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School-to-work transition of young individuals: what can the ELET and NEET indicators tell us?

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1. Introduction

Nowadays, young individuals are better educated than older cohorts; however, governments still face the serious problem of a significantly high share of young people leaving school without a basic education qualification. Non-completion of upper secondary education is particularly worrying in the current global context since it may have huge consequences for individuals' life. *Early school leavers* (ESL), also known in the literature as *early leavers from education and training* (ELET)¹, on average have difficulties in successfully integrating in the labour market, earn less, have higher unemployment rates, and are more at risk of social exclusion and poverty than those who complete higher levels of education, since the skills they acquired in initial education may not be sufficient in their adult life. This can have negative consequences not only at the individual level, but also for the society they live in. While youth unemployment has received wide attention by both researchers and policy makers, especially in some EU countries, it is also important to be aware of the fact that these young ELET, who are more likely to struggle to find a job and be discouraged from failing to do so than their more educated peers, are also probably more at risk of becoming inactive² instead of unemployed (even more than their adult counterparts). These inactive individuals are potentially quite a disadvantaged group in terms of labour market integration and social commitment. For this reason, it is worth paying particular attention to an indicator of “joblessness” which accounts for all those who are *neither in employment, nor in education or training* (NEET), as a more accurate proxy of the size of the group of individuals most at risk on the labour market.

Thus, the main objectives of this technical brief are:

1. To provide some descriptive evidence on the size of ELET and NEETs across EU Member States using aggregate data from the Labour Force Survey (LFS);
2. To further examine how countries compare with respect to school-to-work transitions of early leavers from education and training; and
3. To investigate the link between educational attainment and NEET status.

¹ We will use the two terms ELET and ESL interchangeably in the brief.

² According to Eurostat, “**employed** persons are all persons who worked at least one hour for pay or profit during the reference week or were temporarily absent from such work. **Unemployed** persons are all persons who were not employed during the reference week and had actively sought work during the past four weeks and were ready to begin working immediately or within two weeks. The **inactive** population consists of all persons who are classified neither as employed nor as unemployed”, and it can include for example pre-school children, school children, students, pensioners, disabled, and individuals with family/care responsibilities, provided that they are not working at all and not available or looking for work either; some of these may be of working-age. Having said this, it is important to note that, although inactivity normally includes those in education or training, amongst ELET and NEET by definition, inactivity excludes this group of individuals. In addition, the definition of ELET and NEET implies an age bracket which excludes old-age pensioners; nonetheless disability pensioners may potentially be included.

We start by defining the concepts of ELET and NEET that will be investigated throughout the briefing, and by showing the incidence of the two phenomena in the EU countries; we will then continue showing to what extent the two groups overlap, and the specific characteristics of the two groups in Europe.

Data used

For this technical briefing, we use information drawn from the Labour Force Survey (LFS), which is the official source for statistics on both ELET and NEET. The LFS microdata disseminated by Eurostat do not allow carrying out an analysis of the two groups under investigation; as a matter of fact, for the purpose of dissemination, the derived age variable is aggregated in the anonymised microdata in 5-year age bands (e.g. 2 for 0-4, 7 for 5-9 etc.). This makes it impossible to identify the age groups we are interested in (as will be explained in the following), and in particular the 18-24 age band, since it is only possible to isolate those aged 15-19 and those aged 20-24. For the purposes of this technical briefing, we relied on data from a special extraction provided by Eurostat, concerning the last year available, i.e. 2013.

2. An overview of ELET and NEET

2.1 Early leavers from education and training (ELET)

The term *early leaver from education and training* generally refers to a person aged 18 to 24 who has finished no more than a lower secondary education and is not involved in further education or training; their number can be expressed as a percentage of the total population aged 18 to 24³. Lower secondary

Eurostat operationalizes an **early leaver from education and training** as:

- ✓ a person aged 18 to 24 recorded in the Labour Force Survey,
- ✓ whose highest level of education or training attained is ISCED 1997 level 0, 1, 2 or 3c short, and
- ✓ who received no education or training in the four weeks preceding the survey.

education refers to ISCED (International Standard Classification of Education) 2011 level 0-2 for data from 2014 onwards, and to ISCED 1997 level 0-3C short for data up to 2013. Reducing the share of early leavers from education and training to less than 10% is part of the Europe 2020 headline target on education and training, and one of the European benchmarks in the 2009 strategic framework for European strategy for cooperation in education and training (ET2020)⁴; it is therefore used in the context of

³ The indicator is available from Eurostat with the online code t2020_40.

⁴ OJ 2009/C 119/02.

the Joint Assessment Framework (JAF) approach⁵.

The issue of ELET raises a lot of concerns among policy makers and researchers in many European countries. The reduction of ELET is addressed as a key major factor for breaking the vicious cycle of social exclusion and poverty: increasing the level of education of individuals and reducing their risk of unemployment and poverty are key tools for implementing “smart and inclusive growth” fostered by the European Commission (see OJ 2011/C 191/01). Indeed, the negative consequences associated to ELET not only affect the individual level but also involve the broader community, hampering future prosperity and social cohesion in general (see COM(2011) 18 final). In fact, ELET individuals not only enjoy less labour market opportunities because of their low level of qualification, but their disadvantage tends to persist over time: they are more likely to suffer from both a higher unemployment risk, and a higher risk of falling in bad quality, low paid or temporary jobs (EAC, 2014). ELET also tend to show persistent disadvantages in other domains: they suffer from a higher risk of falling into poverty, experiencing health problems, and are less likely to participate in social, political and cultural activities (European Commission et al. 2014). Empirical research has shown that this negative cycle has also implications in terms of broader social costs, due to lost overall productivity but also because low educated individuals are less likely to make well informed decisions related to their health, marriage and parenting and even in terms of participation to crime (EENEE 2013). Besides, fiscal costs associated to early leaving from education and training have been identified: individuals with low qualification have a higher risk of relying on social assistance, and because of their lower wages, contribute less in terms of tax revenues (see also EENEE 2013). Thus, both the social and the economic implications of high shares of ELET in the population are extremely relevant and claim for a comprehensive strategy to successfully address the issue⁶.

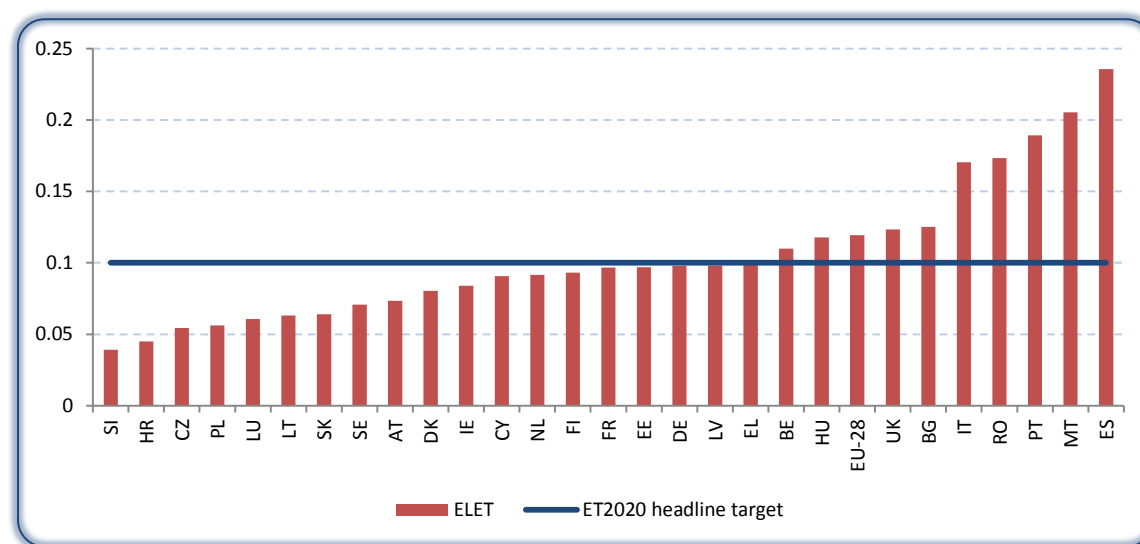
We will start by giving an overview of the relevance of the phenomenon in EU Member States. Figure 1 plots the proportion of ELET in the 28 EU countries⁷. The proportion of ELET varies from less than 5% in SI to more than 20% in ES, with 10 countries currently scoring above the EU target of 10% and the worst performing countries (above 15%) being IT, RO, PT, MT together with ES.

