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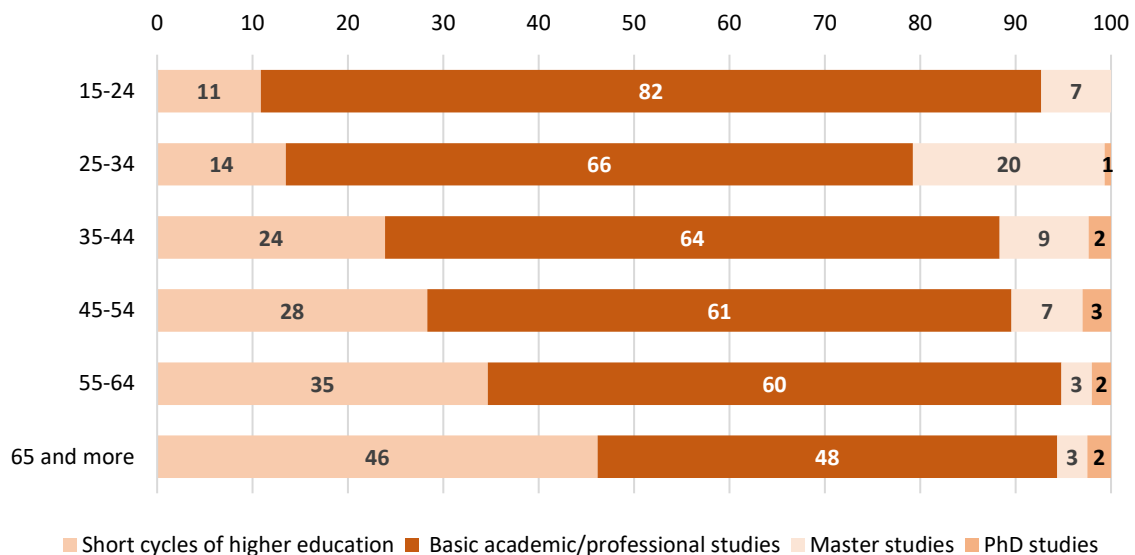
Human resources in science and technology in 2019

– Research and development –

Human resources in science and technology comprise persons aged 15-74 or having completed tertiary education or are employed in the fields of science and technology as professionals, engineers, associate professionals or technicians. The results of the Labour Force Survey (LFS) in 2019 indicate that there were 991 118 of those persons in the Republic of Serbia, of which 53% were women.

In 2019, the core of human resources in science and technology was made of persons who met both conditions (completed tertiary education and work in the fields of science and technology in the mentioned occupations) and who totaled 497 089, of which 58% women.

Chart 1. Persons aged 15-74 employed in the field of science and technology according to age groups and levels of higher education, %

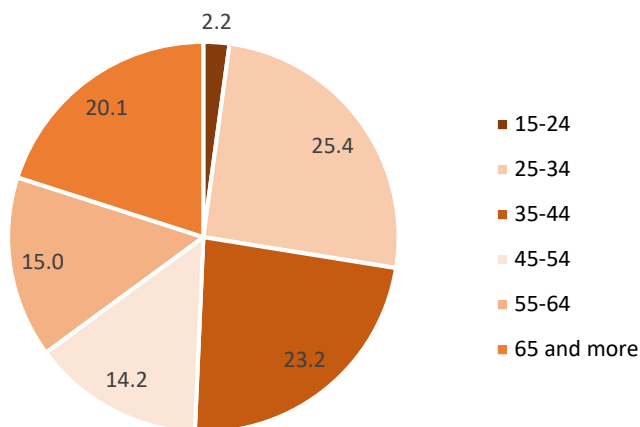


In the core of human resources, most persons have completed the first level of higher education (ISCED level 6) - 60.8%. Among them, the largest share is the youngest age group (15-24) - as much as 82.0%.

There were 761,416 persons under the age of 25 who met only the first condition, that is, they had completed higher education and were employed, of which 55% were women.

Out of the population aged from 15 to 74 with completed tertiary education, 70.5% are employed persons, the unemployed are 6.4% and more than a fifth, 23% are inactive persons.

Chart 2. Employed persons aged 15-74 who have completed higher education by age groups, %

