



CEDEFOP

RESEARCH PAPER

Leaving education early: putting vocational education and training centre stage

Volume I: investigating causes and extent



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Investigating causes and extent

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Foreword

Early leaving from education and training is linked to unemployment, social exclusion, and poverty. The fight against early leaving has been a priority for the EU since 2000 as part of the Lisbon strategy; reducing the share of early leavers aged 18 to 24 to below 10% by 2020 is an objective of the ET 2020 strategic framework. Data from 2014 show that Europe is only 0.9 percentage points from its target but that 4.4 million young people still did not complete upper secondary education. The data also show that the situation varies greatly from country to country. Further progress can only be achieved through better understanding and more active policies targeted at those most at risk.

Timely interventions to prevent early leaving are crucial. Learners at risk present distress signs before they actually leave school; if these signs are detected in time, there are more chances of retaining young people with relatively simple interventions, making it possible to get better results with fewer resources. Once learners drop out, and the longer they stay outside education and training, the more difficult it is to rejoin former classmates and the higher the chances that they will be involved in other activities, such as low-wage employment.

European statistics so far have only allowed quantification of overall early leaving from education and training (ELET); there are many questions that remain unanswered. How many early leavers come specifically from vocational education and training (VET) pathways? Why? How many of them return to education? How many chose VET as a second chance option? And how many graduate eventually? This two-volume study examines those questions, looks at solutions to early leaving in use across the EU, and offers input to policy-makers charged with tackling this problem.

While early leaving appears to be particularly acute for those enrolled in VET programmes, the study also shows that high participation rates in, and high graduation rates from VET are often associated with low numbers of early leavers. VET can be part of the solution, retaining learners at risk of leaving education and training and bringing back those who have already left ⁽¹⁾.

Facing up to early leaving from education and training requires streamlining of existing initiatives and a strategic alliance between policy-makers, educators,

⁽¹⁾ See Cedefop's video on learners' testimonials on how VET has played a role in their decision to continue their studies and find a job.
<http://www.cedefop.europa.eu/en/publications-and-resources/videos/role-vet-combatting-early-leaving> [accessed 17.8.2016].

employers, trade unions and civil society. European countries should not only strive for a lower rate of early leavers: we should also do our best so that education and training becomes relevant, meaningful and engaging to learners. The strategic importance of VET in attaining this goal is implicit in the *New skills agenda* for Europe, where the need for reinforced and updated skills features prominently. Cedefop will continue its support for Member States and, in 2017, will launch an electronic toolkit of guidelines, good examples of practice and tools to address early leaving, for policy-makers, professionals at provider level and policy evaluators.

Joachim James Calleja
Director

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⁽²⁾ An anonymous list of all interviewees, including information on country, organisation and job position/role, is available on request.

⁽³⁾ A detailed list of workshop participants is available on request.

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Executive summary

Early leaving from education and training (ELET) is understood at EU level as a failure to complete upper secondary education or a failure to gain qualifications or school leaving certificates. It can lead to a vicious cycle of unemployment, social exclusion and poverty, with costs for the individual and society that include reduced levels of economic activity, higher unemployment, poorer health outcomes and demands on State welfare systems.

The EU objective of reducing the share of early leavers to below 10% of young people aged 18 to 24 was first adopted as part of the Lisbon strategy and has been retained as one of the Europe 2020 headline targets. This Cedefop study focuses on the contribution that vocational education and training (VET) can make to reducing ELET. It is published in two volumes, the second of which reviews VET-related measures to tackle ELET. This first volume aims to understand better the magnitude of early leaving from VET (ELVET) and specific VET and labour market factors which contribute to this damaging aspect of young people's lives.

Part of the effort to address ELET focuses on the role of VET in helping retain in education and training learners who would otherwise drop out, and in bringing young people who have already left back into education and training. Countries with higher enrolment in VET tend to have lower ELET rates. Since academic failure is one of the factors prompting young people to drop out, VET can offer alternative ways of learning which can be more attractive.

DATA AVAILABILITY AND LIMITATIONS

While there are data on ELET to inform thinking and policy-making, due to conceptual/methodological and operational issues there is no agreed set of comparable statistics and indicators across European countries to help measure and examine early leaving from VET. This first volume of Cedefop's study of early leaving examines several ways of helping improve the situation:

- (a) analyse data available and improve the knowledge base on dropout and ELVET in Europe;
- (b) collect and assess evidence to provide further insights into existing and emerging ELET monitoring systems;
- (c) make use of data available to investigate factors influencing ELVET;
- (d) produce new evidence on the role of VET in addressing ELET.

These insights should assist national and EU policy-makers and decision-makers in developing existing ELET data collection and monitoring systems and informing targeted policies to empower VET in combating ELET.

The study methodology combined:

- (a) analysis of microdata from two international large-scale surveys: the programme for the international assessment of adult competences (PIAAC) and the adult education survey (AES); this sought insights into early leaving focusing on VET, compared to labour force survey (LFS) data;
- (b) analysis of microdata from longitudinal data sets in France and the Netherlands, for early leaver information according to training programme orientation;
- (c) desk research and literature review across Europe on national definitions of early leaving and analysis of VET-related factors;
- (d) semi-structured interviews with 409 policy-makers and practitioners in Belgium, Denmark, Germany, France, Croatia, Italy, Austria, and Portugal to identify factors leading to early leaving, also asking whether and how they use monitoring data to design responses to early leaving;
- (e) two expert workshops to discuss and validate preliminary findings.

The findings highlighted the need for better data and their systematic use for shaping targeted policy to tackle early leaving.

The current EU indicator on early leaving hides important variations in individual situations of those concerned. More detailed information on young people's education trajectories would be useful in identifying the types of programmes and situations that most commonly result in early leaving.

The EU indicator on early leaving is a political compromise. It enables EU-level comparisons but it is not sufficient to monitor progress at national and regional levels. The EU definition of early leaving combines three main dimensions: age parameters of young people (18 to 24), current status (not in education and training) and a variable about education achievement (completion of upper secondary education). This definition was designed for international comparisons between different education systems across the EU and is recognised as serving this purpose well.

However, the definition cannot distinguish between:

- (a) non-starters: those who decided not to continue or start any programme after completing education below the expected level (lower secondary education or short upper secondary education);

- (b) dropouts: those who started a programme that should lead them to the threshold qualification level but who dropped out before completion;
- (c) those who fail at final examinations, after completing the full programme.

Data could be differentiated further according to the type of programme from which the person drops out, to understand which types of programmes seem prone to early leaving.

While some countries use the EU indicator as their main source, most of those that have developed monitoring systems to identify early leavers, detailing the field of study or type of programme followed, use these systems to identify appropriate solutions. This suggests a way to develop the EU indicator to offer greater potential in policy-making.

IMPROVING THE EU INDICATOR

To be able to measure ELVET, the EU indicator should be further broken down by programme orientation and other characteristics of the learning pathway.

None of the EU data sets examined enables constructing an indicator on the share of early leavers from VET. The main limitations are:

- (a) the question about the VET orientation of a qualification or education programme is not asked of all those who have participated in upper secondary education;
- (b) in the PIAAC data set, questions about the dropout event only ask about the programme level, not its orientation;
- (c) in the AES data set, the question about dropout is complicated, requiring respondents to understand the 'hierarchy' of education programmes and qualifications in the country. Further, the number of countries using these questions from the survey is small;
- (d) with a few exceptions (France, Poland and Portugal) the samples sizes for the group that are both ELET and dropouts are small.

To enable measurement of ELVET, the indicators derived from the LFS should be adjusted:

- (a) a question should be asked about whether the respondent started an education/training programme that s/he did not complete, and at what level this programme was. This question should be asked of all those who did not achieve a qualification at international standard classification of education (ISCED) 3c long and above;

- (b) a question should be asked of all respondents about the vocational or general orientation of studies they followed at ISCED 3 (independent of whether they completed the programme or not).

Sample size is an issue with international data sets such as AES and PIAAC, which can only be analysed at EU level. Their questions on ELVET and associated factors look at a small subsample of a given survey and do not allow conclusions about a risk factor or intervention. A larger sample of early leavers would enable more detailed analysis to draw meaningful inferences about their characteristics, the role of VET and what factors are associated with ELVET compared to early leaving from general education.

Without appropriate data, there are difficulties in estimating the degree to which early leaving is predominantly an issue of general or vocational education. This study explored one possibility of developing an indicator, using existing international data, and another analysing national data sets. Due to the limitations of the available data, it has been possible only to identify trends, rather than reaching robust conclusions on actual rates of ELVET at EU and national levels. Analysis of the AES from 16 EU Member States in 2011-12 suggests that there are slightly more dropouts from VET programmes than from general education. However, the data are based on small sample sizes and have to be used with caution.

VET AS PART OF THE PROBLEM

Early leaving appears to be particularly acute for those enrolled in VET programmes.

National data use different measurement approaches and in most cases (Belgium, Denmark, France, the Netherlands, Austria) VET appears to result in higher shares of early leaving than general education. There are exceptions; for example, VET colleges in Austria, which offer a higher level of VET, have a lower rate of early leavers than general education.

Analysis of data sets from France and the Netherlands confirms that early leaving is more common in VET pathways:

- (a) French data show that 93% of students in general education tracks qualified compared to 76% of students in VET tracks;
- (b) the Dutch data showed 96.5% of students in general education tracks qualified compared to 79.5% of students in the prevocational track.

There are national differences in dropout rates between types of VET programme and sectors or professions. These are influenced by the

attractiveness of VET, which can combine characteristics such as employment opportunities, wage levels, level of participation or image of the profession. More popular and prestigious types of VET (at higher level, when such levels exist) typically have a lower share of early leaving than those considered as last resort option (e.g. in Belgium, Denmark, Germany, the Netherlands and Austria). More demanding and prestigious programmes tend to attract a different population – higher achievers and young people who are strongly motivated – and similar trends can be found in differences between professions.

Research has shown that work-based learning can have positive effects on motivation and professional identity, and ultimate retention, so there is expectation that work-based learning tracks should retain young people better than school-based ones. Analysis of data sets in France and the Netherlands – where qualifications can be achieved through school- and work-based forms of training – showed the reverse:

- (a) in France, 77% of students in school-based tracks qualify compared to 73% of students from work-based tracks;
- (b) in the Netherlands, 84% of students from school-based tracks qualify compared to 77% of students from work-based tracks.

This difference in retention rates may be explained by work-based learning tracks attracting greater shares of disadvantage students: older students, who are likely to be those who repeated a class, or those facing other difficulties. The difference in retention rates could be a matter of student selection rather than the actual programmes.

Although there is no doubt that work-based learning may be beneficial for learners, its effectiveness in retaining people in education and training can be strengthened when supportive measures are in place to address the needs of learners at risk of dropping out.

VET BENEFITS ELET REDUCTION

VET is not only part of the problem, it can also be a solution, helping retain or return learners and young people to education and training.

VET can have a remedial role in tackling ELET, acting as a safety net for those who drop out from general education and who may otherwise have become early leavers. Analysis of young persons' pathways in France and the Netherlands shows that most of those who transit from general education to VET gain a qualification. In France, 10% of general education students switch to VET

tracks; 79% of them qualify. In the Netherlands, 7.7% of students from general education tracks switch to VET tracks and 82.7% of them qualify.

Analysis of PIAAC data shows that dropouts from education and training at secondary level will ultimately qualify largely through VET; 40% of those who dropped out achieve an ISCED 3 qualification or above (14 EU and European Economic Area countries). Nearly a quarter of those who drop out (23.7%) qualify through VET. Analyses in France and the Netherlands show similar trends. In France, 31% of early leavers return to education and training and qualify, most doing so through VET (80%).