⁵ For a presentation of the JAF methodology within the context of education and training, see JRC-CRELL (2014b).

⁶ As concluded by the Thematic Working Group on Early School Leaving - active between December 2011 and November 2013 and collecting and exchanging information on effective policies to reduce ELET - given the multi-faceted and complex nature of the phenomenon, the most effective way to tackle the problem of early school leaving is through a comprehensive strategy based on a strong and continuous political commitment of all stakeholders towards its implementation, at all levels (European Commission, 2013).

⁷ See Annex A for a detailed description of how the ELET figures were calculated.

Figure 1. Proportion of ELET on the whole population aged 18-24



Source: own calculations on Eurostat special extraction from LFS 2013 data.

2.2 Young people neither in employment nor in education and training (NEET)

Some historical notes on the origin of the term NEET may also help understanding the reason why the two concepts can be fruitfully investigated together. The term NEET first appeared in the UK in the report “Bridging the gap” by the Labour government (Social Exclusion Unit 1999), after a decade in which the problem of teenagers disengaged from education and employment became relevant in terms of policy implications. In particular, the redefinition of the category of youth unemployment in 1988 in the UK gave rise to the problem of what has also been called “Status Zero” youth (Istance, Rees, and Williamson 1994): those aged 16-18 not covered by any employment status (and not entitled to any unemployment benefit). For this reason early research on this topic, in particular when focused on the UK (see Bynner and Parsons, 2002 or Furlong, 2006), tends to overlap the two concepts of ELET and NEET, defining NEETs as those aged 16 to 18 (most of which were also early school leavers) not in employment nor in education and training. Further problems of definition arose in the 2000s when the term NEET spread internationally giving origin to different national classifications. Finally, in 2010 the European Commission (Employment Committee (EMCO) and its Indicators Group) clarified the definition of NEET as young people aged 15-24 years who are unemployed or inactive (corresponding to the ILO definition) and not in education or training. This exact definition has then been implemented in the set of indicators used by Eurostat (Eurofound 2012, p.22)⁸. The NEET indicator is part of the new Scoreboard of key employment and social indicators, which identifies the major employment and social imbalances

⁸ The indicator on NEET is generally expressed as a percentage of the population of a given age group; as mentioned, the standard age group considered at European level is 15-24, but different age breakdowns can be used (and are in fact often adopted at the national level).

within the EU⁹ (see IP/13/893). The first such Scoreboard was published as part of the Joint Employment Report 2014¹⁰, jointly adopted by the Commission and the EU's Council of Ministers.

Eurostat operationalizes a **young person neither in employment nor in education and training** as:

- ✓ a person aged 15 to 24 recorded in the Labour Force Survey,
- ✓ who is not employed (i.e. unemployed or inactive), and
- ✓ who received no education or training in the four weeks preceding the survey.

In order to target this specific group the European Council further launched in 2013 the Youth Employment Initiative and the Youth Guarantee schemes “whereby every young person under 25 receives an offer of employment, continued education, an apprenticeship or a traineeship within four months of leaving formal education or becoming unemployed” (OJ 2013/C 120/01).

As with ELET, Figure 2 plots the proportion of NEETs in EU-28 countries, showing both the proportion derived from the main definition (age group 15-24, in light blue) and the one

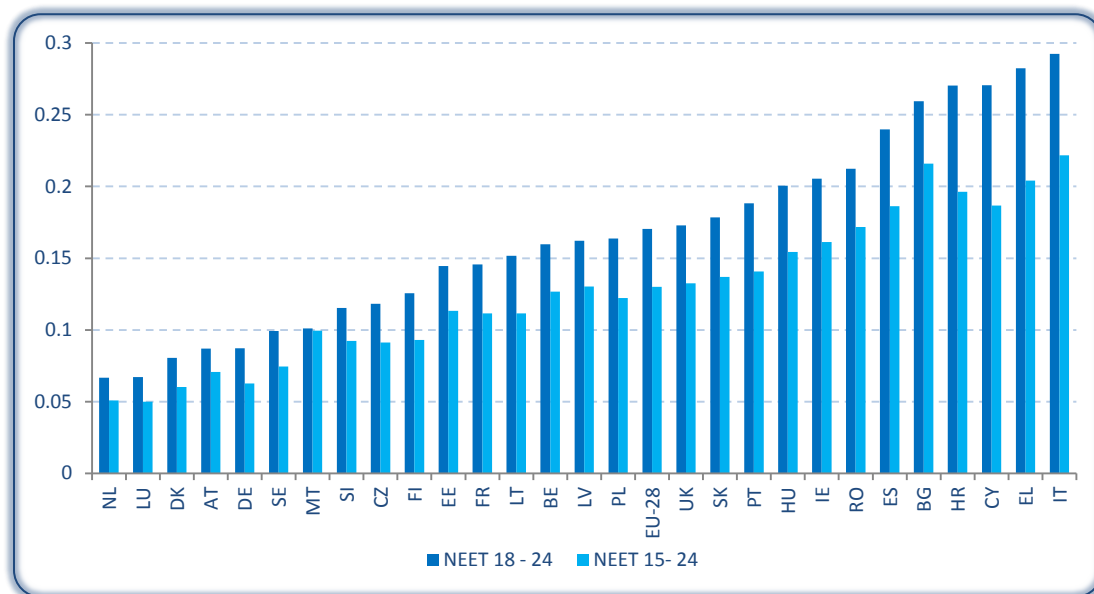
comparable with the ELET group (age group 18-24, in dark blue)¹¹. The proportion of people aged 15-24 is always lower than the proportion aged 18-24, mainly due to the fact that compulsory schooling in most of the countries ends at age 16, and therefore for young individuals aged 15-17 the likelihood of being still in education (and thus not being a NEET) is much higher than for the age group 18-24. NL is the country with the lowest proportion of NEETs, while the worst performing countries are IT, EL, CY, HR, BG and ES.

⁹ http://europa.eu/rapid/press-release_IP-13-893_en.htm

¹⁰ http://ec.europa.eu/europe2020/pdf/2014/jer2014_en.pdf

¹¹ See Annex A for a detailed description of how the NEET figures were calculated.

Figure 2. Proportion of NEETs in the age groups 15-24 and 18-24



Source: own calculations on Eurostat special extraction from LFS 2013 data.

2.3 Determinants of the status of ELET and NEET

The following section briefly introduces the key factors that have been identified in the literature as the main determinants of the risk of becoming ELET and NEET. Although the aggregate nature of the data used in this briefing does not allow us to investigate the determinants of the condition of ELET and NEET, it is worth making some references to the literature in order to better contextualize the two concepts and the following analysis.

2.3.1 Determinants of ELET

This section proposes a concise review of the main findings on the determinants of early school leaving based on European Commission et al. (2014). They can be grouped in three main categories, namely family-related, school-related, and labour-related conditions.

A. FAMILY-RELATED CONDITIONS

A.1 SOCIO-ECONOMIC STATUS: A low socio-economic status has been identified as the key determinant of leaving education and training. Having unemployed parents or living in a low-income household, experiencing family instability, single parenthood, or domestic violence, as well as suffering of poor mental or physical health in the family are all strong predictors of ELET. Early school leaving is often associated with (and reinforced by) low educational background of the parents, low degree of involvement in children's education, spatial segregation in disadvantaged areas and social disadvantage.

A.2 MIGRANT BACKGROUND: Being born abroad is another factor increasing the risk of leaving education. On one side, having a migrant background is associated to difficulties in the language of instruction, ethnical discrimination, lack of early childhood education and care, and more likely lack of parental support. On the other side however, the negative effect of migrant background is largely determined by the low socio economic status in which they are segregated: as a matter of fact migrants most likely live in segregated and deprived areas, in low income families and have low educated parents.

