



Available online at www.sciencedirect.com

ScienceDirect

Economics and Finance

Procedic

Procedia Economics and Finance 22 (2015) 64 - 71

www.elsevier.com/locate/procedia

2nd International Conference 'Economic Scientific Research - Theoretical, Empirical and Practical Approaches', ESPERA 2014, 13-14 November 2014, Bucharest, Romania

The educational level as a risk factor for youth exclusion from the labour market

Valentina Vasile^a, Irina Anghel^a*

^aInstitute of National Economy, 13 Calea 13 Septembrie, Bucharest, 050711, Romania

Abstract

Against the framework of multiplied and diversified challenges to sustainable development, optimizing the young people insertion into the labour market stands out as an imperative as well as a promising tool for tackling demographic ageing, societal and individual risks as well as the sustainability of economic and social growth. Along the last years daunted by economic crisis, the youth unemployment rates have soared up to over 30% and NEET rates (for 25-29 age interval) to over 25% in a quarter of the EU countries. The average European values for these indicators remain high, threatening to transform the "lost generation" metaphor into reality. Considering extremely high medium and long term costs - to both the individual and the society - associated to the youth exclusion from the labour market, based on a thorough literature review and statistic analysis, this paper aims to provide a concise picture over the phenomenon of youth exclusion on the Romanian labour market and to assess the impact of the educational level, as one of the main risk factors, on the structure and size of the vulnerable group. Considering best practice examples in other countries, the paper ends with presenting main policy directions for tackling this important societal risk.

© 2015 The Authors. Published by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

Selection and/or peer-review under responsibility of the Scientific Committee of ESPERA 2014

Keywords: NEET rates; youth unemployment; risk factors for youth unemployment, education level

^{*} Corresponding author. Tel.: +40-744.472-463. *E-mail address:* irina_c_anghel@yahoo.com

1. Introduction

In Romania, as in most developed countries, the insertion of the young people within the labour market has become increasingly difficult. At national, european and global levels, the youth unemployment rates have exceeded twice the adult unemployment rates for more than a decade. Moreover, the recent economic crisis pulled out many more young people from the world labour market, adding other 4 million to the previously excluded 70 million. The figures of the indicators for youth insertion on the labour markets of many European Union member states, including Romania, present a worsening trend. The average EU youth unemployment rate has increased by 50% during the economic recession and the youth employment rate has decreased three times as much as the adult unemployment rate.

Displaying one of the highest NEET rates and lowest activity rates in the European Union, while enjoying one of the youngest populations within the EU, Romania seems to have lost an important and maybe last opportunity window to mitigate the impact of demographic ageing on social and economic sustainability. This important key generator of human and social capital, of innovation and progress stays unmined, threatening, directly and intricately, the economic and social pillars of the "under construction" sustainable development edifice.

Capitalizing on the generous literature as well as on the statistic data provided by Eurostat[†], this paper aims to delineate recent developments regarding the integration of the young within the European and national labour markets, to emphasize the educational level among the main risk factors for youth exclusion from the labour market and to assess its impact on the amplitude of the phenomenon.

To this end, our statistical analysis is focused on the NEET rate (the incidence of the young people not in employment, education or training), as it allows for a more consistent, precise and comprehensive perspective over this issue than other indicators, such as the unemployment or employment rates etc. (Quintini and Martin 2006; Eurofound, 2012a). Given specific analytical context or data availability, we would refer to the whole 15-29 age span, taken either as one segment or divided in two age groups, i.e. 15-24 and 25-29, as they involve different characteristics, behaviours and causal relationships. We conclude with presenting the main political alternatives for facilitating the youth employment and for harnessing their full potential to their benefit and for the present and future society, as a whole.

2. Short literature review

By the end of the 1970s, the insertion of the youth in the labour market had become a matter of concern and interest for both the academic community and policy makers in the more developed countries. (Freeman, 1979; Clarkand Summers, 1982; Ellwood, 1992; Berger, 1989; etc). Despite various measures and policy tools meant to smooth the transition of the young people from school to work, their entrance on the labour market was increasingly difficult. Initially this phenomenon was associated with the transitory excedentary labour offer of the "baby boomers". When the youth unemployment rates kept increasing in spite of shrinking cohorts, deeper structural dysfunctionalties within the labour market and educational system were taken into consideration.

