

COMPARATIVE ASPECTS OF EMPLOYMENT RATES BY EDUCATIONAL LEVEL IN SOUTH-WEST OLTENIA, ROMANIA AND EU

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***Abstract:** South West Region includes the counties of Dolj, Gorj, Meheningi, Olt and Valcea and together West Region make up the Macro 4. The geographical, economic and social structural changes in the last two decades, and the economic crisis have led to some peculiarities of labor market in this development region.*

This paper provides a comparative analysis of employment rates by level of education in the EU (27), some EU countries, as in Romania during 2000-2011. It also analyzes the structure of employment in South West Oltenia development region, by age, level of education, sex and area, in 2010 compared to the structure of employment in Macro 4 and in some cases, with that recorded in Western region.

Compared to developments in Romania and Macro 4 level, the employment rates and the structure of employees have certain characteristics. Thus features occur in age groups 55-64 years and especially in the age group over 64 years, the South West region these represents 9.05% of total employment, compared to only 1.74% in the West region. Also, in rural areas, the percentage of employed population 25 to 64 years with low levels of education and medium education level, reach 96.8% of the total, which is a weakness of this region.

Keywords: employment rate, development region, Romania, Macro 4, South-West Oltenia

JEL classification: C10 ,J21, R23

1. Introduction

After 1990, in Romanian economy were manifested some turbulences caused by the shift from the centralized economy, state-controlled, to a market economy. After the 2000 economic discontinuities decreased in intensity, at least in some areas and economic activities tended towards the European average, with implications for the number and rate of employment, as well as its structure by level of education, sex, area and age groups.

To study these issues in the South-West Oltenia, in the first part of the paper it was used “the employment rate, by highest level of education attained, calculated by dividing the number of employed people within age group 20-64 years having attained a specific level of education, by the total population of the same age group” [1]. We used three categories for level of education attained, according to the International Standard Classification of Education (ISCED, 1997). The first category, Low education, comprises the people with pre-primary, primary and lower secondary education, the second category, Medium education, comprises the people with upper secondary and post-secondary non-tertiary education, and the third category comprises the people with Tertiary education.

In the second part of the paper, for analyzing employed population structure in Romania, in Macro 4 and in the region of South West Oltenia, in 2010, was used employment rate which “represents the ratio between employed population and total population aged 15-64 years expressed as percentage”[2].

2. Employment rate in Romania and the EU in the period 2000-2011

As is well known, the period 2000-2011 in terms of economic developments, comprises two distinct periods: 2000-2008 growth period and a crisis period (the decline of most economic activities), which started at the end 2008 and still has not ended.

These two periods are strongly evidenced by the evolution of employment rates in most EU countries. Although the general trends in the two periods correspond to their specific characteristics, at country-wide, the employment rates have evolved differently depending on the levels of development and the levels of education.

We analyze, in a first stage, developments in the employment rates in Romania, compared to those recorded in Bulgaria, Germany, Spain, Hungary, Sweden and the EU average (27) by level of education.

Rate of employment of employees with higher education (Figure 1) shows that in most countries under review after a period of growth, since early 2008 or 2009, the employment rates recorded significant declines. The largest increases in employment rates were recorded in Bulgaria, from 75.2% in 2001 to 82.5% in 2007 (7.2 percentage points). However such increases, were followed by significant decreases in 2011 reaching 81.2% in Bulgaria (a decline of 4.9 percentage points) and in 76.6% in Spain (down 5.9 percentage points), which, in 2001, was the lowest employment rate, between countries surveyed. In Hungary, although the period 2000 - 2005 the employment rate is approximately constant (about 82%) since 2006 (two years before the start of the economic crisis) declined by 2010, when it reached the level of 77.8%, after which it begins to recover.

