



RESEARCH ARTICLE

EDUCATION AND THE LABOR MARKET OUTCOME IN THE REPUBLIC OF SRPSKA

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ABSTRACT

Education is one of the key factors in the effectiveness and speed of economic development. Improving and changing social relations depends mostly on the knowledge and on the level of education of people. Modern development requires new knowledge and the need for them is constantly growing. The quality of human resources is a dynamic element of development policy. Its mobility and adaptability accelerates and improves change. The contribution of education is for the overall development of strategic importance, among other things, because technological progress dictates the development of human potential. The educational system in our area monitors the problem of mismatch in the structure of education, educational profiles and the needs of the economy. The one who degrades his educational system loses his own future. Poor education is not the only exclusively reason for unemployment, but the fact is that there is a strong correlation between these two phenomena, and that education plays an important role in the fight against unemployment. Transition processes have resulted in major changes in the structure of employment. Economic pressures and the uncertain market has forced many organizations to turn to more flexible forms of employment. After analyzing the available studies, analysis, research in the field of labor market trends in the Republic of Srpska, and analyzing the available relevant statistical data, the demographic structure, employment and characteristics of the workforce, the informal economy, education policies and labor market outcomes, as well as the economic growth and dynamics of labor demand, this paper answers the question of current trends in the education and labor market of the Republic of Srpska and provides an analytical overview of the availability of labor force with respect to the age structure, educational structure and other available statistical indicators.

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INTRODUCTION

Education is one of the key factors of effectiveness and speed of overall development. We believe that the comprehensive presentation of the data we presented will make a significant contribution to give us insight of the current situation in the sphere of education, contemporary social processes and overall development in the Republic of Srpska. The need for improving the quality of education and the quality of educational institutions is the result of multiannual discussions conducted in a wider educational area, but also the recognition that high quality education represents the cornerstone of a successful and stable economy, helps to solve or minimize the unemployment problem and it is a condition for inclusion in the processes of global integration. Education has its own goals, which are in the function of overall economic development, increases social mobility,

enables and facilitates adaptation of individuals by uninterrupted social and social changes. Education is viewed dually, in terms of acquiring the necessary knowledge and learning the application of knowledge in practice, it is especially important in transition economies where knowledge becomes a commodity. The interconnection of education, technical progress and employment is a key triangle in the direction of economic development. Under the conditions of the economy knowledge, the concept and importance of education is changing. It used to be a process that has been associated with a certain period of life, and in recent times education is a process that is increasingly less centralized (and institutionalized) and accessible to people of all age groups, adapted to individual needs. It is no longer a closed process that starts once and ends once with the goal of gaining a certain qualification and gaining a position. The most important innovation is related to the fact that learning is a process that lasts not only from the moment of completing formal education, but throughout the whole life. We come to the concept of lifelong learning adopted by many European countries.

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The fact is that the knowledge that students acquire during the course of the studies is very outdated and, if we join that fact with other knowledge about accelerated development, we come to the conclusion of how important it is to constantly improve and expand knowledge and skills in order to meet the demands of the labor market. The education system of the Republic of Srpska has the task to educate the population of the Republic of Srpska to timely, with high-quality and efficiently educate citizens of the Republic of Srpska in accordance with the stated or recognized development orientations towards sustainability and to respond to the educational needs throughout their life. It follows that the educational system assumes the role of a key development factor because the well-educated population of the Republic of Srpska is a real resource for the proper use of natural and other inherited resources of the Republic of Srpska, as well as the development of new ones, primarily those based on the advancement of science.

Depopulation trends, which already significantly characterize the present, and certainly the future of the Republic of Srpska point to the finding that the development of Republic of Srpska can not be based on the numerical increase of human resources (working age population), but solely on raising the creative and productive quality of those resources, which is the task of the education system. This is the first time, because the emigration of a high-quality working population from the Republic of Srpska is expected to continue, for a long time, while the significant immigration of such population towards the Republic of Srpska is hardly possible at all (Pašalić, 2016).

High level of unevenness of the development level of the region in the Republic of Srpska and high unemployment can not be quickly and significantly reduced by the technology that is technologically outdated, based on lower qualified labor and with a small newly created value. Solving these problems in the Republic of Srpska is feasible, especially in the long run, exclusively through technological modernization of production, more product innovations than innovation of processes and development of emerging manufacturing sectors. The initial condition for this direction of further economic and other development is the radical increase in the level of education of the entire population in the Republic of Srpska by inclusion of education and education for the environment in the function of achieving sustainable development.

Demographic trends and education

Demographic trends-assumptions on labor force determinants: Bosnia and Herzegovina, and especially the Republic of Srpska, are now in a deep demographic crisis caused by numerous, complex and long-term destabilizing factors of the movement and development of the population. Negative dynamic and structural demographic trends are becoming more and more serious threats to social stability and economic development of the country, which significantly reflects on education as a whole. BiH and the Republic of Srpska are losing the population by natural and mechanical means, and especially the negative process in demographic development is the aging of the population. All this deepens the imbalance in functional age contingents important for future reproduction (especially in education), but also for the formation of an economically active population, i.e. labor force.

