Higher Education and the Labour Market

Adina Moise – Titei
Ovidius University of Constanta, Faculty of Economic Sciences
adinatitei@yahoo.com

Abstract

The purpose of the present paper is to highlight the importance of qualification for the economy and especially to analyse the impact of increasing the general level of education on the employment rate. Therefore, after a short presentation of the situation of tertiary education at EU level, we put in correlation two indicators: the employment rates for tertiary education and the number of students in tertiary education. The results show us that between them it is a negative correlation, but the relationship is not strong enough.

Key words: higher education, graduates, employment rate
J.E.L. classification: I23, J21

1. Introduction

At EU level, the problem of unemployment is often a subject which heats the spirits and which is, especially in the last period, characterized by increasing unemployment among young people. In this context we propose to discover if increasing the general level of education can contribute to combating the phenomena.

In 1991 Mincer found that a major benefit of education is the lower risk of unemployment, especially for graduates of higher educational in the US. In his study he concluded that the entry probabilities on the labour market are likely to be higher for the more educated persons because they have fewer difficulties in finding jobs. In conclusion, a high level of education can reduce unemployment. (Mincer, 1991. p.24)

After twenty years, a study on the American economy, found evidence of a mixed relationship between the incidence of unemployment and education. One the one hand, there is no evidence of a causal relationship between schooling and loss jobs for the secondary schooling level, but on the other hand the study found evidence that higher education at the post-secondary level reduces the incidence of unemployment. (Craig Riddell and Song, 2011, p.1)

Many studies examine the impact of higher education degree on the rate of unemployment in Europe. In 2010, Nunez and Livanos studied the effect of an academic degree on the unemployment rate for EU15 and the results indicated that the higher education impact reduced more the likelihood of short-term than long-term unemployment. (Nunez, 2010, p. 480)

Soon after the economic crisis, for the Baltic countries, there were better employment opportunities for university graduates in the context of a high levels of emigration (Snieska et all, 2015, p.215).

All these researches could help the decisions process in the higher education systems, using the efficiency criterion.

2. Some remarks about higher education and unemployment at UE level

Higher education at EU level and its role in the new society based on knowledge are often discussed in the context of present economic and social life. The higher education is the main provider of highly skilled human capital and a lack of highly qualified human capital can stop economic growth and socio-economic development.

A lot of economic and social factors determine the access to higher education. These are the costs of education, the level of economic development, the availability of resources for education and others.

Europa 2020 Strategy emphasizes the importance of higher education and it proposes punctual benchmarks for 2020 in education, including that at least 40% of people aged 30-34 have to graduate some form of higher education.

The Trow's methodology presents three types of higher education: elite education, when just some high school graduates have access to the university, mass education, when the enrolment in higher education exceeds 15% and finally the universal access if over 50% of the high school graduated is enrolled in higher education. The goal for each of these three types differs. For example elite higher education prepares students for broad elite roles in private management, government and the learned professions. The second group, composed by the mass higher education, prepares elites and supplementary- a category of graduates that includes the leading strata of the organizations, private and public. The last group is typical for advanced industrial societies and the aim is not to create elites, but it is headed for maximize the adaptability of the population in a society characterized by rapid changes. (Trow, 1973, p.7)

Table 1 Students in tertiary education - as % of 20-24 years old in the population, 2013-2014

GEO/TIME	2013	2014
Luxembourg	9,2	9,5
Malta	19,8	20,8
Cyprus	21,1	22,8
United Kingdom	22,4	24,2
Germany	26,5	28,4
Sweden	27,1	26,7
Romania	28,4	28,3
Austria	29,8	29,3
Portugal	30,4	31,0
Hungary	30,7	28,4
France	31,9	32,4
Slovakia	32,2	31,8
Italy	32,7	32,0
Ireland	33,2	36,9
Estonia	34,3	33,1
Bulgaria	35,6	36,1
Netherlands	35,6	36,7
Latvia	35,9	36,0
Finland	35,9	35,1
Greece	36,0	38,0
Spain	36,0	37,7
Denmark	36,6	37,7
Czech Republic	37,2	37,3
Croatia	37,8	38,8
Belgium	38,3	36,1
Poland	43,9	41,8
Lithuania	44,2	41,4
Slovenia	47,8	47,3

