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# Labour market for youth in Romania – a demographic and qualitative approach of their employability

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## ABSTRACT

*The paper analyzes the implications of demographic developments on the labour market in terms of potential labour from structural and professional perspectives.*

*The aspects of the youth demographic and educational potential for labour market, of the national policies potential for new job creation and of the opportunities of alternative free movement of workers are presented. The paper emphasizes positive and negative labour market pressures as derived from the demographic structure (including ethnicity), skills and competences, and educational attainment. The influences factors on qualitative youth employability in Romania are also highlighted.*

*Some empirical analyses of the working age population in terms of demographic factors, as well as its demographic forecast are presented. Statistical software used for this analysis is the R Project, along with specific packages forecasting analysis. Final part of the paper is focused on some specific recommendations for policy instruments and measures to support youth employability on the national labor market based on the changed typology of the youth supply on labour market.*

**Keywords:** Demography; Labor Market; Employment; Mobility; R Software

**JEL Classification:** J11, J21, J24

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## RATIONALE OF THE PAPER

The aim of the paper is to signal several aspects concerning the degree of under or non-utilization of youth labour force, to highlight the labour potential of the young people in relation with different socio-demographic factors. The youth vulnerability on the labour market is underlined and proved with the support of relevant statistical indicators. The paper also presents the results of a simulation in

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case of attracting the potential labour force and in particular the youth potential into the labour market.

The analysis provide a perspective for 2060 horizon of the human resources taking into account the phenomenon of severe ageing of population as well as the size and trends of external labour force mobility and/or youth emigration phenomenon

## **YOUTH EMPLOYABILITY IN ROMANIA**

During last quarter century the population of Romania has suffered a severe decline. The usual resident population of Romania numbered 19942,6 thousands people at 1st of January 2014, down by 3.3 million persons since 1990, representing a decrease by 14.1%. (Source: National Institute of Statistics data on usual resident population at 1st of January 2014 are provisional and will be revised in December 2014).

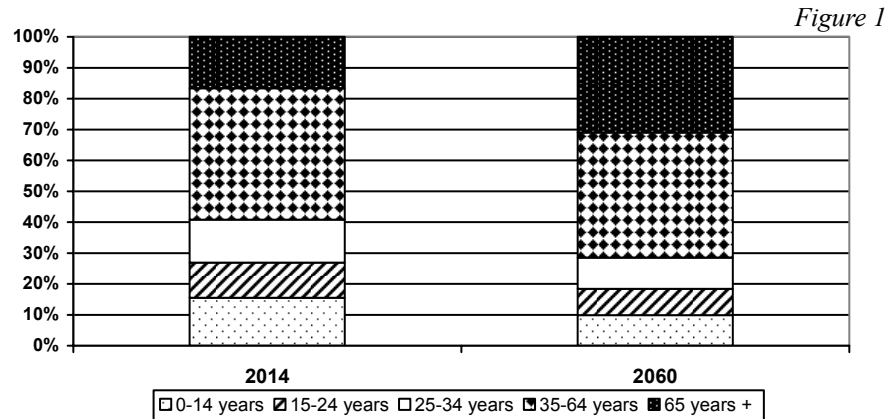
Two main reasons have caused this drastic decline: population ageing and emigration.

Like most EU Member States, Romania is facing an accelerated phenomenon of population ageing caused by to negative natural increase rate – in the last twenty years the number of deaths exceeding increasingly the number of live births - and, in parallel, by the increase of life expectancy. Continuous decline of the birth rate has led to thinning of the of young (0-14 years) generations in both absolute and relative terms while the prolongation of life expectancy has resulted in thickening of the of elderly (65 years and over) generations.

International migration to more-developed countries of Europe is the second factor that contributed to the population decline. Emigrations was mainly caused by labour mobility in search for higher incomes and better working conditions, and by youth mobility in search for benefits from better than the national educational services. For Romania, the post-accession period, especially 2007-2008, led to an amplification of the emigration, supported by the free movement rights of persons in Europe.

After 2008, the period characterised by the prolonged economic crisis had to face a new phenomenon, i.e. the return migration, having as effect a decrease/stagnation of Romanian emigration, a decrease of the number of departures to work abroad and an increase of the number of returns into the country. However, the net emigration is maintained, the number of departures exceeding the one of arrivals.