A.3 GENDER: A consistent gender pattern has been found among all European countries¹², showing that boys are more likely to be early school leavers, compared to girls. However, the gender disadvantage is mainly due to low socio-economic status which negatively affects more boys than girls: when socio-economic status increases gender differences tend to disappear.

B. SCHOOL-RELATED CONDITIONS

B.1 GRADE RETENTION: Contrary to the goal it should meet, grade retention has been found to be highly stressful for students, detrimental for self-esteem, leading to poor academic, socio-emotional and behavioral outcomes, being in the end a good predictor of school drop-out.

B.2 SOCIO-ECONOMIC SEGREGATION OF THE SCHOOL: This case holds true in particular for socio-economically disadvantaged students which tend to be further disadvantaged by attending schools characterized by poor academic scoring and behavioral problems.

¹² With the only exception of Bulgaria and Turkey.

B.3 EARLY TRACKING: It has been found to have negative effects on the educational outcomes of students who undergo the wrong track. This particularly affects weaker students, who lack the stimulus coming from more advanced students and are segregated in low performing classes. Besides, decisions on which track to pursue are often subject to inequality and social discrimination: students coming with poorer socio-economic backgrounds tend to be overrepresented in the lower tracks, irrespective of their academic grades (e.g. migrant or low socio-economic background students are more often recommended to attend a professional or vocational track rather than an academic one, irrespective of their preferences and grades).

B.4 EARLY CHILDHOOD EDUCATION AND CARE: Research has demonstrated that participation into high quality early childhood education and care (ECEC) enhances the chances of educational success (thus contributing to prevent early leaving from education and low achievement) and is particularly important for children from disadvantaged families, by compensating for the lack of cultural and social capital of the family of origin.

B.5 TRANSITION TO UPPER SECONDARY EDUCATION: The possibility to transfer from one track to the other can help correcting wrong decisions taken earlier, reducing the risk of disengagement of the student (and thus of drop outs). In general, programs designed for education and career guidance, in particular for students with learning difficulties, can be beneficial in increasing students' attachment to school.

C. LABOUR-RELATED CONDITIONS

Characteristics of the local labour market can affect a student's decision to leave education early by means of "pull" or "push" effects. In countries where employment opportunities are good, in particular through seasonal and low skilled jobs, the labour market tends to pull students out of school, offering employment opportunities (often temporary) also to those with no qualifications. On the other side, with high levels of (youth) unemployment, and even more if the level of unemployment is high for unskilled workers, students have an incentive to stay longer in education and are not tempted to enter the labour market.

2.3.2 Determinants of NEET

Structural and contingent conditions of the labour market and the economy play a relevant role in determining the risk of becoming NEET. As for the previous section, a brief summary of the most important findings on structural factors affecting the probability of being NEET are presented, based on Eurofound (2012).

A. LABOUR MARKET and WELFARE STATE CHARACTERISTICS

A.1 EMPLOYMENT PROTECTION LEGISLATION (EPL): The rationale behind the deregulation of the labour markets that started since the 1990s assumes that a tight level of regulation of work (rules for hiring/firing procedures, severance payments, notification requirements) tends to increase unemployment and exclusion from the labour market, in particular for youth. However, empirical

studies using the OECD EPL index (related to Employment Protection Legislation) lead to ambiguous results. Recent empirical work showed that most of the difference is due to whether the high level of regulation is on permanent or temporary jobs: a deregulation of temporary jobs is found to be positively associated to a reduction of NEET figures, while the degree of protection of permanent jobs does not affect the rate of NEETs.

A.2 MINIMUM WAGE: In line with neoclassic economic theory, research has found that the existence of minimum wages has a negative effect on employment, imposing wages that may be higher than employees' productivity, discouraging employers from hiring young unskilled workers. On the other side, minimum wages are supposed to create baseline wages for employees that tend to increase NEET figures.

A.3 UNIONS: The presence of centrally regulated labour market through collective bargaining and established cooperative relationships between employers and employees is found to positively affect the integration of youth in the labour market, by means of wage moderation and curricula/training adjustments. When collective bargaining coverage is considered (how many salaried workers are covered by collective agreements) a positive effect on NEETs' reduction is observable.

A.4 ACTIVE LABOUR MARKET POLICIES (ALMP): Several studies found a positive association between the level of expenditure on ALMP (i.e. job search assistance, short-term training courses, subsidized work) and the chances of getting a job, thus lowering the incidence of NEETs.

B. EDUCATION AND TRAINING SYSTEM

B.1 VOCATIONAL EDUCATION AND TRAINING: The positive role of well institutionalized systems of vocational training on reducing unemployment risk and smothering the transition from school to work is confirmed by research, as for the case of the well-known German dual system combining education and apprentice on the workplace. For the same reasons, it also contributes in reducing the overall level of NEETs in the country.

B.2 FIRM-BASED TRAINING: In countries where the vocational track is not well developed and institutionalized, firm-based training can constitute an opportunity for improving occupational chances of youth by providing employers with a screening tool predating the hiring decision.

C. MACRO LEVEL CONTEXTUAL FACTORS

C.1 YOUTH COHORT SIZE: Demographic pressure has been considered as a proxy for competition on the labour market: the larger the cohort of entrants, the higher the competition among them for available jobs. However, empirical results are ambiguous.

C.2 NATIONAL GDP GROWTH: Unfavorable macroeconomic conditions can also increase the risk of falling into a NEET condition, being the growth rate of the national GDP a proxy for general conditions of the national labour market. However, the GDP growth alone does not show any significant association with the NEET rate, meaning that economic growth has to be flanked with job creation, as further reinforced by the strong association between adult unemployment rate and NEET rate.

2.4 Conceptual differences and similarities between ELET and NEET

Following the **definitions** provided in the previous sections, it should be noted that some important differences between the two concepts of ELET and NEET arise. A distinction along the two dimensions of *static vs dynamic condition* and *homogeneous vs heterogeneous group* may help highlighting differences and commonalities between the two groups. For the purpose of this work:

- A situation is defined as *static* if it tends to remain stable over time (individuals do not change their condition), and *dynamic* if it tends to change over time (also including the possibility for individuals to exit and/or re-enter).
- A group is defined *homogeneous* if the individuals included in it share common features, while a group is defined *heterogeneous* if the individuals gathered together under a certain label can have very different characteristics. Accordingly, a group may be at the same time homogenous and heterogeneous, depending on the characteristic we look at (e.g. a classroom may be homogeneous in terms of age but heterogeneous in terms of gender/social class).

According to this distinction, we can isolate some characteristics of the two groups under scrutiny. Alongside the dimension of *static/dynamic*:

- The definition of **ELET** indicates a **static condition**, linked to educational attainment that remains stable over time. This is because the level of education is likely to remain unchanged over time: the proportion of individuals who decide to go back to formal education and attain an educational level greater than ISCED 2 or 3c short tends to be very low¹³.
- The definition of **NEET** indicates a **dynamic condition** which the individual can in theory exit and re-enter in a very short period of time; however, evidence shows that in some cases the condition of NEET can be persistent;

On the other side, the two groups of ELET and NEETs can be either *homogeneous* or *heterogeneous*, depending on the dimension taken into account:

- **ELET** defines a quite **homogeneous** group if we look at the educational attainment and age of the individuals grouped under this label, since it identifies people sharing the same level of education (not greater than ISCED 2 or 3c short) and age bracket (18-24 years old);
- However, if we look at the labour market status of ELET, the group becomes **heterogeneous**, since these individuals who share the same level of education and age do not necessarily share the same labour market status: they may be employed, unemployed or inactive as all the other individuals with different age and educational attainment;
- Likewise, **NEET** defines a **heterogeneous** group if we look at their educational attainment, since it may contain people with very low to very high levels of education.

¹³ See the appendix in JRC-CRELL (2014a).

