

Aspects of Education and Employment in the European Union

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Abstract

Changes in technological flows lead to changes in the labor market. The share of the young people has a certain influence on the degree of employment. Identifying and accessing jobs is very difficult for people with low levels of education. As the level of education of the population increases, so does the quality of jobs. Based on the information available on the Eurostat website, the article has the advantage of presenting the level of education of the population in the Member States of the European Union. Thus, it is analyzed from the perspective of two age groups. The participation of adults in education and training programs is becoming more and more necessary, even vital. The article presents a comparative situation on this topic. Aspects of employment rates of recent graduates are also addressed. The analysis presented shows that, at European level, compared to 2000, in 2020, for most countries in the European Union the share of people aged between 25 and 34 with a level of education 0-4 has decreased. In contrast, the share of people with a 5-8 level of education has increased for all countries. It is also found that the share of people aged 55 to 64 with an education level of 3-8 has increased for almost all countries. At the same time, compared to 2010, in 2020, it is found that the employment rate has decreased in some countries, regardless of the level of education of people aged between 25 and 29 years. Given the need for economic development, the results of these analyzes are important for the labor market both at the country level and at the European level

Keywords

European Union, adults, level of education, employment rates.

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Introduction

The requirements imposed by new technologies also bring changes to the level of education systems (Burlacu et al., 2021). Adults have the opportunity to participate in education and training programs (Rădulescu et al., 2020). Thus, this involvement leads both to an increase in the level of education and to social development and economic growth (Webb et al., 2020). Current demographic changes make it possible to apply intergenerational educational mobility measures (Gabay-Egozi and Yaish, 2019). The participation and active involvement of older people in the workforce can be based on improving educational prospects. It is believed that professional life can be extended through investment measures in education (Lorenti et al., 2020). Increasing the degree of automation of technological flows may lead to the application of staff reduction measures (Bodislav et al., 2020). In these situations, certain reorganization processes are needed. Compared to large enterprises, small enterprises are less prepared for such processes. Identifying people with the skills needed to take on new jobs in small businesses is more difficult to achieve (Negescu et al., 2020). Retraining and acquiring new skills remains a solution that these companies can apply (Rangraz and Pareto, 2020). Adult participation rates in education and training programs can be increased by creating supportive environments that require equitable resources and intensive training (Darling-Hammond et al., 2020).



1. Review of the scientific literature

It is important that, in today's economy, we know the level of education of the population (Androniceanu et al., 2017). Different demographics can influence economic outcomes and employment. The interest in vocational training of adults can be imprinted by parents since childhood (Prix and Erola, 2017). In production processes, information technology will be used more and more often. This will further affect people with a low level of education. Under these conditions, adult education is one of the solutions that can be applied (Van Nieuwenhove and De Wever, 2021). For adults in the workplace or for people performing certain family tasks, the application of blended learning can provide the premises for the application of education and training programs (Gjestvang et al., 2021). To a large extent, job resizing is due to automation and globalization (Androniceanu and Burlacu, 2017).

In terms of skills development, it is found that formal and informal learning, through a mixed approach, can lead to sustainable manifestations (Cebrián, Junyent and Mulà, 2020). The transformation of today's societies is based on the skills and knowledge needed to apply new technologies (Stoica and Burlacu, 2017). Adult education is thus influenced (Costache et al., 2015). Identifying viable solutions for both technological and environmental issues and for social issues can be achieved by developing creativity in education systems (Gulliksen, 2018). In an increasingly globalized economy, maintaining competitiveness is a challenge that requires measures to identify solutions (Burlacu et al., 2013). The level of skills, knowledge and competences of people in the labor market can be raised through education and training systems (Burlacu and Jiroveanu, 2012).

Facilitating access to information technology brings with it new learning opportunities. Thus, higher skill levels can be achieved by using the computer (Ertl, Csanadi and Tarnai, 2020). Increasing employment capacity can also be achieved through digital literacy measures (Peacock and Bacon, 2018). Proactive change management allows for the setting of goals and priorities that lead to flexibility and adaptability to new jobs (Glover, Law and Youngman, 2002). Skills mismatches arise from differences in employment structure and qualification requirements (Burlacu, 2011). Thus, changes in the demand for skills directly influence the skills, knowledge and abilities that graduates acquire in the OECD (2016).

The existence of a balance between the skills and abilities required by the labor market and the skills and abilities held by any person is a necessity of each (Cedefop, 2018). Also, in order for people to develop and broaden their perspectives, measures are needed to improve their knowledge, skills and competences.