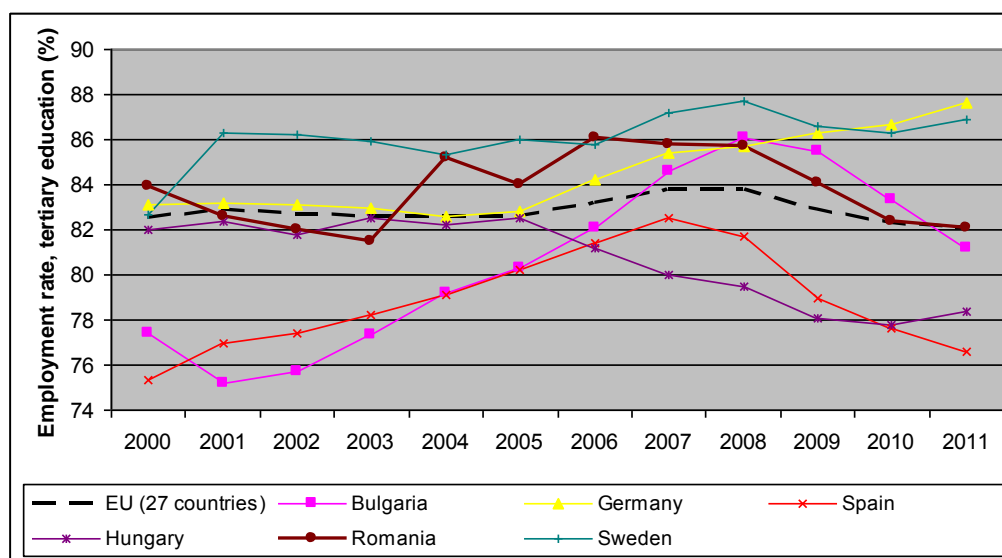


Figure 1. Rate of employment of the population with tertiary education in some EU countries

Some countries, including Sweden and Germany, however record different developments. If the employment rate in Sweden during 2000 - 2011 is a slightly upward trend in Germany since 2005 the employment rate of people with tertiary education increased significantly from 82.8% to 87.6% in 2011 is not affected by the economic crisis. In Germany, in 2011, was recorded the highest employment rate of the population with tertiary education among all countries surveyed.

In Romania, the employment rate of people with tertiary education has fluctuated around 84%. If in 2000 the employment rate was 83.9%, this drops to 81.5% in 2003 (the lowest value recorded in the entire period), increasing then to 86.1% in 2006. Between 2007 and 2008 the employment rate decreases slightly (85.7% in 2008) after which the decline is increasing to 82.1% in 2011, when it observes some stabilization.

The evolutions in employment rates of people with medium education of the countries analyzed are shown in Figure 2. For Bulgaria, Spain, Germany and Sweden trends are similar to those seen in people with tertiary education, but at much lower values. In 2011, the employment rates of people with medium education were: 62.1% in Spain, 64.8% in Bulgaria, 76.3% in Germany and 80.4% in Sweden.

In Hungary and Romania, the employment rates of people with medium education have evolved differently from the evolutions recorded for people with tertiary education. They have evolved a downward trend throughout the period. In Romania, it decreased from 69.8% in 2000 to 63.2% in 2011 (6.6 percentage points), while in Hungary, it decreased from 68.3% in 2000 to 61.1% in 2011 (7.2 percentage points). We can conclude that, In Romania, the evolution of the employment rate of people with medium education was influenced rather by the restriction of economic activities and to a lesser extent by the economic crisis.