- On the contrary, the NEET group is **homogeneous** in terms of labour market status, since all the NEETs are not working. Nevertheless, we can identify some heterogeneity not only in the exact labour market status (unemployed vs. inactive), but also in the reasons related to non-participation in the labour market. In particular, the NEET population has been divided into five main subgroups (Eurofound 2012), among which it is possible to distinguish “disadvantaged NEETs”, including:
 - a) the *unemployed*, that can be further divided into short and long term unemployed;
 - b) the *unavailable*, i.e. young people engaged in care and charged with family responsibilities, are ill or disabled; and
 - c) the *disengaged*, young people who are not looking for a job, who do not study and are not in training, while not being burdened by other commitments nor suffering from particular forms of disability. These are discouraged individuals or young people who are pursuing a dangerous and anti-social lifestyle;
 and “privileged NEETs”, such as:
 - d) the *opportunity seekers*, young people who are actively seeking a job or a training activity, but who are waiting for opportunities that they consider as suitable for their skills or their status; and
 - e) the *NEET volunteers*, young people who travel or who are engaged in other activities such as art, music, and self-directed learning.

Distinguishing between disadvantaged and privileged NEETs in the data is not an easy task. Opportunity seekers are likely classified as unemployed in the LFS, but are clearly not a vulnerable group as the conventionally unemployed, since they can afford to remain out of employment waiting for what they deem to be a suitable job. Categories b), c) and e) are all classified as inactive, but are a mix of vulnerable and non-vulnerable individuals, with the disengaged and voluntary NEETs being at opposite ends of the scale of vulnerability, and the unavailable being a mixed group with very diverse situations (from young mothers who cannot afford childcare to others who voluntarily decide to leave the labour market to take care of their children, to young people with disabilities that do not allow them to participate in the labour force without special support). Belonging to one category or another has very different implications in terms of being or not individuals at risk, and in terms of policies to tackle the issue of NEETs.

As a consequence, when drawing conclusions on the relevance of the phenomenon of NEETs in a country, one should be aware of the internal composition of the group. It is also reasonable to imagine that the internal composition of the NEET category varies depending on the level of education, in particular in terms of the incidence of advantaged vs. disadvantaged NEETs: among low educated NEETs,

the share of vulnerable individuals might be higher than among highly educated, where we might expect a more relevant share of privileged NEETs¹⁴.

On the other hand, it should be pointed out that the ELET group may be less diverse in this sense, as it can be expected to include fewer privileged individuals (as seen in paragraph 2.3 ELET tend to have a low socio-economic background, which is less likely to support them in behaving as “opportunity seekers” or voluntary inactive engaged in arts, travelling etc...). When looking at the ELET group, we can expect that most of the inactive ELET are either discouraged, or unavailable due to care/family responsibility or disability. In the latter case, one can identify a sort of circularity between causes and consequences of the ELET condition: care responsibilities and physical difficulties/disability can lead some ELET individuals into inactivity, but are likely to also have caused their early leaving in the first place.

When we look at the **implications** of being ELET and NEET, the borders between the two groups are more blurred:

- As mentioned in previous sections, we need to be aware that most ELET are vulnerable. Many young people may move into temporary and insecure jobs without experiencing unemployment or inactivity spells. However, this move does not necessarily mean a lack of vulnerability or the absence of a need for quality training to sustain future career development. Thus, ELET overall are often exposed to long-term disadvantages in terms of unemployment, poverty and social exclusion;
- NEET individuals, although potentially internally diverse, tend to share some vulnerabilities: they are more likely to have low educational attainment, to come from disadvantaged families and are not engaged in any activity (e.g. training) that may improve their future chances (Eurofound 2014).
- Besides, although NEET individuals can potentially exit their condition, they risk remaining trapped; for the Irish youth, Kelly and McGuinness (2013) find that the chances of exiting the NEET condition worsened with the recent crisis, and Bruno, Marelli, and Signorelli (2013) find that NEET rates across EU regions are persistent over time and that its persistence increased after the recent crisis.

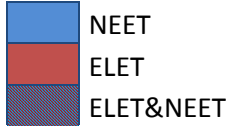
In fact, ELET and NEETs are not two mutually exclusive groups. On the contrary, some overlap is likely among them. In Table 1 we show how the ELET and NEET concepts can overlap, taking into account the three main dimensions of their definition. Different groups can be identified in the table. A first group is composed by individuals who are ELET only, meaning that they are employed individuals with low education. A second group (which corresponds to the intersection) is composed by individuals who are both ELET and NEET, having the following characteristics: individuals aged 18-24, whose higher level of education is ISCED 1997 3c short or lower, and who are currently not in employment, education or training. A third group is composed by NEETs who are not ELET, which includes either NEETs aged 15-17

¹⁴ Although representing an interesting avenue of research, the distinction between disadvantaged/privileged NEETs is not feasible with the data available for this briefing, but it is a caveat to keep in mind when interpreting the figures we will show in the rest of the briefing.

(irrespectively of their level of education) and individuals aged 18-24, whose level of education is higher than ISCED 1997 3c short and who are currently not in employment, education or training.

Table 1. Intersection between ELET and NEETs

Educational attainment	Labour market status	Age	
		15-17	18-24
LOW (ISCED 1997 Level 3c short or below)	Employed		
	Unemployed		
	Inactive not in education or training		
	In education or training		
MEDIUM and HIGH (ISCED 1997 level above 3c short)	Employed		
	Unemployed		
	Inactive not in education or training		
	In education or training		

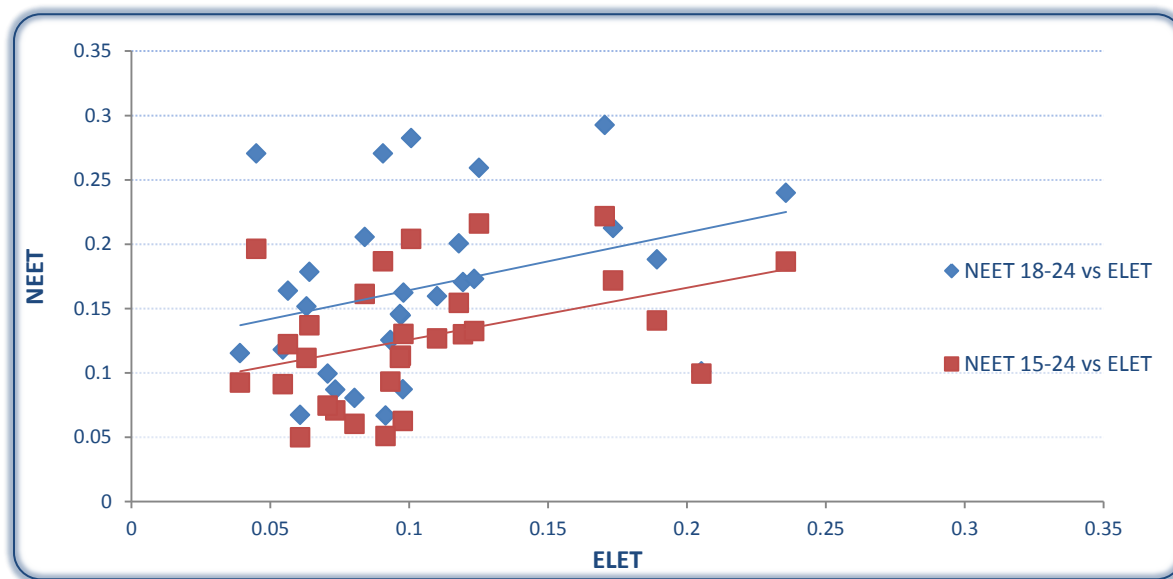


NEET
ELET
ELET&NEET

2.5 Empirical differences and similarities between ELET and NEET

Figure 3 presents a scatterplot in which the proportion of ELET is displayed on the x-axis and the proportion of NEETs (following the two definitions according to the different age groups, 15-24 and 18-24) is on the y-axis. The elaboration is helpful in further displaying the relationship between the indicators. As it emerges from an observation of the plot, although the two tend to move together, the relationship appears to be weak. As a matter of fact, the correlation between the two indicators is positive, but quite low, being 0.32 for the age group 18-24 and 0.39 for the (NEET) age group 15-24.