Policy commitment should not only be geared towards reducing the rates of early leavers in VET but also focus on reducing ELET through VET. Since most young people who leave education and training for a longer period of time before qualifying do not return to education and training, there is also scope for more action to reach out to these groups.

APPROACHES TO MONITORING

There are current initiatives to strengthen the coherence and compatibility of data collection mechanisms in education and training subsystems; in most countries they are still at an early stage. In those few countries where such systems are well-established, there are clear benefits.

Most of the countries reviewed have systems to monitor early leavers or those at risk of becoming so. Data may be collected by the ministry of education, a delegated agency, public employment services (PES) or youth guidance centres.

Denmark and the Netherlands use unique student registers; others combine data from several sources such as the interministerial system of information exchange (SIEI) in France. There are also systems that follow up unjustified absences. Other countries collect data not on individuals but on student cohorts in defined situations: the number of students who complete a year, compared to those enrolled at the beginning, or the number of students who repeat a year. This information is typically collected as part of a school's annual reporting on headcount.

Apprenticeships are different. In Denmark and France, apprentices are registered with training institutions, but in Germany and Austria the link is between the apprentice and the employer, via a contract. Trade chambers may collect data on apprenticeship contracts: their registration, successful termination by an examination, or premature termination/dissolution. Contract dissolution

does not equal early leaving as young people can start a new apprenticeship contract with another employer.

One challenge faced by countries setting up monitoring systems is distinguishing between those who drop out and become early leavers and those moving to a different programme or starting a new apprenticeship contract with another employer. This usually requires combining data from several VET subsystems, each with different governance and slightly different definitions, as well as combining data on apprenticeships with data on other forms of education.

There are initiatives to strengthen data collection within countries, allowing for student follow-up through the system. Some countries (such as Italy) envisage student registers that would allow for follow-up of learner trajectories. In most countries, this is work in progress.

Such systems have shown to be useful to:

- (a) increase awareness of the problem among local actors. Having detailed data at the level of a local area or a school creates a call for action;
- (b) set targets per territory or education institution and monitor progress. Targets are translated into action plans or strategies setting measurable objectives;
- (c) give real-time data annually (or more frequently) resulting in timely action; the longer a person is disengaged from education, the harder it will be to recreate learning aspirations and habits;
- (d) develop targeted measures in those areas or organisations where problems are highly concentrated;
- (e) reach out to those who dropped out, working with organisations to practise active outreach.

Some challenges remain:

- (a) developing mechanisms to support data collection by different education and training providers, and to quality assure this process;
- (b) undertaking data analyses to provide decision-makers with indicators which are simple to understand, to interpret and to use;
- (c) increasing feedback on data collected by national and regional authorities to local authorities and VET providers;
- (d) linking to decision-making, providing more up-to-date information and sharing it with stakeholders at different levels.

There is value in up-to-date, fit-for-purpose data on early leaving at different levels: individual, programme and measure, institutional, and local, regional and national. Implementing monitoring systems, however, is resource-intensive and strengthening the coherence and compatibility of data collection mechanisms in education and training subsystems can be complex. This study acknowledges

the challenges and identifies emerging and current initiatives to improve monitoring systems; these can be taken as useful models for those now aiming at improving their own monitoring systems.

DATA USE FOR POLICY-MAKING

Monitoring systems to track early leavers are used to support the timely development of targeted measures for at-risk learners and to help reach out to those who have already dropped out. However, they are rarely used to assess the effectiveness of the applied measures.

In the countries reviewed, the data on early leaving are being used to:

- (a) identify individuals at risk of leaving or who have already left education and training. Organisations need to have nominal information as well as contact details; the data need to be updated regularly and available promptly;
- (b) provide an overview of education institution performance, and possibly also municipalities or regions. Such data need to reflect how the entity performs compared to other schools/regions.

Availability and use of data on ELET is also important in the context of the European Social Fund (ESF). The new funding programmes are accompanied by a set of conditions that countries eligible for funding have to meet; one of these relates to ELET.

Although, existing monitoring systems are used to inform policy-making, national data appear to be rarely used to assess the effectiveness of preventive and remedial measures to address ELET. Data from the measures analysed do not provide information on:

- (a) whether any support was provided to those who were identified as early leavers;
- (b) if so, whether the support was taken up;
- (c) how the situation of the early leaver evolved (what were the outcomes).

Unique student registers and monitoring systems for at-risk learners can provide valuable data for evaluation of measures. They aid the tracking of individuals' educational pathways, showing if learners participating in a certain programme or benefitting from a support measure have ultimately completed upper secondary education. This can provide information on whether a particular measure (perhaps focused on career guidance) has had the expected impact on risk factors, as in better understanding of education options.

REASONS FOR EARLY LEAVING

Alongside general factors that influence early leaving are specific reasons why young people drop out from VET. These should be the focus of policies and measures that aim to tackle ELVET.

There are benefits in collecting information on the reasons for dropping out and individual factors leading to early leaving. VET students can have background characteristics associated with early leaving: prior education failure (class repetition), lower socioeconomic background, migration background, and disability. But many early leavers from VET do not have these characteristics and leave prematurely for other reasons, more specific to VET:

- (a) VET is a second choice and often not a positive one. Young people and their families would have preferred to complete general education, so they enter VET half-heartedly. If the programme does not motivate them, they are more likely to disengage;
- (b) lack of a positive perspective for themselves. Many young people at risk of leaving VET pathways early do not have a positive relationship with education and training and do not see it as a path to a positive future;
- (c) negative perception of their own capacities linked to past failures. Such negative perception and low confidence in their own learning potential becomes self-fulfilling;
- (d) mismatch between expectations of a VET programme or profession and its reality. A stereotypical perception of a profession, or only a vague idea of what it implies, soon meets the reality of the training and the job. Negative experience of it puts them at risk of early leaving;
- (e) when entering VET programmes, young people expect more practical tuition. More academic and 'school-like' tuition may lead to disappointment and continued failure;
- (f) there are several specific issues linked to apprenticeships:
 - (i) readiness to work. Some young people at age 15 or 16 do not have the maturity to integrate in a company or the basic skills to convince an employer to hire them;
 - (ii) availability of placements. If they enrol in a programme before an apprenticeship placement is found, young people drop out from VET when they do not find a company to offer one;
 - (iii) conflicts in the workplace: poor relationships in the workplace may negatively affect motivation to complete a programme.

Two labour-market-related factors influencing VET students were highlighted by the interviewees:

- (a) working conditions. Sectors with long or antisocial working hours, health risks or stress, tend to experience high dropout rates;
- (b) remuneration. If young people have the opportunity to find unqualified jobs for better pay, they are more likely to quit their training.

The importance of VET-specific factors to early leaving varies with individuals. Some young people who leave without an upper secondary qualification have complex situations combining various disadvantages. Others are no different from those who, despite difficulties, remain in education and training, and qualify. Analysis of policies and measures to tackle ELET presented in Volume II (Cedefop, 2016) show that policies are more likely to succeed if they acknowledge the different factors that can influence early leaving and are tailored specifically to meeting them.

CHAPTER 1.

Introduction

Early leaving from education and training (ELET) is understood at EU-level as a failure to complete upper secondary education or a failure to gain qualifications or school leaving certificates. The EU objective of reducing the share of early leavers to below 10% of young people aged 18 to 24 was first adopted in 2000 as part of the Lisbon strategy and, given that the target has not been met, it was retained as one of the Europe 2020 headline targets a decade later (European Commission, 2010).

This Cedefop research paper looks into the potential of better understanding the relationship between VET and early leaving and measuring early leaving from vocational education and training (ELVET). By improving knowledge and evidence on the issue, it aims to assist national policy-makers and decision-makers at different levels in (further) developing ELET monitoring systems and improving VET policies to tackle ELET.

The following subsections discuss the EU context for ELET, and reflect on the gaps in understanding this issue, particularly in VET, which will be addressed in this study.

1.1. The consequences of leaving education early

Leaving education early is associated with a range of negative consequences for individuals and society as a whole. There is abundant evidence suggesting that, when compared to the population which achieves the minimum threshold qualification, early leavers have ⁽⁴⁾:

- (a) a higher risk of unemployment (incidence and duration), lower income, precarious work conditions, and lower job satisfaction;
- (b) worse health, lower life expectancy, and worse lifetime satisfaction;
- (c) lower participation in democratic institutions and other civil society initiatives and organisations.

As for the costs to societies, leaving education early is connected to lower income and economic growth due to reduced tax revenues, and higher costs of

⁽⁴⁾ Brunello and De Paola, 2014; OECD, 2012; GHK et al., 2011; European Commission and GHK, 2005.

public services such as healthcare, criminal justice and social benefit payments⁽⁵⁾.

These negative effects are broadly recognised. The Organisation for Economic Cooperation and Development (OECD) underlines that preventing school failure and improving equity helps in securing a productive workforce and economic growth, as well as individual well-being and social cohesion (OECD, 2012). It periodically reports on differences in employment rates by educational attainment, pointing to the fact that more education offers more employment opportunities. For instance, according to the OECD's *Education at a glance 2014* (OECD, 2014a), over 70% of people with an upper secondary or post-secondary non-tertiary education are employed compared to less than 60% of people with below upper secondary education.

The European Commission places the fight against early school leaving (ESL) as a key element of the Europe 2020 Agenda, stressing its positive effects on employability and the fight against social exclusion (European Commission, 2011a). More specifically, in 2015, the Commission refers to the severe effects of the economic crisis on young people's unemployment, and to the fact that the unemployment rate for early school leavers across Europe is 41%, almost double that for general youth unemployment (European Commission, 2015a).

The negative consequences of leaving education early for individuals and society advise that the fight against it is kept in the agenda, even if Europe is approaching its 2020 target (11.1% in 2014). Early leaving will still continue to be a focus for various reasons:

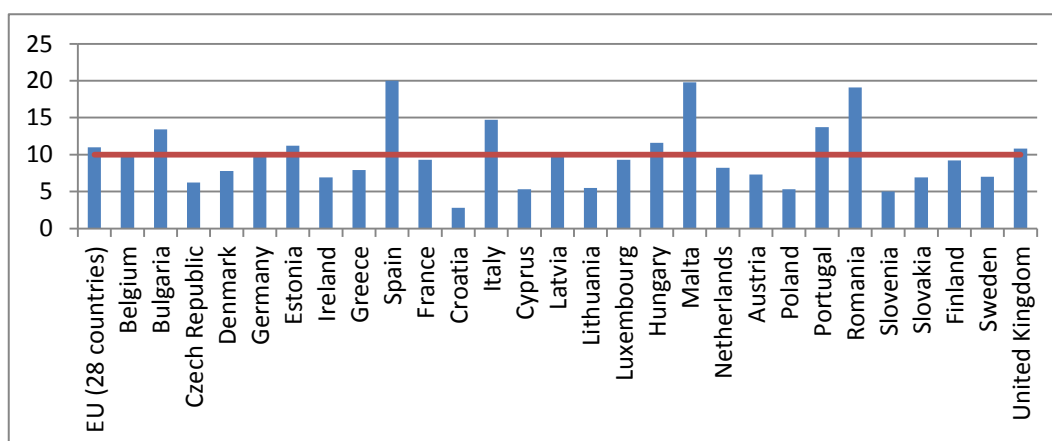
- (a) the reduction of early leaving promotes equity, helping every young person to realise his/her potential, especially for certain groups who are more affected than others: early leaving rate is higher among boys, foreign-born, disabled learners, Roma, and young people in poorly performing regions (European Commission, 2015a);
- (b) reduction in early leaving rates can help reduce costs for societies and economies, countering the associated outcomes: lower tax revenues and higher costs of public services such as social benefit payments, healthcare and criminal justice;
- (c) reducing ELET can help attain other Europe 2020 strategy targets (employment and lifelong learning), and increase EU international economic competitiveness. To achieve high-skilled workforces, Europe must significantly reduce ELET rates and increase lifelong learning.