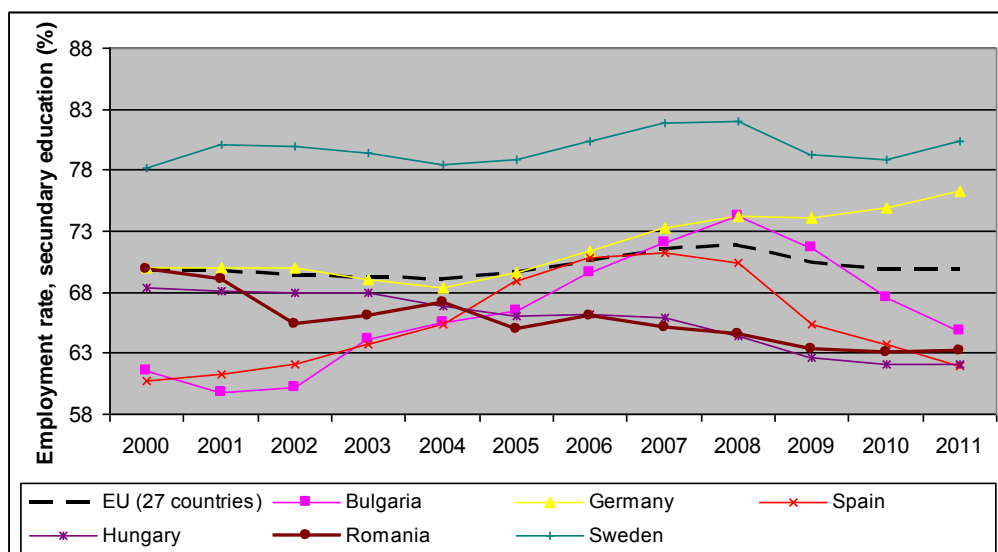


Figure 2. The evolutions of the employment rates of the people with medium education in some EU countries

In fine, changes in the employment rate of people with low education in the countries analyzed (Figure 3), also presents features. First, of employment rates of population values with low levels of education are much lower than values for the population with tertiary education and medium education. On the other hand, in countries like Bulgaria and Spain the trends are similar to those described above for these countries, with the exception that Bulgaria was below the EU(27) average, while Spain, in the period 2000-2009 was over EU(27) average. Employment rate in Hungary evolved approximately constant, varying between 36.3% and 38.1% well below the EU(27) average.

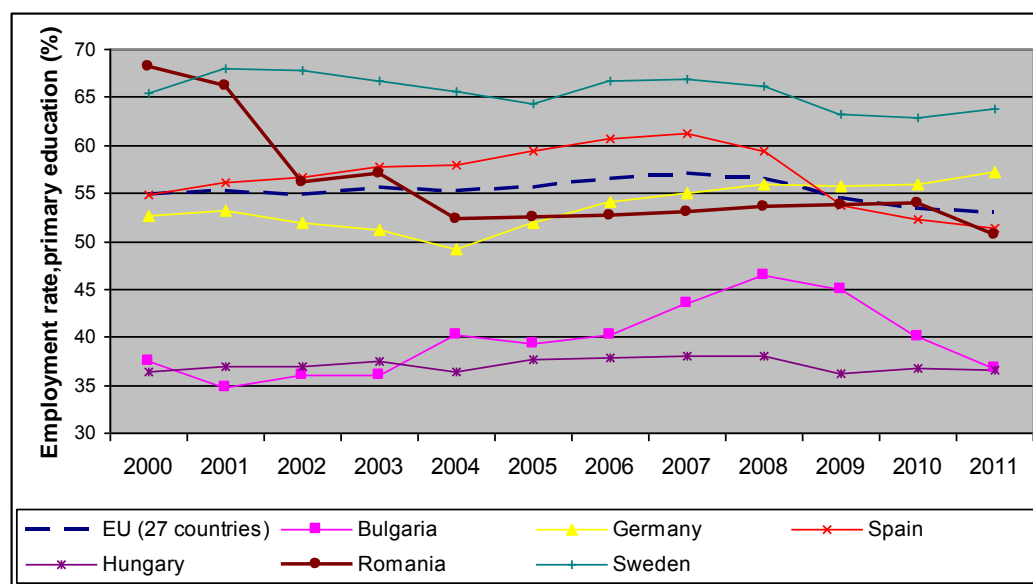


Figure 3. The evolutions of the employment rates of the people with low education in some EU countries

Evolution of the employment rate of people with low education in Romania evolved differently from the others countries. Thus, after a strong decrease from 68.1% in 2000 to 52.2% in 2004 (a decline of 15.9 percentage points) from 2004 to 2010, it increased very slightly from 52.2% to 54.0%, in 2011 decreased to 50.7%. For a clearer highlighting of the evolution of employment rates by level of education in Romania, in Figure 4, they are presented in relation to developments of the average employment rates at EU(27) level.