Figure 3. Scatter plot of NEET and ELET

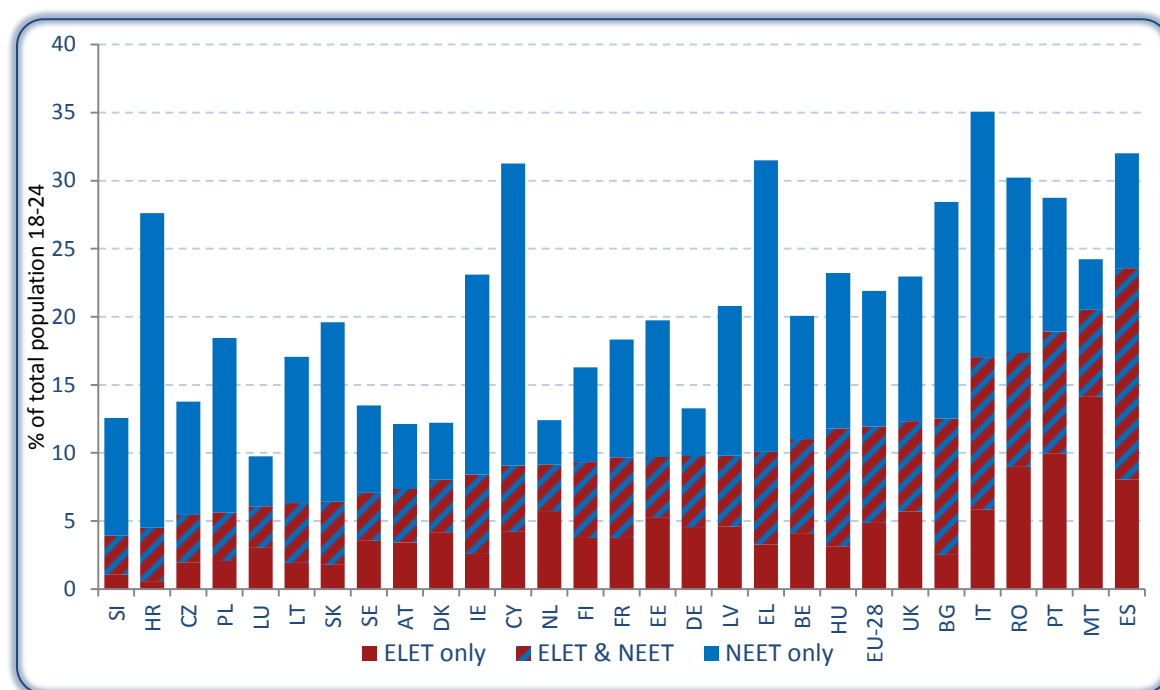


Source: own calculations on Eurostat special extraction from LFS 2013 data.

However, it is worth discussing the shares of these two groups of individuals and their interaction¹⁵. Figure 4 combines the two figures presented before (Figure 1 and Figure 2), but considers also the intersection between the two groups (ELET who are also NEET). Therefore, the sum of the red part plus the striped part is simply the proportion of ELET in the country (as shown in Figure 1); the sum of the blue part plus the striped part is the proportion of NEETs in the population aged 18-24 (as shown in Figure 2). In addition we can also see the proportion of individuals who are **both NEET and ELET** (the striped part); the proportion of individuals who are **ELET only** (the red part), and the proportion of individuals who are **NEET only** (the blue part). While the conditions of ELET only and NEET only are also concerning, it is particularly interesting to assess which proportion of ELET individuals is also NEET, since those individuals represent the potentially most disadvantaged group in the population, i.e. young individuals, with very low level of education, not engaged in employment or education and training.

¹⁵ For the sake of comparability we will focus only on the population aged 18-24 (thus excluding the NEETs aged 15-17). In this respect we assume that age is not the most important feature, as shown in Figure 2 the light blue column follows the trend of the dark blue column and in addition, correlation between the two indicators (NEET 15-24 and NEET 18-24) is as high as 0.98.

Figure 4. Descriptive statistics on the intersection between ELET and NEETs (%)



Note: Figures for HR, LT and SI (for ELET not NEET) are unreliable due to small sample size.

Source: own calculations on Eurostat special extraction from LFS 2013 data.

From this chart we observe that:

- In countries with a very low proportion of ELET (below 5%), such as SI and HR, the proportion of ELET who are also NEET is extremely high. So, for example, in SI most of the ELET (over 70%) are also NEET. While these numbers involve less than 5% of the population, attention should be paid to these individuals, since it appears that those who drop out of school are mostly unable to find a job.
- Likewise, among those countries which are above the established benchmark for ELET (10%), special attention should again be paid to the share of those ELET which are also NEET. Despite being aware of the vulnerability of ELET even if working, we cannot ignore the more serious situation of those individuals with low education, who do not work (are unemployed or inactive¹⁶) nor are involved in any activity aimed at improving their level of education or training. In ES, for example, more than 60% of the ELET population is also NEET (as suggested by the ratio between the striped part and the sum of red and striped parts). In similar conditions are countries like IT, BG or HU.
- Interestingly, we also observe countries like MT, with a very high share of ELET (around 20%) but where the proportion of ELET which are also NEET is relatively low (roughly 30%). Thus, only the

¹⁶ Inactivity may be more difficult to address at policy level since it may include individuals with care responsibilities and individuals with disability or physical problems, characteristics which may have originally led them to an early leaving from education.

6.3% of the population has a low level of education and is not employed, the remaining 14% of the ELET, while clearly more disadvantaged than their more educated peers, is currently employed.

These results show that ELET and NEET are indicators of different phenomena; despite the possibility of overlapping, they capture different issues; therefore, monitoring them individually will certainly lead to different conclusions about the situation of young individuals across EU member states.

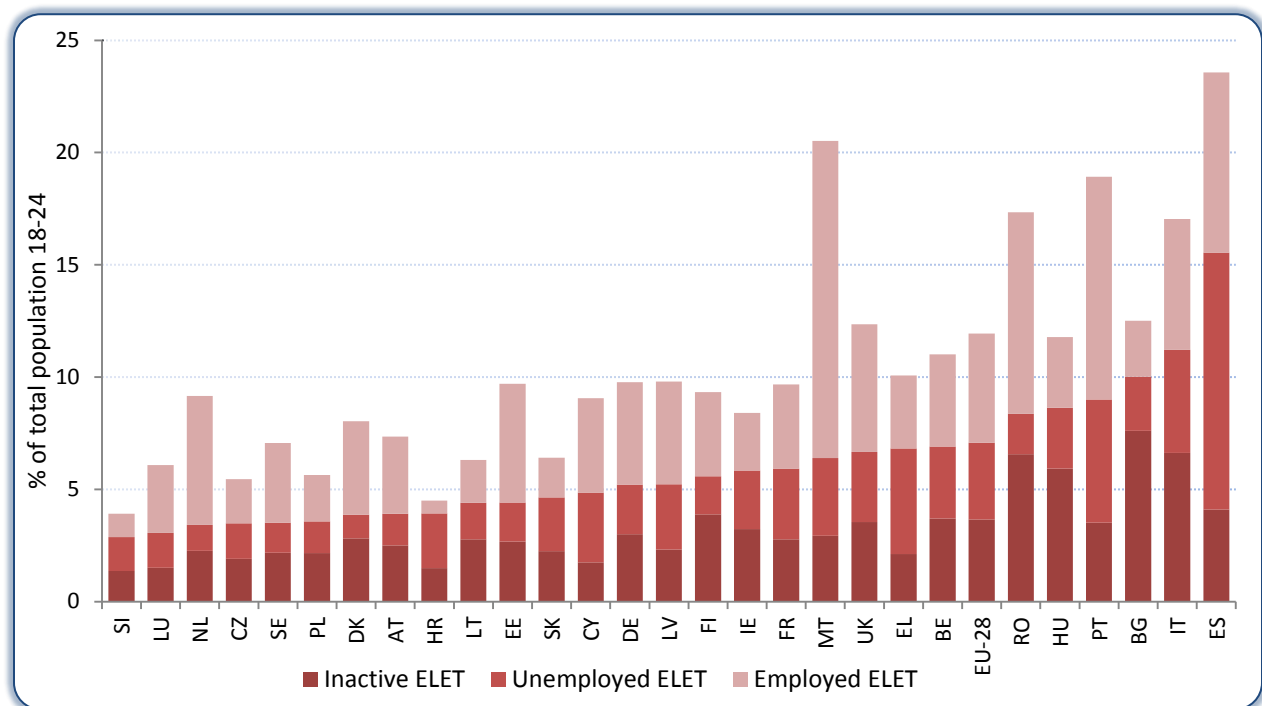
3. A focus on ELET

3.1 An overview of the labour market status of the ELET population

We will now focus on the ELET group. As already mentioned, given their age and low level of education, this group is more likely to face a greater disadvantage than their peers in terms of labour market performance, and more widely speaking, in terms of social integration. While not disregarding the still vulnerable situation of those ELET which are currently working, we try to further investigate the specific labour market status of those who are simultaneously ELET and NEET across countries, therefore disaggregating between unemployed and inactive.

