

How do Romanian Youths Fare in Their Journey from School to Work?

Adrian OȚOIU

The Bucharest University of Economic Studies, Bucharest, Romania
adrian.otoiu@csie.ase.ro

Emilia ȚIȚAN

The Bucharest University of Economic Studies, Bucharest, Romania
emilia.titan@csie.ase.ro

Abstract. *The paper attempts to present a comprehensive picture of the main characteristics of Romanian university-educated youths in their journey to employment. The persisting demographic decline and significant labor shortages point out to the importance of having an effective transition from school to work (as reflected in several Europe 2020 policy targets) so that youth and young adult cohorts are able to contribute to the Romanian economy to the full extent of their abilities. Analysis of the latest data available reveals that Romanian university graduates' path to employment often involves a complete switch from study to work. Despite a lack of previous work experience, they enjoy high employment rates, relatively long job tenure that starts on, or shortly after, graduation, and have jobs that match their education. They also tend to be proactive in their job search and over 90% are not willing to change residence in order to start employment. Inactivity patterns that consider both work and education, and early leavers from education show significant fluctuations during the economic cycle. Results indicate the strong and weak areas with respect to labor market integration of youths and young adults, and can provide a starting point for policies to optimize their successful integration. It also points out to potential research areas to address key aspects of transitions from school to work that may clarify unsolved issues and guide effective policy interventions.*

Keywords: transition from school to work, NEETs, university graduates, labor markets

Introduction

The transitions of youths from school to work is one of the most important life events in someone's life. In many cases, it is synonymous with becoming an independent adult, which is starting her professional career until retirement years. Therefore, its quality is of paramount importance as it can define one's path into the working world for years to come.

In today's economic environment, the characteristics of school-to-work transition are becoming more and more important. Demographic trends indicate that the size of the labor force is likely to decrease in many developed and developing countries alone, against a background of an increasingly older population and birth rates below population replacement levels. Historically, many developed economies, and in particular European countries, youths have experienced relatively high unemployment rates (Blanchard, 2006), and low quality of work arrangements. In some cases, youths are able to secure only temporary and part-time employment contracts, which are synonymous to uncertainty, which affects their lives in terms of starting a career or planning to acquire property.

Therefore, policymakers have focused the attention on how the transition from school to work takes place, and what are its negative aspects that can be offset through successful policy intervention.

Europe 2020 Strategy defines several important indicators, which can be significantly affected by the outcomes of school-to-work transition. The increase of employment rates for the 20-64 year olds can be affected by the usually lower levels characteristics for younger cohorts. Similarly, the socio-economic relevance of increasing the number of youths completing university education, and its effects on economic growth and transition towards a knowledge-intensive economy can be impacted by the effectiveness of the school-to work transition.

The school-to-work transition is also important for the Romanian economy. A backdrop of labor shortages, and an increasing number of retirements make the importance and characteristics of the university-educated youths essential for the future development of the Romanian economy, and its long-term sustainability. Therefore, it is important to have a comprehensive, evidence-based picture of the youths pursuing tertiary/university education. The importance stems from the fact that the Romanian economy is affected by strong labor shortages in knowledge-intensive sectors, while the university entrance cohorts experience downward pressures effected by lower birth rates.

Another reason behind the need to have a comprehensive picture about university graduates and their labour market and inactivity-related characteristics is that the socio-economic situation of the Romanian youth is different from the one in other EU countries, and commands an in-depth understanding of their behavior and characteristics. Our purpose is to come up with conclusions and insights that can constitute a valid starting point for designing appropriate policy measures to enable an increasing share of university-educated youths to fulfill their potential.

Literature review

There is a significant body of literature that analyzes the situation of youths with respect to their labor force performance. Most of it originates for the 80s and 90s, where the persistence of youth unemployment was perceived as a widespread problem throughout Europe (Blanchard, 2006). This has effected a wide-ranging policy response in many developed countries. Within the European context, the latest "growth and jobs" strategy, known as Europe 2020, has set among its five key headline targets one directly related to higher education: "The share of early school leavers should be under 10% and at least 40% of the younger generation should have a tertiary degree" (European Commission, 2010). In order to achieve this, and the policy goal of achieving a 75% employment rate for the population aged 20 to 65 (European Commission, 2010), the Commission launched several flagship policy initiatives, among which "Youth on the move" which looks at improving the education systems and help youths enter the labour market (European Commission, 2010).

The particular situation of Romania makes these policy issues more relevant. The 2018 Education and Training Monitor shows a high proportion of early leavers from education and training, and a low higher education attainment rate compared to other EU countries (European Commission, 2018). A good performance in the labour market, reflected by high employment rates and a high proportion of STEM graduates, is accompanied by labour shortages due to low participation to tertiary education, a perceived lack of relevance of the academic curriculum, and significant emigration (European Commission, 2018).

Studies about Romanian youths revealed several key characteristics with respect to their educational attainment and labor market behavior. An analysis based on results of the Romanian labor market household survey (Moldoveanu et al, 2017) shows that, in 2016, over half of them had completed secondary education and did not consider continuing their education (Moldoveanu et al, 2017). Only 8.9% of youths aged 15-34 had acquired work experience during studies, and around 20% were NEETs (Not in Education, Employment or Training) (Moldoveanu et al, 2017). Initially low employment rates and high unemployment observed for youths was the result of transition from school to work (Moldoveanu et al, 2017). Over 75% found work through directly contacting the employer, or through friends, acquaintances and relatives (Moldoveanu et al, 2017). Less than 4% of those employed changed residence to take up employment, and only 20% of the NEETs were willing to do so (Moldoveanu et al, 2017). For 10% of the employed youths, commuting to work was long (over one hour), and only 35.9% of the NEETs would accept a job involving long commute (Moldoveanu et al, 2017). Although valuable, most insights refer to all youths aged 15 to 34, and breakdowns by level of completed education are seldom available.

