



## ANALYTICAL HIGHLIGHT

PROSPECTS FOR  
**Romania**

- Romania's employment rate was 63.9% in 2013 – lower than both the national 2020 target of 70% and the EU-28 2020 target of 75%.
- Employment growth in the next decade is anticipated to remain low overall, concentrated mainly in highly-skilled occupations and in elementary occupations.
- More jobs are to be created by 2020 in engineering and construction, the healthcare sector, and the economics and legal fields.
- Significant labour shortages are anticipated in all occupations in the healthcare sector due to emigration, but also in the manufacturing, construction and hospitality sectors.

**Sharp decline in job vacancies and scarce job opportunities for young people**

After reaching a peak of 64.8% in 2006, and remaining constant at 64.4% between 2007 and 2008, Romania's employment rate fell to 62.8% in 2011 as a consequence of the recession. It has slightly recovered since then, reaching 63.9% in 2013, hence returning to the rates preceding the economic growth in 2006-2008. However, Romania's employment rate remains below the national target of 70% and is among the lowest third of countries in the EU-28.<sup>1</sup>

The economic crisis revealed the vulnerabilities of Romania's unsustainable economic growth resulting in the sharpest decline in job vacancies in the EU, dropping by 69% between 2008 and 2013, thus reflecting the effects of the economic crisis on the labour market.<sup>2</sup> The yearly increase in the number of vacancies remains lower than the yearly increase in the number of unemployed, and is currently the lowest in the EU.<sup>3</sup>

Most vacancies reported in 2014 were in the service sector, health and social assistance, manufacturing and financial insurance.<sup>4</sup> The highest numbers were registered for professionals, equipment and machine operators and assemblers and for elementary occupations.<sup>5</sup> In 2013, the highest number of unemployed was in farming, manufacturing, public works, construction of buildings, cargo handlers, builders and installers of steel structures and salespersons, most concerning low-skilled workers.<sup>6</sup> The paradox is that the same occupations had the highest number of vacancies in the same year, the explanation lying in the poor and unattractive working conditions for the jobs in question.

In Romania, job opportunities for young people are much scarcer than for those aged 30 and over. This results in the employment rate for persons under the age of 25 being three times lower than 25-34 and 35-54 age groups and twice lower than those aged 55-64. Notably, young men seem to find a job easier than young women in general.<sup>7</sup> Concerning unemployment, the rate for young people is four times higher than the rate for persons aged 25 or above and, in some regions, even 5.5 times higher; 41.5% of the young unemployed have been in unemployment for

<sup>1</sup> Eurostat (2014)

<sup>2</sup> European Commission (2014), European Vacancy Monitor <http://ec.europa.eu/social/main.jsp?catId=955>

<sup>3</sup> National Employment Agency (2014), Activity Report for 2013 <http://www.anofm.ro/files/RAPORT%20ACTIVITATE%20ANOFM%20%202013.pdf>

<sup>4</sup> National Institute of Statistics (2014), Monthly Statistical Bulletin, July 2014 [http://www.insse.ro/cms/files/arhiva\\_buletine2014/bsl\\_7.pdf](http://www.insse.ro/cms/files/arhiva_buletine2014/bsl_7.pdf)

<sup>5</sup> Ibid.

<sup>6</sup> Ibid.3

<sup>7</sup> Ministry of National Education (2013), Analysis of needs for education and training in Romania 2013 <http://www.edu.ro/index.php/articles/18802>

a year or more.<sup>8</sup> Moreover, as shown in Table 1, unemployment among young people has systematically been much higher than the rest of the population, revealing a structural problem, rather than a consequence of the recession. To address this structural difficulty in integrating young people into the labour market, Romania has adopted (in 2013) a national plan for stimulating youth employment.<sup>9</sup>

▼ Table 1 – Evolution of unemployment by age in 2006-2013 (%)

Age group	2006	2007	2008	2009	2010	2011	2012	2013
Under 25	20.2	19.3	17.6	20.0	22.1	23.9	22.6	23.7
25 or above	5.6	4.9	4.3	5.2	5.6	5.7	5.4	5.7