Although depopulation in all its forms is a widespread process in BiH and the Republic of Srpska, there is a certain population polarization that is induced at the level of administrative units (cities, municipalities) and at the level of the settlement (urban / rural) or region. The demographic impoverishment of Bosnia and Herzegovina and the Republic of Srpska, especially the growing population discharge, is an important factor of spatial or regional development imbalances. At the beginning of the 1990s, BiH has entered into one of the special stages of its socio-political and demographic development. The war on its territory and the postwar and transitional difficulties, with the inevitable influence on social events and processes, especially shook the demographic trends. War events in BiH in the early 1990s has caused a very intensive evictions. Migration losses as a result of the war (1992-1995) amounted to 527,000 people. Based on data on the number of immigrants in the interim period from 1991 to 2016, vital statistics data and the application of the vitality method for determining migration, we can estimate that from 1991 to 2016, about 1,152,437 people have migrated, which is 26.3 % of the population of BiH in 1991. This emigration power was mainly directly caused by war (refugees), but also by economic opportunities. The highest average annual negative migration balance rate was recorded in Bosnia and Herzegovina in the period of 1992-95 (-51.8 per 1000 inhabitants), with a total loss of one million people. Half of this loss was recovered between 1995 and 2000, (close to 500,000, and the rest is outside BiH 527,000 (Pašalić, 2012).

Bearing in mind the total change (decrease) in the number of inhabitants in BiH between 1991 and 2016, it is possible to quantify their impact on the resulting decrease in the total number of inhabitants in that time horizon, as it follows:

$$D = (NM) + (IE) \quad D = (874,785-844,523) + (-1,152,437) = (+16,460) + (-1,152,437) = -1,135,977,$$

then the total number of inhabitants for 2016 will be performed from the form:

$$D = P2 - P1 \text{ where there is an inter-population change in the population:}$$

$$P1 = 4.377.033 (1991) - 1.135.977 (\text{total demographic losses } 1991/2016) = 3.241.056 (\text{Pašalić, 2016}).$$

According to data from the Institute of Statistics of the Republic of Srpska in 2016, the number of live births compared to 2011 was 1.14%, ie, for 109 children were born less than in 2011. The total number of born children was 9 452 in 2016, out of which 9 452 were live births and 14 stillbirths.

$$\text{IOS in Republic of Srpskoj} = 239,33 \times 5 = 1\,196,5 \quad 1\,196,5 : 1\,000 = 1,20$$

On the basis of the presented data, demographic problems of Srpska in the sphere of population renewal can be clearly identified:

- Depopulation and aging of the population
- Inadequate reproduction of the population
- Uninhabited space and uneven underdevelopment

The consequences of demographic trends can be seen in the economic, social, political and other spheres.

Table 1. Demographic losses in BiH (1991-2016)

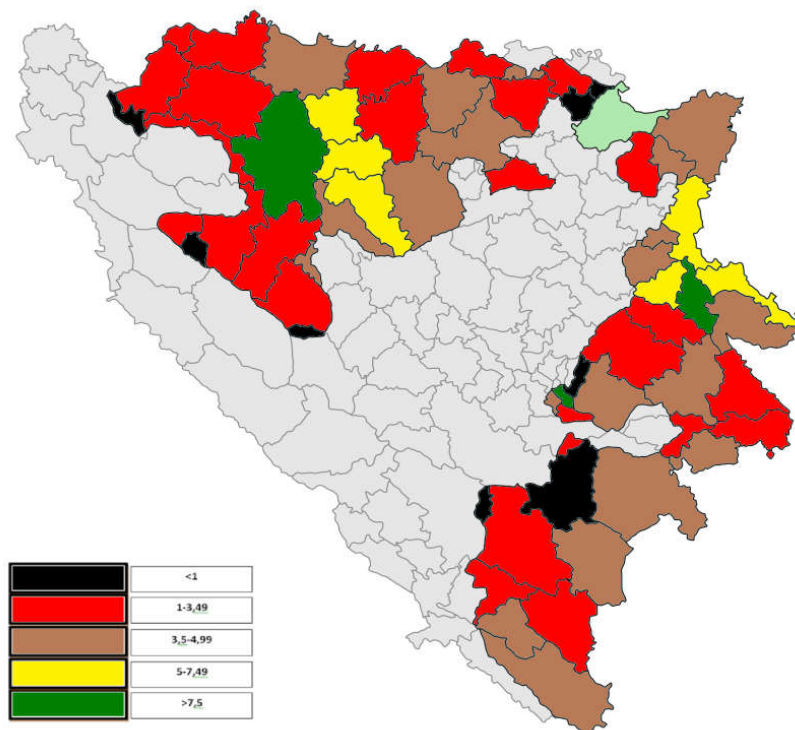
	Births	Deaths	Birth rate	Migration balance	Total depopulation
Bosnia and Herzegovina	874 785	858.325	+16.460	-1152.437	-1135977
Republic of Srpska	293 613	338.955	- 45.342	-355.529	-400 871
Federation of BiH	552 972	496 570	+56 402	-779 873	-723 471
District Brcko	28 200	22 800	+ 5 400	-17 035	- 11 635

Source: Pašalić, S. (2012). Expert report, ICTY, Hague

Table 2. IOS in Republic of Srpska 2016.