**Structure by age groups of the usual resident population in 2014 and as projected for the horizon of 2060**



*Source: National Institute of Statistics and own calculations performed with R project – packages for forecast analysis*

Due to the severe population ageing, by 2060 the share of elderly (65 years and over) will be almost double as against 2014 while the share of young ones aged 0-14 years will decrease significantly, from 15.5% to only 9.9% of the total usual resident population of Romania.

Population ageing leads inevitably to the workforce ageing. Most of the people who emigrated (over 80%) belong to working-age category (15-64 years), migration having mainly economic motivation. Emigration, especially for the working-age population, deepens Romanian labour market disequilibria. Appropriate measures to adapt the economy, labour market and working conditions to these changes are needed.

**Usual resident population of Romania – demographic projection for horizon 2020-2060**

*Table 1*

	2014	2020	2030	2040	2050	2060
Usual resident population, <i>thou persons</i>	19942.6	19314.1	18107.1	16629.1	14916.4	13031.8
	of which, by age groups, in %:					
0-14 years	15.5	14.1	12.1	11.5	10.6	9.9
15-24 years	11.4	11.0	10.7	9.0	8.9	8.5
25-34 years	13.9	12.6	11.6	11.5	9.9	10.1
35-64 years	42.6	43.0	44.2	42.5	41.3	40.5
65 years +	16.6	19.3	21.4	25.5	29.3	31.0
Ageing Index, <i>number of persons 65 years+ per hundred persons 0-14 years</i>	106.7	136.4	177.2	221.7	277.2	311.5

*Source: National Institute of Statistics and own calculations performed with R project – packages for forecast analysis*

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Currently (usual resident population on January 1, 2014), the ratio between the elderly persons (65 years and over) and the young people (0-14 years) is only slightly higher than one. According to population projections (National Institute of Statistics and own calculations performed with R Project - packages for forecast analysis), ageing index will triple: from 106.7% in 2014 to 311.5% in 2060. According to International Labour Organization (ILO) recommendations, the population is divided by labour force status into three mutually exclusive categories, defined as follows:

- Economically active populations composed from:
  - (1) Employed are persons engaged in productive activities, during the reference week for at least one hour or are temporarily absent from a job to which they will return;
  - (2) Unemployed are persons not employed and available to work and actively seeking a job;
  - (3) Economically inactive persons are those in working age which are neither employed nor unemployed.

This classification is very strict and does not take into account certain nuances and particularities. Segments of the population, significant in volume, that are not part of the employment defined according to ILO criteria, are able to work and many of them want to work, but, for various reasons, they face obstacles and difficulties in employing. Main characteristic of these segments of population is the willingness to work. These segments form a potential labour force which, through appropriate policies and measures, could enter onto the labour market and perform economic activities generating income for them, but also for the state budget, hence for society.

In fact, these segments of population are unused labour force composed of:

- unemployed (which as stated above, they do want to work and are actively seeking employment);
- inactive persons seeking work but not available to start work in a relatively short period of two weeks time (for various reasons - children care responsibilities, or of the disabled persons, elderly relatives, other personal or family responsibilities, etc.);
- inactive persons not seeking work but available to start work (the reason for not seeking work is often the discouragement occurred after longer periods and repeated attempts to find a job, the failure being caused by obstacles because of age, inappropriate skills or specialization etc.).

Of the three from the above, the last two are of interest because, according to ILO criteria they are excluded from the active population and would be useful to know which could be their impact in case of identifying corrective measures to allow their insertion on labour market. Further on, we will refer to the potential labour force as consisting of last two segments (inactive persons seeking work but not available to start and inactive persons not seeking work but available to start).

### Potential labour force by age groups

Table 2

	2004	2007	2010	2013
Potential labour force, <i>thou persons</i>	684.5	350.4	457.8	448.2
<i>of which, by age groups, in %:</i>				
15 - 24 years	31.5	33.5	30.3	24.5
25 - 34 years	26.3	23.5	26.8	28.4
35 - 64 years	41.1	42.1	42.6	46.8
65 - 74 years	1.1	0.9	0.3	0.3