⁽⁵⁾ Brunello and De Paola, 2014; OECD, 2012; GHK et al., 2011; European Commission and GHK, 2005.

1.2. The size of the problem in Europe

The commonly adopted definition of early leaving from education and training (replacing the earlier term early school leaving) used by Eurostat is the percentage of the population aged 18 to 24 achieving a lower secondary level of education or less (ISCED 0, 1, 2 and 3c short) and declared not having received any education or training in the four weeks preceding the EU labour force survey (LFS). This EU indicator is used for cross-national comparison of reducing the share of early leavers to below 10% of young people aged 18 to 24. Although early leaving decreased from 16% in 2004 to 11% in 2015 (EU-28), the share of those leaving education and training early varies widely between EU Member States, ranging from around 20% in Spain, Malta and Romania to below or around 5% in Croatia, Cyprus, Lithuania, Poland and Slovenia (European Commission, 2015a; European Commission, 2016).

Figure 1. **ELET national rates (2015) and Europe 2020 headline target**



Source: Eurostat, 2015.

Changes in ELET rates in recent years (2011-14), vary across countries (European Commission, 2015b). Some have not only made significant progress but have reached the headline target ⁽⁶⁾; others made progress but have yet to reach this target ⁽⁷⁾. There are also countries that reached the ELET target but

⁽⁶⁾ Belgium, Denmark, Germany, Ireland, Greece, France, Cyprus, Latvia, Lithuania, the Netherlands and Austria.

⁽⁷⁾ Spain, Italy, Malta, Portugal and the UK.

showed little progress from 2011 to 2014 ⁽⁸⁾, and those that have ELET rates above 10% and did not see any improvement over that period ⁽⁹⁾.

ELET rates also vary significantly between population groups: the risk of early leaving is 33% higher than average among boys, 26% higher for the foreign-born, 156% higher for disabled learners, between 50 and 90% higher for Roma, and 30% higher in poorly-performing regions (European Commission, 2015a).

ELET is still a concern in several EU countries and can reach dramatic levels in some population groups, hindering equity in education and social inclusion.

1.3. The role of VET

This study aims to address three main gaps in understanding the relationship between early leaving and VET:

- (a) little evidence about existing data collection mechanisms and monitoring systems for early leaving at national level, and about the way this phenomenon is nationally defined and understood;
- (b) lack of (comparable) quantitative data to measure the rate of early leaving from different types of education including VET and on early leavers' trajectories at national level;
- (c) limited research evidence on specific factors associated with early leaving from VET.

1.3.1. Why is monitoring ELET is important?

The need for data collection on ELET is underlined in the Council recommendation of 28 June 2011 on policies to reduce early school leaving which states that 'the development of evidence-based and cost-effective policies to combat early school leaving requires gathering and maintaining data on the phenomenon. This should allow analysis at local, regional and national levels. It may contain information on early school leaving rates, on transitions between educational levels, enrolment rates and completion rates of upper secondary education, as well as on school absenteeism and school-avoiding behaviour'.

Similarly, the Bruges communiqué urges countries to use existing monitoring systems to support the participation of 'at risk groups' in VET with a view to

⁽⁸⁾ Czech Republic, Luxembourg, Poland, Slovenia, Slovakia, Finland and Sweden.

⁽⁹⁾ Bulgaria, Estonia, Hungary and Romania.

preventing as well as addressing dropping out. This recommendation is based on the understanding that monitoring data is necessary to:

- (a) understand which groups of young people are more likely to drop out;
- (b) identify whether some (types of) programme or fields of study are more affected than others, or whether there are regional discrepancies;
- (c) provide tools to teachers, trainers, guidance counsellors and PES or social workers to prevent and remedy dropping out. Identification of those persons at risk, as well as information on those who left education and training without achieving a qualification, is an important element of targeted measures.

This use of data should enable countries to design targeted policies that respond to the specific problems associated with ELET.

Availability and use of data on ELET is also important in the context of the future ESF. To ensure that EU funding is used effectively, new funding programmes are accompanied by a set of so-called 'conditionalities'. These concern conditions that countries eligible for funding have to meet to be granted it. One of the 'ex-ante conditionalities' (to be met before the funding is accepted) relates to ELET. Those countries that expect to use ESF or ERDF funding for measures to prevent or address ELET have to demonstrate that they meet the relevant criteria defined in the EU guidelines. One of the criteria for fulfilment of this conditionality is the existence of a system for collecting and analysing data and information on ELET at relevant levels, providing a sufficient evidence base to develop targeted policies and monitor developments (European Commission, 2014).

The rationale for including monitoring data as one of the aspects for this ESF conditionality is twofold:

- (a) the availability and use of such data is considered necessary to design targeted measures. The populations affected by ELET differ from one country to another and so do the reasons for early leaving. Some schools are likely to be more affected than others, for example because they have a higher share of population that is at greater risk. This can be the case even for schools that are geographically very close. To ensure that funding is used where most needed, it is necessary to have quite specific monitoring data on ELET;
- (b) these data should also be used to evaluate interventions to prevent/tackle ELET, necessary to ensure measures are effective. This rationale is in line with the willingness to channel EU funding into measures with existing performance frameworks. Monitoring and evaluation systems are generally underlined as part of conditionalities.

This study also adopts this double perspective: it looks into ELET monitoring systems and corresponding definitions used at EU and national level; and it analyses the use of data to follow up and evaluate VET policies to prevent or remedy ELET.

1.3.2. What to monitor?

The EU indicator on ELET offers no insight as to whether the 11% of young early leavers are dropouts from VET or general education, or whether they are non-starters. There is currently no picture of learners' trajectories. This study will show that early leaving can be a result of a sequence of dropout events; knowing only the last place where the young person studied before dropping out does not give an accurate picture of this chain of disengagement.

The lack of data on the role of VET in learners' pathways is one of the reasons for Cedefop to commission this study aiming to provide greater clarity on the extent to which the scale and patterns of ELET differ between VET and general education.

The potential of VET to tackle unemployment and ease school-to-work transitions is backed by supporting evidence. Quintini and Manfredi (2009) study the patterns of school-to-work transitions in Europe and the United States, confirming that the most successful European countries in terms of school-to-work transitions are those where apprenticeships are widespread.

Cedefop (2013) has investigated the relationship between VET and school-to-work transition using the individual anonymised microdata from the core and ad hoc modules of the 2009 EU-LFS, which provide detailed information on the transition of young individuals from education to work. The results indicate that VET is able to speed up this transition. Relative to graduates with medium-level academic education, VET graduates enjoy a faster transition to work, are more likely to have a permanent first job, and are less likely to find a first job with a qualification mismatch.

Using PIAAC data, Brunello and Rocco (2015) find that, at ISCED 3 and 4, VET performs about as well as academic education for earnings and a bit better for employment outcomes. VET at ISCED 3-4 is also associated with higher training incidence.

VET can also contribute to better employment prospects, as well as other individual and social benefits, by helping to prevent early leaving and reengaging those who have dropped out from education and training before obtaining a qualification. Brunello and Rocco (2015) confirm that, when compared with lower secondary education or less, upper secondary VET pays off in terms of earnings, employability and skills, and that the estimated gap in these outcomes is

sizeable. Therefore, upper secondary VET is seen as a good option in terms of labour market outcomes for individuals who might otherwise not finish upper secondary, (those with stronger practical skills compared to academic skills). Based on this, the authors conclude that the availability of VET pathways may reduce ELET by keeping more practically oriented individuals in school.

Goux et al. (2013) evaluated a programme implemented in 2010-11 in 37 schools in Paris involving 4 300 students in 181 classes. The intervention was randomised at class level within each school. The principals of the schools involved identified students at risk of dropping out. They held two meetings with the families of these students to give them better information about the choices available within the French education system and explain the merits of vocational education. As a result, enrolment in vocational tracks increased, and dropout rates and grade repetition fell by a third, which is a very large effect on this cohort. The evaluation also found the effect persisted two years after the intervention.

The previous studies seem to suggest that VET can help retain in education and training learners who would otherwise drop out. However, overall, the existing evidence of the role that VET plays (especially from a comparative perspective) in tackling ELET is limited. Much of the discussion around causes of early leaving has focused on general factors, while it is expected that there are some issues that are specific to VET which can also explain why dropout rates vary greatly between programmes or fields of study/professions.

Understanding factors associated with abandoning VET is also needed to develop effective policy measures. There are different push and pull factors that can be expected to influence this decision, with some more likely to increase chances of dropping out for some specific target groups than others. Developing better understanding of specific factors associated with early leaving from VET and of measures that are effective at tackling this issue, was another motivation for this research.

CHAPTER 2.

Research scope and methodology

This study is based on qualitative and quantitative research.

The main research questions were:

- (a) how can the concept of early leaving from VET be defined and understood;
- (b) what is the size of this phenomenon in Europe;
- (c) what countries measure and how;
- (d) what are the push and pull factors associated with the decision to abandon VET.

The first question was addressed by reviewing EU and national definitions, involving desk research and interviews with national and regional actors. The results of this analysis are presented in Chapter 3 of this report.

To answer the second question, the research team undertook analyses of international and national quantitative sources. First, they looked into the microdata of the AES and the programme for international assessment of adult competences (PIAAC), to extract information on early leaving and dropout specifically from VET. The analysis of these two international surveys was complemented with a review of national statistics from selected countries. Second, the team used two national data sets – from France and the Netherlands – to explore the pathways of learners during secondary schooling to understand how their trajectory results in completion or ELET. The results of these analyses are presented in Chapter 4 of this report.

The third research question examines data collection and monitoring systems in the selected countries through interviews and literature review presented in Chapter 3.

The fourth question related to the factors associated with dropping out from VET, discussed in Chapter 5, was addressed through literature review, qualitative and quantitative research. Quantitative research looked into the relationships between the features of the education (VET) system in different countries and ELET rates: the correlation between ELET rates and the share of students in VET tracks; the age at which students first need to choose an education track; the number of VET programmes offered; the availability of work-based learning (apprenticeships); the perception (image) of VET; the employment outcomes of VET graduates; and the number of regulated professions.

Qualitative research on the factors associated with ELVET involved desk research and semi-structured interviews in eight countries: Belgium, Denmark,

Germany, France, Croatia, Italy, Austria and Portugal with the following key stakeholders ⁽¹⁰⁾:

- (a) 63 national-level interviews were carried out with experts in ministries or education agencies, researchers, stakeholder representatives and persons in charge of the data sets explored;
- (b) 346 on-site interviews were carried out with local authorities in education, in VET schools (heads of schools, teachers or professionals in charge of early leaving), from apprenticeship programmes (in apprenticeship training centres or training companies), in charge of orientation and guidance, and organisations working with dropouts (non-governmental organisations (NGOs), PES). VET schools and apprenticeship centres visited covered a wide range of economic sectors as well as areas with high concentration of disadvantaged population.

Two international workshops were organised to validate the findings from the desk research and fieldwork, in Thessaloniki, 3 and 4 June 2014 ⁽¹¹⁾ and in Brussels, 21 October 2015 ⁽¹²⁾. The workshop conclusions fed into the analysis of this research paper.