Another study done by the Ministry of Youth and Sports provides insights about how youths and several stakeholders (companies, professional associations, educators, etc.) perceive transitions from school to work. Dissatisfaction about a high theoretical curriculum and low quality of education was a major concern, along with a lack of essential work skills that are usually acquired through non-formal and informal education (MYS, 2018).

Research that analyzes the transition from school to work is rather scarce. Most of it was done by UEFISCDI, through the projects "Evidence-based policies and their impact on the labor market" (EBP-LMI) and "National study for monitoring the labor market insertion of higher education graduates" which attempt to improve the efficiency of higher education with respect to labor market outcomes. The final report for the EBP-LMI project concludes that university graduates are highly proactive in finding a job through direct contact of potential employers, or through friends, relatives and acquaintances (Uefiscdi, 2016). The average time for finding a job was between 3 to 5 months, depending on the field of study (Uefiscdi, 2016). The field of study, personal characteristics and the ability to communicate were the most important factors for finding a job, and the degree of satisfaction was mostly related to the salary received, and lower for arts and humanities graduates (Uefiscdi, 2016). Most employment contracts were permanent, and 49% or more of university graduates from the 2010 class mentioned a high degree of satisfaction with current jobs and professional status (Uefiscdi, 2016). While conclusions are relevant, small sample sizes and the evolution of the labor market after 2015 may weight upon the relevance of some conclusions.

Academic research in the field is rather scarce. Bălan et al. (2013) shows that there is a mismatch between job requirements and academic curriculum of university graduates, which held rather unstable jobs, and that high unemployment is an issue, conclusions based on data up to 2011. Dimian (2014) shows that, even during periods with relatively high unemployment, many employers cannot find employees with the right qualifications, and existing employees lack important skills and abilities. Greater investment in workforce education, and strengthening the links between business and the educational sector are needed to address these issues (Dimian, 2014).

Vasilescu and Begu (2019), in analyzing reservation wages for Romanian youths, showed that university graduates expect to earn, on average, €323, which can increase when they intend to work in their field of study, emigrate, or around expected graduation date.

Zamfir et al. (2014) show that university graduates from the 2002, 2005 and 2007 classes have no difficulty finding employment, but the degree of mismatch between work and education is over 36%. Their research shows that about 30% of the graduates continue work after graduation, and that most have exchanged about two jobs within 5 to 9 years after graduation.

In general, when it comes to Romanian university graduates, studies that explore their transition from school to work are either too general, based on official statistics, or too focused on specific topics without giving an overview of the socio-economic background and environment relevant to transition issues (e.g. early leavers and inactivity). In this respect, this paper attempts to bridge this gap and extend previous analyses by using up-to-date statistics and looking at inactivity and early leaving phenomena, which may affect the number of university graduates and their behavior during and after their studies.

Methodology

An in-depth inquiry of the situation of youth that have pursued university education and relevant labor-related aspects are obtained by examining Eurostat detailed data. Most data comes from the EU-LFS tables, and the 2016 Young people on the labor market ad-hoc module. Findings are considered within the EU context (referred as EU 28), and commented against existing evidence that examines the situation of the (university-educated) youths.

Several methodological explanations are needed in order to properly understand and interpret Eurostat's statistical tables. Two variables detail the work experience of graduates during their studies. One looks at their financial compensation, which can be paid, unpaid, or a mix of both. The other consider the type of arrangements through which work experience was acquired during studies, outside the curriculum, through work that is not part of the formal study programs, and as part of the curriculum, in the form of mandatory traineeships, mandatory work-based traineeships or apprenticeships.

Most of the data are presented and analyzed for the 15-34 age group. This choice is motivated by the use of different age groups in several data sources, and also by the fact that almost all university graduates complete their studies before the age of 35 (OECD, 2014). Another consideration lies in the purpose of this paper, as it is concerned mainly with transitions to work of Romanian university graduates (see discussion section below) of which 83% have not had any work experience acquired during their studies. For the same reason, unless otherwise indicated, the reference year for analysis is 2016, as most statistics are reported or available for this year.

Data reporting features of official statistics should also be considered. In some cases, data is not reported, as the low number of responses render unreliable estimates. In other cases, a lack of responses may make comparisons and interpretations difficult as shares of youths having different characteristics do not add up to 100%. While it is beyond the scope of this paper to review the reporting methodologies of Eurostat, potential gaps and data inconsistencies are signaled, interpreted in a cautious, non-ambiguous manner, and flagged as limitations that could be addressed in the future.

Results and discussions

The evolution of youth cohorts is shown in table 1. Youth cohorts defined as population aged 15 to 34, shows a small but steady decrease in both European Union (referred as EU 28 from

this point forward) of about 0.9% annually over the 2009-2017 period. Romania fared worse, with a 3.9% average annual decrease over the same period. However, when it comes to youths aged 15 to 34 that completed tertiary education (ISCED levels 5-8), EU 28 shows an increasing trend of 1.7% annual average increase, while Romania's university graduates exhibit significant fluctuations.

Table 1. Evolution of youth cohorts in EU 28 and Romania

Population aged 15-34 (thou)	2009	2010	2011	2012	2013	2014	2015	2016	2017
EU 28 Total	127,822	124,793	123,561	122,487	121,305	120,706	119,797	119,317	118,417
Romania Total	6,482	5,353	5,309	5,248	5,140	5,035	4,937	4,835	4,708
EU 28, university graduates	26,248	26,616	27,234	28,006	28,531	29,156	29,401	29,704	30,041
Romania, university graduates	772	690	757	792	807	833	788	733	738

Source: Eurostat and authors' calculations

Figure 1 shows the extent to which university graduates have acquired work experience during their studies. Romania is by far the laggard in this respect, with 83% graduates reporting no work experience during studies. The disadvantage reflects on the other work experience categories. With respect to compensation, Romanian university graduates rank last for paid work (6%), and for experience involving a mix of paid and unpaid work (2%). Only with respect to unpaid work experience do Romanian graduates fare better than 9 other European countries. With respect to the way work experience was acquired, Romania also ranks last with respect to experience acquired outside curriculum (7%), and one of the smallest proportions with respect to mandatory traineeships. Uefiscdi (2014) and Moldoveanu et al. (2017) also confirm this evidence.

