

## Economic Analysis of Employment

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**Abstract:** *In social policy, a distinct field is the employment policies. Their aim is to maintain and increase employment through direct or indirect actions. These actions are intended to provide jobs for young people entering the labor market, for the unemployed and others who want to hire as employees. This paper aims to achieve a perspective on labor market and employment policies with its typologies, causes, effects, generated by these policies on the individuals and society. The employment impact on the population identifies and examines various indicators of the labor market.*

**Keywords:** labor market; labor resources; occupancy rate.

**JEL Classification:** E44; J11.

### 1. Introduction

In the employment of resources, occupational structures occupy a special place, these being analyzed in time and space. The link between quantitative demo-economic and qualitative aspects consists of the structures of employment, showing the efficiency of labor resources usage.

Over the decades, structural analysis of human resources has become increasingly broad and deep, with the development of demography, sociology of work and economics, using various criteria for grouping and regrouping of labor, the most common criteria being: social sectors - economic (primary, secondary, tertiary), qualifications, age, urban or rural environment, professional status.

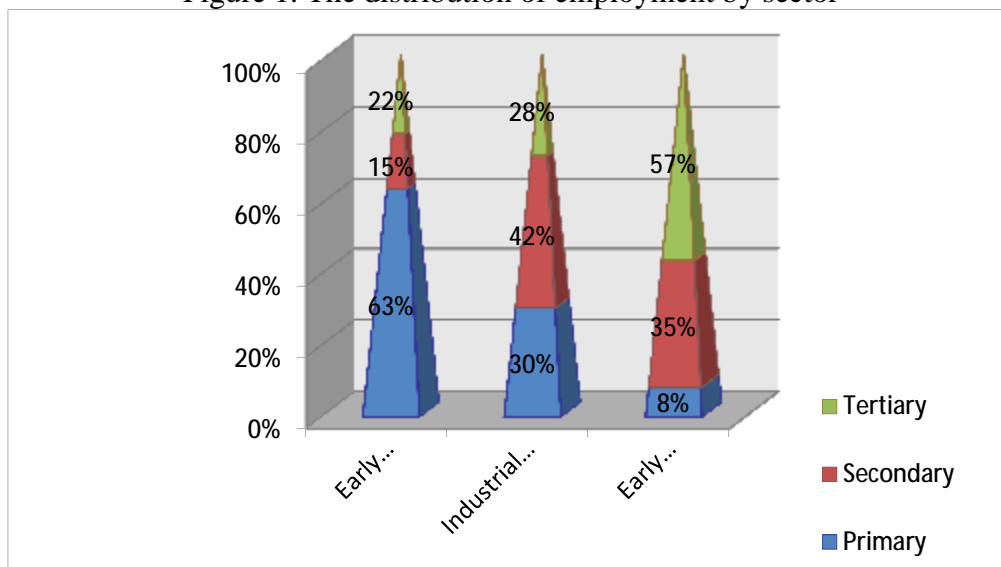
### 2. Atypical developments of employment resource analysis

We begin analyzing and exposing problems related developments specific atypical social sectors - economic presentation occupational structure of the employed population.

In the social – economic sector, we highlight the situation in Romania in relation to the global evolution of this phenomenon, based on the correlation between the distribution of employment in three sectors and three historical periods (early industrialization, industrial period and early postindustrial civilization). Over the three periods, worldwide, there has been a decline in the primary sector, in contrast to a sharp increase in people employed in the tertiary sector. During the industrial period, the secondary sector is growing, with the highest

proportion of the three sectors, as a result of industrial development while in the post industrial, services were to hold the largest share (see figure 1).

Figure 1. The distribution of employment by sector



Source: Dobrotă, N., Aceleanu, M., I. (2007) Employment of labor resources in Romania, Ecoomic Publishing House, Bucharest

Romania is part of the group of countries with low average income per capita. In these countries there has been an increase in employment in the industry even in the post-industrial period, which historically speaking is an atypical evolution.