Age contingent	Births	Number of women	f_x
15 – 19	337	36 659	9,19
20 – 24	1 862	34 966	53,25
25 – 29	2.974	40 165	74,04
30 – 34	2 857	41 907	68,17
35 – 39	1 205	41 364	29,13
40 – 44	204	38 816	5,25
45 – 49	13	43 189	0,30
Σ	9 452	277 066	239,33

Source: Author's calculation based on vital-statistic data



Source: Author's interpretation in GIS technology

⁴Natural deaths were included into total deaths (748,325) and those who have died in war (110,00 war mortality)
Map 1. Index of vitality of the Republic of Srpska according to municipalities /towns¹

Table 3. Population includement by education in Srpska

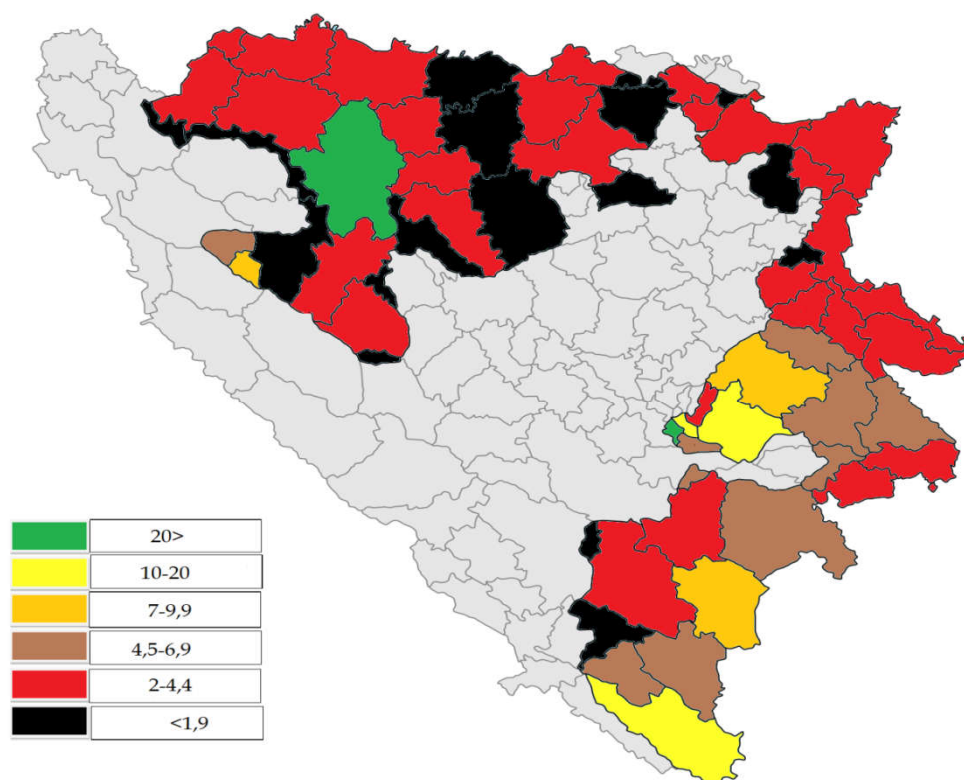
Contingents (includement)	2017.	2025.
Preschool children	9000	13000
Primary school students	92000	88000
Secondary school students	42000	37000
University students	36000	29000
Total:	179000	167.000

Source: Education bulletin, IOS, Banja Luka, 2017.and calculation by author

Table 4. Population of Republic of Srpska (in 000)

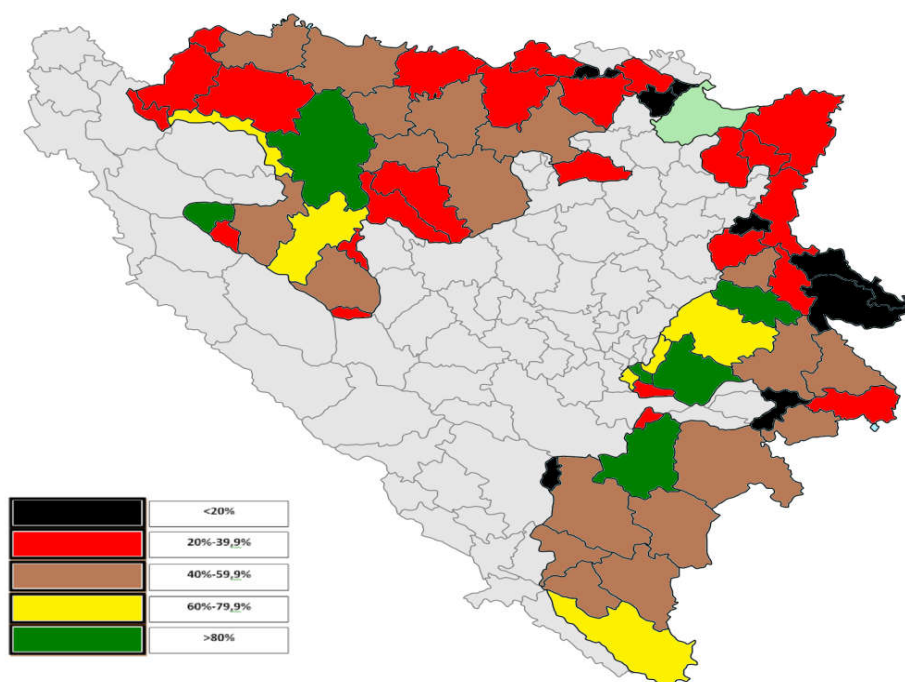
Total	Working age population	Active population	Inactive population	Persons under 15
2006. 1.169	964	417	547	205
2015. 1.002	867	417	468	135

