, i.e. insufficiently checked data

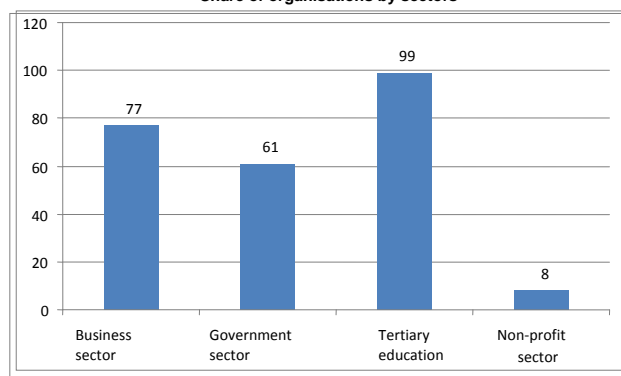


**Research and Development in the  
Republic of Serbia, 2012**

## 1.1. R&amp;D organisations by sectors and scientific fields, 2012

	Total	Business sector	Government sector	Tertiary education	Non-profit sector
<b>REPUBLIC OF SERBIA</b>	<b>245</b>	<b>77</b>	<b>61</b>	<b>99</b>	<b>8</b>
Natural sciences, mathematics	36	13	10	12	1
Engineering and technology	75	41	13	20	1
Agricultural sciences	19	8	3	6	2
Medical sciences	27	7	13	6	1
Social sciences	69	8	12	46	3
Humanities	19	-	10	9	-
<b>SRBIJA – SEVER</b>	<b>188</b>	<b>49</b>	<b>58</b>	<b>73</b>	<b>8</b>
Natural sciences, mathematics	29	8	10	10	1
Engineering and technology	46	22	12	11	1
Agricultural sciences	17	8	3	4	2
Medical sciences	23	6	11	5	1
Social sciences	56	5	12	36	3
Humanities	17	-	10	7	-
<b>Beogradski region</b>	<b>155</b>	<b>47</b>	<b>55</b>	<b>50</b>	<b>3</b>
Natural sciences, mathematics	27	8	10	9	-
Engineering and technology	39	21	11	7	-
Agricultural sciences	16	8	3	3	2
Medical sciences	17	5	9	3	-
Social sciences	41	5	12	23	1
Humanities	15	-	10	5	-
<b>Region Vojvodine</b>	<b>33</b>	<b>2</b>	<b>3</b>	<b>23</b>	<b>5</b>
Natural sciences, mathematics	2	-	-	1	1
Engineering and technology	7	1	1	4	1
Agricultural sciences	1	-	-	1	-
Medical sciences	6	1	2	2	1
Social sciences	15	-	-	13	2
Humanities	2	-	-	2	-
<b>SRBIJA - JUG</b>	<b>57</b>	<b>28</b>	<b>3</b>	<b>26</b>	<b>-</b>
Natural sciences, mathematics	7	5	-	2	-
Engineering and technology	29	19	1	9	-
Agricultural sciences	2	-	-	2	-
Medical sciences	4	1	2	1	-
Social sciences	13	3	-	10	-
Humanities	2	-	-	2	-
<b>Region Sumadije i Zapadne Srbije</b>	<b>32</b>	<b>18</b>	<b>1</b>	<b>13</b>	<b>-</b>
Natural sciences, mathematics	4	3	-	1	-
Engineering and technology	15	11	-	4	-
Agricultural sciences	1	-	-	1	-
Medical sciences	3	1	1	1	-
Social sciences	8	3	-	5	-
Humanities	1	-	-	1	-
<b>Region Juzne i Istocne Srbije</b>	<b>25</b>	<b>10</b>	<b>2</b>	<b>13</b>	<b>-</b>
Natural sciences, mathematics	3	2	-	1	-
Engineering and technology	14	8	1	5	-
Agricultural sciences	1	-	-	1	-
Medical sciences	1	-	1	-	-
Social sciences	5	-	-	5	-
Humanities	1	-	-	1	-
<b>Region Kosovo i Metohija</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>

Share of organisations by sectors



**2.1. Full-time and part-time employees engaged in R&D activities by sectors, scientific fields and sex, 2012 (number of persons)**

	Total		Researchers		Assistant-researchers		Technicians		Management		Other personnel	
	All	Women	All	Women	All	Women	All	Women	All	Women	All	Women
<b>REPUBLIC OF SERBIA</b>	<b>19646</b>	<b>9954</b>	<b>13249</b>	<b>6577</b>	<b>1475</b>	<b>667</b>	<b>2454</b>	<b>1420</b>	<b>346</b>	<b>151</b>	<b>2121</b>	<b>1138</b>
<i>Business sector</i>	776	287	283	129	146	63	237	42	67	27	42	25
Natural sciences, mathematics	172	20	32	16	8	2	125	2	4	-	3	-
Engineering and technology	417	136	219	95	73	11	80	18	31	5	13	6
Agricultural sciences	143	112	21	12	50	44	26	19	26	20	20	17
Medical sciences	29	13	8	3	7	4	5	2	3	2	6	2
Social sciences	15	6	3	3	8	2	1	1	3	-	-	-
<i>Government sector</i>	5700	2979	3083	1713	629	251	872	495	112	48	1004	472
Natural sciences, mathematics	1889	1041	1354	801	79	38	185	78	14	7	257	117
Engineering and technology	1408	585	492	203	403	139	259	138	43	9	211	96
Agricultural sciences	197	154	157	122	2	1	20	17	10	9	8	5
Medical sciences	1420	757	426	239	137	72	310	184	37	16	510	246
Social sciences	403	223	323	164	3	-	63	52	6	5	8	2
Humanities	383	219	331	184	5	1	35	26	2	2	10	6
<i>Tertiary education</i>	13152	6680	9879	4734	695	352	1342	881	165	75	1071	638
Natural sciences, mathematics	1706	903	1340	687	101	54	157	85	20	13	88	64
Engineering and technology	3471	1320	2460	840	184	47	208	116	27	12	592	305
Agricultural sciences	1919	1166	1594	929	39	28	207	150	5	2	74	57
Medical sciences	1171	600	808	384	100	52	140	98	21	8	102	58
Social sciences	3108	1634	2192	1039	125	79	525	350	87	38	179	128
Humanities	1777	1057	1485	855	146	92	105	82	5	2	36	26
<i>Non-profit sector</i>	18	8	4	1	5	1	3	2	2	1	4	3
Social sciences	11	4	2	-	4	1	-	-	1	-	4	3
Medical sciences	3	2	-	-	-	-	3	2	-	-	-	-
Social sciences	4	2	2	1	1	-	-	-	1	1	-	-
<b>SRBIJA – SEVER</b>	<b>16183</b>	<b>8163</b>	<b>10815</b>	<b>5400</b>	<b>1271</b>	<b>561</b>	<b>1953</b>	<b>1090</b>	<b>305</b>	<b>132</b>	<b>1839</b>	<b>980</b>
<i>Business sector</i>	670	252	243	120	138	59	204	27	54	24	31	22
Natural sciences, mathematics	162	19	29	15	8	2	121	2	4	-	-	-
Engineering and technology	329	105	183	88	68	8	54	4	19	2	5	3
Agricultural sciences	143	112	21	12	50	44	26	19	26	20	20	17
Medical sciences	26	12	8	3	7	4	2	1	3	2	6	2
Social sciences	10	4	2	2	5	1	1	1	2	-	-	-
<i>Government sector</i>	5395	2806	3007	1671	583	223	825	459	109	46	871	407
Natural sciences, mathematics	1889	1041	1354	801	79	38	185	78	14	7	257	117
Engineering and technology	1209	467	451	178	373	121	235	117	43	9	107	42
Agricultural sciences	197	154	157	122	2	1	20	17	10	9	8	5
Medical sciences	1314	702	391	222	121	62	287	169	34	14	481	235
Social sciences	403	223	323	164	3	-	63	52	6	5	8	2
Humanities	383	219	331	184	5	1	35	26	2	2	10	6
<i>Tertiary education</i>	10100	5097	7561	3608	545	278	921	602	140	61	933	548
Natural sciences, mathematics	1445	746	1129	556	90	50	129	69	15	10	82	61
Engineering and technology	2609	1039	1785	637	114	21	138	82	18	8	554	291
Agricultural sciences	1090	662	973	576	12	10	67	55	5	2	33	19
Medical sciences	1128	580	770	369	100	52	135	93	21	8	102	58
Social sciences	2452	1268	1732	804	97	63	404	266	76	31	143	104
Humanities	1376	802	1172	666	132	82	48	37	5	2	19	15
<i>Non-profit sector</i>	18	8	4	1	5	1	3	2	2	1	4	3
Social sciences	11	4	2	-	4	1	-	-	1	-	4	3
Humanities	3	2	-	-	-	-	3	2	-	-	-	-
Social sciences	4	2	2	1	1	-	-	-	1	1	-	-
<b>Beogradski region</b>	<b>11838</b>	<b>6032</b>	<b>7933</b>	<b>4053</b>	<b>935</b>	<b>401</b>	<b>1493</b>	<b>804</b>	<b>253</b>	<b>104</b>	<b>1224</b>	<b>670</b>
<i>Business sector</i>	660	250	240	120	137	59	204	27	54	24	25	20
Natural sciences, mathematics	162	19	29	15	8	2	121	2	4	-	-	-
Engineering and technology	329	105	183	88	68	8	54	4	19	2	5	3
Agricultural sciences	143	112	21	12	50	44	26	19	26	20	20	17
Medical sciences	16	10	5	3	6	4	2	1	3	2	-	-
Social sciences	10	4	2	2	5	1	1	1	2	-	-	-
<i>Government sector</i>	4669	2458	2819	1576	549	209	704	394	106	43	491	236
Natural sciences, mathematics	1889	1041	1354	801	79	38	185	78	14	7	257	117
Engineering and technology	1169	457	430	173	371	121	228	114	43	9	97	40
Agricultural sciences	197	154	157	122	2	1	20	17	10	9	8	5
Medical sciences	628	364	224	132	89	48	173	107	31	11	111	66
Social sciences	403	223	323	164	3	-	63	52	6	5	8	2
Humanities	383	219	331	184	5	1	35	26	2	2	10	6
<i>Tertiary education</i>	6506	3322	4872	2356	249	133	585	383	92	36	708	414
Natural sciences, mathematics	921	432	758	331	66	38	81	53	3	-	13	10
Engineering and technology	1350	567	821	303	47	11	61	33	14	7	407	213
Agricultural sciences	1050	644	933	558	12	10	67	55	5	2	33	19
Medical sciences	789	413	514	251	87	47	71	51	15	6	102	58
Social sciences	1716	884	1195	549	34	24	300	191	50	19	137	101
Humanities	680	382	651	364	3	3	5	-	5	2	16	13
<i>Non-profit sector</i>	3	2	2	1	-	-	-	-	1	1	-	-
Social sciences	3	2	2	1	-	-	-	-	1	1	-	-

**2.1. Full-time and part-time employees engaged in R&D activities by sectors, scientific fields and sex, 2012 (number of persons) (continued)**

	Total		Researchers		Assistant-researchers		Technicians		Management		Other personnel		
	All	Women	All	Women	All	Women	All	Women	All	Women	All	Women	
<b>Region Vojvodine</b>	<b>4345</b>	<b>2131</b>	<b>2882</b>	<b>1347</b>	<b>336</b>	<b>160</b>	<b>460</b>	<b>286</b>		<b>52</b>	<b>28</b>	<b>615</b>	<b>310</b>
<i>Business sector</i>	10	2	3	-	1	-	-	-	-	-	-	6	2
Medical sciences	10	2	3	-	1	-	-	-	-	-	-	6	2
<i>Government sciences</i>	726	348	188	95	34	14	121	65	3	3	380	171	
Engineering and technology	40	10	21	5	2	-	7	3	-	-	10	2	
Medical sciences	686	338	167	90	32	14	114	62	3	3	370	169	
<i>Tertiary education</i>	3594	1775	2689	1252	296	145	336	219	48	25	225	134	
Natural sciences, mathematics	524	314	371	225	24	12	48	16	12	10	69	51	
Engineering and technology	1259	472	964	334	67	10	77	49	4	1	147	78	
Agricultural sciences	40	18	40	18	-	-	-	-	-	-	-	-	
Medical sciences	339	167	256	118	13	5	64	42	6	2	-	-	
Social sciences	736	384	537	255	63	39	104	75	26	12	6	3	
Humanities	696	420	521	302	129	79	43	37	-	-	3	2	
<i>Non-profit sector</i>	15	6	2	-	5	1	3	2	1	-	4	3	
Engineering and technology	11	4	2	-	4	1	-	-	1	-	4	3	
Medical sciences	3	2	-	-	-	-	3	2	-	-	-	-	
Social sciences	1	-	-	-	1	-	-	-	-	-	-	-	
<b>SRBIJA – JUG</b>	<b>3463</b>	<b>1791</b>	<b>2434</b>	<b>1177</b>	<b>204</b>	<b>106</b>	<b>501</b>	<b>330</b>	<b>41</b>	<b>19</b>	<b>282</b>	<b>158</b>	
<i>Business sector</i>	106	35	40	9	8	4	33	15	13	3	11	3	
Natural sciences, mathematics	10	1	3	1	-	-	4	-	-	-	3	-	
Engineering and technology	88	31	36	7	5	3	26	14	12	3	8	3	
Medical sciences	3	1	-	-	-	-	3	1	-	-	-	-	
Social sciences	5	2	1	1	3	1	-	-	1	-	-	-	
<i>Government sector</i>	305	173	76	42	46	28	47	36	3	2	133	65	
Engineering and technology	199	118	41	25	30	18	24	21	-	-	104	54	
Medical sciences	106	55	35	17	16	10	23	15	3	2	29	11	
<i>Tertiary education</i>	3052	1583	2318	1126	150	74	421	279	25	14	138	90	
Natural sciences, mathematics	261	157	211	131	11	4	28	16	5	3	6	3	
Engineering and technology	862	281	675	203	70	26	70	34	9	4	38	14	
Agricultural sciences	829	504	621	353	27	18	140	95	-	-	41	38	
Medical sciences	43	20	38	15	-	-	5	5	-	-	-	-	
Social sciences	656	366	460	235	28	16	121	84	11	7	36	24	
Humanities	401	255	313	189	14	10	57	45	-	-	17	11	
<b>Region Sumadije i Zapadne Srbije</b>	<b>1434</b>	<b>726</b>	<b>1089</b>	<b>524</b>	<b>92</b>	<b>53</b>	<b>171</b>	<b>109</b>	<b>31</b>	<b>14</b>	<b>51</b>	<b>26</b>	
<i>Non-profit</i>	80	24	39	9	5	3	18	8	10	2	8	2	
Natural sciences, mathematics	10	1	3	1	-	-	4	-	-	-	3	-	
Engineering and technology	62	20	35	7	2	2	11	7	9	2	5	2	
Medical sciences	3	1	-	-	-	-	3	1	-	-	-	-	
Social sciences	5	2	1	1	3	1	-	-	1	-	-	-	
<i>Government sector</i>	34	22	20	12	1	1	5	3	3	2	5	4	
Medical sciences	34	22	20	12	1	1	5	3	3	2	5	4	
<i>Tertiary education</i>	1320	680	1030	503	86	49	148	98	18	10	38	20	
Natural sciences, mathematics	213	128	163	102	11	4	28	16	5	3	6	3	
Engineering and technology	271	78	216	57	28	13	17	6	5	2	5	-	
Agricultural sciences	314	172	254	133	27	18	33	21	-	-	-	-	
Medical sciences	43	20	38	15	-	-	5	5	-	-	-	-	
Social sciences	275	154	208	107	6	4	43	32	8	5	10	6	
Humanities	204	128	151	89	14	10	22	18	-	-	17	11	
<b>Region Juzne i Istocne Srbije</b>	<b>2029</b>	<b>1065</b>	<b>1345</b>	<b>653</b>	<b>112</b>	<b>53</b>	<b>330</b>	<b>221</b>	<b>10</b>	<b>5</b>	<b>231</b>	<b>132</b>	
<i>Non-profit sector</i>	26	11	1	-	3	1	15	7	3	1	3	1	
Engineering and technology	26	11	1	-	3	1	15	7	3	1	3	1	
<i>Business sector</i>	271	151	56	30	45	27	42	33	-	-	128	61	
Engineering and technology	199	118	41	25	30	18	24	21	-	-	104	54	
Medical sciences	72	33	15	5	15	9	18	12	-	-	24	7	
<i>Tertiary education</i>	1732	903	1288	623	64	25	273	181	7	4	100	70	
Natural sciences, mathematics	48	29	48	29	-	-	-	-	-	-	-	-	
Engineering and technology	591	203	459	146	42	13	53	28	4	2	33	14	
Agricultural sciences	515	332	367	220	-	-	107	74	-	-	41	38	
Social sciences	381	212	252	128	22	12	78	52	3	2	26	18	
Humanities	197	127	162	100	-	-	35	27	-	-	-	-	
<b>Region Kosovo i Metohija</b>	...	...	...	...	...	...	...	...	...	...	...	...	



**2.2. Full-time and part-time employees engaged in R&D activities by sectors, scientific fields and sex, expressed in full-time equivalent (FTE), 2012**

	Total		Researchers		Assistant-researchers		Technicians		Management		Other personnel	
	All	Women	All	Women	All	Women	All	Women	All	Women	All	Women
<b>REPUBLIC OF SERBIA</b>	<b>17730.0</b>	<b>9011.0</b>	<b>11802.0</b>	<b>5900.4</b>	<b>1366.2</b>	<b>602.8</b>	<b>2243.9</b>	<b>1297.6</b>	<b>310.8</b>	<b>138.9</b>	<b>2006.3</b>	<b>1070.4</b>
<i>Business sector</i>	718.8	266.5	276.0	125.6	135.2	58.8	214.8	35.5	57.0	24.6	34.8	21.0
Natural sciences. mathematics	163.8	20.0	31.3	16.0	6.8	2.0	118.7	2.0	4.0	0.0	3.0	0.0
Engineering and technology	378.7	122.0	215.0	93.4	67.1	9.4	66.8	12.4	21.8	3.4	7.0	2.4
Agricultural sciences	140.3	110.1	20.5	12.0	47.8	42.1	26.0	19.0	26.0	20.0	20.0	17.0
Medical sciences	22.8	10.2	8.0	3.0	5.5	3.3	2.3	1.1	2.2	1.2	4.8	1.6
Social sciences	13.2	4.2	1.2	1.2	8.0	2.0	1.0	1.0	3.0	0.0	0.0	0.0
<i>Government sector</i>	5571.8	2918.9	3039.9	1690.2	617.9	245.5	847.9	488.1	106.5	46.6	959.6	448.5
Natural sciences. mathematics	1883.1	1038.1	1348.1	798.1	79.0	38.0	185.0	78.0	14.0	7.0	257.0	117.0
Engineering and technology	1328.6	549.4	489.0	200.2	392.6	133.5	239.1	133.2	38.9	9.0	169.0	73.5
Agricultural sciences	187.5	147.7	147.5	115.7	2.0	1.0	20.0	17.0	10.0	9.0	8.0	5.0
Medical sciences	1418.7	756.0	425.7	239.0	137.0	72.0	310.0	184.0	37.0	16.0	509.0	245.0
Social sciences	371.5	209.3	299.2	153.8	2.3	0.0	58.8	49.9	4.6	3.6	6.6	2.0
Humanities	382.5	218.5	330.5	183.5	5.0	1.0	35.0	26.0	2.0	2.0	10.0	6.0
<i>Tertiary education</i>	11421.4	5817.7	8482.0	4083.7	608.1	297.5	1178.2	772.0	145.3	66.7	1007.9	597.9
Natural sciences. mathematics	1634.3	866.8	1278.8	656.8	97.5	52.0	152.5	81.0	18.5	13.0	87.0	64.0
Engineering and technology	2941.1	1132.7	1997.8	687.4	171.5	40.7	184.8	103.0	23.5	10.6	563.5	291.0
Agricultural sciences	1586.8	954.9	1314.8	757.0	23.3	17.8	177.7	128.3	5.0	2.0	66.0	49.8
Medical sciences	1119.9	572.7	760.3	358.5	98.8	51.7	138.5	96.5	20.3	8.0	102.0	58.0
Social sciences	2378.5	1240.4	1660.0	774.2	72.4	44.8	419.7	281.2	73.0	31.1	153.4	109.1
Humanities	1761.0	1050.3	1470.4	849.7	144.6	90.6	105.0	82.0	5.0	2.0	36.0	26.0
<i>Non-profit sector</i>	18.0	8.0	4.0	1.0	5.0	1.0	3.0	2.0	2.0	1.0	4.0	3.0
Engineering and technology	11.0	4.0	2.0	0.0	4.0	1.0	0.0	0.0	1.0	0.0	4.0	3.0
Medical sciences	3.0	2.0	0.0	0.0	0.0	0.0	3.0	2.0	0.0	0.0	0.0	0.0
Social sciences	4.0	2.0	2.0	1.0	1.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0
<b>SRBIJA – SEVER</b>	<b>14822.5</b>	<b>7505.5</b>	<b>9779.7</b>	<b>4925.8</b>	<b>1199.9</b>	<b>520.7</b>	<b>1816.2</b>	<b>1014.2</b>	<b>284.6</b>	<b>126.1</b>	<b>1742.2</b>	<b>918.7</b>
<i>Business sector</i>	638.0	244.6	240.1	118.4	129.4	56.4	191.0	27.0	49.7	23.2	27.8	19.6
Natural sciences. mathematics	153.8	19.0	28.3	15.0	6.8	2.0	114.7	2.0	4.0	0.0	0.0	0.0
Engineering and technology	312.3	102.3	182.2	87.3	64.3	8.0	47.3	4.0	15.5	2.0	3.0	1.0
Agricultural sciences	140.3	110.1	20.5	12.0	47.8	42.1	26.0	19.0	26.0	20.0	20.0	17.0
Medical sciences	22.5	10.1	8.0	3.0	5.5	3.3	2.0	1.0	2.2	1.2	4.8	1.6
Social sciences	9.1	3.1	1.1	1.1	5.0	1.0	1.0	1.0	2.0	0.0	0.0	0.0
<i>Government sector</i>	5266.8	2745.9	2963.9	1648.2	571.9	217.5	800.9	452.1	103.5	44.6	826.6	383.5
Natural sciences. mathematics	1883.1	1038.1	1348.1	798.1	79.0	38.0	185.0	78.0	14.0	7.0	257.0	117.0
Engineering and technology	1129.6	431.4	448.0	175.2	362.6	115.5	215.1	112.2	38.9	9.0	65.0	19.5
Agricultural sciences	187.5	147.7	147.5	115.7	2.0	1.0	20.0	17.0	10.0	9.0	8.0	5.0
Medical sciences	1312.7	701.0	390.7	222.0	121.0	62.0	287.0	169.0	34.0	14.0	480.0	234.0
Social sciences	371.5	209.3	299.2	153.8	2.3	0.0	58.8	49.9	4.6	3.6	6.6	2.0
Humanities	382.5	218.5	330.5	183.5	5.0	1.0	35.0	26.0	2.0	2.0	10.0	6.0
<i>Tertiary education</i>	8899.7	4507.0	6571.6	3158.2	493.6	245.8	821.3	533.1	129.4	57.3	883.8	512.6
Natural sciences. mathematics	1376.1	711.4	1070.6	527.4	86.5	48.0	124.5	65.0	13.5	10.0	81.0	61.0
Engineering and technology	2173.9	880.9	1401.9	509.9	106.0	17.0	119.0	69.0	18.0	8.0	529.0	277.0
Agricultural sciences	956.9	556.7	862.2	490.1	10.5	9.0	54.2	43.8	5.0	2.0	25.0	11.8
Medical sciences	1076.9	552.7	722.3	343.5	98.8	51.7	133.5	91.5	20.3	8.0	102.0	58.0
Social sciences	1948.3	1005.4	1351.0	623.4	59.7	38.1	342.1	226.8	67.6	27.3	127.8	89.8
Humanities	1367.7	799.9	1163.7	663.9	132.0	82.0	48.0	37.0	5.0	2.0	19.0	15.0
<i>Non-profit sector</i>	18.0	8.0	4.0	1.0	5.0	1.0	3.0	2.0	2.0	1.0	4.0	3.0
Engineering and technology	11.0	4.0	2.0	0.0	4.0	1.0	0.0	0.0	1.0	0.0	4.0	3.0
Medical sciences	3.0	2.0	0.0	0.0	0.0	0.0	3.0	2.0	0.0	0.0	0.0	0.0
Social sciences	4.0	2.0	2.0	1.0	1.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0
<b>Beogradski region</b>	<b>10982.0</b>	<b>5565.3</b>	<b>7355.4</b>	<b>3739.8</b>	<b>885.9</b>	<b>374.3</b>	<b>1372.6</b>	<b>739.3</b>	<b>237.7</b>	<b>101.8</b>	<b>1130.4</b>	<b>610.1</b>
<i>Business sector</i>	629.2	243.0	237.1	118.4	128.4	56.4	191.0	27.0	49.7	23.2	23.0	18.0
Natural sciences. mathematics	153.8	19.0	28.3	15.0	6.8	2.0	114.7	2.0	4.0	0.0	0.0	0.0
Engineering and technology	312.3	102.3	182.2	87.3	64.3	8.0	47.3	4.0	15.5	2.0	3.0	1.0
Agricultural sciences	140.3	110.1	20.5	12.0	47.8	42.1	26.0	19.0	26.0	20.0	20.0	17.0
Medical sciences	13.7	8.5	5.0	3.0	4.5	3.3	2.0	1.0	2.2	1.2	4.8	1.6
Social sciences	9.1	3.1	1.1	1.1	5.0	1.0	1.0	1.0	2.0	0.0	0.0	0.0
<i>Government sector</i>	4542.1	2398.9	2776.2	1553.2	537.9	203.5	679.9	387.1	100.5	41.6	447.6	213.5
Natural sciences. mathematics	1883.1	1038.1	1348.1	798.1	79.0	38.0	185.0	78.0	14.0	7.0	257.0	117.0
Engineering and technology	1089.6	421.4	427.0	170.2	360.6	115.5	208.1	109.2	38.9	9.0	55.0	17.5
Agricultural sciences	187.5	147.7	147.5	115.7	2.0	1.0	20.0	17.0	10.0	9.0	8.0	5.0
Medical sciences	628.0	364.0	224.0	132.0	89.0	48.0	173.0	107.0	31.0	11.0	111.0	66.0
Social sciences	371.5	209.3	299.2	153.8	2.3	0.0	58.8	49.9	4.6	3.6	6.6	2.0
Humanities	382.5	218.5	330.5	183.5	5.0	1.0	35.0	26.0	2.0	2.0	10.0	6.0
<i>Tertiary education</i>	5807.7	2921.5	4340.1	2067.3	219.6	114.4	501.7	325.2	86.5	36.0	659.8	378.6
Natural sciences. mathematics	852.1	397.4	699.6	302.4	62.5	36.0	76.5	49.0	1.5	0.0	12.0	10.0
Engineering and technology	1226.9	497.4	749.9	264.4	39.0	7.0	42.0	20.0	14.0	7.0	382.0	199.0
Agricultural sciences	916.9	538.7	822.2	472.1	10.5	9.0	54.2	43.8	5.0	2.0	25.0	11.8
Medical sciences	745.2	389.4	471.3	227.8	85.8	46.7	71.0	51.0	15.0	6.0	102.0	58.0
Social sciences	1387.0	716.5	946.4	436.6	18.7	12.7	253.0	161.4	46.0	19.0	122.8	86.8
Humanities	679.7	382.0	650.7	364.0	3.0	3.0	5.0	0.0	5.0	2.0	16.0	13.0
<i>Non-profit sector</i>	3.0	2.0	2.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0
Social sciences	3.0	2.0	2.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0

**2.2. Full-time and part-time employees engaged in R&D activities by sectors, scientific fields and sex, expressed in full-time equivalent (FTE), 2012 (continued)**

	Total		Researchers		Assistant-researchers		Technicians		Management		Other personnel	
	All	Women	All	Women	All	Women	All	Women	All	Women	All	Women
<b>Region Vojvodine</b>	<b>3840.5</b>	<b>1940.2</b>	<b>2424.3</b>	<b>1186.0</b>	<b>314.0</b>	<b>146.4</b>	<b>443.6</b>	<b>274.9</b>	<b>46.9</b>	<b>24.3</b>	<b>611.8</b>	<b>308.6</b>
<i>Non-profit sector</i>	8.8	1.6	3.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	4.8	1.6
Medical sciences	8.8	1.6	3.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	4.8	1.6
<i>Government sector</i>	724.7	347.0	187.7	95.0	34.0	14.0	121.0	65.0	3.0	3.0	379.0	170.0
Engineering and technology	40.0	10.0	21.0	5.0	2.0	0.0	7.0	3.0	0.0	0.0	10.0	2.0
Medical sciences	684.7	337.0	166.7	90.0	32.0	14.0	114.0	62.0	3.0	3.0	369.0	168.0
<i>Tertiary education</i>	3092.0	1585.6	2231.6	1091.0	274.0	131.4	319.6	207.9	42.9	21.3	224.0	134.0
Natural sciences. mathematics	524.0	314.0	371.0	225.0	24.0	12.0	48.0	16.0	12.0	10.0	69.0	51.0
Engineering and technology	947.0	383.5	652.0	245.5	67.0	10.0	77.0	49.0	4.0	1.0	147.0	78.0
Agricultural sciences	40.0	18.0	40.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Medical sciences	331.8	163.3	251.0	115.8	13.0	5.0	62.5	40.5	5.3	2.0	0.0	0.0
Social sciences	561.3	288.9	404.6	186.8	41.0	25.4	89.1	65.4	21.6	8.3	5.0	3.0
Humanities	688.0	417.9	513.0	299.9	129.0	79.0	43.0	37.0	0.0	0.0	3.0	2.0
<i>Non-profit sector</i>	15.0	6.0	2.0	0.0	5.0	1.0	3.0	2.0	1.0	0.0	4.0	3.0
Engineering and technology	11.0	4.0	2.0	0.0	4.0	1.0	0.0	0.0	1.0	0.0	4.0	3.0
Medical sciences	3.0	2.0	0.0	0.0	0.0	0.0	3.0	2.0	0.0	0.0	0.0	0.0
Social sciences	1.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>SRBIJA – JUG</b>	<b>2907.5</b>	<b>1505.6</b>	<b>2022.3</b>	<b>974.7</b>	<b>166.3</b>	<b>82.1</b>	<b>427.7</b>	<b>283.4</b>	<b>26.2</b>	<b>12.8</b>	<b>264.1</b>	<b>151.7</b>
<i>Non-profit sector</i>	80.8	21.9	35.9	7.2	5.8	2.4	23.8	8.5	7.3	1.4	7.0	1.4
Natural sciences. mathematics	10.0	1.0	3.0	1.0	0.0	0.0	4.0	0.0	0.0	0.0	3.0	0.0
Engineering and technology	66.4	19.7	32.8	6.1	2.8	1.4	19.5	8.4	6.3	1.4	4.0	1.4
Medical sciences	0.3	0.1	0.0	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0
Social sciences	4.1	1.1	0.1	0.1	3.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0
<i>Government sector</i>	305.0	173.0	76.0	42.0	46.0	28.0	47.0	36.0	3.0	2.0	133.0	65.0
Engineering and technology	199.0	118.0	41.0	25.0	30.0	18.0	24.0	21.0	0.0	0.0	104.0	54.0
Medical sciences	106.0	55.0	35.0	17.0	16.0	10.0	23.0	15.0	3.0	2.0	29.0	11.0
<i>Tertiary education</i>	2521.7	1310.7	1910.4	925.5	114.5	51.7	356.9	238.9	15.9	9.4	124.1	85.3
Natural sciences. mathematics	258.2	155.4	208.2	129.4	11.0	4.0	28.0	16.0	5.0	3.0	6.0	3.0
Engineering and technology	767.2	251.8	595.9	177.5	65.5	23.7	65.8	34.0	5.5	2.6	34.5	14.0
Agricultural sciences	629.9	398.2	452.6	266.9	12.8	8.8	123.5	84.5	0.0	0.0	41.0	38.0
Medical sciences	43.0	20.0	38.0	15.0	0.0	0.0	5.0	5.0	0.0	0.0	0.0	0.0
Social sciences	430.2	235.0	309.0	150.9	12.7	6.7	77.6	54.4	5.4	3.8	25.6	19.3
Humanities	393.3	250.4	306.7	185.8	12.6	8.6	57.0	45.0	0.0	0.0	17.0	11.0
<b>Region Sumadije i Zapadne Srbije</b>	<b>996.6</b>	<b>506.5</b>	<b>748.1</b>	<b>359.7</b>	<b>66.9</b>	<b>36.2</b>	<b>121.9</b>	<b>78.4</b>	<b>16.2</b>	<b>7.8</b>	<b>43.5</b>	<b>24.4</b>
<i>Business sector</i>	55.4	10.9	34.9	7.2	3.4	1.4	8.8	1.5	4.3	0.4	4.0	0.4
Natural sciences. mathematics	10.0	1.0	3.0	1.0	0.0	0.0	4.0	0.0	0.0	0.0	3.0	0.0
Engineering and technology	41.0	8.7	31.8	6.1	0.4	0.4	4.5	1.4	3.3	0.4	1.0	0.4
Medical sciences	0.3	0.1	0.0	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0
Social sciences	4.1	1.1	0.1	0.1	3.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0
<i>Government sector</i>	34.0	22.0	20.0	12.0	1.0	1.0	5.0	3.0	3.0	2.0	5.0	4.0
Medical sciences	34.0	22.0	20.0	12.0	1.0	1.0	5.0	3.0	3.0	2.0	5.0	4.0
<i>Tertiary education</i>	907.2	473.6	693.2	340.5	62.5	33.8	108.1	73.9	8.9	5.4	34.5	20.0
Natural sciences. mathematics	211.3	127.5	161.3	101.5	11.0	4.0	28.0	16.0	5.0	3.0	6.0	3.0
Engineering and technology	185.8	51.5	145.3	33.6	24.7	11.4	12.8	6.0	1.5	0.6	1.5	0.0
Agricultural sciences	114.9	66.2	85.6	46.9	12.8	8.8	16.5	10.5	0.0	0.0	0.0	0.0
Medical sciences	43.0	20.0	38.0	15.0	0.0	0.0	5.0	5.0	0.0	0.0	0.0	0.0
Social sciences	156.0	85.0	118.3	57.7	1.5	1.1	23.8	18.4	2.4	1.8	10.0	6.0
Humanities	196.3	123.4	144.7	85.8	12.6	8.6	22.0	18.0	0.0	0.0	17.0	11.0
<b>Region Juzne i Zapadne Srbije</b>	<b>1910.9</b>	<b>999.1</b>	<b>1274.2</b>	<b>615.0</b>	<b>99.4</b>	<b>45.9</b>	<b>305.8</b>	<b>205.0</b>	<b>10.0</b>	<b>5.0</b>	<b>220.6</b>	<b>127.3</b>
<i>Business sector</i>	25.4	11.0	1.0	0.0	2.4	1.0	15.0	7.0	3.0	1.0	3.0	1.0
Engineering and technology	25.4	11.0	1.0	0.0	2.4	1.0	15.0	7.0	3.0	1.0	3.0	1.0
<i>Government sector</i>	271.0	151.0	56.0	30.0	45.0	27.0	42.0	33.0	0.0	0.0	128.0	61.0
Engineering and technology	199.0	118.0	41.0	25.0	30.0	18.0	24.0	21.0	0.0	0.0	104.0	54.0
Medical sciences	72.0	33.0	15.0	5.0	15.0	9.0	18.0	12.0	0.0	0.0	24.0	7.0
<i>Tertiary education</i>	1614.5	837.1	1217.2	585.0	52.0	17.9	248.8	165.0	7.0	4.0	89.6	65.3
Natural sciences. mathematics	46.9	27.9	46.9	27.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Engineering and technology	581.4	200.3	450.6	144.0	40.8	12.3	53.0	28.0	4.0	2.0	33.0	14.0
Agricultural sciences	515.0	332.0	367.0	220.0	0.0	0.0	107.0	74.0	0.0	0.0	41.0	38.0
Social sciences	274.2	150.0	190.7	93.2	11.2	5.6	53.8	36.0	3.0	2.0	15.6	13.3
Humanities	197.0	127.0	162.0	100.0	0.0	0.0	35.0	27.0	0.0	0.0	0.0	0.0
<b>Region Kosovo i Metohija</b>	...	...	...	...	...	...	...	...	...	...	...	...