In Figure 5 we replicate Figure 1, but we present the ELET by labour market status, dividing them into employed, inactive and unemployed (notice that the sum of unemployed and inactive is equal to the proportion of ELET which are also NEET).

Figure 5. Labour market status of ELET by country



Note: Figures for CY (inactive), EE (unemployed), HR, LT, LU (unemployed and inactive) and SI are unreliable due to small sample size.

Source: own calculations on Eurostat special extraction from LFS 2013 data.

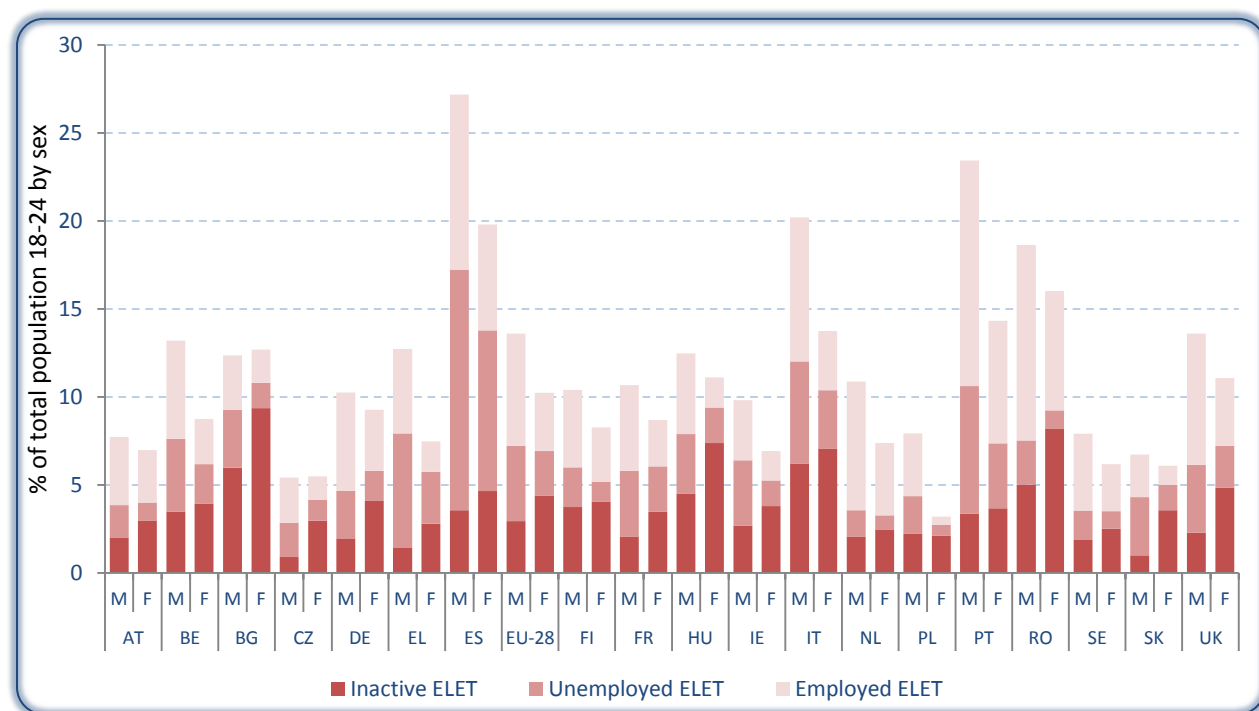
Again, at least a couple of interesting results are worth highlighting:

- First, ES is not only the country with the highest share of ELET which are also NEET, but when we disaggregate those NEETs by labour market status, most of them are unemployed. Thus, 11.45% of the 18-24 years old Spanish population are ELET and unemployed compared to 4.09% which are ELET and inactive and 8.03% which are ELET and employed. The share of unemployment is extremely worrying in this country, especially given the low number of active and passive labour market policies which characterise this type of Southern European economies and welfare regimes. To a lesser extent similar figures are observed for PT and EL.
- Second, countries like IT, RO or BG have a larger proportion of inactive ELET than unemployed ELET. Though we are unable to know the share of inactive individuals due to family constraints as opposed to simply discouraged ones, we should keep in mind that this state of inactivity is somehow worrisome since among the younger cohorts it may be more likely to directly drop out of the labour force and become inactive when jobs are hard to find. Thus, it might be important to consider the implementation of measures to incentivise job search among this group.

3.2 A look at gender differences in labour market status of the ELET population

Figure 6 further disaggregates the labour market status of ELET by gender. Overall, it seems that the phenomenon of ELET is more gender-biased at the disadvantage of men: in all countries (with the only exception of BG) males are over-represented compared to females. Further, we observed that the problem of unemployment affects male ELET to a greater extent in all EU. However, while unemployment among ELET is male-biased, inactivity is more female-biased: this is especially true in countries like RO, BG, SK, HU, and UK, where the share of female inactive ELET is consistently higher than the corresponding share among males. As maintained by the literature on the determinants of being ELET (for a review see European Commission et al., 2014), cultural reasons or teenage motherhood can be counted among the key explanatory factors for these differences: empirical research shows that early motherhood and family reasons affect females and virtually no males, and it represents a good predictor of NEET condition (Bynner and Parsons 2002; Furlong 2006).

Figure 6. Labour market status of ELET by gender and by country



Note: Figures lack reliability due to small sample size for AT, BG, FI, IE, MT, PL, RO, SK for females, and for SI and SK for males. For the missing countries, figures are not reported because below confidentiality limits or sample size issues.
Source: own calculations on Eurostat special extraction from LFS 2013 data.

4. NEETs and Policy making in Education

As already explained in previous sections, while the ELET indicator incorporates in its own definition a focus on individual educational attainment, the group of NEETs is much more heterogeneous from this standpoint. Nevertheless, education is likely to play a significant role in affecting the probability of being out of employment, education or training. In this section we therefore turn to analysing the educational component of NEETs, with a view to the role this indicator can play in supporting educational policy making, in particular related to the JAF approach.

The first way to consider the NEET dimension in the monitoring exercise for educational policy, and in particular in the framework of the JAF methodology, would be to include it as a further sub-group of the ELET. Nevertheless, employment status is already used within the JAF framework as a subgroup for the benchmark on ELET. When we consider the overlapping between ELET and NEET, and in particular the incidence of NEETs among ELET, we are in practice giving exactly the same type of information as the JAF sub-group (see Figure 3.4 in Section 3.1 of EAC, 2013). Thus, given that the employment status sub-group provides even more accurate information, since it disaggregates unemployment from inactivity, adding the NEET as an additional sub-group will not provide any further relevant information.