Source: Population Census RS, IOS, Banja Luka, 2016.



Source: Author's map creation in GIS technology

Map 2. Map review of education index of municipalities / towns of the Republic of Srpska



Source: Author's map creation in GIS technology

Map 3. Index of student's utility of Republic of Srpska according to municipalities /towns ²

Table 5. Structure of employed persons according to education

Education level	PhD	Master's degree	Bachelor's degree	College	High school	Elementary school	Highly skilled	Skilled	Semi-skilled	Unskilled
2006.	573	705	21856	14615	72201	3460	11501	38565	6166	17851
2015.	1174	2250	46674	9843	90595	3885	7121	31724	2899	11544

Source: Newsletters RZS 2006-2016., Banja Luka

Table 6. Structure of employed persons according to age

Age group	Under 24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+
2006.	9207	19855	23915	25205	31345	32976	25754	15105	3670	461
2015.	9025	23304	31936	31535	27835	25787	27553	21620	8492	622

Source: Newsletters RZS 2006-2016., Banja Luka

Table 7. Structure of unemployed persons according to education

	Unskilled	Semi-skilled	Skilled	Secondary school	Highly- skilled	College	Bachelor's degree
2010.	39606	3910	54307	37397	1688	2447	6265
2015.	28498	2686	47319	39781	1046	1784	14471

Source: Newsletters RZS, 2010-2016., Banja Luka

Table 8. Structure of unemployed according to age

	15-18	18-30	30-40	40-50	50-65	Total
2010.	243	42742	37127	37531	27977	145.620
2015.	79	40238	32935	30971	31362	135.585

Source: Employment Bureau RS, 2016.

Table 9. Ingress and egress into work contingent in Srpska

Year	Ingress	Egress	Index
2017.	11 647	18 842	61,81
2018.	11 497	20 106	57,18
2019.	11 439	19 897	57,49
2020.	11 156	20 118	55,45
2021.	11 101	19 518	56,87
Total:	56 840	98 481	57,72

Source: Author's calculation based on primary data

Tabela 10. The employed number projection

	2015.	2016.	2017.	2018.	2019.	2020.	2021.
Employed	245975	257001	255634	258363	261693	265622	268351

Source: Pucar, S. (2017) Analysis and projections of labor market in RS, IOS, Banja Luka

Table 11. Projection of employed according to sectors 2017.-2021.

	2017.	2021.
Agriculture, forestry, fishery	8.482	8.773
Ore and stone extraction	5.417	5.802
Processing industry	51.370	55.345
Energy	8.210	9.095
Utility services	5.000	5.337
Construction	9.960	8.453
Trade	39.086	33.637
Traffic and storage	11.658	12.037
Tourism and catering	11.210	10.960
Information and communication	5.193	5.290
Financial and technical activities	5.831	6.113
Professional, scientific and technical activities	7.117	7.265
Administration and auxiliary service activities	2.920	3.188
Public administration and defence	25.101	26.752
Education	23.063	24.596
Health Care and Social Assistance	17.970	19.472
Art, entertainment and recreation	3.722	4.589
Other service activities	5.931	7.586

Source: Pucar, S. (2017), Analysis of labor market and projections, IOS, Banja Luka

Table 12. Students according to education domain in Republic of Srpska

Year	Education	Humanities	Social Sciences	Science	Engineering and Construction	Agriculture	Health Care	Services
2016.	9,3	9,9	42,5	8,6	10,6	4,4	11,7	3,0

Source: Statistic newsletter 13., IOS, Banja Luka, 2016.

It can be safely asserted that in the long term observed low-growth areas will face very pronounced depopulation and aging of the population. The specific rates of fertility in all age groups (except for the group of 15-19 years) showed an average reduction in the 1991-1995 trend, and warn that in all five-year-olds groups over the age of 30, this drop from 1991 is constant, while in the old age groups 20-24 and 25-29 years after 1980, significant oscillations associated with changes in general fertility and fertility rates were recorded. While the number of live births has declined, the number of deaths, on average, rose slightly, with a reduction in the number of live-born children faster than an increase in the number of deaths.