In recent years, the service sector has grown in importance, both worldwide and in our country. The difference lies in the fact that in Romania services that require higher qualifications have not developed in favor of services that require low qualifications.

At the turn of the century, these types of restructurings presents notable features, as can be seen from the following table (see table 1).

Table 1. Population by sex, age groups and environment (million inhabitants)

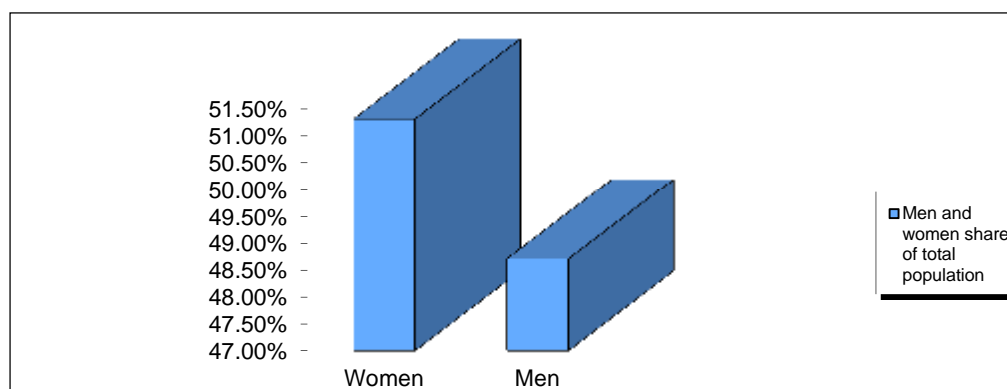
	2008	2009	2010	2011
By sex				
Male	10,5	10,5	10,4	10,4
Female	11,0	11,0	11,0	11,0
By age groups				
0-14 years old	3,3	3,2	3,2	3,2
15-59 years old	14,0	14,0	13,8	13,8
60 years old and older	4,2	4,3	4,4	4,4
By environment				
Urban	11,8	11,8	11,8	11,8
Rural	9,7	9,7	9,6	9,6
Total	21,5	21,5	21,4	21,4

Source: [www.insse.ro](http://www.insse.ro)

According to statistics, from 1 January 2011 Romania had a population of 21,413,815 inhabitants, of which 10.4 million men (48.7%) and 11.0 million women (51.3%). Between

2008 and 2011 negative values of natural increase combined with those of external migration caused the population to decrease with 114 800 people. Thus population bears the imprint of a specific population aging process, marked by declining birth rates, which reduced the absolute and relative young population (0-14 years), and the increasing proportion of elderly (60 years and over). Compared to January 1, 2008, in 2011 the share of young population (0-14 years) had been reduced from 15.2% to 15.1% while the share of the elderly (60 years and over) increased from 19.5% to 20.5%. Adult population (15-59 years) represent 64.4 % of total, down 266 thousand compared to 2008. In the adult population, the share of the age groups 30-34 years , 40-44 years , 55-59 years has grown, and that of the age group 15 - 19, 35-39 years , 45-49 years decreased (see Figure 2).

Figure 2. Share of men and women in total population



Source: personal processed data from [www.insse.ro](http://www.insse.ro)

The labor market in Romania has undergone significant changes in the process of economic transition regarding the volume and structure of the main indicators of labor. The process was characterized by reduction of the active population and employment while maintaining relatively constant values of the unemployment rate. The financial crisis onset, especially in the second half of 2008 had an effect on the structure of the workforce, bringing an increase in the phenomenon of unemployment at the same time with the diminution of occupied population<sup>75</sup>. During the last half of the 90's, the active population is maintained at a high level (11 million people), the new millennium starting with a significant decline in the indicator. After 2002 the active population fluctuated around 10 million. Active population counts in 2011, 9.868 million, of which 96.1% are in the working age group (15-64 years).