We therefore investigate whether the NEET indicator itself may provide meaningful information for educational policies, in addition to the great popularity it already enjoys in the field of labour market policies (see for example the Youth Employment Initiative and the Youth Guarantee schemes launched by the European Council in 2013 and described earlier in the brief, that explicitly take the NEET rates into account). More specifically, we will focus on the proportion of NEET individuals per each educational level. To do so, we need to consider a broader age range compared to the one used in the previous sections, so to include all individuals in the age bracket from 15 to 29 years old, where the lower bound is in line with the main definition of the NEET indicator, and the upper bound allows including a higher share of tertiary graduates (compared to the 24 years bound). In addition, as we will see, the age group 25-29 is not exempt from high shares of NEET individuals, thus including it in the analysis seems crucial to have a broader picture of the issue.

While it is widely known that higher levels of education are generally associated to better labour market outcomes, it is interesting to check whether the same type of relationship holds for the NEET indicator as well. If higher levels of education guarantee better employment opportunities, then we should also observe lower NEET rates associated with higher qualifications. However, we may also expect that returns to education could be hampered by contingent economic conditions and/or structural labour market problems that particularly affect some European countries (e.g. Southern-European countries), thus resulting in a less linear trend. As an example, we may hypothesize that in countries as EL, IT or ES young people with high levels of education do not enjoy a significant advantage compared to young people with medium levels of education. Alternatively, as mentioned in section 2.4, the NEET status among highly educated individuals may also suggest a “privileged” group of NEETs: those who can afford a waiting strategy for catching the right job offer or those who decide to spend some sabbatical periods of time travelling. Unfortunately, disentangling empirically this distinction is not an easy task with the data available at the moment, but constitutes an interesting avenue of research.

In practice, in this section we examine how a sub-group “level of education” could bring interesting insight into the NEET indicator. To investigate the issue, we disaggregated the NEET rate by educational level: each bar in Figure 7 shows the proportion of NEETs among the individuals with different levels of education. There indeed appears to be a positive trend of decreasing proportion of NEETs with increasing levels of education: in all countries the proportion of NEETs among lower educated individuals is higher than for the other educational levels, with the only exception of PL where the “medium educated” have a slightly higher proportion of NEETs than the low educated. However, it has to be noted that the trend is not linear for all countries: the highly educated have a disadvantage compared to their medium educated counterparts in EL, CY, LU and to a lesser extent SI and PT. Similarly, the difference between medium and highly educated is quite narrow in ES, BG, DK, and FI. However, while the latter countries have very low figures of overall NEETs, the case of ES, CY, BG and PT may raise some concerns given the high absolute number of individuals involved.

Differences in the proportion of NEETs among the low educated and the other two groups are particularly striking in AT, DE, MT, FR, UK, BE, PT, IE, HU, ES and BG. In those countries, the probability of being a NEET among the low educated is sometimes more than double than among the medium-highly educated; UK, BE and FR are the three extreme cases of very high shares of NEETs among the low educated, and quite small share among the medium-highly educated. This suggests that one of the main causes leading to the condition of being a NEET could really be a low level of education. Thus, in these countries, policies focusing on reducing the proportion of low educated individuals, i.e. reducing the ELET, could also be beneficial to substantially reduce the proportion of NEETs. It should also be noticed that in those countries, the proportion of NEETs among the two highest levels of education is rather similar, suggesting again that reaching at least upper secondary education is the minimum threshold to have a proper integration in the labour market and not get trapped in long term unemployment or inactivity¹⁷.

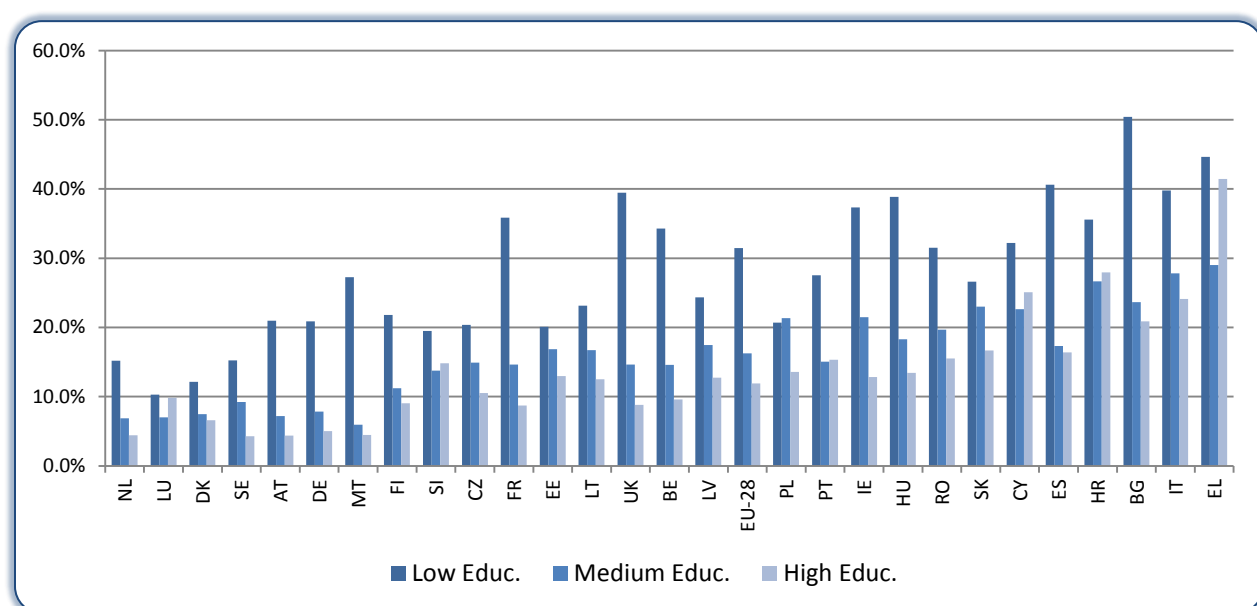
In another group of countries, on the other side, the differences between the proportion of NEETs among the low and among the medium-high educated is not so evident: even if we always observe a greater proportion of NEETs among the low educated, in countries like LU, DK, SI, CZ, EE, LV, PL, SK, CY, HR, IT and EL, the difference in proportion of NEETs between the low educated and the other groups is not that big. This suggests that, even if the low educated individuals are clearly more disadvantaged, having a higher level of education does not guarantee full integration in the labour market. This points to the fact that policies to reduce the proportion of low educated individuals may not be enough to solve the problem of high shares of NEETs, and those policies should be accompanied by some other measures targeted to labour market participation, in order to favour integration of young individuals independently of their level of education. This is particularly true in countries like EL or CY, where the proportion of NEETs among highly educated individuals is close to low educated ones: in these

¹⁷ It is worth mentioning that if indeed the incidence of privileged NEETs is likely to be higher among highly educated NEETs, as mentioned in Section 2.4, then the share of disadvantaged NEETs might be even lower among those with tertiary education, implying a bigger advantage for this group when compared to the low educated; however, the data available do not allow us to make this distinction and verify whether this is the case.

countries, guaranteeing that more individuals reach higher levels of education will not necessarily guarantee a reduction of the NEET share.

This simple disaggregation of NEET shares by level of education revealed different patterns existing among European countries, and provided some additional information on the link between ELET and NEET. While it seems that in some countries policies oriented at reducing the share of ELET could significantly contribute to reducing the share of NEETs too, in other countries this should be accompanied by stronger policy efforts to improve youth employment – regardless of the level of education¹⁸.

Figure 7. Proportion of NEET individuals by educational level (age group 15-29)



Note: Results are not reliable due to sample size for individuals with higher education in MT.

Source: own calculations on Eurostat special extraction from LFS 2013 data.

¹⁸ Along this same line, also the disaggregation of the NEET group by labour market status may help in designing effective policies. This disaggregation, however, implies relevant caveats, first of all the impossibility to distinguish between advantaged and disadvantaged NEETs, which makes the formulation of policy suggestions even harder. See Annex B for a further investigation of this topic. Please note that for ELET, the same type of disaggregation – presented above – might be more meaningful as the incidence of privileged individuals among ELET is likely to be lower.