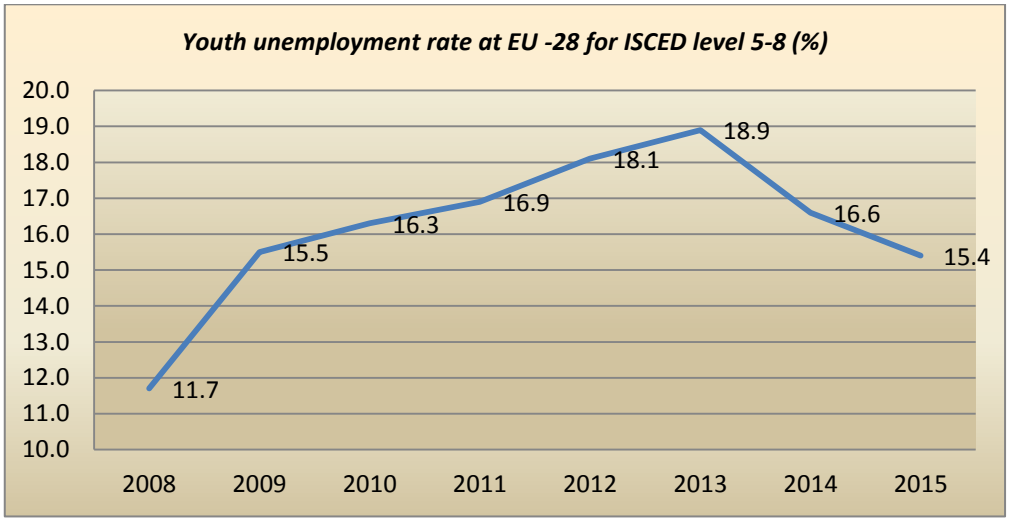
Source: Eurostat

For the EU countries the situation of students in tertiary education, ISCED levels 5-8, is presented in the table 1. As we see at EU level just for one country, Luxemburg, the per cent is under 15 and for the rest of 27 of countries the per cent is between 15 and 50. There are some countries, like Poland, Lithuania and Slovenia where the value is over 40 per cent and no further

than 50 per cent. Can we claim that only these countries are characterized by rapid changes in social and technological areas? The probable answer is that this assumption is not true. But, we can conclude that in Europe we have mass higher education and that the European higher education is moving towards a universal access.

Youth unemployment rates at EU level are much higher than unemployment rates for all ages. Furthermore, these have risen for a long period after 2008 due to the effects of the crisis on the labour market. For persons with ISCED level 5-8, since 2008, the youth unemployment rate has taken an upward trend peaking at 18.9 % in 2013, before receding to 16.6 % in 2014 and 15.4% in 2015, at EU-28, as we see in Figure 1.

Figure 1 – Youth unemployment rate at EU-28 for ISCED level 5-8 (%)



Source: Eurostat

At the same time, youth unemployment rate for EU countries is much higher than the general unemployment rate, more than double in some countries. The values reflect limited possibilities for the youngs in finding jobs.

3. The correlation between students enrolments and youth employment rate

By analysing data for the last 10 years, at EU level, we found that the unemployment rate for higher education graduates, ISCED level 5-8, is much lower than the unemployment rates for secondary education graduates. This affirmation is valid both for youth unemployment and also for unemployment of all ages.

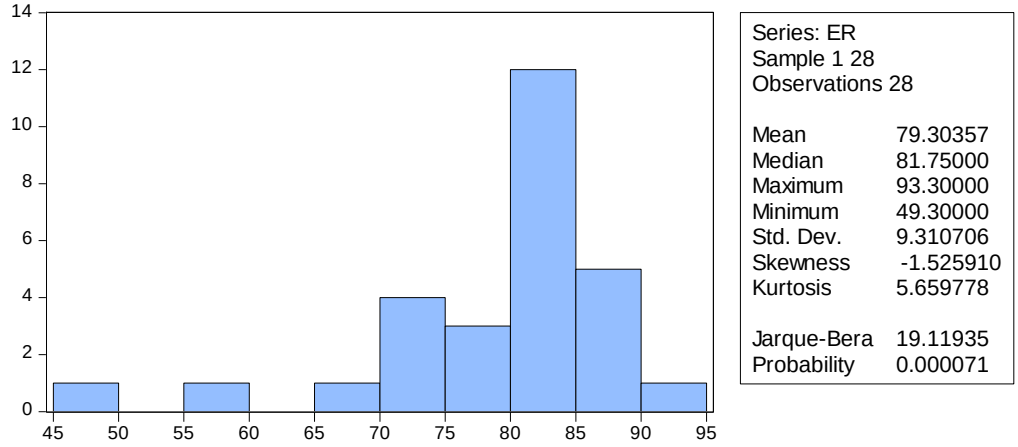
In this context, it is true that a high level of education can increase the young employment rate and not just for the young people? In order to be able to offer an answer to this question we want to analyse the role of higher education in increasing youth employment rate.

Therefore, we put in correlation the employment rates for tertiary education (level 5-8) (%) in 2015, for EU-28 (abbreviated ER), with the number of students in tertiary education (level 5-8) - as % of 20-24 years old in the population in the year 2014 (abbreviated STE14).We chose age 25-29 for employment rates in the year 2015 considering the idea that a remarkable part of the new entrants in the labor market are even higher education graduates.

Using EViews 7.1., we analyzed the individual series.