At the end of the 1990s and the beginning of 2000s, once the unemployment rates for the young population doubled the values for the adult workforce in the developed world (Blanchflowerand Oswald, 1998; Blanchflower and Freeman, 2000), the issue of youth integration in the labour market became one of the most critical challenges for public policy at national and international level and a issue of wide interest in the literature (Blanchflower and Oswald, 1998; Blanchflowerand Freeman, 2000; Korenman and Neumark, 2000; Jimeno and Rodriguez-Palenzuela, 2002; O'Higgins, 2003; Quintini and Martin 2006; etc).

The recent economic crisis has deepened the difficulty of the young to identify and ensure a place on the labour market, given their high sensitivity to macroeconomic evolutions, empirically demonstrated in the work of many researchers before recession (Blanchflower and Freeman, 2000; Jimeno and Rodriguez-Palenzuela, 2002; O'Higgins, 2003; OECD, 2008 etc).

[†] Unless otherwise mentioned, all data are taken or derived from the Eurostat database

Along the last years, especially in the context of the global socio-economic developments and of the sustainability imperative, researchers as well as policy makers and international organizations have looked deeper into the characteristics, risk factors, costs and consequences at individual and societal levels, in order to better understand the phenomenon, to fathom solutions and alternative means. Empirical and theoretical studies covering national, regional, European, OCDE or global perimeters completed the previous range of research endeavours (OECD, 2010; Bell and Blanchflower,2011;; Symonds et al, 2011; Vasile and Vasile, 2011; Bălan et al, 2012; Macmillan 2012, etc. Hawley et al, 2012; Keep 2012; Eurofound 2012 a/b; ILO 2012; Dietrich, 2012; Crowley et al, 2013; Maguire, 2013; ILO 2013; EC 2014, etc).

3. The risk of youth exclusion from the labour market. Romania vs European Union

Along the last decades, the dawn of post-industrial, knowledge-based society has concurred with increased complexity, difficulty and length of the transition of the young from school to work (Eurostat 2014a, Maguire 2013, Dietrich 2012). This process has become non-linear, difficult to predict and to control. Moreover, in the EU, while the young cohorts has decreased during the last 10 years (-8.8% compared to 2003), the unemployment rate has increased from 18.3% in 2003 to 23.4% in 2013. Temporary and part-time employment has also constantly increased with 6.3 p.p and 9.4 p.p, respectively, since 2003, suggesting increased flexibility on the labour market which may support the absorption of young workforce but, at the same time, higher levels of unstable and low quality employment for the young.

The recent economic crisis has amplified the exposure of this most vulnerable segment in the labour market (EC 2010, Vasile and Vasile, 2011; Dietrich, 2012, Eurofound, 2012 a,b; Hawley et al, 2012; Bell and Blanchflower, 2011; ILO 2012, Scarpeta et al, 2010, etc). In times of economic downturn, the young people are the most exposed to risks such as losing jobs, poor employment, the risk of being trapped in vulnerable, instable, temporary, informal occupation. Since 2008, the mean value for the employment rate in EU decreased by more than 5 p.p and the unemployment rate increased by 7,8 p.p.Also, the share of the young people not in employment, nor in education or training (NEET rate) increased from 10,8% (a minimum of the last ten years) to 13% in 2013 for the 15-24 age span and to 21% for 25-29(Fig. 1)

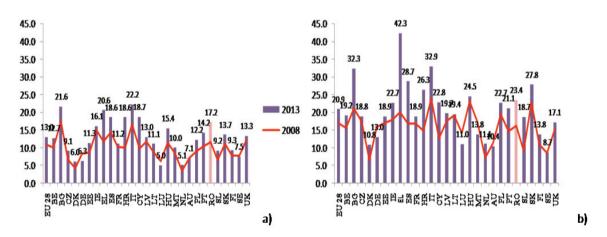


Fig. 1. NEET rates, 2013 vs 2008, 15-24 (a) and 25-29 (b) age groups. Source: the authors, based on Eurostat database

Looking beyond average values, there are three European countries with youth unemployment rates above 50% and other 7 states with values above 30%. It seems therefore, that the metaphor "lost generation", widely used in the recent literature, becomes a reality with major costs for society and hindrances for sustainable social and economic development.