In the period 2005-2008, increase of employment continues and since 2009 it began to decrease, reaching in 2011 the lowest recorded value (9.138 million people). Men represent 55% of employed persons. The majority of employment was from rural environment until 2002. Since 2003, most of the employed population resides in urban areas - 55.5% in 2011. Employment prevails among occupied population with a value of 67.3% in 2011 (see table 2).

In 2011, the number of unemployed was 730 000 people, which is 0.7% more than in 2010 and compared to 2009 is 7.3% more. Of the total number of unemployed existing in 2011 28.8% were young (15-24 years).

<sup>75</sup> Burghelea, C. (2011) "Economic Crisis perspective between current and forecast", *Theoretical and Applied Economics*, Vol. XVIII, No. 8, pp. 137-147.

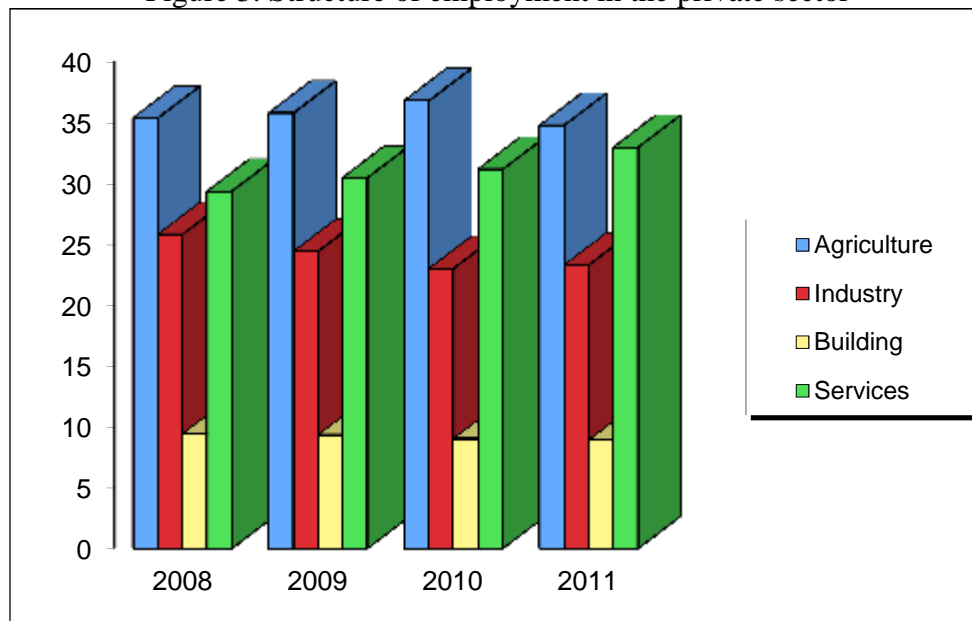
Table 2. Active population, occupied population and ILO unemployment (thousands)

	2008	2009	2010	2011
Total active population	9944	9924	9965	9868
Women	4418	4400	4416	4411
Urban	5471	5475	5538	5563
Total occupied population	9369	9243	9240	9138
Women	4212	4143	4128	4112
Urban	5101	5032	5032	5072
Total unemployed	575	681	725	730
Women	206	257	288	299
Urban	370	443	506	491

Source: [www.insse.ro](http://www.insse.ro)

Structure of employed population is a representative indicator for the activity level of development of a country is widely used in international comparisons (see Figure 3). Proportion of population in agriculture, industry or services reflect a particular model of economic development, especially in the current conditions, when the global major structural changes occur.<sup>76</sup>

Figure 3. Structure of employment in the private sector

Source: personal processed data from [www.insse.ro](http://www.insse.ro)