Adults with a low level of education are negatively affected by changes in the labor market. This leads to situations of inability to access well-paid and secure jobs. Completing a level of education, even at university, does not provide the assurance that those skills are sufficient in the labor market. Due to technological changes, it is necessary to complete the baggage of knowledge and skills throughout the life.

Access to innovative learning opportunities, which provide a high degree of flexibility, leads to increased employment and social inclusion. Due to the reluctance with which adults treat the subject of returning to an education program, measures are needed to make these adult programs more flexible. In this way, people will be able to meet the growing demands of employers and will be able to benefit more easily from the opportunities offered by the labor market (OECD, 2021). The implementation of new vocational education and training programs, as well as adequate infrastructure, can be solutions for vocational education and training institutions.

2. Research methodology

Through this article, an analysis was made of the situation regarding the level of education of the people from the member countries of the European Union. At the international level, an international classification - ISCED (International Standard Classification of Education) is used to organize education programs and the qualifications related to these programs (Eurostat, 2020). Thus, in the first part, the comparative situation of the level of education of the people in the age groups 25-34 years, respectively 55-64 years, for the period 2000-2020 is presented. In the second part, the evolution of participation rate in education and training is presented. In the second part, the evolution of the participation rate in education and training is presented. At the same time, the comparative situation of the influence of the level of education on employment rates is presented in the article.

3. Results and discussion

From the point of view of economic activities, but also of education systems, it is important that the level of education of people is known. The level of education of the people can influence both the economic



results and the employment. Table 1 shows the comparative situation (2000-2020) of the share of the level of education of people for the age group 25-34 years. It is observed that, for persons aged between 25 and 34 with a level of education less than primary, primary and lower secondary (levels 0-2), compared to the year 2000, in the year 2020 in 5 countries the share of the population increased: Czech Republic (+0.2%), Denmark (+2.7%), Estonia (+1.9%), Romania (+7.4%), Slovakia (+1.0%). For the other countries, the share of the people with an education level of 0-2 has decreased. The most significant decreases were: Malta (-45.7%), Portugal (-47.5%). In 2020, high values of the share of the people aged between 25 and 34 and level of education 0-2 were recorded in: Spain (28.3%), Italy (22.6%), Malta (24.0 %), Portugal (21.0%). Shares below 5% were recorded in: Slovenia (4.4%), Croatia (3.9%). At European level, in 2020, the share was 14.7%.

Table no. 1. Comparative situation of the share of the level of education of the people for the age group 25-34 years (%)

	Levels 0-2			Levels 3-4			Levels 5-8		
Countries	2000	2010	2020	2000	2010	2020	2000	2010	2020
European Union	:	19,4	14,7	:	48,4	44,8	:	32,2	40,5
Belgium	24,7	17,9	14,2	39,4	38,3	37,3	36,0	43,8	48,5
Bulgaria	23,9	18,8	17,9	57,3	53,7	49,1	18,9	27,5	33,0
Czechia	7,4	5,8	7,6	80,9	71,6	59,4	11,7	22,6	33,0
Denmark	14,8	20,8	17,5	56,3	41,6	35,4	28,9	37,6	47,1
Germany	15,4	13,3	13,2	62,1	60,6	51,7	22,4	26,0	35,1
Estonia	9,1	13,1	11,0	62,5	48,7	45,9	28,4	38,2	43,1
Ireland	26,4	14,2	6,5	43,0	36,2	35,1	30,6	49,6	58,4
Greece	28,4	24,5	8,2	48,4	45,0	48,2	23,3	30,6	43,7
Spain	44,5	34,7	28,3	21,6	25,0	24,3	33,9	40,3	47,4
France	23,6	16,3	11,9	45,0	41,1	38,6	31,4	42,7	49,4
Croatia	:	10,4	3,9	:	63,9	59,5	:.	25,8	36,6
Italy	40,7	28,9	22,6	48,7	50,3	48,5	10,6	20,8	28,9
Cyprus	20,6	16,7	10,9	46,8	35,2	31,3	32,7	48,1	57,8
Latvia	11,3	16,3	9,1	71,4	49,0	46,7	17,3	34,7	44,2
Lithuania	8,8	11,7	5,8	51,3	42,0	38,0	39,9	46,3	56,2
Luxembourg	31,8	16,0	11,7	45,3	39,8	27,7	22,9	44,2	60,6
Hungary	18,9	13,6	12,4	66,6	60,2	56,9	14,6	26,1	30,7
Malta	69,7	50,8	24,0	21,5	24,9	35,8	8,8	24,3	40,1
Netherlands	24,8	17,6	10,6	48,3	42,1	37,1	26,9	40,3	52,3
Austria	:	12,2	10,9	:	67,1	47,7	:	20,7	41,4
Poland	10,6	6,4	6,2	75,1	56,5	51,4	14,3	37,1	42,4
Portugal	68,5	47,5	21,0	18,7	27,1	37,1	12,8	25,5	41,9
Romania	13,3	23,9	20,7	77,5	55,4	54,4	9,2	20,7	24,9
Slovenia	14,5	6,5	4,4	66,2	62,2	50,2	19,3	31,3	45,4
Slovakia	6,3	5,9	7,3	82,6	70,1	53,6	11,1	24,0	39,0
Finland	14,1	9,2	7,4	48,1	51,6	48,7	37,8	39,2	43,8
Sweden	12,8	12,6	11,2	54,1	45,1	39,6	33,1	42,3	49,2