The age cohorts of 0-24 years are pre-educational and educational contingents that will experience a great transformation in the far future as a result of demography. This is very interrogative issue in the education system, which must inevitably be adapted to these trends. Contingent inflow will be decreasing in the pre-school age. This will be further transferred to other levels of education with highly decreased student capacities. In such reduced quantitative indicators, the commitment in education must be focused on the quality of education, resulting in high quality human resources. Fertility and natural growth reduce has directly influenced the depopulation, ie the intensification of the aging process of the population, and consequently the significant decrease in the school population. The Republic of Srpska is characterized by a long-term tendency to reduce the young and increase the share of the old population. Namely, the young population contingent (0-19) is 14.14%, while the share of the old (65+) has increased to 16.59%.

Status and changes in education: The contribution of education is of crucial importance for economic development. All individuals who approach the educational process at different levels of education and the entire process of innovating the knowledge of those who have completed their education must be integrated into a unified well-organized system. Transition processes have resulted by cardinal changes in the structure of employment. Economic pressures and the uncertain market have forced many organizations to turn to more flexible forms of employment. Particular attention should be paid to working vulnerable groups that are more than others exposed to unemployment and that are transferred to an inactive population. Among others, there are older workers, people with lower qualifications, employees of obsolete knowledge and skills.

Poor quality of education and mismatch of supply and demand in the labor market are one of the biggest restrictions for growth and employment in Srpska. Education in BiH is financed and coordinated at the entity and cantonal level. The amount of funds for education from the budget at various levels of government is, according to UNDP data, 4.88% GDP in 2011. That's slightly below the EU28 standard of 5.25%. Levels of education are closely related to employment and participation in the labor force. According to Labor Force Survey data in 2013, more than 79% of the working age population with elementary education was out of work, and 14.9% were employed. With the completion of secondary school, employment opportunities are significantly increasing. In 2013, two out of five with secondary school were employed. This population group has recorded a higher share of the labor market with a higher share of employees (40%) and the unemployed (17.2%). Highly educated in the labor market

usually have better chances, three quarters of highly educated are in the labor force, and only 12.3% are unemployed. The key strategic features of the basic education system are inclusion of primary education students, the quality of education (conditions, teaching process, teachers, student achievements and quality of the school as an institution), efficiency and relevance. The main bases for formulating the primary education strategy are: the projection of social and economic development in the Republic of Srpska, which contains a vision of the future development of the Republic of Srpska and Europe in the next decade as the general context in which the educational process will take place (Pašalić, Dragosavljević, 2007). There is a considerable gap between the vision of elementary education and upbringing and the current state. Some issues are easier to solve, e.g. how to increase the inclusion of children and reduce their drop out of primary school, while it is much more difficult to correct the effects of primary education, raise the quality of knowledge, insights and competences with which students come out from school. Even when we have good and clear standards of student achievement, there are many large, closely intertwined problems. First of all, it is the matter of teacher's education for better work with students (concepts, programs, practice, task entry, continuous improvement), especially their training for work in the spirit of modern concepts of teaching / learning (understanding the nature of the learning process, new roles of teachers and students focusing on learning and those who learn, creating teaching situations that are incentive and easy for learning, choosing quality textbooks, collaborating with colleagues, monitoring and improving of teaching).

The enrollment rate in high schools is almost complete in that age cohort. Most students enroll in Gymnasium, and then the Economics School. Nevertheless, the Republic of Srpska has a much smaller share of Gymnasium education compared to other high school education than in other European countries (only the Czech Republic has a smaller share). In recent years the problem has been the selection of students - the best students have no priority any longer to enroll in the Gymnasium. Since more points are needed for enrollment in certain Technical Schools than in Gymnasium, it happens that the weaker students who fail to enroll in a Technical School from the picking list, then they enroll the Gymnasium because of the less pressure there. Both of these facts, the scope and way of selecting students represents a serious problem for achieving the strategic goal of increasing the number of people with tertiary education. The serious internal disadvantages of high school education are: the geographical distribution of schools that does not provide accessibility and equity, the insufficient coverage of students in Gymnasiums and a significantly lower inclusion of students from vulnerable categories, followed by low quality of teaching and knowledge with which students come out from school and are not sufficiently prepared for academic level of education. Teachers in high schools are not well prepared for psychological-pedagogical work with students, they are not trained to apply modern concepts of learning / teaching; there is a lack of a comprehensive concept of educating future teachers (quality selection, scholarships, mentoring and continuous monitoring), there are no teacher courses in faculties for all subjects, it is necessary to improve the concept of teacher's training in practice and its financing.

The structure of enrollment in basic academic and vocational studies is determined by the number of places for enrollment, which is determined and approved by accreditation of higher

education institutions. The structure of enrollment in study programs is also regulated by financial instruments by supporting study programs that formulate for more priority or significant needs. This instrument is more or less supported by existing study programs and initiates the development of those study programs whose capacities are insufficient or not at all (opening new study programs). The improvement of the teaching process should be ensured through the improvement of the competences of the teaching staff in a professional, scientific and didactic way, and the selection of teaching staff will be reformed by: it will be obligatory to apply unique, publicly-published criteria, to form elective bodies from a sufficient number of teachers in the scientific field and appropriate vocation, to include independent experts (domestic and / or foreign) in the commission of references, conduct teacher and research choices transparently and advertise via EURAXESS network.