The study methodology and statistical analysis undertaken is described in detail in a separate annex available on request ⁽¹³⁾.

⁽¹⁰⁾ An anonymous list of all interviewees including information on country, organisation and job position/role is available on request.

⁽¹¹⁾ <http://www.cedefop.europa.eu/events/ELET2014/> [accessed 22.6.2016].

⁽¹²⁾ <http://www.cedefop.europa.eu/en/events-and-projects/events/evaluating-impact-and-success-vet-policies-tackle-early-leaving-education> [accessed 22.6.2016].

⁽¹³⁾ Please contact the project manager, Irene Psifidou at:
rena.psifidou@cedefop.europa.eu

CHAPTER 3.

Understanding and monitoring early leaving

European terminology defines early leaving from education and training (ELET) as 'share of the population aged 18 to 24 with only lower secondary education or less and not in education or training' (Eurostat, 2014).

This is the basis for the European indicator on early leaving, regularly monitored by Eurostat via the LFS. This indicator was previously named early school leaving (ESL), suggesting leaving from 'school' as the main aspect. However young people can drop out from other forms of education and training. Eurostat provides data by region (nomenclature of territorial units for statistics (NUTS) 2) and other variables such as labour status and country of birth.

Though broadly used nationally and internationally to compare rates of early leaving across countries, this definition has a number of limitations which explain why some countries use alternative definitions and measurement approaches.

This chapter discusses the use of the EU definition and its limitations, in order to get a more refined indicator on early leaving. It also discusses the use of alternative definitions in selected countries.

The following points are discussed:

- (a) how can the concepts of early leaving and dropping out from VET be defined;
- (b) what data are being collected on early leavers from VET and how are they being used? What are the limitations;
- (c) what are the data needs and limitations at national, regional and local level and how can the data collection mechanisms be improved.

3.1. EU definition and its limitations

For statistical purposes, early leavers from education and training are defined as persons aged 18 to 24 fulfilling the following two conditions:

- (a) the highest level of education or training attained is ISCED 0, 1, 2 or 3c short⁽¹⁴⁾;

⁽¹⁴⁾ ISCED stands for international standard classification of education. This classification has been developed by UNESCO to aid comparisons of education statistics and indicators across countries. The different levels correspond to different education levels: level 0 – early childhood education; level 1 – primary education;

- (b) no education or training has been received in the four weeks preceding the survey. The reference group to calculate the early leaving rate is the total population of the same age group (18 to 24). All measurements come from the EU LFS (Eurostat, 2014).

This EU indicator is built on data from the LFS which is a large scale household survey in EU-28, three EFTA countries and two candidate countries. The survey involves around 1.8 million interviews each quarter across the participating countries, with sampling rates in the various countries varying between 0.2% and 3.3%. However, only a subsample of the data set is used to develop the ELET indicator (age group 18 to 24). National statistics institutes are responsible for sample selection. They also prepare questionnaires, based on a standardised manual which sets the topics for questions, conduct interviews and code the data. LFS anonymised microdata are available for scientific purposes.

The indicator on ELET is based on annual averages of quarterly data and is updated annually. This provides a reliable data set at European level, and allows analysis of the phenomenon over time in a cross-national perspective. It also has the advantage of being based on a status definition (not qualified at the desired level and outside education) so it is not dependent on differences in education and training systems across countries.

This indicator has been constructed to provide a comparable measurement of early leaving, based on non-attainment, across the EU. It is developed for statistical purposes and while it shows progress or deterioration over time, it offers limited opportunities to understand who is most at risk, what are the programmes and situations that result in dropping out, or to monitor early leavers to offer support.

It also has the limitations inherent to the fact that it is a sample-based survey. For instance, data at subnational level (NUTS 2) sometimes have low reliability due to issues of sample size ⁽¹⁵⁾. This can be problematic in countries where education systems are regionalised and where there are important regional disparities in education attainment among the population.

The text below discusses in greater depth the different uses and limitations of this EU definition.

level 2 – lower secondary education; level 3 – upper secondary education. Level 3c includes short programmes at upper secondary which are not designed to lead directly to higher education (ISCED 5).

⁽¹⁵⁾ This is indicated in Eurostat data on 'Early leavers from education and training by sex and NUTS 2 regions' (edat_lfse_16).

3.1.1. Single definition, different phenomena

The EU indicator of ELET places young people in a variety of situations within the same broad category of ‘early leavers’. Notably, it does not distinguish between:

- (a) dropouts of an ISCED 3 programme or persons who never started such a programme. For example, in countries where compulsory education lasts until the age of 15 or 16, a young person who has repeated classes could leave education without ever starting an ISCED 3 programme;
- (b) those who drop out of education and training during the course of a programme and those who fail final examinations/assessment after having completed the full programme;
- (c) the type of education and training that the person surveyed did not complete, particularly whether it was a VET or general education programme;
- (d) the nature of the programme undertaken in the last four weeks preceding the survey. Those enrolled in any kind of training, even if it is a short course that will not result in a qualification (such as a short labour market training or adult education course), are not counted among early leavers.

Currently, the LFS survey does not include variables that could be used to develop more precise indication on any of the above issues. It records the highest level of education attained by ISCED level but does not have a question on whether the person started education at a higher level. The LFS includes information on the level of education or training of programmes attended in the last four weeks, distinguishing between ‘training that is not allocated to the ISCED classification (e.g. language courses, computer courses, seminars, etc.)’ and that which is allocated to ISCED levels (indicating that it is a formal training that results in a qualification). This information is currently not used in designing the LFS indicator on ELET. However, further analysis of the microdata could be undertaken to understand the share of those who are in training at the moment of the survey, preparing for a formal qualification, compared to those enrolled in training that does not lead to a qualification.

The previous distinctions in the timing and nature of early leaving – be it an issue of non-starters, dropouts or those failing the final exam – can provide valuable insights to inform policy-maker responses. In providing a snapshot at any given point in time, the indicator does not explicitly take account of the possibilities for early leavers to switch programmes, retake failed examinations or otherwise reengage with education and training. An inability to make more refined distinctions about the situation of young people considered as early leavers based on this indicator limits potential choice of policy response needed.

Understanding where the young person last studied before leaving education and training is an important issue for design of policy measures.

Solutions are likely to be radically different depending on whether the person leaves during primary or lower secondary education or if they drop out later on. A European Commission staff working document on European objectives for education and training observed that, in 2009, 17.4% of early leavers in the EU had completed at most primary education, and that this figure showed high variation across countries. While this category did not exist in several countries, it was alarmingly high in others, reaching a maximum of 38.1% in Portugal. At the other extreme, in Luxembourg and the UK a high proportion of early leavers had completed a short upper secondary education course (ISCED 3c), including vocational or prevocational training, at 41.2% and 61.1%, respectively (European Commission, 2011b). These two categories (those with at most primary education and those with short upper secondary education) face very different challenges and need targeted solutions.

There is also an issue of institutional responsibility. Not knowing where young people leave from makes it difficult to decide which institutions should be in charge of tackling this problem; this is particularly so in systems where institutional responsibilities over different levels and types of education are fragmented. Araujo et al. (2013) note that in Poland, the fact that Eurostat definition of ELET does not identify the moment of leaving education and training has been considered a limitation, since different entities are responsible for tackling the phenomenon depending on education level.

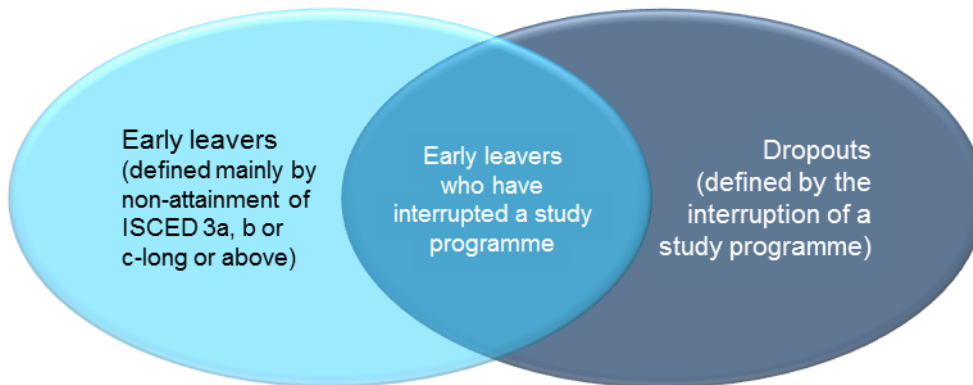
The available EU indicator on ELET can thus be seen as one broad measure that brings together a range of different situations to provide a snapshot of what it is a multi-faceted and complex phenomenon. This is why countries tend to develop additional measurements that are more adapted to analysing the characteristics of early leaving in their territories, as discussed later.

3.1.2. Differentiating early leaving and dropping out

The term dropout is often used to refer to interrupting an ongoing course. This can be experienced by different age groups and does not necessarily lead to early leaving. It can reflect a change of course or school and also happens at higher levels of education, once people have already achieved the threshold ISCED 3 qualifications.

Not all early leavers are necessarily dropouts. There are those who completed a lower secondary programme or a short ISCED 3c programme and never started higher level studies; these are non-starters rather than dropouts. It can be assumed that dropouts are a subgroup of early leavers (Figure 2).

Figure 2. **Early leavers and dropouts**



Source: Cedefop.

Many countries use measurements of dropouts (including Belgium-fr, Denmark, Croatia, Italy and Portugal). VET schools and training centres usually monitor dropout rates in the different programmes and levels. In one way, dropout rates are easier to monitor than early leaving as they are typically based on administrative data. However, the common limitation of these measurements is that they do not distinguish between 'real' dropouts and student mobility. Often, students who change programme, school, or system of education or training, are counted as dropouts when they are not really dropping out but changing pathway; they are mobile.

Combining data on dropouts with data on early leavers is a key challenge for monitoring systems. In Denmark, for example, two dropout measurements are based on longitudinal data: one refers to VET students who drop out of a programme but enrol in another programme (called dropout with reselection); and the other, to VET students who drop out of a programme but do not re-enter another programme (dropout without reselection). The data used for these indicators comes from a database which tracks the status of VET students every monthly.

The EU indicator tries to address this issue by measuring non-attainment of young people older than the theoretical age of end of secondary education. By focusing on the age group of 18 to 24 years old, it should not be affected by instances of student mobility because, by the age of 18, young people who follow a 'standard' pathway are expected to be qualified at ISCED 3 (a, b, c-long) or to be still enrolled in formal training (even if they change tracks during their studies); according to the EU definition, they would not be counted as ELET. Consequently, the EU indicator is not affected by student mobility, since it is not based on a dropout rate but on qualification attainment combined with participation in education and training. The use of these age brackets, though,

has other limitations for informing prompt measures. Many young people leave education and training much before the age of 18 and policy measures need to aim at early intervention after these people disengaged; the EU indicator cannot inform national policy-making at the appropriate time. This is why countries frequently use measurements that also capture younger age groups.

3.1.3. Capturing where young people drop out from

The Eurostat definition focuses on the highest qualification level achieved, not allowing for analysis of the type of programme from which young people drop out. Although national LFS questionnaires collect information on the type of certificate attained, they do not cover information on unfinished studies (Eurostat, 2014). The survey does not ask a question on whether the respondent started a programme that s/he did not finish. There is no information on whether, beyond the highest education level attained, the respondent pursued other studies and, if so, what was the nature of the programme attended (in particular, whether it was general education or VET).