Source: own processing according to data published by Eurostat, 2022

For people aged between 25 and 34 with upper secondary and post-secondary non-tertiary education levels (levels 3-4), compared to 2000, in 2020 in 4 countries the share of the people increased: Spain (+2.7%), Malta (+14.3%), Portugal (+18.4%), Finland (+0.6%). For the other countries, the share of the people with an education level of 3-4 has decreased. The most significant decreases were: Latvia (-24.7%), Poland (-23.7%), Romania (-23.1%), Slovakia (-29.0%). In the year 2020, high values of the share of the people aged between 25 and 34 and education level 3-4 were recorded in: Czechia (59.4%), Croatia (59.5%), Hungary (56.9%). Weights below 35% were registered in: Ireland (35.1%), Spain (24.3%), Cyprus (31.3%), Luxembourg (27.7%). At European level, in 2020, the share was 44.8%.

With regard to people aged between 25 and 34 with a level of tertiary education (levels 5-8), compared to 2000, in 2020 in all countries the share of the people has increased. The most significant increases were: Luxembourg (+37.7%), Malta (+31.3%), Poland (+28.1%), Portugal (+29.1%). The smallest increases in values were recorded in Finland: +6.0%. In 2020, high values of the share of the people aged between 25 and 34 and education level 5-8 were recorded in: Ireland (58.4%), Cyprus (57.8%), Lithuania (56.2 %), Luxembourg (60.6%), Netherlands (52.3%). Weights below 30% were registered in: Italy (28.9%) and Romania (24.9%). At European level, in 2020, the share was 40.5%.

Table 2 presents the comparative situation (2000-2020) of the share of the level of education of the people for the age group 55-64 years. It is observed that, for people aged between 55 and 64 with less than primary,



primary and lower secondary education levels (levels 0-2), compared to 2000, in 2020 in in all countries the share of the people has decreased. The most significant decreases were: Lithuania (-42.3%), Hungary (-41.3%), Romania (-40.9%). In 2020, high values of the share of the people aged 55 to 64 and level of education 0-2 were recorded in: Spain (49.8%), Italy (48.8%), Malta (65.2%), Portugal (65.0%). Shares below 10% were recorded in: Slovakia (9.4%), Estonia (7.3%), Czech Republic (7.2%), Lithuania (2.5%), Latvia (4.8%), Poland (9.6%). At European level, in 2020, the share was 28.1%.

Table no. 2. Comparative situation of the share of the level of education of the people for the age group 55-64 years (%)

