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Education's impact on the Romanian labour market in the European context

Emilia Herman^{a*}^a „Petru Maior” University of Tg. Mures, N. Iorga Street no.1, Tg.Mures 540088, Romania / Academy of Economic Studies, Bucharest, Romania

Abstract

The study aims to highlight the role of education, especially higher education, in the Romanian labour market between 2000 and 2010. The results confirm that a better-educated population, with a qualification meeting the needs of the labour market, is characterized by higher employment rates and lower unemployment rates respectively. Moreover, the results underline that, at the level of the EU countries, gaps in the level of employment and labour productivity can be explained by disparities in the level of education of the human resource, the fact that education is a premise for the qualitative and quantitative employment growth is confirmed.

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Keywords: education, higher education, employment, unemployment, labour productivity, development.

1. Introduction

Education holds a central role in sustainable development, and post-industrial economies are considered economies of knowledge by means of amplifying the place and role of human capital in developing the economic activity under high performance conditions. Human capital is considered one of the most important assets of the society and higher education has a major contribution to human resources development. The role of education and training in human resources development, as elasticity mechanisms of the labour supply in relation to the demand, is recognized, both at national and international level, as a strategic priority. Achieving a high degree of mobility and adaptability of the human capital as response to the demands resulted from the logic of the technological process is one of the conditions in reaching a higher economic performance.

Over recent decades, there has been rapid expansion of higher (tertiary-level) education across many countries. This has had important and profound effects on labour markets and the way in which employers use highly educated labour force. These expansions have mainly been predicated on the assumption that more education is good for individuals and for society as a whole, not only in terms of economic outcomes like wages or employment, but also for a wide range of social outcomes like improved health, reduced crime and in terms of higher well-being (Riddell and Song, 2011).

A major benefit of education is the lower unemployment risk at a higher level of education. Workers with higher educational attainment are less unemployed and they earn more than the ones with lower educational attainment (Teichler, 2000). A possible explanation of this finding is job competition: employers prefer higher over lower educated workers for jobs that were previously occupied by lower-educated employees. Consequently, the lowest

* * Emilia Herman. Tel.: +4-074-525-8520

E-mail address: emilia.herman@ea.upm.ro

educated become unemployed (Wolbers, 2000). From the economic theory, it can be inferred that in most developed countries there is an inverse relationship between education and unemployment (Livanos, 2009). Nunez and Livanos (2009) examine the impact of an academic degree and field of study on short and long-term unemployment across Europe (EU15). The results indicate that an academic degree is more effective on reducing the likelihood of short-term than long-term unemployment. Educated workers enjoy at least three basic advantages over less educated workers in the labour market: higher wages, greater upward mobility in income and occupation, and greater employment security (Mincer, 1991). In *Education at a Glance* (OECD, 2011), it is shown that employment rates rise with educational attainment. With few exceptions, the employment rate for graduates of tertiary education is markedly higher than the rate for upper secondary graduates. Similarly, unemployment rates are generally lower for higher-educated individuals, but this is typically because higher educational attainment makes an individual more attractive in the labour market. Therefore, unemployment rates include information both on the individual's desire to work and the individual's attractiveness to potential employers.

Our purpose is to highlight the role of education, especially higher education, in the Romanian labour market, between 2000 and 2010. At the same time, we aim to verify, at the level of the EU countries, the hypothesis according to which a higher level of higher education of people available to work determines a higher level of employment and labour productivity.

Research methodology: This paper uses descriptive methods in order to highlight the empirical relationships between the level of education and labour market in Romania. We will analyse statistical data on the employment and unemployment rate related to the level of education for the period between 2000 and 2010 in Romania. In order to study the intensity of the relationship between labour market (expressed through the employment rate and labour productivity indicators) and higher education (expressed through population with tertiary education per 100 population aged 15-64) for EU countries, in 2010, we have applied the Spearman correlation coefficient.