Source: Eurostat (2014)

The imbalance in unemployment between young people and adults is closely linked to the imbalance in educational attainment. While unemployment rates for the low-skilled and medium-skilled have remained constant in the last years, unemployment among the high-skilled workforce, most of which are young people, has increased. This imbalance is illustrated also by the sharper fall in employment rate for higher education graduates, which is steeper than the EU average. An even clearer picture is given by the fact that in the 2000-2010 period although the total number of those unemployed fell by about 50,000 people, the number of unemployed with a university degree increased by about 50,000 people.<sup>10</sup> This high imbalance is explained by the increase in 2000-2010 in the number of university graduates, hence stronger competition for the relatively limited number of vacancies for the high-skilled. To remedy this situation, local and regional public employment services have been working with local employers to design appropriate training courses for the unemployed so as to improve their skills and access to the labour market.<sup>11</sup>

However, despite the economic crisis, the share of the highly-skilled in the total workforce – defined as the number of people in employment – doubled in the last decade while the share of low-skilled and medium-skilled dropped (see Table 2). This trend suggests important structural changes in employment by educational attainment, which is expected to continue and be accentuated in the next decade.<sup>12</sup> It is important to note the large discrepancies in the structure of the workforce in urban versus rural areas, the former having 28.4% highly-skilled labour compared to 5.1% in rural areas in 2011. There is also a considerable difference by gender as 22% of the female workforce is highly skilled compared to 16.3% of the male workforce.<sup>13</sup>

▼ Table 2 – Changes in the share of total workforce by educational attainment

Proportion in total workforce by level of education	Share		
	2000	2008	2011
Total ISCED 0-2	36.5%	24.5%	23.3%
Total ISCED 3-4	54.7%	60.7%	59.2%
Total ISCED 3-5	8.9%	14.8%	17.6%

Source: National Authority for Qualifications (2012)

Imbalances in employment are acute also between the eight big regions in Romania, as well as between rural and urban areas. Although employment rates have dropped in all regions as a result of the economic crisis, some were affected much more than others. Nevertheless, the large regional variations in employment have not increased since 2008, but have remained, proving a structural problem rather than a result of the crisis.<sup>14</sup> In 2012, the share of long-term unemployment varied between 20.9% in the South-Muntenia region and 1% in the capital region, reflecting big gaps in job opportunities between regions.<sup>15</sup>

Despite the imbalances by age, educational attainment and between regions, Romania's overall unemployment rate has not increased much and remains lower than the EU-28 average, which is the same also for long-term unemployment. This is explained by two major trends affecting the labour market in Romania: the high level of informal economy and employment and the high level of emigration of those who cannot find jobs in the country. Notably, more than 3.1 million Romanians emigrated between 1989 and 2012 representing 13.1% of the entire population, the vast majority of which were young people and those under the age of 50.<sup>16</sup>

Given the output growth in ICT and industry sectors in 2013-2014<sup>17</sup>, the highest employment increases in the past year have also been in these sectors, specifically in ICT and professional, scientific and technical activities as well as in industry and construction.<sup>18</sup> In the ICT sector in particular, the proportion of young employees aged 15-29 was 33% in 2012, significantly above the EU average. The growth in the ICT sector is explained by the Romanian government's measures to retain qualified workforce in this sector, particularly through incentives and tax breaks, stimulating the creation of a software developer cluster.<sup>19</sup>

The employment in the health and social care sector dropped, following a divergent trend compared to the rest of the EU. This drop in employment is mainly due to crisis induced quasi-recruitment freeze aimed at reducing the size of the public health sector. However, severe recruitment difficulties in the health sector suggest that also labour supply shortages contribute to the observed decline in employment.<sup>20</sup> The sectors with

