

## Implications of Educational Attainment on Labour Market

**Claudia ȘERBAN**

Bucharest Academy of Economic Studies

Andre\_serban@yahoo.com

**Abstract.** *The main aim of this paper is to highlight the relationship between education and the labour force, now, when education is essential for any economy in order to increase and create value. This relation is reflected in an increasing supply of well-educated workers to promote economic development. Present education choices significantly affect labour market performance in the future, an assessment of the educational level of labour force being necessary in terms of changes in occupational structure and labour demand and supply.*

**Keywords:** skilled workers; employment; level of education; lifelong learning.

**JEL Code:** I25.

**REL Codes:** 12E, 12I

## 1. Introduction

Over time the principles referring to education have changed, evolved from one era, area, civilization to another, depending on existing specific conditions at that time and space, on the ideological and political framework.

We begin a retrospective on education approach with Platon that regarded education as the most beautiful gift you can acquire. From preparing (education) to be warrior to the Spartans to a universal view on culture to the ancient Greeks, guiding principles of education have been put into question and restated: usefulness in life, virtue, higher knowledge. Socrates points out the social function of education, the fact that the most important thing is not individually success, but the way in which ideas are disseminated and how they can change the society (Niskier, 2000, pp. 40-43). Many of these principles which have governed the philosophy of education through the centuries, remaining actual, stresses the fundamental importance of education for the development of society as a whole, recognizing the necessity of cooperation and dissemination.

In our days, education is essential for any economy, because, on the one hand, through education relations between man and society become more diverse and on the other hand, the current economy requires well-trained workforce in the context of globalization. Globalization requires skills, creativity, solid knowledge and increasing responsibility. In a world like ours, subject to permanent change, to stagnate in education is damaging or even dangerous behaviour for the contemporary people (Angelescu, 2003). In the knowledge society, people trained become the first true capital and resource which contribute to country's wealth creation.

Prime Minister Tony Blair, in presenting the results of the Summit of the G-7 in Köln in front of the House of Commons (June 21 1999), attracts the attention of the world on the requirements in terms of measures in response to the main challenge of the present, respectively: "the preparation and provision of all persons to be able to survive and thrive in the future knowledge-based economy. Education and lifelong learning are a passport to success in today's global economy, not only for our countries (most developed countries), but everywhere around the world" (Duță, 2011). The Lisbon strategy and the Europe 2020 consider education as priority of the Council of the European Union policy in the wider context of economic and social policies.

There are differences between countries in terms of education systems referring to the ages at which begin and end each phase of schooling, the duration of courses, what students are taught, what students expected to learn.

These differences generate the necessity to provide comparable statistics on educational attainment and also to provide explanations for the unexpected or atypically trends. We use in our research International Standard Classification of Education (ISCED) created by United Nations, which provides a basis for comparing different education and a standard terminology.

### An overview of educational attainment of the population

On average, across EU countries, 31% of all adults have attained only primary and lower secondary levels of education, 46% upper secondary education and 23% tertiary level education. In Romania only 12% of population aged 15-64 years had tertiary education in 2010. Starting from 2004 the increase in population having tertiary education represented 3pp, both in European Union and in Romania. The warring difference comparing to European Union is that in EU the share of tertiary educated people is two times higher than in Romania. Upper secondary education is now the norm among younger adults in European Union and to a greater extend in Romania (Table 1).

Table 1

Level of education and employment									
Indicator (%)	Country/Area	ISCED97 Classification	2004	2005	2006	2007	2008	2009	2010
Population (15-64 years) by education attainment level	European Union	Pre-primary, primary and lower secondary education - levels 0-2 (ISCED 1997)	37	34	33	33	32	31	31
		Upper secondary and post-secondary non-tertiary education - levels 3-4 (ISCED 1997)	41	45	45	46	46	46	46
		Tertiary education - levels 5-6 (ISCED 1997)	20	20	20	20	21	22	23
	Romania	Pre-primary, primary and lower secondary education - levels 0-2 (ISCED 1997)	35	33	32	31	30	30	30
		Upper secondary and post-secondary non-tertiary education - levels 3-4 (ISCED 1997)	56	58	58	59	59	59	58
		Tertiary education - levels 5-6 (ISCED 1997)	9	9	10	10	11	11	12
Employment rates highest level of education	European Union	Total Employment Rate	65	64	65	65	66	65	64
		Pre-primary, primary and lower secondary education - levels 0-2 (ISCED 1997)	51	48	49	49	48	46	45
		Upper secondary and post-secondary non-tertiary education - levels 3-4 (ISCED 1997)	70	69	70	70	71	69	68
		Tertiary education - levels 5-6 (ISCED 1997)	83	83	83	84	84	83	82

