Spasimira Davidova

PhD student

Department of Public administration, Faculty of Management and Administration, UNWE, Sofia, Bulgaria

Corresponding author:

e-mail: spasimira.davidova@unwe.bg

ORCID: https://orcid.org/0009-0004-5305-3779

Published First Online: 20.12.2024

Pages: 214-222

DOI: https://doi.org/10.37075/JOMSA.2024.2.04

NAVIGATING THE WORKFORCE: THE PROFESSIONAL REALIZATON OF BULGARIA`S HIGHER EDUCATION GRADUATES

ABSTRACT

The scientific research aims to examine the professional realization of higher education graduates in Bulgaria. The focus is on analyzing the changes in employment outcomes for students in Bulgaria during the period 2020-2024. The specific object of the study is the career realization of university graduates. The research provides valuable insights into the professional integration, highlighting both positive trends in employment outcomes and areas for improvement. Variations in employment outcomes across different professional disciplines emphasize the need for optimizing educational programs. The conclusion underscores the necessity of a systemic approach and collaboration between institutions, students, and businesses to enhance professional realization in Bulgaria.

KEYWORDS: Education, Career, Professional realization, University

JEL: I23, I25

INTRODUCTION

The evolving knowledge, technology and technical development require a connection between education and social practice. This is reflected in one of the pillars and main priorities of the European Employment Strategy – Employment guidelines, increasing the adaptability of education and individuals to meet the requirements of business, modern society, and rapidly developing information and communication technologies. This priority is also recorded in the Bulgarian strategic documents for employment and economic development (Ministry of labor and social policies, 2021). The quality of the workforce suggests a higher level of education and a greater share of those with higher education (Vladimirova, K., 2020). If higher education does not adapt to the new demands of the market, students may not be sufficiently prepared and competitive in the labor market. One of the key indicators of the success of higher education is the employment of graduates' post-study. The hypothesis to be tested in this research is that the employment rate of people with higher education in Bulgaria has been increasing in recent years.

The subject of the study is the change in the labor market outcomes of higher education graduates for the period from 2020 to 2024. The study is based on official information from the Bulgaria University Ranking System, as well as scientific publications and strategic documents.

The object of the study is the career realization among the university graduates in Bulgaria.

The main objective of the research is to explore the relationship between higher education and the labor market through indicators measuring the career realization of graduated students.

1. THE ROLE OF HIGHER EDUCATION IN PREPARING YOUNG PEOPLE FOR THE LABOR MARKET

The development of higher education is crucial for every country, as it brings numerous significant benefits, both for the society and for individuals. The higher education system is expected to have an impact on economic, technology and even cultural growth (Dimitrov, 2021), as well as on innovations and research, social mobility, educational infrastructure.

To understand the role of higher education for the economy, it is essential to highlight the importance of human capital as s key factor for economic growth and a drive of global competitiveness. In order to develop the human capital, every country needs to invest in the higher education system. Investments in education help create qualified individuals and support a more productive and dynamic economy. Skilled professionals contribute to growth across sectors, from technology and manufacturing to services and entrepreneurship.

Equally important is the contribution of higher education in the development of scientific research and technological innovation. Universities contribute to scientific advancements, and generate new technologies. These innovations have economic, social, and health benefits, advancing fields such as medicine, environmental science, engineering, and digital technology.

Beyond the creation of human capital and technological progress, infrastructure investments are a key pillar of educational development. Allocating resources to higher education infrastructure—such as buildings, research laboratories, libraries, equipment and digital learning facilities—provides students and academics with the resources and environment necessary for effective learning and research. Researches show that high-quality infrastructure facilitates better instruction, improves student outcomes, and reduces dropout rates, among other benefits (Teixeira, J., Amoroso, J., Gresham, J, 2017).

Additionally, education is an essential tool for promoting social mobility and equality. Because of the access to quality education individuals have a greater chance to make their own decisions. Equal educational opportunities stimulate different social group to participate in the education system which results in more qualified workforce.

For students, higher education offers additional benefits. On one hand, students prepare for their professional careers by gaining the knowledge, skills, and competencies needed for specific professional fields. Through courses, internships, and hands-on experiences, students build practical skills and deepen their understanding of industry-relevant tools and techniques, preparing them to enter the workforce confidently and competently. For many, this preparation directly translates into better job prospects, career advancement, and higher earning potential.