	Levels 0-2			Levels 3-4			Levels 5-8		
Countries	2000	2010	2020	2000	2010	2020	2000	2010	2020
European Union	:	39,3	28,1	:	42,8	48,3	:	17,9	23,6
Belgium	61,6	45,5	31,1	21,6	28,9	36,7	16,8	25,6	32,2
Bulgaria	53,3	29,2	17,7	32,5	51,4	58,4	14,2	19,4	23,9
Czechia	24,2	13,7	7,2	66,2	74,8	75,2	9,6	11,5	17,7
Denmark	32,4	32,3	24,5	48,8	40,8	45,7	18,9	26,9	29,7
Germany	26,1	16,5	14,7	53,4	58,1	57,6	20,5	25,4	27,7
Estonia	29,8	15,1	7,3	43,8	54,4	53,5	26,4	30,5	39,3
Ireland	64,9	49,6	29,9	22,1	28,1	36,7	13,0	22,3	33,4
Greece	74,0	58,4	37,3	18,0	26,0	38,7	8,0	15,6	24,0
Spain	84,2	68,1	49,8	6,0	14,3	22,0	9,8	17,6	28,2
France	56,3	44,4	28,3	30,8	37,3	45,3	12,9	18,3	26,4
Croatia	:	33,9	23,5	:	49,1	59,6	:	17,0	16,9
Italy	76,6	61,9	48,8	17,4	27,5	38,1	6,0	10,7	13,1
Cyprus	63,6	47,7	28,3	24,6	30,0	43,8	11,8	22,4	27,9
Latvia	33,8	15,1	4,8	51,1	62,9	65,9	15,2	22,0	29,3
Lithuania	44,8	13,4	2,5	22,6	63,5	66,2	32,6	23,1	31,3
Luxembourg	51,4	30,9	34,3	35,6	43,8	37,8	13,0	25,3	27,9
Hungary	59,7	25,7	18,4	28,4	58,0	61,3	11,9	16,3	20,4
Malta	90,8	83,1	65,2	6,1	8,9	18,7	:	8,0	16,0
Netherlands	47,0	39,9	29,5	34,3	34,3	38,3	18,7	25,8	32,2
Austria	:	27,2	19,1	:	56,5	55,5	:	16,3	25,4
Poland	43,1	20,8	9,6	47,1	66,4	73,6	9,8	12,9	16,9
Portugal	91,9	84,3	65,0	3,4	6,8	18,2	4,7	8,9	16,9
Romania	63,9	41,1	23,0	29,1	50,4	67,2	7,0	8,5	9,7
Slovenia	37,4	27,8	16,0	50,3	55,9	60,0	12,3	16,3	24,0
Slovakia	37,8	16,7	9,4	54,4	70,6	73,2	7,8	12,7	17,5
Finland	49,3	30,4	13,1	27,4	39,6	44,2	23,3	30,1	42,8
Sweden	37,1	30,4	18,0	40,8	42,4	49,4	22,1	27,2	32,6

Source: own processing according to data published by Eurostat, 2022

For people aged between 55 and 64 with a level of upper secondary and post-secondary non-tertiary education (levels 3-4), compared to 2000, in 2020, in Denmark the share of the people decreased: -3.1%. For the other countries, the share of the people with an education level of 3-4 has increased. The most significant increases were: Lithuania (+43.6%), Hungary (+32.9%), Poland (+26.5%), Romania (+38.1%). In 2020, values of over 70% of the share of the people aged 55 to 64 and education level 3-4 were recorded in: Czechia (75.2%), Poland (73.6%), Slovakia (73.2%). Weights below 25% were registered in: Malta (18.7%), Spain (22.0%) Portugal (18.2%). At European level, in 2020, the share was 48.3%. With regard to people aged 55 to 64 with a level of tertiary education (levels 5-8), compared to 2000, in 2020 only in Lithuania the share of the people decreased: -1.3%. In all other countries, the share of the people has increased. The most significant increases were: Ireland (+20.4%), Spain (+18.4%), Finland (+19.5%). In 2020, high values of the share of the people aged 55 to 64 and education level 5-8 were recorded in: Estonia (39.3%), Ireland (33.4%), Finland (42.8 %). Weights below 15% were registered in: Italy (13.1%) and Romania (9.7%). At European level, in 2020, the share was 23.6%.

The participation of adults in lifelong education and training programs is very important. Thus, another indicator is the participation rate in education and training (last 4 weeks). The table 3 presents the comparative situation of participation rate in education and training for the age groups 25-34 years, respectively 55-64 years, for the period 2000-2020. For the existing data on the EUROSTAT website, from the table 3, there are increases in the values of participation rate in education and training (last 4 weeks) in 2020 compared to 2000. Instead, compared to 2010, in 2020, there are also decreases in values. Thus, for the 25-34 age group, in 10 countries these values decreased. The most significant decreases in the participation rate in education and training were: Denmark (-12.0%) and Slovenia (-13.2%). High increases



were recorded in: Estonia (+7.5%), France (+9.0%), Malta (+7.0%). In 2020, for the 25-34 age group, the highest values of participation rate in education and training were registered in: Denmark (30.6%), Finland (37.2%), Sweden (37.4%). The lowest values were: Bulgaria (5.1%), Poland (6.3%), Romania (2.9%), Slovakia (5.4%).