### 3.1. Full-time and part-time researchers, by academic titles, sectors, scientific fields and sex, 2012 (physical persons)

	Full-time and part-time researchers									
	Total		Doctors of science		Masters of science		Specialists		University degree	
	All	Women	All	Women	All	Women	All	Women	All	Women
<b>REPUBLIC OF SERBIA</b>	<b>13249</b>	<b>6577</b>	<b>7607</b>	<b>3476</b>	<b>2386</b>	<b>1335</b>	<b>91</b>	<b>50</b>	<b>3165</b>	<b>1716</b>
<i>Business sector</i>	283	129	39	13	14	4	21	12	209	100
Natural sciences, mathematics	32	16	-	-	-	-	-	-	32	16
Physics and nuclear physics	3	1	-	-	-	-	-	-	3	1
Chemistry	29	15	-	-	-	-	-	-	29	15
Engineering and technology	219	95	33	11	13	3	1	-	172	81
Architecture, town planning, landscape planning	3	1	-	-	3	1	-	-	-	-
Building and civil engineering, and water engineering/technology	26	2	-	-	1	-	1	-	24	2
Electrical engineering – energy	81	26	18	6	6	1	-	-	57	19
Electrical engineering – electronics, communication technology, equipment fitting, computer technologies - hardware	76	58	8	4	1	1	-	-	67	53
Metallurgical engineering	27	6	5	-	2	-	-	-	20	6
Transport	3	2	2	1	-	-	-	-	1	1
Food processing	3	-	-	-	-	-	-	-	3	-
Agricultural sciences	21	12	3	2	-	-	17	10	1	-
Plant protection	1	-	-	-	-	-	-	-	1	-
Fishery and game	20	12	3	2	-	-	17	10	-	-
Medical sciences	8	3	3	-	-	-	3	2	2	1
Pharmacy	4	3	-	-	-	-	3	2	1	1
Surgery	3	-	3	-	-	-	-	-	-	-
Stomatology	1	-	-	-	-	-	-	-	1	-
Social sciences	3	3	-	-	1	1	-	-	2	2
Demography and social geography	1	1	-	-	-	-	-	-	1	1
Economics	1	1	-	-	1	1	-	-	-	-
Sociology	1	1	-	-	-	-	-	-	1	1
<i>Government sector</i>	3083	1713	1483	767	698	406	27	10	875	530
Natural sciences, mathematics	1354	801	701	367	199	110	-	-	454	324
Mathematics and statistics	72	21	32	8	20	7	-	-	20	6
Astronomy										
Atmospheric sciences and hydrology	676	376	359	151	66	38	-	-	251	187
Chemistry	252	206	134	105	10	9	-	-	108	92
Engineering and technology	354	198	176	103	103	56	-	-	75	39
Architecture, town planning and spatial planning	492	203	127	55	94	44	9	3	262	101
Building and civil engineering, and water engineering/technology	17	12	9	5	5	4	-	-	3	3
Electrical engineering – energy	187	66	32	8	31	19	-	-	124	39
Mechanics	15	6	6	3	-	-	-	-	9	3
Transport	121	46	28	11	18	5	6	1	69	29
Wood processing	21	5	9	2	6	1	-	-	6	2
Food processing	29	18	9	5	7	4	2	2	11	7
Agricultural sciences	102	50	34	21	27	11	1	-	40	18
Plant protection	157	122	79	60	44	36	-	-	34	26
Fishery and game	54	41	26	20	10	7	-	-	18	14
Fishery and game	103	81	53	40	34	29	-	-	16	12
Medical sciences	426	239	249	134	110	61	5	4	62	40
Pharmacy	49	27	22	12	11	6	-	-	16	9
Internal medicine	28	14	17	10	7	3	-	-	4	1
Surgery	259	144	167	89	68	38	2	2	22	15
Stomatology	90	54	43	23	24	14	3	2	20	15
Social sciences	323	164	168	74	122	70	2	-	31	20
Demography and social geography	98	48	52	23	35	18	-	-	11	7
Economics	29	24	14	12	14	11	-	-	1	1
Political sciences	22	10	13	6	7	4	-	-	2	-
Organisational sciences	84	26	46	12	30	10	2	-	6	4
Management	31	20	7	1	22	17	-	-	2	2
Psychology	59	36	36	20	14	10	-	-	9	6
Humanities	331	184	159	77	129	85	11	3	32	19
History	178	75	95	35	58	31	11	3	14	6
Archeology	94	69	30	21	51	39	-	-	13	9
Philosophy and theology	18	7	13	4	3	2	-	-	2	1
Foreign languages and mother tongue	13	10	8	6	5	4	-	-	-	-
Literature	28	23	13	11	12	9	-	-	3	3
<i>Tertiary education</i>	9879	4734	6085	2696	1671	924	43	28	2080	1086
Natural sciences, mathematics	1340	687	810	372	85	57	9	5	436	253
Mathematics and statistics	717	401	390	190	51	44	-	-	276	167
Computing science – software design	37	10	24	6	6	2	-	-	7	2
Astronomy	87	24	52	15	6	-	-	-	29	9
Physics and nuclear physics	142	74	95	47	4	2	-	-	43	25
Earth science (geology, geophysics, geography)	203	86	143	51	16	8	9	5	35	22
Atmospheric sciences and hydrology	154	92	106	63	2	1	-	-	46	28
Engineering and technology	2460	840	1459	469	348	127	-	-	653	244

**3.1. Full-time and part-time researchers, by academic titles, sectors, scientific fields and sex, 2012**  
 (physical persons) (continued)

	Full-time and part-time researchers									
	Total		Doctors of science		Masters of science		Specialists		University degree	
	All	Women	All	Women	All	Women	All	Women	All	Women
Architecture, town planning and town planning	299	114	177	61	67	36	-	-	55	17
Building and civil engineering, and water engineering/technology	315	87	237	60	45	13	-	-	33	14
Electrical engineering – energy										
Electrical engineering – electronics, communication technology, equipment fitting, computer technologies - hardware	467	94	311	61	60	12	-	-	96	21
Electrical engineering - Electrical engineering	47	16	38	13	4	-	-	-	5	3
Mechanics	159	99	116	63	5	4	-	-	38	32
Transport	8	6	5	4	-	-	-	-	3	2
Food processing	1165	424	575	207	167	62	-	-	423	155
Agricultural sciences	1594	929	1054	569	258	174	14	8	268	178
Land and water (fertilisation and land melioration, etc.)	621	353	421	220	93	67	14	8	93	58
Plant protection	594	326	403	198	119	79	-	-	72	49
Fishery and game	379	250	230	151	46	28	-	-	103	71
Medical sciences	808	384	553	250	157	75	3	3	95	56
Pharmacy	671	309	450	197	141	69	3	3	77	40
Internal medicine	116	64	85	45	13	3	-	-	18	16
Surgery	21	11	18	8	3	3	-	-	-	-
Social sciences	2192	1039	1499	620	371	227	17	12	305	180
Demography and social geography	777	375	560	235	111	71	-	-	106	69
Economics	388	226	234	127	86	57	4	3	64	39
Political sciences	418	173	307	104	65	40	9	5	37	24
Organisational sciences	110	47	70	24	27	15	-	-	13	8
Sociology	67	45	44	28	11	7	3	3	9	7
Psychology	432	173	284	102	71	37	1	1	76	33
Humanities	1485	855	710	416	452	264	-	-	323	175
Archeology	492	315	198	128	146	99	-	-	148	88
Philosophy and theology	710	396	466	254	166	101	-	-	78	41
Foreign languages and mother tongue	283	144	46	34	140	64	-	-	97	46
<i>Non-profit sector</i>	4	1	-	-	3	1	-	-	1	-
Engineering and technology	2	-	-	-	1	-	-	-	1	-
Food processing	2	-	-	-	1	-	-	-	1	-
Social sciences	2	1	-	-	2	1	-	-	-	-
Demography and social geography	2	1	-	-	2	1	-	-	-	-
SRBIJA – SEVER	10815	5400	6168	2839	1908	1064	76	42	2663	1455
<i>Business sector</i>	243	120	34	13	9	3	21	12	179	92
Natural sciences, mathematics	29	15	-	-	-	-	-	-	29	15
Chemistry	29	15	-	-	-	-	-	-	29	15
Engineering and technology	183	88	28	11	8	2	1	-	146	75
Building and civil engineering, and water engineering/technology	23	2	-	-	1	-	1	-	21	2
Electrical engineering – energy	80	26	18	6	6	1	-	-	56	19
Electrical engineering – electronics, communication technology, equipment fitting, computer technology - hardware	76	58	8	4	1	1	-	-	67	53
Transport	3	2	2	1	-	-	-	-	1	1
Food processing	1	-	-	-	-	-	-	-	1	-
Agricultural sciences	21	12	3	2	-	-	17	10	1	-
Plant protection	1	-	-	-	-	-	-	-	1	-
Fishery and game	20	12	3	2	-	-	17	10	-	-
Medical sciences	8	3	3	-	-	-	3	2	2	1
Pharmacy	4	3	-	-	-	-	3	2	1	1
Surgery	3	-	3	-	-	-	-	-	-	-
Stomatology	1	-	-	-	-	-	-	-	1	-
Social sciences	2	2	-	-	1	1	-	-	1	1
Economics	1	1	-	-	1	1	-	-	-	-
Sociology	1	1	-	-	-	-	-	-	1	1
<i>Government sector</i>	3007	1671	1455	755	668	389	26	10	858	517
Natural sciences, mathematics	1354	801	701	367	199	110	-	-	454	324
Mathematics and statistics	72	21	32	8	20	7	-	-	20	6
Astronomy	676	376	359	151	66	38	-	-	251	187
Atmospheric and hydrologic sciences	252	206	134	105	10	9	-	-	108	92
Chemistry	354	198	176	103	103	56	-	-	75	39
Engineering and technology	451	178	116	50	80	36	8	3	247	89
Architecture, town planning and spatial planning	17	12	9	5	5	4	-	-	3	3
Building and civil engineering, and water engineering/technology	187	66	32	8	31	19	-	-	124	39
Electrical engineering – energy	15	6	6	3	-	-	-	-	9	3
Mechanics	121	46	28	11	18	5	6	1	69	29
Transport	21	5	9	2	6	1	-	-	6	2
Wood processing	29	18	9	5	7	4	2	2	11	7
Food processing	61	25	23	16	13	3	-	-	25	6

**3.1. Full-time and part-time researchers, by academic titles, sectors, scientific fields and sex, 2012**  
 (physical persons) (continued)

	Full-time and part-time researchers									
	Total		Doctors of science		Masters of science		Specialists		University degree	
	All	Women	All	Women	All	Women	All	Women	All	Women
Agricultural sciences	157	122	79	60	44	36	-	-	34	26
Plant protection	54	41	26	20	10	7	-	-	18	14
Fishery and game	103	81	53	40	34	29	-	-	16	12
Medical science	391	222	232	127	94	52	5	4	60	39
Pharmacy	49	27	22	12	11	6	-	-	16	9
Internal medicine	28	14	17	10	7	3	-	-	4	1
Surgery	259	144	167	89	68	38	2	2	22	15
Stomatology	55	37	26	16	8	5	3	2	18	14
Social science	323	164	168	74	122	70	2	-	31	20
Demography and social geography	98	48	52	23	35	18	-	-	11	7
Economics	29	24	14	12	14	11	-	-	1	1
Political sciences	22	10	13	6	7	4	-	-	2	-
Organisational sciences	84	26	46	12	30	10	2	-	6	4
Management	31	20	7	1	22	17	-	-	2	2
Psychology	59	36	36	20	14	10	-	-	9	6
Humanities	331	184	159	77	129	85	11	3	32	19
History	178	75	95	35	58	31	11	3	14	6
Archeology	94	69	30	21	51	39	-	-	13	9
Philosophy and theology	18	7	13	4	3	2	-	-	2	1
Foreign languages and mother tongue	13	10	8	6	5	4	-	-	-	-
Literature	28	23	13	11	12	9	-	-	3	3
<i>Tertiary education</i>	7561	3608	4679	2071	1228	671	29	20	1625	846
Natural sciences, mathematics	1129	556	718	325	76	49	9	5	326	177
Mathematics and statistics	506	270	298	143	42	36	-	-	166	91
Computing science – software design	37	10	24	6	6	2	-	-	7	2
Astronomy	87	24	52	15	6	-	-	-	29	9
Physics and nuclear physics	142	74	95	47	4	2	-	-	43	25
Earth science (geology, geophysics and geography)	203	86	143	51	16	8	9	5	35	22
Atmosphere and hydrologic sciences	154	92	106	63	2	1	-	-	46	28
Engineering and technology	1785	637	1039	347	228	84	-	-	518	206
Architecture, town planning and spatial planning	210	79	138	49	38	17	-	-	34	13
Building and civil engineering, and water engineering/technology	139	35	105	20	14	3	-	-	20	12
Electrical engineering – energy	226	46	175	31	26	6	-	-	25	9
Mechanics	159	99	116	63	5	4	-	-	38	32
Transport	8	6	5	4	-	-	-	-	3	2
Food processing	1043	372	500	180	145	54	-	-	398	138
Agricultural sciences	973	576	633	349	165	107	-	-	175	120
Plant protection	594	326	403	198	119	79	-	-	72	49
Fishery and game	379	250	230	151	46	28	-	-	103	71
Medical science	770	369	526	238	147	73	3	3	94	55
Pharmacy	633	294	423	185	131	67	3	3	76	39
Internal medicine	116	64	85	45	13	3	-	-	18	16
Surgery	21	11	18	8	3	3	-	-	-	-
Social sciences	1732	804	1182	475	295	181	17	12	238	136
Demography and social geography	596	284	423	174	90	58	-	-	83	52
Economics	273	148	171	88	58	35	4	3	40	22
Political sciences	330	139	244	83	51	34	9	5	26	17
Organisational sciences	110	47	70	24	27	15	-	-	13	8
Sociology	67	45	44	28	11	7	3	3	9	7
Psychology	356	141	230	78	58	32	1	1	67	30
Humanities	1172	666	581	337	317	177	-	-	274	152
Archeology	341	226	161	102	44	36	-	-	136	88
Philosophy and theology	548	296	374	201	133	77	-	-	41	18
Foreign languages and mother tongue	283	144	46	34	140	64	-	-	97	46
<i>Non-profit sector</i>	4	1	-	-	3	1	-	-	1	-
Engineering and technology	2	-	-	-	1	-	-	-	1	-
Food processing	2	-	-	-	1	-	-	-	1	-
Social sciences	2	1	-	-	2	1	-	-	-	-
Demography and social geography	2	1	-	-	2	1	-	-	-	-
<b>Beogradski region</b>	<b>7933</b>	<b>4053</b>	<b>4603</b>	<b>2128</b>	<b>1349</b>	<b>771</b>	<b>61</b>	<b>33</b>	<b>1920</b>	<b>1121</b>
<i>Business sector</i>	240	120	31	13	9	3	21	12	179	92
Natural sciences, mathematics	29	15	-	-	-	-	-	-	29	15
Chemistry	29	15	-	-	-	-	-	-	29	15
Engineering and technology	183	88	28	11	8	2	1	-	146	75
Building and civil engineering, and water engineering/technology	23	2	-	-	1	-	1	-	21	2
Electrical engineering – energy	80	26	18	6	6	1	-	-	56	19
Electrical engineering – electronics, communication technology, equipment fitting, computer technology - hardware	76	58	8	4	1	1	-	-	67	53
Transport	3	2	2	1	-	-	-	-	1	1
Food processing	1	-	-	-	-	-	-	-	1	-
Agricultural sciences	21	12	3	2	-	-	17	10	1	-
Plant protection	1	-	-	-	-	-	-	-	1	-
Fishery and game	20	12	3	2	-	-	17	10	-	-

### 3.1. Full-time and part-time researchers, by academic titles, sectors, scientific fields and sex, 2012 (physical persons) (continued)

	Full-time and part-time researchers									
	Total		Doctors of science		Masters of science		Specialists		University degree	
	All	Women	All	Women	All	Women	All	Women	All	Women
Medical science	5	3	-	-	-	-	3	2	2	1
Pharmacy	4	3	-	-	-	-	3	2	1	1
Stomatology	1	-	-	-	-	-	-	-	1	-
Social sciences	2	2	-	-	1	1	-	-	1	1
Economics	1	1	-	-	1	1	-	-	-	-
Sociology	1	1	-	-	-	-	-	-	1	1
<i>Government sector</i>	2819	1576	1351	708	626	367	23	8	819	493
Natural sciences, mathematics	1354	801	701	367	199	110	-	-	454	324
Mathematics and statistics	72	21	32	8	20	7	-	-	20	6
Astronomy	676	376	359	151	66	38	-	-	251	187
Atmospheric and hydrologic sciences	252	206	134	105	10	9	-	-	108	92
Chemistry	354	198	176	103	103	56	-	-	75	39
Engineering and technology	430	173	107	48	74	35	8	3	241	87
Architecture, town planning, spatial planning	17	12	9	5	5	4	-	-	3	3
Building and civil engineering, and water engineering/technology	187	66	32	8	31	19	-	-	124	39
Electrical engineering - energy	15	6	6	3	-	-	-	-	9	3
Mechanics	121	46	28	11	18	5	6	1	69	29
Wood processing	29	18	9	5	7	4	2	2	11	7
Food processing	61	25	23	16	13	3	-	-	25	6
Agricultural sciences	157	122	79	60	44	36	-	-	34	26
Plant protection	54	41	26	20	10	7	-	-	18	14
Fishery and game	103	81	53	40	34	29	-	-	16	12
Medical sciences	224	132	137	82	58	31	2	2	27	17
Pharmacy	49	27	22	12	11	6	-	-	16	9
Internal medicine	28	14	17	10	7	3	-	-	4	1
Surgery	147	91	98	60	40	22	2	2	7	7
Social sciences	323	164	168	74	122	70	2	-	31	20
Demography and social geography	98	48	52	23	35	18	-	-	11	7
Economics	29	24	14	12	14	11	-	-	1	1
Political sciences	22	10	13	6	7	4	-	-	2	-
Organisational sciences	84	26	46	12	30	10	2	-	6	4
Management	31	20	7	1	22	17	-	-	2	2
Psychology	59	36	36	20	14	10	-	-	9	6
Humanities	331	184	159	77	129	85	11	3	32	19
History	178	75	95	35	58	31	11	3	14	6
Archeology	94	69	30	21	51	39	-	-	13	9
Philosophy and theology	18	7	13	4	3	2	-	-	2	1
Foreign languages and mother tongue	13	10	8	6	5	4	-	-	-	-
Literature	28	23	13	11	12	9	-	-	3	3
<i>Tertiary education</i>	4872	2356	3221	1407	712	400	17	13	922	536
Natural sciences, mathematics	758	331	488	197	47	20	9	5	214	109
Mathematics and statistics	135	45	68	15	13	7	-	-	54	23
Computing science – software design	37	10	24	6	6	2	-	-	7	2
Astronomy	87	24	52	15	6	-	-	-	29	9
Physics and nuclear physics	142	74	95	47	4	2	-	-	43	25
Earth science (geology, geophysics and geography)	203	86	143	51	16	8	9	5	35	22
Atmospheric and hydrologic sciences	154	92	106	63	2	1	-	-	46	28
Engineering and technology	821	303	578	189	118	44	-	-	125	70
Architecture, town planning and spatial planning	167	66	114	45	36	15	-	-	17	6
Building and civil engineering, and water engineering/technology	139	35	105	20	14	3	-	-	20	12
Electrical engineering – energy	194	36	154	27	20	3	-	-	20	6
Mechanics	159	99	116	63	5	4	-	-	38	32
Transport	8	6	5	4	-	-	-	-	3	2
Food processing	154	61	84	30	43	19	-	-	27	12
Agricultural science	933	558	606	337	160	104	-	-	167	117
Plant protection	594	326	403	198	119	79	-	-	72	49
Fishery and game	339	232	203	139	41	25	-	-	95	68
Medical science	514	251	362	157	71	44	1	1	80	49
Pharmacy	398	187	277	112	58	41	1	1	62	33
Internal medicine	116	64	85	45	13	3	-	-	18	16
Social sciences	1195	549	825	334	207	125	7	7	156	83
Demography and social geography	395	184	287	116	73	48	-	-	35	20
Economics	173	91	123	64	29	15	3	3	18	9
Political sciences	168	68	122	40	25	16	-	-	21	12
Organisational sciences	110	47	70	24	27	15	-	-	13	8
Sociology	67	45	44	28	11	7	3	3	9	7
Psychology	282	114	179	62	42	24	1	1	60	27
Humanities	651	364	362	193	109	63	-	-	180	108
Archeology	341	226	161	102	44	36	-	-	136	88
Philosophy and theology	272	108	171	67	60	23	-	-	41	18
Foreign languages and theology	38	30	30	24	5	4	-	-	3	2
<i>Non-profit sector</i>	2	1	-	-	2	1	-	-	-	-
Social sciences	2	1	-	-	2	1	-	-	-	-
Demography and social geography	2	1	-	-	2	1	-	-	-	-

### 3.1. Full-time and part-time researchers, by academic titles, sectors, scientific fields and sex, 2012 (physical persons) (continued)

	Full-time and part-time researchers									
	Total		Doctors of science		Masters of science		Specialists		University degree	
	All	Women	All	Women	All	Women	All	Women	All	Women
<b>Region Vojvodine</b>	<b>2882</b>	<b>1347</b>	<b>1565</b>	<b>711</b>	<b>559</b>	<b>293</b>	<b>15</b>	<b>9</b>	<b>743</b>	<b>334</b>
<i>Business sector</i>	3	-	3	-	-	-	-	-	-	-
Medical science	3	-	3	-	-	-	-	-	-	-
Surgery	3	-	3	-	-	-	-	-	-	-
<i>Government sector</i>	188	95	104	47	42	22	3	2	39	24
Engineering and technology	21	5	9	2	6	1	-	-	6	2
Transport	21	5	9	2	6	1	-	-	6	2
Medical science	167	90	95	45	36	21	3	2	33	22
Surgery	112	53	69	29	28	16	-	-	15	8
Stomatology	55	37	26	16	8	5	3	2	18	14
<i>Tertiary education</i>	2689	1252	1458	664	516	271	12	7	703	310
Natural sciences, mathematics	371	225	230	128	29	29	-	-	112	68
Mathematics and statistics	371	225	230	128	29	29	-	-	112	68
Engineering and technology	964	334	461	158	110	40	-	-	393	136
Architecture, town planning, spatial planning	43	13	24	4	2	2	-	-	17	7
Electrical engineering – energy	32	10	21	4	6	3	-	-	5	3
Food processing	889	311	416	150	102	35	-	-	371	126
Agricultural sciences	40	18	27	12	5	3	-	-	8	3
Fishery and game	40	18	27	12	5	3	-	-	8	3
Medical science	256	118	164	81	76	29	2	2	14	6
Pharmacy	235	107	146	73	73	26	2	2	14	6
Surgery	21	11	18	8	3	3	-	-	-	-
Social sciences	537	255	357	141	88	56	10	5	82	53
Demography and social geography	201	100	136	58	17	10	-	-	48	32
Economics	100	57	48	24	29	20	1	-	22	13
Political sciences	162	71	122	43	26	18	9	5	5	5
Psychology	74	27	51	16	16	8	-	-	7	3
Humanities	521	302	219	144	208	114	-	-	94	44
Philosophy and theology	276	188	203	134	73	54	-	-	-	-
Foreign languages and mother tongue	245	114	16	10	135	60	-	-	94	44
<i>Non-profit sector</i>	2	-	-	-	1	-	-	-	1	-
Engineering and technology	2	-	-	-	1	-	-	-	1	-
Food processing	2	-	-	-	1	-	-	-	1	-
<b>SRBIJA - JUG</b>	<b>2434</b>	<b>1177</b>	<b>1439</b>	<b>637</b>	<b>478</b>	<b>271</b>	<b>15</b>	<b>8</b>	<b>502</b>	<b>261</b>
<i>Business sector</i>	40	9	5	-	5	1	-	-	30	8
Natural sciences, mathematics	3	1	-	-	-	-	-	-	3	1
Physics and nuclear physics	3	1	-	-	-	-	-	-	3	1
Engineering and technology	36	7	5	-	5	1	-	-	26	6
Architecture, town planning and spatial planning	3	1	-	-	3	1	-	-	-	-
Building and civil engineering, and water engineering/technology	3	-	-	-	-	-	-	-	3	-
Electrical engineering – energy	1	-	-	-	-	-	-	-	1	-
Metallurgy	27	6	5	-	2	-	-	-	20	6
Food processing	2	-	-	-	-	-	-	-	2	-
Social sciences	1	1	-	-	-	-	-	-	1	1
Demography and social geography	1	1	-	-	-	-	-	-	1	1
<i>Government sector</i>	76	42	28	12	30	17	1	-	17	13
Engineering and technology	41	25	11	5	14	8	1	-	15	12
Food processing	41	25	11	5	14	8	1	-	15	12
Medical sciences	35	17	17	7	16	9	-	-	2	1
Stomatology	35	17	17	7	16	9	-	-	2	1
<i>Tertiary education</i>	2318	1126	1406	625	443	253	14	8	455	240
Natural sciences, mathematics	211	131	92	47	9	8	-	-	110	76
Mathematics and statistics	211	131	92	47	9	8	-	-	110	76
Engineering and technology	675	203	420	122	120	43	-	-	135	38
Architecture, town planning and spatial planning	89	35	39	12	29	19	-	-	21	4
Building and civil engineering, and water engineering/technology	176	52	132	40	31	10	-	-	13	2
Electrical engineering – energy	241	48	136	30	34	6	-	-	71	12
Electrical engineering – energy										
Electrical engineering – electronics, communication technology, equipment fitting, computer technology - hardware	47	16	38	13	4	-	-	-	5	3
Food processing	122	52	75	27	22	8	-	-	25	17
Agricultural sciences	621	353	421	220	93	67	14	8	93	58
Land and water (fertilisation, melioration, etc.)	621	353	421	220	93	67	14	8	93	58
Medical sciences	38	15	27	12	10	2	-	-	1	1
Pharmacy	38	15	27	12	10	2	-	-	1	1
Social sciences	460	235	317	145	76	46	-	-	67	44
Demography and social geography	181	91	137	61	21	13	-	-	23	17
Economics	115	78	63	39	28	22	-	-	24	17
Political sciences	88	34	63	21	14	6	-	-	11	7

### 3.1. Full-time and part-time researchers, by academic titles, sectors, scientific fields and sex, 2012 (physical persons) (continued)

	Full-time and part-time researchers									
	Total		Doctors of science		Masters of science		Specialists		University degree	
	All	Women	All	Women	All	Women	All	Women	All	Women
Psychology	76	32	54	24	13	5	-	-	9	3
Humanities	313	189	129	79	135	87	-	-	49	23
Archeology	151	89	37	26	102	63	-	-	12	-
Philosophy and theology	162	100	92	53	33	24	-	-	37	23
<b>Region Sumadije i Zapadne Srbije</b>	<b>1089</b>	<b>524</b>	<b>601</b>	<b>275</b>	<b>222</b>	<b>123</b>	<b>14</b>	<b>8</b>	<b>252</b>	<b>118</b>
<i>Business sector</i>	39	9	5	-	5	1	-	-	29	8
Natural sciences, mathematics	3	1	-	-	-	-	-	-	3	1
Physics and nuclear physics	3	1	-	-	-	-	-	-	3	1
Engineering and technology	35	7	5	-	5	1	-	-	25	6
Architecture, town planning, spatial planning	3	1	-	-	3	1	-	-	-	-
Building and civil engineering, and water engineering/technology	3	-	-	-	-	-	-	-	3	-
Metallurgy	27	6	5	-	2	-	-	-	20	6
Food processing	2	-	-	-	-	-	-	-	2	-
Social sciences	1	1	-	-	-	-	-	-	1	1
Demography and social geography	1	1	-	-	-	-	-	-	1	1
<i>Government sector</i>	20	12	9	5	9	6	-	-	2	1
Medical sciences	20	12	9	5	9	6	-	-	2	1
Stomatology	20	12	9	5	9	6	-	-	2	1
<i>Tertiary education</i>	1030	503	587	270	208	116	14	8	221	109
Natural sciences, mathematics	163	102	92	47	9	8	-	-	62	47
Mathematics and statistics	163	102	92	47	9	8	-	-	62	47
Engineering and technology	216	57	137	40	29	8	-	-	50	9
Building and civil engineering, and water engineering/technology	32	10	32	10	-	-	-	-	-	-
Electrical engineering – energy	147	33	79	21	18	3	-	-	50	9
Food processing	37	14	26	9	11	5	-	-	-	-
Agricultural sciences	254	133	156	79	17	10	14	8	67	36
Land and water (fertilisation, melioration, etc.)	254	133	156	79	17	10	14	8	67	36
Medical sciences	38	15	27	12	10	2	-	-	1	1
Pharmacy	38	15	27	12	10	2	-	-	1	1
Social sciences	208	107	138	66	41	25	-	-	29	16
Demography and social geography	76	35	52	24	14	7	-	-	10	4
Economics	81	55	45	28	22	17	-	-	14	10
Political sciences	33	11	25	8	4	1	-	-	4	2
Psychology	18	6	16	6	1	-	-	-	1	-
Humanities	151	89	37	26	102	63	-	-	12	-
Archeology	151	89	37	26	102	63	-	-	12	-
<b>Region Juzne i Istocne Srbije</b>	<b>1345</b>	<b>653</b>	<b>838</b>	<b>362</b>	<b>256</b>	<b>148</b>	<b>1</b>	<b>-</b>	<b>250</b>	<b>143</b>
<i>Business sector</i>	1	-	-	-	-	-	-	-	1	-
Engineering and technology	1	-	-	-	-	-	-	-	1	-
Electrical engineering - energy	1	-	-	-	-	-	-	-	1	-
<i>Government sector</i>	56	30	19	7	21	11	1	-	15	12
Engineering and technology	41	25	11	5	14	8	1	-	15	12
Food processing	41	25	11	5	14	8	1	-	15	12
Medical sciences	15	5	8	2	7	3	-	-	-	-
Stomatology	15	5	8	2	7	3	-	-	-	-
<i>Tertiary education</i>	1288	623	819	355	235	137	-	-	234	131
Natural sciences, mathematics	48	29	-	-	-	-	-	-	48	29
Mathematics and statistics	48	29	-	-	-	-	-	-	48	29
Engineering and technology	459	146	283	82	91	35	-	-	85	29
Architecture, town planning, spatial planning	89	35	39	12	29	19	-	-	21	4
Building and civil engineering, and water engineering/technology	144	42	100	30	31	10	-	-	13	2
Electrical engineering – energy	94	15	57	9	16	3	-	-	21	3
Electrical engineering – electronics, communication technology, equipment fitting, computer technology - hardware	47	16	38	13	4	-	-	-	5	3
Food processing	85	38	49	18	11	3	-	-	25	17
Agricultural sciences	367	220	265	141	76	57	-	-	26	22
Land and water (fertilisation, melioration, etc.)	367	220	265	141	76	57	-	-	26	22
Social sciences	252	128	179	79	35	21	-	-	38	28
Demography and social geography	105	56	85	37	7	6	-	-	13	13
Economics	34	23	18	11	6	5	-	-	10	7
Political sciences	55	23	38	13	10	5	-	-	7	5
Psychology	58	26	38	18	12	5	-	-	8	3
Humanities	162	100	92	53	33	24	-	-	37	23
Philosophy and theology	162	100	92	53	33	24	-	-	37	23
<b>Region Kosova i Metohija</b>	...	...	...	...	...	...	...	...	...	...



**3.2. Full-time and part-time researchers, by academic titles, sectors, scientific fields and sex, expressed in full-time equivalent (FTE), 2012**

	Full-time and part-time researchers									
	Total		Doctors of science		Masters of science		Specialists		University degree	
	All	Women	All	Women	All	Women	All	Women	All	Women
<b>REPUBLIC OF SERBIA</b>	<b>11802.0</b>	<b>5900.4</b>	<b>6682.1</b>	<b>3057.1</b>	<b>2145.2</b>	<b>1240.3</b>	<b>71.7</b>	<b>39.5</b>	<b>2903.0</b>	<b>1563.6</b>
<i>Business sector</i>	276.0	125.6	39.0	13.0	10.4	2.2	21.0	12.0	205.6	98.4
Natural sciences. mathematics	31.3	16.0	0.0	0.0	0.0	0.0	0.0	0.0	31.3	16.0
Physics and nuclear physics	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	1.0
Chemistry	28.3	15.0	0.0	0.0	0.0	0.0	0.0	0.0	28.3	15.0
Engineering and technology	215.0	93.4	33.0	11.0	10.3	2.1	1.0	0.0	170.7	80.3
Architecture. town planning. spatial planning	0.3	0.1	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0
Building and civil engineering. and water engineering/technology	25.5	2.0	0.0	0.0	1.0	0.0	1.0	0.0	23.5	2.0
Electrical engineering - energy	80.2	25.3	18.0	6.0	6.0	1.0	0.0	0.0	56.2	18.3
Electrical engineering – electronics. communication technology. equipment fitting. computer technologies - hardware	76.0	58.0	8.0	4.0	1.0	1.0	0.0	0.0	67.0	53.0
Metallurgy	27.0	6.0	5.0	0.0	2.0	0.0	0.0	0.0	20.0	6.0
Transport	3.0	2.0	2.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0
Food processing	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
Agricultural sciences	20.5	12.0	3.0	2.0	0.0	0.0	17.0	10.0	0.5	0.0
Plant protection	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
Fishery and game	20.0	12.0	3.0	2.0	0.0	0.0	17.0	10.0	0.0	0.0
Medical sciences	8.0	3.0	3.0	0.0	0.0	0.0	3.0	2.0	2.0	1.0
Pharmacy	4.0	3.0	0.0	0.0	0.0	0.0	3.0	2.0	1.0	1.0
Surgery	3.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stomatology	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
Social sciences	1.2	1.2	0.0	0.0	0.1	0.1	0.0	0.0	1.1	1.1
Demography and social geography	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Economics	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0
Sociology	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0
<i>Government sector</i>	3039.9	1690.2	1454.8	753.4	686.7	400.6	27.0	10.0	871.5	526.2
Natural sciences. mathematics	1348.1	798.1	696.4	365.6	199.0	110.0	0.0	0.0	452.8	322.5
Mathematics and statistics	66.1	18.1	27.4	6.6	20.0	7.0	0.0	0.0	18.8	4.5
Astronomy	676.0	376.0	359.0	151.0	66.0	38.0	0.0	0.0	251.0	187.0
Atmospheric and hydrologic sciences	252.0	206.0	134.0	105.0	10.0	9.0	0.0	0.0	108.0	92.0
Chemistry	354.0	198.0	176.0	103.0	103.0	56.0	0.0	0.0	75.0	39.0
Engineering and technology	489.0	200.2	126.3	54.5	94.0	44.0	9.0	3.0	259.7	98.7
Architecture. town planning. spatial planning	17.0	12.0	9.0	5.0	5.0	4.0	0.0	0.0	3.0	3.0
Building and civil engineering. and water engineering/technology	186.8	66.0	31.8	8.0	31.0	19.0	0.0	0.0	124.0	39.0
Electrical engineering – energy	15.0	6.0	6.0	3.0	0.0	0.0	0.0	0.0	9.0	3.0
Mechanics	119.7	44.7	27.5	10.5	18.0	5.0	6.0	1.0	68.2	28.2
Transport	21.0	5.0	9.0	2.0	6.0	1.0	0.0	0.0	6.0	2.0
Wood processing	29.0	18.0	9.0	5.0	7.0	4.0	2.0	2.0	11.0	7.0
Food processing	100.5	48.5	34.0	21.0	27.0	11.0	1.0	0.0	38.5	16.5
Agricultural sciences	147.5	115.7	75.9	57.7	37.6	32.0	0.0	0.0	34.0	26.0
Plant protection	54.0	41.0	26.0	20.0	10.0	7.0	0.0	0.0	18.0	14.0
Fishery and game	93.5	74.7	49.9	37.7	27.6	25.0	0.0	0.0	16.0	12.0
Medical sciences	425.7	239.0	248.7	134.0	110.0	61.0	5.0	4.0	62.0	40.0
Pharmacy	49.0	27.0	22.0	12.0	11.0	6.0	0.0	0.0	16.0	9.0
Internal medicine	28.0	14.0	17.0	10.0	7.0	3.0	0.0	0.0	4.0	1.0
Surgery	259.0	144.0	167.0	89.0	68.0	38.0	2.0	2.0	22.0	15.0
Stomatology	89.7	54.0	42.7	23.0	24.0	14.0	3.0	2.0	20.0	15.0
Social sciences	299.2	153.8	149.1	65.2	117.1	68.6	2.0	0.0	31.0	20.0
Demography and social geography	76.7	39.1	35.6	15.5	30.1	16.6	0.0	0.0	11.0	7.0
Economics	29.0	24.0	14.0	12.0	14.0	11.0	0.0	0.0	1.0	1.0
Political sciences	22.0	10.0	13.0	6.0	7.0	4.0	0.0	0.0	2.0	0.0
Organisational sciences	82.8	25.3	44.8	11.3	30.0	10.0	2.0	0.0	6.0	4.0
Management	30.3	20.0	6.3	1.0	22.0	17.0	0.0	0.0	2.0	2.0
Psychology	58.4	35.4	35.4	19.4	14.0	10.0	0.0	0.0	9.0	6.0
Humanities	330.5	183.5	158.5	76.5	129.0	85.0	11.0	3.0	32.0	19.0
History	178.0	75.0	95.0	35.0	58.0	31.0	11.0	3.0	14.0	6.0
Archeology	93.5	68.5	29.5	20.5	51.0	39.0	0.0	0.0	13.0	9.0
Philosophy and theology	18.0	7.0	13.0	4.0	3.0	2.0	0.0	0.0	2.0	1.0
Foreign languages and mother tongue	13.0	10.0	8.0	6.0	5.0	4.0	0.0	0.0	0.0	0.0
Literature	28.0	23.0	13.0	11.0	12.0	9.0	0.0	0.0	3.0	3.0
<i>Tertiary education</i>	8482.0	4083.7	5188.3	2290.7	1445.1	836.5	23.7	17.5	1824.9	939.0
Natural sciences. mathematics	1278.8	656.8	773.2	351.9	76.5	52.5	6.3	4.3	422.7	248.1
Mathematics and statistics	710.9	398.7	388.7	188.8	51.0	44.0	0.0	0.0	271.2	165.9
Computing science – software design	32.7	8.5	22.0	5.0	5.2	1.8	0.0	0.0	5.5	1.7
Astronomy	87.0	24.0	52.0	15.0	6.0	0.0	0.0	0.0	29.0	9.0
Physics and nuclear physics	121.5	64.0	81.5	40.5	4.0	2.0	0.0	0.0	36.0	21.5
Earth science (geology. geophysics. geography)	172.7	69.7	123.0	39.7	8.3	3.7	6.3	4.3	35.0	22.0

### 3.2. Full-time and part-time researchers. by academic titles. sectors. scientific fields and sex. expressed in full-time equivalent (FTE). 2012 (continued)

	Full-time and part-time researchers									
	Total		Doctors of science		Masters of science		Specialists		University degree	
	All	Women	All	Women	All	Women	All	Women	All	Women
Atmospheric and hydrologic sciences	154.0	92.0	106.0	63.0	2.0	1.0	0.0	0.0	46.0	28.0
Engineering and technology	1997.8	687.4	1156.4	377.9	291.8	112.3	0.0	0.0	549.6	197.2
Architecture. town planning. spatial planning	299.0	114.0	177.0	61.0	67.0	36.0	0.0	0.0	55.0	17.0
Building and civil engineering. and water engineering/technology	300.2	82.4	223.2	55.9	44.0	12.5	0.0	0.0	33.0	14.0
Electrical engineering – energy	418.7	79.6	269.0	48.0	60.0	12.0	0.0	0.0	89.7	19.6
Electrical engineering – electronics. communication technology. equipment fitting. computer technologies - hardware	44.6	15.4	36.2	13.0	4.0	0.0	0.0	0.0	4.4	2.4
Mechanics	104.0	68.5	64.0	34.5	4.5	3.5	0.0	0.0	35.5	30.5
Transport	2.6	2.0	1.6	1.3	0.0	0.0	0.0	0.0	1.0	0.7
Food processing	828.7	325.6	385.4	164.3	112.3	48.3	0.0	0.0	331.0	113.0
Agricultural sciences	1314.8	757.0	870.8	460.1	234.5	157.0	4.0	2.3	205.5	137.8
Land and water (fertilisation. melioration. etc.)	452.6	266.9	313.6	166.2	80.5	59.8	4.0	2.3	54.5	38.8
Plant protection	552.2	301.1	372.2	182.9	108.0	69.2	0.0	0.0	72.0	49.0
Fishery and game	310.0	189.0	185.0	111.0	46.0	28.0	0.0	0.0	79.0	50.0
Medical sciences	760.3	358.5	518.3	231.3	151.0	73.5	3.0	3.0	88.0	50.8
Pharmacy	666.1	306.8	447.1	194.8	139.0	69.0	3.0	3.0	77.0	40.0
Internal medicine	74.7	41.5	54.7	29.2	9.0	1.5	0.0	0.0	11.0	10.8
Surgery	19.5	10.3	16.5	7.3	3.0	3.0	0.0	0.0	0.0	0.0
Social sciences	1660.0	774.2	1141.6	458.1	279.7	176.7	10.4	7.9	228.4	131.6
Demography and social geography	606.4	300.5	438.3	188.6	88.5	61.3	0.0	0.0	79.6	50.6
Economics	164.6	98.5	98.9	53.0	38.4	28.6	1.4	0.9	25.9	16.1
Political sciences	375.1	155.1	270.2	89.6	63.8	38.8	5.0	3.0	36.1	23.7
Organisational sciences	110.0	47.0	70.0	24.0	27.0	15.0	0.0	0.0	13.0	8.0
Sociology	35.3	27.2	24.2	19.1	6.1	3.0	3.0	3.0	2.1	2.1
Psychology	368.6	146.0	240.0	83.8	55.9	30.0	1.0	1.0	71.7	31.2
Humanities	1470.4	849.7	728.0	411.5	411.6	264.6	0.0	0.0	330.8	173.6
Archeology	485.4	311.8	216.5	123.5	106.8	100.3	0.0	0.0	162.1	88.0
Phylosophy and theology	710.0	396.0	466.0	254.0	166.0	101.0	0.0	0.0	78.0	41.0
Foreign languages and theology	275.0	141.9	45.5	34.0	138.8	63.3	0.0	0.0	90.7	44.6
<i>Non-profit sector</i>	4.0	1.0	0.0	0.0	3.0	1.0	0.0	0.0	1.0	0.0
Social sciences	2.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0
Food processing	2.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0
Social sciences	2.0	1.0	0.0	0.0	2.0	1.0	0.0	0.0	0.0	0.0
Demography and social geography	2.0	1.0	0.0	0.0	2.0	1.0	0.0	0.0	0.0	0.0
<b>SRBIJA – SEVER</b>	<b>9779.7</b>	<b>4925.8</b>	<b>5489.9</b>	<b>2548.3</b>	<b>1759.7</b>	<b>998.7</b>	<b>66.7</b>	<b>37.2</b>	<b>2463.4</b>	<b>1341.5</b>
<i>Business sector</i>	240.1	118.4	34.0	13.0	8.1	2.1	21.0	12.0	177.0	91.3
Natural sciences. mathematics	28.3	15.0	0.0	0.0	0.0	0.0	0.0	0.0	28.3	15.0
Chemistry	28.3	15.0	0.0	0.0	0.0	0.0	0.0	0.0	28.3	15.0
Engineering and technology	182.2	87.3	28.0	11.0	8.0	2.0	1.0	0.0	145.2	74.3
Building and civil engineering. and water engineering/technology	23.0	2.0	0.0	0.0	1.0	0.0	1.0	0.0	21.0	2.0
Engineering and technology	79.2	25.3	18.0	6.0	6.0	1.0	0.0	0.0	55.2	18.3
Electrical engineering – electronics. communication technology. equipment fitting. computer technologies - hardware	76.0	58.0	8.0	4.0	1.0	1.0	0.0	0.0	67.0	53.0
Transport	3.0	2.0	2.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0
Food processing	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
Agricultural sciences	20.5	12.0	3.0	2.0	0.0	0.0	17.0	10.0	0.5	0.0
Plant protection	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
Fishery and game	20.0	12.0	3.0	2.0	0.0	0.0	17.0	10.0	0.0	0.0
Medical sciences	8.0	3.0	3.0	0.0	0.0	0.0	3.0	2.0	2.0	1.0
Pharmacy	4.0	3.0	0.0	0.0	0.0	0.0	3.0	2.0	1.0	1.0
Surgery	3.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stomatology	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
Social sciences	1.1	1.1	0.0	0.0	0.1	0.1	0.0	0.0	1.0	1.0
Economics	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0
Sociology	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0
<i>Government sector</i>	2963.9	1648.2	1426.8	741.4	656.7	383.6	26.0	10.0	854.5	513.2
Natural sciences. mathematics	1348.1	798.1	696.4	365.6	199.0	110.0	0.0	0.0	452.8	322.5
Mathematics and statistics	66.1	18.1	27.4	6.6	20.0	7.0	0.0	0.0	18.8	4.5
Astronomy	676.0	376.0	359.0	151.0	66.0	38.0	0.0	0.0	251.0	187.0
Atmospheric and hydrologic sciences	252.0	206.0	134.0	105.0	10.0	9.0	0.0	0.0	108.0	92.0
Chemistry	354.0	198.0	176.0	103.0	103.0	56.0	0.0	0.0	75.0	39.0
Engineering and technology	448.0	175.2	115.3	49.5	80.0	36.0	8.0	3.0	244.7	86.7
Architecture. town planning. spatial planning	17.0	12.0	9.0	5.0	5.0	4.0	0.0	0.0	3.0	3.0
Building and civil engineering. and water engineering/technology	186.8	66.0	31.8	8.0	31.0	19.0	0.0	0.0	124.0	39.0
Electrical engineering – energy	15.0	6.0	6.0	3.0	0.0	0.0	0.0	0.0	9.0	3.0
Mechanics	119.7	44.7	27.5	10.5	18.0	5.0	6.0	1.0	68.2	28.2
Transport	21.0	5.0	9.0	2.0	6.0	1.0	0.0	0.0	6.0	2.0
Wood processing	29.0	18.0	9.0	5.0	7.0	4.0	2.0	2.0	11.0	7.0
Food processing	59.5	23.5	23.0	16.0	13.0	3.0	0.0	0.0	23.5	4.5
Agricultural sciences	147.5	115.7	75.9	57.7	37.6	32.0	0.0	0.0	34.0	26.0
Plant protection	54.0	41.0	26.0	20.0	10.0	7.0	0.0	0.0	18.0	14.0