On the other hand, higher education is important also for the social skills. Students develop critical thinking, analytical skills, and effective communication skills—abilities that are valuable in different professional areas. These skills enable graduates to handle complex challenges, make informed decisions, and communicate their ideas clearly and persuasively. Higher education encourages students work in teams and to analyze information, form evidence-based arguments, and present logical conclusions.

Higher education framework plays a foundational role not only in preparing students for the job market but also in fostering broader economic, social, and technological advancements.

2. HIGHER EDUCATION IN BULGARIA – PROFILE AND REGIONAL STRUCTURE

The main policy framework within which the higher education sector in Bulgaria operates consists primarily of two laws: Higher Education Act, 1995, and Law on Academic Staff Development, 2010. There are four educational qualifications: "professional bachelor," "bachelor," "master," and "PhD." The purpose of higher education can generally be defined as preparing highly qualified specialists beyond secondary education (Higher Education Act, 1995). Specialization choices made during higher education largely determine the fields in which students will develop their future careers, influencing the skills and knowledge they will bring to the workforce.

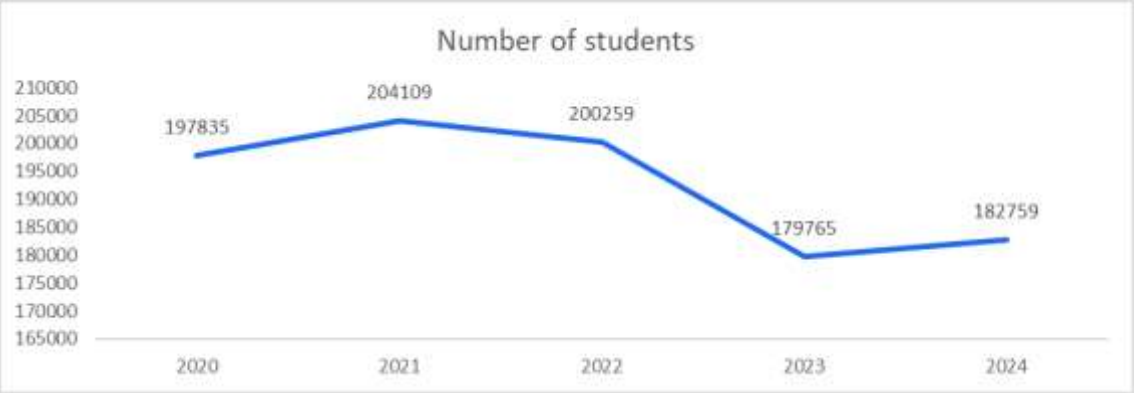
Young people with higher education in Bulgaria sometimes face difficulties finding employment that matches their professional field and university specialization. They may even fall into the NEET category (not in employment, education, or training), leaving them outside the labor market for various periods (Yakova, L. & Politov, A., 2023). Key challenges in finding work include lack of professional experience, insufficient information on job vacancies, and limited interest from employers in hiring inexperienced workers (OECD, 2022). This study aims to summarize available information on the structure of higher education in Bulgaria, outlining the causes of employment challenges and examining the need for innovative strategies to prepare graduates for the labor market.

Over the past 14 years, data on significant indicators related to higher education in Bulgaria have been collected. The Bulgarian University Ranking System, published online annually, reflects data from the country’s 51 higher education institutions across 52 professional fields. For this research, the results from the past five years of the Ranking System (2020 – 2024) and the 2023 National Higher Education Map will be analyzed. The period 2020–2024 was chosen to capture recent economic trends including effect of the pandemic in 2020 and the post-pandemic recovery.

The data from the Bulgarian University Ranking System shows that in 2023, nearly 180,000 students were enrolled in Bulgarian University institutions, with 89.2% attending public institutions and 10.8% attending private ones. Figure 1 illustrates a decline in the total number of students from 2020 to 2024. There is a slight increase of the total number of students for 2024 – only 2% compared to 2023 with very similar distribution between public institutions (88.49% from all students) and private ones (11.51%). The Ranking System indicates a significant preference for public universities but also shows overall lower interest in higher

education over the past three years — there are 17,500 fewer active students in 2024 compared to 2022.

Figure 1. Total Number of Students in Bulgaria for the Period 2020–2024



Source: Author's own work based on data from the Bulgarian University Ranking System

In 2024, active students represent 43.7% of the capacity set by the National Evaluation and Accreditation Agency (NEAA), down from 53% in 2021. This shows a high discrepancy between the regulated-on country level capacity and the actual number of young people that are interested in attending a university. Meanwhile, the overall capacity for all higher education institutions is increasing in the last years, reaching 418,104 students in 2024, compared to 407,616 in 2021.