The Romanian young people have also been hit by economic crisis. Even if the increase in unemployment rate

was somewhat more moderate than the average of EU 28, the raise in the NEET rate exceeded two times the European average. Even if Romania is ranked the 15thconsidering youth unemployment rate and close to the EU average, the NEET rates calculated for the 15-24 and 25-29 segments place Romania on the 22nd and 21st positions in the European ranking. The increases in the NEET rates, of 45% for the 15-24 segment and 50% for 15-29 segment during 2008-2013, were among the highest in the EU.

The incidence of long-term unemployment among the youth has also increased along with unemployment rates. Measured as the share of long-term unemployment in total youth unemployment, the indicator values raised to 43.3% in 2012, a figure almost 1.5 times higher than the 2009 level, with 10 p.p higher than the EU average and 43.4 p.p higher than the first ranked European country (Finland).

4. The level of education, a risk factor for youth exclusion from the labour market. Who is the biggest loser?

Since the very first endeavours to approach the issue of youth preclusion from the labour market, researchers have prospected the system of correlated causal relationships, of potential risk factors (Berger, 1984;Blanchflower and Oswald, 1998; Freeman, 2000; Gregg and Machin, 2000; Quintini and Martins 2006; etc). The risk factors related to the individual background have generally been considered to derive from the familial as well as from the personal context, such as the level of education and professional training, the level of expectations regarding oneself and society, parents' social and occupational status, special educational needs due to disability or chronic affections, belonging to disadvantaged or exposed to social exclusion groups, or involvement in criminal activities, etc. (Gregg and Machin, 2000;Keep 2012; Eurofound 2011; Eurofound 2012a; Macmillan, 2012).

Once the youth exclusion from the labour market lost its marginal, isolated character and the insertion indicators displayed a tendency of amplification despite multiple and various endeavours to counteract the phenomenon, many studies have focused on other potential factors, of institutional, structural, societal and macroeconomic nature. Initially, within the context of transition to post-industrial global economy, the high youth unemployment rates were explained through the structural transformations, the divergence between the demand and supply of qualification, competences and aptitudes (Clark and Summer, 1982; Blanchflower and Freemann, 2000).

Since the new millennium, the researchers' concern shifted towards the labour market institutions, the social models and their impact on the youth unemployment dynamic (Jimenoand Rodriguez-Palenzuela, 2002; Quintini and Martin, 2006; ILO 2006; Martin, 2009). A wide range of institutional factors have been highlighted, which may be related to dysfunctions within the labour market, such as over-regulation (minimum wage legal provisions, restrictions for temporary and part-time employment, etc), general disinterest for investing in young graduates, high incidence of poor employment for the youth, tolerated discriminatory attitudes and behaviours towards disadvantaged and vulnerable socio-demographic groups etc. Their negative impact is potentiated by ineffective fiscal or active labour market measures

Other factors with broad impact on the whole generation of young people may spring from the *education and training system*, which is often inefficient, unattractive and unadjusted to the structure and developments on the labour market.

According to the literature, the education level stays as the most important predictive factor for the young individual's evolution on the labour market (Eurofound 2012, ILO 2012, Dietrich 2012, Keep, 2012, etc). The higher the education level, the lower the vulnerability and exposure to unemployment risk and the higher potential income. According to Eurostat data, the share of the young people with low education represents about 70% of the NEET population in states like Spain, Portugal, while it exceeds 50% in other countries like Netherlands, Denmark, Germany, Bulgaria, Austria, Romania and Italy.

In 2013, in EU, the highest unemployment rates were registered for the young people with the lowest education level (ISCED 0-2): 31% for the 15-24 age span and 28.2% for 25-29 age group.

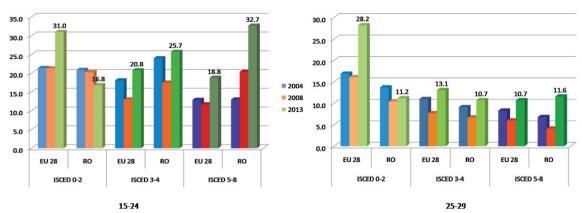


Fig. 2.Unemployment rates for 15-24 / 25-29 age groups after the education level. Romania vs EU28. Source: the authors, based on Eurostata data

Nevertheless, in Romania, the shares are allotted significantly different. While the total unemployment rate for the 15-24 age group stays close to the average value for EU28, Romania presents the highest unemployment rates for the young people with tertiary education (ISCED 5-8: 32,7%) and the figures suggest an upward trend (Fig.2)

The unemployment rate amongst the most educated young people in the 25-29 age group is higher than the EU28 average as well as than the medium and low-educated youth (fig. no 2). Moreover, from a dynamic perspective, while the unemployment rate for the young people with ISCED 0-2 education level, in 2013, was similar to the 2003 level and for those with ISCED 3-4 level was by only 1.6 p.p higher, the unemployment rate among the graduates of ISCED5-8 levels almost doubled, from 6.8% (in 2003), to 11.6% in 2013.