Indicator (%)	Country/Area	ISCED97 Classification	2004	2005	2006	2007	2008	2009	2010
	Romania	Total Employment Rate	59	58	59	59	59	59	59
		Pre-primary, primary and lower secondary education - levels 0-2 (ISCED 1997)	40	40	40	40	41	42	43
		Upper secondary and post-secondary non-tertiary education - levels 3-4 (ISCED 1997)	66	64	65	64	64	62	62
		Tertiary education - levels 5-6 (ISCED 1997)	85	84	86	86	86	84	82

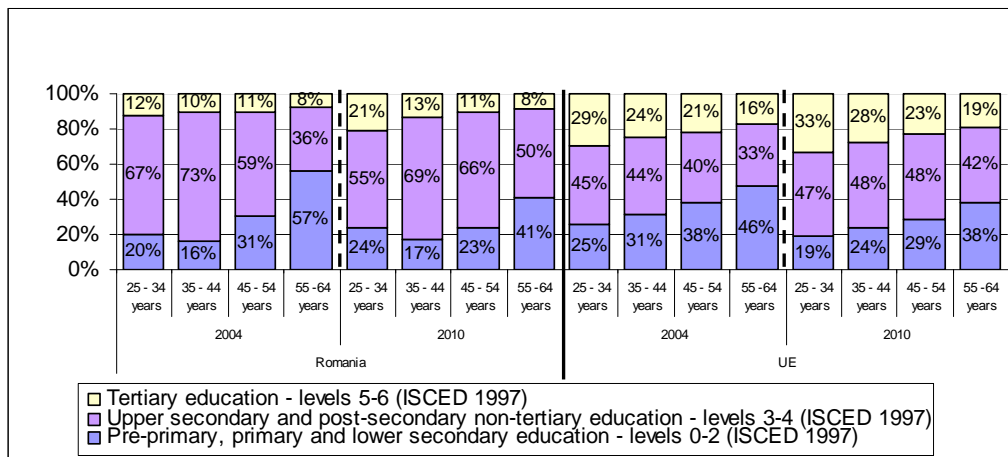
**Source:** Eurostat Statistics

Education is important for both the present and the future, giving individuals the knowledge, abilities, skills to participate effectively in society life, to expand the actual knowledge, to successfully activate, integrate and reintegrate on the labour market. The educational attainment can be used as a measure of human capital. The structure of education can be useful information to estimate the skills available in a population and labour force.

The role of education in providing access to employment is reflected in increasing employment opportunities for the educated people. People with higher levels of education have better job opportunities, reflected in a higher employment rates on labour market: 82% employment rate for tertiary educated persons comparing with 64%, average for EU, and 59% the corresponding rate in Romania in 2010. The differences from total employment rates are marked between those who have not attained upper secondary education and those who have. Persons with tertiary education are more likely to be in work than non-graduates.

The correlation between education and the labour market is not independent of conditions in the labour market, nor limited only to the worker's educational background. The distinction arises from labour's human aspect. Individuals decide how hard they work, and with what care. The environment affects their behaviour, including the incentives with which they are confronted (Stiglitz, 2002).

Increasing the share of population with tertiary education in Romania was carried out in utmost on behalf of the young population with age in range 25-34 years and 35-44 years. The share of population with tertiary education in the total population aged over 45 years has remained the same during the period 2004-2010 in Romania, unlike European Union, where the tertiary education level has increased for all age groups (Figure 1).



Source: Eurostat Statistics.