Several countries have information on early leaving or on dropout rates disaggregated by type of programme. Knowing which types of programmes 'generate' most early leavers enables targeting of policies at those programmes where the problem is most acute. However, these national measurements do not necessarily cover all the types of courses, and they are by no means comparable. Often, information on apprenticeships or courses provided by entities other than those under ministries of education is collected separately and the definitions used are different. This is so in Germany where, for apprenticeships, the measurement focuses on 'contract dissolution rate' rather than on real early leaving.

3.1.4. Refining the EU indicator

The LFS indicator on early leaving relies purely on education attainment as captured through ISCED levels. However, ISCED levels as currently defined are based on the hierarchy of formal education pathways; alternative pathways to qualifications recognised on the labour market are not always well aligned with ISCED levels. This means that some people who have relevant certificates or qualifications, that are in practice sufficient for entry into the labour market, are counted as early leavers in the EU definition.

In many countries, qualifying adult learning courses or second chance education are not captured by the ISCED levels. For example, in the Flemish Community of Belgium (Belgium-fl) the decision has been made to exclude certain forms of special education (targeting people with handicap) from the national definition of early leavers because some of these courses provide

sufficient qualification level (Araujo et al, 2013). In Malta, certain courses delivered by upper secondary education institutions as revision (catch-up courses), open to young people as well as adults, used to be considered equivalent to ISCED 2. A recent review of alignment between the national education system and qualifications structure and ISCED led to review of early leaving rates based on LFS in Malta. As shown in National Statistics Office of Malta (2013), after these courses were aligned to ISCED 3, the rate of early leaving appears 10 percentage points lower than before realignment of ISCED levels (23.6% in 2011 instead of 33.4%).

Use of the revised ISCED 2011 classification, to which countries are currently mapping their education systems, could partly solve this issue. According to the new classification, second chance courses and reintegration courses should be mapped as ISCED 3.

3.1.5. LFS data set limitations

Stakeholder interviews and the literature review carried out for this analysis have highlighted three potential limitations in the EU measurement of ELET. These are likely to be particularly pronounced in the case of vocational pathways:

- (a) the EU LFS is considered likely to under-represent hard-to-reach groups in the overall survey sample (such as Roma) ⁽¹⁶⁾. However, these groups have a high prevalence of early leaving. Therefore, the overall result may be an underestimate of the true share of early leavers;
- (b) individuals who took part in any short training courses – possibly not leading to a formal qualification – at the time of the survey are not counted as early leavers. This can also introduce a bias that underestimates the real share of early leavers (Kaye et al., 2014);
- (c) the definition used refers to achievement of upper secondary education programme of duration of at least two years. This means that those who complete shorter courses are considered as early leavers. Given that many second chance programmes and vocational courses for adults are shorter, the indicator may not accurately reflect the issue ⁽¹⁷⁾.

⁽¹⁶⁾ See, for example, the discussion on sampling frames in Eurostat (2009). Also, an ethnic gap in ELET is the focus of research in Spain, where a high percentage of the Roma minority have been shown to drop out before the completion of upper secondary education e.g. Fundación Secretariado Gitano et al., 2006.

⁽¹⁷⁾ Individuals completing an upper secondary programme of short duration not granting direct access to tertiary education (ISCED 1997 3c, short) are not considered to have achieved sufficient educational attainment.

In some countries, the total sample size of the LFS is considered to be too small to provide meaningful disaggregated data at regional level. This was noted in Belgium, where the Brussels region has specific characteristics and education governance. The LFS does not cover sufficiently large population per region to enable trustworthy comparisons between subsamples, such as different regions.

3.2. National definitions and monitoring systems

3.2.1. EU versus national definitions

While all EU countries use the EU definition to report data at European level and for comparison with other countries or regions, several countries also use alternative national definitions. These are typically more specific than the EU definition and suited to the characteristics of the national education system⁽¹⁸⁾.

The most common differences between the national indicators and the EU definition and related indicator are:

- (a) focus of the definition: qualification attainment versus participation in education and training. The EU definition mainly focuses on qualification attainment, with participation as a secondary aspect that helps to measure the number of those who did not achieve the minimum qualification. Measurements incorporating similar variables are also in place, for instance, in Belgium-fl, Denmark, Germany, France, the Netherlands and Austria. In other countries (such as Belgium-fr, Croatia, Italy), however, the emphasis is on measuring participation in education and training and dropout rates from education programmes, so definitions are not necessarily clearly associated with qualification attainment;
- (b) minimum level of qualification considered: while the EU definition focuses on upper secondary qualification attainment (also the case in Denmark and the Netherlands), some national definitions (Germany, France) include lower secondary education attainment. Further, unlike in the EU definition, the qualification attainment is measured via reference to specific qualifications and not to ISCED levels;
- (c) participation in education and training: unlike the EU definition, the national definitions specify that to be considered as still in education (hence not an early leaver), the unqualified young person should be enrolled in formal education. The EU definition covers any form of training;

⁽¹⁸⁾ Examples of national measurements of early leaving or of closely related indicators are available on request.

- (d) the age groups considered also differ: In several countries, the numbers of dropouts are compared with the age cohort of those in typical age brackets associated with a given level of education (in Belgium-fr, all students in the last year of compulsory education; in Croatia, all students enrolled in a given grade; in France, all students who, in a given year, left the education system). In these countries, the indicator does not give a transversal picture of the full age cohort of young people, omitting those young people who have been out of the education system longer;
- (e) data collection method: most countries reviewed use administrative data sets to develop indicators on early leaving or dropouts. These data sets are either school reported cohort data or student registers. School reported cohort data typically give information on number of students initially enrolled in a given grade compared with numbers of students who successfully completed the grade. Data based on student registers are more accurate as they are based on individuals' personal identification (using a unique student number) and enable following a pathway across education and training institutions. These data are also reported by education institutions but per individual rather than per cohort. They allow differentiation between those students who changed education institution or programme and those who left the education and training altogether. A few countries (France, UK) collect these data through surveys other than the LFS. The Netherlands has a specific annual survey on pathways of early leavers.

In several countries (including Belgium, Germany and Austria) data on apprenticeships are collected through different modes than school-based education and training data. They also do not capture early leaving but contract dissolution, which is quite different. This difference in measurement is typically due to the difficulty of comparing school-level data and data from the apprenticeship system. Countries where apprenticeship completion is measured in the same way as completion of other education programmes often use information from student registers (Denmark and the Netherlands).

Some countries fine-tune their measurements to pick out aspects that might otherwise be hidden under the category of 'early leavers':

- (a) in Austria, dropping out during the programme is differentiated from failure at final examination;
- (b) in Denmark, dropping out and then entering another programme is reported separately from those dropouts who do not rejoin any other education or training.

In addition to measuring of ELET, several countries introduced measures to identify students at risk of early leaving:

- (a) Belgium monitors students below 18 who have at least 20 half days (lower secondary education) or 30 half days (upper secondary education) of unjustified absences during the academic year;
- (b) in Denmark, the youth database collects information on the current education situation of young people aged 15 to 17, allowing for identification of young people who no longer attend an education programme in which they were enrolled or who are considered as at risk by the school;
- (c) Italian data measure students who attend education and training irregularly (repeating grades, interrupting studies).

3.2.2. Country-specific ELVET data

Most of the data collected at national level and directly measuring early leaving or related to it permit differentiation per type of education and training. It is possible to disaggregate the data and differentiate only VET programmes. However, the detailed information available varies. For example, the extent to which the data can be disaggregated by economic sectors varies. Further, where available, the grouping of programmes into sectors follows a national approach and is varied.

The extent to which apprenticeship data are covered by the same indicators as other forms of education and training also varies.

Table 1 gives an overview of VET-related data available in countries analysed in greater depth.

Table 1. Country-specific ELVET data

Country	ELVET data
Austria	<p>Information about those who leave without a certification at upper secondary is given for:</p> <ul style="list-style-type: none"> • general education schools; • VET schools; • VET colleges. <p>Data are provided by gender, mother tongue and regions. Data are also available per broad grouping of sectors. Data on apprenticeships are also available per groupings of sectors.</p>
Belgium-fr	<p>The indicators 'exit rates' and 'certification rates' can be differentiated by type of education:</p> <ul style="list-style-type: none"> • general education; • technical education (<i>enseignement technique de qualification</i>); • VET (<i>enseignement professionnel</i>); • apprenticeships organised by the French Community (Alternate Training and Education Centre (Centre d' Education et de Formation en Alternance) (CEFA)). <p>Information on sectoral orientation of programmes is also available.</p>

Country	ELVET data
Belgium-fl	<p>The data can be disaggregated by type of education:</p> <ul style="list-style-type: none"> • general secondary education; • vocational secondary education; • special needs secondary education; • part-time vocational education; • technical secondary education; • apprenticeship; • arts secondary education. <p>They can also be disaggregated by field of study or by economic sector.</p>
Croatia	<p>Indicators on attendance and graduation are disaggregated by type of school (differentiating VET schools from general education). VET data are also disaggregated by field of study/sector.</p> <p>In the e-Matica system, with information on 'students enrolled each school year' and 'students who leave the school during the school year', information can be traced for VET. However, it is not currently done.</p>
Denmark	<p>The data can be disaggregated by type of education differentiating between general education and VET. VET data can be further disregarded by type of VET: foundation courses, main courses, other VET programmes.</p> <p>The data can also be desegregated by fields of study/economic sectors.</p>
France	<p>The indicator of the statistical department of the Ministry of Education is broken down by type of qualification and level of education. The type of qualification enables differentiation between those who completed a VET programme, those who completed technical upper secondary education, and those who completed general education.</p> <p>The data set from the SIEI collects administrative data, disaggregated by:</p> <ul style="list-style-type: none"> • type of qualification; • level of education; • type or orientation.
Germany	<p>There are no VET specific data on early leaving for full-time vocational schools. The only VET specific data available concern dual VET.</p>
Italy	<p>There is information on students at risk of early leaving attending VET institutions which are part of the State school system (technical institutes and professional institutes). VET institutions which are not part of the State school system, have their own statistics; these are not public.</p>
Portugal	<p>The Ministry of Education indicator on dropout and retention is broken down by type of courses (general and VET). For VET, it includes professional courses and technological courses (the latter were officially discontinued from 2013/14). This indicator does not include data on VET courses in private schools or VET provided by employment authorities.</p>

Source: Cedefop.

3.2.3. Data use to inform policy-making

Data collected by countries are used in monitoring systems that aim at informing policy-making. More specifically, monitoring systems can be used to:

- identify persons who dropped out or are at risk of doing so, to offer them support;
- improve school performance;
- monitor the performance of the education system to inform VET policies. It can involve the analysis of student trajectories.

Table 2 provides an overview of the main monitoring systems integrated in policy responses to address early leaving in the countries reviewed, according to their main purpose. Data from a monitoring system can be used with different purposes: school attendance officers in the Netherlands follow up data on the digital absence portal to engage with absentees and their parents; data in that portal are used by the Ministry of Education, Culture and Science to develop monthly reports and establish benchmarks for regions.