### 3.2. Full-time and part-time researchers. by academic titles. sectors. scientific fields and sex. expressed in full-time equivalent (FTE). 2012 (continued)

	Full-time and part-time researchers									
	Total		Doctors of science		Masters of science		Specialists		University degree	
	All	Women	All	Women	All	Women	All	Women	All	Women
Fishery and game	93.5	74.7	49.9	37.7	27.6	25.0	0.0	0.0	16.0	12.0
Medical sciences	390.7	222.0	231.7	127.0	94.0	52.0	5.0	4.0	60.0	39.0
Pharmacy	49.0	27.0	22.0	12.0	11.0	6.0	0.0	0.0	16.0	9.0
Internal medicine	28.0	14.0	17.0	10.0	7.0	3.0	0.0	0.0	4.0	1.0
Surgery	259.0	144.0	167.0	89.0	68.0	38.0	2.0	2.0	22.0	15.0
Stomatology	54.7	37.0	25.7	16.0	8.0	5.0	3.0	2.0	18.0	14.0
Social sciences	299.2	153.8	149.1	65.2	117.1	68.6	2.0	0.0	31.0	20.0
Demography and social geography	76.7	39.1	35.6	15.5	30.1	16.6	0.1	0.0	11.0	7.0
Economics	29.0	24.0	14.0	12.0	14.0	11.0	0.0	0.0	1.0	1.0
Political sciences	22.0	10.0	13.0	6.0	7.0	4.0	0.0	0.0	2.0	0.0
Organisational sciences	82.8	25.3	44.8	11.3	30.0	10.0	2.0	0.0	6.0	4.0
Management	30.3	20.0	6.3	1.0	22.0	17.0	0.0	0.0	2.0	2.0
Psychology	58.4	35.4	35.4	19.4	14.0	10.0	0.0	0.0	9.0	6.0
Humanities	330.5	183.5	158.5	76.5	129.0	85.0	11.0	3.0	32.0	19.0
History	178.0	75.0	95.0	35.0	58.0	31.0	11.0	3.0	14.0	6.0
Archeology	93.5	68.5	29.5	20.5	51.0	39.0	0.0	0.0	13.0	9.0
Philosophy and theology	18.0	7.0	13.0	4.0	3.0	2.0	0.0	0.0	2.0	1.0
Foreign languages and theology	13.0	10.0	8.0	6.0	5.0	4.0	0.0	0.0	0.0	0.0
Literature	28.0	23.0	13.0	11.0	12.0	9.0	0.0	0.0	3.0	3.0
<i>Tertiary education</i>	6571.6	3158.2	4029.1	1794.0	1091.9	612.0	19.7	15.2	1430.9	737.0
Natural sciences. mathematics	1070.6	527.4	682.2	305.4	67.5	44.5	6.3	4.3	314.5	173.2
Mathematics and statistics	502.7	269.3	297.7	142.3	42.0	36.0	0.0	0.0	163.0	91.0
Computing science – software design	32.7	8.5	22.0	5.0	5.2	1.8	0.0	0.0	5.5	1.7
Astronomy	87.0	24.0	52.0	15.0	6.0	0.0	0.0	0.0	29.0	9.0
Physics and nuclear physics	121.5	64.0	81.5	40.5	4.0	2.0	0.0	0.0	36.0	21.5
Earth science (geology. geophysics. geography)	172.7	69.7	123.0	39.7	8.3	3.7	6.3	4.3	35.0	22.0
Atmospheric and hydrologic sciences	154.0	92.0	106.0	63.0	2.0	1.0	0.0	0.0	46.0	28.0
Engineering and technology	1401.9	509.9	800.4	275.2	180.0	73.5	0.0	0.0	421.5	161.2
Architecture. town planning. spatial planning	210.0	79.0	138.0	49.0	38.0	17.0	0.0	0.0	34.0	13.0
Building and civil engineering. and water engineering/technology	128.3	30.9	94.3	15.9	14.0	3.0	0.0	0.0	20.0	12.0
Electrical engineering – energy	226.0	46.0	175.0	31.0	26.0	6.0	0.0	0.0	25.0	9.0
Mechanics	104.0	68.5	64.0	34.5	4.5	3.5	0.0	0.0	35.5	30.5
Transport	2.6	2.0	1.6	1.3	0.0	0.0	0.0	0.0	1.0	0.7
Food processing	731.0	283.5	327.5	143.5	97.5	44.0	0.0	0.0	306.0	96.0
Agricultural sciences	862.2	490.1	557.2	293.9	154.0	97.2	0.0	0.0	151.0	99.0
Plant protection	552.2	301.1	372.2	182.9	108.0	69.2	0.0	0.0	72.0	49.0
Fishery and game	310.0	189.0	185.0	111.0	46.0	28.0	0.0	0.0	79.0	50.0
Medical scien	722.3	343.5	491.3	219.3	141.0	71.5	3.0	3.0	87.0	49.8
Pharmacy	628.1	291.8	420.1	182.8	129.0	67.0	3.0	3.0	76.0	39.0
Internal medicine	74.7	41.5	54.7	29.2	9.0	1.5	0.0	0.0	11.0	10.8
Surgery	19.5	10.3	16.5	7.3	3.0	3.0	0.0	0.0	0.0	0.0
Social sciences	1351.0	623.4	917.8	363.2	233.6	149.0	10.4	7.9	189.3	103.3
Demography and social geography	486.2	237.5	342.9	146.8	78.7	53.9	0.0	0.0	64.6	36.8
Economics	106.4	60.8	65.0	33.4	23.1	16.8	1.4	0.9	16.9	9.7
Political sciences	289.0	121.9	208.2	69.1	49.8	32.8	5.0	3.0	26.0	17.0
Organisational sciences	110.0	47.0	70.0	24.0	27.0	15.0	0.0	0.0	13.0	8.0
Sociology	35.3	27.2	24.2	19.1	6.1	3.0	3.0	3.0	2.1	2.1
Psychology	324.1	129.0	207.5	70.8	48.9	27.5	1.0	1.0	66.7	29.7
Humanities	1163.7	663.9	580.2	337.0	315.8	176.3	0.0	0.0	267.7	150.6
Archeology	340.7	226.0	160.7	102.0	44.0	36.0	0.0	0.0	136.0	88.0
Philosophy and theology	548.0	296.0	374.0	201.0	133.0	77.0	0.0	0.0	41.0	18.0
Foreign languages and mother tongue	275.0	141.9	45.5	34.0	138.8	63.3	0.0	0.0	90.7	44.6
<i>Non-profit sector</i>	4.0	1.0	0.0	0.0	3.0	1.0	0.0	0.0	1.0	0.0
Engineering and technology	2.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0
Food processing	2.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0
Social sciences	2.0	1.0	0.0	0.0	2.0	1.0	0.0	0.0	0.0	0.0
Demography and social geography	2.0	1.0	0.0	0.0	2.0	1.0	0.0	0.0	0.0	0.0
<b>Beogradski region</b>	<b>7355.4</b>	<b>3739.8</b>	<b>4185.6</b>	<b>1914.0</b>	<b>1274.8</b>	<b>730.7</b>	<b>56.2</b>	<b>30.2</b>	<b>1838.8</b>	<b>1064.9</b>
<i>Business sector</i>	237.1	118.4	31.0	13.0	8.1	2.1	21.0	12.0	177.0	91.3
Natural sciences. mathematics	28.3	15.0	0.0	0.0	0.0	0.0	0.0	0.0	28.3	15.0
Chemistry	28.3	15.0	0.0	0.0	0.0	0.0	0.0	0.0	28.3	15.0
Engineering and technology	182.2	87.3	28.0	11.0	8.0	2.0	1.0	0.0	145.2	74.3
Building and civil engineering. and water engineering/technology	23.0	2.0	0.0	0.0	1.0	0.0	1.0	0.0	21.0	2.0
Electrical engineering - energy	79.2	25.3	18.0	6.0	6.0	1.0	0.0	0.0	55.2	18.3
Electrical engineering – electronics. communication technology. equipment fitting. computer technologies - hardware	76.0	58.0	8.0	4.0	1.0	1.0	0.0	0.0	67.0	53.0
Transport	3.0	2.0	2.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0
Food processing	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
Agricultural sciences	20.5	12.0	3.0	2.0	0.0	0.0	17.0	10.0	0.5	0.0
Plant protection	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
Fishery and game	20.0	12.0	3.0	2.0	0.0	0.0	17.0	10.0	0.0	0.0

### 3.2. Full-time and part-time researchers, by academic titles, sectors, scientific fields and sex, expressed in full-time equivalent (FTE). 2012 (continued)

	Full-time and part-time researchers									
	Total		Doctors of science		Masters of science		Specialists		University degree	
	All	Women	All	Women	All	Women	All	Women	All	Women
Medical sciences	5.0	3.0	0.0	0.0	0.0	0.0	3.0	2.0	2.0	1.0
Pharmacy	4.0	3.0	0.0	0.0	0.0	0.0	3.0	2.0	1.0	1.0
Stomatology	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
Social sciences	1.1	1.1	0.0	0.0	0.1	0.1	0.0	0.0	1.0	1.0
Economics	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0
Sociology	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0
<i>Government sector</i>	2776.2	1553.2	1323.1	694.4	614.7	361.6	23.0	8.0	815.5	489.2
Natural sciences, mathematics	1348.1	798.1	696.4	365.6	199.0	110.0	0.0	0.0	452.8	322.5
Mathematics and statistics	66.1	18.1	27.4	6.6	20.0	7.0	0.0	0.0	18.8	4.5
Astronomy	676.0	376.0	359.0	151.0	66.0	38.0	0.0	0.0	251.0	187.0
Atmospheric and hydrology sciences	252.0	206.0	134.0	105.0	10.0	9.0	0.0	0.0	108.0	92.0
Chemistry	354.0	198.0	176.0	103.0	103.0	56.0	0.0	0.0	75.0	39.0
Engineering and technology	427.0	170.2	106.3	47.5	74.0	35.0	8.0	3.0	238.7	84.7
Architecture, town planning, spatial planning	17.0	12.0	9.0	5.0	5.0	4.0	0.0	0.0	3.0	3.0
Building and civil engineering, and water engineering/technology	186.8	66.0	31.8	8.0	31.0	19.0	0.0	0.0	124.0	39.0
Electrical engineering – energy	15.0	6.0	6.0	3.0	0.0	0.0	0.0	0.0	9.0	3.0
Mechanics	119.7	44.7	27.5	10.5	18.0	5.0	6.0	1.0	68.2	28.2
Wood processing	29.0	18.0	9.0	5.0	7.0	4.0	2.0	2.0	11.0	7.0
Food processing	59.5	23.5	23.0	16.0	13.0	3.0	0.0	0.0	23.5	4.5
Agricultural sciences	147.5	115.7	75.9	57.7	37.6	32.0	0.0	0.0	34.0	26.0
Plant protection	54.0	41.0	26.0	20.0	10.0	7.0	0.0	0.0	18.0	14.0
Fishery and game	93.5	74.7	49.9	37.7	27.6	25.0	0.0	0.0	16.0	12.0
Medical sciences	224.0	132.0	137.0	82.0	58.0	31.0	2.0	2.0	27.0	17.0
Pharmacy	49.0	27.0	22.0	12.0	11.0	6.0	0.0	0.0	16.0	9.0
Internal medicine	28.0	14.0	17.0	10.0	7.0	3.0	0.0	0.0	4.0	1.0
Surgery	147.0	91.0	98.0	60.0	40.0	22.0	2.0	2.0	7.0	7.0
Social sciences	299.2	153.8	149.1	65.2	117.1	68.6	2.0	0.0	31.0	20.0
Demography and social geography	76.7	39.1	35.6	15.5	30.1	16.6	0.0	0.0	11.0	7.0
Economics	29.0	24.0	14.0	12.0	14.0	11.0	0.0	0.0	1.0	1.0
Political sciences	22.0	10.0	13.0	6.0	7.0	4.0	0.0	0.0	2.0	0.0
Organisational sciences	82.8	25.3	44.8	11.3	30.0	10.0	2.0	0.0	6.0	4.0
Management	30.3	20.0	6.3	1.0	22.0	17.0	0.0	0.0	2.0	2.0
Psychology	58.4	35.4	35.4	19.4	14.0	10.0	0.0	0.0	9.0	6.0
Humanities	330.5	183.5	158.5	76.5	129.0	85.0	11.0	3.0	32.0	19.0
History	178.0	75.0	95.0	35.0	58.0	31.0	11.0	3.0	14.0	6.0
Archeology	93.5	68.5	29.5	20.5	51.0	39.0	0.0	0.0	13.0	9.0
Philosophy and theology	18.0	7.0	13.0	4.0	3.0	2.0	0.0	0.0	2.0	1.0
Foreign languages and theology	13.0	10.0	8.0	6.0	5.0	4.0	0.0	0.0	0.0	0.0
Literature	28.0	23.0	13.0	11.0	12.0	9.0	0.0	0.0	3.0	3.0
<i>Tertiary education</i>	4340.1	2067.3	2831.5	1206.6	650.0	366.0	12.2	10.2	846.4	484.4
Natural sciences, mathematics	699.6	302.4	452.2	177.4	38.5	15.5	6.3	4.3	202.5	105.2
Mathematics and statistics	131.7	44.3	67.7	14.3	13.0	7.0	0.3	0.0	51.0	23.0
Computing science – software design	32.7	8.5	22.0	5.0	5.2	1.8	0.0	0.0	5.5	1.7
Astronomy	87.0	24.0	52.0	15.0	6.0	0.0	0.0	0.0	29.0	9.0
Physics and nuclear physics	121.5	64.0	81.5	40.5	4.0	2.0	0.0	0.0	36.0	21.5
Earth science (geology, geophysics, geography)	172.7	69.7	123.0	39.7	8.3	3.7	6.3	4.3	35.0	22.0
Atmospheric and hydrologic sciences	154.0	92.0	106.0	63.0	2.0	1.0	0.0	0.0	46.0	28.0
Engineering and technology	749.9	264.4	511.9	153.7	117.5	43.5	0.0	0.0	120.5	67.2
Architecture, town planning, spatial planning	167.0	66.0	114.0	45.0	36.0	15.0	0.0	0.0	17.0	6.0
Building and civil engineering, and water engineering/technology	128.3	30.9	94.3	15.9	14.0	3.0	0.0	0.0	20.0	12.0
Electrical engineering – energy science	194.0	36.0	154.0	27.0	20.0	3.0	0.0	0.0	20.0	6.0
Mechanics	104.0	68.5	64.0	34.5	4.5	3.5	0.0	0.0	35.5	30.5
Transport	2.6	2.0	1.6	1.3	0.0	0.0	0.0	0.0	1.0	0.7
Food processing	154.0	61.0	84.0	30.0	43.0	19.0	0.0	0.0	27.0	12.0
Agricultural sciences	822.2	472.1	530.2	281.9	149.0	94.2	0.0	0.0	143.0	96.0
Plant protection	552.2	301.1	372.2	182.9	108.0	69.2	0.0	0.0	72.0	49.0
Fishery and game	270.0	171.0	158.0	99.0	41.0	25.0	0.0	0.0	71.0	47.0
Medical sciences	471.3	227.8	330.3	140.5	67.0	42.5	1.0	1.0	73.0	43.8
Pharmacy	396.6	186.3	275.6	111.3	58.0	41.0	1.0	1.0	62.0	33.0
Internal medicine	74.7	41.5	54.7	29.2	9.0	1.5	0.0	0.0	11.0	10.8
Social sciences	946.4	436.6	645.2	260.1	169.0	107.3	4.9	4.9	127.4	64.3
Demography and social geography	314.3	156.7	224.6	99.2	63.3	45.5	0.0	0.0	26.4	12.0
Economics	45.7	25.9	32.5	17.2	7.1	4.3	0.9	0.9	5.2	3.5
Political sciences	164.0	66.1	118.5	38.6	24.5	15.5	0.0	0.0	21.0	12.0
Organisational sciences	110.0	47.0	70.0	24.0	27.0	15.0	0.0	0.0	13.0	8.0
Sociology	35.3	27.2	24.2	19.1	6.1	3.0	3.0	3.0	2.1	2.1
Psychology	277.1	113.7	175.4	62.0	41.0	24.0	1.0	1.0	59.7	26.7
Humanities	650.7	364.0	361.7	193.0	109.0	63.0	0.0	0.0	180.0	108.0
Archeology	340.7	226.0	160.7	102.0	44.0	36.0	0.0	0.0	136.0	88.0
Philosophy and theology	272.0	108.0	171.0	67.0	60.0	23.0	0.0	0.0	41.0	18.0
Foreign languages and mother tongue	38.0	30.0	30.0	24.0	5.0	4.0	0.0	0.0	3.0	2.0
<i>Non-profit sector</i>	2.0	1.0	0.0	0.0	2.0	1.0	0.0	0.0	0.0	0.0
Social sciences	2.0	1.0	0.0	0.0	2.0	1.0	0.0	0.0	0.0	0.0
Demography and social geography	2.0	1.0	0.0	0.0	2.0	1.0	0.0	0.0	0.0	0.0

### 3.2. Full-time and part-time researchers. by academic titles. sectors. scientific fields and sex. expressed in full-time equivalent (FTE). 2012 (continued)

	Full-time and part-time researchers									
	Total		Doctors of science		Masters of science		Specialists		University degree	
	All	Women	All	Women	All	Women	All	Women	All	Women
<b>Region Vojvodine</b>	<b>2424.3</b>	<b>1186.0</b>	<b>1304.3</b>	<b>634.4</b>	<b>484.9</b>	<b>268.0</b>	<b>10.5</b>	<b>7.0</b>	<b>624.6</b>	<b>276.6</b>
<i>Business sector</i>	3.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Medical sciences	3.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Surgery	3.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>Government sector</i>	187.7	95.0	103.7	47.0	42.0	22.0	3.0	2.0	39.0	24.0
Engineering and technology	21.0	5.0	9.0	2.0	6.0	1.0	0.0	0.0	6.0	2.0
Transport	21.0	5.0	9.0	2.0	6.0	1.0	0.0	0.0	6.0	2.0
Medical sciences	166.7	90.0	94.7	45.0	36.0	21.0	3.0	2.0	33.0	22.0
Surgery	112.0	53.0	69.0	29.0	28.0	16.0	0.0	0.0	15.0	8.0
Stomatology	54.7	37.0	25.7	16.0	8.0	5.0	3.0	2.0	18.0	14.0
<i>Tertiary education</i>	2231.6	1091.0	1197.6	587.4	441.9	246.0	7.5	5.0	584.6	252.6
Natural sciences. mathematics	371.0	225.0	230.0	128.0	29.0	29.0	0.0	0.0	112.0	68.0
Mathematics and statistics	371.0	225.0	230.0	128.0	29.0	29.0	0.0	0.0	112.0	68.0
Engineering and technology	652.0	245.5	288.5	121.5	62.5	30.0	0.0	0.0	301.0	94.0
Architecture. town planning and spatial planning	43.0	13.0	24.0	4.0	2.0	2.0	0.0	0.0	17.0	7.0
Electrical engineering – energy	32.0	10.0	21.0	4.0	6.0	3.0	0.0	0.0	5.0	3.0
Food processing	577.0	222.5	243.5	113.5	54.5	25.0	0.0	0.0	279.0	84.0
Agricultural sciences	40.0	18.0	27.0	12.0	5.0	3.0	0.0	0.0	8.0	3.0
Fishery and game	40.0	18.0	27.0	12.0	5.0	3.0	0.0	0.0	8.0	3.0
Medical sciences	251.0	115.8	161.0	78.8	74.0	29.0	2.0	2.0	14.0	6.0
Pharmacy	231.5	105.5	144.5	71.5	71.0	26.0	2.0	2.0	14.0	6.0
Surgery	19.5	10.3	16.5	7.3	3.0	3.0	0.0	0.0	0.0	0.0
Social sciences	404.6	186.8	272.6	103.1	64.6	41.7	5.5	3.0	61.9	39.0
Demography and social geography	171.9	80.8	118.3	47.6	15.4	8.4	0.0	0.0	38.2	24.8
Economics	60.7	34.9	32.5	16.2	16.0	12.5	0.5	0.0	11.7	6.2
Political sciences	125.0	55.8	89.7	30.5	25.3	17.3	5.0	3.0	5.0	5.0
Psychology	47.0	15.3	32.1	8.8	7.9	3.5	0.0	0.0	7.0	3.0
Humanities	513.0	299.9	218.5	144.0	206.8	113.3	0.0	0.0	87.7	42.6
Philosophy and theology	276.0	188.0	203.0	134.0	73.0	54.0	0.0	0.0	0.0	0.0
Foreign languages and mother tongue	237.0	111.9	15.5	10.0	133.8	59.3	0.0	0.0	87.7	42.6
<i>Non-profit sector</i>	2.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0
Engineering and technology	2.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0
Food processing	2.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0
<b>SRBIJA – JUG</b>	<b>2022.3</b>	<b>974.7</b>	<b>1192.2</b>	<b>508.7</b>	<b>385.5</b>	<b>241.6</b>	<b>5.0</b>	<b>2.3</b>	<b>439.6</b>	<b>222.1</b>
<i>Business sector</i>	35.9	7.2	5.0	0.0	2.3	0.1	0.0	0.0	28.6	7.1
Natural sciences. mathematics	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	1.0
Physics and nuclear physics	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	1.0
Engineering and technology	32.8	6.1	5.0	0.0	2.3	0.1	0.0	0.0	25.5	6.0
Architecture. town planning and spatial planning	0.3	0.1	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0
Building and civil engineering. and water engineering/technology	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0
Electrical engineering - energy	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
Metallurgy	27.0	6.0	5.0	0.0	2.0	0.0	0.0	0.0	20.0	6.0
Food processing	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
Social sciences	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Demography and social geography	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
<i>Government sector</i>	76.0	42.0	28.0	12.0	30.0	17.0	1.0	0.0	17.0	13.0
Engineering and technology	41.0	25.0	11.0	5.0	14.0	8.0	1.0	0.0	15.0	12.0
Food processing	41.0	25.0	11.0	5.0	14.0	8.0	1.0	0.0	15.0	12.0
Medical sciences	35.0	17.0	17.0	7.0	16.0	9.0	0.0	0.0	2.0	1.0
Stomatology	35.0	17.0	17.0	7.0	16.0	9.0	0.0	0.0	2.0	1.0
<i>Tertiary education</i>	1910.4	925.5	1159.2	496.7	353.2	224.5	4.0	2.3	394.0	202.0
Natural sciences. mathematics	208.2	129.4	91.0	46.5	9.0	8.0	0.0	0.0	108.2	74.9
Mathematics and statistics	208.2	129.4	91.0	46.5	9.0	8.0	0.0	0.0	108.2	74.9
Engineering and technology	595.9	177.5	356.0	102.7	111.8	38.8	0.0	0.0	128.1	36.0
Architecture. town planning and spatial planning	89.0	35.0	39.0	12.0	29.0	19.0	0.0	0.0	21.0	4.0
Building and civil engineering. and water engineering/technology	171.9	51.5	128.9	40.0	30.0	9.5	0.0	0.0	13.0	2.0
Electrical engineering – energy	192.7	33.6	94.0	17.0	34.0	6.0	0.0	0.0	64.7	10.6
Electrical engineering – electronics. communication technology. instrument fitting. computer technology - hardware	44.6	15.4	36.2	13.0	4.0	0.0	0.0	0.0	4.4	2.4
Food processing	97.7	42.1	57.9	20.8	14.8	4.3	0.0	0.0	25.0	17.0
Agricultural sciences	452.6	266.9	313.6	166.2	80.5	59.8	4.0	2.3	54.5	38.8
Land and water (fertilisation. melioration. etc.)	452.6	266.9	313.6	166.2	80.5	59.8	4.0	2.3	54.5	38.8
Medical sciences	38.0	15.0	27.0	12.0	10.0	2.0	0.0	0.0	1.0	1.0
Pharmacy	38.0	15.0	27.0	12.0	10.0	2.0	0.0	0.0	1.0	1.0

### 3.2. Full-time and part-time researchers. by academic titles. sectors. scientific fields and sex. expressed in full-time equivalent (FTE). 2012 (continued)

	Full-time and part-time researchers									
	Total		Doctors of science		Masters of science		Specialists		University degree	
	All	Women	All	Women	All	Women	All	Women	All	Women
Social sciences	309.0	150.9	223.8	94.9	46.1	27.7	0.0	0.0	39.1	28.4
Demography and social geography	120.2	63.0	95.4	41.8	9.8	7.4	0.0	0.0	15.0	13.8
Economics	58.2	37.7	33.9	19.6	15.3	11.8	0.0	0.0	9.0	6.4
Political sciences	86.1	33.2	62.0	20.5	14.0	6.0	0.0	0.0	10.1	6.7
Psychology	44.5	17.0	32.5	13.0	7.0	2.5	0.0	0.0	5.0	1.5
Humanities	306.7	185.8	147.8	74.5	95.8	88.3	0.0	0.0	63.1	23.0
Archeology	144.7	85.8	55.8	21.5	62.8	64.3	0.0	0.0	26.1	0.0
Philosophy and theology	162.0	100.0	92.0	53.0	33.0	24.0	0.0	0.0	37.0	23.0
<b>Region Sumadije i Zapadne Srbije</b>	<b>748.1</b>	<b>359.7</b>	<b>397.1</b>	<b>167.1</b>	<b>142.2</b>	<b>101.3</b>	<b>4.0</b>	<b>2.3</b>	<b>204.8</b>	<b>89.0</b>
<i>Business sector</i>	34.9	7.2	5.0	0.0	2.3	0.1	0.0	0.0	27.6	7.1
Natural sciences. mathematics	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	1.0
Physics and nuclear physics	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	1.0
Engineering and technology	31.8	6.1	5.0	0.0	2.3	0.1	0.0	0.0	24.5	6.0
Architecture. town planning and spatial planning	0.3	0.1	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0
Building and civil engineering. and water engineering/technology	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0
Metallurgy	27.0	6.0	5.0	0.0	2.0	0.0	0.0	0.0	20.0	6.0
Food processing	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
Social sciences	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Demography and social geography	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
<i>Government sector</i>	20.0	12.0	9.0	5.0	9.0	6.0	0.0	0.0	2.0	1.0
Medical sciences	20.0	12.0	9.0	5.0	9.0	6.0	0.0	0.0	2.0	1.0
Stomatology	20.0	12.0	9.0	5.0	9.0	6.0	0.0	0.0	2.0	1.0
<i>Tertiary education</i>	693.2	340.5	383.1	162.1	130.9	95.2	4.0	2.3	175.2	80.9
Natural sciences. mathematics	161.3	101.5	91.0	46.5	9.0	8.0	0.0	0.0	61.3	47.0
Mathematics and statistics	161.3	101.5	91.0	46.5	9.0	8.0	0.0	0.0	61.3	47.0
Engineering and technology	145.3	33.6	79.8	21.7	21.8	4.3	0.0	0.0	43.7	7.6
Building and civil engineering. and water engineering/technology	32.0	10.0	32.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0
Electrical engineering – energy	100.6	19.5	38.9	8.9	18.0	3.0	0.0	0.0	43.7	7.6
Food processing	12.7	4.1	8.9	2.8	3.8	1.3	0.0	0.0	0.0	0.0
Agricultural sciences	85.6	46.9	48.6	25.2	4.5	2.8	4.0	2.3	28.5	16.8
Land and water (fertilisation. melloration. etc.)	85.6	46.9	48.6	25.2	4.5	2.8	4.0	2.3	28.5	16.8
Medical sciences	38.0	15.0	27.0	12.0	10.0	2.0	0.0	0.0	1.0	1.0
Pharmacy	38.0	15.0	27.0	12.0	10.0	2.0	0.0	0.0	1.0	1.0
Social sciences	118.3	57.7	80.9	35.3	22.8	13.9	0.0	0.0	14.6	8.5
Demography and social geography	15.2	7.0	10.4	4.8	2.8	1.4	0.0	0.0	2.0	0.8
Economics	56.5	36.5	33.0	19.0	15.0	11.5	0.0	0.0	8.5	6.0
Political sciences	31.1	10.2	24.0	7.5	4.0	1.0	0.0	0.0	3.1	1.7
Psychology	15.5	4.0	13.5	4.0	1.0	0.0	0.0	0.0	1.0	0.0
Humanities	144.7	85.8	55.8	21.5	62.8	64.3	0.0	0.0	26.1	0.0
Archeology	144.7	85.8	55.8	21.5	62.8	64.3	0.0	0.0	26.1	0.0
<b>Region Juzne i Istocne Srbije</b>	<b>1274.2</b>	<b>615.0</b>	<b>795.1</b>	<b>341.6</b>	<b>243.3</b>	<b>140.3</b>	<b>1.0</b>	<b>0.0</b>	<b>234.8</b>	<b>133.2</b>
<i>Business sector</i>	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
Engineering and technology	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
Electrical engineering - energy	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
<i>Government sector</i>	56.0	30.0	19.0	7.0	21.0	11.0	0.0	0.0	15.0	12.0
Engineering and technology	41.0	25.0	11.0	5.0	14.0	8.0	1.0	0.0	15.0	12.0
Food technology	41.0	25.0	11.0	5.0	14.0	8.0	1.0	0.0	15.0	12.0
Medical sciences	15.0	5.0	8.0	2.0	7.0	3.0	0.0	0.0	0.0	0.0
Stomatology	15.0	5.0	8.0	2.0	7.0	3.0	0.0	0.0	0.0	0.0
<i>Tertiary education</i>	1217.2	585.0	776.1	334.6	222.3	129.3	0.0	0.0	218.8	121.2
Natural sciences. mathematics	46.9	27.9	0.0	0.0	0.0	0.0	0.0	0.0	46.9	27.9
Mathematics and statistics	46.9	27.9	0.0	0.0	0.0	0.0	0.0	0.0	46.9	27.9
Engineering and technology	450.6	144.0	276.2	81.1	90.0	34.5	0.0	0.0	84.4	28.4
Architecture. town planning. spatial planning	89.0	35.0	39.0	12.0	29.0	19.0	0.0	0.0	21.0	4.0
Building and civil engineering. and water engineering/technology	139.9	41.5	96.9	30.0	30.0	9.5	0.0	0.0	13.0	2.0
Electrical engineering – energy	92.1	14.1	55.1	8.1	16.0	3.0	0.0	0.0	21.0	3.0
Electrical engineering – electronics. communication technology. instrument fitting. computer technology - hardware	44.6	15.4	36.2	13.0	4.0	0.0	0.0	0.0	4.4	2.4
Food processing	85.0	38.0	49.0	18.0	11.0	3.0	0.0	0.0	25.0	17.0
Agricultural sciences	367.0	220.0	265.0	141.0	76.0	57.0	0.0	0.0	26.0	22.0
Land and water (fertilisation. melloration. etc.)	367.0	220.0	265.0	141.0	76.0	57.0	0.0	0.0	26.0	22.0
Social sciences	190.7	93.2	142.9	59.6	23.3	13.8	0.0	0.0	24.5	19.9
Demography and social geography	105.0	56.0	85.0	37.0	7.0	6.0	0.0	0.0	13.0	13.0
Economics	1.7	1.2	0.9	0.6	0.3	0.3	0.0	0.0	0.5	0.4
Political sciences	55.0	23.0	38.0	13.0	10.0	5.0	0.0	0.0	7.0	5.0
Psychology	29.0	13.0	19.0	9.0	6.0	2.5	0.0	0.0	4.0	1.5
Humanities	162.0	100.0	92.0	53.0	33.0	24.0	0.0	0.0	37.0	23.0
Philosophy and theology	162.0	100.0	92.0	53.0	33.0	24.0	0.0	0.0	37.0	23.0
<b>Region Kosovo i Metohija</b>	...	...	...	...	...	...	...	...	...	...