Figure 1. Educational attainment of population by age groups

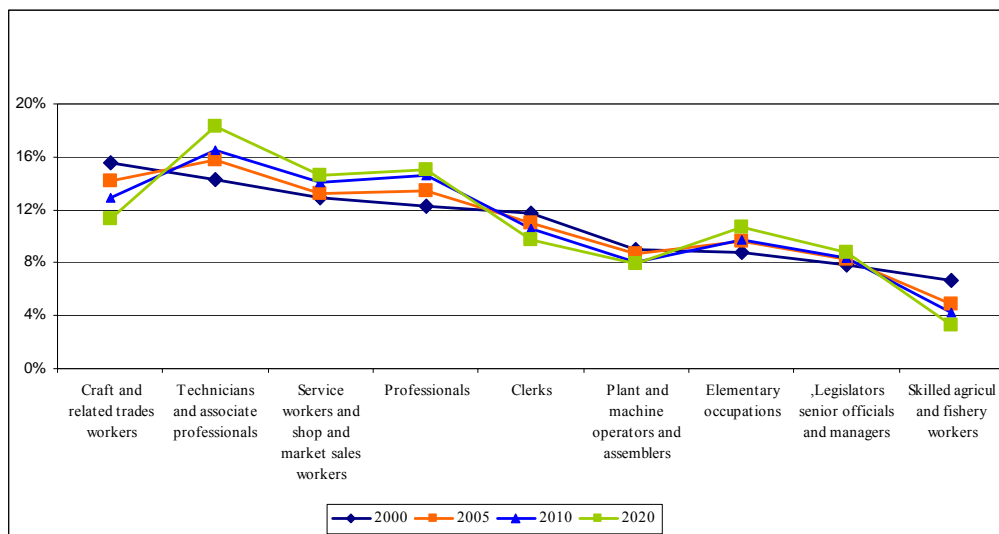
Comparing younger adults (25-34 years-old) with older adults (55-64 years-old) it is remarked progress with regard to attainment of upper secondary education in European Union. Across EU countries, the proportion of younger adults who have attained at least upper secondary education is 66%. Younger adults have higher levels of tertiary attainment than the generation about to leave the labour market. On average across EU countries, 23% of all adults have completed tertiary education, but among younger adults this level rises to 33% while among the older age group it falls to 19%. In Romania, 12% of all adults have completed tertiary education, with a higher difference between younger adults (21%) and older adults (8%). The situation in Romania's case is warring in terms of population with primary level of education that increased its share in population under 45 years (2004-2010).

The relationship between education and the labour force is reflected in an increasing supply of well-educated workers to promote economic development. This is reflected in changes in occupational structure in the present and prospect, according to Cedefop. The changes imposed by the advancement of science are reflected, as a consequence, in the structure of professions, in their contents, in professional mobility which becomes necessary through lifelong learning.

The analyses of occupational structure indicate some changing in the last 10 years, both in European Union and in Romania. The most evident increases

registered already in European Union for Professionals (such as physical, mathematical and life-science engineers, health and teaching professionals), on the one hand, and for Technicians and associate professionals (including physical, engineering, life science, health and teaching associate professionals), on the other hand. The increase was of 2 or 3 percentage points. The share of Skilled agricultural and fishery workers decrease, just like craft and related trades workers (Figure 2). Development is more than just the accumulation of capital and the reduction of distortions (inefficiencies) in the economy. It is a transformation of society, a departure from traditional ways of doing things and traditional modes of thinking (Stiglitz, 2002).

There are opinions considering that there's no doubt that sustained growth needs well-functioning labour market. Today, we all know that the right approach is not to protect jobs in existing industries, but to protect employment by giving people the chance to get training and retraining. This kind of mobility is absolutely essential (World Bank - Hübner, 2008).



Source: Eurostat Statistics and Cedefop 2010.

**Figure 2.** *Changing Occupational Structure, 2000-2010, European Union*

Cedefop consider that the main trends in recent period are expected to continue at least in the next decade, as a result of the decisions made in the past. It is noticed a considerable shift in labour demand towards skilled workers

implying that future jobs will become more knowledge – and skills – intensive. Most projected increases are expected for high-skilled non-manual occupations, such as management, professional and associate professional jobs. If in 2010 almost 40% of people were employed in higher level (knowledge - and skills intensive) jobs such as managers, professionals and technicians, in 2020 the share is expected to become more than 42% in European Union. These changes are linked to sectoral structural change, globalisation and technological progress which may displace many routine jobs (Cedefop, 2010).

### **Outcomes of educational attainment**

Education and training are critical factors to develop the European Union's long-term potential for competitiveness as well as for social cohesion as Europe 2020 stated.