This state of affairs also defines the experience of Romanian university graduates after graduation. As shown in figure 2, they also rank last with respect to the extent to which they receive either formal or non-formal education after graduation. The size of the difference is also striking as it is the only EU country where less than 10% of graduates receive education to upgrade the skills.

The labor market situation of Romanian university graduates, shown in figure 3, is rather good among all EU countries. On all indicators, Romanian graduates are above the EU average in terms of employment rates, and tend to have lower inactivity rates. The unemployment and the inactivity situation is, however, not that favorable. Although Romania outperforms most countries, its unemployment rate is higher than for eight other countries. The same can be observed for inactivity rates. However, it appears that the high inactivity rates for Romanian youths are due to youths with lower educational levels.

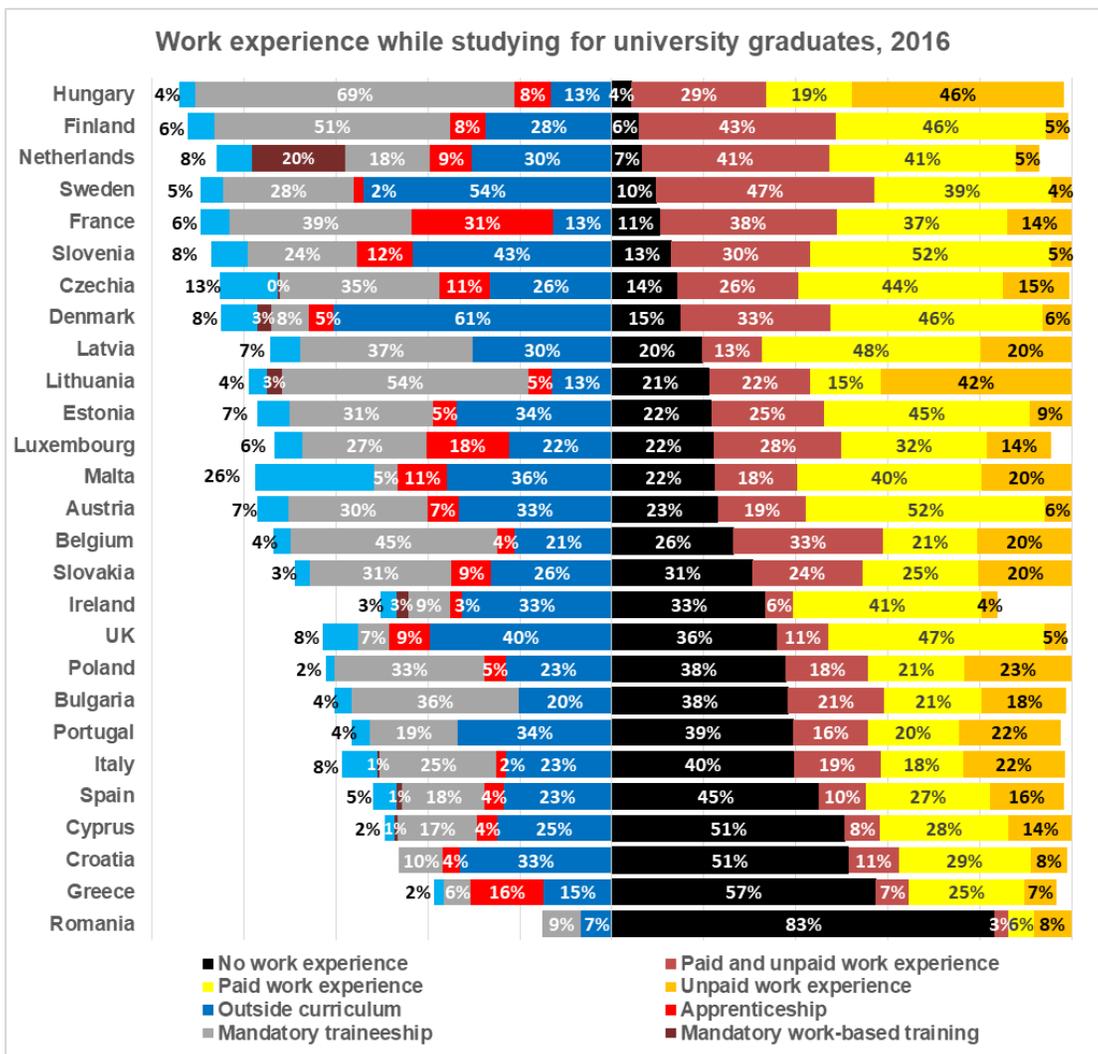


Figure 1. Work experience of university graduates in EU countries

Source: Eurostat and authors' calculations

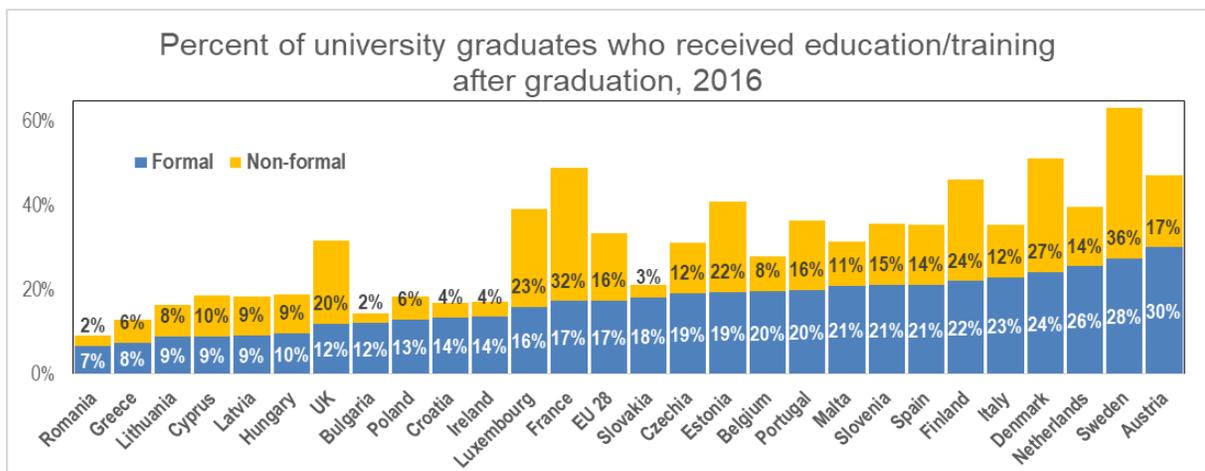


Figure 2. Share of university graduates in EU countries receiving education after graduation

Source: Eurostat and authors' calculations