## 4.1. Full-time and part-time researchers and assistant researchers, by age and sex, 2012

	Researchers				Assistant researchers			
	Full-time		Part-time		Full-time		Part-time	
	All	Women	All	Women	All	Women	All	Women
<b>REPUBLIC OF SERBIA</b>	<b>10796</b>	<b>5434</b>	<b>2453</b>	<b>1143</b>	<b>1272</b>	<b>549</b>	<b>203</b>	<b>118</b>
Under 25	72	43	36	22	24	8	16	12
25-29	1515	841	266	165	124	50	35	23
30-34	1780	1017	376	159	173	78	31	24
35-39	1536	852	352	180	199	91	30	18
40-44	1325	687	303	152	153	74	24	10
45-49	1254	619	300	144	174	93	21	13
50-54	1147	504	284	138	139	68	12	8
55-59	984	429	232	96	182	63	21	6
60-64	944	358	252	81	85	21	11	4
65-69	233	83	49	6	13	3	1	-
70 and over	6	1	3	-	6	-	1	-
<i>Business sector</i>	273	125	10	4	114	46	32	17
Under 25	-	-	-	-	1	-	-	-
25-29	74	45	-	-	10	3	3	1
30-34	68	36	3	2	27	17	4	3
35-39	40	18	2	1	26	16	7	7
40-44	22	6	1	-	3	2	6	1
45-49	13	6	-	-	10	1	7	5
50-54	20	6	1	1	10	2	2	-
55-59	10	7	3	-	7	5	2	-
60-64	16	-	-	-	10	-	-	-
65-69	8	-	-	-	5	-	-	-
70 and over	2	1	-	-	5	-	1	-
<i>Government sector</i>	3017	1679	66	34	603	241	26	10
Under 25	18	7	-	-	8	3	-	-
25-29	430	246	13	7	34	10	1	1
30-34	595	371	-	-	57	21	2	2
35-39	460	278	8	7	78	32	3	2
40-44	392	232	5	4	73	33	2	-
45-49	304	161	10	4	82	47	4	-
50-54	291	148	17	6	84	42	3	3
55-59	256	132	4	1	128	40	8	-
60-64	227	89	7	5	53	12	2	2
65-69	42	15	1	-	5	1	1	-
70 and over	2	-	1	-	1	-	-	-
<i>Tertiary education</i>	7502	3629	2377	1105	550	261	145	91
Under 25	54	36	36	22	15	5	16	12
25-29	1011	550	253	158	80	37	31	21
30-34	1117	610	373	157	89	40	25	19
35-39	1033	555	342	172	91	42	20	9
40-44	911	449	297	148	77	39	16	9
45-49	937	452	290	140	81	45	10	8
50-54	835	350	266	131	45	24	7	5
55-59	718	290	225	95	47	18	11	6
60-64	701	269	245	76	22	9	9	2
65-69	183	68	48	6	3	2	-	-
70 and over	2	-	2	-	-	-	-	-
<i>Non-profit sector</i>	4	1	-	-	5	1	-	-
25-29	-	-	-	-	-	-	-	-
35-39	3	1	-	-	4	1	-	-
45-49	-	-	-	-	1	-	-	-
50-54	1	-	-	-	-	-	-	-
55-59	-	-	-	-	-	-	-	-
<b>SRBIJA – SEVER</b>	<b>8984</b>	<b>4566</b>	<b>1831</b>	<b>834</b>	<b>1135</b>	<b>486</b>	<b>136</b>	<b>75</b>
Under 25	71	42	30	21	22	7	14	10
25-29	1327	736	215	135	108	41	23	15
30-34	1532	871	280	112	158	73	20	16
35-39	1287	730	266	127	172	81	23	14
40-44	1080	552	223	107	138	68	15	5
45-49	1012	504	211	102	153	79	10	5
50-54	927	416	206	101	126	60	7	4
55-59	790	345	166	63	159	54	16	3
60-64	767	304	191	63	80	20	6	3
65-69	186	65	40	3	13	3	1	-
70 and over	5	1	3	-	6	-	1	-

## 4.1. Full-time and part-time researchers and assistant researchers, by age and sex, 2012 (continued)

	Researchers				Assistant researchers			
	Full-time		Part-time		Full-time		Part-time	
	All	Women	All	Women	All	Women	All	Women
<i>Business sector</i>	238	118	5	2	109	44	29	15
Under 25	-	-	-	-	1	-	-	-
25-29	65	43	-	-	9	2	3	1
30-34	61	35	1	1	27	17	4	3
35-39	37	18	-	-	23	15	7	7
40-44	17	4	1	-	3	2	6	1
45-49	13	6	-	-	10	1	4	3
50-54	16	5	1	1	10	2	2	-
55-59	8	6	2	-	7	5	2	-
60-64	13	-	-	-	9	-	-	-
65-69	7	-	-	-	5	-	-	-
70 and over	1	1	-	-	5	-	1	-
<i>Government sector</i>	2941	1637	66	34	557	213	26	10
Under 25	18	7	-	-	8	3	-	-
25-29	426	243	13	7	33	9	1	1
30-34	589	368	-	-	55	20	2	2
35-39	440	265	8	7	74	29	3	2
40-44	371	216	5	4	61	29	2	-
45-49	298	160	10	4	76	42	4	-
50-54	284	146	17	6	76	36	3	3
55-59	252	129	4	1	116	32	8	-
60-64	220	88	7	5	52	12	2	2
65-69	41	15	1	-	5	1	1	-
70 and over	2	-	1	-	1	-	-	-
<i>Tertiary education</i>	5801	2810	1760	798	464	228	81	50
Under 25	53	35	30	21	13	4	14	10
25-29	836	450	202	128	66	30	19	13
30-34	882	468	279	111	76	36	14	11
35-39	807	446	258	120	71	36	13	5
40-44	692	332	217	103	74	37	7	4
45-49	701	338	201	98	66	36	2	2
50-54	626	265	188	94	40	22	2	1
55-59	530	210	160	62	36	17	6	3
60-64	534	216	184	58	19	8	4	1
65-69	138	50	39	3	3	2	-	-
70 and over	2	-	2	-	-	-	-	-
<i>Non-profit sector</i>	4	1	-	-	5	1	-	-
25-29	-	-	-	-	-	-	-	-
35-39	3	1	-	-	4	1	-	-
45-49	-	-	-	-	1	-	-	-
50-54	1	-	-	-	-	-	-	-
55-59	-	-	-	-	-	-	-	-
<b>Beogradski region</b>	<b>6964</b>	<b>3512</b>	<b>969</b>	<b>541</b>	<b>835</b>	<b>349</b>	<b>100</b>	<b>52</b>
Under 25	55	37	1	-	14	4	2	1
25-29	1015	550	81	52	54	17	6	4
30-34	1190	680	124	69	110	55	18	15
35-39	980	555	132	93	123	59	21	14
40-44	852	435	134	77	97	46	14	4
45-49	805	393	131	76	116	60	10	5
50-54	750	333	138	77	100	49	5	3
55-59	633	275	102	45	135	41	16	3
60-64	557	218	108	51	68	16	6	3
65-69	122	35	15	1	12	2	1	-
70 and over	5	1	3	-	6	-	1	-
<i>Business sector</i>	235	118	5	2	108	44	29	15
Under 25	-	-	-	-	1	-	-	-
25-29	65	43	-	-	9	2	3	1
30-34	60	35	1	1	26	17	4	3
35-39	37	18	-	-	23	15	7	7
40-44	16	4	1	-	3	2	6	1
45-49	12	6	-	-	10	1	4	3
50-54	16	5	1	1	10	2	2	-
55-59	8	6	2	-	7	5	2	-
60-64	13	-	-	-	9	-	-	-
65-69	7	-	-	-	5	-	-	-
70 and over	1	1	-	-	5	-	1	-



## 4.1. Full-time and part-time researchers and assistant researchers, by age and sex, 2012 (continued)

	Researchers				Assistant researchers			
	Full-time		Part-time		Full-time		Part-time	
	All	Women	All	Women	All	Women	All	Women
<i>Government sector</i>	2754	1542	65	34	523	199	26	10
Under 25	18	7	-	-	8	3	-	-
25-29	405	230	13	7	33	9	1	1
30-34	544	343	-	-	55	20	2	2
35-39	410	248	8	7	73	28	3	2
40-44	343	199	5	4	57	27	2	-
45-49	278	153	10	4	70	40	4	-
50-54	275	141	17	6	68	34	3	3
55-59	240	124	3	1	105	26	8	-
60-64	199	82	7	5	48	11	2	2
65-69	40	15	1	-	5	1	1	-
70 and over	2	-	1	-	1	-	-	-
<i>Tertiary education</i>	3973	1851	899	505	204	106	45	27
Under 25	37	30	1	-	5	1	2	1
25-29	545	277	68	45	12	6	2	2
30-34	586	302	123	68	29	18	12	10
35-39	532	288	124	86	27	16	11	5
40-44	493	232	128	73	37	17	6	3
45-49	515	234	121	72	36	19	2	2
50-54	458	187	120	70	22	13	-	-
55-59	385	145	97	44	23	10	6	3
60-64	345	136	101	46	11	5	4	1
65-69	75	20	14	1	2	1	-	-
70 and over	2	-	2	-	-	-	-	-
<i>Non-profit sector</i>	2	1	-	-	-	-	-	-
35-39	1	1	-	-	-	-	-	-
50-54	1	-	-	-	-	-	-	-
55-59	-	-	-	-	-	-	-	-
<b>Region Vojvodine</b>	<b>2020</b>	<b>1054</b>	<b>862</b>	<b>293</b>	<b>300</b>	<b>137</b>	<b>36</b>	<b>23</b>
Under 25	16	5	29	21	8	3	12	9
25-29	312	186	134	83	54	24	17	11
30-34	342	191	156	43	48	18	2	1
35-39	307	175	134	34	49	22	2	-
40-44	228	117	89	30	41	22	1	1
45-49	207	111	80	26	37	19	-	-
50-54	177	83	68	24	26	11	2	1
55-59	157	70	64	18	24	13	-	-
60-64	210	86	83	12	12	4	-	-
65-69	64	30	25	2	1	1	-	-
70 and over	-	-	-	-	-	-	-	-
<i>Business sector</i>	3	-	-	-	1	-	-	-
30-34	1	-	-	-	1	-	-	-
40-44	1	-	-	-	-	-	-	-
45-49	1	-	-	-	-	-	-	-
<i>Government sector</i>	187	95	1	-	34	14	-	-
Under 25	-	-	-	-	-	-	-	-
25-29	21	13	-	-	-	-	-	-
30-34	45	25	-	-	-	-	-	-
35-39	30	17	-	-	1	1	-	-
40-44	28	17	-	-	4	2	-	-
45-49	20	7	-	-	6	2	-	-
50-54	9	5	-	-	8	2	-	-
55-59	12	5	1	-	11	6	-	-
60-64	21	6	-	-	4	1	-	-
65-69	1	-	-	-	-	-	-	-
<i>Tertiary sector</i>	1828	959	861	293	260	122	36	23
Under 25	16	5	29	21	8	3	12	9
25-29	291	173	134	83	54	24	17	11
30-34	296	166	156	43	47	18	2	1
35-39	275	158	134	34	44	20	2	-
40-44	199	100	89	30	37	20	1	1
45-49	186	104	80	26	30	17	-	-
50-54	168	78	68	24	18	9	2	1
55-59	145	65	63	18	13	7	-	-
60-64	189	80	83	12	8	3	-	-
65-69	63	30	25	2	1	1	-	-
70 and over	-	-	-	-	-	-	-	-

## 4.1. Full-time and part-time researchers and assistant researchers, by age and sex, 2012 (continued)

	Researchers				Assistant researchers			
	Full-time		Part-time		Full-time		Part-time	
	All	Women	All	Women	All	Women	All	Women
<i>Non-profit sector</i>	2	-	-	-	5	1	-	-
25-29	-	-	-	-	-	-	-	-
35-39	2	-	-	-	4	1	-	-
45-49	-	-	-	-	1	-	-	-
50-54	-	-	-	-	-	-	-	-
<b>SRBIJA – JUG</b>	<b>1812</b>	<b>868</b>	<b>622</b>	<b>309</b>	<b>137</b>	<b>63</b>	<b>67</b>	<b>43</b>
Under 25	1	1	6	1	2	1	2	2
25-29	188	105	51	30	16	9	12	8
30-34	248	146	96	47	15	5	11	8
35-39	249	122	86	53	27	10	7	4
40-44	245	135	80	45	15	6	9	5
45-49	242	115	89	42	21	14	11	8
50-54	220	88	78	37	13	8	5	4
55-59	194	84	66	33	23	9	5	3
60-64	177	54	61	18	5	1	5	1
65-69	47	18	9	3	-	-	-	-
70 and over	1	-	-	-	-	-	-	-
<i>Business sector</i>	35	7	5	2	5	2	3	2
25-29	9	2	-	-	1	1	-	-
30-34	7	1	2	1	-	-	-	-
35-39	3	-	2	1	3	1	-	-
40-44	5	2	-	-	-	-	-	-
45-49	-	-	-	-	-	-	3	2
50-54	4	1	-	-	-	-	-	-
55-59	2	1	1	-	-	-	-	-
60-64	3	-	-	-	1	-	-	-
70 and over	1	-	-	-	-	-	-	-
<i>Government sector</i>	76	42	-	-	46	28	-	-
25-29	4	3	-	-	1	1	-	-
30-34	6	3	-	-	2	1	-	-
35-39	20	13	-	-	4	3	-	-
40-44	21	16	-	-	12	4	-	-
45-49	6	1	-	-	6	5	-	-
50-54	7	2	-	-	8	6	-	-
55-59	4	3	-	-	12	8	-	-
60-64	7	1	-	-	1	-	-	-
65-69	1	-	-	-	-	-	-	-
<i>Tertiary sector</i>	1701	819	617	307	86	33	64	41
Under 25	1	1	6	1	2	1	2	2
25-29	175	100	51	30	14	7	12	8
30-34	235	142	94	46	13	4	11	8
35-39	226	109	84	52	20	6	7	4
40-44	219	117	80	45	3	2	9	5
45-49	236	114	89	42	15	9	8	6
50-54	209	85	78	37	5	2	5	4
55-59	188	80	65	33	11	1	5	3
60-64	167	53	61	18	3	1	5	1
65-69	45	18	9	3	-	-	-	-
<b>Region Sumadije i Zapadne Srbije</b>	<b>576</b>	<b>269</b>	<b>513</b>	<b>255</b>	<b>47</b>	<b>22</b>	<b>45</b>	<b>31</b>
Under 25	1	1	4	1	2	1	2	2
25-29	86	45	47	27	11	6	7	4
30-34	99	54	88	43	5	4	7	6
35-39	83	34	70	42	18	4	5	3
40-44	52	32	64	36	2	2	6	3
45-49	61	30	77	37	5	3	8	6
50-54	86	33	65	30	1	1	5	4
55-59	52	21	49	24	2	-	4	3
60-64	39	12	43	12	1	1	1	-
65-69	16	7	6	3	-	-	-	-
70 and over	1	-	-	-	-	-	-	-
<i>Business sector</i>	34	7	5	2	3	1	2	2
25-29	9	2	-	-	-	-	-	-
30-34	7	1	2	1	-	-	-	-
35-39	3	-	2	1	3	1	-	-
40-44	5	2	-	-	-	-	-	-
45-49	-	-	-	-	-	-	2	2
50-54	3	1	-	-	-	-	-	-
55-59	2	1	1	-	-	-	-	-
60-64	3	-	-	-	-	-	-	-
65-69	1	-	-	-	-	-	-	-
70 and over	1	-	-	-	-	-	-	-

## 4.1. Full-time and part-time researchers and assistant researchers, by age and sex, 2012 (continued)

	Researchers				Assistant researchers			
	Full-time		Part-time		Full-time		Part-time	
	All	Women	All	Women	All	Women	All	Women
<i>Government sector</i>	20	12	-	-	1	1	-	-
25-29	1	1	-	-	-	-	-	-
30-34	3	1	-	-	-	-	-	-
35-39	4	2	-	-	-	-	-	-
40-44	7	6	-	-	-	-	-	-
45-49	1	-	-	-	-	-	-	-
50-54	-	-	-	-	1	1	-	-
55-59	1	1	-	-	-	-	-	-
60-64	3	1	-	-	-	-	-	-
<i>Tertiary education</i>	522	250	508	253	43	20	43	29
Under 25	1	1	4	1	2	1	2	2
25-29	76	42	47	27	11	6	7	4
30-34	89	52	86	42	5	4	7	6
35-39	76	32	68	41	15	3	5	3
40-44	40	24	64	36	2	2	6	3
45-49	60	30	77	37	5	3	6	4
50-54	83	32	65	30	-	-	5	4
55-59	49	19	48	24	2	-	4	3
60-64	33	11	43	12	1	1	1	-
65-69	15	7	6	3	-	-	-	-
<b>Region Juzne i Istocne Srbije</b>	<b>1236</b>	<b>599</b>	<b>109</b>	<b>54</b>	<b>90</b>	<b>41</b>	<b>22</b>	<b>12</b>
Under 25	-	-	2	-	-	-	-	-
25-29	102	60	4	3	5	3	5	4
30-34	149	92	8	4	10	1	4	2
35-39	166	88	16	11	9	6	2	1
40-44	193	103	16	9	13	4	3	2
45-49	181	85	12	5	16	11	3	2
50-54	134	55	13	7	12	7	-	-
55-59	142	63	17	9	21	9	1	-
60-64	138	42	18	6	4	-	4	1
65-69	31	11	3	-	-	-	-	-
<i>Business sector</i>	1	-	-	-	2	1	1	-
25-29	-	-	-	-	1	1	-	-
35-39	-	-	-	-	-	-	-	-
45-49	-	-	-	-	-	-	1	-
50-54	1	-	-	-	-	-	-	-
55-59	-	-	-	-	-	-	-	-
60-64	-	-	-	-	1	-	-	-
65-69	-	-	-	-	-	-	-	-
<i>Government sector</i>	56	30	-	-	45	27	-	-
25-29	3	2	-	-	1	1	-	-
30-34	3	2	-	-	2	1	-	-
35-39	16	11	-	-	4	3	-	-
40-44	14	10	-	-	12	4	-	-
45-49	5	1	-	-	6	5	-	-
50-54	7	2	-	-	7	5	-	-
55-59	3	2	-	-	12	8	-	-
60-64	4	-	-	-	1	-	-	-
65-69	1	-	-	-	-	-	-	-
<i>Tertiary education</i>	1179	569	109	54	43	13	21	12
Under 25	-	-	2	-	-	-	-	-
25-29	99	58	4	3	3	1	5	4
30-34	146	90	8	4	8	-	4	2
35-39	150	77	16	11	5	3	2	1
40-44	179	93	16	9	1	-	3	2
45-49	176	84	12	5	10	6	2	2
50-54	126	53	13	7	5	2	-	-
55-59	139	61	17	9	9	1	1	-
60-64	134	42	18	6	2	-	4	1
65-69	30	11	3	-	-	-	-	-
<b>Region Kosovo i Metohija</b>	...	...	...	...	...	...	...	...

### 5.1. Full-time and part-time assistant researchers, by academic titles, sectors, scientific fields and sex, 2012 (physical persons)

	Full-time and part-time assistant researchers									
	Total		Doctors of science		Masters of science		Specialists		University degree	
	All	Women	All	Women	All	Women	All	Women	All	Women
<b>REPUBLIC OF SERBIA</b>	<b>1475</b>	<b>667</b>	<b>38</b>	<b>15</b>	<b>150</b>	<b>73</b>	<b>35</b>	<b>23</b>	<b>1252</b>	<b>556</b>
<i>Business sector</i>	146	63	9	2	6	4	15	13	116	44
Natural sciences, mathematics	8	2	2	-	-	-	-	-	6	2
Earth science (geology, geophysics, geography)	5	1	-	-	-	-	-	-	5	1
Chemistry	3	1	2	-	-	-	-	-	1	1
Engineering and technology	73	11	7	2	3	1	1	-	62	8
Building and civil engineering, and water	4	1	-	-	-	-	1	-	3	1
Electrical engineering – energy	65	7	5	-	3	1	-	-	57	6
Mining and quarrying	2	1	-	-	-	-	-	-	2	1
Food processing	2	2	2	2	-	-	-	-	-	-
Agricultural science	50	44	-	-	3	3	13	12	34	29
Animal farming	7	6	-	-	-	-	-	-	7	6
Fishery and game	43	38	-	-	3	3	13	12	27	23
Medical sciences	7	4	-	-	-	-	-	-	7	4
Pharmacy	4	3	-	-	-	-	-	-	4	3
Surgery	1	-	-	-	-	-	-	-	1	-
Stomatology	2	1	-	-	-	-	-	-	2	1
Social sciences	8	2	-	-	-	-	1	1	7	1
Demography and social geography	8	2	-	-	-	-	1	1	7	1
<i>Government sector</i>	629	251	9	2	45	18	18	9	557	222
Natural sciences, mathematics	79	38	-	-	10	6	7	3	62	29
Mathematics and statistics	1	1	-	-	-	-	-	-	1	1
Astronomy	34	8	-	-	1	-	4	2	29	6
Atmosphere and hydrologic sciences	4	1	-	-	1	1	-	-	3	-
Chemistry	40	28	-	-	8	5	3	1	29	22
Engineering and technology	403	139	1	-	21	7	9	4	372	128
Architecture, town planning, spatial planning	9	4	1	-	4	2	-	-	4	2
Building and civil engineering, and water engineering/technology	214	67	-	-	6	-	-	-	208	67
Electrical engineering – energy	11	1	-	-	2	-	-	-	9	1
Mechanics	75	20	-	-	3	1	3	-	69	19
Transport	2	-	-	-	1	-	-	-	1	-
Wood processing	8	5	-	-	4	4	-	-	4	1
Food processing	84	42	-	-	1	-	6	4	77	38
Agricultural sciences	2	1	-	-	-	-	-	-	2	1
Fishery and game	2	1	-	-	-	-	-	-	2	1
Medical sciences	137	72	6	2	11	5	2	2	118	63
Pharmacy	1	-	-	-	1	-	-	-	-	-
Internal medicine	2	2	-	-	-	-	2	2	-	-
Surgery	115	59	5	1	8	3	-	-	102	55
Stomatology	19	11	1	1	2	2	-	-	16	8
Social sciences	3	-	-	-	2	-	-	-	1	-
Organisational sciences	1	-	-	-	-	-	-	-	1	-
Psychology	2	-	-	-	2	-	-	-	-	-
Humanities	5	1	2	-	1	-	-	-	2	1
History	2	1	-	-	-	-	-	-	2	1
Archeology	-	-	-	-	-	-	-	-	-	-
Phylosophy and theology	3	-	2	-	1	-	-	-	-	-
<i>Tertiary education</i>	695	352	19	11	97	50	1	1	578	290
Natural sciences, mathematics	101	54	5	3	12	7	-	-	84	44
Mathematics and statistics	45	21	1	1	2	2	-	-	42	18
Computer science – software	2	-	-	-	-	-	-	-	2	-
Physics and nuclear physics	6	2	2	1	1	-	-	-	3	1
Earth science (geology, geophysics, geography)	30	14	1	-	8	4	-	-	21	10
Atmospheric and hydrologic sciences	18	17	1	1	1	1	-	-	16	15
Engineering and technology	184	47	2	2	37	11	-	-	145	34
Architecture, town planning, spatial planning	15	4	-	-	1	-	-	-	14	4
Building and civil engineering, and water engineering/technology	50	12	-	-	23	8	-	-	27	4
Electrical engineering – energy science	12	2	-	-	-	-	-	-	12	2
Electrical engineering – electronics, communication technology, equipment fitting, computer technology - hardware	13	8	-	-	-	-	-	-	13	8
Mechanics	16	8	1	1	8	3	-	-	7	4
Food processing	78	13	1	1	5	-	-	-	72	12
Agricultural sciences	39	28	5	4	6	4	-	-	28	20
Land and water (fertilisation, melioration, etc.)	27	18	1	-	4	2	-	-	22	16
Fishery and game	12	10	4	4	2	2	-	-	6	4
Medical sciences	100	52	5	2	13	6	1	1	81	43
Pharmacy	95	50	2	1	11	5	1	1	81	43
Internal medicine	3	1	3	1	-	-	-	-	-	-
Surgery	2	1	-	-	2	1	-	-	-	-
Social sciences	125	79	2	-	23	17	-	-	100	62
Demography and social geography	22	16	-	-	14	11	-	-	8	5
Economics	23	14	1	-	1	1	-	-	21	13
Political sciences	33	18	-	-	3	1	-	-	30	17
Organisational sciences	14	11	-	-	-	-	-	-	14	11
Sociology	14	10	-	-	-	-	-	-	14	10
Psychology	19	10	1	-	5	4	-	-	13	6

**5.1. Full-time and part-time assistant researchers, by academic titles, sectors, scientific fields and sex, 2012 (physical persons) (continued)**

	Full-time and part-time assistant researchers									
	Total		Doctors of science		Masters of science		Specialists		University degree	
	All	Women	All	Women	All	Women	All	Women	All	Women
Humanities	146	92	-	-	6	5	-	-	140	87
Archeology	14	10	-	-	4	3	-	-	10	7
Philosophy and theology	117	74	-	-	-	-	-	-	117	74
Foreign languages and mother tongue	15	8	-	-	2	2	-	-	13	6
<i>Non-profit sector</i>	5	1	1	-	2	1	1	-	1	-
Engineering and technology	4	1	1	-	1	1	1	-	1	-
Food processing	4	1	1	-	1	1	1	-	1	-
Social sciences	1	-	-	-	1	-	-	-	-	-
Psychology	1	-	-	-	1	-	-	-	-	-
<b>SRBIJA – SEVER</b>	<b>1271</b>	<b>561</b>	<b>32</b>	<b>11</b>	<b>116</b>	<b>52</b>	<b>32</b>	<b>21</b>	<b>1091</b>	<b>477</b>
<i>Business sector</i>	138	59	7	-	6	4	13	12	112	43
Natural sciences, mathematics	8	2	2	-	-	-	-	-	6	2
Earth science (geology, geophysics, geography)	5	1	-	-	-	-	-	-	5	1
Chemistry	3	1	2	-	-	-	-	-	1	1
Engineering and technology	68	8	5	-	3	1	-	-	60	7
Building and civil engineering, and water engineering/technology	3	1	-	-	-	-	-	-	3	1
Electrical engineering – energy	65	7	5	-	3	1	-	-	57	6
Agricultural sciences	50	44	-	-	3	3	13	12	34	29
Animal farming	7	6	-	-	-	-	-	-	7	6
Fishery and game	43	38	-	-	3	3	13	12	27	23
Medical sciences	7	4	-	-	-	-	-	-	7	4
Pharmacy	4	3	-	-	-	-	-	-	4	3
Surgery	1	-	-	-	-	-	-	-	1	-
Stomatology	2	1	-	-	-	-	-	-	2	1
Social sciences	5	1	-	-	-	-	-	-	5	1
Demography and social geography	5	1	-	-	-	-	-	-	5	1
<i>Government sector</i>	583	223	8	1	43	16	17	8	515	198
Natural sciences, mathematics	79	38	-	-	10	6	7	3	62	29
Mathematics and statistics	1	1	-	-	-	-	-	-	1	1
Astronomy	34	8	-	-	1	-	4	2	29	6
Atmosphere and hydrologic sciences	4	1	-	-	1	1	-	-	3	-
Chemistry	40	28	-	-	8	5	3	1	29	22
Engineering and technology	373	121	1	-	21	7	8	3	343	111
Architecture, town planning, spatial planning	9	4	1	-	4	2	-	-	4	2
Building and civil engineering, and water engineering/technology	214	67	-	-	6	-	-	-	208	67
Electrical engineering – energy	11	1	-	-	2	-	-	-	9	1
Mechanics	75	20	-	-	3	1	3	-	69	19
Transport	2	-	-	-	1	-	-	-	1	-
Wood processing	8	5	-	-	4	4	-	-	4	1
Food processing	54	24	-	-	1	-	5	3	48	21
Agricultural sciences	2	1	-	-	-	-	-	-	2	1
Fishery and game	2	1	-	-	-	-	-	-	2	1
Medical sciences	121	62	5	1	9	3	2	2	105	56
Pharmacy	1	-	-	-	1	-	-	-	-	-
Internal medicine	2	2	-	-	-	-	2	2	-	-
Surgery	115	59	5	1	8	3	-	-	102	55
Stomatology	3	1	-	-	-	-	-	-	3	1
Social sciences	3	-	-	-	2	-	-	-	1	-
Organisational sciences	1	-	-	-	-	-	-	-	1	-
Psychology	2	-	-	-	2	-	-	-	-	-
Humanities	5	1	2	-	1	-	-	-	2	1
History	2	1	-	-	-	-	-	-	2	1
Archeology	-	-	-	-	-	-	-	-	-	-
Philosophy and theology	3	-	2	-	1	-	-	-	-	-
<i>Tertiary education</i>	545	278	16	10	65	31	1	1	463	236
Natural sciences, mathematics	90	50	4	2	12	7	-	-	74	41
Mathematics and statistics	34	17	-	-	2	2	-	-	32	15
Computer science - software	2	-	-	-	-	-	-	-	2	-
Physics and nuclear physics	6	2	2	1	1	-	-	-	3	1
Earth science (geology, geophysics, geography)	30	14	1	-	8	4	-	-	21	10
Atmospheric and hydrologic sciences	18	17	1	1	1	1	-	-	16	15
Engineering and technology	114	21	2	2	22	3	-	-	90	16
Architecture, town planning, spatial planning	8	2	-	-	-	-	-	-	8	2
Building and civil engineering, and water engineering/technology	18	1	-	-	9	-	-	-	9	1
Mechanics	16	8	1	1	8	3	-	-	7	4
Food processing	72	10	1	1	5	-	-	-	66	9
Agricultural sciences	12	10	4	4	2	2	-	-	6	4
Fishery and game	12	10	4	4	2	2	-	-	6	4
Medical sciences	100	52	5	2	13	6	1	1	81	43
Pharmacy	95	50	2	1	11	5	1	1	81	43
Internal medicine	3	1	3	1	-	-	-	-	-	-
Surgery	2	1	-	-	2	1	-	-	-	-

### 5.1. Full-time and part-time assistant researchers, by academic titles, sectors, scientific fields and sex, 2012 (physical persons) (continued)

	Full-time and part-time assistant researchers									
	Total		Doctors of science		Masters of science		Specialists		University degree	
	All	Women	All	Women	All	Women	All	Women	All	Women
Social sciences	97	63	1	-	14	11	-	-	82	52
Demography and social geography	17	13	-	-	14	11	-	-	3	2
Economics	19	11	1	-	-	-	-	-	18	11
Political sciences	30	17	-	-	-	-	-	-	30	17
Organisational sciences	14	11	-	-	-	-	-	-	14	11
Sociology	14	10	-	-	-	-	-	-	14	10
Psychology	3	1	-	-	-	-	-	-	3	1
Humanities	132	82	-	-	2	2	-	-	130	80
Philosophy and theology	117	74	-	-	-	-	-	-	117	74
Foreign languages and mother tongue	15	8	-	-	2	2	-	-	13	6
<i>Non-profit sector</i>	5	1	1	-	2	1	1	-	1	-
Engineering and technology	4	1	1	-	1	1	1	-	1	-
Food processing geography	4	1	1	-	1	1	1	-	1	-
Social sciences	1	-	-	-	1	-	-	-	-	-
Psychology	1	-	-	-	1	-	-	-	-	-
<b>Beogradski region</b>	<b>935</b>	<b>401</b>	<b>26</b>	<b>9</b>	<b>90</b>	<b>35</b>	<b>31</b>	<b>21</b>	<b>788</b>	<b>336</b>
<i>Business sector</i>	137	59	7	-	6	4	13	12	111	43
Natural sciences, mathematics	8	2	2	-	-	-	-	-	6	2
Earth science (geology, geophysics, geography)	5	1	-	-	-	-	-	-	5	1
Chemistry	3	1	2	-	-	-	-	-	1	1
Engineering and technology	68	8	5	-	3	1	-	-	60	7
Architecture, town planning, spatial planning	3	1	-	-	-	-	-	-	3	1
Building and civil engineering, and water engineering/technology	65	7	5	-	3	1	-	-	57	6
Electrical engineering – energy	50	44	-	-	3	3	13	12	34	29
Agricultural sciences	7	6	-	-	-	-	-	-	7	6
Animal farming	43	38	-	-	3	3	13	12	27	23
Fishery and game	6	4	-	-	-	-	-	-	6	4
Medical sciences	4	3	-	-	-	-	-	-	4	3
Pharmacy geography	2	1	-	-	-	-	-	-	2	1
Stomatology	5	1	-	-	-	-	-	-	5	1
Social sciences	5	1	-	-	-	-	-	-	5	1
Demography and social geography	5	1	-	-	-	-	-	-	5	1
<i>Government sector</i>	549	209	5	-	37	14	17	8	490	187
Natural sciences, mathematics	79	38	-	-	10	6	7	3	62	29
Mathematics and statistics	1	1	-	-	-	-	-	-	1	1
Astronomy	34	8	-	-	1	-	4	2	29	6
Atmospheric and hydrologic sciences	4	1	-	-	1	1	-	-	3	-
Chemistry	40	28	-	-	8	5	3	1	29	22
Engineering and technology	371	121	1	-	20	7	8	3	342	111
Architecture, town planning, spatial planning	9	4	1	-	4	2	-	-	4	2
Building and civil engineering, and water engineering/technology	214	67	-	-	6	-	-	-	208	67
Electrical engineering – energy	11	1	-	-	2	-	-	-	9	1
Mechanics	75	20	-	-	3	1	3	-	69	19
Wood processing	8	5	-	-	4	4	-	-	4	1
Food technology	54	24	-	-	1	-	5	3	48	21
Agricultural sciences	2	1	-	-	-	-	-	-	2	1
Fishery and game	2	1	-	-	-	-	-	-	2	1
Medical sciences	89	48	2	-	4	1	2	2	81	45
Pharmacy	1	-	-	-	1	-	-	-	-	-
Internal medicine	2	2	-	-	-	-	2	2	-	-
Surgery	86	46	2	-	3	1	-	-	81	45
Social sciences	3	-	-	-	2	-	-	-	1	-
Organisational sciences	1	-	-	-	-	-	-	-	1	-
Psychology	2	-	-	-	2	-	-	-	-	-
Humanities	5	1	2	-	1	-	-	-	2	1
History	2	1	-	-	-	-	-	-	2	1
Archeology	-	-	-	-	-	-	-	-	-	-
Philosophy and theology	3	-	2	-	1	-	-	-	-	-
<i>Tertiary education</i>	249	133	14	9	47	17	1	1	187	106
Natural sciences, mathematics	66	38	4	2	10	5	-	-	52	31
Mathematics and statistics	10	5	-	-	-	-	-	-	10	5
Computer science - software	2	-	-	-	-	-	-	-	2	-
Physics and nuclear physics	6	2	2	1	1	-	-	-	3	1
Earth science (geology, geophysics, geography)	30	14	1	-	8	4	-	-	21	10
Atmospheric and hydrologic sciences	18	17	1	1	1	1	-	-	16	15
Engineering and technology	47	11	1	1	22	3	-	-	24	7
Architecture, town planning, spatial planning	8	2	-	-	-	-	-	-	8	2
Building and civil engineering, and water engineering/technology	18	1	-	-	9	-	-	-	9	1
Mechanics	16	8	1	1	8	3	-	-	7	4
Food processing	5	-	-	-	5	-	-	-	-	-
Agricultural sciences	12	10	4	4	2	2	-	-	6	4
Fishery and game	12	10	4	4	2	2	-	-	6	4
Medical sciences	87	47	5	2	11	5	1	1	70	39
Pharmacy	84	46	2	1	11	5	1	1	70	39
Internal medicine	3	1	3	1	-	-	-	-	-	-

**5.1. Full-time and part-time assistant researchers, by academic titles, sectors, scientific fields and sex, 2012 (physical persons) (continued)**

	Full-time and part-time assistant researchers									
	Total		Doctors of science		Masters of science		Specialists		University degree	
	All	Women	All	Women	All	Women	All	Women	All	Women
Social sciences	34	24	-	-	-	-	-	-	34	24
Economics	2	2	-	-	-	-	-	-	2	2
Political sciences	1	-	-	-	-	-	-	-	1	-
Organisational sciences	14	11	-	-	-	-	-	-	14	11
Sociology	14	10	-	-	-	-	-	-	14	10
Psychology	3	1	-	-	-	-	-	-	3	1
Humanities	3	3	-	-	2	2	-	-	1	1
Foreign languages and mother tongue	3	3	-	-	2	2	-	-	1	1
<b>Region Vojvodine</b>	<b>336</b>	<b>160</b>	<b>6</b>	<b>2</b>	<b>26</b>	<b>17</b>	<b>1</b>	<b>-</b>	<b>303</b>	<b>141</b>
<i>Business sector</i>	1	-	-	-	-	-	-	-	1	-
Medical sciences	1	-	-	-	-	-	-	-	1	-
Surgery	1	-	-	-	-	-	-	-	1	-
<i>Government sector</i>	34	14	3	1	6	2	-	-	25	11
Engineering and technology	2	-	-	-	1	-	-	-	1	-
Transport	2	-	-	-	1	-	-	-	1	-
Medical sciences	32	14	3	1	5	2	-	-	24	11
Surgery	29	13	3	1	5	2	-	-	21	10
Stomatology	3	1	-	-	-	-	-	-	3	1
<i>Tertiary education</i>	296	145	2	1	18	14	-	-	276	130
Natural sciences, mathematics	24	12	-	-	2	2	-	-	22	10
Mathematics and statistics	24	12	-	-	2	2	-	-	22	10
Engineering and technology	67	10	1	1	-	-	-	-	66	9
Food processing	67	10	1	1	-	-	-	-	66	9
Medical sciences	13	5	-	-	2	1	-	-	11	4
Pharmacy	11	4	-	-	-	-	-	-	11	4
Surgery	2	1	-	-	2	1	-	-	-	-
Social sciences	63	39	1	-	14	11	-	-	48	28
Demography and social geography	17	13	-	-	14	11	-	-	3	2
Economics	17	9	1	-	-	-	-	-	16	9
Political sciences	29	17	-	-	-	-	-	-	29	17
Humanities	129	79	-	-	-	-	-	-	129	79
Phylosophy and theology	117	74	-	-	-	-	-	-	117	74
Foreign languages and mother tongue	12	5	-	-	-	-	-	-	12	5
<i>Non-profit sector</i>	5	1	1	-	2	1	1	-	1	-
Engineering and technology	4	1	1	-	1	1	1	-	1	-
Food processing	4	1	1	-	1	1	1	-	1	-
Social sciences	1	-	-	-	1	-	-	-	-	-
Psychology	1	-	-	-	1	-	-	-	-	-
<b>SRBIJA – JUG</b>	<b>204</b>	<b>106</b>	<b>6</b>	<b>4</b>	<b>34</b>	<b>21</b>	<b>3</b>	<b>2</b>	<b>161</b>	<b>79</b>
<i>Business sector</i>	8	4	2	2	-	-	2	1	4	1
Engineering and technology	5	3	2	2	-	-	1	-	2	1
Building and civil engineering, and water engineering/technology	1	-	-	-	-	-	1	-	-	-
Mining and quarrying	2	1	-	-	-	-	-	-	2	1
Food processing	2	2	2	2	-	-	-	-	-	-
Social sciences	3	1	-	-	-	-	1	1	2	-
Demography and social geography	3	1	-	-	-	-	1	1	2	-
<i>Government sector</i>	46	28	1	1	2	2	1	1	42	24
Engineering and technology	30	18	-	-	-	-	1	1	29	17
Food processing	30	18	-	-	-	-	1	1	29	17
Medical sciences	16	10	1	1	2	2	-	-	13	7
Stomatology	16	10	1	1	2	2	-	-	13	7
<i>Tertiary education</i>	150	74	3	1	32	19	-	-	115	54
Natural sciences, mathematics	11	4	1	1	-	-	-	-	10	3
Mathematics and statistics	11	4	1	1	-	-	-	-	10	3
Engineering and technology	70	26	-	-	15	8	-	-	55	18
Architecture, town planning, spatial planning	7	2	-	-	1	-	-	-	6	2
Building and civil engineering, and water engineering/technology	32	11	-	-	14	8	-	-	18	3
Electrical engineering – energy	12	2	-	-	-	-	-	-	12	2
Electrical engineering – electronics, communication technology, equipment fitting, computer technology - hardware	13	8	-	-	-	-	-	-	13	8
Food processing	6	3	-	-	-	-	-	-	6	3
Agricultural sciences	27	18	1	-	4	2	-	-	22	16
Earth science (fertilisation, melioration, etc.)	27	18	1	-	4	2	-	-	22	16
Social sciences	28	16	1	-	9	6	-	-	18	10
Demographic and social geography	5	3	-	-	-	-	-	-	5	3
Economics	4	3	-	-	1	1	-	-	3	2
Political sciences	3	1	-	-	3	1	-	-	-	-
Psychology	16	9	1	-	5	4	-	-	10	5
Humanities	14	10	-	-	4	3	-	-	10	7
Archeology	14	10	-	-	4	3	-	-	10	7

**5.1. Full-time and part-time assistant researchers, by academic titles, sectors, scientific fields and sex, 2012 (physical persons) (continued)**

	Full-time and part-time assistant researchers									
	Total		Doctors of science		Masters of science		Specialists		University degree	
	All	Women	All	Women	All	Women	All	Women	All	Women
<b>Region Sumadije i Zapadne Srbije</b>	<b>92</b>	<b>53</b>	<b>5</b>	<b>4</b>	<b>21</b>	<b>13</b>	<b>1</b>	<b>1</b>	<b>65</b>	<b>35</b>
<i>Business sector</i>	5	3	2	2	-	-	1	1	2	-
Engineering and technology	2	2	2	2	-	-	-	-	-	-
Food processing	2	2	2	2	-	-	-	-	-	-
Social sciences	3	1	-	-	-	-	1	1	2	-
Demography and social geography	3	1	-	-	-	-	1	1	2	-
<i>Government sector</i>	1	1	1	1	-	-	-	-	-	-
Medical sciences	1	1	1	1	-	-	-	-	-	-
Stomatology	1	1	1	1	-	-	-	-	-	-
<i>Tertiary education</i>	86	49	2	1	21	13	-	-	63	35
Natural sciences, mathematics	11	4	1	1	-	-	-	-	10	3
Mathematics and statistics	11	4	1	1	-	-	-	-	10	3
Engineering and technology	28	13	-	-	12	7	-	-	16	6
Building and civil engineering, and water engineering/technology	20	9	-	-	12	7	-	-	8	2
Electrical engineering - energy	2	1	-	-	-	-	-	-	2	1
Food processing	6	3	-	-	-	-	-	-	6	3
Agricultural sciences	27	18	1	-	4	2	-	-	22	16
Land and water (fertilisation, melioration, etc.)	27	18	1	-	4	2	-	-	22	16
Social sciences	6	4	-	-	1	1	-	-	5	3
Demography and social geography	5	3	-	-	-	-	-	-	5	3
Economics	1	1	-	-	1	1	-	-	-	-
Humanities	14	10	-	-	4	3	-	-	10	7
Archeology	14	10	-	-	4	3	-	-	10	7
<b>Region Juzne i istocne Srbije</b>	<b>112</b>	<b>53</b>	<b>1</b>	<b>-</b>	<b>13</b>	<b>8</b>	<b>2</b>	<b>1</b>	<b>96</b>	<b>44</b>
<i>Business sector</i>	3	1	-	-	-	-	1	-	2	1
Engineering and technology	3	1	-	-	-	-	1	-	2	1
Building and civil engineering, and water engineering/technology	1	-	-	-	-	-	1	-	-	-
Mining and quarrying	2	1	-	-	-	-	-	-	2	1
<i>Government sector</i>	45	27	-	-	2	2	1	1	42	24
Engineering and technology	30	18	-	-	-	-	1	1	29	17
Food processing	30	18	-	-	-	-	1	1	29	17
Medical sciences	15	9	-	-	2	2	-	-	13	7
Stomatology	15	9	-	-	2	2	-	-	13	7
<i>Tertiary education</i>	64	25	1	-	11	6	-	-	52	19
Engineering and technology	42	13	-	-	3	1	-	-	39	12
Architecture, town planning, spatial planning	7	2	-	-	1	-	-	-	6	2
Building and civil engineering, and water engineering/technology	12	2	-	-	2	1	-	-	10	1
Electrical engineering – energy	10	1	-	-	-	-	-	-	10	1
Electrical engineering – electronics, communication technology, equipment fitting, computer technology - hardware	13	8	-	-	-	-	-	-	13	8
Agricultural sciences										
Social sciences	22	12	1	-	8	5	-	-	13	7
Economics	3	2	-	-	-	-	-	-	3	2
Political sciences	3	1	-	-	3	1	-	-	-	-
Psychology	16	9	1	-	5	4	-	-	10	5
<b>Region Kosovo i Metohija</b>	...	...	...	...	...	...	...	...	...	...