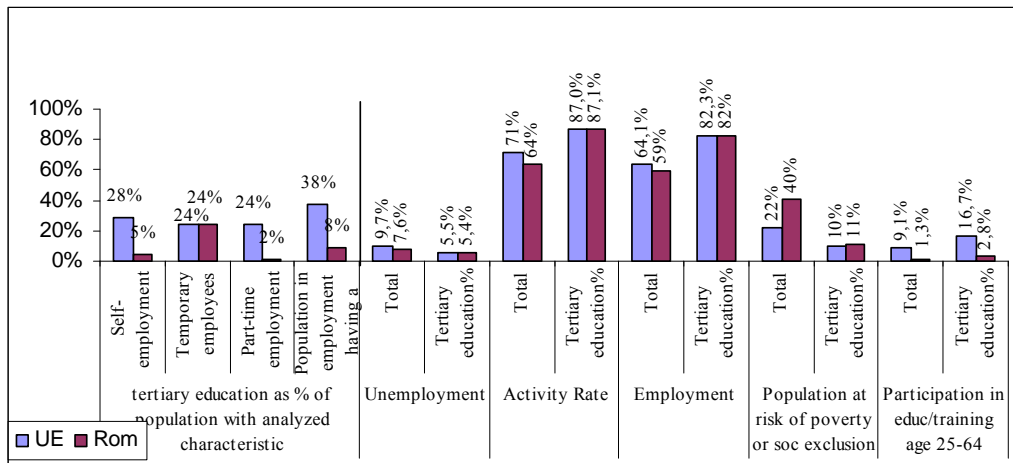
Education and training policies should increase efficiency by raising the average skills level of the population to ensure a better match between skills and labour market needs and therefore raise both employability and productivity. They should also reduce inequality by improving the employment perspectives of those most in need, including the disadvantaged and the immigrants.

The labour force is unevenly affected by the asymmetries of the labour market and/or of disagreements between the demand of qualifications and skills on the labour market and educational system supply.

The risk of unemployment, caused by the periodic fluctuations of the two markets – labour and education, is most strongly felt by both the youngest and oldest of the workers. Of course, regarding the variations in the rate of unemployment, including those with higher education on age group, naturally there are differences in time and space between member countries.

Unemployment rate of young people aged 15-24 years remain the highest, three times greater than the total unemployment rate (22% in Romania and 20.7% in the EU). For this age group, which presents the disadvantage of low or intermediate education, appears in addition the safety job problem, such young people entering through the disadvantaged categories on the labour market. In countries such as Spain, Greece, Estonia, Latvia, Lithuania, Slovakia, the rate of unemployment in this age group currently exceeded 30% in 2010.

The relationship between the unemployment rate and level of education is evident: unemployment rate decreases as we move from lower to higher education and from younger to older adults. We can appreciate that the unemployment rate – size and dynamic – is inversely proportional to the level of education: decreases as the level of education increases and vice versa. A person educated are more likely to join the labour market, to find a job according to its level of competence, skills and knowledge, has a greater mobility, with more opening to learning, to vocational reorientation, in the economic and social fields, the performances are superior. Education also has a particularly important role in reducing long-term unemployment through both initial training (by endowing the labour force with the ability to deal with the change) and lifelong learning.



Source: Eurostat Statistics.

Figure 3. Differences by educational attainment in 2010

Education and lifelong learning must be accessible to all, regardless of the level of education or other consideration, representing such an important factor in reducing inequalities and preventing marginalisation. Lifelong learning must not be accessible only to individuals with “good” job, with the higher level of education; this form of training is required for all.

The participation of adults in learning programs continues to show that those with tertiary education are the most “enlisted” in lifelong learning.