8 National Authority for Qualifications (2012), Socio-economic analysis of the specific field of Employment of the Theme Advisory Committee: Employment, Social Inclusion and Social Services – Working Group on Training and Social Innovation [http://www.anc.edu.ro/uploads/images/Statistica/Okosp\\_Analiza%20socio-ec%20formare%20profesionala%20si%20inovare%20sociala.pdf](http://www.anc.edu.ro/uploads/images/Statistica/Okosp_Analiza%20socio-ec%20formare%20profesionala%20si%20inovare%20sociala.pdf)

9 Ministry of Labour (2013), National Plan for stimulating youth employment <http://www.fundatia.ro/elisa/sites/default/files/Plan%20national%20stimulare%20ocupare%20tineri.pdf>

10 National Research Institute for Labour and Social Protection (2011), Preliminary Report for the assessment and forecasting of potential labor demand for university graduates in occupational structure by 2020, in order to develop appropriate university-level education policies.

11 European Commission (2013), Bottleneck Vacancies in Romania <http://ec.europa.eu/social/BlobServlet?docId=12668&langId=en>

12 Ibid.8

13 Ibid.7

14 Ibid.

15 Ibid.8

16 National Institute of Statistics (2014), International migration of Romania [http://www.insse.ro/cms/files/publicatii/pliante%20statistice/Migratia\\_internationala\\_a\\_Romaniei\\_n.pdf](http://www.insse.ro/cms/files/publicatii/pliante%20statistice/Migratia_internationala_a_Romaniei_n.pdf)

17 Ibid.4

18 Ibid.

19 Ibid.11

20 Ibid.

▼ Table 3 – Evolution in workforce in Romania compared to EU-27

	Proportion in total workforce by occupational group in 2010 in Romania and in EU-27		Evolution in workforce structure between 2010 and 2020 by occupational group	
	Romania	EU-27	Romania	EU-27
Legislators, officials & managers	2.8%	8.5%	37,000	1,440,000
Professionals	10.0%	14.3%	62,000	2,675,000
Technicians & associate professionals	10.4%	17.0%	96,000	4,471,000
Clerks	4.5%	10.6%	52,000	-1,193,000
Service & sale workers	10.2%	14.2%	125,000	2,196,000
Skilled agricultural & fishery workers	25.3%	4.3%	-509,000	-2,036,000
Craft & related trade workers	14.0%	12.7%	-90,000	-2,143,000
Plant and machine operators and assemblers	10.6%	8.5%	58,000	-124,000
Elementary occupations	12.1%	10.2%	151,000	1,991,000
Total	100%	100%	-14,000	7,224,000

Source: National Research Institute for Labour and Social Protection (2012)

the biggest job losses in 2013 were metallurgy, civil engineering, construction, chemical industry, transports and information technology.<sup>21</sup>

### Future growth remains modest and active workforce is shrinking

The overall employment growth in Romania is estimated to remain modest by 2025 with the sixth lowest increase in the EU-28. The biggest increase in employment is expected in the services sector while the primary sector and utilities is expected to suffer a significant decrease in employment, steeper than the EU average,<sup>22</sup> as shown in Table 4.

▼ Table 4 – Change in employment by major sectors of the economy by 2020

Difference 2020 vs. 2010	Romania	EU-27
Primary sector & utilities	2.8%	8.5%
Industry and construction	10.0%	14.3%
Services	10.4%	17.0%

Source: National Research Institute for Labour and Social Protection – INCSMPS (2012)

The size of the active workforce has been shrinking since 2000 and is anticipated to continue shrinking in the decades to come as a result of acute population ageing, negative demographic growth and a constant decrease of the Romania's population due to emigration. Given the decreasing birth rates, it is estimated that the share of 15-24 year-olds will dramatically fall by 27% until 2020.<sup>23</sup> As a result of this trend, the

old age dependency ratio is projected to rise by 43.4 percentage points by 2060 – from 21.4% in 2010 to 64.8% in 2060.<sup>24</sup> The number of inactive people aged 15-64 is estimated to remain constant and bigger than the active workforce, amounting to 11 million and 9.1 million, respectively.<sup>25</sup> All these trends are expected to put pressure on the country's economic growth and to challenge the maintenance of the pension system and the welfare state in Romania.