**5.2. Full-time and part-time assistant researchers, by academic titles, sectors, scientific fields and age, expressed in full-time equivalent (FTE), 2012**

	Full-time and part-time assistant researchers									
	Total		Doctors of science		Masters of science		Specialists		University degree	
	All	Women	All	Women	All	Women	All	Women	All	Women
<b>REPUBLIC OF SERBIA</b>	<b>1369</b>	<b>606</b>	<b>34</b>	<b>13</b>	<b>138</b>	<b>67</b>	<b>34</b>	<b>22</b>	<b>1167</b>	<b>506</b>
<i>Business sector</i>	134	58	7	-	6	4	14	13	107	41
Natural sciences, mathematics	7	2	2	-	-	-	-	-	5	2
Earth science (geology, geophysics, geography)	4	1	-	-	-	-	-	-	4	1
Chemistry	3	1	2	-	-	-	-	-	1	1
Engineering and technology	66	9	5	-	3	1	-	-	58	8
Building and civil engineering, and water engineering/technology	3	1	-	-	-	-	-	-	3	1
Electrical engineering – energy	61	7	5	-	3	1	-	-	53	6
Mining and quarrying	2	1	-	-	-	-	-	-	2	1
Food processing	-	-	-	-	-	-	-	-	-	-
Agricultural sciences	47	42	-	-	3	3	13	12	31	27
Animal farming	7	6	-	-	-	-	-	-	7	6
Fishery and game	40	36	-	-	3	3	13	12	24	21
Medical sciences	6	3	-	-	-	-	-	-	6	3
Pharmacy	4	3	-	-	-	-	-	-	4	3
Surgery	1	-	-	-	-	-	-	-	1	-
Stomatology	1	-	-	-	-	-	-	-	1	-
Social sciences	8	2	-	-	-	-	1	1	7	1
Demography and social geography	8	2	-	-	-	-	1	1	7	1
<i>Government sector</i>	618	246	9	2	45	18	18	8	547	218
Natural sciences, mathematics	79	38	-	-	10	6	7	3	62	29
Mathematics and statistics	1	1	-	-	-	-	-	-	1	1
Astronomy	34	8	-	-	1	-	4	2	29	6
Atmospheric and hydrologic sciences	4	1	-	-	1	1	-	-	3	-
Chemistry	40	28	-	-	8	5	3	1	29	22
Engineering and technology	393	134	1	-	21	7	9	3	363	124
Architecture, town planning, spatial planning	9	4	1	-	4	2	-	-	4	2
Building and civil engineering, and water engineering/technology	211	67	-	-	6	-	-	-	205	67
Electrical engineering – energy	11	1	-	-	2	-	-	-	9	1
Mechanics	73	20	-	-	3	1	3	-	68	19
Transport	2	-	-	-	1	-	-	-	1	-
Wood processing	8	5	-	-	4	4	-	-	4	1
Food processing	79	37	-	-	1	-	6	3	72	34
Agricultural sciences	2	1	-	-	-	-	-	-	2	1
Fishery and game	2	1	-	-	-	-	-	-	2	1
Medical sciences	137	72	6	2	11	5	2	2	118	63
Pharmacy	1	-	-	-	1	-	-	-	-	-
Internal medicine	2	2	-	-	-	-	2	2	-	-
Surgery	115	59	5	1	8	3	-	-	102	55
Stomatology	19	11	1	1	2	2	-	-	16	8
Social sciences	2	-	-	-	2	-	-	-	-	-
Organisational sciences	-	-	-	-	-	-	-	-	-	-
Psychology	2	-	-	-	2	-	-	-	-	-
Humanities	5	1	2	-	1	-	-	-	2	1
History	2	1	-	-	-	-	-	-	2	1
Philosophy and theology	3	-	2	-	1	-	-	-	-	-
<i>Tertiary education</i>	612	301	17	11	85	44	1	1	512	247
Natural sciences, mathematics	98	53	4	3	12	7	-	-	82	43
Mathematics and statistics	45	21	1	1	2	2	-	-	42	18
Computer science - software	2	-	-	-	-	-	-	-	2	-
Physics and nuclear physics	5	2	1	1	1	-	-	-	3	1
Earth science (geology, geophysics, geography)	28	13	1	-	8	4	-	-	19	9
Atmospheric and hydrologic sciences	18	17	1	1	1	1	-	-	16	15
Engineering and technology	172	40	2	2	33	10	-	-	138	29
Architecture, town planning, spatial planning	15	4	-	-	1	-	-	-	14	4
Building and civil engineering, and water engineering/technology	49	11	-	-	23	8	-	-	26	3
Electrical engineering – energy	12	2	-	-	-	-	-	-	12	2
Electrical engineering – electronics, communication technology, equipment fitting, computer technology - hardware	13	8	-	-	-	-	-	-	13	8
Mechanics	8	4	1	1	4	2	-	-	4	2
Food processing	75	11	1	1	5	-	-	-	69	10
Agricultural sciences	24	18	5	4	3	3	-	-	17	12
Land and water (fertilisation, melioration, etc.)	13	9	1	-	1	1	-	-	12	8
Fishery and game	11	9	4	4	2	2	-	-	5	4
Medical sciences	99	52	4	2	13	6	1	1	81	43
Pharmacy	95	50	2	1	11	5	1	1	81	43
Internal medicine	2	1	2	1	-	-	-	-	-	-
Surgery	2	1	-	-	2	1	-	-	-	-
Social sciences	74	47	2	-	21	15	-	-	52	32
Demography and social geography	18	14	-	-	14	11	-	-	4	3
Economics	11	7	1	-	1	1	-	-	9	6
Political sciences	20	9	-	-	3	1	-	-	17	8
Organisational sciences	14	11	-	-	-	-	-	-	14	11
Sociology	-	-	-	-	-	-	-	-	-	-
Psychology	11	6	1	-	3	2	-	-	8	4

**5.2. Full-time and part-time assistant researchers, by academic titles, sectors, scientific fields and age, expressed in full-time equivalent (FTE), 2012 (continued)**

	Full-time and part-time assistant researchers									
	Total		Doctors of science		Masters of science		Specialists		University degree	
	All	Women	All	Women	All	Women	All	Women	All	Women
Humanities	145	91	-	-	3	3	-	-	142	88
Archeology	13	9	-	-	1	1	-	-	12	8
Philosophy and theology	117	74	-	-	-	-	-	-	117	74
Foreign languages and mother tongue	15	8	-	-	2	2	-	-	13	6
<i>Non-profit sector</i>	5	1	1	-	2	1	1	-	1	-
Engineering and technology	4	1	1	-	1	1	1	-	1	-
Food processing	4	1	1	-	1	1	1	-	1	-
Social sciences	1	-	-	-	1	-	-	-	-	-
Psychology	1	-	-	-	1	-	-	-	-	-
<b>SRBIJA – SEVER</b>	<b>1202</b>	<b>523</b>	<b>30</b>	<b>11</b>	<b>112</b>	<b>51</b>	<b>32</b>	<b>20</b>	<b>1030</b>	<b>443</b>
<i>Business sector</i>	129	56	7	-	6	4	13	12	103	40
Natural sciences, mathematics	7	2	2	-	-	-	-	-	5	2
Earth science (geology, geophysics, geography)	4	1	-	-	-	-	-	-	4	1
Chemistry	3	1	2	-	-	-	-	-	1	1
Engineering and technology	64	8	5	-	3	1	-	-	56	7
Building and civil engineering, and water engineering/technology	3	1	-	-	-	-	-	-	3	1
Electrical engineering – energy	61	7	5	-	3	1	-	-	53	6
Agricultural sciences	47	42	-	-	3	3	13	12	31	27
Animal farming	7	6	-	-	-	-	-	-	7	6
Fishery and game	40	36	-	-	3	3	13	12	24	21
Medical sciences	6	3	-	-	-	-	-	-	6	3
Pharmacy	4	3	-	-	-	-	-	-	4	3
Surgery	1	-	-	-	-	-	-	-	1	-
Stomatology	1	-	-	-	-	-	-	-	1	-
Social sciences	5	1	-	-	-	-	-	-	5	1
Demography and social geography	5	1	-	-	-	-	-	-	5	1
<i>Government sector</i>	572	218	8	1	43	16	17	7	505	194
Natural sciences, mathematics	79	38	-	-	10	6	7	3	62	29
Mathematics and statistics	1	1	-	-	-	-	-	-	1	1
Astronomy	34	8	-	-	1	-	4	2	29	6
Atmospheric and hydrologic sciences	4	1	-	-	1	1	-	-	3	-
Chemistry	40	28	-	-	8	5	3	1	29	22
Engineering and technology	363	116	1	-	21	7	8	2	334	107
Architecture, town planning, spatial planning	9	4	1	-	4	2	-	-	4	2
Building and civil engineering, and water engineering/technology	211	67	-	-	6	-	-	-	205	67
Electrical engineering – energy	11	1	-	-	2	-	-	-	9	1
Mechanics	73	20	-	-	3	1	3	-	68	19
Transport	2	-	-	-	1	-	-	-	1	-
Wood processing	8	5	-	-	4	4	-	-	4	1
Food processing	49	19	-	-	1	-	5	2	43	17
Agricultural sciences	2	1	-	-	-	-	-	-	2	1
Fishery and game	2	1	-	-	-	-	-	-	2	1
Medical sciences	121	62	5	1	9	3	2	2	105	56
Pharmacy	1	-	-	-	1	-	-	-	-	-
Internal medicine	2	2	-	-	-	-	2	2	-	-
Surgery	115	59	5	1	8	3	-	-	102	55
Stomatology	3	1	-	-	-	-	-	-	3	1
Social sciences	2	-	-	-	2	-	-	-	-	-
Organisational sciences	-	-	-	-	-	-	-	-	-	-
Psychology	2	-	-	-	2	-	-	-	-	-
Humanities	5	1	2	-	1	-	-	-	2	1
History	2	1	-	-	-	-	-	-	2	1
Philosophy and theology	3	-	2	-	1	-	-	-	-	-
<i>Tertiary education</i>	496	248	14	10	61	30	1	1	421	209
Natural sciences, mathematics	87	49	3	2	12	7	-	-	72	40
Mathematics and statistics	34	17	-	-	2	2	-	-	32	15
Computer science – software	2	-	-	-	-	-	-	-	2	-
Physics and nuclear physics	5	2	1	1	1	-	-	-	3	1
Earth science (geology, geophysics, geography)	28	13	1	-	8	4	-	-	19	9
Atmospheric and hydrologic sciences	18	17	1	1	1	1	-	-	16	15
Engineering and technology	106	17	2	2	18	2	-	-	87	14
Architecture, town planning, spatial planning	8	2	-	-	-	-	-	-	8	2
Building and civil engineering, and water engineering/technology	18	1	-	-	9	-	-	-	9	1
Mechanics	8	4	1	1	4	2	-	-	4	2
Food processing	72	10	1	1	5	-	-	-	66	9
Agricultural sciences	11	9	4	4	2	2	-	-	5	4
Fishery and game	11	9	4	4	2	2	-	-	5	4
Medical sciences	99	52	4	2	13	6	1	1	81	43
Pharmacy	95	50	2	1	11	5	1	1	81	43
Internal medicine	2	1	2	1	-	-	-	-	-	-
Surgery	2	1	-	-	2	1	-	-	-	-

**5.2. Full-time and part-time assistant researchers, by academic titles, sectors, scientific fields and age, expressed in full-time equivalent (FTE), 2012 (continued)**

	Full-time and part-time assistant researchers									
	Total		Doctors of science		Masters of science		Specialists		University degree	
	All	Women	All	Women	All	Women	All	Women	All	Women
Social sciences	61	39	1	-	14	11	-	-	46	28
Demography and social geography	17	13	-	-	14	11	-	-	3	2
Economics	10	6	1	-	-	-	-	-	9	6
Political sciences	17	8	-	-	-	-	-	-	17	8
Organisational sciences	14	11	-	-	-	-	-	-	14	11
Sociology	-	-	-	-	-	-	-	-	-	-
Psychology	3	1	-	-	-	-	-	-	3	1
Humanities	132	82	-	-	2	2	-	-	130	80
Philosophy and theology	117	74	-	-	-	-	-	-	117	74
Foreign languages and mother tongue	15	8	-	-	2	2	-	-	13	6
<i>Non-profit sector</i>	5	1	1	-	2	1	1	-	1	-
Engineering and technology	4	1	1	-	1	1	1	-	1	-
Food processing	4	1	1	-	1	1	1	-	1	-
Social sciences	1	-	-	-	1	-	-	-	-	-
Psychology	1	-	-	-	1	-	-	-	-	-
<b>Beogradski region</b>	<b>887</b>	<b>376</b>	<b>24</b>	<b>9</b>	<b>86</b>	<b>34</b>	<b>31</b>	<b>20</b>	<b>748</b>	<b>315</b>
<i>Business sector</i>	128	56	7	-	6	4	13	12	102	40
Natural sciences, mathematics	7	2	2	-	-	-	-	-	5	2
Earth science (geology, geophysics, geography)	4	1	-	-	-	-	-	-	4	1
Chemistry	3	1	2	-	-	-	-	-	1	1
Engineering and technology	64	8	5	-	3	1	-	-	56	7
Building and civil engineering, and water engineering/technology	3	1	-	-	-	-	-	-	3	1
Electrical engineering – energy	61	7	5	-	3	1	-	-	53	6
Agricultural sciences	47	42	-	-	3	3	13	12	31	27
Animal farming	7	6	-	-	-	-	-	-	7	6
Fishery and game	40	36	-	-	3	3	13	12	24	21
Medical sciences	5	3	-	-	-	-	-	-	5	3
Pharmacy	4	3	-	-	-	-	-	-	4	3
Stomatology	1	-	-	-	-	-	-	-	1	-
Social sciences	5	1	-	-	-	-	-	-	5	1
Demography and social geography	5	1	-	-	-	-	-	-	5	1
<i>Government sector</i>	538	204	5	-	37	14	17	7	480	183
Natural sciences, mathematics	79	38	-	-	10	6	7	3	62	29
Mathematics and statistics	1	1	-	-	-	-	-	-	1	1
Astronomy	34	8	-	-	1	-	4	2	29	6
Atmospheric and hydrologic sciences	4	1	-	-	1	1	-	-	3	-
Chemistry	40	28	-	-	8	5	3	1	29	22
Engineering and technology	361	116	1	-	20	7	8	2	333	107
Architecture, town planning, spatial planning	9	4	1	-	4	2	-	-	4	2
Building and civil engineering, and water engineering/technology	211	67	-	-	6	-	-	-	205	67
Electrical engineering – energy	11	1	-	-	2	-	-	-	9	1
Mechanics	73	20	-	-	3	1	3	-	68	19
Wood processing	8	5	-	-	4	4	-	-	4	1
Food processing	49	19	-	-	1	-	5	2	43	17
Agricultural sciences	2	1	-	-	-	-	-	-	2	1
Fishery and game	2	1	-	-	-	-	-	-	2	1
Medical sciences	89	48	2	-	4	1	2	2	81	45
Pharmacy	1	-	-	-	1	-	-	-	-	-
Internal medicine	2	2	-	-	-	-	2	2	-	-
Surgery	86	46	2	-	3	1	-	-	81	45
Social sciences	2	-	-	-	2	-	-	-	-	-
Organisational sciences	-	-	-	-	-	-	-	-	-	-
Psychology	2	-	-	-	2	-	-	-	-	-
Humanities	5	1	2	-	1	-	-	-	2	1
History	2	1	-	-	-	-	-	-	2	1
Philosophy and theology	3	-	2	-	1	-	-	-	-	-
<i>Tertiary education</i>	221	116	12	9	43	16	1	1	166	92
Natural sciences, mathematics	63	37	3	2	10	5	-	-	50	30
Mathematics and statistics	10	5	-	-	-	-	-	-	10	5
Computer science - software	2	-	-	-	-	-	-	-	2	-
Physics and nuclear physics	5	2	1	1	1	-	-	-	3	1
Earth science (geology, geophysics, geography)	28	13	1	-	8	4	-	-	19	9
Atmospheric and hydrologic sciences	18	17	1	1	1	1	-	-	16	15
Engineering and technology	39	7	1	1	18	2	-	-	21	5
Architecture, town planning, spatial planning	8	2	-	-	-	-	-	-	8	2
Building and civil engineering, and water engineering/technology	18	1	-	-	9	-	-	-	9	1
Mechanics	8	4	1	1	4	2	-	-	4	2
Food processing	5	-	-	-	5	-	-	-	-	-
Agricultural sciences	11	9	4	4	2	2	-	-	5	4
Fishery and game	11	9	4	4	2	2	-	-	5	4
Medical sciences	86	47	4	2	11	5	1	1	70	39
Pharmacy	84	46	2	1	11	5	1	1	70	39
Internal medicine	2	1	2	1	-	-	-	-	-	-

**5.2. Full-time and part-time assistant researchers, by academic titles, sectors, scientific fields and age, expressed in full-time equivalent (FTE), 2012 (continued)**

	Full-time and part-time assistant researchers									
	Total		Doctors of science		Masters of science		Specialists		University degree	
	All	Women	All	Women	All	Women	All	Women	All	Women
Social sciences	19	13	-	-	-	-	-	-	19	13
Economics	1	1	-	-	-	-	-	-	1	1
Political sciences	1	-	-	-	-	-	-	-	1	-
Organisational sciences	14	11	-	-	-	-	-	-	14	11
Sociology	-	-	-	-	-	-	-	-	-	-
Psychology	3	1	-	-	-	-	-	-	3	1
Humanities	3	3	-	-	2	2	-	-	1	1
Foreign languages and mother tongue	3	3	-	-	2	2	-	-	1	1
<b>Region Vojvodina</b>	<b>315</b>	<b>147</b>	<b>6</b>	<b>2</b>	<b>26</b>	<b>17</b>	<b>1</b>	<b>-</b>	<b>282</b>	<b>128</b>
<i>Business sector</i>	1	-	-	-	-	-	-	-	1	-
Medical sciences	1	-	-	-	-	-	-	-	1	-
Surgery	1	-	-	-	-	-	-	-	1	-
<i>Government sector</i>	34	14	3	1	6	2	-	-	25	11
Engineering and technology	2	-	-	-	1	-	-	-	1	-
Transport	2	-	-	-	1	-	-	-	1	-
Medical sciences	32	14	3	1	5	2	-	-	24	11
Surgery	29	13	3	1	5	2	-	-	21	10
Stomatology	3	1	-	-	-	-	-	-	3	1
<i>Tertiary education</i>	275	132	2	1	18	14	-	-	255	117
Natural sciences, mathematics	24	12	-	-	2	2	-	-	22	10
Mathematics and statistics	24	12	-	-	2	2	-	-	22	10
Engineering and technology	67	10	1	1	-	-	-	-	66	9
Food processing	67	10	1	1	-	-	-	-	66	9
Medical sciences	13	5	-	-	2	1	-	-	11	4
Pharmacy	11	4	-	-	-	-	-	-	11	4
Surgery	2	1	-	-	2	1	-	-	-	-
Social sciences	42	26	1	-	14	11	-	-	27	15
Demography and social geography	17	13	-	-	14	11	-	-	3	2
Economics	9	5	1	-	-	-	-	-	8	5
Political sciences	16	8	-	-	-	-	-	-	16	8
Humanities	129	79	-	-	-	-	-	-	129	79
Philosophy and theology	117	74	-	-	-	-	-	-	117	74
Foreign languages and mother tongue	12	5	-	-	-	-	-	-	12	5
<i>Non-profit sector</i>	5	1	1	-	2	1	1	-	1	-
Engineering and technology	4	1	1	-	1	1	1	-	1	-
Food processing	4	1	1	-	1	1	1	-	1	-
Social sciences	1	-	-	-	1	-	-	-	-	-
Psychology	1	-	-	-	1	-	-	-	-	-
SRBIJA – JUG	167	83	4	2	26	16	2	2	137	63
<i>Business sector</i>	5	2	-	-	-	-	1	1	4	1
Engineering and technology	2	1	-	-	-	-	-	-	2	1
Building and civil engineering, and water engineering/technology	-	-	-	-	-	-	-	-	-	-
Electrical engineering – energy	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	2	1	-	-	-	-	-	-	2	1
Food processing	-	-	-	-	-	-	-	-	-	-
Social sciences	3	1	-	-	-	-	1	1	2	-
Demography and social geography	3	1	-	-	-	-	1	1	2	-
<i>Government sector</i>	46	28	1	1	2	2	1	1	42	24
Engineering and technology	30	18	-	-	-	-	1	1	29	17
Food processing	30	18	-	-	-	-	1	1	29	17
Medical sciences	16	10	1	1	2	2	-	-	13	7
Stomatology	16	10	1	1	2	2	-	-	13	7
<i>Tertiary education</i>	116	53	3	1	24	14	-	-	91	38
Natural sciences, mathematics	11	4	1	1	-	-	-	-	10	3
Mathematics and statistics	11	4	1	1	-	-	-	-	10	3
Engineering and technology	66	23	-	-	15	8	-	-	51	15
Architecture, town planning, spatial planning	7	2	-	-	1	-	-	-	6	2
Building and civil engineering, and water engineering/technology	31	10	-	-	14	8	-	-	17	2
Electrical engineering – energy	12	2	-	-	-	-	-	-	12	2
Electrical engineering – electronics, communication technology, equipment fitting, computer technology - hardware	13	8	-	-	-	-	-	-	13	8
Food processing	3	1	-	-	-	-	-	-	3	1
Agricultural sciences	13	9	1	-	1	1	-	-	12	8
Land and water (fertilisation, melioration, etc.)	13	9	1	-	1	1	-	-	12	8
Social sciences	13	8	1	-	7	4	-	-	6	4
Demography and social geography	1	1	-	-	-	-	-	-	1	1
Economics	1	1	-	-	1	1	-	-	-	-
Political sciences	3	1	-	-	3	1	-	-	-	-
Psychology	8	5	1	-	3	2	-	-	5	3
Humanities	13	9	-	-	1	1	-	-	12	8
Archeology	13	9	-	-	1	1	-	-	12	8

**5.2. Full-time and part-time assistant researchers, by academic titles, sectors, scientific fields and age, expressed in full-time equivalent (FTE), 2012 (continued)**

	Full-time and part-time assistant researchers									
	Total		Doctors of science		Masters of science		Specialists		University degree	
	All	Women	All	Women	All	Women	All	Women	All	Women
<b>Region Sumadije i Zapadne Srbije</b>	<b>68</b>	<b>37</b>	<b>3</b>	<b>2</b>	<b>15</b>	<b>10</b>	<b>1</b>	<b>1</b>	<b>50</b>	<b>24</b>
<i>Business sector</i>	3	1	-	-	-	-	1	1	2	-
Engineering and technology	-	-	-	-	-	-	-	-	-	-
Food processing	-	-	-	-	-	-	-	-	-	-
Social sciences	3	1	-	-	-	-	1	1	2	-
Demography and social geography	3	1	-	-	-	-	1	1	2	-
<i>Government sector</i>	1	1	1	1	-	-	-	-	-	-
Medical sciences	1	1	1	1	-	-	-	-	-	-
Stomatology	1	1	1	1	-	-	-	-	-	-
<i>Tertiary education</i>	64	35	2	1	15	10	-	-	48	24
Natural sciences, mathematics	11	4	1	1	-	-	-	-	10	3
Mathematics and statistics	11	4	1	1	-	-	-	-	10	3
Engineering and technology	25	11	-	-	12	7	-	-	13	4
Building and civil engineering, and water engineering/technology	20	9	-	-	12	7	-	-	8	2
Electrical engineering - energy	2	1	-	-	-	-	-	-	2	1
Food processing	3	1	-	-	-	-	-	-	3	1
Agricultural sciences	13	9	1	-	1	1	-	-	12	8
Land and water (fertilisation, melioration, etc.)	13	9	1	-	1	1	-	-	12	8
Social sciences	2	2	-	-	1	1	-	-	1	1
Demography and social geography	1	1	-	-	-	-	-	-	1	1
Economics	1	1	-	-	1	1	-	-	-	-
Humanities	13	9	-	-	1	1	-	-	12	8
Archeology	13	9	-	-	1	1	-	-	12	8
<b>Region Juzne i Istocne Srbije</b>	<b>99</b>	<b>46</b>	<b>1</b>	<b>-</b>	<b>11</b>	<b>6</b>	<b>1</b>	<b>1</b>	<b>87</b>	<b>39</b>
<i>Business sector</i>	2	1	-	-	-	-	-	-	2	1
Engineering and technology	2	1	-	-	-	-	-	-	2	1
Building and civil engineering, and water engineering/technology	-	-	-	-	-	-	-	-	-	-
Electrical engineering – energy	-	-	-	-	-	-	-	-	-	-
Mining and quarrying	2	1	-	-	-	-	-	-	2	1
<i>Government sector</i>	45	27	-	-	2	2	1	1	42	24
Engineering and technology	30	18	-	-	-	-	1	1	29	17
Food processing	30	18	-	-	-	-	1	1	29	17
Medical sciences	15	9	-	-	2	2	-	-	13	7
Stomatology	15	9	-	-	2	2	-	-	13	7
<i>Tertiary education</i>	52	18	1	-	9	4	-	-	43	14
Engineering and technology	41	12	-	-	3	1	-	-	38	11
Architecture, town planning, spatial planning	7	2	-	-	1	-	-	-	6	2
Building and civil engineering, and water engineering/technology	11	1	-	-	2	1	-	-	9	-
Electrical engineering – energy	10	1	-	-	-	-	-	-	10	1
Electrical engineering – electronics, communication technology, equipment fitting, computer technology - hardware	13	8	-	-	-	-	-	-	13	8
Social sciences	11	6	1	-	6	3	-	-	5	3
Economics	-	-	-	-	-	-	-	-	-	-
Political sciences	3	1	-	-	3	1	-	-	-	-
Psychology	8	5	1	-	3	2	-	-	5	3
<b>Region Kosovo i Metohija</b>	...	...	...	...	...	...	...	...	...	...

**6.1. Engaged on the basis of work on contract and author contract (number of persons), 2012**

	Engaged on the basis of work on contract and author contract							
	Total		Researchers		Assistant researchers		Other	
	All	Women	All	Women	All	Women	All	Women
<b>REPUBLIC OF SERBIA</b>	<b>2768</b>	<b>1246</b>	<b>2343</b>	<b>1081</b>	<b>245</b>	<b>108</b>	<b>158</b>	<b>49</b>
Natural sciences, mathematics	484	234	395	196	44	16	27	17
Engineering and technology	896	223	805	216	49	4	42	3
Agricultural sciences	659	446	659	446	-	-	-	-
Medical sciences	155	77	152	76	3	1	-	-
Social sciences	422	218	250	113	149	87	23	18
Humanities	152	48	82	34	-	-	66	11
<i>Business sector</i>	835	475	719	461	56	6	42	3
Natural sciences, mathematics	25	6	1	-	6	1	-	-
Engineering and technology	166	32	76	25	49	4	41	3
Agricultural sciences	642	436	642	436	-	-	-	-
Social sciences	2	1	-	-	1	1	1	-
<i>Government sector</i>	491	230	285	131	123	76	79	20
Natural sciences, mathematics	206	95	171	79	22	7	13	9
Engineering and technology	22	10	22	10	-	-	-	-
Agricultural sciences	12	8	12	8	-	-	-	-
Medical sciences	2	1	2	1	-	-	-	-
Social sciences	107	74	6	5	101	69	-	-
Humanities	142	42	72	28	-	-	66	11
<i>Tertiary education</i>	1436	537	1339	489	61	23	36	25
Natural sciences, mathematics	252	132	223	117	15	7	14	8
Engineering and technology	708	181	707	181	-	-	1	-
Agricultural sciences	5	2	5	2	-	-	-	-
Medical sciences	153	76	150	75	3	1	-	-
Social sciences	308	140	244	108	43	15	21	17
Humanities	10	6	10	6	-	-	-	-
<i>Non-profit sector</i>	6	4	-	-	5	3	1	1
Natural sciences, mathematics	1	1	-	-	1	1	-	-
Social sciences	5	3	-	-	4	2	1	1
<b>SRBIJA – SEVER</b>	<b>2511</b>	<b>1119</b>	<b>2104</b>	<b>962</b>	<b>234</b>	<b>103</b>	<b>151</b>	<b>46</b>
Natural sciences, mathematics	337	157	258	123	34	12	27	17
Engineering and technology	879	213	789	206	49	4	41	3
Agricultural sciences	659	446	659	446	-	-	-	-
Medical sciences	155	77	152	76	3	1	-	-
Social sciences	329	178	164	77	148	86	17	15
Humanities	152	48	82	34	-	-	66	11
<i>Business sector</i>	828	473	714	460	55	5	41	3
Natural sciences, mathematics	25	6	1	-	6	1	-	-
Engineering and technology	161	31	71	24	49	4	41	3
Agricultural sciences	642	436	642	436	-	-	-	-
<i>Government sector</i>	491	230	285	131	123	76	79	20
Natural sciences, mathematics	206	95	171	79	22	7	13	9
Engineering and technology	22	10	22	10	-	-	-	-
Agricultural sciences	12	8	12	8	-	-	-	-
Medical sciences	2	1	2	1	-	-	-	-
Social sciences	107	74	6	5	101	69	-	-
Humanities	142	42	72	28	-	-	66	11
<i>Tertiary education</i>	1186	412	1105	371	51	19	30	22
Natural sciences, mathematics	105	55	86	44	5	3	14	8
Engineering and technology	696	172	696	172	-	-	-	-
Agricultural sciences	5	2	5	2	-	-	-	-
Medical sciences	153	76	150	75	3	1	-	-
Social sciences	217	101	158	72	43	15	16	14
Humanities	10	6	10	6	-	-	-	-
<i>Non-profit sector</i>	6	4	-	-	5	3	1	1
Natural sciences, mathematics	1	1	-	-	1	1	-	-
Social sciences	5	3	-	-	4	2	1	1
<b>Beogradski region</b>	<b>1986</b>	<b>981</b>	<b>1587</b>	<b>830</b>	<b>229</b>	<b>100</b>	<b>148</b>	<b>43</b>
Natural sciences, mathematics	336	156	258	123	33	11	27	17
Engineering and technology	442	115	352	108	49	4	41	3
Agricultural sciences	654	444	654	444	-	-	-	-
Medical sciences	121	66	118	65	3	1	-	-
Social sciences	281	152	123	56	144	84	14	12
Humanities	152	48	82	34	-	-	66	11
<i>Business sector</i>	828	473	714	460	55	5	41	3
Natural sciences, mathematics	25	6	1	-	6	1	-	-
Engineering and technology	161	31	71	24	49	4	41	3
Agricultural sciences	642	436	642	436	-	-	-	-
<i>Government sector</i>	491	230	285	131	123	76	79	20
Natural sciences, mathematics	206	95	171	79	22	7	13	9
Engineering and technology	22	10	22	10	-	-	-	-
Agricultural sciences	12	8	12	8	-	-	-	-
Medical sciences	2	1	2	1	-	-	-	-
Social sciences	107	74	6	5	101	69	-	-
Humanities	142	42	72	28	-	-	66	11
<i>Tertiary education</i>	667	278	588	239	51	19	28	20
Natural sciences, mathematics	105	55	86	44	5	3	14	8
Engineering and technology	259	74	259	74	-	-	-	-
Medical sciences	119	65	116	64	3	1	-	-
Social sciences	174	78	117	51	43	15	14	12
Humanities	10	6	10	6	-	-	-	-
<b>Region Vojvodine</b>	<b>525</b>	<b>138</b>	<b>517</b>	<b>132</b>	<b>5</b>	<b>3</b>	<b>3</b>	<b>3</b>
Natural sciences, mathematics	1	1	-	-	1	1	-	-
Engineering and technology	437	98	437	98	-	-	-	-
Agricultural sciences	5	2	5	2	-	-	-	-
Medical sciences	34	11	34	11	-	-	-	-
Social sciences	48	26	41	21	4	2	3	3

**6.1. Engaged on the basis of work on contract and author contract (number of persons), 2012 (continued)**

	Engaged on the basis of work on contract and author contract							
	Total		Researchers		Assistant researchers		Other	
	All	Women	All	Women	All	Women	All	Women
<i>Tertiary education</i>	519	134	517	132	-	-	2	2
Engineering and technology	437	98	437	98	-	-	-	-
Agricultural sciences	5	2	5	2	-	-	-	-
Medical sciences	34	11	34	11	-	-	-	-
Social sciences	43	23	41	21	-	-	2	2
<i>Non-profit sector</i>	6	4	-	-	5	3	1	1
Natural sciences, mathematics	1	1	-	-	1	1	-	-
Social sciences	5	3	-	-	4	2	1	1
SRBIJA – JUG	257	127	239	119	11	5	7	3
Natural sciences, mathematics	147	77	137	73	10	4	-	-
Engineering and technology	17	10	16	10	-	-	1	-
Social sciences	93	40	86	36	1	1	6	3
<i>Business sector</i>	7	2	5	1	1	1	1	-
Engineering and technology	5	1	5	1	-	-	-	-
Social sciences	2	1	-	-	1	1	1	-
<i>Tertiary education</i>	250	125	234	118	10	4	6	3
Natural sciences, mathematics	147	77	137	73	10	4	-	-
Engineering and technology	12	9	11	9	-	-	1	-
Social sciences	91	39	86	36	-	-	5	3
<b>Region Sumadije i Zapadne Srbije</b>	<b>117</b>	<b>57</b>	<b>104</b>	<b>50</b>	<b>6</b>	<b>4</b>	<b>7</b>	<b>3</b>
Natural sciences, mathematics	25	17	20	14	5	3	-	-
Engineering and technology	6	1	5	1	-	-	1	-
Social sciences	86	39	79	35	1	1	6	3
<i>Business sector</i>	7	2	5	1	1	1	1	-
Engineering and technology	5	1	5	1	-	-	-	-
Social sciences	2	1	-	-	1	1	1	-
<i>Tertiary education</i>	110	55	99	49	5	3	6	3
Natural sciences, mathematics	25	17	20	14	5	3	-	-
Engineering and technology	1	-	-	-	-	-	1	-
Social sciences	84	38	79	35	-	-	5	3
<b>Region Juzne i Zapadne Srbije</b>	<b>140</b>	<b>70</b>	<b>135</b>	<b>69</b>	<b>5</b>	<b>1</b>	-	-
Natural sciences, mathematics	122	60	117	59	5	1	-	-
Engineering and technology	11	9	11	9	-	-	-	-
Social sciences	7	1	7	1	-	-	-	-
<i>Tertiary education</i>	140	70	135	69	5	1	-	-
Natural sciences, mathematics	122	60	117	59	5	1	-	-
Engineering and technology	11	9	11	9	-	-	-	-
Social sciences	7	1	7	1	-	-	-	-
<b>Region Kosovo i Metohia</b>	...	...	...	...	...	...	...	...

**6.2. Engaged on the basis of work on contract and author contract, expressed in full-time equivalent (FTE), 2012**

	Engaged on the basis of work on contract and author contract							
	Total		Researchers		Assistant researchers		Other	
	All	Women	All	Women	All	Women	All	Women
<b>REPUBLIC OF SERBIA</b>	<b>1548</b>	<b>655</b>	<b>1337</b>	<b>592</b>	<b>99</b>	<b>29</b>	<b>91</b>	<b>28</b>
Natural sciences, mathematics	370	179	298	150	37	14	20	13
Engineering and technology	549	113	480	109	37	1	32	1
Agricultural sciences	250	196	250	196	-	-	-	-
Medical sciences	112	53	110	52	2	1	-	-
Social sciences	197	91	161	71	23	13	11	7
Humanities	70	23	38	14	-	-	28	7
<i>Business sector</i>	361	206	269	196	41	2	33	1
Natural sciences, mathematics	22	6	-	-	4	1	-	-
Engineering and technology	96	8	27	4	37	1	32	1
Agricultural sciences	242	192	242	192	-	-	-	-
Social sciences	1	-	-	-	-	-	1	-
<i>Government sector</i>	234	99	160	69	31	14	40	16
Natural sciences, mathematics	143	65	113	52	19	6	12	9
Engineering and technology	6	2	6	2	-	-	-	-
Agricultural sciences	3	2	3	2	-	-	-	-
Medical sciences	1	-	1	-	-	-	-	-
Social sciences	12	8	-	-	12	8	-	-
Humanities	69	22	37	13	-	-	28	7
<i>Tertiary education</i>	949	347	908	327	24	11	17	10
Natural sciences, mathematics	204	107	185	98	13	6	8	4
Engineering and technology	447	103	447	103	-	-	-	-
Agricultural sciences	5	2	5	2	-	-	-	-
Medical sciences	111	53	109	52	2	1	-	-
Social sciences	181	81	161	71	9	4	9	6
Humanities	1	1	1	1	-	-	-	-
<i>Tertiary education</i>	4	3	-	-	3	2	1	1
Natural sciences, mathematics	1	1	-	-	1	1	-	-
Engineering and technology	3	2	-	-	2	1	1	1
SRBIJA – SEVER	1331	545	1136	489	89	25	85	25
Natural sciences, mathematics	227	104	165	79	27	10	20	13
Engineering and technology	533	103	464	99	37	1	32	1
Agricultural sciences	250	196	250	196	-	-	-	-
Medical sciences	112	53	110	52	2	1	-	-
Social sciences	139	66	109	49	23	13	5	4
Humanities	70	23	38	14	-	-	28	7

## 6.2. Engaged on the basis of work on contract and author contract, expressed in full-time equivalent (FTE), 2012 (continued)

	Engaged on the basis of work on contract and author contract							
	Total		Researchers		Assistant researchers		Other	
	All	Women	All	Women	All	Women	All	Women
<i>Business sector</i>	355	205	264	195	41	2	32	1
Natural sciences, mathematics	22	6	-	-	4	1	-	-
Engineering and technology	91	7	22	3	37	1	32	1
Agricultural sciences	242	192	242	192	-	-	-	-
<i>Government sector</i>	234	99	160	69	31	14	40	16
Natural sciences, mathematics	143	65	113	52	19	6	12	9
Engineering and technology	6	2	6	2	-	-	-	-
Agricultural sciences	3	2	3	2	-	-	-	-
Medical sciences	1	-	1	-	-	-	-	-
Social sciences	12	8	-	-	12	8	-	-
Humanities	69	22	37	13	-	-	28	7
<i>Tertiary education</i>	738	238	712	225	14	7	12	7
Natural sciences, mathematics	61	32	52	27	3	2	8	4
Engineering and technology	436	94	436	94	-	-	-	-
Agricultural sciences	5	2	5	2	-	-	-	-
Medical sciences	111	53	109	52	2	1	-	-
Social sciences	124	56	109	49	9	4	4	3
Humanities	1	1	1	1	-	-	-	-
<i>Non-profit sector</i>	4	3	-	-	3	2	1	1
Natural sciences, mathematics	1	1	-	-	1	1	-	-
Social sciences	3	2	-	-	2	1	1	1
<b>Beogradski region</b>	<b>1037</b>	<b>468</b>	<b>848</b>	<b>416</b>	<b>86</b>	<b>23</b>	<b>83</b>	<b>23</b>
Natural sciences, mathematics	226	103	165	79	26	9	20	13
Engineering and technology	298	49	229	45	37	1	32	1
Agricultural sciences	245	194	245	194	-	-	-	-
Medical sciences	78	42	76	41	2	1	-	-
Social sciences	120	57	95	43	21	12	3	2
Humanities	70	23	38	14	-	-	28	7
<i>Business sector</i>	355	205	264	195	41	2	32	1
Natural sciences, mathematics	22	6	-	-	4	1	-	-
Engineering and technology	91	7	22	3	37	1	32	1
Agricultural sciences	242	192	242	192	-	-	-	-
<i>Government sector</i>	234	99	160	69	31	14	40	16
Natural sciences, mathematics	143	65	113	52	19	6	12	9
Engineering and technology	6	2	6	2	-	-	-	-
Agricultural sciences	3	2	3	2	-	-	-	-
Medical sciences	1	-	1	-	-	-	-	-
Social sciences	12	8	-	-	12	8	-	-
Humanities	69	22	37	13	-	-	28	7
<i>Tertiary education</i>	448	164	424	152	14	7	11	6
Natural sciences, mathematics	61	32	52	27	3	2	8	4
Engineering and technology	201	40	201	40	-	-	-	-
Medical sciences	77	42	75	41	2	1	-	-
Social sciences	108	49	95	43	9	4	3	2
Humanities	1	1	1	1	-	-	-	-
<b>Region Vojvodine</b>	<b>294</b>	<b>77</b>	<b>288</b>	<b>73</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>
Natural sciences, mathematics	1	1	-	-	1	1	-	-
Engineering and technology	235	54	235	54	-	-	-	-
Agricultural sciences	5	2	5	2	-	-	-	-
Medical sciences	34	11	34	11	-	-	-	-
Social sciences	19	9	14	6	2	1	2	2
<i>Tertiary education</i>	290	74	288	73	-	-	1	1
Engineering and technology	235	54	235	54	-	-	-	-
Agricultural sciences	5	2	5	2	-	-	-	-
Medical sciences	34	11	34	11	-	-	-	-
Social sciences	16	7	14	6	-	-	1	1
<i>Non-profit sector</i>	4	3	-	-	3	2	1	1
Natural sciences, mathematics	1	1	-	-	1	1	-	-
Social sciences	3	2	-	-	2	1	1	1
SRBIJA – JUG	217	110	201	103	10	4	6	3
Natural sciences, mathematics	143	75	133	71	10	4	-	-
Engineering and technology	16	10	16	10	-	-	-	-
Social sciences	58	25	52	22	-	-	6	3
<i>Business sector</i>	6	1	5	1	-	-	1	-
Engineering and technology	5	1	5	1	-	-	-	-
Social sciences	1	-	-	-	-	-	1	-
<i>Tertiary education</i>	211	109	196	102	10	4	5	3
Natural sciences, mathematics	143	75	133	71	10	4	-	-
Engineering and technology	11	9	11	9	-	-	-	-
Social sciences	57	25	52	22	-	-	5	3
<b>Region Sumadije i Zapadne Srbije</b>	<b>83</b>	<b>41</b>	<b>72</b>	<b>35</b>	<b>5</b>	<b>3</b>	<b>6</b>	<b>3</b>
Natural sciences, mathematics	21	15	16	12	5	3	-	-
Engineering and technology	5	1	5	1	-	-	-	-
Social sciences	57	25	51	22	-	-	6	3
<i>Business sector</i>	6	1	5	1	-	-	1	-
Engineering and technology	5	1	5	1	-	-	-	-
Social sciences	1	-	-	-	-	-	1	-
<i>Tertiary education</i>	77	40	67	34	5	3	5	3
Natural sciences, mathematics	21	15	16	12	5	3	-	-
Engineering and technology	-	-	-	-	-	-	-	-
Social sciences	56	25	51	22	-	-	5	3
<b>Region Juzne i Istocne Srbije</b>	<b>134</b>	<b>69</b>	<b>129</b>	<b>68</b>	<b>5</b>	<b>1</b>	-	-
Natural sciences, mathematics	122	60	117	59	5	1	-	-
Engineering and technology	11	9	11	9	-	-	-	-
Social sciences	1	-	1	-	-	-	-	-
<i>Tertiary education</i>	134	69	129	68	5	1	-	-
Natural sciences, mathematics	122	60	117	59	5	1	-	-
Engineering and technology	11	9	11	9	-	-	-	-
Social sciences	1	-	1	-	-	-	-	-
<b>Region Kosovo i Metohija</b>	...	...	...	...	...	...	...	...