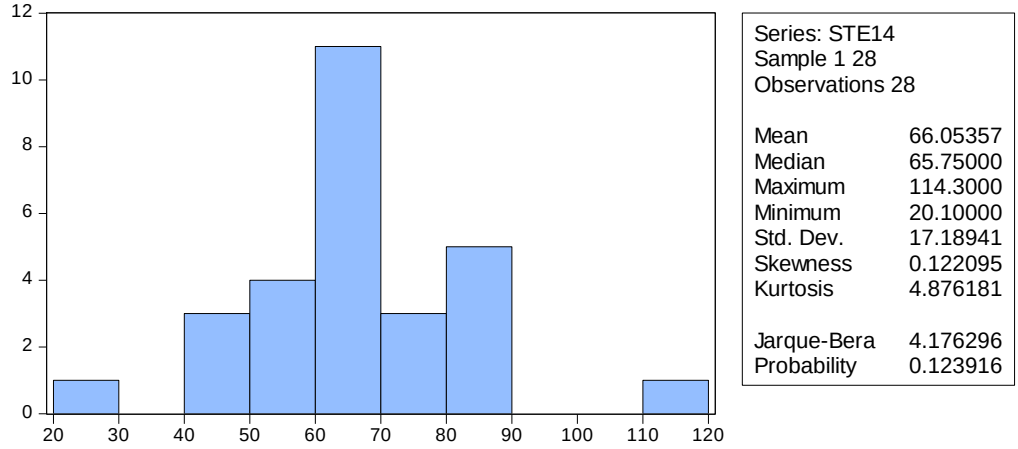
We can observe that the average value of the ER is 79.30%, with a variation between the minimum value of 49.30% (for Italy) and the maximum value of 93.3% (for Malta). The values of the statistical tests show that the distribution is not perfectly symmetrical, because the value of skewness is not zero. Also, we notice that in the data series, the values ranging between the average and the maximum value of the series are far more numerous than those in the second half of the variation interval.

Figure 2- The main statistical tests on the values of ER for the EU countries in 2015



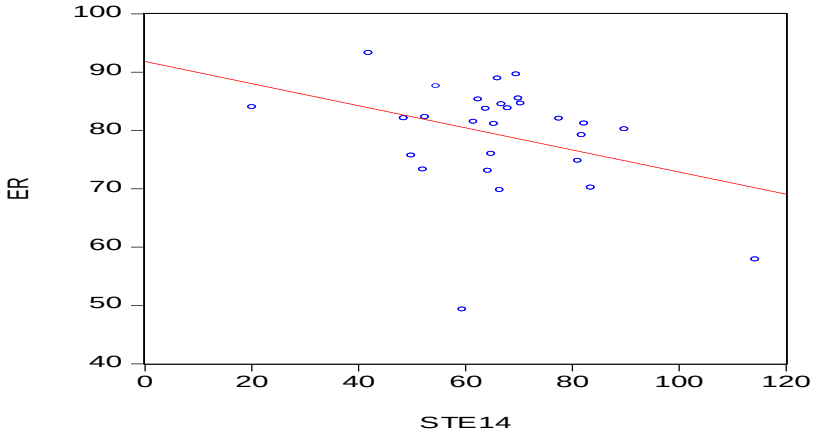
We made a similar analysis for the STE14. In conclusion, we have established that the values of STE14 are between 20.10% for Luxemburg and 114.30% for Greece. Also, we noticed that the average value of this indicator is 66.05% and the distribution is not symmetrical, the values ranging around the mean being predominant.

Figure 3 The main statistical tests on the value of STE14 for the EU countries in 2015



Starting from data analysis and the correlogram between ER and STE14 (Figure 4), we have used simple factorial regression to study the relation between the two indicators. Also, we have decided to test in the current study the significance level for the parameters of the following function: ER = f(STE14)+ε

Figure 4 – Correlation ER -STE14



Pairwise correlations for variables

	ER	STE14
ER	1.000	-0.3498
STE14	-0.3498	1.000

The results in the table above show us that there is an inverse relation between the analysed variables, but that the intensity of this relation is weak.

After processing we provided the following results:

ER = 91.82 - 0.1895*STE14

The estimators of the regression equation parameters are significantly different from zero, and the results are guaranteed for a probability of 90%, on the *t* test. The slope coefficient is < 0, meaning that there exists an inverse relation between the two variables.

4. Conclusions

Generally, in economy, the employment rate must increase when the general level of education increases.

In our case, the dependence between employment rates for tertiary education (level 5-8) and students in tertiary education (level 5-8) - as % of 20-24 years old in the population indicate a negative correlation. A possible explanation could be the fact that the European economies are looking for less qualified persons to the detriment of higher education graduates. Another possible explanation could be that qualifications for the higher education are not required by the market.

5. References

1. Craig Riddell, W; Song, Xueda, 2011. The Impact of Education on Unemployment Incidence and Re-employment Success: Evidence from the U.S. Labor Market, *IZA Discussion Papers, No. 5572;*
2. Mincer, J.,1991 . Education and Unemployment, *NBER Working Paper Series*, # 3838, Cambridge, MA, September;
3. Nunez, I.; Livanos, I., 2010. Higher education and unemployment in Europe: an analysis of the academic subject and national effects. *Higher Education 59*, pp. 475 – 487;
4. Snieska, V. et all, 2015. Education and unemployment in European Union economic cycles, *Procedia - Social and Behavioral Sciences 213*. pp. 211 – 216;
5. Trow, M., 1973. Problems in the Transition from Elite to Mass Higher Education, *Carnegie Commission on Higher Education Berkeley, California*.