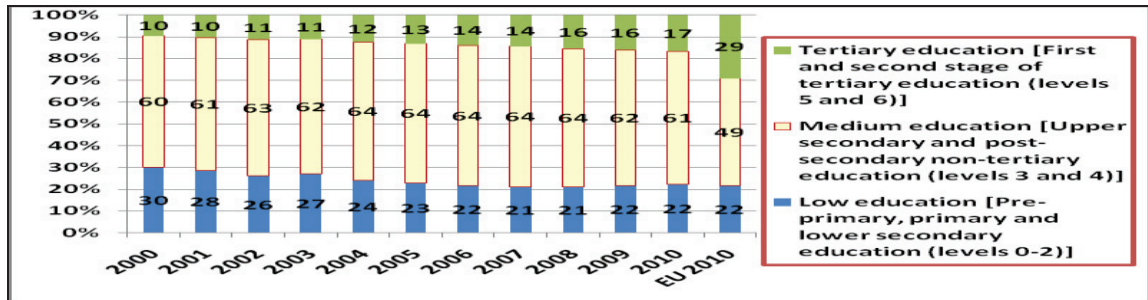
2. The role of education in the Romanian labour market in the European context

The ever-changing conditions that the economy has to face produce, periodically, mutations equally important also in terms of supply and demand of the labour force. The labour resource is permanently asked to produce something else, with higher productivities, its work content being changed, new skills, abilities and qualifications being required, in other words a permanent adaption to new and the continuous upgrading of knowledge, through education and professional long life training during the active life.

2.1. The relationship between the level of education and labour market in Romania

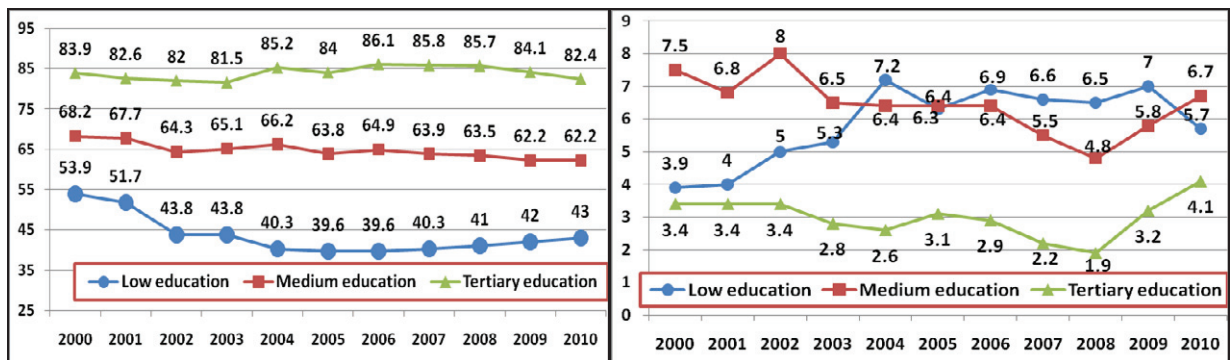
The importance of increasing employment resources for the development of the national economy is unanimously acknowledged. In order to reach an employment rate as high as possible it is necessary to assure the conditions for the human resource to perform actively and creatively. It is in the interest of the entire society that the European economies, including the Romanian economy, are more able to anticipate and absorb change, and that the labour market proves a higher adaptation capacity. Therefore, education and professional training are needed in order to face all these changes (Georgescu and Herman, 2010).

The evolution of employment in Romania, during 2000 and 2010, in relation to the level of education (figure 1) highlights some important aspects. Firstly, we notice a decrease in the employed population with a lower level of education (15-64 years) of 8 percentage points (p.p.), in 2010 compared to 2000. Secondly, there is an increase in the percentage of employed population with a medium level of education of total employed population, of 1 p.p. and thirdly, the increase in the percentage of employed population with a higher level of education of 7 p.p. The ascending trend of the percentage of employed population with higher education of total employed population may be interpreted as a positive situation, because this increase shows the high training level. This means that the higher the level of education of the labour resource the higher the productivity and the access to an easier job. The highest chances of acceding on the labour market and finding a convenient job belong to those who graduate from higher education.



Source: Author’s calculations based on the data provided by Eurostat http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database
 Figure 1. Structure of employment by educational level in Romania, 2000-2010 (%)

In Romania, during 2000 and 2010, employment rates rose with education attainment (figure 2a). In 2010, in Romania the highest level of employment rate, by highest level of education attained (calculated by dividing the number of employed people within age group 25-64 years having attained a specific level of education, by the total population of the same age group) was recorded among the graduates of higher education (82.4%).