An interesting fact highlighted by the Ranking System is the presence of well-established and preferred educational institutions, as half of the country's students are enrolled in the nine largest universities. The most popular fields of study in the country are "Economics," "Pedagogy," "Medicine," "Administration and Management," "Communication and Computer Equipment," "Pedagogy of Teaching," "Informatics and Computer Sciences," and "Law." These eight fields encompass over half of the active students in the country, while the remaining 44 fields account for less than half. This trend has been observed in recent years, with no significant differences in 2023 and 2024. Based on the data in Table 1, the following conclusions can be outlined:

- Enrollment in field "Economics" has decreased steadily from 35,525 in 2020 to 25,383 in 2024, representing a 28.6% reduction over the five-year period. Taken into account that this is the most widespread field in Bulgaria and there is a decrease in the total number of student for the same period, the result can be described as expected.
- There is an increased interest in education-related carriers like "Pedagogy" and "Pedagogy of Teaching in...", as well as in health care-related careers in the past 2 years compared to 2020.
- Technological fields such as "Communication and Computer Equipment" and "Informatics and Computer Sciences" experienced growth until 2022, followed by sharp declines in 2023 and 2024. This suggests challenges such as a mismatch between curricula and industry needs.

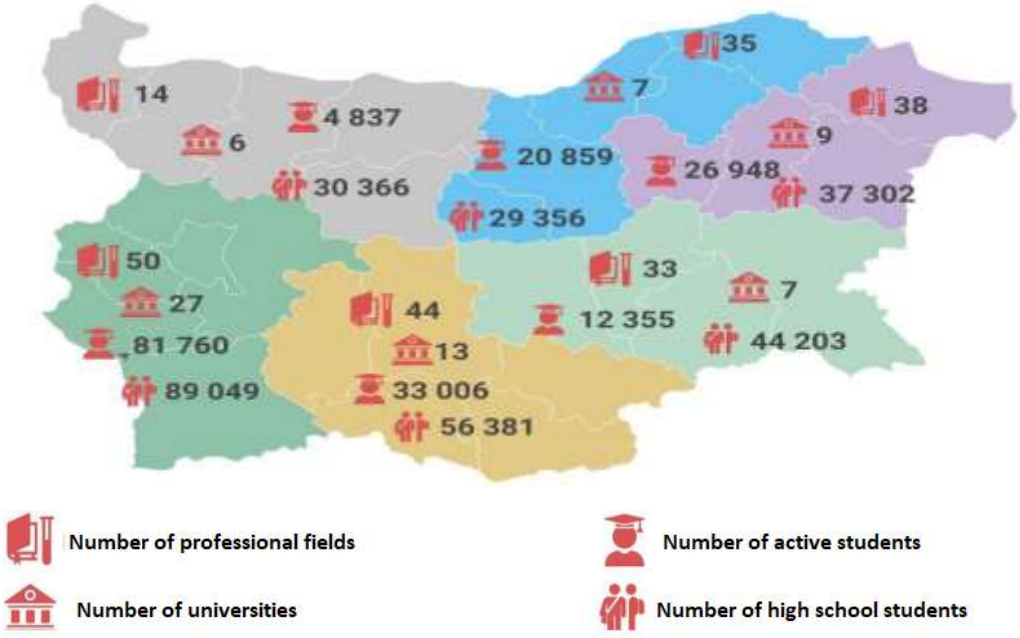
Table 1. Dynamics of Number of Students based on professional field in the period 2020–2024

Professional field	2020	2021	2022	2023	2024
Economics	35525	33441	31723	24906	25383
Pedagogy	16008	17541	17984	16900	16448
Medicine	12492	13240	13308	12660	13265
Administration and Management	15249	14774	14152	10917	11479
Pedagogy of Teaching in...	7205	8813	9813	8587	8462
Communication and Computer Equipment	8932	9388	9501	7259	8210
Informatics and Computer Sciences	8659	8817	8798	7181	7432
Health care	6468	6808	6842	6796	7180
Law	8670	8996	8819	6852	7038
National security	7280	7738	7818	5370	5414

Source: Author's own work based on data from the Bulgarian University Ranking System

There is also uneven distribution in terms of territorial structure which can be seen in the National Map of Higher Education in the Republic of Bulgaria 2023. The Southwest region (including Sofia City) has the most higher education institutions (27), while the Northwest region has the fewest institutions and their branches (6). The Southwest region also offers the widest range of fields of study – 50, while only 14 fields are available in the Northwest. The region with the most universities and fields – the Southwest – also hosts the largest share of students, with 45.5% of all students in Bulgaria.