Concluding Remarks

- **ELET and NEET indicators capture different individual situations**, and are related to different issues, that can nevertheless show some complementarity. European countries display a varying degree of overlapping between the two phenomena.
- As a consequence, monitoring the two indicators separately will certainly lead to different conclusions for policy making, from both an education perspective and a labour market one:
 - ✓ When monitoring ELET within the JAF framework, the employment status sub-group already disaggregates between employment, unemployment and inactivity, therefore adding the NEET indicator as a further sub-group will not provide any additional relevant information. Nonetheless, on policy grounds, its usefulness as a *joblessness* indicator cannot be neglected.
 - ✓ Focussing only on the NEET group means failing to account for different types of vulnerability; in particular, attention should be devoted to employed ELET as well, as the current employment condition of these individuals may not guarantee stable career prospects, nor social inclusion. So, the NEET indicator cannot replace the concern about ELET's overall vulnerability.
- **The value of the investment in education is confirmed.** Indeed in all EU28 countries the proportion of NEETs is higher among low educated people and for most of the countries the proportion of NEETs decreases with increasing level of education.
 - ✓ In some countries policies aiming at decreasing the share of ELET may be enough to also decrease the share of NEETs, but in other countries these policies should be accompanied by other measures fostering youth employment, regardless of the level of education.

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Annex A

Detailed information on the definition of early leavers from education and training

According to the official definition provided by Eurostat¹⁹, the indicator on early leavers from education and training is derived from answers to three LFS variables, namely the level of educational attainment (variable HATLEV1D) and the educational variables EDUCSTAT and COURATT (neither in formal education nor in non-formal education and training). More specifically, early school leavers are identified as individuals:

- with low education: HATLEV1D code 'L', corresponding to HATLEVEL from 00 to 22 (i.e. No formal education or below ISCED 1, ISCED 1, 2 and 3c short);
- who have not been a student or apprentice in regular education during the last 4 weeks, that is were not in formal education: EDUCSTAT=2
- who did not attend any courses, seminars, conferences nor received private lessons or instructions outside the regular education system (i.e. taught learning activities, or non-formal education) within the last 4 weeks: COURATT=2

The share of ELET is calculated on the population of the same age group, excluding those who did not indicate their educational attainment level (missing HATLEV1D) and those who declared having at most a lower secondary level but without replying to their participation in education activities in the last 4 weeks (missing EDUCSTAT).

Detailed information on the definition of NEET

According to the official definition provided by Eurostat²⁰, the indicator on people neither in employment nor in education and training is derived from answers to three LFS variables, namely the employment status (variable ILOSTAT) and the educational variables EDUCSTAT and COURATT (neither in formal education nor in non-formal education and training). More specifically, NEETs are identified as individuals:

- not in education: ILOSTAT other than 1, i.e. different from being employed;
- who have not been a student or apprentice in regular education during the last 4 weeks, that is were not in formal education: EDUCSTAT=2
- who did not attend any courses, seminars, conferences nor received private lessons or instructions outside the regular education system (i.e. taught learning activities, or non-formal education) within the last 4 weeks: COURATT=2

The share of NEET is calculated on the population of the same age group, excluding those who did not reply to the answer on their participation in education activities in the last 4 weeks (missing EDUCSTAT).

¹⁹ https://circabc.europa.eu/sd/a/1261abbb-ed6e-4fde-80c6-59b62e543d93/SECTION2_NEET.htm

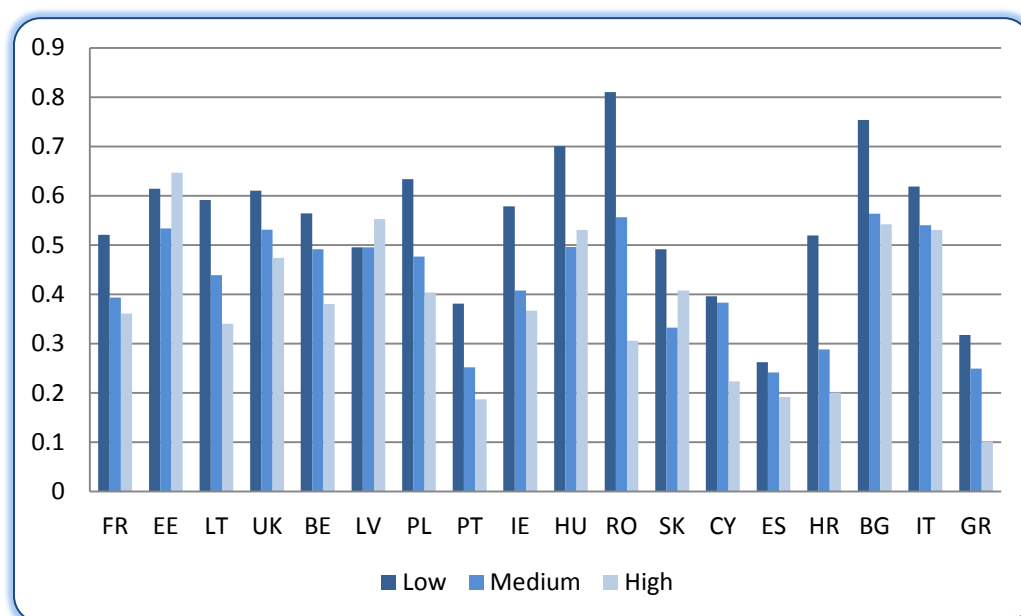
²⁰ https://circabc.europa.eu/sd/a/1261abbb-ed6e-4fde-80c6-59b62e543d93/SECTION2_NEET.htm

Annex B

A further investigation on the labour market status of NEETs

In addition to the analysis of the composition of the group of NEETs along the dimension of the educational attainment that has been provided in section 4, we propose here a brief investigation on the internal differentiation of NEETs according to labour market status (namely unemployed/inactive). Given the very different magnitude that the phenomenon of NEETs has in different countries, and due to sample size issues, we decided to run this further analysis only on countries where the proportion of NEETs is particularly relevant, setting an arbitrary cut-off point of 15% of the population (thus excluding CZ, SI, FI, MT, DE, AT, SE, DK, LU, NL). As said before, inactive individuals are the most worrisome group, in particular if they are highly educated, since their exclusion from the labour market prevents the country from benefitting from their investment in education. Indeed, Figure A.8 shows that in EE, LV, HU and SK the proportion of inactive individuals among highly educated is greater than among low or medium educated, thus suggesting that tertiary graduates are more discouraged than their peers who invested less in education. In addition, the graph also shows that in IT, BG and to some extent FR there is almost no premium for high education, since the difference between medium and high educated inactive individuals is very narrow. It should however be pointed out that we are not able to distinguish, in our sample, between advantaged and disadvantaged NEETs; this means that the higher proportion of inactive NEETs among the highly educated in some countries might be explained by a higher incidence of privileged NEETs, rather than by higher shares of discouraged highly educated individuals. Further research on the topic would therefore be required to investigate the policy implications of the snapshot provided by the graph.

Figure A.8 Proportion of inactive individuals over total NEET individuals (age 15-29)



Note: Results are not reliable due to sample size for inactive NEET with high level of education for LT and HR.

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Abstract

Early school leavers (ELET), normally face greater difficulties in successfully integrating in the labour market, earn less, have higher unemployment rates, and are more at risk of social exclusion and poverty than those who complete higher levels of education. This can have negative consequences not only at the individual level, but also for the society they live in. While youth unemployment has received wide attention by both researchers and policy makers, especially in some EU countries, it is also important to be aware of the fact that these young ELET are also probably more at risk of becoming inactive instead of unemployed (even more than their adult counterparts). These inactive individuals are potentially quite a disadvantaged group in terms of labour market integration and social commitment. Thus, it is worth paying attention to an indicator of “joblessness” which accounts for all those who are neither in employment, nor in education or training (NEET), as a more accurate proxy of the size of the group of individuals most at risk on the labour market. Thus, the main objectives of this technical brief are: 1) To provide some descriptive evidence on the size of ELET and NEETs across EU Member States using aggregate data from the Labour Force Survey (LFS); 2) To further examine how countries compare with respect to school-to-work transitions of early leavers from education and training; and 3) To investigate the link between educational attainment and NEET status.

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