A further look at the statistics broken down by the way work experience during the study period was acquired shows that university graduates with work experience acquired during studies have an employment rate of 89.6%, 5.5 percentage points above the one for all graduates. However, employment rates for Romanian university graduates without work experience is only 0.5 percentage points lower than the 84.1% rate for all university graduates.

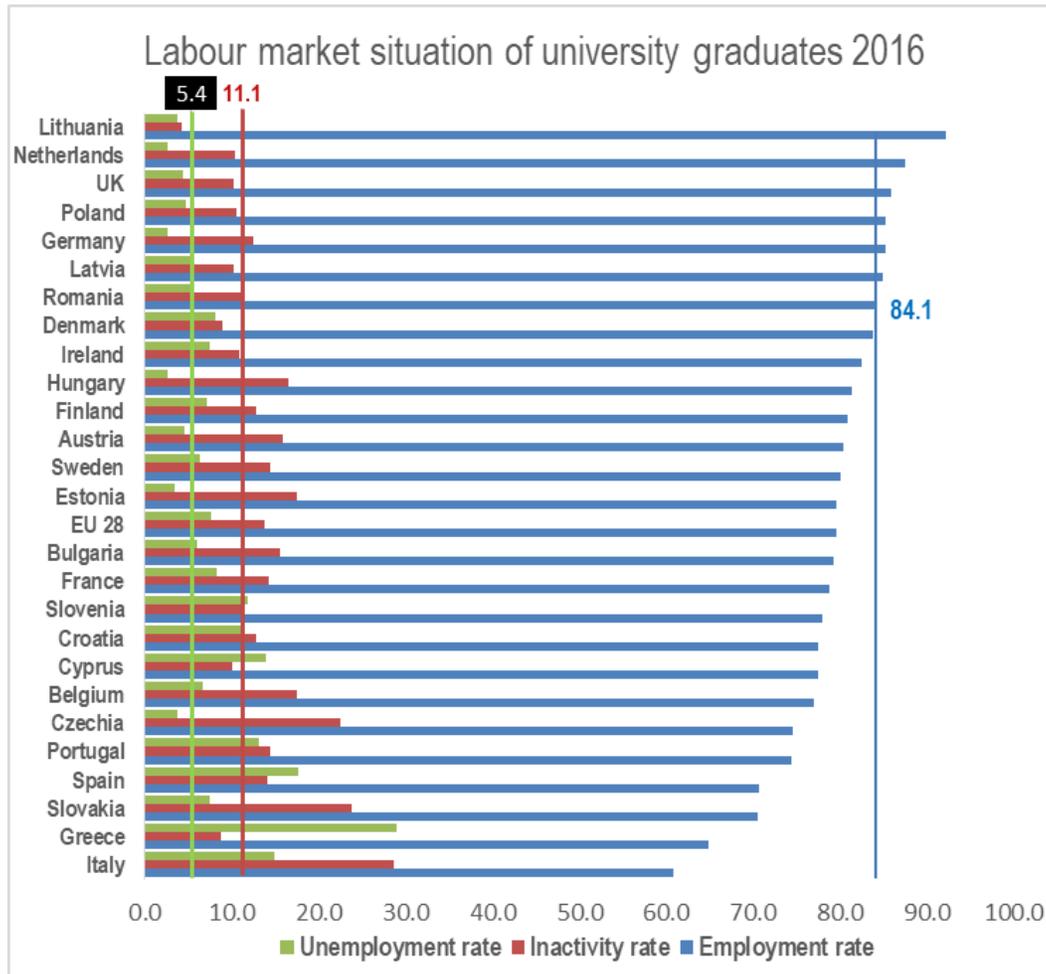


Figure 3. Labour market outcomes for tertiary education graduates in the EU

Source: Eurostat and authors' calculations

With respect to how relevant university education is to current employment, Romania ranks fourth in the EU, with 70% of the university graduates considering their current jobs are a good match for their qualifications (as shown in figure 4). However, a little over one fifth of them considers that there is a medium match between education and their current job, a relatively high percentage if considered against the top performing countries with a high degree of match between jobs and education. This result is by far the most favorable, higher than the rates observed by Uefiscdi (2016), and compared to a mismatch of 36.1% as reported by Zamfir et al. (2016) for the 2002, 2005 and 2007 graduation classes.