Table 2. **Main monitoring systems according to their purpose**

Purpose	Country	Monitoring system
Identifying early leavers and students at risk to offer them support (information that can identify the individual: name, phone number, address, etc.)	Belgium-fr	Data on absenteeism used by the Directorate-General for Compulsory Education (Direction générale de l'enseignement obligatoire, 2011).
	Denmark	Youth database.
	France	SIEI (Ministère de l'Education, 2011)
	Ireland	Data on non-attendance in primary and post-primary schools collected by the Child and Family Agency (Tusla) through the annual attendance report requirement on schools.
	The Netherlands	Digital absence portal
	Luxembourg	Digital register of pupils in secondary education (<i>fichier élèves</i>).
	Portugal	<ul style="list-style-type: none"> • monitoring system of the Commission for the Protection of Children and Youth at risk; • system for the management of training of the Institute for Employment and Professional Education (*).
Improve school performance	Belgium-fr	Tabor (school-level dashboards on entry and exit rates) (see description in Mathy, 2013).
	Belgium-fl	Data on early leaving as well as on absenteeism (see description in Flemish Ministry of Education and Training, 2013).
	Croatia	E-matica (enables schools to have good overview of the state of play of their student participation but it is not used specifically to monitor early leaving).
	France	(Only in some regions is the SIEI data sent back to schools to require schools to take actions).
	UK-Northern Ireland	'Further education activity' system.
	Norway	Skoleporten portal.
Monitoring the performance of the education system	Austria	<ul style="list-style-type: none"> • school statistics that allow tracking individuals' educational pathways; • apprenticeship statistics (Austrian Economic Chambers (Wirtschaftskammer Österreich, WKO) – apprenticeship statistics); • career monitoring (monitor of individuals after leaving education).
	Denmark	<ul style="list-style-type: none"> • pupil register (based on personal identification number); • EASY.
	Estonia	Estonian education information system.

Purpose	Country	Monitoring system
	Germany	<ul style="list-style-type: none"> statistics on general and school-based VET which are integrated in the annual <i>Berufsbildungsbericht</i> (national report on VET) (BMBF, 2015); monitoring data on education in Germany, published in the annual <i>Nationaler Bildungsbericht</i> (national report on education) (Bildungsberichterstattung, 2014); education monitor by the initiative for social market economy, supported by chambers of commerce.
	Ireland	<ul style="list-style-type: none"> Department of Education and Skills (2013) first annual report tracking school leavers. Pupils in the post-primary pupils database are traced to other data sources, based on a unique personal identifier; survey on the impact of training and employment programmes on trainees' subsequent labour market situation commissioned by the Further Education and Training Authority (SOLAS).
	The Netherlands	Basic records database of education (based on a unique number allocated to each student).
	Portugal	Information system of the Ministry of Education.
	England	National client caseload information system.
	Wales	Annual survey on pupil destinations from schools in Wales, undertaken by Careers Wales

(*) The information on the system for managing training is based on interviews with professionals from a training centre under the PES.

Source: Cedefop.

Several countries have put in place centralised mechanisms allowing for individual follow-up of students. Different institutions are in charge of contacting young people identified as being early leavers to offer them possible solutions: these institutions include education authorities at national level, regional youth services, or designated professionals within schools.

Box 1. National digital register of pupils in secondary education: Luxembourgish example

The Luxembourgish Ministry of National Education, Children and Youth maintains a national digital register of pupils in secondary education (*fichier élèves*), which is updated on monthly. These data are communicated to the regional offices of local action for youth (*Action locale pour les jeunes*). The local action for youth makes direct contact with early leavers on the national register, to establish their current activity/status (in terms of employment, education or training) and survey them on their reasons for dropping out. It provides them with guidance services to support their reintegration into schooling or the labour market.

Source: Cedefop.

The identification of young people who drop out from an education and training programme can also be followed by the suppression of public subsidies. In Portugal, PESs collect data on absenteeism from training centres providing apprenticeship-type courses via the system for management of training; if absences surpass a certain level, the system automatically cancels social benefits the students might be receiving.

In some countries, monitoring data are used by central services as an incentive for improving school performance in monitoring and preventing early leaving. Ministries of education or local authorities transmit the information to schools for them to reflect on and improve their performance. School-level information on performance can also be taken into account by public authorities when deciding on funding for each institution (outcomes-based funding), and it can trigger closer monitoring and support for those schools performing poorly.

Box 2. Monitoring data used for improving school performance: examples from Belgium-fr, the UK (Northern Ireland) and the Netherlands

The TABOR⁽¹⁹⁾ dashboards are compiled centrally by the statistical office of the Ministry of Education of Belgium-fr, and provided to each head of school and the authorities governing the school. They are meant to support quality improvement and decision-making at school level but not as a control tool (not linked to any sanctions or funding measures). The dashboard contains various indicators at school level, including: proportion of students who repeat a grade; proportion of those who are delayed in their education progression; and proportion of those who exit the school, differentiating between those who are no longer enrolled in the education system of the French Community, those who changed type of programme or those who changed school.

The Department for Employment and Learning in Northern Ireland sets enrolment, achievement and success targets for further education colleges at the beginning of each year. These are directly linked to funding of the further education college provision. Attainment of these targets is monitored through the 'further education activity' system.

In the Netherlands, the 'top-6 approach' involves periodic meetings between the Ministry of Education, Culture and Science and the boards of the six VET schools with the highest rates of ELVET. They discuss the latest ELVET developments at institutional and regional level and the measures the school is taking to reduce ELVET.

Source: Cedefop.

⁽¹⁹⁾ TABOR stands for *tableau de bord* meaning dashboard.

National policy-makers monitor data to assess the state of play of their education system and inform VET policies. Some existing systems allow analysis student trajectories (e.g. the Danish EASY-S database). Countries including Belgium-fr, Poland and Portugal are aiming at developing similar systems.

Box 3. Monitoring the education system: examples from Denmark and Poland

The Danish EASY-S database has longitudinal data based on material from a decentralised database which functions as an administration tool at VET institutions (EASY-A) and a centralised system to administer apprenticeships (EASY-P). Monthly and annual reports are based on the longitudinal data. These reports are mostly used by people working in the VET sector (such as the Ministry of Education, the Confederation of Employers, the Confederation of Trade Unions, professional committees and journalists), and feed into debate and policy-making on VET. In Poland, a new project of monitoring VET student trajectories (*Badanie losów absolwentów szkół zawodowych*) is being developed in the framework of the new 2014-20 *Knowledge, education and growth* operational programme. The objectives include drafting of recommendations for the development of the education system, based on the results from research and pilot projects, and development of a teaching offer adequate to the needs of the labour market, students and graduates.

Source: Cedefop.

Careers Wales undertakes an annual survey of school leavers on behalf of the Welsh Government to report on the destinations of pupils from secondary schools across Wales. The results inform Careers Wales' staff in their work with clients, parents, teachers and employers, as well as partners involved in planning learning, training and employment opportunities. Local authorities use these data as part of their internal planning systems which are increasingly based on more robust monitoring. Although arrangements vary across local authorities, it is best practice that this information is shared with schools and colleges who can use it to influence their internal policies.

Although VET providers are the main source of data in centralised monitoring systems (inputting data on their students), often they do not use them themselves to inform decision-making at school level. A non-negligible share of interviewees from VET institutions regretted that no resourceful feedback is provided to them after they sent information on their students to the ministry or statistical office (stated in Belgium-fr, Denmark, Italy, Portugal). They were lacking feedback about where those who dropped out went and whether they just changed programme or left education and training altogether. They also complained about lacking information on whether the authorities undertook actions to contact potential early leavers. It is common, therefore, for education providers have their own monitoring systems, tailored to their daily needs.

3.2.4. User perspectives

National stakeholders were asked about their views on the existing data and their use. The feedback received varied across countries and across institutions, though they all recognise the usefulness of having quantitative data on early leaving. In countries where there are indicators on early leaving, stakeholders often mentioned the need for more detailed information; in Croatia stakeholders agreed on the need to collect more national data – in addition to the data for the LFS – to contribute to understanding the phenomenon.

Different stakeholders reflected on the need to have more detailed data on geographic scope (such as commune/province level in Italy or county level in Croatia); socioeconomic background ('citizenship' is considered a poor proxy for migration background in Germany and Austria); sector or type of programme (Germany, Austria); and training company characteristics (Germany). They also look for more information on the reasons for dropout and individual factors that lead to early leaving (Denmark, Germany, Croatia, Austria) and mention the need to have more updated data to increase relevance in decision-making (Croatia, Portugal).

Another concern for interviewees in some countries is lack of information on young people's academic trajectories. A national registry based on the fiscal code aims at filling this gap in Italy but it is still not fully functional; Portugal is currently developing a similar system. Several stakeholders mentioned that such registers are difficult to implement and use in research and policy-making due to data protection regulations.

Box 4. Trajectories of those who drop out: Danish example

Stakeholders from Denmark stated the need to know more about life trajectories beyond purely academic ones. The educational status of Danish students who start in VET is currently monitored after one, two, three, six, nine, 12, 18, 24, 30, 36 and 42 months. A policy-maker observed that tracking dropouts after five to 10 years would be beneficial to assess what could be done to support those who cannot be engaged through teaching methods at VET institutions.

Source: Cedefop.

Difficulties in following up students are also linked to the existence of different data sets for different subsystems, not connected to each other. In Austria, it is now possible to know if a student leaving a programme finally dropped out from dual VET or changed training company but a change to school-based VET will not appear in the data.

Some stakeholders voiced concerns about data quality; these are collected in many cases, directly by VET providers. Some interviewees believe that there is a lack of mechanisms to ensure that this is done systematically and in the same way by all institutions (Denmark, Germany, Italy, Austria, and Portugal).

Interviewees reported that data are mostly used by public authorities for monitoring, and by universities and other institutions for research. However, data provided by public authorities are less used in developing and monitoring specific initiatives. It should be considered that nowadays more data are available than are or can be used in policy-making. Most people, including within ministries, are not familiar with statistical details and methodologies and so need well-prepared indicators which are simple to understand and to interpret. This would contribute to informing decision-making on programmes and measure design. Stakeholders also agreed on the need to complement data with information other than learner status: reasons for dropping out and the characteristics of early leavers and their pathways are examples.

On-site stakeholders were asked about their experience using the available monitoring systems. The feedback received varied across countries and also across users. However, in countries where data collection systems exist at school level, interviewees tend to have a good overview of the situation of their institution. This was particularly the case in those countries and organisations where the interviewees did not just provide the data to the central level but also used them for their own activities. This was seen in France where VET schools and other local actors use data from the SIEI to identify ELET and those at risk. Similarly, interviewees in Denmark referred to data collection systems and used the information to clarify matters such as which programmes had higher rates of dropping out than others.

At the same time, non-negligible share of interviewees from VET institutions regretted lack of feedback to them after they sent information on their students to the ministry or statistical office (as in Belgium-fr Denmark, Italy, Portugal). They were lacking feedback about where those who dropped out went and whether they just changed programme or left education and training altogether. They complained about lacking information on whether the authorities undertook actions to contact potential early leavers. They also regretted that the reasons for truancy or dropping out were not reported in national data systems. To improve relevant knowledge, VET institutions would find it useful to have detailed national analysis on the reasons for dropping out.

Where schools receive feedback on their performance from central authorities, this allows VET institutions to compare themselves to similar organisations and to monitor their progress in relation to early leaving. However,

the information often arrives after some time and local action is often needed before data are received. This is particularly so in countries where monitoring is not continuous, using a student register.

Several VET providers interviewed have developed their own data collection and identification system. These enable them to identify quickly students at-risk of dropping out and take immediate action. Developing an internal data collection system enables VET institutions accurately to monitor student pathways, their absences, and all the factors usually associated with early leaving (social and economic characteristics, academic achievement, health issues, consumption of illicit products). On detecting risk of dropping out they can take action such as contacting the family, providing remedial classes, and providing psychological support.

Box 5. VET provider data collection system: Portuguese example

A VET school in the central region of Portugal created an internal system in 2011 with the objective of being more efficient in monitoring truancy, in transmitting the information between the pedagogical and psychological staff, and in school management.