Figure 2. Distribution of professional fields, higher education institutions, students, and high school students by region (2023)



Source: National Map of Higher Education in the Republic of Bulgaria 2023, from *https://www.strategy.bg/StrategicDocuments/View.aspx?lang=bg-BG&Id=1653*

The Bulgarian University Ranking System allows a compression between the professional fields. Based on the analysis general insights can be delivered about the application of the university education but also each field can be analyzed individually. Additionally, to the overview of the overview for the selected period 2020 – 2024 in Table 1, the analysis focuses in Table 2 exclusively on the year 2024 to provide a detailed snapshot of the latest available data. 2024 represents the most current dynamics in the higher education system and its relationship with the labor market which ensures that the conclusions are reflective oof the present circumstances.

Table 2. Unemployment, application of higher education, and number of students by professional field for 2024

2024					
Professional field	Unemployment rate (%)	Applicability of Degree Acquired **(%)**	Number of Students	Maximum Capacity Defined by the National Evaluation and Accreditation Agency (NEAA)	Active Students (% of Defined Capacity)
Social Activities	3.84	55.33	1423	3620	39.31
Sociology, Anthropology and Cultural studies	3.18	48.57	941	3710	25.36
Chemical Sciences	3.18	51.3	661	2860	23.11
Pedagogy	3.13	77.11	16448	18970	86.71
Psychology	3.02	68.32	4303	6760	63.65
Tourism	2.88	25.62	2143	9340	22.94
Pedagogy of Teaching in…	2.77	71.48	8462	16945	49.94
Theatre and Cinema Arts	2.73	51.06	2231	2820	79.11
Administration and Management	2.61	47.89	11479	32220	35.63
Philology	2.6	60.41	5953	10610	56.11
…..					
Architecture, Construction and Geodesy	1.28	77.13	4400	16115	27.3
Health care	1.26	82.31	7180	9855	72.86
Forestry	1.25	65.55	826	2150	38.42
Energetics	1.24	83.13	1232	3180	38.74
Theory and Management of Education	0.95	94.17	338	670	50.45
Metallurgy	0.87	53.05	194	370	52.43
Dental Medicine	0.79	94.59	3335	3900	85.51
Pharmacy	0.58	89.41	2322	3720	62.42
Mathematics	0.49	78.85	501	2570	19.49
Medicine	0.24	95	13265	14825	89.48
Military Science	0.06	95.78	1279	2560	49.96
Average for the country	**2.18**	**60.71**			

Source: Author's compilation based on data from the Bulgarian University Ranking System

Table 2 presents data on the number of students by field of study, maximum student capacity by field, unemployment rate, and application rate of higher education. The data is limited to 20 fields based on post-graduation unemployment rate. This selection highlights both the ten fields experiencing the highest unemployment and those with the lowest unemployment rates, allowing for a comprehensive understanding of the dynamics. The following focus points can be outlined based on the information in the table:

- In the field of "Pedagogy," student capacity is nearly full (86.7%), yet unemployment among graduates is relatively high (3.13%). This discrepancy signals an urgent need for targeted interventions to enhance graduate employability. It is advisable to implement specialized programs that assist students in their transition to the workforce. By prioritizing the professional placement of education graduates, institutions can help mitigate unemployment and improve overall job market outcomes.
- Fields like "Social Activities", "Sociology, Anthropology and Cultural studies", "Chemical Sciences", "Tourism" show high unemployment and low student enrollment relative to capacity. The low interest in these fields may be attributed to a perceived lack of viable career paths or alignment with current labor market demands. Adaptation of the educational programs to better reflect the required skills and competencies could foster greater student engagement and interest.
- The disciplines of "Dental Medicine" and "Medicine" stand out as fields with significant potential for growth. Both fields are approaching full student capacity, with low unemployment rates and a high application rate of education. This strong performance indicates that there is a demand for professionals in these areas. Increased investment in medical education and resources could support the development of a skilled workforce ready to meet health care demands. “Health care” and “Pharmacy” also have the potential for further growth due to low unemployment rate and high application rate but need further focus on the capacity utilization.
- Capacity utilization needs to be focus also for professional fields like “Mathematics”, “Energetics”, “Forestry”, “Architecture, Construction and Geodesy” with low unemployment rate, but also significantly low (under 40%) used capacity.
- "Military Science” has the potential for increased student engagement. While unemployment is low and application of higher education is high, only about 50% of capacity is utilized as of 2024. Carefully adapting programs to attract more students could provide further opportunities for professional growth in this area. Institutions can stimulate interest and encourage more students to consider military studies as a career option.