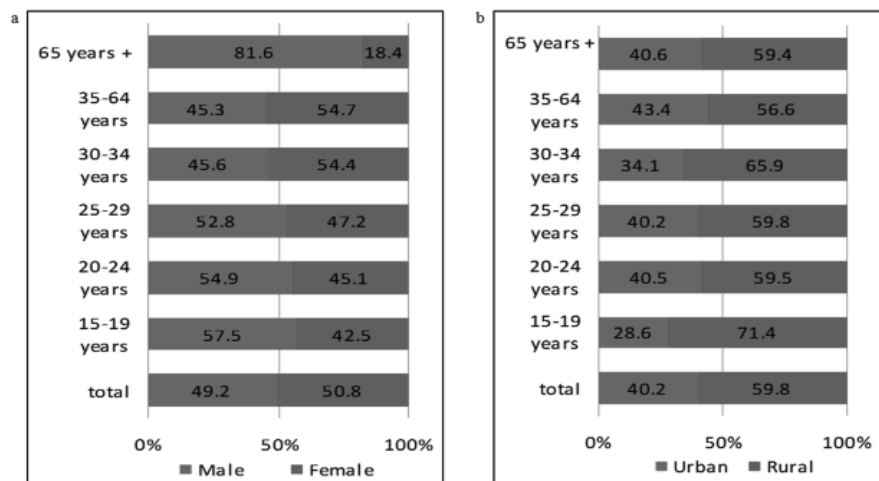
Source: National Institute of Statistics, Labour Force Survey, own calculations

The evolution of potential labour force is strongly influenced by the phenomenon of emigration. Youth aged 25-34 represent one third of those who left Romania in the year of EU accession. Lack of employment opportunities and low wages have accelerated emigration, especially among young people. Therefore, the potential labour force in the year of accession (2007) decreased by half compared to 2004 (350,4 thousands persons to 684,5 thousands persons). The economic crisis led to return migration, the potential labour force in the years 2010 to 2013 suffering a recovery, stabilizing to 450-460 thousand persons.

More than half of those who do not work but would like to work and are not available mainly because of their responsibilities, or are available to work but not actively seeking a job because of the obstacles previously encountered, are young people aged up to 35 years.

**(a) Potential labour force structure by age groups and sexes in 2013;**  
**(b) Potential labour force structure by age groups and urban/rural area in 2013**

Figure 2



Source: National Institute of Statistics, Labour Force Survey, own calculations

Potential labour force structure shows disparities between males and females for the younger age groups and the elderly. Men, who fail to work although they want to, are more numerous among the young people 15-29 years and the older people aged 65 and over.

Given the agricultural profile of the labour force in rural areas and the lack of jobs in the industry and services, there is a higher unused potential labour force in rural areas as compared to urban, regardless of age. The largest discrepancy is observed among young people aged 15-19 for whom the scholar dropout is higher in villages and, therefore, the age of entering into the labour market is lower. Hence, the share of young people aged 15-19 in rural areas who would like to work exceeds 70% of potential labour force of youth in this age group.

Almost two thirds of men and half of women from potential labour force have work experience. People who have never worked are of minority, regardless of urban or rural area.

**Potential labour force with and without work experience by the reason of work ceasing, gender and urban/rural area in 2013**

*Table 3*

	Total	Male	Female	Urban	Rural
Potential labour force, <i>thousands persons</i>	448.2	220.3	227.9	180.0	268.3
Persons with work experience, <i>thousands persons</i>	255.4	143.4	112.0	95.5	159.9
	<i>of which, by reason of work ceasing, in %:</i>				
layoff or staff reduction	24.7	20.2	30.6	44.4	13.0
cancellation unit, bankruptcy	9.7	6.0	14.5	12.6	8.0
end of a temporary activity	55.3	65.6	42.2	26.4	72.6
retirement (including illness, disability)	3.0	3.8	1.8	5.1	1.7
beginning or preparing studies	0.2	0.0	0.5	0.5	0.1
child care	2.0	0.0	4.5	2.4	1.7
personal or familial responsibilities	1.8	0.7	3.2	2.5	1.4
Resignation	2.7	3.0	2.3	4.9	1.4
Other	0.6	0.7	0.4	1.2	0.1
Persons who never worked before, <i>thousands persons</i>	192.8	76.9	115.9	84.5	108.4

*Source: National Institute of Statistics, Labour Force Survey, own calculations*

Given that over half of the potential labour force is represented by the youth up to 35 years, the fact that over half of those who have work experience remained jobless because of the end of a temporary activity, highlights once again, the malfunctions of the Romanian labour market. Two reasons can be identified. One is represented again, by the lack of decent jobs in rural areas, agriculture - seasonal activity - being almost the only job offer on the rural labour market, which explains

the extremely high percentage of 72.6% of those who ceased to work because of the completion of temporary work. The second reason especially for urban labour market is the practice of employers in hiring young people for fixed short periods. The difficulties faced by the Romanian economy even six years after the financial crisis started are justified by a significant proportion of those who lost their jobs because of layoffs due to restructuring, activity restrictions, and because of cancellation unit, of bankruptcy, especially in urban areas (44.4%, table 3) and respectively of 46.8% aged 20-34 (12.9% aged 20-24, 14.0% aged 25-29 and 19.9% aged 30-34%, in 2013, table 4).