Source: Eurostat <http://epp.eurostat.ec.europa.eu/>
 Figure 2. Employment rate (a) and unemployment rate (b), by highest level of education attained (% of age group 25-64 years)

As the level of education decreases, also the employment level decreases, thus in 2010, 62.2% of the people with a medium level of education (upper secondary and post-secondary non-tertiary education: levels 3 and 4) were employed and only 43% of those with a low level of education (pre-primary, primary and lower secondary education: levels 0-2). As we can notice, from the analysis of the data in figure 2a, during 2000 and 2010, in Romania, there was a reduction in the employment rate of the people with a low level of education (from 53.9% to 43%) as well as in the employment rate of those with an average level of education (from 68.2% to 62.2%).

The data presented above confirm the hypothesis according to which higher education assures an increase in employment. Thus, it is necessary to take some measures in order to increase the level of education of the Romanian population. According to statistical data provided by Eurostat, in the 2000-2010 period the number of population with higher studies, the indicator of population with tertiary education attainment per 100 population aged 15-64 recorded an increase from 7.5% to 11.9%. However, making a comparison with the average recorded at the EU-27 level, in 2010, we notice a negative difference of 10.8 p.p. and compared to Ireland, the country with the highest level of population with tertiary education per 100 population aged 15-64, the negative difference is of 20.9 percentage points.

Together with the employed population, the unemployed people represent an important part of the quantitative – numerical dimension of the labour force market. Employment and unemployment are considered polar categories, meaning that employment is a category integrally positive, beneficial to the state of functioning and of relative wellbeing, and unemployment has an exclusively negative connotation, equivalent to a marginal state, one of poverty. The lack of employment represents a dimension of social exclusion, because it means exclusion from one of the most important components of human activity, from the social relationships that participation in work and the impossibility of valuing our potential imply and facilitate.

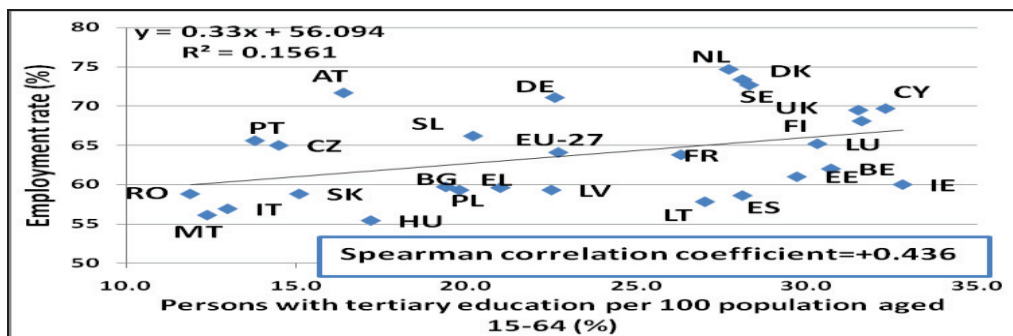
The analysis of statistical data on unemployment rates of the population aged 25-64 by level of education (annual average) shows that in Romania the increase in the level of education reduces the unemployment risk. This indicator

provides a measure of difficulties that people with different levels of education have to face in the labour market and offers a first idea of the impact of education on reducing the chances of being unemployed. The data provided in figure 2b show the fact that, in Romania, as the level of education decreases, the unemployment rate increases, thus in the 2000-2010 period, among the people with a primary and secondary level of education, a higher unemployment rate was recorded, compared with the unemployment rate of the people with a higher level of education.

According to date provided by Eurostat, in Romania, in 2010, a lower unemployment rate (of 7.3%) is noticed as compared to the one recorded in countries like Ireland (13.7%), Finland (8.4%), Belgium (8.3%), Sweden (8.4%), etc, countries where the level of tertiary education is higher. Thus in Romania, a low unemployment, even if the employment rate is low and the employed population decreases, as a relative measure as well as absolute, reflects a more profound deterioration of the disequilibrium on the labour market and not only, having an invisible, latent and sometimes not taken into account character.