Table no. 3. Comparative situation of participation rate in education and training for the age groups 25-34 years, respectively 55-64 years (%)

	From 25 to 34 years			From 55 to 64 years				
Countries	2000	2010	2020	2000	2010	2020		
European Union	:	14,4	16,1	:	3,4	4,8		
Belgium	9,5	11,8	12,5	1,9	4,0	3,7		
Bulgaria	:	5,2	5,1	:	:	:		
Czechia	:	13,5	9,7	:	2,6	2,8		
Denmark	27,5	42,6	30,6	10,3	25,1	13,6		
Germany	12,6	17,4	17,5	1,0	3,0	2,9		
Estonia	13,3	17,5	25,0	1,8	4,7	9,0		
Ireland	:	10,7	15,4	:	3,4	6,9		
Greece	2,9	7,7	12,4	:	0,5	0,8		
Spain	10,3	18,4	20,2	0,7	5,1	4,9		
France	6,5	8,5	17,5	0,4	2,0	8,4		
Croatia	:	9,8	9,1	:	:	0,4		
Italy	11,7	13,1	14,6	0,7	2,5	4,0		
Cyprus	5,0	14,3	9,4	1,0	3,5	1,2		
Latvia	:	10,6	11,8	:	1,6	2,7		
Lithuania	5,7	10,5	10,5	:	:	4,2		
Luxembourg	7,9	20,7	25,6	:	6,1	6,5		
Hungary	7,0	7,4	7,9	:	0,3	2,0		
Malta	9,2	9,1	16,1	:	3,0	5,7		
Netherlands	23,6	28,3	28,9	6,6	8,3	11,6		
Austria	14,0	23,0	22,0	2,8	6,7	5,2		
Poland	:	11,2	6,3	:	1,0	1,4		
Portugal	8,1	11,6	16,6	:	1,2	4,8		
Romania	2,5	4,2	2,9	:	:	:		
Slovenia	:	29,6	16,4	:	6,4	3,9		
Slovakia	:	6,4	5,4	:	0,7	1,3		
Finland	25,0	33,7	37,2	7,4	13,0	17,0		
Sweden	28,4	34,4	37,4	13,9	16,7	19,1		

Source: own processing according to data published by Eurostat, 2022

For the 55-64 age group, in 7 countries participation rate in education and training decreased in 2020 compared to 2010: Belgium (-0.3%), Denmark (-11.5%), Germany (-0.1%), Spain (-0.2%), Cyprus (-2.3%), Austria (-1.5%), Slovenia (-2.5%). More significant increases were: Estonia (+4.3%), France (+6.4%), Finland (+4.0%). Also, in 2020, for the 55-64 age group, the highest values of participation rate in education and training were recorded in: Denmark (13.6%), Finland (17.0%), Sweden (19.1%), Netherlands (11.6%). The lowest values were: Greece (0.8%), Croatia (0.4%), Cyprus (1.2%), Poland (1.4%), Hungary (2.0%), Slovakia (1.3%).

Given the importance of identifying a job and hiring graduates immediately after completing a level of education, it becomes very important to highlight employment rates. The table 4 shows the comparative situation of employment rates for people aged between 25 and 29, depending on their level of education.

It is observed that for all levels of education, at European level, compared to 2010, in 2020, the employment rate for people aged between 25 and 29 years increased by 1.3%. However, in a number of 8 countries the values of this indicator have decreased. Significant decreases were recorded in Greece (-9.8%) and Italy (-4.5%). The countries with significant increases in values are: Ireland (7.2%), Latvia (7.2%), Lithuania (10.9%), Hungary (10.5%), Malta (7.7%). In 2020, the highest employment rates were recorded in: Germany (80.9%), Lithuania (80.0%), Luxembourg (80.6%), Malta (86.8%), Netherlands (84.8%), Slovenia (80.7%). The lowest employment rates were: Greece (58.3%), Spain (63.2%), Italy (54.2%). For people with an education level between 0 and 2, compared to 2010, in 2020, the employment rate decreased in 16 countries. Significant decreases were recorded in: Greece (19.6%), Croatia (21.4%), Finland (14.7%). Important increases were: Estonia (19.5%), Hungary (14.2%), Slovakia (13.1%), Czech Republic (12.5%), Lithuania (10.7%). In 2020, the highest employment rates were recorded in: Estonia (68.0%), Cyprus (65.2%), Luxembourg (71.3%), Malta (75.7%), Portugal (65.0%). The lowest employment rates were: Bulgaria (40.8%), Ireland (33.7%), Croatia (29.6%), Slovakia (35.2%). And for people with an education



level between 3 and 4, compared to 2010, in 2020, the employment rate decreased in 12 countries. Significant decreases were recorded in: Greece (11.4%), Cyprus (7.2%), Spain (6.6%), Italy (6.1%), France (5.9%). Important increases were: Germany (7.4%), Estonia (7.6%), Latvia (9.6%), Hungary (11.2%), Lithuania (14.8%). In 2020, the highest employment rates were recorded in: Czech Republic (80.6%), Germany (83.5%), Netherlands (83.3%), Malta (86.2%), Austria (80.8%). The lowest employment rates were: Greece (55.4%), Ireland (68.5%), Spain (59.2%), Italy (57.0%).