The system includes detailed information on each student: classroom and reference teacher, contact details, age, psychological and health profile, any legal concerns, previous truancy and dropout issues, academic achievement – especially in basic skills in Portuguese and mathematics – hobbies, results in psychometric tests done at the moment of the application, and comments by teachers. Some of the information (such as psychological and health profile, legal situation) is only accessible to psychologists following the student and to the director.

When a student is absent, the teacher clicks on the student name on the truancy monitoring software. After clicking, a note is registered in the student profile and an SMS is sent to his parents/guardian to notify the students' absence.

Source: Cedefop.

In several cases, VET institutions reported difficulties using their national information technology (IT) software to report on their students. IT tools are not always user-friendly. VET institutions also often report lack of human resources for monitoring school data (the case in Belgium-fr, Belgium-fl, France and Austria).

3.2.5. Challenges in ELVET data collection

Users' perspectives on the challenges for collecting data on ELVET can be summarised as following:

- (a) coexistence of different data collection mechanisms in education subsystems. This is particularly true for apprenticeships but also other areas

- of VET governed by ministries other than the main one in charge of education;
- (b) lack of student registers to enable tracking students across education institutions. In some countries, the issue of personal data protection was put forward as a main argument against such data sets;
 - (c) many VET providers work with data on dropouts rather than on actual early leavers as they do not have the capacity to verify if the student who left enrolled elsewhere. This gives only a partial picture of the problem as many dropouts continue education and training elsewhere ⁽²⁰⁾;
 - (d) difficulty in collecting data from private education and training providers who receive no State funding and have no obligation to report data to the State;
 - (e) difficulties linked to the user's experience of the IT systems. Several interviewees from schools complained about the fact that some of the systems required quite a lot of time to administer on their side;
 - (f) questions about the age group that should be monitored. Belgian data collection systems on absenteeism focus on underage students who are still required to attend education. There is no monitoring of those after the age of 18. In France, the SIEI only focuses on young people one year after they left education and training. Afterwards, they are no longer reflected in the system;
 - (g) local organisations interviewed in some countries (VET providers or others) noted that often the data they received were outdated. This was noted in those countries where the data are collected and returned to VET providers once or twice per year (as in Belgium-fr or France). These delays mean that it is sometimes late to reach out to the young person as the linkages between him/her and the education institution have been broken. The young person has moved on in his personal life, often becoming more disengaged from education, making return difficult. Contact data such as phone number

⁽²⁰⁾ In Portugal, the National Association of VET schools – representing a network of 143 grant-aided private schools – has carried out two surveys focusing on the students who start a school year but drop out during that year, and giving information on the reasons for dropout. The surveys identified situations that do not fall strictly under 'dropout', such as emigration, change of VET programme (ANESPO, 2011). In Germany, the Chamber of Crafts of Cologne estimates that around 70% of contract dissolutions are linked to a change of company and/or occupation, but not permanent dropout from education or VET. In Italy, the Institute for the Development of Vocational Training of Workers (Istituto per lo Sviluppo della Formazione Professionale dei Lavoratori, ISFOL) has carried out a survey to obtain more reliable data on ELVET (ISFOL, 2012).

and email address are often no longer valid if the data are several months old;

- (h) database quality assurance is a concern. Data entered by VET (and other) institutions are often not quality assured, resulting in errors that translate to loss of time for those who work with the data. The Netherlands, for example has developed a protocol whereby data submitted by schools undergo external audit before validation; this requires additional resources.

3.2.6. Suggestions for improvements

Users' perspectives on the factors contributing to improved use of data on early leaving to inform policy and practice can be summarised as follows:

- (a) the coherence and compatibility of data collection mechanisms in education and training subsystems within countries, allowing for the follow-up of students through the system, regardless of the public authority in charge or the education and training provider (e.g. apprenticeships and school-based VET; public and private institutions);
- (b) the availability of student registers, to allow follow-up of student trajectories;
- (c) anonymised student register data, to allow extended use while respecting data protection regulations;
- (d) revising the type of data breakdown which could be useful for monitoring and research (geographic, socioeconomic background, type of programme);
- (e) information on the reasons for dropout and individual factors that lead to early leaving;
- (f) data for different age groups (as in after the end age of compulsory schooling);
- (g) mechanisms to support data collection by education and training providers (to address difficulties in the use of IT systems for data collection);
- (h) mechanisms to quality assure data collection by education and training providers, to ensure that data collection is done systematically and so improve the quality of available data;
- (i) more data analyses to provide decision-makers with indicators which are simple to understand, to interpret and to use;
- (j) feedback on data collected by national and regional authorities to local authorities and VET providers, to contribute to its use in decision-making also at these levels;
- (k) the possibility of having more up-to-date information and of sharing it with stakeholders at decision-making different levels (central, regional and local authorities, as well as VET providers).

CHAPTER 4.

The extent of early leaving from VET

4.1. Identifying different early leavers

The LFS is used at EU level to monitor ELET, measured as failure to reach sufficient qualification at upper secondary education. This reflects concern about having an appropriately skilled and qualified workforce but policy concerns also have to consider the incidence of dropping out from specific pathways. There may be distinct policy responses for those who can be considered early leavers who did not make the transition from one level of education to the next (here described as 'non-starters') and those who started a programme but discontinued it or failed the examination (dropouts). Box 6 defines these distinctions.

Box 6. Early leavers, drop outs and non-starters

EU definition of early leaving: the percentage of the population aged 18 to 24 who have achieved a lower secondary level of education or less (i.e. ISCED 0, 1, 2 or 3c short) and declared not having received any education or training in the four weeks preceding the EU LFS (not currently engaged in education and training).

Early leavers who are non-starters: the percentage of the population in defined age brackets (*) who achieved a lower secondary level of education or less (i.e. ISCED 0, 1, 2 or 3c short) and never began a programme of study at the next level of education.

Early leavers who are dropouts: the percentage of the population in defined age brackets (**) who achieved a lower secondary level of education or less (i.e. ISCED 0, 1, 2 or 3c short) and enrolled in an education programme which they did not complete.

(*) A broader age category was used in the analysis of PIAAC data to achieve a sufficient sample.

(**) Idem.

In contrast to the LFS, which only measures the rate of early leaving, the PIAAC data set can be used to differentiate between those that dropped out with unfinished qualifications and those that did not make the transition from one level to the next. Examining the PIAAC data illustrates that during the time of collection (August 2011 to March 2012), an estimated 13.9% of the 16 to 34 year-old age group in the 18 EU and EEA participating countries were considered early

leavers ⁽²¹⁾; this is in line with the estimated 13.3% for the EU-28 according to the LFS of 2011. Further differentiating this group of early leavers illustrates that fewer early leavers started a programme from which they dropped out than those who did not make the transition. Among the 16 to 34 year-old population not currently in education or training, 5.8% are early leavers who dropped out of a programme before completing, compared to 8.1% of early leavers who did not drop out ⁽²²⁾. So of the early leavers, 42% can be considered dropouts and 58% are non-starters. In PIAAC those who enrolled in a programme at ISCED 3c short are counted as non-starters.

Given these proportions, neither group can be said to dominate the overall figures but there are major differences between countries. Figure 3 compares the overall rate of ELET and the percentage of early leavers who are also dropouts. The dark blue columns represent the share of early leavers and the gap between the two columns indicates the proportion of early leavers who are non-starters. Where the gap is narrow, most early leavers are dropouts (in the Czech Republic, Finland and Sweden). Where the gap is larger, most early leavers have not started a qualification that they did not complete (in Belgium, Ireland, Spain, Italy, Cyprus, Slovakia, and the UK). Removing two countries that are outliers (Spain and Italy) from the analysis shows the high share of early leavers that did not experience a dropout event. A major difference between the number of early leavers who experienced a dropout event and the number of early leavers who did not experience such an event can be explained by one or more of these situations:

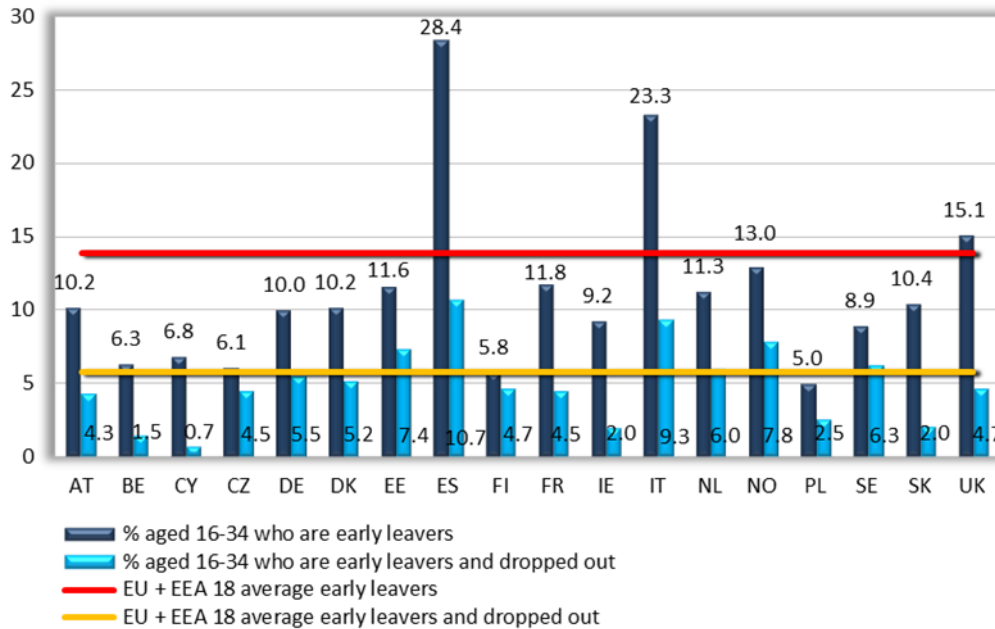
- (a) many early leavers complete lower secondary education but do not make a transition to upper secondary education (so they never start an upper secondary programme);
- (b) many early leavers completed a short (often vocational) programme at ISCED 3c;

⁽²¹⁾ The analysis was restricted to those aged between 16 and 34, not currently in education and training in the 18 EU and EEA participating countries in the PIAAC data set. The sample excludes those whose highest level of qualification was unknown ('missing' in the survey) and those who achieved their highest level of qualification abroad, so calculating the percentage of early leavers within a country (rather than including those that qualified or became ELET in a different country from that in which they are now living). A more detailed discussion of the construction of indicators used in the analysis of PIAAC data, and a detailed breakdown of the results presented in this paragraph by country are available on request.

⁽²²⁾ Figures are based on ELET who dropped out of any ISCED level programme. A detailed breakdown of the sample by country is available on request.

(c) many early leavers complete a programme that is not mapped against ISCED levels (such as an adult learning programme).

Figure 3. **PIAAC rates of early leaving and dropout among 16 to 34 year-olds**



NB: When omitting Spain and Italy the average share of early leavers falls from 13.9 to 10.3, and the share of early leavers who are also dropouts falls from 5.8 to 4.5. The proportion of early leavers versus early leavers who are dropouts remains comparable.

Source: ICF calculations based on PIAAC data; data are weighted within countries and to produce the EU +EEA 18 average.