The ratio of the number of students and teachers to improve, especially in the field of social-humanistic sciences, where this relationship now exceeds the usual European standards, and for each educational scientific and artistic field to define the obligatory upper limit of that relationship. Republic of Srpska has 1109 teachers. Compared to the total number of inhabitants, this amounts to 0.092, while the Federation of BiH has 0.196. So, this is the lowest and most unfavorable coefficient in the environment. It should also be added that BiH has the lowest index of human development in the Western Balkans (0.735). Education index (Io) in the Republic of Srpska is 2.65. Observing this in the lower territorial units, large disparities are noticeable. For these reasons, it is necessary to point to the education index as a key component of development, but also the available human resources potential, as a starting driver and bearer of economic and overall development (Pašalić, 2016).

The Student Utility Index (the number of students in the age cohort of 20-24) in the Republic of Srpska is 53.85, which is more favorable in relation to the education index of BiH and FBiH. But the student utilization index shows marked disparities in municipalities / cities and ranges in the range: Banja Luka 82.48, Trebinje 59.21, East Sarajevo 53.55, Bijeljina 36.71, Prijedor 33.30 „Zvornik 19.02 (the relation between cities), as well as: Novo Goražde, Osmaci, Srebrenica, Vukosavlje, Donji Žabar and others. ranging from 9.00 to 12.00.

What kind of education is necessary in order to meet the requirements? Acquired knowledge should be the basis of acquiring the professional skills necessary for monitoring technical and technological changes and needs in the work process, as well as lifelong training. It is necessary to acquire knowledge and skills in the process of researching, disseminating and applying knowledge and establishing connections in all spheres of human society. Developed countries are capable of improving the quality and quantity of education and professional training. Countries in the development phase need to influence the raising of the level of knowledge and skills at all levels of education. This is a priority because of the necessity of following the trends of the information revolution. In these countries, the basic education is still required.

School systems must be in the service of young people so that they can take advantage of their intellectual, work and life needs in all their dimensions. Innovations and changes in

society impose a redefinition of the goals and tasks of education. Redefined education should encourage the development of knowledge, skills and attitudes. It is the most important basis for achieving the lifelong learning process. Redefining the goals of education also refers to: providing knowledge and skills and preparing for life and work. Development of the personality of students and their abilities, skills and creativity.

Outputs of the labor market

Analysis of the labor market: The demographic changes that have occurred in the Republic of Srpska in the last 10 years are an expression of long-term tendencies that are difficult to stop, and it is even more difficult to reverse. The Republic of Srpska is marked by expressive depopulation. According to this study, during the next half-century in the Republic of Srpska, the number of live births will be lower than the number of deaths throughout the projected period. In such a situation, the reduction in the number of labor and the aging of the population are increasingly becoming a limiting factor of economic growth and development (Pašalić, 2014). Demographic problems are closely related to economic issues, which involve a series of coordinated measures to maintain the existing labor force and restore the population.

The structure of employees by age (medial age 41 years) is almost identical to the age structure of the entire population. The two most numerous age groups in 2015 are those from 30 to 39 years old. Particular attention should be paid to the part of the employees who are in the period when they are waiting for retirement in the next five years. Namely, further analysis will show the extent to which it will be possible to replace this outflow of employees, especially regarding the qualification of newcomers (see Table 9). The level of education of unemployed persons is improving, and this represents a positive tendency in the labor market. However, the number of skilled and highly-skilled unemployed workers was decreased by almost 7,700 workers in the period from 2010 to 2015, and the number of unemployed with high Bachelor's degree has increased by 8,200 persons.

It can be concluded from the above that there is an increased demand for qualified workers on the labor market of Republic of Srpska, and that the demand for highly educated staff is much smaller (some other studies show a large supply of an offer and demand (for example, there is a high demand, and a small offer of engineers and other staff in technical sciences, and a small demand, and a very large offer of graduate managers, economists, lawyers, etc.). Unemployment of young people is, in fact, one of the great problems of the Republic of Srpska, since, especially when it comes to structural and cyclical unemployment, it is related to the lack of expected income and poverty, the stagnation of knowledge and skills, and this all has a direct impact on permanent loss of human resources. The problem that we have also touched in the part on employment is the problem of large differences between individual parts of the Republic of Srpska. Some municipalities have an unemployment rate of over 70% (Lake, Rudo, Krupa na Uni), while the most developed parts have the lowest unemployment. Development in the RS has its own regional and spatial dimension, and any development process that takes place in some parts of the country, encourages in other its parts the opposite processes, often with more or less adverse consequences. Uncoordinated labor market conditions

have different causes, which can be cyclical, and by structural nature. In periods of slowing down economic growth or recession, demand for random power is reduced by the resulting increase in cyclical unemployment. Labor market imbalances can be both structural. For example, the level of education of the unemployed does not correspond to the skills required by the labor market. These types of mismatches in the labor market represent a social problem, due to the resulting unemployment, but also the economic problem for companies and the country due to lower potentials of economic growth.