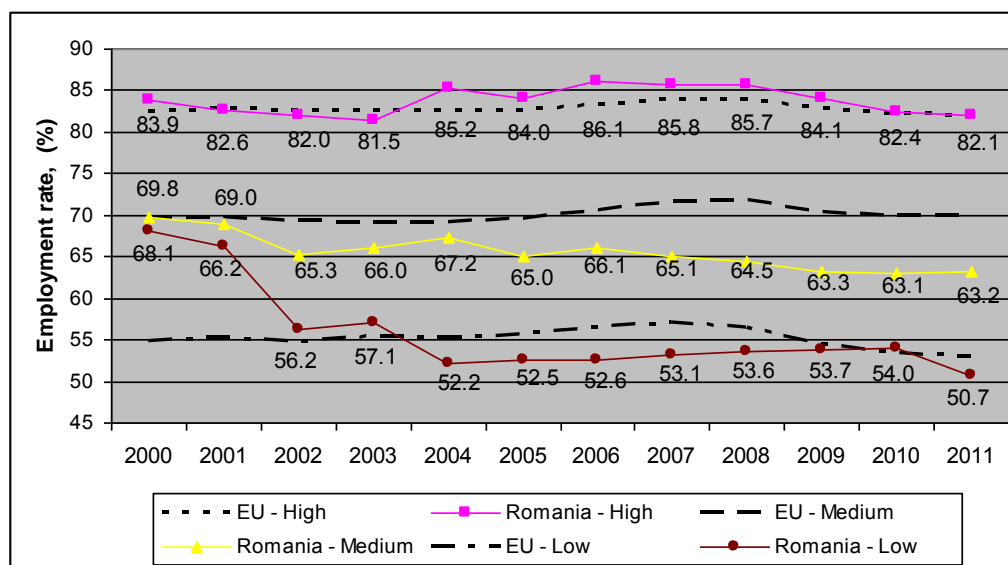


Figure 4. The evolution of employment rates by level of education in Romania and the EU (27)

As can be seen, where people with tertiary education, the evolution of the employment rate in Romania is very close (and even surpasses) the European average. The employment rate of people with medium education, until 2006, had the low values with, approximately, 4 - 5 percentage points by the EU average, since 2007, the employment rate of people with medium education begins to decrease, the gap with the EU average being increasing. Regarding the employment rates of people with low education after a significant decrease from 68.1% in 2000 to 52.2 in 2004, its evolution is close to the EU average (27). One conclusion that emerges from the above is that the employment rates recorded in Romania during 2000 - 2011 were influenced primarily by the economic policies of governments in these period and, to a lesser extent by growth periods, respectively economic crisis. Thus, the strong reduction in the employment rate of people with low education during 2000 - 2002 was due to restructuring measures that have taken place during that period, and which decreased in intensity from 2007. The evolution of the employment rate of people with medium education was determined both by the economic crisis and the restriction of economic activities due to economic -social turbulences which occurred in Romania in recent years.

3. The structure of employed population in Romania, Macro 4, in 2010

In Romania, Macro 4, includes South West Oltenia with the counties of Dolj, Gorj, Mehedinți, Olt and Valcea and West Region with counties Arad, Caraș-Severin, Hunedoara and Timiș. Their specificity affects the employment rates by age and educational level.

At Macro 4 level, the number of employment by age groups and levels of education, in 2010, is illustrated in Figure 5. This structure is influenced on the one hand by the population structure in Romania, by age and sex, and on the other hand by the levels of economic and social development and by the culture of the region.