CONCLUSION

The research study "Navigating the Workforce: The Professional Realization of Bulgaria's Higher Education Graduates" provides an analysis how young people integrate into the labor market after completing their university education. This study highlights important trends in

the higher education structure in Bulgaria and the alignment between education and career development including positive areas and areas with room for improvement.

The provided data allows for the following conclusions, which could impact the career development of graduates:

- The distribution of capacity across fields of study is suboptimal and should be reviewed in line with the number of applicants and their interests. Additional discussions should be initiated for professional areas with low enrollment rate from the institution together with the business – what are the expectations of the employers, how many students are actually needed. The aim of the institutions for such fields should be either to reduce the maximum capacity and use available resources for other professional areas or to invest and increase their popularity among students.
- The capacity of higher education institutions significantly exceeds the number of active students. This reduces the competition for admission, which in turn may lead to weaker preparation among prospective students and, consequently, less competitive graduates.
- Due to regional disparities, applicants must either choose from the institutions and fields available in their area of residence or relocate to another region. This may result in a shortage of professionals in fields that are not available in certain areas. At the same time, regions with the highest concentration of institutions and fields will see a larger student population and greater competition in the labor market.

There is a need for a systemic approach and collaborative efforts among higher education institutions, students and employers to improve the structure in the educational system and as outcome the career opportunities for students. Together, a more dynamic and aligned educational landscape could be created that better prepares students for success, enhances their employability, and ultimately contributes to the economic and social well-being of Bulgaria.

REFERENCES

Bulgarian University Ranking System. https://rsvu.mon.bg/rsvu4/#/general-comparison

Dimitrov, A. (2021). Visshe obrazovanie v Balgaria – instrument za ogranichavane na „iztichaneto na mozatsi“ ot stranata. Nauchni trudove na UNSS, (1), 385 – 400 (Димитров, А. (2021). Висше образование в България – инструмент за ограничаване на „изтичането на мозъци“ от страната. Научни трудове на УНСС, (1), 385 – 400)

European employment strategy - Employment guidelines. https://ec.europa.eu/social/main.jsp?catId=101&intPageId=3427

Higher Education Act. https://lll.mon.bg/uploaded_files/zkn_visseto_obr_01.03.2016_EN.pdf

Law on Academic Staff Development. https://www.iict.bas.bg/docs/zkn-akad-sastav-05-05-2018.pdf

Ministry of Labor and Social Policy (2021). Employment Strategy of the Republic of Bulgaria 2021-2030. https://www.navet.government.bg/eng/employment-strategy-of-the-republic-of-bulgaria-2021-2030/

National Map of Higher Education in the Republic of Bulgaria 2023. https://www.strategy.bg/StrategicDocuments/View.aspx?lang=bg-BG&Id=1653

OECD, (2022, March 15). Reaching Out and Activating Inactive and Unemployed Persons in Bulgaria. https://www.oecd.org/publications/reaching-out-and-activating-inactive-and-unemployed-persons-in-bulgaria-7b91154a-en.htm

Teixeira, J., Amoroso, J., Gresham, J, (2017, October 03). Why education infrastructure matters for learning. https://blogs.worldbank.org/en/education/why-education-infrastructure-matters-learning

Vladimirova, K. (2020). Za rolyata i predizvikatelstvata za prodalzhavashtoto obuchenie. Razvitie na choveshkia potentsial: ot znania kam kompetentsii. Ikonomicheski i sotsialni alternativi, (3), 108 – 122 (Владимирова, К. (2020). За ролята и предизвикателствата за продължаващото обучение. Развитие на човешкия потенциал: от знания към компетенции. Икономически и социални алтернативи, (3), 108 – 122.) DOI: https://doi.org/10.37075/ISA.2020.3.09

Yakova, L., Politov, A. (2023) Most mezhdu obrazovanie i pazara na truda (Якова, Л., Политов, А. (2023) Мост между образование и пазара на труда)