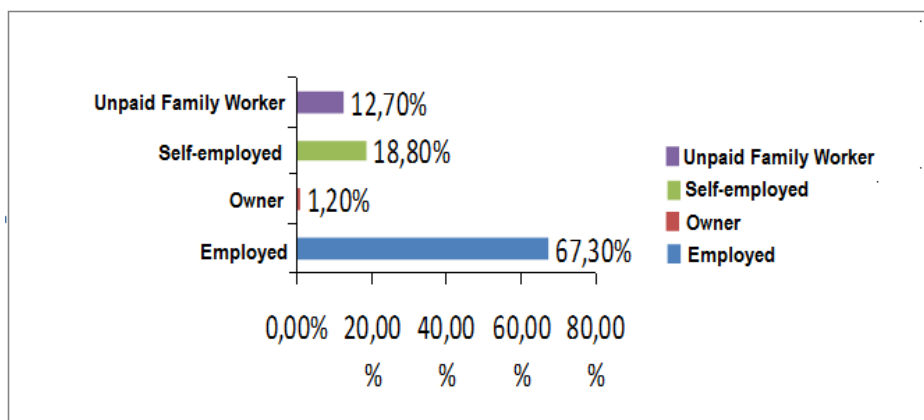
In the years of the analyzed period (2008-2011) the share of private sector employment remains around 80%. Of total employment in the private sector in 2011, 65.2%

<sup>76</sup> Gheorghiu, A., Gheorghiu, A., Spânulescu, I., (2009) “[Target market risk evaluation](#)“, *Proceedings of the International Conference on Econophysics, New Economics & Complexity - ENEC-2009*, Editura Victor, București, ISSN 2065-2550, p.113.

were active in industry, construction and services, compared to 63.2 % in 2010. Average number of employees in 2010 was 4.376.000, decreasing by 398.300 people compared to the previous year, which is a direct effect of the economic crisis triggered in the second half of 2008. The most pronounced decreases were recorded in the following activities: manufacturing, construction and trade. In 2011, the distribution of employees by economic sector shows that 61.8 % are in services (tertiary sector), up by 1.3 percentage points compared to 2009 and by 4.8 percentage points compared to 2008. 36.0% of all employees working in the secondary sector by 1.2 percentage points less than in 2009, and 4.9 percentage points less than in 2008. In agriculture (primary sector), the share of employees who have worked was only 2.2% , which is down 0.1 percentage points from the previous year and up 0.1 percentage points year 2008.

The transformation of the economic structure led to significant changes in the occupational structure of the population (see Fig. 4). There were job losses in the industry, which is partially offset by emerging jobs in services and industries. Conducting an analysis on the market was hampered by fewer jobs. This analysis is accompanied by an important activity in the economy, hybrid forms of formal and informal activities.<sup>77</sup>

Figure 4. Structure of employed population by employment status



Source: personal processed data from [www.insse.ro](http://www.insse.ro)

Activity rate and employment rate express participation of the nation in the labor force. These rates are influenced by the decrease in the active population and employment, which follows the slower decrease of the total population, the high share of employment in agriculture, the increasing number of those who go to work abroad, fewer employees, and changing the methodology of calculation of these indicators (see Table 3).

<sup>77</sup> Mărcuță, L., Mărcuță, A., Tindeche, C., (2013) "Analysis of Romanian GDP during crisis", *20th International Economic Conference - IECS 2013, Post Crisis Economy: Challenges and opportunities*, Sibiu, România.

Table 3. Activity rate and employment rate, by sex and area (%)