It is apparent that the economic crisis impacted hardly especially on the insertion and stability of the most educated young people (Bell and Blanchflower, 2011) in the labour market. In EU, on the whole, the unemployment rates for tertiary graduates increased steeper than for those with low or medium education level.

Also, the correlation coefficient (Pearson's r) calculated for EU28, between the share of university graduates and NEET rate for 25-29 age group suggests a fading relationship between the two indicators once the crisis hit the labour market. (Fig. 3)

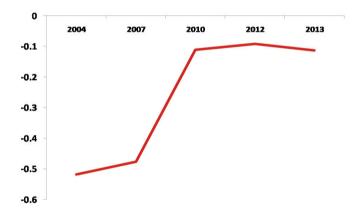


Fig. 3.The correlation coefficient between the share of tertiary graduates in 25-29 years old population and NEET rate, for EU 28. Source: the authors, based on processed Eurostat data.

In Romania, the blow of the economic crisis hit the hardest the most educated young people. While, between 2008 and 2013, the unemployment rate for the least educated young people (15-29) decreased with 13%, the incidence of unemployment for medium and highly educated youngsters increased with 45% and 30% respectively.

For the 25-29 age group, relevant for the absorptive capacity of the labour market for young educated workforce, the unemployment rate amongst the university graduates tripled, reaching 42.2% after an increase of 210%.

It is also significant that, for the segment of highly educated young people, while the unemployment rate increased, the activity rate decreased with almost 10%, from 87.4% in 2003, to 79% in 2013, and this evolution cannot be explained with returning to education as it is the case for the low and medium educated young people. Moreover, in Romania, alongside Cypres and Latvia, youth with tertiary education represents over 20% in total NEET population, while in Greece the percentage rises above 30% and drops down to 5% in Netherlands, Sweden and Denmark (Eurofound, 2012).

From the societal perspective, the analysis of the elasticity of NEET rates to a change in the share of young people with medium or high education in total young population presents controversial results, at least in Romania.

The simple regression equation based on statistic data covering the 2004-2013 time span, with the NEET rate value for Romania's 15-29 youth as dependent variable and the share of ISCED 3-4 graduates in the same age group as independent variable, infers that, the increase of one p.p in the predictor variable may determine a decrease by 2.99 p.p in the regress and. The coefficient is statistically significant (p=0.0004) and the model presents considerable explanatory power (adjusted R^2 =0.78). The model was tested and validated for heteroskedasticity as well as for autocorrelation of the residuals. Thus, we have found an expected causal relationship between the two indicators. The larger the group of medium educated young people (at the expense of the less educated, obviously), the more limited the NEET phenomenon.

Yet, our findings are different regarding the youth with tertiary education. The simple regression model built for the same time and age span, with the NEET rate for the response variable and the share of university graduates (ISCED 5-6) for the independent factor, presents a statistically insignificant positive coefficient. Also, the correlation coefficient between the two variable is 0.11, confirming the lack of direct causal relationship between the size of the university graduates cohorts and the amplitude of NEET, in Romania.

With the same variables (NEET rate 15-29 as dependent variable and share of university graduates as independent variable) we also built an autoregressive model, with panel data for the EU28 countries. While the panel data techniques allow for a better representation of the spatial characteristics through individual effects, the autoregressor (the value of NEET rate for the previous year) embeds the cumulative effect of all the other factors not taken into account and assesses the inertial character of the analysed phenomenon.

The equation, which had been tested for fixed temporal and spatial effects, displayed statistically significant coefficients for both the independent variable (p=0.044) and for the autoregressor (p=0.000) and high explanatory power (Adi, $R^2 = 0.93$).

The regression coefficient is negative but relatively low, suggesting that, in the EU as a whole, despite high explanatory power of the model, for each added percentage point in the share highly-educated young people, the NEET rate (for 25-29 age group) would decrease but only by 0.26 p.p.