It is estimated that between 2013 and 2020, more jobs will be created in engineering and constructions as well as in the healthcare sector (with an accelerated increase in 2013-2015) and in the economics and legal fields, where the number of job openings will outgrow the number of graduates. A decrease in the number of jobs is expected in pedagogical and human sciences, arts and languages.<sup>26</sup>

### Continued growth in high-skilled jobs and changing occupational structure

Romania experienced changes in the occupational structure of its workforce in the last decade, which is expected to continue by 2020. The share of skilled agricultural and fishery workers in the total workforce dropped significantly while the share of service and sales workers, professionals and workers in elementary occupations increased.<sup>27</sup> These changes in the occupational structure of the workforce follow

21 Ibid.3

22 Ibid.8

23 Ibid.7

24 Eurostat (2014), Projected old-age dependency ratio <http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tsdde511&plugin=1>.

25 Ministry of Labour (2013), Socio-economic analysis for programming of EU funds 2014-2020 in the field of protection of social rights and active aging.

26 National Research Institute for Labour and Social Protection (2012), Assessment and forecasting of potential labour demand for university graduates in occupational structure by 2020, in order to develop appropriate university-level education policies [http://prevedu.ro/wp-content/uploads/2012/07/Raport\\_cercetare\\_etapa3.pdf](http://prevedu.ro/wp-content/uploads/2012/07/Raport_cercetare_etapa3.pdf).

27 Ibid.8

the EU trend and are the result of the efforts to reduce employment in agriculture and improve its productivity according to the Employment Strategy for 2004-2010, which overlapped with the massive emigration of self-employed people in rural areas after Romania joined the EU in 2007. Despite these changes, the occupational structure of the Romanian workforce still differs greatly from the EU average, especially in the too high proportion of skilled agricultural and fishery workers and the low proportion of legislators, senior officials and managers, as shown in Table 3. By 2020, the highest increase in job openings is expected for elementary occupations and service and sale workers as well as for professionals and plant machine operators.

The share of highly-skilled people in the active workforce is estimated to increase considerably in Romania by 44%, the highest increase in the EU-28, although the proportion of high-skilled persons in the total workforce will still remain much lower than that in other EU countries. About four in ten people to be employed between 2013 and 2025 are expected to have a high level of education, in particular in IT, the legal and administrative-commercial fields of work.<sup>28</sup> This change would be at the expense of those with medium qualifications, which is set to have the largest fall in the EU-28 (28%). Fewer people with a low level of education are expected to be employed between 2013 and 2025 (22% decrease), although their share in the total active workforce is estimated to remain the same<sup>29</sup>, which may bring a potential polarisation of workforce between low and highly skilled, although this follows the EU trend in this sense.

### Good job prospects for graduates of IT, medicine, architecture & construction, engineering, and business and administration

Romania experienced a great increase in the number of tertiary education graduates between 2000 and 2011 (282%), which is by far the highest increase in the EU-27 where the average increase was 69% in the same period.<sup>30</sup> This also explains the increase in the share of 30-34 year-olds with tertiary attainment in Romania, which rose from 8.9% in 2000 to 22.8% in 2013<sup>31</sup> which is still below Romania's national target of 26.7% and remains the second lowest in the EU after Italy.

Despite the relatively low supply of higher education graduates, as in other EU countries labour market prospects of recent graduates were negatively affected by the Great Recession. The employment rates of recent graduates in Romania dropped considerably from 84.8% in 2008 to 66.8% in 2013 and is currently the 6<sup>th</sup> lowest in the EU-28.<sup>32</sup> The employment rate of male graduates remains around five percentage points higher than that of female graduates.