**Potential labour force with work experience by the reason of work ceasing and age groups in 2013**

*Table 4*

	15-19 years	20-24 years	25-29 years	30-34 years	35-64 years	65 years +
Persons who never worked before, <i>as share (%) in total potential labour force</i>	9.2	19.4	45.0	62.7	80.5	100.0
	<i>of which, by reason of work ceasing, in %:</i>					
- layoff or staff reduction	11.5	12.9	14.0	19.9	29.3	3.9
- cancellation unit, bankruptcy	0.0	0.9	3.8	6.3	12.6	0.0
- end of a temporary activity	88.5	80.3	75.6	63.4	47.3	3.2
- retirement (including illness, disability)	0.0	0.3	0.3	0.0	3.8	85.6
- <u>beginning or preparing studies</u>	0.0	2.9	0.0	0.4	0.0	0.0

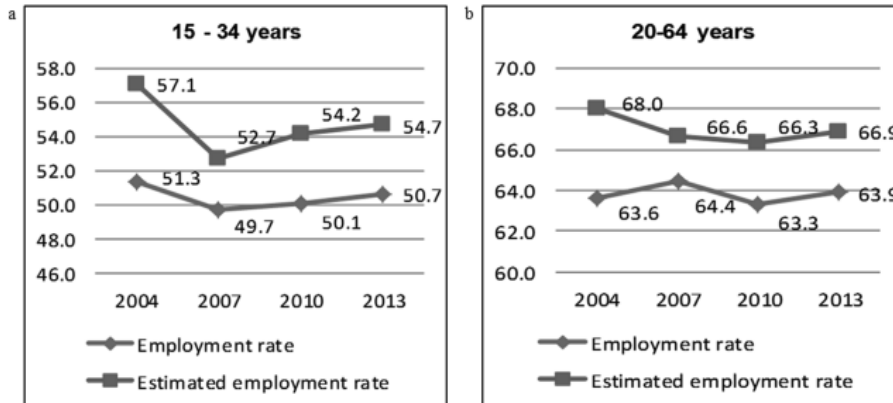
*Source: National Institute of Statistics, Labour Force Survey, own calculations*

Youth is more exposed to the negative effects produced by the labour market dysfunctions and employers' practices in using young labour force for short periods, easy to dispense off later. The younger the age, the more frequent is the reason for cessation of work due to the completion of a temporary work.

What would happen if, through appropriate policies and measures, this unused potential labour force would be attracted into the labour market occupying jobs that produce goods and services? The most significant impact is shown by the employment rate. Creating the conditions necessary to attract on the labour market the potential labour force would lead to an increase of youth employment (up to 35 years old) by about 8%, and of employment among those aged 20-64 years for which the national target set in the context of Europe 2020 is 70%, by about 5%.

(a) Employment rate and estimated employment rate for persons aged 15-34 (%);  
 (b) Employment rate and estimated employment rate for persons aged 20-64

Figure 3



Source: National Institute of Statistics, Labour Force Survey, own calculations

In case of such a scenario, the employment rate for young people aged 15-34 would gain about 4 percentage points (2013) and the population aged 20-64 years about 3 percentage points (2013), reducing the gap to the national target of 70% that has been proposed by Romania for the horizon of 2020.

Young people faces a much higher degree of vulnerability on the labour market compared to older adults and elderly people, the in and out flows from employment and unemployment being higher and more frequent.

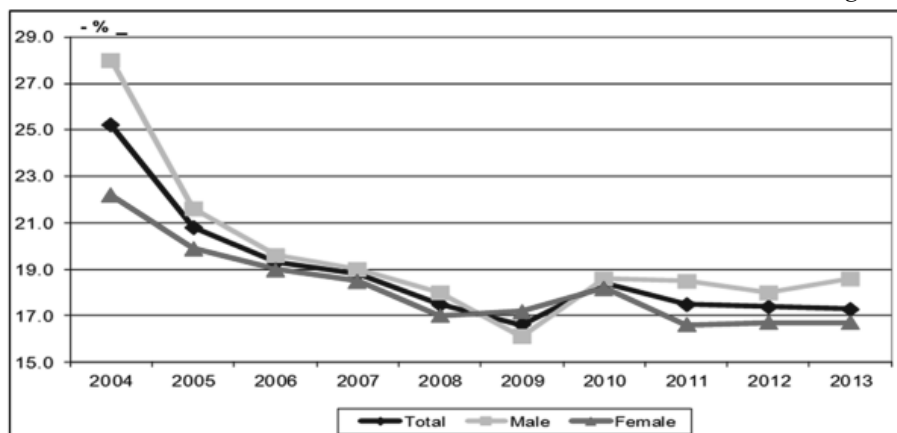
A society protected by a sustainable economic growth is accompanied by a sound skilled workforce, able to cope adequately with the competitiveness and innovation challenges. In this respect, the educational system plays an important role, being the main designer of an adequate training model of youth for a successful insertion on the labour market.