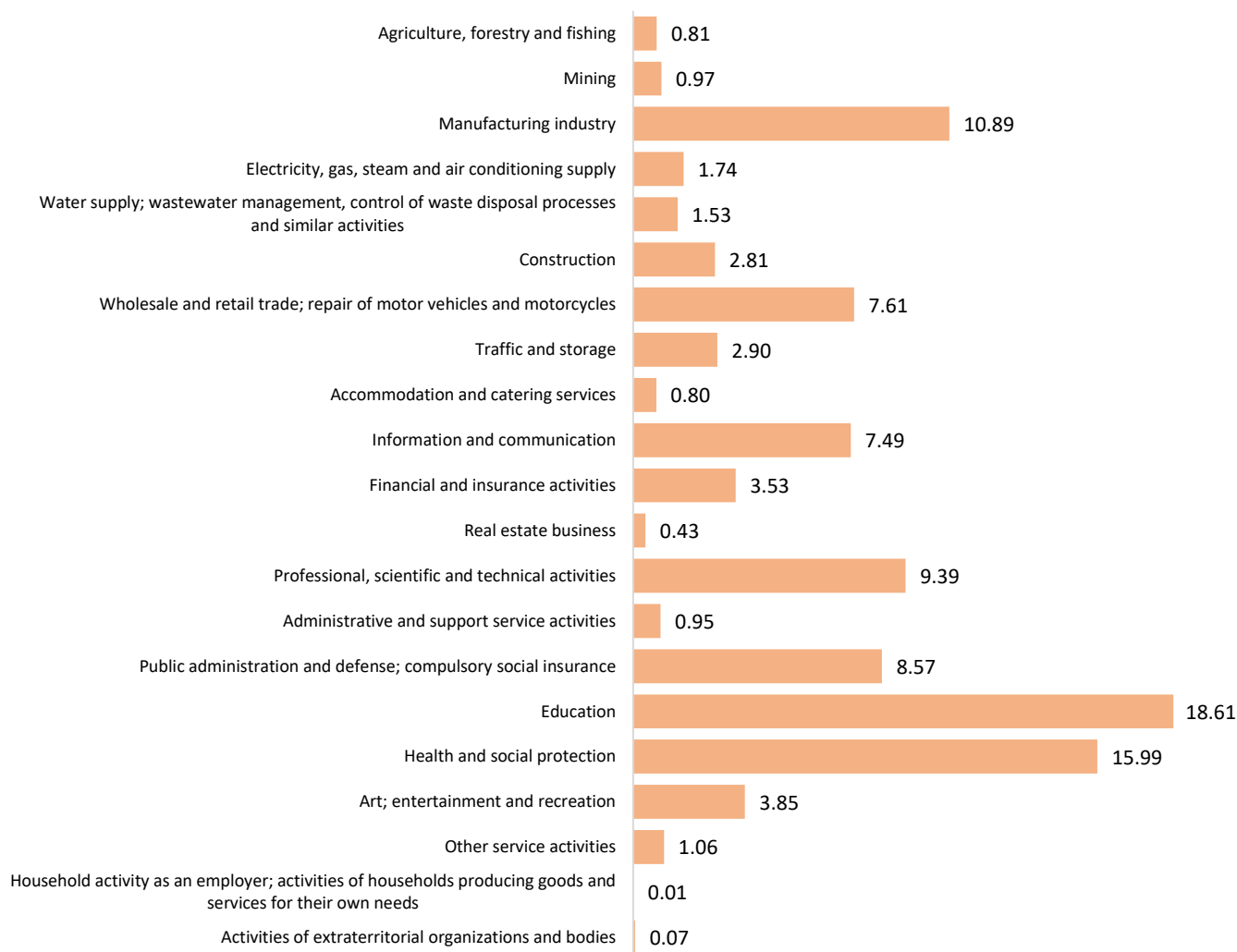


Persons with tertiary education in the age group 25–34 accounted for a fourth of the total number of persons with university degree, while the age group (15-24) was the least represented (2.2%), which is understandable as those persons are continuing schooling.

The data show that women are more represented in the population with university degree (54.7%) than men (45.3%).

There were 726 791 persons of the mentioned age met only the second condition, women accounting for about 55.9%.

Chart 3. Persons aged 15-74 employed in science and technology by sectors of activity in which they work,%



The largest percentage of persons working as: professionals, engineers, associate professionals or technicians was in Education (18.6%), then in Human health and social work activities (16%), Manufacturing (10.9%) and Professional, scientific and technical activities (9.4%).

Methodological explanations and definitions

Data source

Data are based on the results of the Labour Force Survey (LFS). The aim is to define the basic person's characteristics, i.e. part of the labour force with the most developed skills and largest potential, which contributes to the development of society based on knowledge. The methodology of the Labour Force Survey is fully harmonized with Eurostat standards and makes possible comparison with the results of other countries. For the purpose of analyzing the data on human potentials in science and technology, persons aged 15-74 are included..

Definitions of the main characteristics

Two approaches are used to define human resources in science and technology:

- according to education (HRSTE) – persons who have completed tertiary education (ISCED 5, 6, 7 or 8),
- according to occupation (HRSTO) – persons who are employed in the fields of science and technology as professionals, engineers, associate professionals, technicians and managers (ISCO-08, groups 2 and 3).

Those who meet both mentioned requirements are called core of HRSTC.

The difference between the persons who belong to HRST according to education and occupation is in that those who are currently working in the fields of education and technology and do not have adequate formal qualifications lose HRSTO status when leaving their working post, getting retired or becoming some other way economically active, but persons who completed tertiary education hold permanently HRSTE status.

Active population (labour force) includes all employed and unemployed persons aged 15 and over.

Employed are persons who performed a paid job (paid in cash or in kind) for at least one hour in the reference week, as well as persons who had an employment, but were absent from work in that week. Employees includes also, besides persons who have an employment in an enterprise, institution or any other organization, or work as entrepreneurs, farmers, contributing family members as well as persons who performed a job that they had found on their own and established an agreement (oral or written) without entering in employment and to whom this job was the only source of subsistence means. Therefore, the Survey does not take into account the respondent's formal status, but the respondent's employment status is determined on the basis of the actual activity she/he performed in the reference week.

Unemployed persons are persons who did not perform any paid job in the reference week nor held a job from which they were absent and to which they could return to after the absence, provided that they met the following criteria: they took active steps in the past four weeks in finding a job and they were ready to begin working within two weeks in case of a job offer, they did not actively seek a job in the past four weeks because they had found a job they were to start after the reference week, and not later than three months.

Economically inactive population is all persons aged 15 and more who are not classified in employed or unemployed population. Economically inactive persons include students, retired persons, housewives or –men, as well as other persons who, in the reference week, did perform any paid job, did not seek work or were not ready to start working within two weeks after the end of the reference week.

Classifications

The following classifications are used for the survey:

- CA 2010 – Classification of Activities (NACE)
- International Standard Classification of Education (ISCED 2011)
- Classification of Occupations (ISCO-08)

Starting from 1999 the Statistical Office of the Republic of Serbia has not available data for AP Kosovo and Metohija therefore these data are not included in the coverage for the Republic of Serbia (total).