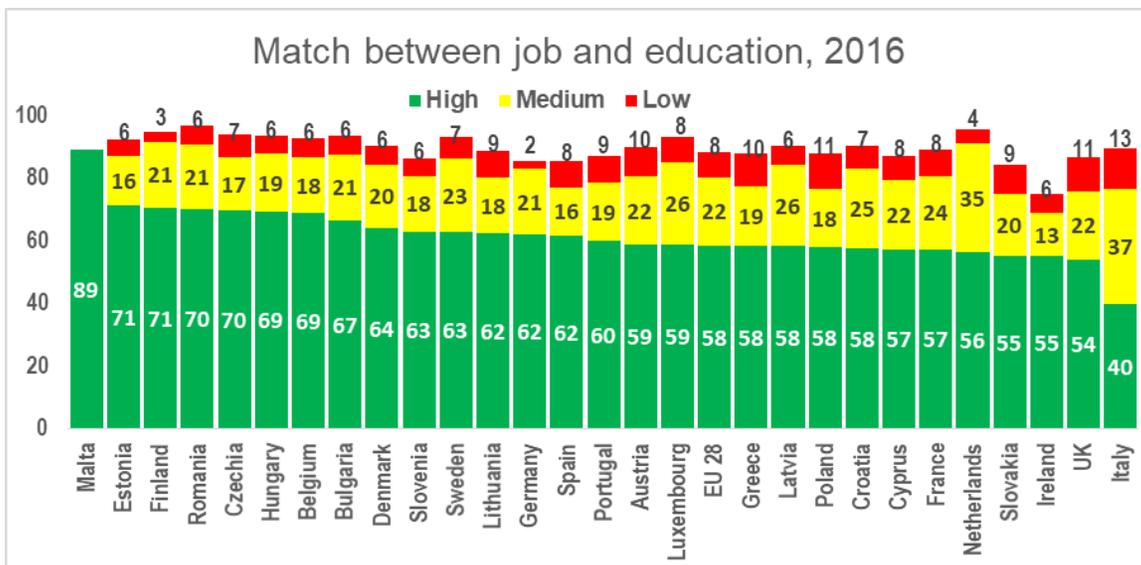


Figure 4. Matching job opportunities for tertiary education graduates in the EU
 Source: Eurostat and authors' calculations

Statistics relating to job quality support the relatively high degree of match between jobs and education, and reveal the fact that the quality of jobs for Romanian university graduates is relatively high. No Romanian graduates reported involuntary part-time employment, as opposed to a 32% incidence for the EU-28 countries taken as a whole. However, shift work had a significant prevalence among Romanian university graduates, of 13.1%. Shift work prevalence was as high as 25.6% for graduates with work experience acquired outside the curriculum, and of 19.5% of those who had work-based learning during their studies. By contrast, only 11.4% of those with no work experience acquired during their studies report shift work.

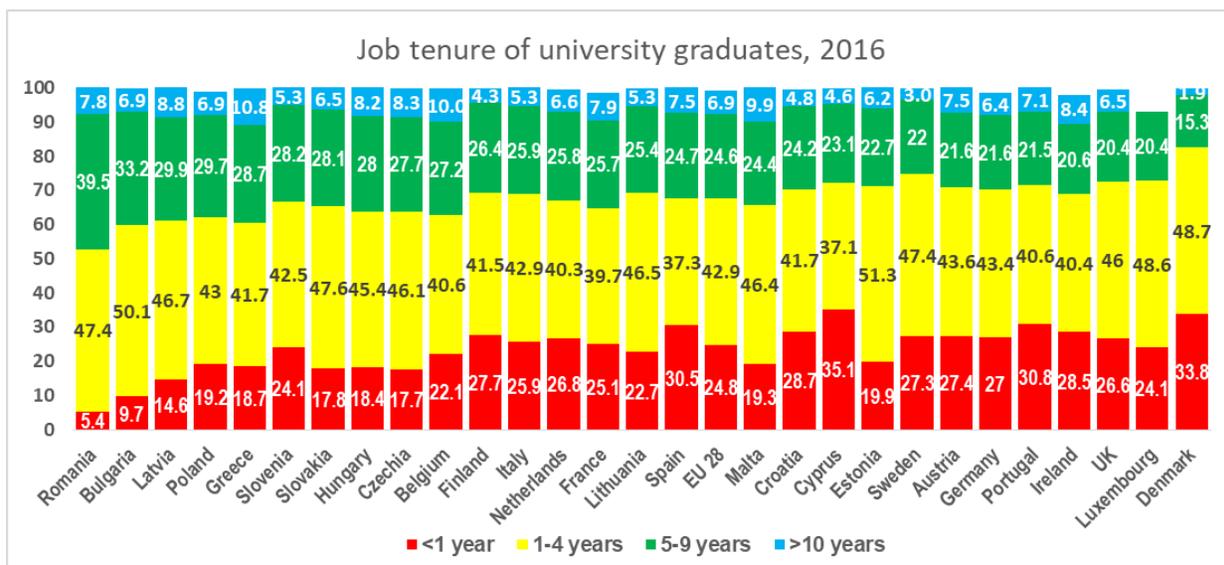


Figure 5. Distribution of job tenure for tertiary education graduates in the EU
 Source: Eurostat and authors' calculations

Job tenure statistics confirm Romania's top spot with respect to employment opportunities after graduation. If we consider that the median age of graduation for tertiary education is below 24 years for most OECD countries (OECD, 2014), and that the average age of obtaining the first university degree is 26.6 in the EU (Little and Tang, 2008). Romanian graduates seem to enjoy the strongest labor force attachment. As shown in figure 5, the share of university graduates up to 35 years having 5 to 9 years of work experience is by far the highest in the EU. The relatively low share of university graduates having job tenure of less than a year, which is almost a fifth of the one recorded for the EU-28 and much lower than those for other Eastern European countries, may point out to little or no difficulty in finding appropriate employment after graduation.

Findings are, to a certain degree, consistent with the findings that most graduates change around two jobs 5 to 9 years after graduation (Zamfir et al., 2014). This contrasts with the results of the 2009 LFS ad-hoc module, when the average time between leaving education and starting the first job of Romanian graduates was 4 years, the third largest after Greece and Italy. However, as shown in the Uefiscdi (2016) report, it may be the case that a sizeable share of university graduates with work experience acquired during studies continue working for their employers, which can be higher for other countries where significantly higher shares of university graduates may do so.