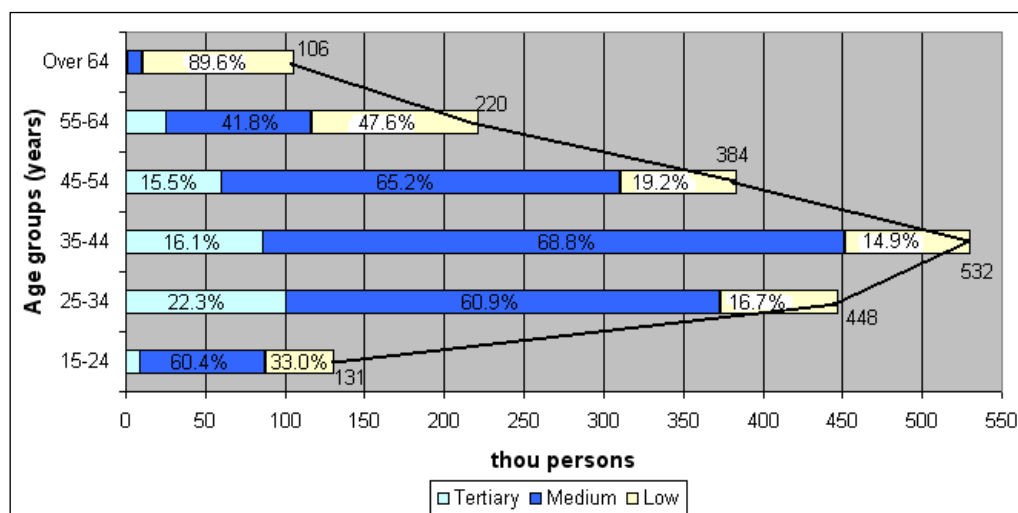


Figure 5. The employment number, by age and educational level in Macro 4, in 2010

In the employment of Macro 4, the largest age group is 35-54 years group (born between 1975-1984), which includes 532,000 people, followed by age group 25-34 years (born between 1985 - 1994), 448,000 people, respectively, age 45-54 years (born between 1965-1974) with 348,000 people. This age structure is the result of demographic policies implemented before 1990.

Employment structure by age groups and levels of education, in Macro 4, in year 2010, is the result of at least three factors: changes in structure and technological level of the Romanian economy, development policies on education and not least the changes of the culture of population from that area. Thus, in the 15-24 age groups the percentage of population with low education is 33.0%, while percentage of population with tertiary educated is only 6.8%. In the age group 25-34 years, the percentage of people with low education decreases to 16.7%, while that with tertiary education increased to 22.3%. The upper age groups, share of population with tertiary education are significantly influenced by education policies from the period before 1990.

Note that, of the 106,000 persons, aged over 64 years, 89.6% had a low level of education, 9.1% had medium education, and only 1.3% had tertiary education.

Analyzing the structure of employment by age and level of education in the South-West Oltenia and West, and how they participate in the formation of the structure of employment at macro level 4, shows that they are different (Figure 6).

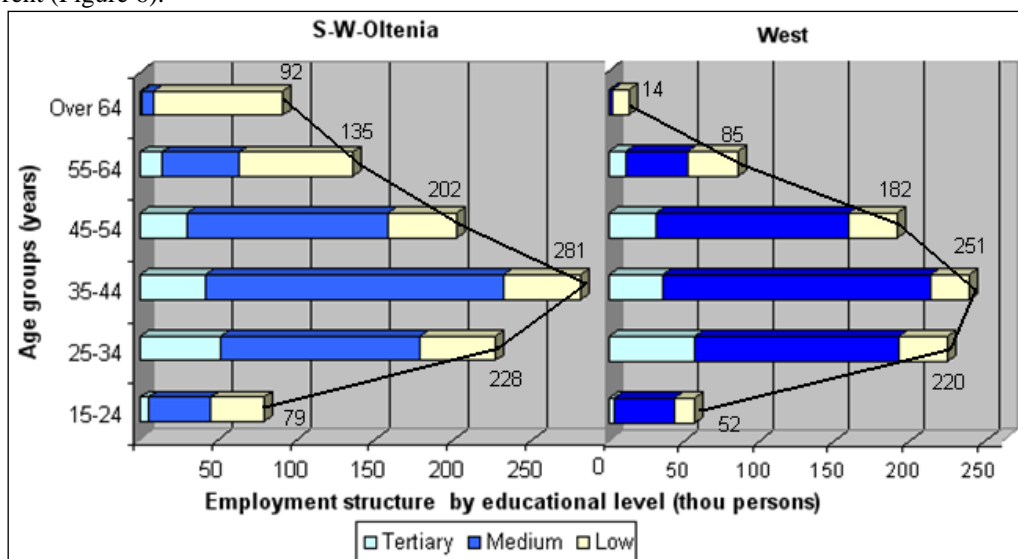


Figure 6. The employment number, by age and educational level in South-West Oltenia and West in 2010

For age groups up to 45 years, the structures of the population employed in the South-West Oltenia and West is about the same. Significant differences occur in the age groups 55-64 years, and especially in the age group over 64 years, which in the South West region are 92,000 people (9.5% of total employment), while in the West region are only 14,000 people (1.74% of total employees).