Table no. 4. Comparative situation of employment rates for people aged between 25 and 29 years (%)

	All ISCED 2011 levels		Leve	els 0-2	Leve	ls 3-4	Levels 5-8		
Countries	2010	2020	2010	2020	2010	2020	2010	2020	
European Union	71,6	72,9	56,1	51,7	72,4	73,7	79,5	79,2	
Belgium	77,5	75,7	52,6	46,0	78,1	75,8	87,5	83,8	
Bulgaria	66,7	70,4	35,5	40,8	69,8	72,8	81,6	83,3	
Czechia	72,4	77,0	42,7	55,2	73,9	80,6	76,0	75,8	
Denmark	72,7	72,4	59,9	48,7	76,4	75,1	79,3	79,9	
Germany	75,6	80,9	53,7	58,4	76,1	83,5	86,9	85,4	
Estonia	70,1	77,0	48,5	68,0	66,8	74,4	82,3	83,3	
Ireland	68,5	75,7	40,5	33,7	64,0	68,5	80,8	83,7	
Greece	68,1	58,3	65,3	45,7	66,8	55,4	71,9	63,6	
Spain	65,6	63,2	58,2	53,3	65,8	59,2	72,5	70,2	
France	77,1	74,5	56,4	48,7	77,1	71,2	85,3	83,1	
Croatia	68,3	71,3	51,0	29,6	66,6	70,3	77,3	75,8	
Italy	58,7	54,2	54,1	45,1	63,1	57,0	53,9	55,3	
Cyprus	79,9	76,7	76,7	65,2	78,1	70,9	82,1	82,3	
Latvia	69,3	76,5	53,5	58,8	67,5	77,1	78,2	80,0	
Lithuania	69,1	80,0	30,3	41,0	60,2	75,0	84,8	89,2	
Luxembourg	81,5	80,6	77,8	71,3	80,8	78,7	83,9	83,5	
Hungary	65,8	76,3	36,3	50,5	67,4	78,6	77,5	83,4	
Malta	79,1	86,8	67,5	75,7	87,2	86,2	90,9	93,6	
Netherlands	84,8	84,8	71,0	63,7	85,5	83,3	90,6	90,5	
Austria	79,4	79,4	55,0	57,9	82,3	80,8	84,6	82,6	
Poland	73,8	77,8	44,4	42,5	70,7	76,9	82,6	85,9	
Portugal	74,5	77,2	71,5	65,0	73,9	78,4	80,1	80,4	
Romania	71,7	75,7	58,3	58,8	72,6	76,8	82,9	86,9	
Slovenia	75,7	80,7	54,8	41,1	75,4	79,1	81,4	86,4	
Slovakia	68,1	72,9	22,1	35,2	69,6	75,0	75,6	76,8	
Finland	75,3	75,3	57,7	43,0	74,7	72,1	81,9	86,5	
Sweden	76,1	77,0	57,1	46,7	77,6	78,4	80,8	82,6	

Source: own processing according to data published by Eurostat, 2022

For people with a level of education between 5 and 8, compared to 2010, in 2020, the employment rate decreased in 10 countries. Significant decreases were recorded in: Greece (8.3%), Belgium (3.7%). Important increases were: Lithuania (4.4%), Hungary (5.9%), Romania (4.0%), Slovenia (5.0%), Finland (4.6%). In 2020, the highest employment rates were recorded in: Germany (85.4%), Lithuania (89.2%), Cyprus (65.2%), Netherlands (90.5%), Malta (93.6%), Poland (85.9%), Romania (86.9%), Slovenia (86.4%), Finland (86.5%). The lowest employment rates were: Greece (63.6%), Spain (70.2%), Italy (55.3%).