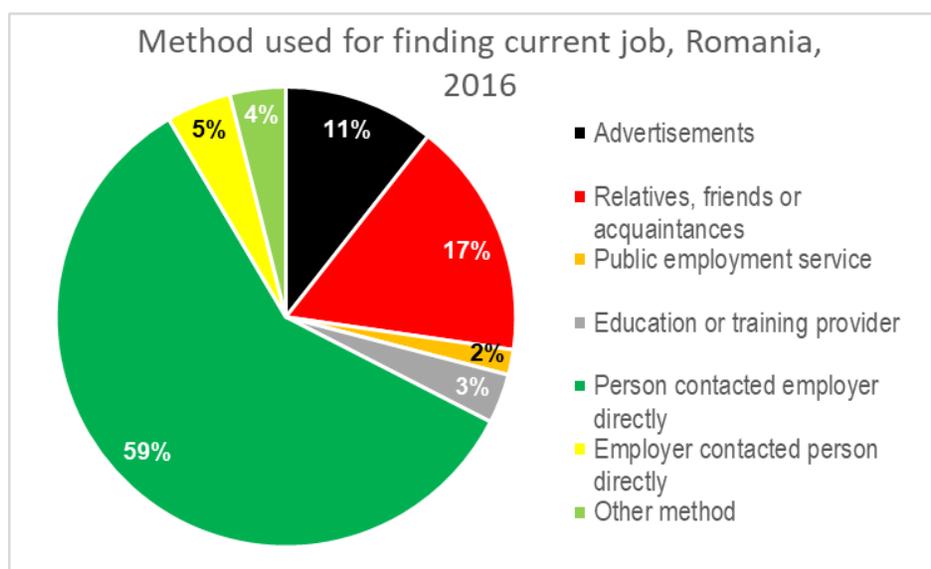


Figure 6. Job finding methods for Romanian university graduates

Source: Eurostat and authors' calculations

Methods used for finding a job, detailed in figure 6, show that most graduates find employment through direct contact with employers. Relatives, friends and acquaintances, and checking of the job ads are the next most popular methods for job finding. Public employment service, or alumni/ career counselling services play a marginal role in job search and employment referrals. Results are consistent with Uefiscdi (2016) findings, which refer to the 2010 university graduation cohort, albeit the role of other job search channels was bigger.

Mobility intentions, shown in figure 7, reveal the fact that Romanian university graduates are relatively less mobile than the EU average. Over 90% have not changed

residence and do not intend to do so, while only 7% intend to move within Romania. Internal mobility is twice as high in the average EU country, where about 9% have moved, or considered moving to a different country. While there are no comparable figures reported for Romania, we infer that intentions to move residence to another country are either not captured by these statistics, or are highly concentrated in specific fields, e.g. health care and social assistance.

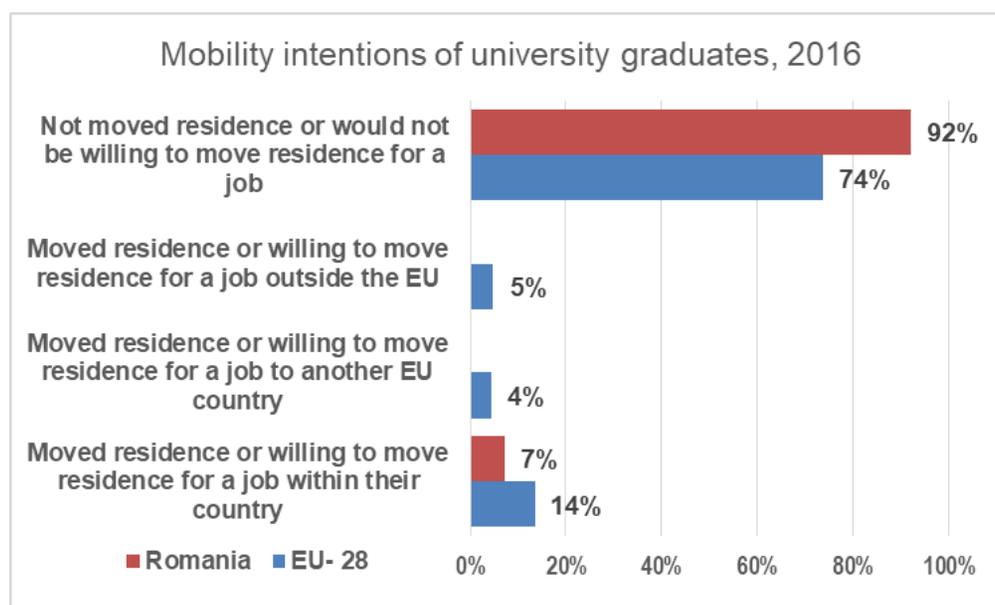


Figure 7. Mobility intentions of university graduates

Source: Eurostat and authors' calculations

Inactivity and early leaving are given a special attention due to the fact that they affect youths, with an impact on their future labor market attachment. A comparison between Romania and the EU 28, done in figure 8, shows that, while Romania have a significantly higher share of young NEETs (defined as people not in employment, education or training) compared to EU 28 countries, the share of NEETs among university graduates is, with two exceptions, lower than the EU 28 rate. The persistence of the NEET phenomenon in Romania is shown by both its relatively low cyclicity since 2010 for all youths, and its high cyclicity for university graduates. By contrast, NEETs rates for EU 28 countries experience moderate cyclicity, of no more than 3 percentage points.

Another youth segment of concern is the early leavers from education and training. Figure 9 shows data that is not broken down by level of education. However, the age segment 18 to 24 refers mostly to university graduates, if we consider the fact that most of the early leavers from secondary education would do so between the ages of 14 to 18.