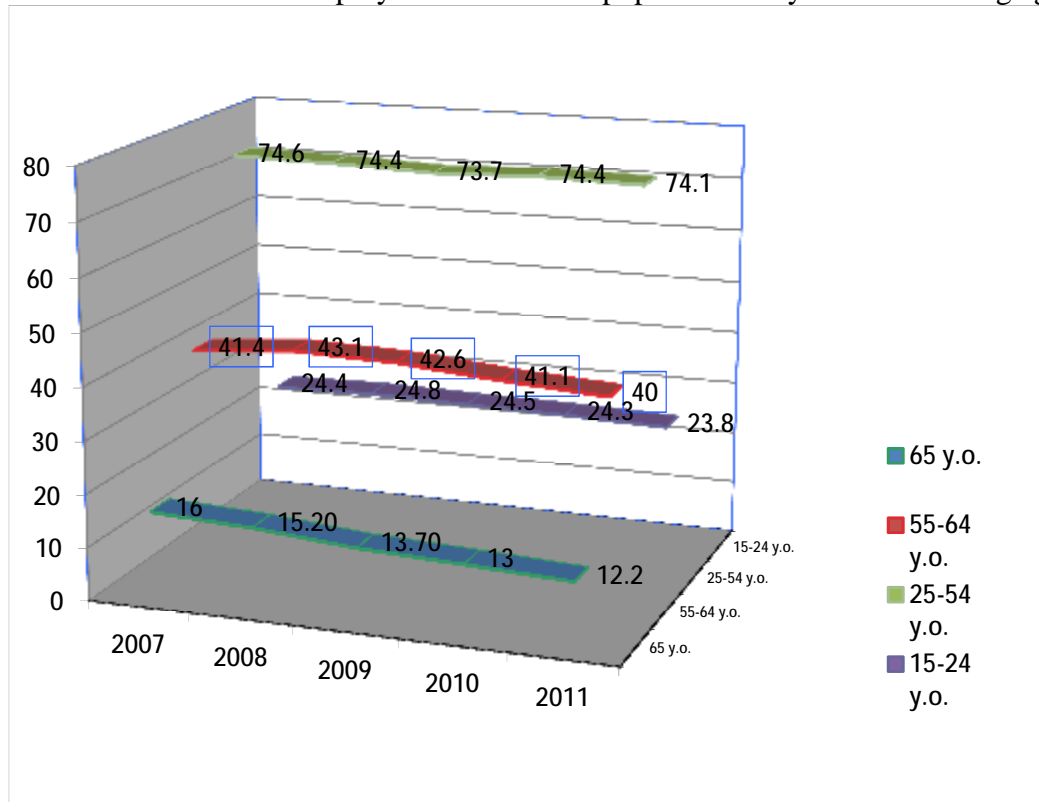
	2008	2009	2010	2011
Activity rate				
Male	70.6	70.9	71.5	70.7
Female	55.2	55.4	55.8	56.0
Urban	61.7	62.1	63.1	63.9
Rural	64.5	64.6	64.4	63.9
Total	62.9	63.1	63.6	63.3
Employment rate				
Male	65.7	65.2	65.7	65.0
Female	52.5	52.0	52.0	52.0
Urban	57.5	57.1	57.3	58.2
Rural	61.2	60.7	60.9	58.8
Total	59.0	58.6	58.8	58.5

Source: [www.insse.ro](http://www.insse.ro)

In 2011, the activity rate of the working age population (15-64 years) was 63.3%. It recorded higher levels for the male population (70.7% versus 56.0% for the female population) and in urban areas (63.9% compared to 62.6% in rural areas).

One of the indicators expressing the demand for labor in the labor market is the vacancy rate, which was 0.64% in 2011 (an increase of 0.05 percentage points from the previous year, and 1.42 percentage points compared to 2007, when the vacancy rate recorded the highest value) (see figure 5).

Figure 5. Evolution of the employment rate of the population 15 years and over age group

Source: personal processed data from [www.insse.ro](http://www.insse.ro)

Among graduates of higher education there has been the highest employment rate for people of working age (82.1%). As well as education level decreases, employment declines too. Thus, 62.3% of the average level of education are employed and only 40.5% of those with low education are. The increase over the previous year (92 000 persons), employees, still hold the largest share (67.3%) in total employment. Self-employed and unpaid family workers accounted for 31.5% of employment in 2011.