The decrease of early school leavers rate (which is the proportion of the population aged 18-24 years with low level of education, who do not attend any type of education in total population aged 18-24 years) from 25.2% in 2004 to 17.3% in 2013 is a positive sign.



### Early school leavers rate

Figure 4



Source: National Institute of Statistics, Labour Force Survey

A warning signal is represented by the downward trend of the youth education attainment level (the share of young people aged 20 - 24 years, graduates of at least medium level of education among young people from 20 to 24 years). The dropdown by 5 percentage points in a period of nine years which means a decrease of the number of young people with higher levels of education, should be consider as a worsening of the national education system and an increasing mismatch between business environment demand for work and education for labour market supply.

### Youth education attainment level for those aged 20 - 24 (%)

Table 5

	2004	2007	2010	2013
Total	84.7	77.4	78.2	79.7
Male	81.5	77.1	77.7	78.5
Female	87.9	77.7	78.8	81.0

Source: National Institute of Statistics, Labour Force Survey

High rate of risk of exclusion from the labour market, and consequently, of social exclusion faced by the youth is indicated also by the NEET indicator, i.e. the rate of young people neither in employment nor in education or training. NEET indicator represents the proportion of young people aged 15-34 years who were neither in any education or training (formal and non-formal) nor in employment in total young people aged 15-34 years.

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**The rate of young people neither in employment nor in education or training -  
NEET (%)**

Table 6

	2004	2007	2010	2013
Total	21.4	15.6	18.7	20.2
Male	17.3	10.6	13.6	15.6
Female	25.6	20.8	24.0	25.1

Source: National Institute of Statistics, Labour Force Survey

In 2013, 1 in 5 young people were in this situation. Total inactivity - jobless and without attending any form of education - is higher among women. In 2013 more than a quarter of young women aged 15-34 years was in this situation. Year 2007 was marked by better (lower) values of NEET rates, most probably under the influence of high emigration encountered at that time.

## CONCLUSIONS

Youth constitutes a significant potential for support sustainable economic recovery/growth and competitiveness increase, based on new qualitative job creation but a significant share is practically unused labour force. For an adequate valorization of the human capital a mix of policies are necessary, particular focused on youth. Qualitative education fitted with labour market demand, qualitative/decent jobs and career perspective should be consider as main drivers for better insertion of the graduates on labour market and decreasing trend for external mobility for work.

The main coordinates for efficient policies framework for a new model to increase the employability of young people might consider at least the following:

- Professional profile and skills reduce incompatibility with national labour demand. The model of the professional profile of the graduates of today reflects a continuing trend of deterioration of education for the labour market (Vasile et al, 2008, 2009). A flexible curriculum oriented to the labour market and a reorganization of the structure of graduates in professions and occupational groups could contribute to a more efficient and rapid insertion on the labour market. Investing in education and training continues using structural funds as a source of financing and promoting entrepreneurship.
- Appropriate policies and measures are needed to reintegrate young people into education in order to increase their chances of insertion onto the labour market.
- Decreasing informal employment among youth through appropriate policies and incentives to motivate individuals to work legally - reducing administrative costs and procedures, streamlining bureaucracy, especially for SMEs, reducing barriers for employment as work experience, period of internship and labour market rigidities (encouraging fixed-term contracts, temporary employment, individualized work program) etc. (Pisică S, Vasile V., Voineagu V., 2012)

- Promoting equal opportunities for employment and small business development. Rural areas suffer from lack of employment opportunities in other sectors of the economy than agriculture, and to a large extent due to difficult access to initial education and lifelong learning.
- Programs and strategies on remuneration should aim at creating decent jobs that will boost employment among young people.
- Perspective on career and working conditions would be able to gradually reduce the youth external mobility for jobs and lost of work potential through overqualified employment (Vasile V. 2013, Vasile V et al 2013).