▼ Table 5 – Employment rates of recent graduates, 2008-2013

Sex	2008	2009	2010	2011	2012	2013
Total	84.8%	77.6%	71.2%	70.4%	69.4%	66.8%
♂ Male	87.2%	79.0%	71.9%	72.4%	72.0%	69.0%
♀ Female	82.3%	76.3%	70.5%	68.6%	66.9%	64.9%

Source: Eurostat (2014)

Up to 2020, graduates from the following five fields of study are expected to experience the highest growth in demand by employers: information technology (18% increase in demand), health (16%), architecture and construction (13%), business and administration (11%) and engineering (11%).<sup>33</sup>

### Romania performs poorly in basic skills and in participation in lifelong learning

Romania performs below the OECD average for literacy, mathematics and science and scored 49<sup>th</sup> and 47<sup>th</sup> respectively from 65 participating countries in the PISA study of 2009. It has the third highest share of low achievers in the EU-27.<sup>34</sup> Nevertheless, significant progress in PISA results has been recorded from 2009 to 2012. On the other hand, since 2009 there has been a significant drop in graduation rates from high school from 72.8% to just 42.4% in 2011 as a result of the change in methodology of the high-school leaving exam and increase in difficulty of the exam topics. This trend is worrisome because obtaining the diploma for end of high school studies (bacalaureat) is a first level of certification of skills and allows entry to the labour market. Notably, there has been a sharp decrease in the rate of high school graduation for boys.<sup>35</sup>

The proportion of early school leavers from education and training increased from 16.6% in 2009 to 17.4% in 2012, second highest increase in the EU. There are big variations between regions in this aspect, early school leaving rates being as high as 20.7% in the north-east and south-east of the country while only 13.3% in the south-west and western regions.<sup>36</sup> In addition, the share of young people not in employment, education or training (NEETs) has significantly increased since 2007 as shown in Table 6. The NEET rates are about five percentage points higher among females than among males. Moreover, the NEET rates are much higher for graduates of higher education than for those with low or medium qualifications, proving once again the difficulty in integrating university graduates in the labour market in the context in which the number of graduates is higher than the number of jobs available for some specialisations.<sup>37</sup>

<sup>28</sup> Ibid.26

<sup>29</sup> Cedefop (2014), EU Skills Panorama: Forecasts <http://euskills Panorama.cedefop.europa.eu/KeyIndicators/Country/results.aspx?searchmethod=1&indicatorid=434&occupationid=0&sectorid=0&skillid=0&nationalcountryid=27&>

<sup>30</sup> Ibid.26

<sup>31</sup> Eurostat (2014), Tertiary educational attainment age group 30-34 [http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=t2020\\_41&plugin=1](http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=t2020_41&plugin=1)

<sup>32</sup> Eurostat (2014), Employment rates of recent graduates <http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tps00053&plugin=1>

<sup>33</sup> Ibid.26

<sup>34</sup> Ibid.7

<sup>35</sup> Ibid.

<sup>36</sup> Ibid.

<sup>37</sup> Ibid.

▼ Table 6 – Evolution of rates of NEETs (Not in Education, Employment or Training) for 15-24 years-olds, 2007-2011

Sex	2007	2008	2009	2010	2011
Total	14.7%	16.0%	17.5%	17.6%	20.2%
♂ Male	12.8%	13.3%	15.0%	15.0%	17.9%
♀ Female	16.6%	18.7%	20.1%	20.3%	22.5%

Source: Institute of Educational Sciences, (2013)

Moreover, the share of young adults that complete upper secondary education increased but only slightly in comparison to the rate of increase of other European countries, from 71.1% in 2002 to 76.3% in 2013.<sup>38</sup>

The proportion of adults participating in education and training has dropped significantly in the last decade and is among the lowest in the EU. The share of 18-24 year-olds participating in education and training was 7.7% in 2012 compared to 37.4% in the EU-27 while for the 25-54 year-olds the rate is 1.4% compared to 9% average in the EU. The lowest participation rates are among the low-skilled, over 40s and those working in companies with 10 or less employees. According to a national survey conducted in 2011, the main barriers to adult education and training were adults' negative experiences with learning and lack of lifelong learning culture, lack of flexibility of offers for continuous training, relatively high costs of training courses and low level of awareness and use of skills gained through non-formal and informal learning.<sup>39</sup> To make adult participation in lifelong learning a strategic priority, Romania has adopted a National Strategy for Adult Professional Development<sup>40</sup> for 2014-2020. Its objective is to reach 10% of participation of 25-54 year-olds in education and training by 2020. The main occupations for which the National Agency for Employment organised training courses in 2009-2012 included data operator, salesperson, chef, accountant, hairdresser, computer operator, construction worker. This is correlated with the vacancies reported by employers.<sup>41</sup>