Skilled workers in agriculture, forestry and fishing accounted for 23.1 % of the total employed population distributed by occupations. The total employment had a significant share of skilled workers (15.6%), specialists in various fields (14.0%) and service sector workers (12.8%). Depending on the distribution of employment by activity data shows that 28.6% of total employment were concentrated in agriculture, industry and construction 28.8 % , and 42.6 % in services. 6.525 million individuals were employed in non-agricultural activities, with significant shares held by those operating in manufacturing (25.6%), trade (17.9%) and construction (10.4%). Compared to 2010, the number of people who work in agriculture, forestry and fishing significantly decreased ( -167 000 persons), but also of those who worked in construction (-24,000 persons), energy production (-11 000 persons), mining, transport and storage (all down by ten thousands). The average length of the working week in 2011 for main activity was 39.2 hours per week, 227.000 persons carrying out secondary activities, thus working on average 14.8 hours per week. In 2011 from total employment, 956 000 persons worked part-time. (see Table 4).

Table 4. Activity and employment rate by age in 2011

Rates	20-64 years old	15-24 years old	25-54 years old	55-64 years old
Activity rate - 63%	67,8%	31,1%	79,1%	41,5%
Employment rate - 58,5%	62,8%	23,8%	74,1%	40,0%

Source: [www.insse.ro](http://www.insse.ro)

### 3. Economic future

An issue of utmost importance for the future of any nation is the structure of the economically active population and demographic situation even before the technological level and quality of products, technical-productive capital and financial resources necessary for economic development.

Since 1912, population evolution was possible based on the information available when the Romanian population was 12,768,399 people. Modern sense of the theory of demographic transition is important for analyzing the evolution of the population of Romania. This theory was created in the last half of the twentieth century and reflects the evolution of the Earth's population in the last 250 years. Since the eighteenth century, the demographic transition is an evolutionary process that has been observed in a number of populations, is characterized by a significant decline in mortality and birth rates. Demographic transition has become a more complex process in this view, becoming an integral part of the modernization of society.

Unlike the Nordic countries and Western Europe, Romania entered the demographic transition later, this gap is due to the sustainable economic, social and political delayed compared to Western Europe.

Between 1930-1940, Romania's population showed an increasing trend. As a result of the low birth rate and human losses caused by the war, during 1940-1946, the population decreased. Our country has recorded the highest population growth rate between 1966-1977 as a result of measures to ban abortion, natural increases being in 1966 - 1978 about 3 times

higher than in the years 1964-1966. Another atypical evolution of the Romanian population is marked by the period 1979-1991, which recorded an increase of about 1.3 million people. Changing the evolution of the population was marked by the start of the transition to a competitive market economy. Dynamics of Romanian population showed a continuous upward trend during 1950-1991, and since 1992, it was characterized by a downward trend. Following the accelerated decline of the birth rate and the increasing trend of mortality during 1992-1998 has seen a decline in their population, and adding to this negative balance of external migration. Since 1992, Romania's population declined steadily from 22.800.035 people to 21,733,556 people in 2003, reaching 21,584,356 in 2006 and 21,413,815 inhabitants in 2011. This decline was due mostly negative natural growth of the population, due to result of lower fertility and low birth rate per 1,000 inhabitants.

According to all estimates on the evolution of the Romanian population, it is decreasing and it will to decline in the future until at least 2050. Forecasts to 2050 show that for 100 active citizens there will be 149 inactive, and the population over 65 will exceed 5 million, from 3 million, as it is today. Increasingly stronger decrease of young population aged 3-20 years will have a significant impact, reducing by 2050 from 5 million to 2.7 million people (see Table 5).