**7.1. Research works (projects and studies), by sectors and territory, 2012**

	Research works (projects and studies), by sectors and territory, 2012							
	Value of scientific works, thous. RSD				Number of works			
	Total	Basic	Applied	Development	Total	Basic	Applied	Development
<b>REPUBLIC OF SERBIA</b>	<b>32416910</b>	<b>11268009</b>	<b>13663698</b>	<b>7485203</b>	<b>11493</b>	<b>6413</b>	<b>2995</b>	<b>2085</b>
Business sector	8115127	119194	6102871	1893062	682	55	455	172
Government sector	9259614	4045768	3508770	1705076	3763	2219	958	586
Tertiary education	15021970	7100631	4044799	3876540	7011	4134	1561	1316
Non-profit sector	20199	2416	7258	10525	37	5	21	11
<b>SRBIJA – SEVER</b>	<b>30251695</b>	<b>10464894</b>	<b>12868714</b>	<b>6918087</b>	<b>9526</b>	<b>5302</b>	<b>2455</b>	<b>1769</b>
Business sector	7835778	117919	5993782	1724077	513	54	319	140
Government sector	8990908	4036795	3309592	1644521	3710	2217	942	551
Tertiary education	13404810	6307764	3558082	3538964	5266	3026	1173	1067
Non-profit sector	20199	2416	7258	10525	37	5	21	11
<b>Beogradski region</b>	<b>24387641</b>	<b>8066683</b>	<b>10509696</b>	<b>5811262</b>	<b>7285</b>	<b>4486</b>	<b>1661</b>	<b>1138</b>
Business sector	7762942	117919	5920946	1724077	501	54	307	140
Government sector	8413738	4010970	2802151	1600617	3546	2207	805	534
Tertiary education	8198080	3935641	1781599	2480840	3220	2221	538	461
Non-profit sector	12881	2153	5000	5728	18	4	11	3
<b>Region Vojvodine</b>	<b>5864054</b>	<b>2398211</b>	<b>2359018</b>	<b>1106825</b>	<b>2241</b>	<b>816</b>	<b>794</b>	<b>631</b>
Business sector	72836	-	72836	-	12	-	12	-
Government sector	577170	25825	507441	43904	164	10	137	17
Tertiary education	5206730	2372123	1776483	1058124	2046	805	635	606
Non-profit sector	7318	263	2258	4797	19	1	10	8
<b>SRBIJA – JUG</b>	<b>2165215</b>	<b>803115</b>	<b>794984</b>	<b>567116</b>	<b>1967</b>	<b>1111</b>	<b>540</b>	<b>316</b>
Business sector	279349	1275	109089	168985	169	1	136	32
Government sector	268706	8973	199178	60555	53	2	16	35
Tertiary education	1617160	792867	486717	337576	1745	1108	388	249
<b>Region Sumadije i Zapadne Srbije</b>	<b>1024805</b>	<b>503041</b>	<b>360578</b>	<b>161186</b>	<b>660</b>	<b>359</b>	<b>210</b>	<b>91</b>
Business sector	100907	-	72072	28835	140	-	123	17
Government sector	36217	7243	28974	-	5	1	4	-
Tertiary education	887681	495798	259532	132351	515	358	83	74
<b>Region Juzne i Istocne Srbije</b>	<b>1140410</b>	<b>300074</b>	<b>434406</b>	<b>405930</b>	<b>1307</b>	<b>752</b>	<b>330</b>	<b>225</b>
Business sector	178442	1275	37017	140150	29	1	13	15
Government sector	232489	1730	170204	60555	48	1	12	35
Tertiary education	729479	297069	227185	205225	1230	750	305	175
<b>Region Kosovo i Metohija</b>	...	...	...	...	...	...	...	...

**7.2. Research works (projects and studies), by sectors and scientific fields, 2012**

	Research works (projects and studies), by sectors and scientific fields, 2012							
	Value of scientific works, thous. RSD				Number of works			
	Total	Basic	Applied	Development	Total	Basic	Applied	Development
<b>REPUBLIC OF SERBIA</b>	<b>32416910</b>	<b>11268009</b>	<b>13663698</b>	<b>7485203</b>	<b>11493</b>	<b>6413</b>	<b>2995</b>	<b>2085</b>
<i>Business sector</i>	8115127	119194	6102871	1893062	682	55	455	172
Natural sciences, mathematics	6059530	-	4777610	1281920	75	-	64	11
Engineering and technology	1130171	33949	741711	354511	347	12	222	113
Agricultural sciences	793283	85245	511956	196082	197	43	117	37
Medical sciences	102336	-	42053	60283	14	-	6	8
Social sciences	29807	-	29541	266	49	-	46	3
<i>Government sector</i>	9259614	4045768	3508770	1705076	3763	2219	958	586
Natural sciences, mathematics	3150192	2656823	405502	87867	661	549	38	74
Engineering and technology	2660216	44595	1431182	1184439	527	20	207	300
Agricultural sciences	237477	227150	10327	-	112	102	10	-
Medical sciences	1931437	106426	1501527	323484	722	24	617	81
Social sciences	554036	339536	105214	109286	1182	979	72	131
Humanities	726256	671238	55018	-	559	545	14	-
<i>Tertiary education</i>	15021970	7100631	4044799	3876540	7011	4134	1561	1316
Natural sciences, mathematics	3231361	1521857	943672	765832	1082	826	124	132
Engineering and technology	3193302	507541	996531	1689230	1706	306	658	742
Agricultural sciences	657100	482350	123781	50969	349	134	202	13
Medical sciences	1960807	295825	1017546	647436	386	50	236	100
Social sciences	4286535	2715704	867042	703789	2121	1559	246	316
Humanities	1692865	1577354	96227	19284	1367	1259	95	13
<i>Non-profit sector</i>	20199	2416	7258	10525	37	5	21	11
Natural sciences, mathematics	774	-	774	-	8	-	8	-
Engineering and technology	211	-	-	211	4	-	-	4
Agricultural sciences	5728	-	-	5728	3	-	-	3
Medical sciences	1484	-	1484	-	2	-	2	-
Social sciences	12002	2416	5000	4586	20	5	11	4

## 7.2. Research works (projects and studies), by sectors and scientific fields, 2012 (continued)

	Research works (projects and studies), by sectors and scientific fields, 2012							
	Value of scientific works, thous. RSD				Number of works			
	Total	Basic	Applied	Development	Total	Basic	Applied	Development
<b>SRBIJA – SEVER</b>	30251695	10464894	12868714	6918087	9526	5302	2455	1769
<i>Business sector</i>	7835778	117919	5993782	1724077	513	54	319	140
Natural sciences, mathematics	5916893	-	4762308	1154585	65	-	59	6
Engineering and technology	1010624	32674	665066	312884	229	11	131	87
Agricultural sciences	793283	85245	511956	196082	197	43	117	37
Medical sciences	101686	-	41403	60283	13	-	5	8
Social sciences	13292	-	13049	243	9	-	7	2
<i>Government sector</i>	8990908	4036795	3309592	1644521	3710	2217	942	551
Natural sciences, mathematics	3150192	2656823	405502	87867	661	549	38	74
Engineering and technology	2587548	42865	1420799	1123884	485	19	201	265
Agricultural sciences	237477	227150	10327	-	112	102	10	-
Medical sciences	1735399	99183	1312732	323484	711	23	607	81
Social sciences	554036	339536	105214	109286	1182	979	72	131
Humanities	726256	671238	55018	-	559	545	14	-
<i>Tertiary education</i>	13404810	6307764	3558082	3538964	5266	3026	1173	1067
Natural sciences, mathematics	2700590	1125497	826605	748488	679	439	114	126
Engineering and technology	2537528	397736	731914	1407878	1171	244	345	582
Agricultural sciences	541574	369274	123781	48519	304	91	202	11
Medical sciences	1855137	285258	922443	647436	366	48	218	100
Social sciences	4121279	2596808	857112	667359	1402	968	199	235
Humanities	1648702	1533191	96227	19284	1344	1236	95	13
<i>Non-profit sector</i>	20199	2416	7258	10525	37	5	21	11
Natural sciences, mathematics	774	-	774	-	8	-	8	-
Engineering and technology	211	-	-	211	4	-	-	4
Agricultural sciences	5728	-	-	5728	3	-	-	3
Medical sciences	1484	-	1484	-	2	-	2	-
Social sciences	12002	2416	5000	4586	20	5	11	4
<b>Beogradski region</b>	<b>24387641</b>	<b>8066683</b>	<b>10509696</b>	<b>5811262</b>	<b>7285</b>	<b>4486</b>	<b>1661</b>	<b>1138</b>
<i>Business sector</i>	7762942	117919	5920946	1724077	501	54	307	140
Natural sciences, mathematics	5916893	-	4762308	1154585	65	-	59	6
Engineering and technology	977399	32674	631841	312884	219	11	121	87
Agricultural sciences	793283	85245	511956	196082	197	43	117	37
Medical sciences	62075	-	1792	60283	11	-	3	8
Social sciences	13292	-	13049	243	9	-	7	2
<i>Government sector</i>	8413738	4010970	2802151	1600617	3546	2207	805	534
Natural sciences, mathematics	3150192	2656823	405502	87867	661	549	38	74
Engineering and technology	2479335	42865	1312586	1123884	453	19	169	265
Agricultural sciences	237477	227150	10327	-	112	102	10	-
Medical sciences	1266442	73358	913504	279580	579	13	502	64
Social sciences	554036	339536	105214	109286	1182	979	72	131
Humanities	726256	671238	55018	-	559	545	14	-
<i>Tertiary education</i>	8198080	3935641	1781599	2480840	3220	2221	538	461
Natural sciences, mathematics	1323229	673285	132851	517093	554	398	51	105
Engineering and technology	1617553	393590	393583	830380	329	101	54	174
Agricultural sciences	478764	329274	100971	48519	292	82	199	11
Medical sciences	1106815	269494	303679	533642	163	45	47	71
Social sciences	3165145	1783640	831854	549651	1000	778	127	95
Humanities	506574	486358	18661	1555	882	817	60	5
<i>Non-profit sector</i>	12881	2153	5000	5728	18	4	11	3
Agricultural sciences	5728	-	-	5728	3	-	-	3
Social sciences	7153	2153	5000	-	15	4	11	-
<b>Region Vojvodine</b>	<b>5864054</b>	<b>2398211</b>	<b>2359018</b>	<b>1106825</b>	<b>2241</b>	<b>816</b>	<b>794</b>	<b>631</b>
<i>Business sector</i>	72836	-	72836	-	12	-	12	-
Engineering and technology	33225	-	33225	-	10	-	10	-
Medical sciences	39611	-	39611	-	2	-	2	-
<i>Government sector</i>	577170	25825	507441	43904	164	10	137	17
Engineering and technology	108213	-	108213	-	32	-	32	-
Medical sciences	468957	25825	399228	43904	132	10	105	17
<i>Tertiary education</i>	5206730	2372123	1776483	1058124	2046	805	635	606
Natural sciences, mathematics	1377361	452212	693754	231395	125	41	63	21
Engineering and technology	919975	4146	338331	577498	842	143	291	408
Agricultural sciences	62810	40000	22810	-	12	9	3	-
Medical sciences	748322	15764	618764	113794	203	3	171	29
Social sciences	956134	813168	25258	117708	402	190	72	140
Humanities	1142128	1046833	77566	17729	462	419	35	8
<i>Non-profit sector</i>	7318	263	2258	4797	19	1	10	8
Natural sciences, mathematics	774	-	774	-	8	-	8	-
Engineering and technology	211	-	-	211	4	-	-	4
Medical sciences	1484	-	1484	-	2	-	2	-
Social sciences	4849	263	-	4586	5	1	-	4

## 7.2. Research works (projects and studies), by sectors and scientific fields, 2012 (continued)

	Research works (projects and studies), by sectors and scientific fields, 2012							
	Value of scientific works, thous. RSD				Number of works			
	Total	Basic	Applied	Development	Total	Basic	Applied	Development
SRBIJA – JUG	2165215	803115	794984	567116	1967	1111	540	316
<i>Business sector</i>	279349	1275	109089	168985	169	1	136	32
Natural sciences, mathematics	142637	-	15302	127335	10	-	5	5
Engineering and technology	119547	1275	76645	41627	118	1	91	26
Medical sciences	650	-	650	-	1	-	1	-
Social sciences	16515	-	16492	23	40	-	39	1
<i>Government sector</i>	268706	8973	199178	60555	53	2	16	35
Engineering and technology	72668	1730	10383	60555	42	1	6	35
Medical sciences	196038	7243	188795	-	11	1	10	-
<i>Tertiary education</i>	1617160	792867	486717	337576	1745	1108	388	249
Natural sciences, mathematics	530771	396360	117067	17344	403	387	10	6
Engineering and technology	655774	109805	264617	281352	535	62	313	160
Agricultural sciences	115526	113076	-	2450	45	43	-	2
Medical sciences	105670	10567	95103	-	20	2	18	-
Social sciences	165256	118896	9930	36430	719	591	47	81
Humanities	44163	44163	-	-	23	23	-	-
<b>Region Sumadije i Zapadne Srbije</b>	<b>1024805</b>	<b>503041</b>	<b>360578</b>	<b>161186</b>	<b>660</b>	<b>359</b>	<b>210</b>	<b>91</b>
<i>Business sector</i>	100907	-	72072	28835	140	-	123	17
Natural sciences, mathematics	24530	-	13637	10893	6	-	2	4
Engineering and technology	59212	-	41293	17919	93	-	81	12
Medical sciences	650	-	650	-	1	-	1	-
Social sciences	16515	-	16492	23	40	-	39	1
<i>Government sector</i>	36217	7243	28974	-	5	1	4	-
Medical sciences	36217	7243	28974	-	5	1	4	-
<i>Tertiary education</i>	887681	495798	259532	132351	515	358	83	74
Natural sciences, mathematics	433583	299172	117067	17344	50	34	10	6
Engineering and technology	180141	26159	46425	107557	144	27	54	63
Agricultural sciences	49016	46566	-	2450	40	38	-	2
Medical sciences	105670	10567	95103	-	20	2	18	-
Social sciences	104117	98180	937	5000	255	251	1	3
Humanities	15154	15154	-	-	6	6	-	-
<b>Region Juzne i Istocne Srbije</b>	<b>1140410</b>	<b>300074</b>	<b>434406</b>	<b>405930</b>	<b>1307</b>	<b>752</b>	<b>330</b>	<b>225</b>
<i>Business sector</i>	178442	1275	37017	140150	29	1	13	15
Natural sciences, mathematics	118107	-	1665	116442	4	-	3	1
Engineering and technology	60335	1275	35352	23708	25	1	10	14
<i>Government sector</i>	232489	1730	170204	60555	48	1	12	35
Engineering and technology	72668	1730	10383	60555	42	1	6	35
Medical sciences	159821	-	159821	-	6	-	6	-
<i>Tertiary education</i>	729479	297069	227185	205225	1230	750	305	175
Natural sciences, mathematics	97188	97188	-	-	353	353	-	-
Engineering and technology	475633	83646	218192	173795	391	35	259	97
Agricultural sciences	66510	66510	-	-	5	5	-	-
Social sciences	61139	20716	8993	31430	464	340	46	78
Humanities	29009	29009	-	-	17	17	-	-
<b>Region Kosovo i Metohija</b>	...	...	...	...	...	...	...	...

## 8.1. R&amp;D works, by ordering parties, scientific fields

	Ordering parties							
	Enterprises				Ministries			
	Total	Basic	Applied	Development	Total	Basic	Applied	Development
<b>REPUBLIC OF SERBIA</b>	<b>680</b>	<b>67</b>	<b>455</b>	<b>158</b>	<b>8511</b>	<b>5502</b>	<b>1583</b>	<b>1426</b>
<i>Business sector</i>	49	-	44	5	114	15	67	32
Natural sciences, mathematics	5	-	5	-	1	-	-	1
Engineering and technology	1	-	1	-	105	11	63	31
Agricultural sciences	-	-	-	-	8	4	4	-
Medical sciences	5	-	-	5	-	-	-	-
Social sciences	38	-	38	-	-	-	-	-
<i>Government sector</i>	245	28	125	92	3074	2052	540	482
Natural sciences, mathematics	17	1	11	5	722	526	27	169
Engineering and technology	143	-	71	72	224	8	74	142
Agricultural sciences	-	-	-	-	97	87	10	-
Medical sciences	41	-	41	-	441	15	366	60
Social sciences	43	26	2	15	1047	886	50	111
Humanities	1	1	-	-	543	530	13	-
<i>Tertiary education</i>	384	38	286	60	5322	3435	976	911
Natural sciences, mathematics	21	-	-	21	925	766	94	65
Engineering and technology	345	32	282	31	1251	260	348	643
Agricultural sciences	-	-	-	-	326	112	201	13
Medical sciences	12	5	1	6	251	43	147	61
Social sciences	4	-	2	2	1437	1182	138	117
Humanities	2	1	1	-	1132	1072	48	12
<i>Non-profit sector</i>	2	1	-	1	1	-	-	1
Natural sciences, mathematics	-	-	-	-	-	-	-	-
Engineering and technology	-	-	-	-	-	-	-	-
Agricultural sciences	-	-	-	-	1	-	-	1
Medical sciences	-	-	-	-	-	-	-	-
Social sciences	2	1	-	1	-	-	-	-
<b>SRBIJA – SEVER</b>	<b>423</b>	<b>63</b>	<b>209</b>	<b>151</b>	<b>7055</b>	<b>4443</b>	<b>1400</b>	<b>1212</b>
<i>Business sector</i>	10	-	5	5	84	15	38	31
Natural sciences, mathematics	5	-	5	-	1	-	-	1
Engineering and technology	-	-	-	-	75	11	34	30
Agricultural sciences	-	-	-	-	8	4	4	-
Medical sciences	5	-	-	5	-	-	-	-
Social sciences	-	-	-	-	-	-	-	-
<i>Government sector</i>	245	28	125	92	3028	2051	530	447
Natural sciences, mathematics	17	1	11	5	722	526	27	169
Engineering and technology	143	-	71	72	182	7	68	107
Agricultural sciences	-	-	-	-	97	87	10	-
Medical sciences	41	-	41	-	437	15	362	60
Social sciences	43	26	2	15	1047	886	50	111
Humanities	1	1	-	-	543	530	13	-
<i>Tertiary education</i>	166	34	79	53	3942	2377	832	733
Natural sciences, mathematics	21	-	-	21	535	390	84	61
Engineering and technology	127	28	75	24	986	212	263	511
Agricultural sciences	-	-	-	-	288	76	201	11
Medical sciences	12	5	1	6	234	41	132	61
Social sciences	4	-	2	2	790	609	104	77
Humanities	2	1	1	-	1109	1049	48	12
<i>Non-profit sector</i>	2	1	-	1	1	-	-	1
Natural sciences, mathematics	-	-	-	-	-	-	-	-
Engineering and technology	-	-	-	-	-	-	-	-
Agricultural sciences	-	-	-	-	1	-	-	1
Medical sciences	-	-	-	-	-	-	-	-
Social sciences	2	1	-	1	-	-	-	-
<b>Beogradski region</b>	<b>280</b>	<b>41</b>	<b>132</b>	<b>107</b>	<b>5614</b>	<b>3926</b>	<b>924</b>	<b>764</b>
<i>Business sector</i>	10	-	5	5	84	15	38	31
Natural sciences, mathematics	5	-	5	-	1	-	-	1
Engineering and technology	-	-	-	-	75	11	34	30
Agricultural sciences	-	-	-	-	8	4	4	-
Medical sciences	5	-	-	5	-	-	-	-
Social sciences	-	-	-	-	-	-	-	-
<i>Government sector</i>	234	28	114	92	2949	2043	471	435
Natural sciences, mathematics	17	1	11	5	722	526	27	169
Engineering and technology	137	-	65	72	175	7	61	107
Agricultural sciences	-	-	-	-	97	87	10	-
Medical sciences	36	-	36	-	365	7	310	48
Social sciences	43	26	2	15	1047	886	50	111
Humanities	1	1	-	-	543	530	13	-
<i>Tertiary education</i>	35	12	13	10	2580	1868	415	297
Natural sciences, mathematics	-	-	-	-	454	349	44	61
Engineering and technology	17	6	9	2	254	91	38	125
Agricultural sciences	-	-	-	-	286	76	199	11
Medical sciences	12	5	1	6	141	38	44	59
Social sciences	4	-	2	2	637	537	64	36
Humanities	2	1	1	-	808	777	26	5

## and type of research, 2012

Ordering parties								
Other				From abroad				
Total	Basic	Applied	Development	Total	Basic	Applied	Development	
<b>1718</b>	<b>593</b>	<b>616</b>	<b>509</b>	<b>720</b>	<b>285</b>	<b>339</b>	<b>96</b>	<b>REPUBLIC OF SERBIA</b>
297	10	177	110	220	30	165	25	<i>Business sector</i>
52	-	42	10	17	-	17	-	Natural sciences, mathematics
178	-	106	72	61	1	50	10	Engineering and technology
47	10	15	22	142	29	98	15	Agricultural sciences
9	-	6	3	-	-	-	-	Medical sciences
11	-	8	3	-	-	-	-	Social sciences
371	58	229	84	211	115	64	32	<i>Government sector</i>
12	8	-	4	48	48	-	-	Natural sciences, mathematics
104	11	33	60	56	1	29	26	Engineering and technology
4	4	-	-	11	11	-	-	Agricultural sciences
202	6	177	19	38	3	33	2	Medical sciences
40	21	18	1	52	46	2	4	Social sciences
9	8	1	-	6	6	-	-	Humanities
1019	521	189	309	286	140	110	36	<i>Tertiary education</i>
95	39	14	42	41	21	16	4	Natural sciences, mathematics
51	6	-	45	59	8	28	23	Engineering and technology
17	16	1	-	6	6	-	-	Agricultural sciences
94	1	63	30	29	1	25	3	Medical sciences
657	366	99	192	23	11	7	5	Social sciences
105	93	12	-	128	93	34	1	Humanities
31	4	21	6	3	-	-	3	<i>Non-profit sector</i>
8	-	8	-	-	-	-	-	Natural sciences, mathematics
3	-	-	3	1	-	-	1	Engineering and technology
1	-	-	1	1	-	-	1	Agricultural sciences
2	-	2	-	-	-	-	-	Medical sciences
17	4	11	2	1	-	-	1	Social sciences
1585	569	580	436	601	261	266	74	SRBIJA – SEVER
251	10	160	81	168	29	116	23	<i>Business sector</i>
42	-	37	5	17	-	17	-	Natural sciences, mathematics
145	-	96	49	9	-	1	8	Engineering and technology
47	10	15	22	142	29	98	15	Agricultural sciences
8	-	5	3	-	-	-	-	Medical sciences
9	-	7	2	-	-	-	-	Social sciences
367	58	225	84	208	114	62	32	<i>Government sector</i>
12	8	-	4	48	48	-	-	Natural sciences, mathematics
104	11	33	60	56	1	29	26	Engineering and technology
4	4	-	-	11	11	-	-	Agricultural sciences
198	6	173	19	35	2	31	2	Medical sciences
40	21	18	1	52	46	2	4	Social sciences
9	8	1	-	6	6	-	-	Humanities
936	497	174	265	222	118	88	16	<i>Tertiary education</i>
91	37	14	40	32	12	16	4	Natural sciences, mathematics
44	-	-	44	14	4	7	3	Engineering and technology
10	9	1	-	6	6	-	-	Agricultural sciences
91	1	60	30	29	1	25	3	Medical sciences
595	357	87	151	13	2	6	5	Social sciences
105	93	12	-	128	93	34	1	Humanities
31	4	21	6	3	-	-	3	<i>Non-profit sector</i>
8	-	8	-	-	-	-	-	Natural sciences, mathematics
3	-	-	3	1	-	-	1	Engineering and technology
1	-	-	1	1	-	-	1	Agricultural sciences
2	-	2	-	-	-	-	-	Medical sciences
17	4	11	2	1	-	-	1	Social sciences
<b>1076</b>	<b>362</b>	<b>413</b>	<b>301</b>	<b>453</b>	<b>191</b>	<b>192</b>	<b>70</b>	<b>Beogradski region</b>
239	10	148	81	168	29	116	23	<i>Business sector</i>
42	-	37	5	17	-	17	-	Natural sciences, mathematics
135	-	86	49	9	-	1	8	Engineering and technology
47	10	15	22	142	29	98	15	Agricultural sciences
6	-	3	3	-	-	-	-	Medical sciences
9	-	7	2	-	-	-	-	Social sciences
315	56	180	79	186	114	40	32	<i>Government sector</i>
12	8	-	4	48	48	-	-	Natural sciences, mathematics
93	11	22	60	48	1	21	26	Engineering and technology
4	4	-	-	11	11	-	-	Agricultural sciences
157	4	139	14	21	2	17	2	Medical sciences
40	21	18	1	52	46	2	4	Social sciences
9	8	1	-	6	6	-	-	Humanities
507	293	74	140	98	48	36	14	<i>Tertiary education</i>
82	37	5	40	18	12	2	4	Natural sciences, mathematics
44	-	-	44	14	4	7	3	Engineering and technology
-	-	-	-	6	6	-	-	Agricultural sciences
4	1	-	3	6	1	2	3	Medical sciences
350	240	57	53	9	1	4	4	Social sciences
27	15	12	-	45	24	21	27	Humanities

## 8.1. R&amp;D works, by ordering parties, scientific fields

	Ordering parties							
	Enterprises				Ministries			
	Total	Basic	Applied	Development	Total	Basic	Applied	Development
<i>Non-profit sector</i>	1	1	-	-	1	-	-	1
Agricultural sciences	-	-	-	-	1	-	-	1
Social sciences	1	1	-	-	-	-	-	-
<b>Region Vojvodine</b>	<b>143</b>	<b>22 77 44</b>			<b>1441</b>	<b>517</b>	<b>476</b>	<b>448</b>
<i>Business sector</i>	-	-	-	-	-	-	-	-
Engineering and technology	-	-	-	-	-	-	-	-
Medical sciences	-	-	-	-	-	-	-	-
<i>Government sector</i>	11	-	11	-	79	8	59	12
Engineering and technology	6	-	6	-	7	-	7	-
Medical sciences	5	-	5	-	72	8	52	12
<i>Tertiary education</i>	131	22	66	43	1362	509	417	436
Natural sciences, mathematics	21	-	-	21	81	41	40	-
Engineering and technology	110	22	66	22	732	121	225	386
Agricultural sciences	-	-	-	-	2	-	2	-
Medical sciences	-	-	-	-	93	3	88	2
Social sciences	-	-	-	-	153	72	40	41
Humanities	-	-	-	-	301	272	22	7
<i>Non-profit sector</i>	1	-	-	1	-	-	-	-
Natural sciences, mathematics	-	-	-	-	-	-	-	-
Engineering and technology	-	-	-	-	-	-	-	-
Medical sciences	-	-	-	-	-	-	-	-
Social sciences	1	-	-	1	-	-	-	-
SRBIJA – JUG	257	4	246	7	1456	1059	183	214
<i>Business sector</i>	39	-	39	-	30	-	29	1
Natural sciences, mathematics	-	-	-	-	-	-	-	-
Engineering and technology	1	-	1	-	30	-	29	1
Medical sciences	-	-	-	-	-	-	-	-
Social sciences	38	-	38	-	-	-	-	-
<i>Government sector</i>	-	-	-	-	46	1	10	35
Engineering and technology	-	-	-	-	42	1	6	35
Medical sciences	-	-	-	-	4	-	4	-
<i>Tertiary education</i>	218	4	207	7	1380	1058	144	178
Natural sciences, mathematics	-	-	-	-	390	376	10	4
Engineering and technology	218	4	207	7	265	48	85	132
Agricultural sciences	-	-	-	-	38	36	-	2
Medical sciences	-	-	-	-	17	2	15	-
Social sciences	-	-	-	-	647	573	34	40
Humanities	-	-	-	-	23	23	-	-
<b>Region Sumadije i Zapadne Srbije</b>	<b>42</b>	<b>2</b>	<b>39</b>	<b>1</b>	<b>499</b>	<b>326</b>	<b>109</b>	<b>64</b>
<i>Business sector</i>	39	-	39	-	30	-	29	1
Natural sciences, mathematics	-	-	-	-	-	-	-	-
Engineering and technology	1	-	1	-	30	-	29	1
Medical sciences	-	-	-	-	-	-	-	-
Social sciences	38	-	38	-	-	-	-	-
<i>Government sector</i>	-	-	-	-	2	-	2	-
Medical sciences	-	-	-	-	2	-	2	-
<i>Tertiary education</i>	3	2	-	1	467	326	78	63
Natural sciences, mathematics	-	-	-	-	39	25	10	4
Engineering and technology	3	2	-	1	131	21	53	57
Agricultural sciences	-	-	-	-	33	31	-	2
Medical sciences	-	-	-	-	17	2	15	-
Social sciences	-	-	-	-	241	241	-	-
Humanities	-	-	-	-	6	6	-	-
<b>Region Juzne i Istocne Srbije</b>	<b>215</b>	<b>2</b>	<b>207</b>	<b>6</b>	<b>957</b>	<b>733</b>	<b>74</b>	<b>150</b>
<i>Business sector</i>	-	-	-	-	-	-	-	-
Natural sciences, mathematics	-	-	-	-	-	-	-	-
Engineering and technology	-	-	-	-	-	-	-	-
<i>Government sector</i>	-	-	-	-	44	1	8	35
Engineering and technology	-	-	-	-	42	1	6	35
Medical sciences	-	-	-	-	2	-	2	-
<i>Tertiary education</i>	215	2	207	6	913	732	66	115
Natural sciences, mathematics	-	-	-	-	351	351	-	-
Engineering and technology	215	2	207	6	134	27	32	75
Agricultural sciences	-	-	-	-	5	5	-	-
Social sciences	-	-	-	-	406	332	34	40
Humanities	-	-	-	-	17	17	-	-
<b>Region Kosovo i Metohija</b>	...	...	...	...	...	...	...	...

## and type of research, 2012 (continued)

Ordering parties								
Other				From abroad				
Total	Basic	Applied	Development	Total	Basic	Applied	Development	
3	11	1	1	-	-	1	3	<i>Non-profit sector</i>
-	-	1	1	-	-	1	-	Agricultural sciences
3	11	-	-	-	-	-	3	Social sciences
<b>207</b>	<b>167 135 148</b>			<b>70</b>	<b>74</b>	<b>4</b>	<b>207</b>	<b>Region Vojvodine</b>
-	12	-	-	-	-	-	-	<i>Business sector</i>
-	10	-	-	-	-	-	-	Engineering and technology
-	2	-	-	-	-	-	-	Medical sciences
2	45	5	22	-	22	-	2	<i>Government sector</i>
-	11	-	8	-	8	-	-	Engineering and technology
2	34	5	14	-	14	-	2	Medical sciences
204	100	125	124	70	52	2	204	<i>Tertiary education</i>
-	9	-	14	-	14	-	-	Natural sciences, mathematics
-	-	-	-	-	-	-	-	Engineering and technology
9	1	-	-	-	-	-	9	Agricultural sciences
-	60	27	23	-	23	-	-	Medical sciences
117	30	98	4	1	2	1	117	Social sciences
78	-	-	83	69	13	1	78	Humanities
1	10	5	2	-	-	2	1	<i>Non-profit sector</i>
-	8	-	-	-	-	-	-	Natural sciences, mathematics
-	-	3	1	-	-	1	-	Engineering and technology
-	2	-	-	-	-	-	-	Medical sciences
1	-	2	1	-	-	1	1	Social sciences
24	36	73	119	24	73	22	24	SRBIJA – JUG
-	17	29	52	1	49	2	-	<i>Business sector</i>
-	5	5	-	-	-	-	-	Natural sciences, mathematics
-	10	23	52	1	49	2	-	Engineering and technology
-	1	-	-	-	-	-	-	Medical sciences
-	1	1	-	-	-	-	-	Social sciences
-	4	-	3	1	2	-	-	<i>Government sector</i>
-	-	-	-	-	-	-	-	Engineering and technology
-	4	-	3	1	2	-	-	Medical sciences
24	15	44	64	22	22	20	24	<i>Tertiary education</i>
2	-	2	9	9	-	-	2	Natural sciences, mathematics
6	-	1	45	4	21	20	6	Engineering and technology
7	-	-	-	-	-	-	7	Agricultural sciences
-	3	-	-	-	-	-	-	Medical sciences
9	12	41	10	9	1	-	9	Social sciences
-	-	-	-	-	-	-	-	Humanities
<b>13</b>	<b>11 21 72 18 49</b>					<b>5</b>	<b>13</b>	<b>Region Sumadije i Zapadne Srbije</b>
-	7	16	46	-	46	-	-	<i>Business sector</i>
-	2	4	-	-	-	-	-	Natural sciences, mathematics
-	3	11	46	-	46	-	-	Engineering and technology
-	1	-	-	-	-	-	-	Medical sciences
-	1	1	-	-	-	-	-	Social sciences
-	1	-	2	1	1	-	-	<i>Government sector</i>
-	1	-	2	1	1	-	-	Medical sciences
13	3	5	24	17	2	5	13	<i>Tertiary education</i>
2	-	2	7	7	-	-	2	Natural sciences, mathematics
3	-	-	7	1	1	5	3	Engineering and technology
7	-	-	-	-	-	-	7	Agricultural sciences
-	3	-	-	-	-	-	-	Medical sciences
1	-	3	10	9	1	-	1	Social sciences
-	-	-	-	-	-	-	-	Humanities
<b>11</b>	<b>25 52 47</b>			<b>6</b>	<b>24</b>	<b>17</b>	<b>11</b>	<b>Region Juzne i Istocne Srbije</b>
-	10	13	6	1	3	2	-	<i>Business sector</i>
-	3	1	-	-	-	-	-	Natural sciences, mathematics
-	7	12	6	1	3	2	-	Engineering and technology
-	3	-	1	-	1	-	-	<i>Government sector</i>
-	-	-	-	-	-	-	-	Engineering and technology
-	3	-	1	-	1	-	-	Medical sciences
11	12	39	40	5	20	15	11	<i>Tertiary education</i>
-	-	-	2	2	-	-	-	Natural sciences, mathematics
3	-	1	38	3	20	15	3	Engineering and technology
-	-	-	-	-	-	-	-	Agricultural sciences
8	12	38	-	-	-	-	8	Social sciences
-	-	-	-	-	-	-	-	Humanities
...	...	...	...	...	...	...	...	<b>Region Kosovo i Metohija</b>