5. Conclusions

The results presented above confirm that, regarding at least Romania, the issue of youth exclusion from the labour market is not of a circumstantial but structural, systemic nature, with roots deeply embedded in both the labour market and the education system. (Vasile et al, 2008)

Therefore, for mitigating and preventing the risk of disconnection of the young generations from the Romanian labour market and, eventually, from society, as well as for reaching the employment rate target assumed within the Europe 2020 strategy, policy tools addressing both the demand side and supply side are required. On one hand, policy interventions should aim at increasing the propensity and interest of employers towards employing young workforce, through fiscal incentives, grants and higher flexibility on the labour market. It is noteworthy that the indicators for the flexibility of the labour market rank Romania the last within EU 28.

On the supply side, however, setting *quantitative* targets for tertiary education graduates is definitely not enough. In the literature, the chronic divergence between the educational system offer and the demand on the labour market in both structure and dynamics has been repeatedly outlined. (Bălan et al, 2012; Vasile et al, 2009; Vasile and Vasile, 2011)

Therefore, based on the wide range of examples of good practice in the international political landscape, the political interventions should aim to quality and less quantity oriented goals. These would surely refer to the functionality and efficiency of the labour market but, first and foremost, to the correspondence between the content and quality of the educational process, on one hand, and the demand and requirements for human resources of the business sector, on the other.(Vasile et al, 2008; Keep 2012; Eurofound 2012 b; Hawley et al, 2012; Macmillan 2012; Biavaschi et al, 2012; Maguire, 2013, Crowley et al, 2013, etc.) The challenge to improve the efficacy and functionality of the educational system and its convergence with the labour market becomes even more difficult given that, beside the ambitious objectives undertaken by Romania within Europe2020 Strategy for the educational system, it is forecasted that, by 2020, the share of jobs requesting highly qualified human capital, with high adaptive capacity and innovation propensity would increase up to 35% (CEDEFOP, 2010).

Concluding, this paper presented, in an original manner, the role that the level of education plays in the youth insertion on the labour market. It highlighted the peculiar characteristics of this causal relationship in Romania, arguing that increasing the cohorts of tertiary education graduates does not necessarily enhance the youth inclusion in the labour market and society.

Thus, public policies and European funded programs targeting the improvement of the quality of educational offer, the provision of support and orientation to young people towards appropriate jobs or training, the stimulation of the business sector interest to acknowledge and assume responsibility in preparing young workforce as well as the optimisation of dual education schemes and active policies on the labour market are acute priorities that may assist society in mitigating and preventing the societal risk of the lost generation

Future research would involve the assessment of the impact of other risk factors for youth exclusion from the labour market – acting at individual or structural, institutional levels – and to identify main strategic interventional areas for potentiating their positive impact.

References

Bălan M., Uzlau C M., Ene C.M., 2012, Evolutions of unemployment among the young over the Economic and financial downturn, Anales Universitais Apulensis Series Oeconomica 14 1, 2012, http://www.oeconomica.uab.ro/upload/lucrari/1420121/16.pdf

Bell D.N.F., Blanchflower D.G, 2011, Young people and the Great Recession, IZA Discussion Paper 5674, http://ftp.iza.org/dp5674.pdf

Berger, M.C., (1989) 'Demographic cycles, cohort size, and earnings', Demography, 26, No 2, May, pp. 311-321

Biavaschi C, Pieters J, Eichhorst W et al, 2012, Youth Unemployment and Vocational Training, IZA DP 6890

Blanchflower DG and Freeman RB, 2000, eds., *Youth employment and joblessness in advanced countries*, University of Chicago Press Blanchflower DG, Oswald AJ, 1998, Entrepreneurship and the Youth Labour Market Problem, www.dartmouth.edu/~blnchflr/papers/OECD.pdf CEDEFOP, 2010, Skills supply and demand in Europe. Medium-term forecast up to 2020,http://www.cedefop.europa.eu/en/Files/3052_en.pdf Clark, K.B. and L.H. Summers, L.H. (1982), 'The dynamics of youth unemployment' in Freeman, R. B. and D. A. Wise, (editors), The Youth Labor Market Problem: Its Nature, Causes, and Consequences, University of Chicago Press and NBER

Crowley L, Jones K, Cominetti N, Guilliford J, 2013, International Lessons: Youth unemployment in the global context, The Work Foundation Dietrich H., 2012, Youth Unemployment in Europe. Theoretical Findings and Empirical Findings, Friedrich Ebert Stiftung

Ellwood, D. (1982), 'Teenage unemployment: permanent scars or temporary blemishes?' in The Youth Labor Market Problem: Its Nature, Causes and Consequences, Richard Freeman, Wise eds, pp. 349-390. Chicago

Eurofound (2011), Young people and NEETs in Europe: First findings, Eurofound, Dublin.