Table 5. Population decrease between 2011-2050

Country	Population (thousands people) 2011	Population (thousands people) 2050	Absolute decrease
Romania	21.390	18.678	2.712
Armenia	3.100	2.943	157
Bulgaria	7.476	4.651	2.825
Germany	81.726	73.607	8.119
Austria	8.419	7.521	8.98
Russia	141.930	115.113	26.817
Spain	46.235	35.564	10.671
Japan	127.817	99.887	27.930
Italy	60.770	50.390	10.380
Hungary	45.706	8.375	37.331
Greece	11.304	10.036	1.268
Belgium	11.008	9.067	1.941
Poland	38.216	33.780	4.436

Source: Dobrotă, N., Aceleanu, M., I. (2007) *Ocuparea resurselor de muncă în România*, Economic Publishing House, Bucharest

Demographic evolution in Romania have an atypical character that can be materialized: the population trending downward on the background of robust growth all over the world, change the direction of development since 1991 and this downward trend continued to 2050, the larger intensity of population reduction from all countries in depopulation process, large differences between the rates of decline after 1991, compared with growth in the years 1968-1990.

This trend of population decline was recorded in most European countries, which, together with the migration (to attract labor from other countries) will affect Romania as highly developed countries (especially from the Northern Europe) have programs attracting young labor from other countries to solve the problem of depopulation in their case.

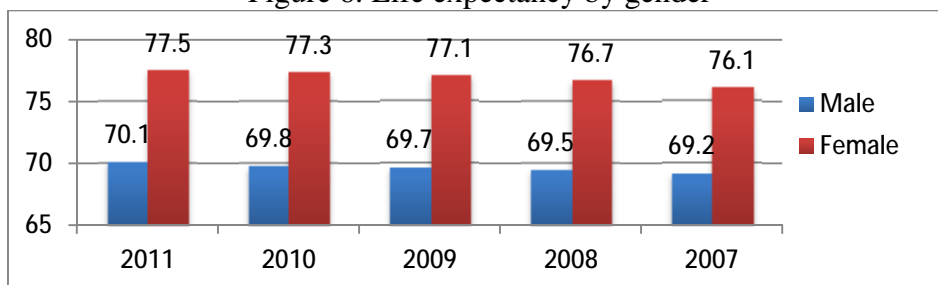


The starting point in the design and development of strategies and policies aimed at labor market is represented by the evolution of the Romanian population, whereas the effects on labor resources, on labor supply, are major.

The first component of population movement is birth rate, which recorded a decrease, although in the short and medium term mortality can not contribute significantly to reducing demographic decline in Romania. The only component that can be acted on with effective results remains birth. This can have positive and long lasting. The number of live births (196,200), registered January 1, 2011, decreased by 25.700 compared to 2008.

The second component of population movement is mortality, which remained relatively high in Romania. In light of the demographic should be considered significant continued growth of the level of this component. On 1 January 2011, there were 251 400 deaths, by 1800 more people than in 2008. In the same year there were 1900 deaths of children under one year. Both urban and rural, lower infant mortality was mainly due to the reduction postneonatal mortality (see Figure 6).

Figure 6. Life expectancy by gender



Source: personal processed data from [www.insse.ro](http://www.insse.ro)

The actual values of life expectancy continued to rise (70.1 years for men and 77.5 years for women), being higher than in 2008, both overall and by gender. Life expectancy increased by 0.8 or 0.6 years, both for the female population and for the male. Compared with men, women have a higher average life of 7.4 years. However, the literature speaks more about the quality of life, so about increasing the length of quality life, which includes many other economic and social issues to be taken into consideration.

#### 4. Conclusions

Employment policy is part of the social policy of a country, with pension and social insurance, social assistance and family policies, labor relations, safety and health, health insurance policies in the sphere of housing and housing policies in education, social policies probation / social reintegration of persons delinquent and other social policies.

The future strategy and employment policies should start by fixing some fundamental objectives: revival of economic growth by creating new productive units and thereby new jobs, especially in key sectors of the economy, growth in a higher pace, jobs in research, innovation and education, along with greater attention to staff in these sectors (wages, basic material conditions documentation, relations with other countries, etc.). stimulating technological progress businesses by bringing them to the (or at least near) the competitiveness of other countries and making some serious changes in working conditions and labor system so as to generate sustainable motivation to bidders to occupy available jobs.

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