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### References

1. Committee of the Regions, 2013, Youth Employment - Make it Happen
2. European Commission, 2014, European Vacancy and Recruitment Report 2014
3. European Commission, 2014, The Youth Guarantee - Making It Happen
4. European Commission, 2014, Working with young people: the value of youth work in the European Union - Case Studies
5. European Foundation for the Improvement of Living and Working Conditions, 2014, Mapping youth transitions in Europe
6. Institutul Național de Statistică, Ancheta forței de muncă în gospodăria
7. International Labour Organisation (ILO) (1982), Resolution concerning statistics of the economically active population, employment, unemployment and underemployment, adopted by the Thirteenth International Conference of Labour Statisticians (October 1982)
8. International Labour Organization, 2013, Enhancing youth employability: What? Why? and How? Guide to core work skills
9. International Telecommunication Union, 2014, Innovative ICT solutions for youth employment
10. Pisciă S. (coord.), Moldoveanu R., „Forța de muncă în România: Ocupare și șomaj în anul... (publicație anuală), Institutul Național de Statistică, 2005 – 2013, ISSN 1223-6446
11. Pisciă S., (coord.), Moldoveanu R., 2009, publicație bilingvă „Accesul tinerilor pe piața forței de muncă/Entry of young people into the labour market”, Institutul Național de Statistică, ISSN 2067-3485
12. Pisciă S. (coord.), Postelnicu, M., Apostol, M., et al., 2012, „Îmbătrânirea populației României”, Institutul Național de Statistică, ISSN 2285-8237
13. Pisciă S., Vasile V., Voineagu V 2012, Piața muncii între formal și informal, Editura Expert, 2012, ISBN 978-973-619-296-9, 473 p.
14. Vasile V. (coord), Zaman Gh., Pert S., Zarojanu F., 2008, Restructuring Romania's Education System Considering the Evolutions from the Domestic Market Perspective and Impact on RDI Progress), Institutul European din Romania (European Institute of Romania), Strategy and Policy Studies, 2007, Study no.2, coordinator and joint author, Bucharest, bilingual edition – Romanian and English, ISBN 978-973-7736-57-4, 312 p., Ed.Alpha Media Print SRL București, 312 p. Bucharest, [http://www.ier.ro/documente/SPOS2007\\_ro/Spos2007\\_studiu\\_2\\_ro.pdf](http://www.ier.ro/documente/SPOS2007_ro/Spos2007_studiu_2_ro.pdf), [http://www.ier.ro/en/publications.html?categorie\\_publicatii\\_id=415928](http://www.ier.ro/en/publications.html?categorie_publicatii_id=415928)

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15. Vasile V (coord), Prelipcean G., Sandru D-M., 2009, Improving vocational competencies among graduates and youths: A chance for the future, SPOS 2009 – nr.4, Institutul European din România, 2010, București, joint author, bilingual edition, ISBN 978-973-7736-95-6; [http://www.ier.ro/documente/spos\\_2009/Studiul\\_4\\_RO\\_site.pdf](http://www.ier.ro/documente/spos_2009/Studiul_4_RO_site.pdf)  
[http://www.ier.ro/documente/spos\\_2009/Studiul\\_4\\_EN\\_site.pdf](http://www.ier.ro/documente/spos_2009/Studiul_4_EN_site.pdf)
  16. Vasile V. (coord), Boboc C., Pisica S., Cramarenco R.E., 2013, The estimation of the impact of free movement of Romanian workers in EU region from 01.01.2014; realities and trends from economic, employment, and social perspectives, at national and European level, SPOS 2013, Study no 3 [http://www.ier.ro/sites/default/files/pdf/SPOS\\_%202013\\_nr.3.pdf](http://www.ier.ro/sites/default/files/pdf/SPOS_%202013_nr.3.pdf) ISBN on-line 978-606-8202-40-2, 117 pag
  17. Vasile.V., 2013 Migrația internațională a muncii și dezvoltarea economică: teorie și experiențe, in Vol 5, Studii și cercetări privind impactul globalizării asupra structurii și dinamicii economiilor, “Studii post-doctorale în economie, disertații Post-Doctorale” Editori: Acad. Păun Ion OTIMAN, Prof.univ.dr. Cornel IONESCU, Prof.univ.dr. Emil DINGA ISBN 978-973-27-2290-9, ISBN 978-973-27-2295-4, Editura Academiei Române, 2013, p. 1139-1203