## 9.1. Published R&amp;D works, inventions and patents, by scientific fields, 2012

	Published R&D works				Inventions and patents					
	Total	Published in			Tested inventions	Patents		Inventions and patents sold		Inventions and patents used for the first time in practice
		Own publications	Other publications in the Republic of Serbia	Foreign publications		Pending in the Patent Office	Registered in the Patent Office	In the Republic of Serbia	Abroad	
<b>REPUBLIC OF SERBIA</b>	<b>26309</b>	<b>5919</b>	<b>10453</b>	<b>10090</b>	<b>150</b>	<b>73</b>	<b>36</b>	<b>69</b>	-	<b>6</b>
<i>Business sector</i>	295	72	126	97	4	2	1	-	-	4
Natural sciences, mathematics	19	13	4	2	-	-	-	-	-	-
Engineering and technology	191	16	80	95	4	2	1	-	-	4
Agricultural sciences	45	41	4	-	-	-	-	-	-	-
Medical sciences	2	2	-	-	-	-	-	-	-	-
Social sciences	38	-	38	-	-	-	-	-	-	-
<i>Government sector</i>	6942	1432	2643	3072	5	18	4	2	-	2
Natural sciences, mathematics	2062	191	317	1554	3	2	2	2	-	-
Engineering and technology	1099	165	429	505	-	-	-	-	-	-
Agricultural sciences	132	9	74	49	-	-	-	-	-	-
Medical sciences	1108	62	582	472	2	16	2	-	-	2
Social sciences	1145	498	577	273	-	-	-	-	-	-
Humanities	1396	507	664	219	-	-	-	-	-	-
<i>Tertiary education</i>	19054	4400	7681	6921	141	53	31	67	-	-
Natural sciences, mathematics	2082	139	755	1188	-	4	-	-	-	-
Engineering and technology	3994	526	1521	1947	131	48	29	65	-	-
Agricultural sciences	1317	183	358	756	-	-	-	-	-	-
Medical sciences	1850	95	831	924	10	1	2	2	-	-
Social sciences	7358	2639	3007	1680	-	-	-	-	-	-
Humanities	2453	818	1209	426	-	-	-	-	-	-
<i>Non-profit sector</i>	18	15	3	-	-	-	-	-	-	-
Natural sciences, mathematics	1	-	1	-	-	-	-	-	-	-
Agricultural sciences	2	1	1	-	-	-	-	-	-	-
Social sciences	15	14	1	-	-	-	-	-	-	-
<b>SRBIJA – SEVER</b>	<b>21235</b>	<b>5027</b>	<b>8622</b>	<b>7729</b>	<b>147</b>	<b>72</b>	<b>32</b>	<b>69</b>	-	<b>3</b>
<i>Business sector</i>	176	71	86	19	3	1	1	-	-	3
Natural sciences, mathematics	18	12	4	2	-	-	-	-	-	-
Engineering and technology	111	16	78	17	3	1	1	-	-	3
Agricultural sciences	45	41	4	-	-	-	-	-	-	-
Medical sciences	2	2	-	-	-	-	-	-	-	-
<i>Government sector</i>	6638	1404	2568	2861	3	18	2	2	-	-
Natural sciences, mathematics	2062	191	317	1554	3	2	2	2	-	-
Engineering and technology	931	138	416	377	-	-	-	-	-	-
Agricultural sciences	132	9	74	49	-	-	-	-	-	-
Medical sciences	972	61	520	389	-	16	-	-	-	-
Social sciences	1145	498	577	273	-	-	-	-	-	-
Humanities	1396	507	664	219	-	-	-	-	-	-
<i>Tertiary education</i>	14403	3537	5965	4849	141	53	29	67	-	-
Natural sciences, mathematics	1601	137	666	798	-	4	-	-	-	-
Engineering and technology	2081	394	823	864	131	48	27	65	-	-
Agricultural sciences	1136	175	299	642	-	-	-	-	-	-
Medical sciences	1695	73	777	845	10	1	2	2	-	-
Social sciences	5482	1985	2191	1274	-	-	-	-	-	-
Humanities	2408	773	1209	426	-	-	-	-	-	-
<i>Non-profit sector</i>	18	15	3	-	-	-	-	-	-	-
Natural sciences, mathematics	1	-	1	-	-	-	-	-	-	-
Agricultural sciences	2	1	1	-	-	-	-	-	-	-
Social sciences	15	14	1	-	-	-	-	-	-	-
<b>Beogradski region</b>	<b>15374</b>	<b>3856</b>	<b>5641</b>	<b>6020</b>	<b>14</b>	<b>8</b>	<b>3</b>	<b>2</b>	-	<b>3</b>
<i>Business sector</i>	164	69	76	19	3	1	1	-	-	3
Natural sciences, mathematics	18	12	4	2	-	-	-	-	-	-
Engineering and technology	101	16	68	17	3	1	1	-	-	3
Agricultural sciences	45	41	4	-	-	-	-	-	-	-
<i>Government sector</i>	6170	1378	2298	2689	3	2	2	2	-	-
Natural sciences, mathematics	2062	191	317	1554	3	2	2	2	-	-
Engineering and technology	860	126	407	327	-	-	-	-	-	-
Agricultural sciences	132	9	74	49	-	-	-	-	-	-
Medical sciences	575	47	259	267	-	-	-	-	-	-
Social sciences	1145	498	577	273	-	-	-	-	-	-
Humanities	1396	507	664	219	-	-	-	-	-	-
<i>Tertiary education</i>	9023	2394	3265	3312	8	5	-	-	-	-
Natural sciences, mathematics	1096	111	488	497	-	4	-	-	-	-
Engineering and technology	865	135	377	353	-	1	-	-	-	-
Agricultural sciences	1124	165	297	642	-	-	-	-	-	-
Medical sciences	1136	61	398	677	8	-	-	-	-	-
Social sciences	3761	1534	1276	919	-	-	-	-	-	-
Humanities	1041	388	429	224	-	-	-	-	-	-
<i>Non-profit sector</i>	17	15	2	-	-	-	-	-	-	-
Agricultural sciences	2	1	1	-	-	-	-	-	-	-
Social sciences	15	14	1	-	-	-	-	-	-	-



## 9.1. Published R&amp;D works, inventions and patents, by scientific fields, 2012 (continued)

	Published R&D works				Inventions and patents					
	Total	Published in			Tested inventions	Patents		Inventions and patents sold		Inventions and patents used for the first time in practice
		Own publications	Other publications in the Republic of Serbia	Foreign publications		Pending in the Patent Office	Registered in the Patent Office	In the Republic of Serbia	Abroad	
<b>Region Vojvodine</b>	<b>5861</b>	<b>1171</b>	<b>2981</b>	<b>1709</b>	<b>133</b>	<b>64</b>	<b>29</b>	<b>67</b>	-	-
<i>Business sector</i>	12	2	10	-	-	-	-	-	-	-
Engineering and technology	10	-	10	-	-	-	-	-	-	-
Medical sciences	2	2	-	-	-	-	-	-	-	-
<i>Government sector</i>	468	26	270	172	-	16	-	-	-	-
Engineering and technology	71	12	9	50	-	-	-	-	-	-
Medical sciences	397	14	261	122	-	16	-	-	-	-
<i>Tertiary education</i>	5380	1143	2700	1537	133	48	29	67	-	-
Natural sciences, mathematics	505	26	178	301	-	-	-	-	-	-
Engineering and technology	1216	259	446	511	131	47	27	65	-	-
Agricultural sciences	12	10	2	-	-	-	-	-	-	-
Medical sciences	559	12	379	168	2	1	2	2	-	-
Social sciences	1721	451	915	355	-	-	-	-	-	-
Humanities	1367	385	780	202	-	-	-	-	-	-
<i>Non-profit sector</i>	1	-	1	-	-	-	-	-	-	-
Natural sciences, mathematics	1	-	1	-	-	-	-	-	-	-
<b>SRBIJA – JUG</b>	<b>5074</b>	<b>892</b>	<b>1831</b>	<b>2361</b>	<b>3</b>	<b>1</b>	<b>4</b>	-	-	<b>3</b>
<i>Business sector</i>	119	1	40	78	1	1	-	-	-	1
Natural sciences, mathematics	1	1	-	-	-	-	-	-	-	-
Engineering and technology	80	-	2	78	1	1	-	-	-	1
Social sciences	38	-	38	-	-	-	-	-	-	-
<i>Government sector</i>	304	28	75	211	2	-	2	-	-	2
Engineering and technology	168	27	13	128	-	-	-	-	-	-
Medical sciences	136	1	62	83	2	-	2	-	-	2
<i>Tertiary education</i>	4651	863	1716	2072	-	-	2	-	-	-
Natural sciences, mathematics	481	2	89	390	-	-	-	-	-	-
Engineering and technology	1913	132	698	1083	-	-	2	-	-	-
Agricultural sciences	181	8	59	114	-	-	-	-	-	-
Medical sciences	155	22	54	79	-	-	-	-	-	-
Social sciences	1876	654	816	406	-	-	-	-	-	-
Humanities	45	45	-	-	-	-	-	-	-	-
<b>Region Sumadije i Zapadne Srbije</b>	<b>2117</b>	<b>349</b>	<b>875</b>	<b>903</b>	<b>1</b>	<b>1</b>	<b>2</b>	-	-	<b>1</b>
<i>Business sector</i>	113	-	38	75	1	1	-	-	-	1
Engineering and technology	75	-	-	75	1	1	-	-	-	1
Social sciences	38	-	38	-	-	-	-	-	-	-
<i>Government sector</i>	103	-	45	68	-	-	-	-	-	-
Medical sciences	103	-	45	68	-	-	-	-	-	-
<i>Tertiary education</i>	1901	349	792	760	-	-	2	-	-	-
Natural sciences, mathematics	128	2	69	57	-	-	-	-	-	-
Engineering and technology	526	49	237	240	-	-	2	-	-	-
Agricultural sciences	176	8	54	114	-	-	-	-	-	-
Medical sciences	155	22	54	79	-	-	-	-	-	-
Social sciences	903	255	378	270	-	-	-	-	-	-
Humanities	13	13	-	-	-	-	-	-	-	-
<b>Region Juzne i Istocne Srbije</b>	<b>2957</b>	<b>543</b>	<b>956</b>	<b>1458</b>	<b>2</b>	-	<b>2</b>	-	-	<b>2</b>
<i>Business sector</i>	6	1	2	3	-	-	-	-	-	-
Natural sciences, mathematics	1	1	-	-	-	-	-	-	-	-
Engineering and technology	5	-	2	3	-	-	-	-	-	-
<i>Government sector</i>	201	28	30	143	2	-	2	-	-	2
Engineering and technology	168	27	13	128	-	-	-	-	-	-
Medical sciences	33	1	17	15	2	-	2	-	-	2
<i>Tertiary education</i>	2750	514	924	1312	-	-	-	-	-	-
Natural sciences, mathematics	353	-	20	333	-	-	-	-	-	-
Engineering and technology	1387	83	461	843	-	-	-	-	-	-
Agricultural sciences	5	-	5	-	-	-	-	-	-	-
Social sciences	973	399	438	136	-	-	-	-	-	-
Humanities	32	32	-	-	-	-	-	-	-	-
<b>Region Kosovo i Metohija</b>	...	...	...	...	...	...	...	...	...	...

## 10.1. Inventions and patent by R&amp;D intensity, 2012

R&D intensity	Inventions and patents					
	Tested inventions	Patents		Inventions and patents sold		Inventions and patents used for the first time in practice
		Pending in the Patent Office	Registered in the Patent Office	In the Republic of Serbia	Abroad	
<b>REPUBLIC OF SERBIA</b>	<b>150</b>	<b>73 36 69</b>				<b>6</b>
High technology	12	-	7	-	-	2
Medium high technology	138	57	29	69	-	4
Medium low technology	-	16	-	-	-	-
Low technology	-	-	-	-	-	-
<i>Business sector</i>	4	2	1	-	-	4
High technology	-	-	-	-	-	-
Medium high technology	4	2	1	-	-	4
Medium low technology	-	-	-	-	-	-
Low technology	-	-	-	-	-	-
<i>Government sector</i>	5	18	4	2	-	2
High technology	4	-	4	-	-	2
Medium high technology	1	2	-	2	-	-
Medium low technology	-	16	-	-	-	-
Low technology	-	-	-	-	-	-
<i>Tertiary education</i>	141	53	31	67	-	-
High technology	8	-	3	-	-	-
Medium high technology	133	53	28	67	-	-
Medium low technology	-	-	-	-	-	-
Low technology	-	-	-	-	-	-
<i>Non-profit sector</i>	-	-	-	-	-	-
High technology	-	-	-	-	-	-
Medium high technology	-	-	-	-	-	-
Medium low technology	-	-	-	-	-	-
Low technology	-	-	-	-	-	-

## 11.1. Gross domestic expenditure for R&amp;D, by sectors and scientific fields, 2012

Thous. RSD

	Gross domestic expenditure	Gross investments	Current costs		
			Total	Gross salaries and wages	Material costs
<b>REPUBLIC OF SERBIA</b>	<b>32505764</b>	<b>1696374</b>	<b>30809390</b>	<b>17847428</b>	<b>12961962</b>
<i>Business sector</i>	8115127	919673	7195454	1710177	5485277
Natural sciences, mathematics	6059530	128639	5930891	942276	4988615
Engineering and technology	1130171	634526	495645	302632	193013
Agricultural sciences	793283	70591	722692	438247	284445
Medical sciences	102336	85633	16703	15092	1611
Social sciences	29807	284	29523	11930	17593
<i>Government sector</i>	9348468	272766	9075702	6069283	3006419
Natural sciences, mathematics	3239046	60356	3178690	2418881	759809
Engineering and technology	2660216	99806	2560410	1240164	1320246
Agricultural sciences	237477	2748	234729	167327	67402
Medical sciences	1931437	81111	1850326	1279643	570683
Social sciences	554036	3070	550966	467203	83763
Humanities	726256	25675	700581	496065	204516
<i>Tertiary education</i>	15021970	503788	14518182	10060192	4457990
Natural sciences, mathematics	3231361	88288	3143073	2045816	1097257
Engineering and technology	3193302	80688	3112614	2012878	1099736
Agricultural sciences	657100	7746	649354	559101	90253
Medical sciences	1960807	69983	1890824	1451423	439401
Social sciences	4286535	210136	4076399	2777686	1298713
Humanities	1692865	46947	1645918	1213288	432630
<i>Non-profit sector</i>	20199	147	20052	7776	12276
Natural sciences, mathematics	774	-	774	-	774
Engineering and technology	211	72	139	-	139
Agricultural sciences	5728	-	5728	-	5728
Medical sciences	1484	-	1484	878	606
Social sciences	12002	75	11927	6898	5029
SRBIJA – SEVER	30340549	1597084	28743465	16442643	12300822
<i>Business sector</i>	7835778	881004	6954774	1644056	5310718
Natural sciences, mathematics	5916893	121101	5795792	932475	4863317
Engineering and technology	1010624	603867	406757	248153	158604
Agricultural sciences	793283	70591	722692	438247	284445
Medical sciences	101686	85233	16453	14942	1511
Social sciences	13292	212	13080	10239	2841

## 11.1. Gross domestic expenditure for R&amp;D, by sectors and scientific fields, 2012 (continued)

Thous. RSD

	Gross domestic expenditure	Gross investments	Current costs		
			Total	Gross salaries and wages	Material costs
<i>Government sector</i>	9079762	264951	8814811	5894383	2920428
Natural sciences, mathematics	3239046	60356	3178690	2418881	759809
Engineering and technology	2587548	99806	2487742	1174404	1313338
Agricultural sciences	237477	2748	234729	167327	67402
Medical sciences	1735399	73296	1662103	1170503	491600
Social sciences	554036	3070	550966	467203	83763
Humanities	726256	25675	700581	496065	204516
<i>Tertiary education</i>	13404810	450982	12953828	8896428	4057400
Natural sciences, mathematics	2700590	82857	2617733	1709859	907874
Engineering and technology	2537528	39605	2497923	1567328	930595
Agricultural sciences	541574	7084	534490	458116	76374
Medical sciences	1855137	68716	1786421	1355538	430883
Social sciences	4121279	205773	3915506	2631838	1283668
Humanities	1648702	46947	1601755	1173749	428006
<i>Non-profit sector</i>	20199	147	20052	7776	12276
Natural sciences, mathematics	774	-	774	-	774
Engineering and technology	211	72	139	-	139
Agricultural sciences	5728	-	5728	-	5728
Medical sciences	1484	-	1484	878	606
Social sciences	12002	75	11927	6898	5029
<b>Beogradski region</b>	<b>24476495</b>	<b>1228630</b>	<b>23247865</b>	<b>13142976</b>	<b>10104889</b>
<i>Business sector</i>	7762942	818561	6944381	1633663	5310718
Natural sciences, mathematics	5916893	121101	5795792	932475	4863317
Engineering and technology	977399	570642	406757	248153	158604
Agricultural sciences	793283	70591	722692	438247	284445
Medical sciences	62075	56015	6060	4549	1511
Social sciences	13292	212	13080	10239	2841
<i>Government sector</i>	8502592	207189	8295403	5539578	2755645
Natural sciences, mathematics	3239046	60356	3178690	2418881	759809
Engineering and technology	2479335	80779	2398556	1115181	1283375
Agricultural sciences	237477	2748	234729	167327	67402
Medical sciences	1266442	34561	1231881	875101	356780
Social sciences	554036	3070	550966	467203	83763
Humanities	726256	25675	700581	496065	204516
<i>Tertiary education</i>	8198080	202880	7995200	5962920	2032280
Natural sciences, mathematics	1323229	24907	1298322	849833	448489
Engineering and technology	1617553	18837	1598716	1157640	441076
Agricultural sciences	478764	2633	476131	408247	67884
Medical sciences	1106815	28533	1078282	898996	179286
Social sciences	3165145	103749	3061396	2285441	775955
Humanities	506574	24221	482353	362763	119590
<i>Non-profit sector</i>	12881	-	12881	6635	6246
Agricultural sciences	5728	-	5728	-	5728
Social sciences	7153	-	7153	6635	518
<b>Region Vojvodine</b>	<b>5864054</b>	<b>368454</b>	<b>5495600</b>	<b>3299667</b>	<b>2195933</b>
<i>Business sector</i>	72836	62443	10393	10393	-
Engineering and technology	33225	33225	-	-	-
Medical sciences	39611	29218	10393	10393	-
<i>Government sector</i>	577170	57762	519408	354625	164783
Engineering and technology	108213	19027	89186	59223	29963
Medical sciences	468957	38735	430222	295402	134820
<i>Tertiary education</i>	5206730	248102	4958628	2933508	2025120
Natural sciences, mathematics	1377361	57950	1319411	860026	459385
Engineering and technology	919975	20768	899207	409688	489519
Agricultural sciences	62810	4451	58359	49869	8490
Medical sciences	748322	40183	708139	456542	251597
Social sciences	956134	102024	854110	346397	507713
Humanities	1142128	22726	1119402	810986	308416
<i>Non-profit sector</i>	7318	147	7171	1141	6030
Natural sciences, mathematics	774	-	774	-	774
Engineering and technology	211	72	139	-	139
Medical sciences	1484	-	1484	878	606
Social sciences	4849	75	4774	263	4511
SRBIJA – JUG	2165215	99290	2065925	1404785	661140
<i>Business sector</i>	279349	38669	240680	66121	174559
Natural sciences, mathematics	142637	7538	135099	9801	125298
Engineering and technology	119547	30659	88888	54479	34409
Medical sciences	650	400	250	150	100
Social sciences	16515	72	16443	1691	14752
<i>Government sector</i>	268706	7815	260891	174900	85991
Engineering and technology	72668	-	72668	65760	6908
Medical sciences	196038	7815	188223	109140	79083
<i>Tertiary education</i>	1617160	52806	1564354	1163764	400590
Natural sciences, mathematics	530771	5431	525340	335957	189383
Engineering and technology	655774	41083	614691	445550	169141
Agricultural sciences	115526	662	114864	100985	13879
Medical sciences	105670	1267	104403	95885	8518
Social sciences	165256	4363	160893	145848	15045
Humanities	44163	-	44163	39539	4624

## 11.1. Gross domestic expenditure for R&amp;D, by sectors and scientific fields, 2012 (continued)

Thous. RSD

	Gross domestic expenditure	Gross investments	Current costs		
			Total	Gross salaries and wages	Material costs
<b>Region Sumadije i Zapadne Srbije</b>	<b>1024805</b>	<b>50508</b>	<b>974297</b>	<b>759875</b>	<b>214422</b>
<i>Business sector</i>	100907	14669	86238	44090	42148
Natural sciences, mathematics	24530	7138	17392	9801	7591
Engineering and technology	59212	7059	52153	32448	19705
Medical sciences	650	400	250	150	100
Social sciences	16515	72	16443	1691	14752
<i>Government sector</i>	36217	148	36069	29881	6188
Medical sciences	36217	148	36069	29881	6188
<i>Tertiary education</i>	887681	35691	851990	685904	166086
Natural sciences, mathematics	433583	4230	429353	296582	132771
Engineering and technology	180141	28347	151794	148487	3307
Agricultural sciences	49016	662	48354	37196	11158
Medical sciences	105670	1267	104403	95885	8518
Social sciences	104117	1185	102932	93895	9037
Humanities	15154	-	15154	13859	1295
<b>Region Juzne i Istocne Srbije</b>	<b>1140410</b>	<b>48782</b>	<b>1091628</b>	<b>644910</b>	<b>446718</b>
<i>Business sector</i>	178442	24000	154442	22031	132411
Natural sciences, mathematics	118107	400	117707	-	117707
Engineering and technology	60335	23600	36735	22031	14704
<i>Government sector</i>	232489	7667	224822	145019	79803
Engineering and technology	72668	-	72668	65760	6908
Medical sciences	159821	7667	152154	79259	72895
<i>Tertiary education</i>	729479	17115	712364	477860	234504
Natural sciences, mathematics	97188	1201	95987	39375	56612
Engineering and technology	475633	12736	462897	297063	165834
Agricultural sciences	66510	-	66510	63789	2721
Social sciences	61139	3178	57961	51953	6008
Humanities	29009	-	29009	25680	3329
<b>Region Kosovo i Metohija</b>	...	...	...	...	...

## 12.1. Sources of funds spent on R&amp;D activities, 2012

Thous. RSD

	Total	Own	Government and local authorities	Private and public enterprises	Non-profit institutions	Foreign ordering parties
<b>REPUBLIC OF SERBIA</b>	<b>32505764</b>	<b>10948059</b>	<b>16675139</b>	<b>1877369</b>	<b>19511</b>	<b>2985686</b>
<i>Business sector</i>	8115127	6042730	222414	122662	1958	1725363
Natural sciences, mathematics	6059530	4865767	2997	9111	-	1181655
Engineering and technology	1130171	795590	207824	41504	1958	83295
Agricultural sciences	793283	321737	11133	-	-	460413
Medical sciences	102336	46217	460	55659	-	-
Social sciences	29807	13419	-	16388	-	-
<i>Government sector</i>	9348468	1159437	6007501	1376430	16387	788713
Natural sciences, mathematics	3239046	67271	2867580	90919	-	213276
Engineering and technology	2660216	147181	794473	1210386	13502	494674
Agricultural sciences	237477	6549	201183	-	-	29745
Medical sciences	1931437	936058	946186	26055	-	23138
Social sciences	554036	1207	526432	3448	2885	20064
Humanities	726256	1171	671647	45622	-	7816
<i>Tertiary education</i>	15021970	3732932	10441718	377785	1114	468421
Natural sciences, mathematics	3231361	305707	2668768	107218	-	149668
Engineering and technology	3193302	160533	2691693	186331	-	154745
Agricultural sciences	657100	64428	561074	-	-	31598
Medical sciences	1960807	173064	1681358	55500	-	50885
Social sciences	4286535	2775642	1442917	28635	1114	38227
Humanities	1692865	253558	1395908	101	-	43298
<i>Non-profit sector</i>	20199	12960	3506	492	52	3189
Natural sciences, mathematics	774	774	-	-	-	-
Engineering and technology	211	50	89	-	52	20
Agricultural sciences	5728	3299	1999	-	-	430
Medical sciences	1484	1429	55	-	-	-
Social sciences	12002	7408	1363	492	-	2739
<b>SRBIJA - SEVER</b>	<b>30340549</b>	<b>10514051</b>	<b>15197938</b>	<b>1786046</b>	<b>18397</b>	<b>2824117</b>
<i>Business sector</i>	7835778	5858083	194961	97995	1958	1682781
Natural sciences, mathematics	5916893	4723130	2997	9111	-	1181655
Engineering and technology	1010624	754357	180371	33225	1958	40713
Agricultural sciences	793283	321737	11133	-	-	460413
Medical sciences	101686	45567	460	55659	-	-
Social sciences	13292	13292	-	-	-	-

## 12.1. Sources of funds spent on R&amp;D activities, 2012 (continued)

Thous. RSD

	Total	Own	Government and local authorities	Private and public enterprises	Non-profit institutions	Foreign ordering parties
<i>Government sector</i>	9079762	1014144	5885907	1376430	16387	786894
Natural sciences, mathematics	3239046	67271	2867580	90919	-	213276
Engineering and technology	2587548	147181	721805	1210386	13502	494674
Agricultural sciences	237477	6549	201183	-	-	29745
Medical sciences	1735399	790765	897260	26055	-	21319
Social sciences	554036	1207	526432	3448	2885	20064
Humanities	726256	1171	671647	45622	-	7816
<i>Tertiary education</i>	13404810	3628864	9113564	311129	-	351253
Natural sciences, mathematics	2700590	241194	2211507	107218	-	140671
Engineering and technology	2537528	144536	2222032	119675	-	51285
Agricultural sciences	541574	55719	454257	-	-	31598
Medical sciences	1855137	165545	1583207	55500	-	50885
Social sciences	4121279	2768312	1290816	28635	-	33516
Humanities	1648702	253558	1351745	101	-	43298
<i>Non-profit sector</i>	20199	12960	3506	492	52	3189
Natural sciences, mathematics	774	774	-	-	-	-
Engineering and technology	211	50	89	-	52	20
Agricultural sciences	5728	3299	1999	-	-	430
Medical sciences	1484	1429	55	-	-	-
Social sciences	12002	7408	1363	492	-	2739
<b>Beogradski region</b>	<b>24476495</b>	<b>9091537</b>	<b>11115891</b>	<b>1606935</b>	<b>18345</b>	<b>2643787</b>
<i>Business sector</i>	7762942	5818472	194961	64770	1958	1682781
Natural sciences, mathematics	5916893	4723130	2997	9111	-	1181655
Engineering and technology	977399	754357	180371	-	1958	40713
Agricultural sciences	793283	321737	11133	-	-	460413
Medical sciences	62075	5956	460	55659	-	-
Social sciences	13292	13292	-	-	-	-
<i>Government sector</i>	8502592	939483	5419252	1356848	16387	770622
Natural sciences, mathematics	3239046	67271	2867580	90919	-	213276
Engineering and technology	2479335	132631	651208	1191817	13502	490177
Agricultural sciences	237477	6549	201183	-	-	29745
Medical sciences	1266442	730654	501202	25042	-	9544
Social sciences	554036	1207	526432	3448	2885	20064
Humanities	726256	1171	671647	45622	-	7816
<i>Tertiary education</i>	8198080	2323472	5499679	184975	-	189954
Natural sciences, mathematics	1323229	70145	1207210	-	-	45874
Engineering and technology	1617553	144536	1320993	100739	-	51285
Agricultural sciences	478764	-	447166	-	-	31598
Medical sciences	1106815	65042	961471	55500	-	24802
Social sciences	3165145	1995623	1118414	28635	-	22473
Humanities	506574	48126	444425	101	-	13922
<i>Non-profit sector</i>	12881	10110	1999	342	-	430
Agricultural sciences	5728	3299	1999	-	-	430
Social sciences	7153	6811	-	342	-	-
<b>Region Vojvodine</b>	<b>5864054</b>	<b>1422514</b>	<b>4082047</b>	<b>179111</b>	<b>52</b>	<b>180330</b>
<i>Business sector</i>	72836	39611	-	33225	-	-
Engineering and technology	33225	-	-	33225	-	-
Medical sciences	39611	39611	-	-	-	-
<i>Government sector</i>	577170	74661	466655	19582	-	16272
Engineering and technology	108213	14550	70597	18569	-	4497
Medical sciences	468957	60111	396058	1013	-	11775
<i>Tertiary education</i>	5206730	1305392	3613885	126154	-	161299
Natural sciences, mathematics	1377361	171049	1004297	107218	-	94797
Engineering and technology	919975	-	901039	18936	-	-
Agricultural sciences	62810	55719	7091	-	-	-
Medical sciences	748322	100503	621736	-	-	26083
Social sciences	956134	772689	172402	-	-	11043
Humanities	1142128	205432	907320	-	-	29376
<i>Non-profit sector</i>	7318	2850	1507	150	52	2759
Natural sciences, mathematics	774	774	-	-	-	-
Engineering and technology	211	50	89	-	52	20
Medical sciences	1484	1429	55	-	-	-
Social sciences	4849	597	1363	150	-	2739
SRBIJA – JUG	2165215	434008	1477201	91323	1114	161569
<i>Business sector</i>	279349	184647	27453	24667	-	42582
Natural sciences, mathematics	142637	142637	-	-	-	-
Engineering and technology	119547	41233	27453	8279	-	42582
Medical sciences	650	650	-	-	-	-
Social sciences	16515	127	-	16388	-	-

## 12.1. Sources of funds spent on R&amp;D activities, 2012 (continued)

Thous. RSD

	Total	Own	Government and local authorities	Private and public enterprises	Non-profit institutions	Foreign ordering parties
<i>Government sector</i>	268706	145293	121594	-	-	1819
Engineering and technology	72668	-	72668	-	-	-
Medical sciences	196038	145293	48926	-	-	1819
<i>Tertiary education</i>	1617160	104068	1328154	66656	1114	117168
Natural sciences, mathematics	530771	64513	457261	-	-	8997
Engineering and technology	655774	15997	469661	66656	-	103460
Agricultural sciences	115526	8709	106817	-	-	-
Medical sciences	105670	7519	98151	-	-	-
Social sciences	165256	7330	152101	-	1114	4711
Humanities	44163	-	44163	-	-	-
<b>Region Sumadije i Zapadne Srbije</b>	<b>1024805</b>	<b>130613</b>	<b>807293</b>	<b>40375</b>	-	<b>46524</b>
<i>Business sector</i>	100907	39048	26544	24667	-	10648
Natural sciences, mathematics	24530	24530	-	-	-	-
Engineering and technology	59212	13741	26544	8279	-	10648
Medical sciences	650	650	-	-	-	-
Social sciences	16515	127	-	16388	-	-
<i>Government sector</i>	36217	2507	32439	-	-	1271
Medical sciences	36217	2507	32439	-	-	1271
<i>Tertiary education</i>	887681	89058	748310	15708	-	34605
Natural sciences, mathematics	433583	64513	361342	-	-	7728
Engineering and technology	180141	3120	139147	15708	-	22166
Agricultural sciences	49016	8709	40307	-	-	-
Medical sciences	105670	7519	98151	-	-	-
Social sciences	104117	5197	94209	-	-	4711
Humanities	15154	-	15154	-	-	-
<b>Region Juzne i Istocne Srbije</b>	<b>1140410</b>	<b>303395</b>	<b>669908</b>	<b>50948</b>	<b>1114</b>	<b>115045</b>
<i>Business sector</i>	178442	145599	909	-	-	31934
Natural sciences, mathematics	118107	118107	-	-	-	-
Engineering and technology	60335	27492	909	-	-	31934
<i>Government sector</i>	232489	142786	89155	-	-	548
Engineering and technology	72668	-	72668	-	-	-
Medical sciences	159821	142786	16487	-	-	548
<i>Tertiary education</i>	729479	15010	579844	50948	1114	82563
Natural sciences, mathematics	97188	-	95919	-	-	1269
Engineering and technology	475633	12877	330514	50948	-	81294
Agricultural sciences	66510	-	66510	-	-	-
Social sciences	61139	2133	57892	-	1114	-
Humanities	29009	-	29009	-	-	-

## 12.2. Sources of funds for R&amp;D. 2012

%

	Total	Own	Government and local authorities	Private and public enterprises	Non-profit institutions	Foreign ordering parties
<b>REPUBLIC OF SERBIA</b>	<b>100.0</b>	<b>33.7</b>	<b>51.3</b>	<b>5.8</b>	<b>0.1</b>	<b>9.2</b>
<i>Business sector</i>	100.0	74.5	2.7	1.5	0.0	21.3
Natural sciences, mathematics	100.0	80.3	0.0	0.2	0.0	19.5
Engineering and technology	100.0	70.4	18.4	3.7	0.2	7.4
Agricultural sciences	100.0	40.6	1.4	0.0	0.0	58.0
Medical sciences	100.0	45.2	0.4	54.4	0.0	0.0
Social sciences	100.0	45.0	0.0	55.0	0.0	0.0
<i>Government sector</i>	100.0	12.4	64.3	14.7	0.2	8.4
Natural sciences, mathematics	100.0	2.1	88.5	2.8	0.0	6.6
Engineering and technology	100.0	5.5	29.9	45.5	0.5	18.6
Agricultural sciences	100.0	2.8	84.7	0.0	0.0	12.5
Medical sciences	100.0	48.5	49.0	1.3	0.0	1.2
Social sciences	100.0	0.2	95.0	0.6	0.5	3.6
Humanities	100.0	0.2	92.5	6.3	0.0	1.1
<i>Tertiary education</i>	100.0	24.8	69.5	2.5	0.0	3.1
Natural sciences, mathematics	100.0	9.5	82.6	3.3	0.0	4.6
Engineering and technology	100.0	5.0	84.3	5.8	0.0	4.8
Agricultural sciences	100.0	9.8	85.4	0.0	0.0	4.8
Medical sciences	100.0	8.8	85.7	2.8	0.0	2.6
Social sciences	100.0	64.8	33.7	0.7	0.0	0.9
Humanities	100.0	15.0	82.5	0.0	0.0	2.6

## 12.2. Sources of funds for R&amp;D. 2012 (continued)

%

	Total	Own	Government and local authorities	Private and public enterprises	Non-profit institutions	Foreign ordering parties
<i>Non-profit sector</i>	100.0	64.2	17.4	2.4	0.3	15.8
Natural sciences. mathematics	100.0	100.0	0.0	0.0	0.0	0.0
Engineering and technology	100.0	23.7	42.2	0.0	24.6	9.5
Agricultural sciences	100.0	57.6	34.9	0.0	0.0	7.5
Medical sciences	100.0	96.3	3.7	0.0	0.0	0.0
Social sciences	100.0	61.7	11.4	4.1	0.0	22.8
SRBIJA – SEVER	100.0	34.7	50.1	5.9	0.1	9.3
<i>Business sector</i>	100.0	74.8	2.5	1.3	0.0	21.5
Natural sciences. mathematics	100.0	79.8	0.1	0.2	0.0	20.0
Engineering and technology	100.0	74.6	17.8	3.3	0.2	4.0
Agricultural sciences	100.0	40.6	1.4	0.0	0.0	58.0
Medical sciences	100.0	44.8	0.5	54.7	0.0	0.0
Social sciences	100.0	100.0	0.0	0.0	0.0	0.0
<i>Government sector</i>	100.0	11.2	64.8	15.2	0.2	8.7
Natural sciences. mathematics	100.0	2.1	88.5	2.8	0.0	6.6
Engineering and technology	100.0	5.7	27.9	46.8	0.5	19.1
Agricultural sciences	100.0	2.8	84.7	0.0	0.0	12.5
Medical sciences	100.0	45.6	51.7	1.5	0.0	1.2
Social sciences	100.0	0.2	95.0	0.6	0.5	3.6
Humanities	100.0	0.2	92.5	6.3	0.0	1.1
<i>Tertiary education</i>	100.0	27.1	68.0	2.3	0.0	2.6
Natural sciences. mathematics	100.0	8.9	81.9	4.0	0.0	5.2
Engineering and technology	100.0	5.7	87.6	4.7	0.0	2.0
Agricultural sciences	100.0	10.3	83.9	0.0	0.0	5.8
Medical sciences	100.0	8.9	85.3	3.0	0.0	2.7
Social sciences	100.0	67.2	31.3	0.7	0.0	0.8
Humanities	100.0	15.4	82.0	0.0	0.0	2.6
<i>Non-profit sector</i>	100.0	64.2	17.4	2.4	0.3	15.8
Natural sciences. mathematics	100.0	100.0	0.0	0.0	0.0	0.0
Engineering and technology	100.0	23.7	42.2	0.0	24.6	9.5
Agricultural sciences	100.0	57.6	34.9	0.0	0.0	7.5
Medical sciences	100.0	96.3	3.7	0.0	0.0	0.0
Social sciences	100.0	61.7	11.4	4.1	0.0	22.8
<b>Beogradski region</b>	<b>100.0</b>	<b>37.1</b>	<b>45.4</b>	<b>6.6</b>	<b>0.1</b>	<b>10.8</b>
<i>Business sector</i>	100.0	75.0	2.5	0.8	0.0	21.7
Natural sciences. mathematics	100.0	79.8	0.1	0.2	0.0	20.0
Engineering and technology	100.0	77.2	18.5	0.0	0.2	4.2
Agricultural sciences	100.0	40.6	1.4	0.0	0.0	58.0
Medical sciences	100.0	9.6	0.7	89.7	0.0	0.0
Social sciences	100.0	100.0	0.0	0.0	0.0	0.0
<i>Government sector</i>	100.0	11.0	63.7	16.0	0.2	9.1
Natural sciences. mathematics	100.0	2.1	88.5	2.8	0.0	6.6
Engineering and technology	100.0	5.3	26.3	48.1	0.5	19.8
Agricultural sciences	100.0	2.8	84.7	0.0	0.0	12.5
Medical sciences	100.0	57.7	39.6	2.0	0.0	0.8
Social sciences	100.0	0.2	95.0	0.6	0.5	3.6
Humanities	100.0	0.2	92.5	6.3	0.0	1.1
<i>Tertiary education</i>	100.0	28.3	67.1	2.3	0.0	2.3
Natural sciences. mathematics	100.0	5.3	91.2	0.0	0.0	3.5
Engineering and technology	100.0	8.9	81.7	6.2	0.0	3.2
Agricultural sciences	100.0	0.0	93.4	0.0	0.0	6.6
Medical sciences	100.0	5.9	86.9	5.0	0.0	2.2
Social sciences	100.0	63.0	35.3	0.9	0.0	0.7
Humanities	100.0	9.5	87.7	0.0	0.0	2.7
<i>Non-profit sector</i>	100.0	78.5	15.5	2.7	0.0	3.3
Agricultural sciences	100.0	57.6	34.9	0.0	0.0	7.5
Social sciences	100.0	95.2	0.0	4.8	0.0	0.0
<b>Region Vojvodine</b>	<b>100.0</b>	<b>24.3</b>	<b>69.6</b>	<b>3.1</b>	<b>0.0</b>	<b>3.1</b>
<i>Business sector</i>	100.0	54.4	0.0	45.6	0.0	0.0
Engineering and technology	100.0	0.0	0.0	100.0	0.0	0.0
Medical sciences	100.0	100.0	0.0	0.0	0.0	0.0
<i>Government sector</i>	100.0	12.9	80.9	3.4	0.0	2.8
Engineering and technology	100.0	13.4	65.2	17.2	0.0	4.2
Medical sciences	100.0	12.8	84.5	0.2	0.0	2.5
<i>Tertiary education</i>	100.0	25.1	69.4	2.4	0.0	3.1
Natural sciences. mathematics	100.0	12.4	72.9	7.8	0.0	6.9
Engineering and technology	100.0	0.0	97.9	2.1	0.0	0.0
Agricultural sciences	100.0	88.7	11.3	0.0	0.0	0.0
Medical sciences	100.0	13.4	83.1	0.0	0.0	3.5
Social sciences	100.0	80.8	18.0	0.0	0.0	1.2
Humanities	100.0	18.0	79.4	0.0	0.0	2.6

## 12.2. Sources of funds for R&amp;D. 2012 (continued)

%

	Total	Own	Government and local authorities	Private and public enterprises	Non-profit institutions	Foreign ordering parties
<i>Non-profit sector</i>	100.0	38.9	20.6	2.0	0.7	37.7
Natural sciences. mathematics	100.0	100.0	0.0	0.0	0.0	0.0
Engineering and technology	100.0	23.7	42.2	0.0	24.6	9.5
Medical sciences	100.0	96.3	3.7	0.0	0.0	0.0
Social sciences	100.0	12.3	28.1	3.1	0.0	56.5
SRBIJA – JUG	100.0	20.0	68.2	4.2	0.1	7.5
<i>Business sector</i>	100.0	66.1	9.8	8.8	0.0	15.2
Natural sciences. mathematics	100.0	100.0	0.0	0.0	0.0	0.0
Engineering and technology	100.0	34.5	23.0	6.9	0.0	35.6
Medical sciences	100.0	100.0	0.0	0.0	0.0	0.0
Social sciences	100.0	0.8	0.0	99.2	0.0	0.0
<i>Government sector</i>	100.0	54.1	45.3	0.0	0.0	0.7
Engineering and technology	100.0	0.0	100.0	0.0	0.0	0.0
Medical sciences	100.0	74.1	25.0	0.0	0.0	0.9
<i>Tertiary education</i>	100.0	6.4	82.1	4.1	0.1	7.2
Natural sciences. mathematics	100.0	12.2	86.2	0.0	0.0	1.7
Engineering and technology	100.0	2.4	71.6	10.2	0.0	15.8
Agricultural sciences	100.0	7.5	92.5	0.0	0.0	0.0
Medical sciences	100.0	7.1	92.9	0.0	0.0	0.0
Social sciences	100.0	4.4	92.0	0.0	0.7	2.9
Humanities	100.0	0.0	100.0	0.0	0.0	0.0
<b>Region Sumadije i Zapadne Srbije</b>	<b>100.0</b>	<b>12.7</b>	<b>78.8</b>	<b>3.9</b>	<b>0.0</b>	<b>4.5</b>
<i>Business sector</i>	100.0	38.7	26.3	24.4	0.0	10.6
Natural sciences. mathematics	100.0	100.0	0.0	0.0	0.0	0.0
Engineering and technology	100.0	23.2	44.8	14.0	0.0	18.0
Medical sciences	100.0	100.0	0.0	0.0	0.0	0.0
Social sciences	100.0	0.8	0.0	99.2	0.0	0.0
<i>Government sector</i>	100.0	6.9	89.6	0.0	0.0	3.5
Medical sciences	100.0	6.9	89.6	0.0	0.0	3.5
<i>Tertiary education</i>	100.0	10.0	84.3	1.8	0.0	3.9
Natural sciences. mathematics	100.0	14.9	83.3	0.0	0.0	1.8
Engineering and technology	100.0	1.7	77.2	8.7	0.0	12.3
Agricultural sciences	100.0	17.8	82.2	0.0	0.0	0.0
Medical sciences	100.0	7.1	92.9	0.0	0.0	0.0
Social sciences	100.0	5.0	90.5	0.0	0.0	4.5
Humanities	100.0	0.0	100.0	0.0	0.0	0.0
<b>Region Juzne i Istocne Srbije</b>	<b>100.0</b>	<b>26.6</b>	<b>58.7</b>	<b>4.5</b>	<b>0.1</b>	<b>10.1</b>
<i>Business sector</i>	100.0	81.6	0.5	0.0	0.0	17.9
Natural sciences. mathematics	100.0	100.0	0.0	0.0	0.0	0.0
Engineering and technology	100.0	45.6	1.5	0.0	0.0	52.9
<i>Government sector</i>	100.0	61.4	38.3	0.0	0.0	0.2
Engineering and technology	100.0	0.0	100.0	0.0	0.0	0.0
Medical sciences	100.0	89.3	10.3	0.0	0.0	0.3
<i>Tertiary education</i>	100.0	2.1	79.5	7.0	0.2	11.3
Natural sciences. mathematics	100.0	0.0	98.7	0.0	0.0	1.3
Engineering and technology	100.0	2.7	69.5	10.7	0.0	17.1
Agricultural sciences	100.0	0.0	100.0	0.0	0.0	0.0
Social sciences	100.0	3.5	94.7	0.0	1.8	0.0
Humanities	100.0	0.0	100.0	0.0	0.0	0.0
<b>Region Kosovo i Metohija</b>	...	...	...	...	...	...