4. The employment structure in the South-West Oltenia in 2010

In the previous chapter was analyzed share of population by level of education in the age groups, the main criterion being the age structure of the population. This chapter analyzes the structure of employment in the South West region the main criterion is the structure by level of education, secondary criteria being age groups, sex and area..

The structure on the three levels of education (tertiary, medium and low) and age group is shown in Figure 7. As you can see they are totally different. Maximum share of the population with tertiary education is 35.4% being recorded in the age group of 25-34 years, followed by a difference of 6.5 percentage points by age group 35-44 years (28.9%) and group 45 - 54 years (21.0%). Age groups between 25 and 54 years include 85.3% of total employment with tertiary education. The average age of this group of employees in the South-West Oltenia is 39.5 years.

Although a similar structure, employment with medium level of education is maximum share of 35.1% in the age group 35-44 years, followed approximately the same level the age group 45-54 years (23.6%) and age group 25 -34 years (23.5%). The average age of this group of employees is 40.2 years with only 0.7 years older than employees with tertiary education, but represented symmetrically about it.



Figure 6. The employment structure by level of education and by age groups in the South-West Oltenia region in 2010 year (%)

Age structure of employees with low education differs completely from the others. The average age of this group of employees is 48.5 years. The largest share (25.0%) was recorded in the age group over 64 years followed by the age group 55-64 years (21.9%). Employees with low education, in this age group, are most at risk (with high probability of reaching unemployed) in the case of restructuring in sectors in which they work.

Employment structure by level of education and age group is particular if one takes into account the employees' gender. As can be seen from Figure 7, the South West region, except for the age group over 64 years, in all other age groups, the number of male is higher than female. The biggest difference is recorded in the age group 35-44 years (34 000 persons), followed by age group 25-34 years (32,000 people). To note that although the retirement age for female is lower than that of male in the South-West Oltenia, in the age group 55-64 years, the number of male and female is approximately equal, over 64 years the number of female employed exceeds with 12,000 the number of male employed.

Regarding the structure by level of education is noted that in the age group 25-34 years, the number of female with tertiary education exceeds the number of male by 4000. We believe that this is evidence of cultural changes in the analyzed area.

Average ages of employees by level of education and by sex are close to those determined above. Note that the average age of female with tertiary education is 39.5 years, outpacing that of male, in the same category of employees, by 40.2 years.