While Romanian university graduates are faring well with respect to employment and inactivity rates, this may point out to a dual labor market, which is negatively affected by a high proportion of youths who do not pursue university education. The high proportion of early leavers in Romania, with 3.8 and 7.4 percentage points above the EU 28, may reflect a lost economic and social potential.

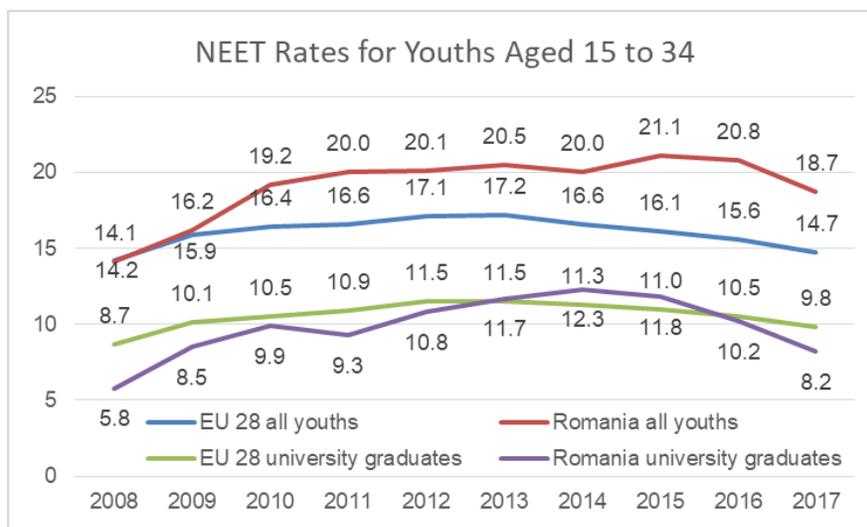


Figure 8. Evolution of NEET rates for youths

Source: Eurostat and authors' calculations

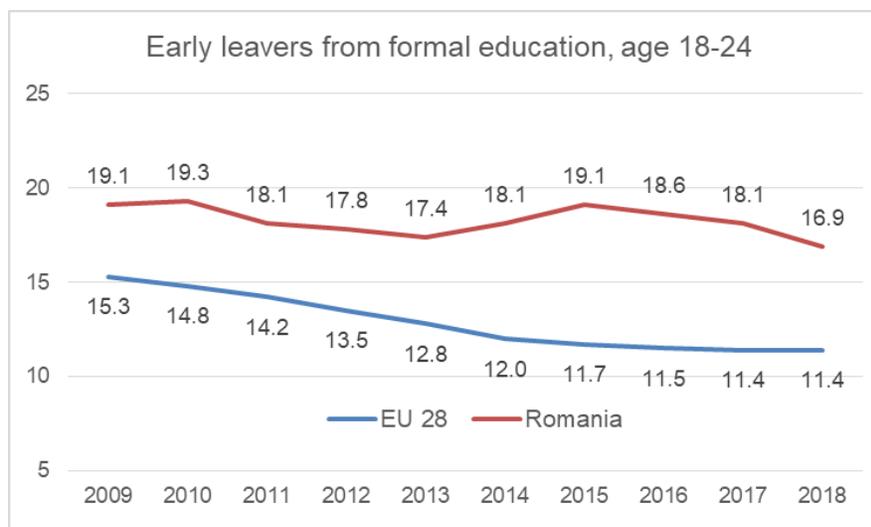


Figure 9. Trends among early leavers from formal education

Source: Eurostat and authors' calculations

Regular LFS statistics help supplement the information of the work-related inactivity rate provided in the LFS 2016 ad-hoc module data. Figure 10 pictures inactivity rates for university graduates who are not currently involved in any education or training program. Rates are significantly lower than for the broader definition presented in table 3, where inactivity referred strictly to work, and not to education or training. Again, Romanian university graduates fared significantly better than those in other EU countries did, although since 2010, the difference is smaller, of no more than 3 percentage points. With respect to the time since finishing university education, we notice little difference in inactivity between Romania and EU 28 countries within three years after graduation, between 2012 and 2016. However, for those who graduated more than three years ago, there is a strong and persisting difference in favor of the Romanian university graduates, which is at least 1.5 percentage points lower than their EU 28 counterparts.

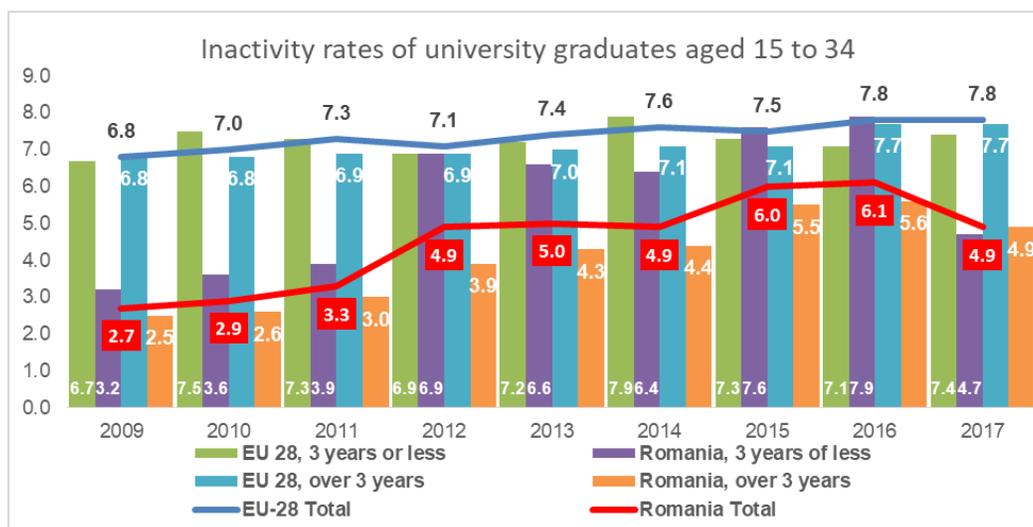


Figure 10. Trends in inactivity with respect to work and education

Source: Eurostat and authors' calculations.