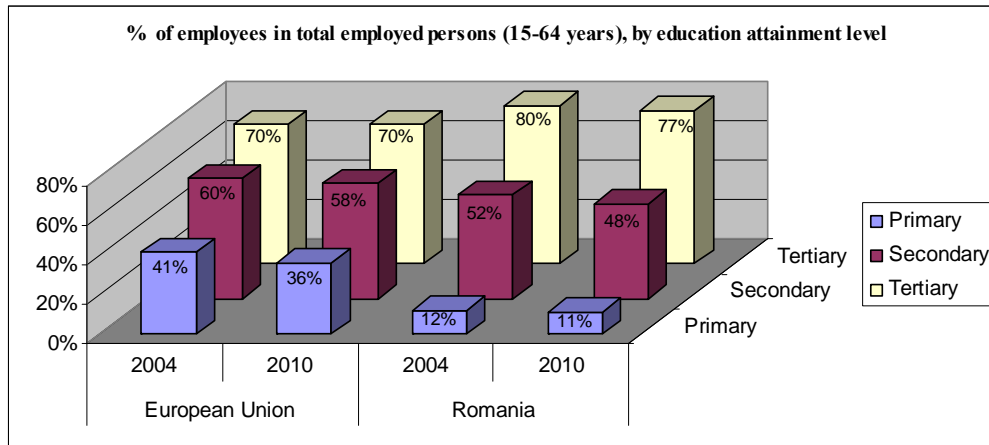
Romania is the penultimate place (before Bulgaria) in the EU, only 1,3% of the population being included in this process (EU average of 9%).

Lifelong learning is not only the one aspect of education and training, but it becomes, by the day, a fundamental principle of active participation of the individual in society, throughout his life. The lifelong learning becomes a necessity in today's society, in terms of permanent changes in the upward trend of knowledge gained throughout the world.

**Self-employment.** For Romania 21% of employed people are self-employed, the percentage being only 14% for the EU. At European Union level, 30% of self-employed persons have employees (are employers). The percentage is higher for people with higher education, 36% of self-employed with higher education have the quality of employers. For Romania, only 7% of the self-employed persons are employers, most of them having higher education (51%).

This relatively low risk of poverty for population with high educational level is associated with the easier possibility to find a job, higher wages, lower association with discouragement and voluntary exclusion from the labour market. Educated population is able to shift in times of crisis and is willing to learn in greater measure. This trend is not explained by the fact that better educated people with higher education has also accepted another job outside the main one. The situation is reflected in the Figure 3, where is a significant difference in the share of highly educated people who have secondary jobs in Romania comparing to EU. The situation could be explained by the fact that, in general, this population, with higher wages than the rest, is working a large enough period of the day so that no longer afford to accept a second job.

**The share of employees.** Differences from the European Union appear in terms of the share of employees in the total employed population on levels of education. For population with primary education level, the share of employees in total employed persons is only 12% in 2010, compared to 36% in the European Union. The situation is explained by the largest share (25.7% in Romania, comparing to the EU average of 5.4%) of the population employed in agriculture, mostly subsistence agriculture involving the existence of the large number of unpaid family workers and own-account workers (Figure 4).



Source: Eurostat Statistics.

**Figure 4.** *The share of employees in total employed persons*

## Conclusions

The relationship education-labour is permanent and refers to the individual since the entry into the structures of institutional education. The crossing from ISCED 0 to 6 is just the first stage of accumulation of knowledge and skills that allow connection with labour market demand profile. Education continues in different forms throughout the period of active life, education and labour market must support each other. The targets of the Lisbon Strategy and Bologna process, Europe 2020 in terms of strengthening the knowledge-based society is the current pillars of support the (re)construction of educational model, having as background the lifelong learning process.

The knowledge-based economy requires a higher education system that contributes significantly to the development of the knowledge and skills. Students and employees have to be prepared for jobs that are rapidly changing due to dynamic developments in technology and work organization.

The purpose of the education of adults is to ensure the possibility of improving or supplementing the general knowledge and skills in order to create the necessary preconditions for an active participation of the individual in society. It also becomes of utmost importance the opportunity to benefit from lifelong learning, from general knowledge and relevant qualifications during individual's lives in order to reduce imbalances regarding unemployment

among the youth and long-term unemployment, the risk of poverty and the risk of social exclusion.

Education is an ornament in times of prosperity and a refuge in times of crisis (Aristotle), thereby ensuring the necessary prerequisites for overcoming adverse situations occurring in the labour market as a result of internal or global context and to advance to the knowledge society. The knowledge society requires, first of all, a qualitative leap in relation to education provided by educational processes during the active lifetime of the individual.

Education also became a way of leading social developments and underlies all transformations that happen in society. Vicious circle of education represents the system that creates values and rules, which it changes depending on the stage reached by the science, technology, knowledge. Therefore, any society and any individual are the fruit of this education, thereby generating effects and results that should be higher than the previous level of knowledge (Dobrescu, 2008).

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