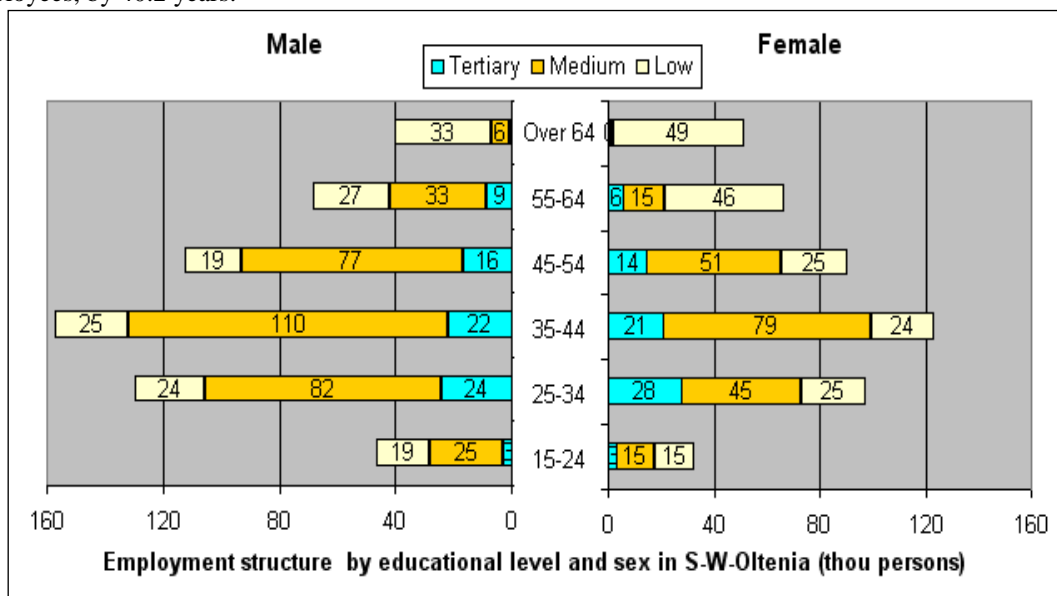


Figure 7. The employment number by level of education, sex and age groups in the South-West Oltenia region in 2010

In percentage terms, the structure of the employees by education levels, sex and age groups in the South West Oltenia region, is illustrated in Figure 8. The results presented underlines the findings set out above. Age structure of both female and male with low educational level differs from the other. Thus, in case of the employees with medium education, the female recorded the maximum share of 38.2% in the age group 35-44 years, followed by 45-54 years age group (24.7%), outpacing the share of male.

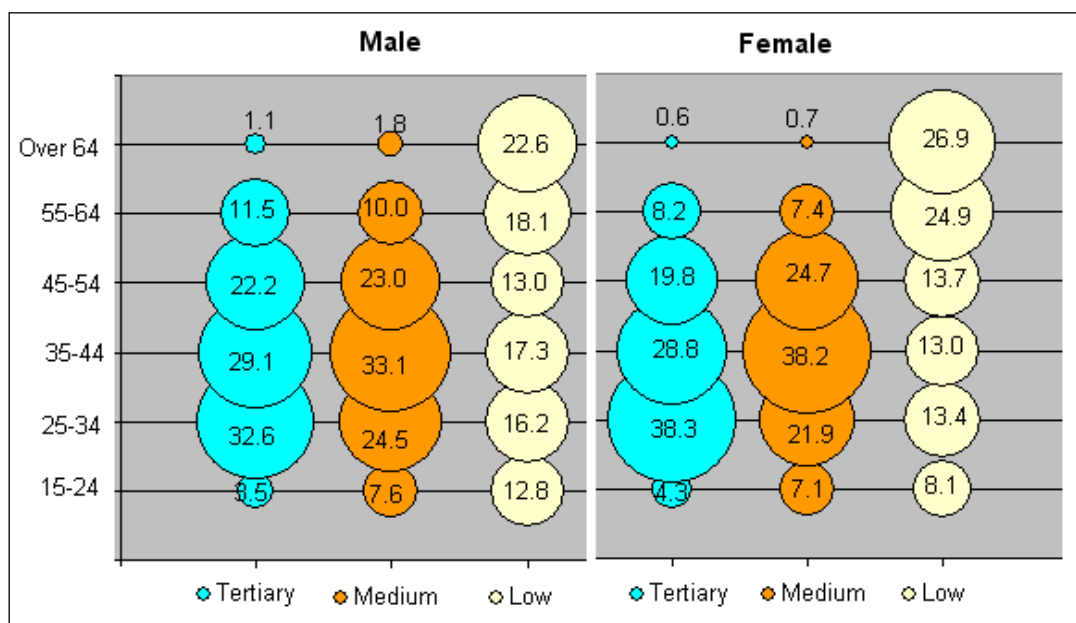


Figure 8. The employment structure by level of education, sex and age groups in the South-West Oltenia region in 2010 (%)

Also, in the case of employees with tertiary education, female recorded the maximum share of 38.3% in the age group 25-34 years. Although the maximum share of males with tertiary education is recorded in the same age group, it is 32.6%, much lower than that of female.