Conclusions

The analysis presented shows that, at European level, compared to 2000, in 2020, for most countries in the European Union the share of people aged between 25 and 34 with a level of education 0-4 has decreased. In 2020, high values of the weights of the people aged between 25 and 34 and education level 0-2 were recorded in: Spain, Italy, Malta, Portugal, Romania. For education level 3-4, high values were recorded in: Czechia, Croatia, Hungary. In contrast, the share of people with a 5-8 level of education has increased for all countries. In 2020, high values of the share of the people aged between 25 and 34 and education level 5-8 were recorded in: Ireland, Cyprus, Lithuania, Luxembourg, Netherlands. It is also found that the share of people aged 55 to 64 with an education level of 3-8 has increased for almost all countries. In 2020, high values of the share of the people aged 55 to 64 and education level 0-2 were recorded in: Spain, Italy, Malta, Portugal. Values of over 70% of the share of the people aged between 55 and 64 and level of education 3-4 were recorded in: Czechia, Poland, Slovakia. In 2020, high values of the share of the people aged between



55 and 64 and education level 5-8 were recorded in: Estonia, Ireland, Finland. Regarding participation rate in education and training, in 2020, for both age groups (25-34 years and 55-64 years) the highest values of participation rate in education and training were recorded in: Denmark, Finland, Sweden. At the same time, compared to 2010, in 2020, it is found that employment rates have decreased in some countries, regardless of the level of education of people aged between 25 and 29 years. In 2020, the highest values of employment rates were recorded for education levels 5-8; only 3 countries had shares below 75% (Greece, Spain, Italy).

For the labor market, as well as for the education and training system, the level of education of the people is important to know. It can be concluded that knowing the level of education of the adult people is vital for any economy. In the current context of labor market change, participation of the adult people in education and training programs is becoming a necessary option.

References

- Androniceanu, A. and Burlacu, S., 2017. Integration of educational technologies in universities and students' perception thereof. In *The International Scientific Conference eLearning and Software for Education*. "Carol I" National Defence University, Vol. 2: p.26.
- Androniceanu, A. and Burlacu, S., 2017. Intelligent system for assessment and grading based on docimologic tests. *eLearning & Software for Education*, 2, pp.33-40.
- Androniceanu, A., Burlacu, S., Drăgulănescu, I.V. and Nicolae, E.E., 2017. New trends of businesses digitalization in Romania and the behaviour young consumers. In: Rodica Pamfilie, Vasile Dinu, Laurențiu Tăchiciu, Doru Pleșea, Cristinel Vasiliu eds. 2017. *BASIQ International Conference: New Trends in Sustainable Business and Consumption*, 31 May 3 June 2017, Graz, Austria. Bucharest: ASE, pp. 27-35.
- Bodislav, D.A., Buzoianu, O.A.C., Burlacu, S. and Rădulescu, C.V., 2020. Analysis of companies in Romania from the perspective of risk perception and the management needs thereof. *Theoretical and Applied Economics*. XXVII (Special Issue), pp.341-349.
- Burlacu, S., 2011. Characteristics of knowledge-based economy and new technologies in education. *Revista» Administratie si Management Public «(RAMP)*, 16, pp.114-119.
- Burlacu, S. and Jiroveanu, D., 2012. The role of support open source systems to improve the quality of decisions in an educational institution in Romania. In *Proceedings of the 6th International Management Conference: Approaches in organisational management*. 15th-16th, November, Bucharest, Romania. Bucharest: ASE, pp.641-647.
- Burlacu, S., Enache, A.C. and Stefan, C., 2013. INcreator-innovative software tool for creation of adaptive education digital content. In *The International Scientific Conference eLearning and Software for Education*. "Carol I" National Defence University, Vol. 2, p. 238.
- Burlacu, S., Angheluță, S.P., Oancea Negescu, M.D. and Platagea Gombos, S., 2021. Level of Adult Education in the European Union. In: R. Pamfilie, V. Dinu, L. Tăchiciu, D. Pleșea, C. Vasiliu eds. 2021. *7th BASIQ International Conference on New Trends in Sustainable Business and Consumption*. Foggia, Italy, 3-5 June 2021. Bucharest: ASE, pp. 43-51 DOI: 10.24818/BASIQ/2021/07/005
- Cebrián, G., Junyent, M. and Mulà, I., 2020. Competencies in Education for Sustainable Development: Emerging Teaching and Research Developments. *Sustainability*, 12, 579.
- Cedefop, 2018. From long-term unemployment to a matching job: the role of vocational training in sustainable return to work. Luxembourg: Luxembourg Publications Office.
- Costache, G., Marinas, C. V., Igret, R. and Burlacu, S., 2015. Internship in the HR Department—Organizational and Individual Perspectives. In *Proceedings of the INTERNATIONAL MANAGEMENT CONFERENCE*. Bucharest, Romania, Vol. 9, No. 1, pp.359-370.
- Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B. and Osher, D., 2020. Implications for educational practice of the science of learning and development. *Applied Developmental Science*, 24(2), pp.97-140.
- Ertl, B., Csanadi, A. and Tarnai, C., 2020. Getting closer to the digital divide: An analysis of impacts on digital competencies based on the German PIAAC sample. *International Journal of Educational Development*, 78, 102259. https://doi.org/10.1016/j.ijedudev.2020.102259