Labor market profiles: The basic method in creating projections on the labor market in the Republic of Srpska is the statistical method of the extrapolation of the trend, both the trends of demand and supply of labor at the level of the RS and at the level of selected municipalities. The extrapolation of the trend consists of predicting the situation or future movements based on the situation or past movements. The subject of analysis is a set of chronologically determined values of selected variables in the area of population characteristics, employment and unemployment of the workforce. The linear trend model we have used here explains the linear motion (positive or negative) of the value of the observed time series over time. Beside the representation of the linear motion of the time series phenomenon based on the estimated model, we have performed the prediction of the value of the phenomenon for some future periods.

In theory, the ability to use the trend method exists whenever there is a time series, but in practice, for the application of the linear trend, the most appropriate are the time series with one-year time periods. Also, if the trend is calculated on the basis of a small number of data, there should be a reserve in the interpretation of the same. According to our projections, in the next five years the number of able-bodied residents will be reduced by 41,641 persons. In relative relations, this means that the exit from the labor-productive population will increase by 42% from the entry into the labor-efficient population. Since it is realistic to assume that there will be no significant changes in this area until 2021, this trend will continue. When the ingress is greater than the egress of the labor period, then there is an expanded reproduction of the work contingent, if we have simple (free) reproduction, that is, when the egress is higher than the ingress, then it is the decline in the reproduction of the work contingent (Pucar, 2017). An entry rate shows the number of persons aged 10-14 years per 100 persons in working age in a given year (t) is the indicator of the approximate size of inflows of new generations during the working period in the next five years in relation to the current size of the work contingent:

$$u'' = \frac{P(10-14)}{P(15-64)} \times 100$$

$$u'' = 56\,840/799\,016 \times 100 = 7.1 \text{ (Pasalic, 2016).}$$

The relationship between entry and exit to and from the work contingent is a substitution coefficient (which is at the same time a measure of the demographic pressures of the young population on employment. In Republic of Srpska, there is a downward reproduction of the work contingent. In the next five years, 100 persons leaving the working contingent will replace an average of 58 persons or 42%. In conditions of a decline in the working-age population, the projection suggests that demand for labor force will increase. The following table shows data on the number of employees in the RS, calculated on the basis of the equation of the current

trend and extrapolated to the period 2017-2021. The number of jobs will rise from 257,000 in 2016 to around 268,000 in 2021, a difference of about 11,000 new jobs or an average of 2,200 jobs annually in the period 2017-2021. What speaks in favor of this kind of development is, of course, a projection of economic growth. Namely, the International Monetary Fund foresees the continuation of economic growth in BiH. In Chart 10 we see a projection of economic growth by the IMF, where growth rates of 3-4% are anticipated throughout the period. Economic growth is closely linked to job growth, as well known by Okun's law as one of the laws of economic theory (Pucar, 2017). It is interesting to analyze where this anticipated employment growth will take place, in which sectors. According to our sectoral employment projections, the largest number of new jobs will be created in the manufacturing industry, while the biggest failure will be the trade sector. What should be kept in mind are possible changes in public sector employment. Due to the problems of the public sector in the RS, it may be that the trend of employment growth, which has so far been recorded in this sector, does not continue, so in that case, it may happen that there is a smaller number of new jobs in the period in which the projection relates. However, what is obvious is the growth of employment in the real sector, especially in the export-oriented manufacturing industry. Is the education of highly educated staff faced with the needs of the labor market? This is a question that is followed by us for a longer period of time, which still does not have an adequate response. The trend of enrollment in the fields of education in the last five years has no significant changes. Assuming that reform of education will happen, that labor market requires, there will be no significant changes if the labor market reform is not carried out at the same time. Regarding the projection of the sectoral unemployment structure, the largest reduction in the number of unemployed was projected in the category of unskilled workers. It is visible is that in the period 2017-2021, a reduction in the number of unemployed with qualifications in the manufacturing industry (metal industry, wood processing, leather and footwear, etc.) will be reflected, while unemployment will increase of people with qualifications in the field of education, science, culture, health, finance and economics and services. Here we assume that existing trends in the sectoral structure of unemployment will continue in the period of 2017-2021.

Conclusion

Education has its own goals, which are in the function of overall economic development, increases social mobility, enables and facilitates adaptation of individuals to uninterrupted social and social changes. Education is viewed by two, in terms of acquiring the necessary knowledge and learning the application of knowledge in practice, it is especially important in transition economies where knowledge becomes a commodity. The interconnection of education, technical progress and employment is a key triangle in the direction of economic development. Depopulation trends that are already significantly characteristic of the present, and certainly the future of the Republic of Srpska point to the finding that the development of Republic of Srpska can not be based on the numerical increase of human resources (working age population), but solely on raising the creative and productive quality of those resources, which is the task of the education system. Negative dynamic and structural demographic trends are becoming a serious threat to social

stability and economic development of the country, which is also significantly reflected in education as a whole. Education index (Io) In the Republic of Srpska it is 2.65. Observing this in the lower territorial units, large disparities are noticeable. For these reasons, it is necessary to point out the education index as a key component of development, but also the available potentials in terms of human resources, as a true agitator and carrier of economic and overall development.