Eurofound, 2012 a, NEETs – Young people not in employment, education or training: Characteristics, costs and policy responses in Europe, EU Eurofound, 2012b, Recent policy developments related to those not in employment, education and training NEETs, Eurofound, Dublin.

European Commission (EC), 2010, Youth on the move, Publications Office of the European Union,

European Commission (EC), 2014, Youth Unemployment, European Commission Report, http://ec.europa.eu/europe2020/pdf/themes/21 youth unemployment.pdf

Eurostat, 2014, Participation of young people in education and the labour market. Eurostat- (http://epp.eurostat.ec.europa.eu/statistics_explained/) Freeman, R.B., (1979) 'The Effect of Demographic Factors on Age Earnings Profiles', Journal of human resources, 14, No 3, pp. 289-318

Ghinăraru C., 2012, Employment policies to promote active ageing, 2012: Romania, European Employment Observatory

Gregg P, Machin S., 2000, Child development and success or failure in the youth labour market, in Blanchflower and Freeman, eds., *Youth employment and joblessness in advanced countries*, University of Chicago Press&NBER

Hawley J, Hall AM, Weber T, 2012, Effectiveness of policy measures to increase the employment participation of young people, Research project: Youth employment: Challenges and solutions for higher participation of young people in the labour market, Eurofound

ILO, 2012, Global employment trends for youth 2012, International Labour Organization, Geneva

ILO, 2013, Global Employment Trends for Youth 2013: A generation at risk. Geneva

Jimeno JF, Rodriguez-Palenzuela D, 2002, Youth unemployment in the OECD: demographic shifts, labour market institutions and macroeconomic shocks. European Central Bank, Working paper series, no. 155

Keep E, 2012, Youth Transitions, the Labour Market and Entry into Employment: Some Reflections and Questions, SKOPE Research Paper 108 Korenman S., Neumark D., 2000, Cohort Crowding and Youth Labor Markets: A Cross-National Analysis, in Blanchflower and Freeman, eds.,

Youth employment and joblessness in advanced countries, University of Chicago Press and NBER

Macmillan, L. 2012 *The cost of youth unemployment*, Department of Economics and CMPO, University of Bristol for Youth unemployment: the crisis we cannot afford. The ACEVO Commission on Youth Unemployment.

O'Higgins N, 2003, Trends in the youth labour market in developing and transition countries, The World Bank, Social Protection Unit, Human Development Network, Social Protection Discussion Paper Series, nr, 0321

OECD (2008), 'Off to a good start? Youth labour market transitions in OECD countries',

OECD, 2010, Off to a good start? Jobs for youth, OECD, Paris.

Quintini G, Martin S., 2006, Starting well or losing their way? The position of Youth in the Labour Market in OECD Countries. OECD Social Employment and migration working papers, no. 39

Scarpetta, S., A. Sonnet and T. Manfredi (2010), 'Rising youth unemployment during the crisis: how to prevent negative long-term consequences on a generation?' OECD0020DELSA/ELSA/WD/SEM(2010)6

Symonds, W. C., Schwartz, R. B. and Ferguson, R. (2011) Pathways to Prosperity: Meeting the Challenge of Preparing Young Americans for the 21st Century, Report issued by the Pathways to Prosperity Project, Boston, Mass: HarvardUniversity, Harvard Graduate School of Education.

Vasile V., 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, SPOS 2007 Project, Study no 2, EIR, http://www.econstor.eu/bitstream/10419/74687/1/594355125.pdf

Vasile V., Prepelicean G., Sandru D-M. (2009) Improving vocational competencies among graduates and youths: A chance for the future, SPOS 2009, Study no. 4, EIR, http://www.econstor.eu/bitstream/10419/74698/1/623006588.pdf

Vasile V. and Vasile L. (2011) Youth on Labour Market. Features, Particularities, Pro-mobility factors for graduates. Elements of a balanced policy for labour migration, Romanian Journal of Economics, Institute of National Economy, vol 32(1(41)), pag. 97-123