According to a national survey, 24.1% of enterprises in Romania organised training for continuing professional development of their employees in 2010. Participation rate in company training was highest in the financial and insurance services sector, commercial activities, manufacturing industry, ICT and in constructions.<sup>42</sup> However, over three quarters of Romanian employers had no plans to provide training in 2010 for their employees, which partly explains the very low participation of adults in education and training.

## Skill shortages in healthcare, manufacturing, construction and hospitality sectors

With regards to skills shortages, in 2013 employers reported recruitment difficulties mainly for craft and related trades workers, plant and machine operators and assemblers, elementary occupations, service and salespersons. It should be noted that most bottlenecks have been persistent since 2008. The reasons underlying these bottlenecks are skill shortages, labour shortages, poor or unattractive working conditions and high turnover within the same industry.<sup>43</sup> Notably, almost half of hard to fill vacancies require specific vocational education and more than a quarter require specific technical or industrial high school education. For this reason, efforts are being made at the national level to align the VET system to labour market demand.<sup>44</sup>

The sectors with the most acute skills shortages are the textile manufacturing sector and the construction sector as well as hospitality and ICT. In particular, there are severe shortages in all occupations in the healthcare sector. Compared to the EU average, Romania has rather poor healthcare employment indicators: in 2011, there were 238 physicians and 550 nurses per 100,000 inhabitants in comparison to 346 physicians and 835 nurses in the EU. Emigration is a major cause of this situation. OECD data show that more than 5,000 Romanian medical doctors, equivalent to 10% of the active workforce in this occupation, were working abroad in 2006. Following Romania's EU accession, official data show that only in 2007 more than 10% of the practicing medical doctors applied for diploma verification to work in another EU member state.

The healthcare sector has also been severely hit by the economic crisis as a result of additional disincentives introduced for health professionals in 2010, including a 25% salary decrease and quasi-recruitment freeze. Data show that requests for verification of doctor's certificates considerably increased in 2010 and reached an average of 300 applications per month.<sup>45</sup> This sharp decline in labour supply in the health sector is reinforced by the decreasing rate of enrolment in medical schools: from 8 candidates per place in 1990s to 0.9 candidates per place in 2011. Despite the demand for healthcare professionals being high, the supply remains low because of the inability of the public sector to offer work conditions (i.e. higher salaries) which match those of other European countries or the private sector. As a result, Romania is currently experiencing an acute lack of labour supply in the healthcare sector, for all occupations from healthcare assistants, to nurses and medical doctors. Despite the demand for labour being high, the supply remains low therefore creating a mismatch on the labour market in this sector. The main problem of this mismatch resides in the inability of the public sector to offer attractive work conditions (i.e. high salaries) which motivates healthcare professionals to move to other European countries or take up jobs in the private sector. ■

<sup>43</sup> Ibid.11

<sup>44</sup> ESF-funded project 'Aligning the educational offer of VET with the demands of the labour market'

<sup>45</sup> Boncea I. (2014), Brain drain in Romania: Factors influencing physicians' emigration, in: *Journal of Community Positive Practices* Vol. 15(1), pp.64-74.

<sup>38</sup> Eurostat (2014), Upper secondary or tertiary educational attainment, age group 25-64, <http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tps00186&plugin=1>

<sup>39</sup> Romanian Centre for Lifelong Learning (2011), National Survey on participation in continuing professional development

<sup>40</sup> Ministry of Labour (2014), National Strategy for adult professional development for 2014-2020

<sup>41</sup> Ibid.12

<sup>42</sup> Ibid.39



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