- Eurostat, 2020. [online] Available at: < https://ec.europa.eu/eurostat/statistics-explained/index.php?title=International_Standard_Classification_of_Education_(ISCED)#Backgroun d> [Accessed 02 May 2022].
- Eurostat, 2022. [online] Available at: https://ec.europa.eu/eurostat/web/main [Accessed 04 March 2022].
- Gabay-Egozi, L. and Yaish, M., 2019. Intergenerational educational mobility and life course earnings in Israel. Social Science Research, 83, 102302.
- Gjestvang, B., Høye, S. and Bronken, B.A., 2021. Aspiring for competence in a multifaceted everyday life: A qualitative study of adult students' experiences of a blended learning master programme in Norway. *International Journal of Nursing Sciences*, 8, pp.71-78. https://doi.org/10.1016/j.ijnss.2020.11.001
- Glover, D., Law, S. and Youngman, A., 2002. Graduateness and Employability: student perceptions of the personal outcomes of university education. *Research in Post-Compulsory Education*, 7(3), pp.293-306.
- Gulliksen, M.S., 2018. Norwegian parents' perspective on environmental factors that influence creativity An empirical grounding for future studies. *International Journal of Educational Research*, 88, pp.85–94. https://doi.org/10.1016/j.ijer.2018.01.013
- Lorenti, A., Dudel, C., Mhairi Hale, J. and Myrskylä, M., 2020. Working and disability expectancies at older ages: The role of childhood circumstances and education. *Social Science Research*, 91, 102447. https://doi.org/10.1016/j.ssresearch.2020.102447
- Negescu, M.D., Burlacu, S., Mitriţă, M. and Buzoianu, O.C.A., 2020. Managerial Analysis of Factoring at the International Level. In: *Challenges of the Contemporary Society*. Proceedings; Cluj-Napoca Vol. 13, Iss. 1. Cluj-Napoca: Babes Bolyai University, pp.99-102.
- OECD, 2016. Getting Skills Right: Assessing and Anticipating Changing Skill Needs. Paris: OECD Publishing. http://dx.doi.org/10.1787/9789264252073-en.
- OECD, 2021. *OECD Skills Outlook 2021: Learning for Life*. Paris: OECD Publishing. https://doi.org/10.1787/0ae365b4-en.
- Peacock, J. and Bacon, K.L., 2018. Enhancing student employability through urban ecology fieldwork, *Higher Education Pedagogies*, 3(1), pp.440-450.
- Prix, I., and Erola, J., 2017. Does death really make us equal? Educational attainment and resource compensation after paternal death in Finland. *Social Science Research*, 64, pp.171-183. https://doi.org/10.1016/j.ssresearch.2016.10.012
- Rădulescu, C.V., Burlacu, S., Bodislav, D.A. and Bran, F., 2020. Entrepreneurial Education in the Context of the Imperative Development of Sustainable Business. *European Journal of Sustainable Development*, 9(4), pp.93-93.
- Rangraz, M. and Pareto, L, 2020. Workplace work-integrated learning: supporting industry 4.0 transformation for small manufacturing plants by reskilling staff. *International Journal of Lifelong Education*, 40, pp.5-22. https://doi.org/10.1080/02601370.2020.1867249.
- Stoica, M.M. and Burlacu, S., 2017. Concepts and trends on e-learning in Romania. *The International Journal Of Engineering And Science (IJES)*, 6(3), pp.100-105.
- Van Nieuwenhove, L. and De Wever, B., 2021. Why are low-educated adults underrepresented in adult education? Studying the role of educational background in expressing learning needs and barriers. *Studies in Continuing Education*. pp. 1-18. https://doi.org/10.1080/0158037X.2020.1865299.
- Webb, S., Holford, J., Hodge, S., Milana, M. and Waller, R., 2020. Learning cities and implications for adult education research. *International Journal of Lifelong Education*, 39(5), pp.423-427.