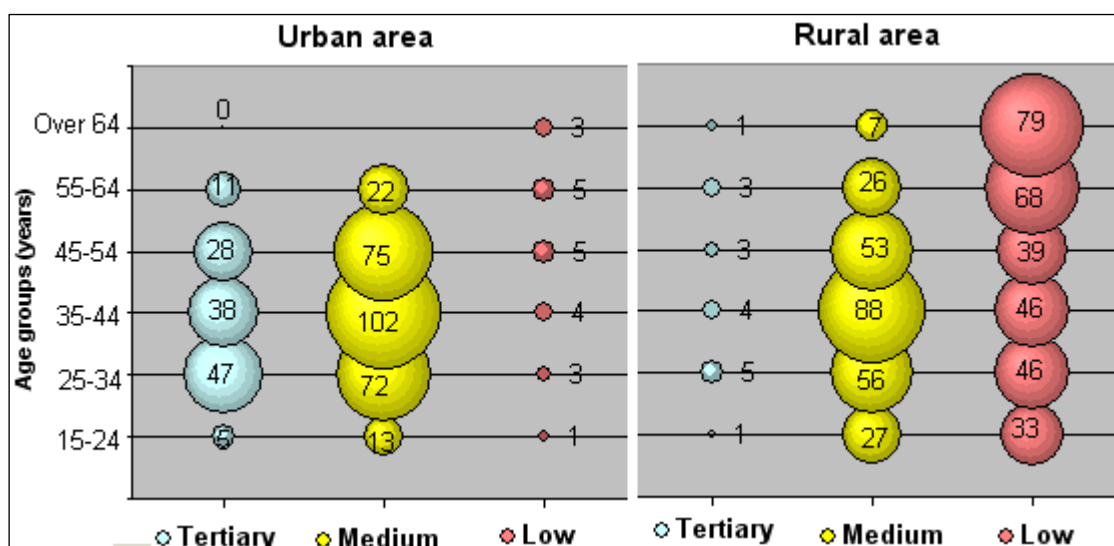


Figure 9. Structure of employed population by level of education, age and the area in the South-West Oltenia in 2010 (thou persons)

Finally, if we analyze the structure of employment by the levels of education and area, in South West region result a very large difference. If both urban and rural employed population with medium level of education registered significant percentage (65.4% in urban and 44.9% rural), the other two categories are totally in opposition. While working population with tertiary education is overwhelmingly in urban area (88.4%), employed population with low education levels there are in rural areas (93.7%).

One conclusion that can be drawn here is that the South West region, in rural areas, the percentage of employed population by low education levels between 25 and 64 years is 46.6% of the total population, and with people with a medium education reached 96.8% of the total, is a weakness of this region.

5. Conclusions

Although, in terms of economic developments in the period 2000-2011, we witnessed until 2008 to a period of growth followed by decline due to the economic crisis started which has not yet finished, the employment rates recorded in Romania during throughout the period were influenced primarily by the economic policies of the governments of the period and to a lesser extent by growth periods respectively the economic crisis. Strong reduction of the employment rate of people with low education in the period 2000 - 2002 due to restructuring measures that have taken place during that period, and decreased since 2007, the employment rate of people with medium education was determined both the economic crisis as well as the restriction of economic activities in some areas.

Compared to developments in Romania and the Macro 4 the employment rates and structure of employees have certain characteristics. Thus, for employees aged up to 45 years, the age structure in the South-West Oltenia and Western which form Macro 4, is about the same. Significant difference are in 55-64 age group and especially in the age group over 64 years, which, in South West Oltenia represents 9.05% of total employees, compared to only 1.74% in the West region.

Another feature is the significant difference between age structure, both female and male with low education than those of employees with medium education, tertiary education respectively. Also, in the case of employees with tertiary education aged 25-34 years, female registered the maximum percentage of 38.3% compared to the percentage of male with the same level of education, which is 32.6%.

Finally, if the South West Oltenia region, both urban and rural employed population, with medium education registered significant percentage (65.4% in urban and 44.9% rural), the percentage of employed population with low education between 25 and 64 years is 46.6% of the total population, so that together with the population with medium education, reach to 96.8% of the total, which is a weakness of this region.

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