## 13.1. Value of R&amp;D works by primary socio-economic objectives, 2012

Thous. RSD

Primary socio-economic objectives	Total	Of which budgetary funds
<b>REPUBLIC OF SERBIA</b>	<b>32505764</b>	<b>16215130</b>
<i>Business sector</i>	8115127	213801
Exploration and exploitation of the Earth	5939074	-
Control and care of the environment	89301	-
Transport, telecommunication and other infrastructure	25770	-
Production, distribution and rational utilisation of energy	572491	-
Industrial production and technology	337765	33616
Protection and improvement of human health	247368	1500
Agricultural production and technology	82582	-
Education	12328	2997
Culture, recreation, religion and the media	2617	-
General advancement of knowledge: from university funds	77181	68773
General advancement of knowledge: from other funds	728650	106915



## 13.1. Value of R&amp;D works by primary socio-economic objectives, 2012 (continued)

Thous. RSD

Primary socio-economic objectives	Total	Of which budgetary funds
<i>Government sector</i>	9348468	5817595
Exploration and exploitation of the Earth	59241	39224
Control and care of the environment	685758	113187
Transport, telecommunications and other infrastructure	239291	87785
Production, distribution and rational utilisation of energy	318510	100236
Industrial production and technology	1328158	421625
Protection and improvement of human health	100000	-
Agricultural production and technology	752984	513196
Education	6104	2388
Culture, recreation, religion and the media	48124	48124
Political and social systems, structure and processes	85635	44208
General advancement of knowledge: from university funds	996995	846978
General advancement of knowledge: from othe funds	4727668	3600644
<i>Tertiary education</i>	15021970	10181646
Exploration and exploitation of the Earth	400177	111338
Control and care of the environment	397209	385453
Exploration and exploitation of the space	123641	123641
Transport, telecommunications and other infrastructure	74997	56461
Production, distribution and rational utilisation of energy	137606	119641
Industrial production and technology	885642	809007
Protection and improvement of human health	305467	235697
Agricultural production and technology	581838	451959
Education	2386456	1613885
Culture, recreation, religion and the media	11760	8319
Political and social systems, structure and processes	238829	119540
General advancement of knowledge: from university funds	5103748	3962648
General advancement of knowledge: from othe funds	4332194	2148651
Defence	42406	35406
<i>Non-profit sector</i>	20199	2088
Control and care of the environment	70	-
Agricultural production and technology	1484	-
Political and social systems, structure and processes	474	89
General advancement of knowledge: from university funds	536	-
General advancement of knowledge: from othe funds	17635	1999
<b>SRBIJA – SEVER</b>	<b>30340549</b>	<b>14747629</b>
<i>Business sector</i>	7835778	194501
Exploration and exploitation of the Earth	5922574	-
Control and care of the environment	82716	-
Transport, telecommunications and other infrastructure	25770	-
Production, distribution and rational utilisation of energy	428732	-
Industrial production and technology	282471	33616
Protection and improvement of human health	246046	1500
Agricultural production and technology	79528	-
Education	12328	2997
General advancement of knowledge: from university funds	77181	68773
General advancement of knowledge: from othe funds	678432	87615
<i>Government sector</i>	9079762	5696001
Exploration and exploitation of the Earth	59241	39224
Control and care of the environment	668333	95762
Transport, telecommunications and other infrastructure	239291	87785
Production, distribution and rational utilisation of energy	313267	94993
Industrial production and technology	1278158	371625
Protection and improvement of human health	100000	-
Agricultural production and technology	575252	480757
Education	6104	2388
Culture, recreation, religion and the media	48124	48124
Political and social systems, structures and processes	85635	44208
General advancement of knowledge: from university funds	980508	830491
General advancement of knowledge: from other funds	4725849	3600644
<i>Tertiary education</i>	13404810	8855039
Exploration and exploitation of the Earth	400177	111338
Control and care of the environment	370494	368123
Exploration and exploitation of space	123641	123641
Transport, telecommunications and other infrastructure	29395	13765
Production, distribution and rational utilisation of energy	59284	51504
Industrial production and technology		
Identification and treatment of pollution	549429	543517
Protection and improvement of human health	162796	99860
Agricultural production and technology	476168	353895
Education	1980187	1279857
Culture, recreation, religion and the media	11760	8319
Political and social systems, structures and processes	236650	118354
General advancement of knowledge: from university funds	4821341	3693803
General advancement of knowledge: from other sources	4179823	2085398
Defence	3665	3665

## 13.1. Value of R&amp;D works by primary socio-economic objectives, 2012 (continued)

Thous. RSD

Primary socio-economic objectives	Total	Of which budgetary funds
<i>Non-profit sector</i>	20199	2088
Control and care of the environment	70	-
Agricultural production and technology	1484	-
Political and social systems, structures and processes	474	89
General advancement of knowledge: from university funds	536	-
General advancement of knowledge: from other sources	17635	1999
SRBIJA – JUG	2165215	1467501
<i>Business sector</i>	279349	19300
Exploration and exploitation of the Earth	16500	-
Control and care of the environment	6585	-
Production, distribution and rational utilisation of energy	143759	-
Industrial production and technology	55294	-
Protection and improvement of human health	1322	-
Agricultural production and technology	3054	-
Culture, recreation, religion and the media	2617	-
General advancement of knowledge: from other funds	50218	19300
<i>Government sector</i>	268706	121594
Control and care of the environment	17425	17425
Production, distribution and rational utilisation of energy	5243	5243
Industrial production and technology	50000	50000
Agricultural production and technology	177732	32439
General advancement of knowledge: from university funds	16487	16487
General advancement of knowledge: from other funds	1819	-
<i>Tertiary education</i>	1617160	1326607
Control and care of the environment	26715	17330
Transport, telecommunications and other infrastructure	45602	42696
Production, distribution and rational utilisation of energy	78322	68137
Industrial production and technology	336213	265490
Protection and improvement of human health	142671	135837
Agricultural production and technology	105670	98064
Education	406269	334028
Political and social systems, structures and processes	2179	1186
General advancement of knowledge: from university funds	282407	268845
General advancement of knowledge: from other funds	152371	63253
Defense	38741	31741



Law on Official Statistics,  
 "Official Statistics of the RS", number 104/2009..

**Code of the survey: 021010**

**ANNUAL REPORT ON RESEARCH AND DEVELOPMENT FOR FACULTIES, R&D INSTITUTES IN 2012**

Response obligation is based on Article 26, and punitive provisions for response refusal or provision of incomplete or incorrect data on Article 52 of the Law on Official Statistics („Сл. гласник РС“, бр. 104/2009).  
**The data will be used exclusively for statistical purposes and will not be published as personal data.**  
**All the data are confidential.**

This report is to be filled in by faculties, scientific institutes and R&D institutes that carried out in 2012 R&D activities according to the law on Research and Development Activity, "Official Journal of the RS", numbers 110/05 and 18/2010.  
 The report is to be filled in and transmitted to the competent statistical office **not later than 20 June 2013**. Before completing the report, read carefully the general instructions on the last page of the questionnaire as well as the explanations with every table. **All financial indicators are to be expressed in thousands dinars.**

**I FULL NAME OF THE REPORTING UNIT**

\_\_\_\_\_

\_\_\_\_\_

Enter the name of the organization as indicated in the Court Register, i.e. application for the registration of scientific organizations and institutions.  
 The research unit should enter the full name of the scientific organization and institution it is incorporated in, as well as its own name; in tables are to be shown data **referring only to the unit**, but not to the whole scientific organization/institution.

--	--	--	--	--	--	--	--

Registration number

**II ADDRESS – MUNICIPALITY** \_\_\_\_\_ 

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Street and number \_\_\_\_\_ Telephone \_\_\_\_\_

R&D units should enter **their address**, but not the address of the institution they are incorporated in.

**III ACTIVITY** \_\_\_\_\_ 

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 Enter the name and code according to the Classification of Activities, 2010

**IV OWNERSHIP** (circle the corresponding number)

state-owned .....	1
private .....	2
mixed .....	3

**V SCIENTIFIC FIELD** \_\_\_\_\_ 

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 Enter the name and code according to the Classification of Scientific Fields (annexed)

**1. FULL-TIME AND PART-TIME EMPLOYEES ENGAGED ON R&D ACTIVITIES, EXPRESSED IN NUMBER OF PHYSICAL PERSONS AND FULL-TIME EQUIVALENT** (as of 31/12/ 2012)

	Total employees engaged on R&D activities				Number of full-time employees engaged on R&D activities		Part-time employees engaged on R&D activities			
	Number of employees		Full-time equivalent		Total	Women	Number of employees		Full-time equivalent	
	Total (5+7)	Women (6+8)	Total (5+9)	Women (6+10)			Total	Women	Total	Women
a	1	2	3	4	5	6	7	8	9	10
01	<b>Total (02+14+18+19+20)</b>									
02	<b>Researchers - total (03 do 13)</b>									
03	Researcher - apprentice									
04	Assistant researcher									
05	Scientific assistant									
06	Senior scientific assistant									
07	Scientific adviser									
08	Senior lecturer									
09	Associate professor									
10	Full professor									
11	Professor of vocational studies									
12	Lecturer									
13	Assistant lecturer									
14	<b>Assistant researcher - total (15 to17)</b>									
15	Assistant researcher									
16	Senior assistant researcher									
17	Assistant adviser									
18	<b>Technicians</b>									
19	<b>Managers</b>									
20	<b>Other personnel (auxiliary)</b>									

Do not enter in the table employees engaged on protection and safety, in restaurants, cleaning personnel and related personnel (concierges, porter, cleaning ladies, cooks, etc.). If an extramural assistant sign with a R&D organization during the year two or more service contracts, i.e. author contracts, this should be counted only once.

In columns 7, 8, 9 and 10 (Part-time employees engaged on R&D activities), are to be shown employees who work only part-time (less than 90%, and more than 10%).

Data in columns 3, 4, 9 and 10 are to be shown **in decimal numbers with one decimal place**.

Instructions for entering the data in columns 3, 4, 9 and 10 **on full-time equivalent**.

**Equivalent: FTE**

Employees in R&D, part-time (less than 90%, and more than 10%)	Number of employees	Full-time equivalent (FTE)
--	---------------------	----------------------------

<b>Total number of employees</b>	<b>8</b>	<b>= 2,7</b>
3 persons work all the year round only half-time	(3 x 0,5)	= 1,5
2 persons work all the year round only 20% of work time	(2 x 0,2)	= 0,4
1 person works full-time	(1 x 0,5)	= 0,5
2 persons employed 8 months with 25% work time	(2 x 0,67 x 0,25)	= 0,3

**Remark:** Full-time employee engaged on R&D activities corresponds to the unit of full-time equivalent (= 1 FTE).

**2. EMPLOYEES ENGAGED ON R&D ACTIVITIES ON SERVICE CONTRACT (SC) OR AUTHOR CONTRACT (AC), EXPRESSED IN NUMBER OF PHYSICAL PERSONS AND FULL-TIME EQUIVALENT, in 2012**

	Employees engaged on AC or AU in R&D field				Full-time employees engaged on AC or AU, in R&D field		Part-time employees engaged on AC or AU, in R&D field			
	Number of employees		Full-time equivalent		Total	Women	Number of employees		Full-time equivalent	
	Total (5+7)	Women (6+8)	Total (5+9)	Women (6+10)			Total	Women	Total	Women
a										
	1	2	3	4	5	6	7	8	9	10
01	<b>Total (02 to 06)</b>									
02	Researchers									
03	Assistant researchers									
04	Technicians									
05	Managers									
06	Other employees (auxiliary)									

Remarks relative to Table 1 refer also to this table.

**3. FULL-TIME AND PART-TIME EMPLOYEES ENGAGED ON R&D, ACCORDING TO EDUCATIONAL ATTAINMENT, EXPRESSED IN PHYSICAL NUMBER OF PERSONS (as of 31/12/ 2012)**

	Total		Educational attainment											
			Doctor's degree		Master's degree		Specialization		University education		Vocational education		Secondary and other education	
	All	Women	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	13	14
01	<b>Total (02 to 06)</b>													
02	Researchers													
03	Assistant researchers													
04	Technicians													
05	Managers													
06	Other employees (auxiliary)													

**Remark:** The table is to be filled in as follows: in columns 1 and 2, copy the values from **columns 1 and 2 of table 1**, then proceed with entering the data. Also, the sum of odd columns should equal the data from column 1, and the sum of even column should equal the data from column 2.

**4. EMPLOYEES ENGAGED ON R&D ACTIVITIES, BASED ON SERVICE CONTRACT (SC) AND AUTHOR CONTRACT (AC), BY EDUCATIONAL ATTAINMENT  
EXPRESSED IN NUMBER OF PHYSICAL PERSONS, in 2012**

		Total		Educational attainment											
				Doctor's degree		Master's degree		Specialization		University education		Vocational education		Secondary and other education	
		All	Women	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	13	14
01	<b>Total (02 to 06)</b>														
02	Researchers											X	X	X	X
03	Assistant researchers													X	X
04	Technicians														
05	Managers													X	X
06	Other employees (auxiliary)														

**Remark:** The table is to be filled in as follows: in columns 1 and 2, copy the values from **columns 1 and 2 of table 2**, then proceed with entering the data. Also, the sum of odd columns should equal the data from column 1, and the sum of even column should equal the data from column 2.

**5. FULL-TIME AND PART-TIME EMPLOYEES ENGAGED ON R&D, BY EDUCATIONAL ATTAINMENT,  
EXPRESSED IN FULL-TIME EQUIVALENT (as of 31/12/ 2012)**

		Total		Educational attainment											
				Doctor's degree		Master's degree		Specialization		University education		Vocational education		Secondary and other education	
		All	Women	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	13	14
01	<b>Total (02 to 06)</b>														
02	Researchers											X	X	X	X
03	Assistant researchers													X	X
04	Technicians														
05	Managers													X	X
06	Other employees (auxiliary)														

**Remark:** The table is to be filled in as follows: in columns 1 and 2, copy the values from **columns 3 and 4 of table 1**, then proceed with entering the data. Also, the sum of odd columns should equal the data from column 1, and the sum of even column should equal the data from column 2.

**6. EMPLOYEES ENGAGED ON R&D ACTIVITIES, BASED ON SERVICE CONTRACT (SC) AND AUTHOR CONTRACT (AC), BY EDUCATIONAL ATTAINMENT  
EXPRESSED IN FULL-TIME EQUIVALENT, (as of 31/ 12/ 2012)**

		Total		Educational attainment											
				Doctor's degree		Master's degree		Specialization		University education		Vocational education		Secondary and other education	
		All	Women	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	13	14
01	<b>Total (02 to 06)</b>														
02	Researchers											X	X	X	X
03	Assistant researchers													X	X
04	Technicians														
05	Managers													X	X
06	Other personnel (auxiliary)														

**Remark:** The table is to be filled in as follows: in columns 1 and 2 copy the values from **columns 3 and 4 of table 2**, then proceed with entering the data. Also, the sum of odd columns should equal the data from column 1, and the sum of even columns should equal the data from column 2.

**7. FULL-TIME AND PART-TIME EMPLOYEES ENGAGED ON R&D, BY AGE AND SEX,  
EXPRESSED IN NUMBER OF PHYSICAL PERSONS, (as of 31/ 12/ 2012)**

		Researchers				Assistant researchers				Technicians				Managers			
		Full-time		Part-time		Full-time		Part-time		Full-time		Part-time		Full-time		Part-time	
		All	Women	All	Women	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	13	14	15	16
01	<b>Total (02 to 12)</b>																
02	Under 25 years																
03	25 – 29																
04	30 – 34																
05	35 – 39																
06	40 – 44																
07	45 – 49																
08	50 – 54																
09	55 – 59																
10	60 – 64																
11	65 – 69																
12	70 and over																

In the table, full-time and part-time R&D employees are to be broken down by age groups. It should be noted that **other personnel should not be broken down by age**. Shown are all those who are shown in column 1 from table 1, for "total number of employees" and in column 2 for "women". The data by categories in row 01 of this table should match **with data from table 1** (full-time and part-time employees), as follows:

**Full-time employees**

Researchers row 02, columns: 05, 06  
 Assistant researchers row 14, columns: 05, 06  
 Technicians row 18, columns: 05, 06  
 Managers row 19, columns: 05, 06

**Part-time employees**

Researchers row 02, columns: 07, 08  
 Assistant researchers row 14, columns: 07, 08  
 Technicians row 18, columns: 07, 08  
 Managers row 19, columns: 07, 08

**8. 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 2012 (as of 31/12/ 2012)		Researchers who <b>came</b> in Serbia in 2012		Researchers who <b>went</b> abroad in 2012		Planned number of researchers for 2013
		Total	Women	Total	Women	Total	Women	
a		1	2	3	4	5	6	7
01	<b>Total (02 to 05)</b>							
02	Serbia							
03	EU member countries							
04	Other European countries							
05	Other							

In table 8 full-time and part-time **researchers** are to be broken down by citizenship (geographical position of the country).

In columns 3 and 4, are to be shown all the researchers who came from abroad between 01/01/2012 and 21/12/2012 and worked in R&D activities more than 3 months.

In columns 5 and 6 are to be shown all the researchers who left Serbia between 01/01/ 2012 and 31/12/ 2012.

The data in row 01 in columns 1 and 2 of this table should **match the data in table 1 in columns 1 and 2**, i.e.:

Researchers – total

Women - total



**9. EXPENDITURES FOR R&D ACTIVITIES IN 2012 (in thousands RSD)**

Expenditures for R&D			Spent in 2012	Planned for 2013
a			1	2
01	<b>Total expenditure for R&amp;D (02+07+12)</b>			
02	Current costs	<b>Total (03+05+06)</b>		
03		Gross salaries and wages for all R&D employees		
04		Of which gross salaries and wages of researchers		
05		Other personal income of R&D employees (scholarships, prizes, etc.)		
06		Other		
07		<b>Total (08 to 11)</b>		
08		For material costs for R&D work (raw materials, equipment, energy)		
09		For payments based on service contracts and author contracts		
10		For daily allowances, travel costs, etc.		
11		Other operating costs and expenses (without depreciation)		
12		Investment costs	<b>Total (13+14+16+17+18)</b>	
13	For land and buildings			
14	For machinery and equipment			
15	Of which for imported machinery and equipment			
16	For patent, licenses, studies and projects			
17	For software and hardware <sup>1)</sup>			
18	Other			

1) Are to be shown total costs for the acquisition of computers, components and equipment, as well as costs for the acquisition and development of software for own account.

In table 9 are to be shown all funds **spent** in 2012 for R&D activities, as well as planned funds for 2013.

**Remark:** The data in row 01, column 1 (total expenditures for R&D) should equal the data in **table 10, in row 01** (sources of funds spent for R&D activities - total).

**10. SOURCES OF FUNDS SPENT FOR R&D ACTIVITIES IN 2012**

Sources of funds			Amount in thousands RSD
a			1
01	<b>Funds spent for R&amp;D by sources - total (02 to 21)</b>		
02	Domestic funding (from Serbia)	Planned budgetary funds	From the Ministry of Science
03		dedicated R&D	From the Ministry of Education
04			From other ministries
05			Funds for R&D from other government funds, agencies and foundations
06		Funds for R&D from local authorities' bodies	
07		Funds for R&D from enterprises	from "small" (0 - 49 employees)
08			from "medium" (50 - 249 employees)
09			from "large" (250 and more employees)
10		Funds for R&D from non-profit organizations	
11		Funds from patents, licenses, etc. (from inward sale)	
12	Other funds for R&D from own sources		
13	Funds from abroad	Funds from agreements on technological licenses	
14		Funds from services for foreign ordering parties	
15		Funds from joint investment in R&D	
16		Funds for R&D from other countries' governments	
17		Funds for R&D from the university and other tertiary education institutions	
18		Funds for R&D from non-profit organizations	
19		Funds for R&D from the European Commission	
20		Funds for R&D from international organizations	
21		Other	

In table 10 are to be shown funds **obtained** for R&D activities by sources.

**Remark:** The data in row 01 should equal the data in **table 9, row 01, column 1** (total expenditures for R&D).

**11. VALUE OF R&D WORKS (PROJECTS AND STUDIES), BY SCIENTIFIC FIELDS AND TYPE OF RESEARCH (include also funded from own resources – in thousands RSD), 2012**

Scientific field		Total	Type of research		
			Basic	Applied	Experimental (development)
a		1	2	3	4
01	<b>Total</b>				
02	Natural sciences, mathematics				
03	Engineering and technology				
04	Social sciences				
05	Humanities				
06	Medical sciences				
07	Agricultural sciences				
08	Multidisciplinary sciences				

The data in column TOTAL should match the data in column total in table 12.

For on-going projects (non-completed) is to be shown the value of completed phases of work up to the end of 2012.

Use the annexed classification to determine the scientific field of R&D works.

**12. FUNDS FOR R&D BY PRIMARY SOCIO-ECONOMIC OBJECTIVES, 2012 (in thousands RSD)**

Primary socio-economic objectives		Total	Of which budgetary funds
a		1	2
01	<b>Total (02+03+04+05+06+07+08+09+10+11+12+13+20+27)</b>		
02	Development of agriculture, forestry and fishing		
03	Promotion of industrial development technology		
04	Production and rational use of energy		
05	Transport and telecommunications		
06	Urban and rural planning		
07	Combating pollution		
08	Pollution identification and control		
09	Health		
10	Social development and services		
11	Exploitation and exploration of Earth and atmosphere		
12	General advancement of knowledge		
13	Civil space exploration		
14	Defence		

**13. NUMBER OF R&D WORKS (PROJECTS AND STUDIES, BY SCIENTIFIC FIELDS AND TYPES OF RESEARCH (include also projects funded from own resources), 2012**

Scientific field		Total	Type of research		
			Basic	Applied	Experimental (development)
a		1	2	3	4
01	<b>Total</b>				
02	Natural sciences, mathematics				
03	Engineering and technology				
04	Social sciences				
05	Humanities				
06	Medical sciences				
07	Agricultural sciences				
08	Multidisciplinary sciences				

**Remark:** The row "Total" in this table should match the row "Total" in table 14.

**14. NUMBER OF R&D WORKS BY ORDERING PARTIES AND TYPES OF RESEARCH, 2012**

Ordering party		R&D works			
		Total (2 to 4)	Basic	Applied	Experimental (development)
a		1	2	3	4
01	<b>Total (02+09)</b>				
02	Ordering parties from Serbia	<b>Inward – total (03 to 08)</b>			
03		For own account			
04		Enterprises in Serbia			
05		Ministry of Science			
06		Ministry of Education			
07		Other ministries			
08		Other			
09		Ordering parties from abroad	<b>Outward – total (10 to 16)</b>		
10	Enterprises				
11	Other countries' governments				
12	Non-profit organizations				
13	Tertiary education institutions				
14	European Commission				
15	International organizations				
16	Other				



## GENERAL DEFINITIONS AND EXPLANATIONS FOR FILLING IN THE FORM IR – 2

### COVERAGE

This form serves to collect data on R&D activities which have been carried out in enterprises, as well as in: centers for technology transfer, innovation centers, business and technological incubators, and scientific and technological parks in Serbia in 2012.

An institute is a R&D organization that is engaged in R&D activity of general interest as laid down in the Law. An institute can be founded as an institution or enterprise.

Depending on the type of research and activity, organizational form and funding of own activity; an institute can carry out R&D activity as: scientific institute and R&D institute. As to ownership, an institute can be state-owned, private or in mixed ownership. A scientific institute is an institution which prevailing activity is relative to basic and applied researches, the latter serving to valorize the results of basic researches.

A research and development institute is an organization which primary activity is relative to applied and experimental (development) researches focused on satisfying the needs of direct users of research results.

Covered are all tertiary education institutions (faculties of science, arts academies, universities) whatever the ownership (state-owned, private or mixed).

The status of centers of excellence may be granted to an institute, i.e. tertiary education institution or their organizational part/s if they have achieved in a five-year period ultimate and internationally recognised scientific and professional results in a selected scientific discipline, having consequently developed international, technical and technological co-operation.

If the status of the centre of excellence acquires part/s of an institute, i.e. tertiary education institution, the centre does not have the capacity of a legal person.

Research and development organizations that can get accreditation for these activities are: institutes, faculties, integrated universities, centers of excellence and R&D organizations from the domain of defense and Serbian Armed Forces.

### DEFINITION OF RESEARCH AND DEVELOPMENT ACTIVITY (R&D)

Research and development 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 use the knowledge in all social fields.

The scientific activity is realized through basic, applied and experimental (development) researches as well as through training 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 a 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.

The main difference between R&D activity and activities other than R&D is in the presence or absence of elements of novelty or innovation **to a greater extent**. If an activity introduces considerable improvements to technological characteristics, components, hardware and software, i.e. applies a new or significantly improved product, process or service, as well as new organizational methods, it is to be obligatorily **included** in this survey.

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 hardware, 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.

## **OBJECTIVES OF R&D ACTIVITY:**

- 1) development of science, technology and education in order to boost economic growth, increase the social product and raise citizens' living conditions;
- 2) preservation and development of general stock of knowledge, as a condition to inclusion to world integration processes;
- 3) preservation and development of total R&D potentials (R&D and educational institutions, scientific personnel and R&D infrastructure);
- 4) raising of the general level of technology in the economy and securing the competitiveness of goods and services on national and international markets;
- 5) establishing international scientific co-operation in view of faster integration into world scientific, economic, social and cultural trends, as well as inclusion in European research area;
- 6) orienting the society towards innovations, creation of cultural ambiance and creative education in order to preserve civilization patrimony and national identity.

## **FUNDING OF R&D ACTIVITY**

Funds for R&D activity are secured from:

- 1) Founder's resources;
- 2) Budget of the Republic;
- 3) Budget of the autonomous province and units of local authorities;
- 4) Resources of enterprises, associations and other organizations;
- 5) Own income of R&D organizations;
- 6) Resources of domestic funds and foundations, gifts of legal and physical persons;
- 7) Resources of foreign foundations, legal and physical persons, donations;
- 8) Other sources provided that the autonomy and dignity of R&D activity is not exposed.

### **Sub-funding of programs and projects of regional significance for the development of R&D activity**

Budgetary funds of the Republic of Serbia can be used to sub-finance programs and projects of regional significance for R&D activity, being:

1. projects of building R&D infrastructure;
2. R&D projects of regional significance (projects on international co-operation, projects on eco-systems and innovation projects carried out by small and medium enterprises);
3. programmes of development of R&D personnel.

## **METHODOLOGICAL BASIS**

Methodological basis for this survey are the international standards set up by OECD and published in the FRASCATI Manual 2002. All international classifications are used and are annexed to the instructions for filling in the Annual Report on Research and Development Activity.

More explanations and instructions are available at the Statistical Office of the Republic of Serbia, Milana Rakica 5, Belgrade, Section of Science, Culture and Other Social Activities Statistics, telephone number: 011 2412922, extension 357.

## ANNEX

For filling in the Annual Report on Research and Development – IR in 2012

<b>CLASSIFICATION OF SCIENTIFIC FIELDS</b>	
<p><b>1. Natural sciences</b></p> <p><b>101</b> Mathematics</p> <p><b>102</b> Computer and information sciences</p> <p><b>103</b> Physical sciences</p> <p><b>104</b> Chemical sciences</p> <p><b>105</b> Earth and related environmental sciences</p> <p><b>106</b> Biological sciences</p> <p><b>107</b> Other natural sciences</p> <p><b>2. Engineering and technology</b></p> <p><b>201</b> Civil engineering</p> <p><b>202</b> Electrical engineering, electronic engineering and information engineering</p> <p><b>203</b> Mechanical engineering</p> <p><b>204</b> Chemical engineering</p> <p><b>205</b> Materials engineering</p> <p><b>206</b> Medical engineering</p> <p><b>207</b> Environmental engineering</p> <p><b>208</b> Environmental biotechnology</p> <p><b>209</b> Industrial biotechnology</p> <p><b>210</b> Nano-technology</p> <p><b>211</b> Other engineering and technology</p> <p><b>3. Medical and health sciences</b></p> <p><b>301</b> Basic medicine</p> <p><b>302</b> Clinical medicine</p> <p><b>303</b> Health science</p> <p><b>304</b> Medical biotechnology</p> <p><b>305</b> Other medical sciences</p>	<p><b>4. Agricultural sciences</b></p> <p><b>401</b> Agricultural sciences, forestry and fisheries</p> <p><b>402</b> Animal and dairy science</p> <p><b>403</b> Veterinary science</p> <p><b>404</b> Agricultural biotechnology</p> <p><b>405</b> Other agricultural science</p> <p><b>5. Social sciences</b></p> <p><b>501</b> Psychology</p> <p><b>502</b> Economics and business</p> <p><b>503</b> Educational science</p> <p><b>504</b> Sociology</p> <p><b>505</b> Law</p> <p><b>506</b> Political science</p> <p><b>507</b> Social and economic geography</p> <p><b>508</b> Media and communications</p> <p><b>509</b> Other social sciences</p> <p><b>6. Humanities</b></p> <p><b>601</b> History and archeology</p> <p><b>602</b> Language and literature</p> <p><b>603</b> Philosophy, ethics and religion</p> <p><b>604</b> Arts (history of arts, performing arts, music)</p> <p><b>605</b> Other humanities</p>
<p><b>Source:</b> FOS - Fields of Science and Technology, OECD – 2006</p>	

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

CODE	DESCRIPTION OF SECTIONS/DIVISIONS
<b>A</b>	<b>AGRICULTURE, FORESTRY AND FISHING</b>
01	Crop and animal production, hunting and related service activities
03	Fishing and aquaculture
<b>B</b>	<b>MINING AND QUARRYING</b>
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
<b>C</b>	<b>MANUFACTURING</b>
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
<b>D</b>	<b>ELECTRICITY, GAS, STEAM AND AIR CONDITIONING SUPPLY</b>
35	Electricity, gas, steam and air conditioning supply
<b>E</b>	<b>WATER SUPPLY; SEWERAGE, WASTE MANGEMENT AND REMEDIATION ACTIVITIES</b>
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
<b>F</b>	<b>CONSTRUCTION</b>
41	Construction of buildings
42	Civil engineering
43	Specialised construction activities
<b>G</b>	<b>WHOLESALE AND RETAIL TRADE; REPAIR OF MOTOR VEHICLES AND MOTORCYCLES</b>
5	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
<b>H</b>	<b>TRANSPORTATION AND STORAGE</b>
49	Land transport and transport via pipelines



CODE	DESCRIPTION OF SECTIONS/DIVISIONS
50	Water transport
51	Air transport
52	Wharehousing and support activities for transportation
53	Postal and courier activities
<b>I</b>	<b>ACCOMMODATION AND FOOD SERVICE ACTIVITIES</b>
55	Accommodation
56	Food and beverage service activities
<b>J</b>	<b>INFORMATION AND COMMUNICATION</b>
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
<b>K</b>	<b>FINANCIAL AND INSURANCE ACTIVITIES</b>
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
<b>L</b>	<b>REAL ESTATE ACTIVITIES</b>
68	Real estate activities
<b>M</b>	<b>PROFESSIONAL, SCIENTIFIC, INNOVATION AND TECHNICAL ACTIVITIES</b>
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
<b>N</b>	<b>ADMINISTRATIVE AND SUPPORT SERVICE ACTIVITIES</b>
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
<b>P</b>	<b>EDUCATION</b>
85	Education
<b>Q</b>	<b>HUMAN HEALTH AND SOCIAL WORK ACTIVITIES</b>
86	Human health activities
87	Residential care activities
88	Social work activities without accommodation
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
<b>S</b>	<b>OTHER SERVICE ACTIVITIES</b>
94	Activities of membership organisations
95	Repair of computers and personal and household goods
96	Other personal service activities
<b>T</b>	<b>ACTIVITIES OF HOUSEHOLDS AS EMPLOYERS; UNDIFFERENTIATED GOODS AND SERVICE – PRODUCING ACTIVITIES OF HOUSEHOLDS FOR WON USE</b>
97	Activities of households as employers of personnel
98	Undifferentiated goods – and services – producing activities of households for own use
<b>U</b>	<b>ACTIVITIES OF EXTRATERRITORIAL ORGANIZATIONS AND BODIES</b>
99	Activities of extraterritorial organizations and activities

**Classification of manufacturing according to research and development intensity**  
*According to OECD methodology*

**High technology**

Aircrafts and spacecrafts  
Office accounting and computing machinery  
Radio, TV and telecommunication equipment  
Pharmaceuticals

**Medium low technology**

Shipbuilding  
Rubber and plastics  
Other transport equipment  
Stone, clay and glass  
Non-ferrous metals  
Manufacture of fabricated metal products  
Other manufacturing

**Medium high technology**

Scientific instruments  
Electrical machinery and apparatus  
Motor vehicles  
Chemical products  
Machinery and apparatus other than electrical

**Low technology**

Petrochemical industry  
Iron and steel industry  
Paper, printing industry  
Textile industry  
Wood processing industry  
Food processing industry

**CLASSIFICATION OF SOCIO-ECONOMIC OBJECTIVES**

*According to OECD methodology*

**DEVELOPMENT OF AGRICULTURE, FORESTRY AND FISHING**

In addition to what has already been mentioned, R&D programmes in this field cover also works on chemicals and machinery for the activity. Excluded are researches related to production, warehousing and distribution of food and beverages, which should be included in "Promotion of industrial development technology" .

**PROMOTION OF INDUSTRIAL DEVELOPMENT TECHNOLOGY**

This group covers R&D programmes that contribute to the development of manufacturing industry, trade, catering, banking, insurance and other business services and to the economy in general.

If the R&D activity is part of a project of general significance, it should not be included in this group of objectives, but in another corresponding group. For example, the projecting of a new type of railway transport equipment would fall into the group "Transport" from the point of view of reorganizing national railways, and from the viewpoint of exports into the group "Promotion of industrial development technology". Or, R&D programme that contributes to the tourism development, as a cultural activity, falls into the group "Social development and services", and if the main use of this programme is the promotion of the commercial aspect of tourism it should be put in the group "Economic development".

**PRODUCTION AND RATIONAL USE OF ENERGY**

This covers researches relative to the supply, production, conservation and distribution of all types of energy, including water, except researches relative to fuels for vehicles and rockets. Included are also researches from the field of nuclear physics.

**TRANSPORT AND TELECOMMUNICATION**

This covers research of the conditions and methods to improve the quality and safety of transport systems (except when those systems are part of urban and rural planning);

Researches of all telecommunication services (except via satellites), as well as researches relative to planning and organization of TT network.

**URBAN AND RURAL PLANNING**

This covers researches relative to the planning of urban and rural areas, improvement of habitation conditions and environment management (e.g. building of hospitals, sound isolation, etc.) in view of creating the basis for an integrated planning that should link various elements into a whole.

**COMBATTING POLLUTION**

**POLLUTION IDENTIFICATION AND CONTROL**

This covers researches directed to environment conservation, such as testing pollution levels, causes, expansion and changeability, impact on men and the environment. Tested are air, water, land and underground layer pollution, noise, bare ground and radiation.

**HEALTH**

This group is made of R&D programs directed to the protection and improvement of human health. It includes: food safety, use of radioactive matters for medical use, biochemical engineering, medical information, therapy rationalization and pharmacology (including the application of testing in medicine and raising laboratory animals for medical purposes), epidemiological researches, protection against professional diseases and drug abuse.

**SOCIAL DEVELOPMENT AND SERVICES**

Researches relative to social and cultural issues covers: social insurance, social services, social relationships, culture, recreation, entertainment, justice, administration and public order, consumers' protection, work conditions, employment relations, labour force, government administration, national economy, peace and other objectives of general significance.

**EXPLOITATION AND EXPLORATION OF EARTH AND ATMOSPHERE**

This covers researches and exploitation of Earth-s crust, seas, oceans and atmosphere, but excludes testing of pollution, soil studies for agricultural purposes and fishing. Included are meteorological researches, except when they are satellite-driven.

**GENERAL ADVANCEMENT OF KNOWLEDGE**

This covers all researches that contribute to general knowledge and that cannot be directed towards a defined objective (e.e. researches funded by the Ministry of Education).

#### **CIVIL SPACE EXPLORATION**

Those researches are generally directed towards other purposes, for example as "General advancement of knowledge" (astronomy) or if they have a specific use in one of the existing groups (e.g. telecommunication satellites).

#### **DEFENCE**

This covers research programmes primarily designed for military purposes, regardless of their content or whether having secondary civil application. Included are nuclear researches and researches of spaces used for military purposes. Are excluded civil researches funded by the Ministry of Defence, for example researches in the field of meteorology and telecommunications.

For the researches in **MINING AND QUARRYING**, the proposed OECD classification does not have a special group. Some member countries classify them into the group "Exploration and exploitation of Earth and atmosphere", while those researches can be classified, according to other classifications, in "Promotion of industrial development technology" and "Production and use of energy".

Research programmes in **CONSTRUCTION** are classified as a rule according to the end-use of the building. Therefore, projectile bases would fall into "Defence", hospitals into "Health", agricultural buildings into "Agriculture", etc. Researches in **MANUFACTURING OF BUILDING MATERIALS** would be classified in "Promotion of industrial development technology".

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