The Student Utility Index (the number of students in the old age 20-24) in the Republic of Srpska is 53.85, which is more favorable in relation to the education index in BiH. But the student utilization index shows marked disparities in municipalities / cities.

School systems must be in the service of young people so that they can take advantage of their intellectual, work and life needs in all their dimensions. Innovations and changes in society impose a redefinition of the goals and tasks of education. When looking at the overall situation, it is clear that the RS is in a very difficult economic situation. In the case of the RS, in last five years we have had a recession and very low growth rates, so that the overall socio-economic situation has worsened in such circumstances. However, a much larger problem is the demographic changes that have occurred in Republic of Srpska in the last 15 years. They are an expression of long-standing tendencies that are difficult to stop, and even more difficult to reverse. If we look at the working age population in the past 10 years, an expressed decline trend is noticeable. Of the total working population, the active population, i.e. labor (the sum of employed and unemployed) will not change to a large extent, while the level of inactive population, i.e. working-age population that does not seek an employment, significantly declines. According to our projection, the workforce should decrease in the period 2017-2021 compared to 2016 (3.2%), while the decrease in the inactive population should amount to as much as 10%.

Regarding the demand for labor in the period 2010-2015, a relatively small difference is observed when comparing 2010 and 2015 (about 245,000 employees). It is important to emphasize that employment in 2016 has increased significantly to 257,000 people, as a result of the strong growth of the processing industry, especially those export oriented. Our projection suggests that, even in conditions of a decline in the working-age population, demand for labor will continue to rise. The number of jobs will rise from 257,000 in 2016 to around 268,000 in 2021, a difference of about 11,000 new jobs, and the largest number of new jobs will be created in the manufacturing industry. What speaks in favor of this kind of development is, of course, a projection of economic growth. Namely, the International Monetary Fund foresees the continuation of economic growth in BiH, where growth rates of 3-4% are forecast throughout the period. Unemployment has fallen in RS in the last five years. All the indicators speak in favor of this. In 2012, the rate of formal unemployment was 39.3% and in 2016 it was 33.3%, which is a difference of 6 percentage points.

Real unemployment has also been reduced, but to a lesser extent (e.g from 27% in 2013 to 24.8% in 2016). According to the current trend until 2016, the number of unemployed, i.e. the surplus of offer over labor force demand will decline also in the period 2017-2021. The projection predicts a decline of around 128,000 workers in 2016, to 104,000 workers in 2021, a total of 24,000 workers less.

REFERENCES

- Chesnais J. C. 1978. Age, Productivity et Salaires, Population, broj 6.
- Nejašmić I. 2005. Demogeografija: stanovništvo u prostornim odnosima i procesima. Zagreb, Školska knjiga.
- Pasalic Stevo and Darko Pasalic 2016. Demographic Resources of Bosnia and Herzegovina, International Journal of Development Research vol. 07, Issue, 01.
- Pasalic Stevo and Darko Pasalic 2017.. Migration Losses in Bosnia and Herzegovina and Demographic Aging, IJASOS- International E-Journal of Advances in Social Sciences, Vol.II, Issue 6, December 2016.
- Pašalić, S. 2014. Demografska budućnost Republike Srpske – izumiranje stanovništva ili populaciona revitalizacija, Zbornik Opstanak. Ur. Dragan Batavelić. Aleksandrovac, ctp. 111-123.
- Pašalić, S. 2016. Populaciona edukacija kao model demografskog oporavka Republike Srpske, Nova škola br.XVI, Bijeljina: Pedagoški fakultet
- Pašalić, S. i sar. 2006. Demografski razvoj i populaciona politika Republike Srpske, Bijeljina: Mladost.
- Pašalić, S., Dragosavljević, P. 2007. Demografski razvoj školske populacije i optimalizacija mreže škola u Republici Srpskoj. Banja Luka: Ministarstvo porodice, omladine i sporta
- Popis stanovništva, stanova i domaćinstava u BiH 2013. Sarajevo: Agencija za statistiku BiH
- Popis stanovništva, stanova i domaćinstava u Republici Srpskoj 2013. Banja Luka: RSZ
- Pucar, S. 2017. Analiza i projekcije tržišta rada u Republici Srpskoj 2017-2021., Banja Luka: Unija poslodavaca RS
- Stanje na tržištu rada u BiH 2015. Sarajevo: Agencija za statistiku BiH
- Statistički bilteni obrazovanja, Republički zavod za statistiku, Banja Luka, 2016.
- Stev Pašalić and Nenad Lalić. 2017. "Influence of Demographic Aging On Economic Development Of The Republic Of Srpska (Bosnia And Herzegovina)", International Journal of Development Research, 7, (07)
- Strategija razvoja obrazovanja u Republici Srpskoj 2016-2021. Vlada Republike Srpske, 2016.
- Wertheimer-Baletić, A. 1999. Stanovništvo i razvoj: Zagreb: MATE