2.2. Higher education and labour market in the European Union countries

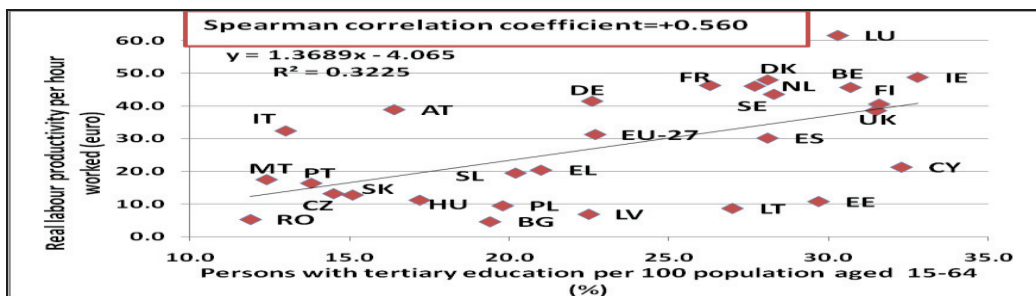
In the economic literature, it is stated that a better-educated population, with a qualification corresponding to the needs of the market, is characterized by higher rates of activity and employment. Based on the data regarding the employment rate and population with tertiary education per 100 population aged 15-64, for European Union countries, in figure 3, a direct and statistically significant correlation was identified, fact highlighted by the value of the Spearman correlation coefficient, of 0.436 (figure 3).



Source: Author’s calculations based on the data provided by Eurostat http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database
 Figure 3. Direct correlation between employment rate and population with tertiary education per 100 population aged 15-64, in the EU countries

Therefore, in the countries where a low level of higher education is recorded, the level of employment of the labour resource is also reduced (Romania, Malta, Italy Hungary, Slovakia, etc). A high level of tertiary education is accompanied by a high employment rate (Finland, Denmark, Netherlands, etc.) fact that highlights the decisive role of higher education in increasing employment, and implicitly in the process of sustainable development.

In general, higher education leads to accumulation of human capital, which is linked with higher productivity. Firms are keen to maintain high levels of productivity, thus they would be reluctant to dismiss employees with high skills. Growth in education has historically been an important source of growth in worker productivity (Fasih, 2008).



Source: Author’s calculations based on the data provided by Eurostat http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database
 Figure 4. Direct correlation between labour productivity and population with tertiary education per 100 population aged 15-64, in the EU countries

From the statistical-economic analysis (figure 4), based on the Spearman correlation coefficient, carried out in order to identify the intensity of the correlation between labour productivity, expressed by real labour productivity per hour worked, and population with tertiary education per 100 population aged 15-64, in 2010, we notice that, at the EU level, there is a positive correlation, of average intensity, between labour productivity and the level of higher education (Spearman correlation = + 0.560). This confirms the hypothesis according to which people's high level of education is a premise in order to obtain a high level of labour productivity.

3. Conclusions and implications

The education process, especially higher education, assures the conditions for the labour market's flexibility, this means adapting competences to the new requirements specific to the new jobs, which has consequences also on the degree of job security, increasing this, but also on finding another job more easily. The current economic theory and practice highlights the fact that a higher level of education determines a higher employment rate and a high level of productivity. From the statistical-economic analysis carried out in this research, based on the data recorded in Romania, between 2000 and 2010, we can notice the positive influence that the level of education, especially higher education, has on the labour market. The results of the study confirm that a better-educated population, with a qualification corresponding to the needs of the labour market, is characterized by higher employment rates and implicitly lower unemployment ones. We underline the fact that the lowest level of the population with tertiary education per 100 population aged 25-64 is recorded in Romania compared to other EU countries, fact that requires taking some measures for increasing the level of education of the population in Romania.

On the other hand, the results of this research highlight that, in the EU member states, disparities in the level of employment and labour productivity can be explained by disparities existing in the level of population with tertiary education. In the developed countries, where the employment rate and labour productivity record a high level, there is also a higher level of the population with tertiary education compared to the other countries, where the low level of employment rate and labour productivity can be associated with the low level of tertiary education.

Education, especially higher education, has to become a strategic priority for any country that aims to create an economy based on knowledge, being at the same time the fundamental condition for the promotion of international competitiveness, for achieving higher rates of economic growth and employment, in the sustainable development context.

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