Conclusion

A comprehensive picture of the transitions from school to work for Romanian university graduates is showing key insights, with respect to their labor force attachment and behavior, and with respect to their dynamics in terms of inactivity.

Striking and apparently contradictory results are obtained with respect to their work experience. While very few gain work experience during formal education, and few engage in education after graduation, their employment rates are among the highest, and inactivity rates among the lowest compared to EU 28 countries. Labor force attachment is strong as most graduates have rather long job tenure, indicating the fact that most of them are hired right, or shortly after, graduation. Another salient fact is that there is not much difference between employment and inactivity rates of university graduates with work experience during studies and those without any work experience.

The fact that most university graduates find a good match between their current work and the education received, that they are mostly hired following direct contact with employers, or to referrals by relatives, friends or acquaintances, and that they are not moving or willing to move within the country or abroad, complete the general picture of a tight labour market. Also, the fact education and work spells are mostly distinct does not weight upon the chances of university graduates to gain employment relevant to their studies. Incidence of non-standard work arrangements, such as involuntary part-time employment, working unusual hours or for temporary employment agencies is low. However, the incidence of shift work, which could be partly motivated by work in outsourcing services, is significant.

Inactivity patterns related to tertiary education paint a mixed picture and require further attention. While NEET rates of Romanian youths are among the highest, they are relatively low for university graduates, and fluctuate a lot during the economic cycle. The high percentage of early leavers from education may have a large impact on the number of university graduates, and may be related with inactivity among the youths who did not complete university education. When inactivity refers to both education and work, university

graduates have extremely low rates, which, unlike those for the rest of the EU, tend to show notable decreases 3 years after graduation.

Future research may address some data gaps with respect to graduation and transition into the labor force. Thus, it would be informative to measure the median graduation age and its distribution. A detailed analysis of university graduates by field of study may yield potentially useful results with respect to different expected graduation ages, higher propensity to move abroad after graduation, and different ways of finding jobs. A more thorough analysis of early leavers from tertiary education may help with designing effective measures in increasing the number of university graduates.

References

- Bălan, M., Uzlău, C., Ene, C.M. (2013). Transition from Educational System to Labour Market in Romania, *Procedia - Social and Behavioral Sciences*, Logos Universality Mentality Education Novelty (LUMEN 2013), Iasi, Romania, 10-13 April 2013, Volume 92, 2013, 314-322.
- Blanchard O., (2006), European unemployment: the evolution of facts and ideas, *Economic Policy*, CEPR & CES & MSH, vol. 21(45), 5-59.
- Dimian, G.C. (2014). Labour Market and Educational Mismatches in Romania, 7th International Conference on Applied Statistics, Bucharest, Romania, 15 November 2013, *Procedia Economics and Finance* 10 (2014), 294 – 303.
- European Commission (2010), COMMUNICATION FROM THE COMMISSION, EUROPE 2020, A strategy for smart, sustainable and inclusive growth. Retrieved from <http://ec.europa.eu/eu2020/pdf/COMPLET%20EN%20BARROSO%20%20%20007%20-%20Europe%202020%20-%20EN%20version.pdf>.
- European Commission (2015). COMMISSION IMPLEMENTING REGULATION (EU) 2015/459 of 19 March 2015 specifying the technical characteristics of the 2016 ad hoc module on young people on the labour market provided for by Council Regulation (EC) No 577/98, Official Journal of the European Union L 76/6. Retrieved from <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32015R0459>.
- European Commission (2018). Education and Training Monitor 2018 Country analysis Directorate-General for Education, Youth, Sport and Culture. Retrieved from <https://ec.europa.eu/education/sites/education/files/document-library-docs/volume-2-2018-education-and-training-monitor-country-analysis.pdf>.
- Little, Brenda and Tang, Win-Yee (2008). Age differences in graduate employment across Europe. Higher Education Funding Council for England, Bristol, UK, Retrieved from http://www.open.ac.uk/cheri/documents/reflex_report_5.pdf.
- OECD (2014). At what age do university students earn their first degree? Education Indicators in Focus – May 2014, Retrieved from [https://www.oecd.org/education/skills-beyond-school/EDIF_23%20eng%20\(2014\)EN.pdf](https://www.oecd.org/education/skills-beyond-school/EDIF_23%20eng%20(2014)EN.pdf).
- MYS (2018). PROGNOZA EVOLUȚIEI ȘI TENDINȚELOR PIEȚEI MUNCII – AMENINȚĂRI ȘI OPORTUNITĂȚI, Ministerul Tineretului și Sportului, Retrieved from <http://mts.ro/wp-content/uploads/2019/01/PROGNOZA-EVOLU%C8%9AIEI-%C8%98I-TENDIN%C8%9AELOR-PIE%C8%9AEI-MUNCII.pdf>.
- Moldoveanu, R, Apostol, M., Popa, D, Ionita, M., Greabu, B (2017). Accesul tinerilor pe piața forței de muncă, anul 2017, INSSE, Retrieved from http://www.insse.ro/cms/sites/default/files/field/publicatii/accesul_tinerilor_pe_piata_forței_de_munca_2016.pdf.

- Uefiscdi (2016). Absolvenți și piața muncii, Raport final. Retrieved from http://sapm.forhe.ro/wp-content/uploads/2016/04/SAPM_raport_centralizat-final.pdf.
- Vasilescu, M.D., Begu, L.S. (2019): Youth reservation wages in Romania: are wage expectations realistic? *Applied Economics Letters*, 26(14), 1157-1161.
- Zamfir, A.M., Mocanu, C., Lungu, E.O., Pirciog, S. (2014). The school-to-work transition of higher education graduates in Romania, in *Youth and the Labour Market in Romania*, eds. Cristina Lincaru, Vasilica Ciucă, Newcastle upon Tyne: Cambridge Scholars Publishing, 155-163