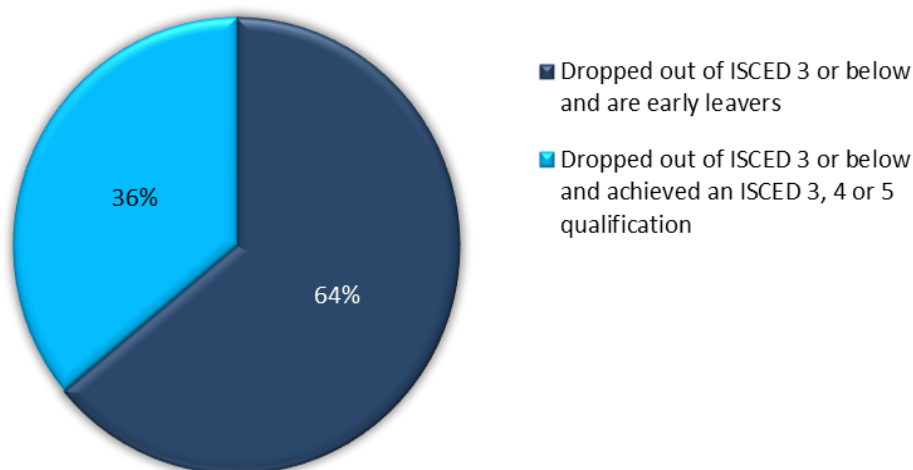
The AES, 2011-12, was also examined with the purpose of differentiating between early leavers who are also dropouts and those who are non-starters. The results of this analysis seem to suggest that most ELET are non-starter' (64% of the sample, compared to 16% for dropouts), with a considerably higher share than in the PIAAC data set. However, a large share of non-responses questions data validity and, for this reason, it will not be further analysed here.

4.2. Measuring early leavers versus dropouts

Discussion of early leaving and its definition in Europe usually excludes anyone who initially dropped out of education and training but then returned to finish upper secondary education (or above). However, not completing a programme of study is not exclusive to early leavers. Many of those who experience dropout

achieve an upper secondary qualification ⁽²³⁾. Almost 9% of all young people (16 to 34) not currently in education or training at one time experienced dropout from ISCED 3 or below. The figures show that 5.6% of young people have unfinished qualifications at ISCED 3 or below ⁽²⁴⁾ and are early leavers. However, a further 3.1% have experienced dropout (at ISCED 3 or below) but have achieved a minimum of upper secondary qualifications. This means that of those who experience dropout during upper secondary education or before (i.e. from ISCED 3 or below), 36% achieve, at a minimum, an upper secondary (ISCED 3) qualification. This is illustrated in Figure 4.

Figure 4. **Young people (aged 16 to 34) who experienced an uncompleted qualification at ISCED 3 or below in 18 EU + EEA countries (PIAAC)**



Source: Cedefop. ICF calculations based on PIAAC; data are weighted.

⁽²³⁾ Based on PIAAC data, a proportion of those who experienced a dropout event would not be classified as early leavers as they either had already obtained a minimum upper secondary qualification before dropping out from another upper secondary qualification (or below); alternatively, subsequent to dropping out they went on to attain an upper secondary qualification (or higher). Given that the PIAAC data only provide year ranges for qualifications achieved, it is not possible to analyse the latter. However, it is likely that only a small percentage make up the former category.

⁽²⁴⁾ The figures in Section 4.1 highlight that 5.8% of the 16 to 34 year-old population not currently in education or training are dropouts. The analysis finds that almost all ELET drop out from ISCED 3 or below; however a very small number (0.2%) are early leavers (i.e. have a qualification as ISCED 3c short or below) who started a programme at ISCED 4 and failed to complete it.

4.3. Measuring ELVET

There are no comparable international data specifically examining the issue of early leaving in the context of learner trajectories (see Section 1.3.2). Therefore, there are difficulties in estimating the degree to which early leaving is predominantly an issue from general education or vocational education. This study explored the possibility of developing such an indicator ⁽²⁵⁾ using the AES implemented during 2011-12 ⁽²⁶⁾.

Only a small percentage (16%) of the early leavers in the 25 EU, EEA and candidate countries surveyed in AES answered 'yes' to the question whether they had started studying towards a qualification at a higher level of education than the highest successfully completed. This share is substantially lower than in the PIAAC data (42%) indicating that the 20% non-response to this AES question (Section 4.1) may distort the result and the share of early leavers that dropped out may be greater.

Of the 25 EU, EEA and candidate countries participating in the AES, 16 countries surveyed the orientation of the programme from which the respondent had dropped out from. Restricting the analysis to early leavers who answered the question (i.e. 16% of the sample), the AES data give a general estimation that the proportion of early leavers who drop out from VET programmes is higher than those who dropped out from general education. The data suggest that for every early leaver from general education there are two from VET. However, these data can only be considered indicative given the non-response rate and that sample sizes in the majority of countries were very small and therefore not reliable.

⁽²⁵⁾ The study also explored the possibility of developing such an indicator using PIAAC data. However, the orientation of the uncompleted qualification is not captured in the PIAAC data; only the orientation of the highest level of education obtained is known.

⁽²⁶⁾ A working definition used in this study when carrying out analysis of the AES microdata is as follows: early leaver from VET is a person who has not achieved an upper secondary qualification, who dropped out from a VET programme leading to a qualification higher than the one she/he holds, and who is currently not studying. Using the AES variables, this definition is operationalised in the following manner:

- (a) the highest qualification attainment of the respondent is ISCED 0, 1, 2 or 3c (short);
- (b) the person has started a level of education/training higher than the one they achieved (ISCED 3 a, b or c-long);
- (c) the orientation of the programme from which the person dropped out was vocational;
- (d) the person has not attended formal education and training in the past 12 months.

Nevertheless, national data sets in a number of Member States support this finding. Looking at the programme that learners were enrolled in when they dropped out and became ELET, a number of countries reviewed during the study exhibit higher numbers of ELET from VET programmes compared to general education, though there are significant differences between countries ⁽²⁷⁾. On average, the numbers of ELET from those enrolled in general education at the time of becoming ELET are low compared to the numbers of those who exit VET programmes in the Flemish Community of Belgium, Denmark, France and the Netherlands, as illustrated in Table 3.

Table 3. **Early leavers by programme last attended**

% ELET	BE-fl 2012/13	DK 2012	FR 2014	NL 2012/13
Lower secondary			19.9	
General education	2.30	13.0	24.1	0.6
VET	15.71	48.0	56.0	5.7
Apprenticeships	36.72			
Art secondary education	9.56			
Technical secondary education	6.45			
Part-time education	53.79			

Danish source: Ministry for Children, Education and Gender Equality (Denmark), UNI-C statistics.

Flanders source: ICF calculations based on Ministry of Education administrative data set.

French source: Ministère de l'Éducation (Ministry of Education), 2014.

Dutch source: Ministerie van Onderwijs, Cultuur en Wetenschap (Ministry of Education, Culture and Science), 2014.

A more detailed analysis of two national micro data sets was carried out during this study to explore the phenomenon of ELET from VET pathways further; data from a survey of those who left education and training in 2004 in France (Generation 2004 survey) and administrative data of a cohort of learners who started secondary school in 2004 in the Netherlands ⁽²⁸⁾. This sheds light on how learners outcomes depend on the programme they initially enrolled in. The ELET rate among those initially enrolled in VET programmes is higher than for those initially enrolled in general education in both countries. In France, 24% of those who were initially enrolled in VET at the beginning of upper secondary education were ELET when they left education and training in 2004. Similarly,

⁽²⁷⁾ Also due to the variety of ELET definition and counting in the various statistical sources.

⁽²⁸⁾ A detailed discussion of the two data sets, including the construction of indicators used, is available on request.

20.5% of those initially enrolled in prevocational secondary education (Voorbereidend Middelbaar Beroepsonderwijs, VMBO) in the Netherlands were ELET by 2014 ⁽²⁹⁾.

The ELET rate of those enrolled in VET at the time of leaving education and training (independent of the track they initially started in) is 26% in France, which does not significantly differ from the ELET rate of those who started in VET mentioned above (24%) ⁽³⁰⁾. In the Netherlands, among those who started in pre-VET pathways in 2004, 20.5% were ELET by 2014, as illustrated in Figure 5. For the population in 2014 (excluding dropouts from lower secondary/VMBO) 16.5% of those who had ever been in a VET or pre-VET programme are ELET ⁽³¹⁾.

The above analysis finds that ELET rates are higher for those who are enrolled in VET pathways at the time of early leaving compared to those attending general education. ELET among those initially enrolled in VET at the time of differentiation is also higher than those in general education programmes. One possible reason is that individuals who are more at risk of early leaving, more often enrol in VET programmes rather than in general education. To explore this further, the study analysed the characteristics of learners and early leavers who followed VET and general education.

4.3.1. Characteristics of VET learners

The French and Dutch microdata were used to differentiate the characteristics – in terms of age, gender, socioeconomic background, migrant background – of learners following different pathways in secondary education.

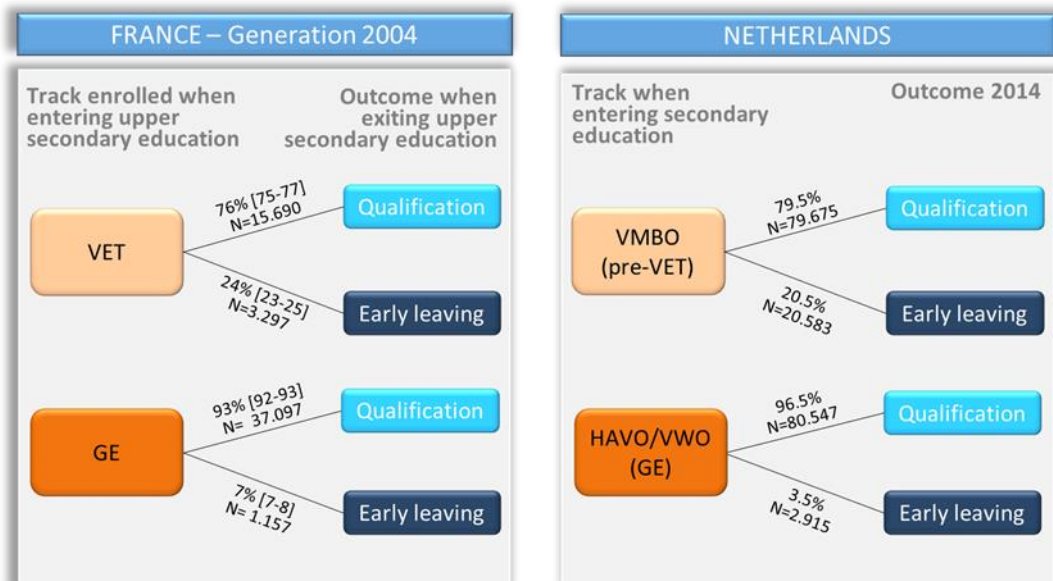
The results show that VET tracks are characterised not only by older learners – indicating that they have repeated a year/grade during primary school – but also have over-representation of males, those with health issues and those coming from lower socioeconomic backgrounds.

⁽²⁹⁾ This excludes those who were initially enrolled in prevocational secondary education (Netherlands) (Voorbereidend Middelbaar Beroepsonderwijs, VMBO) who are currently in education and training in 2014. The number of individuals associated with the percentages reported here and in Figure 5 for France and the Netherlands is available on request.

⁽³⁰⁾ Available on request.

⁽³¹⁾ Available on request.

Figure 5. **Enrolment and exit outcomes comparison**



NB: Data on the track enrolled include all who started such a programme, regardless of whether they switched to a different type of programme later on.

In France, all students follow a common programme during lower secondary education, so, the point of differentiation (i.e. following a general education or VET programme) is at the transition to upper secondary education. In the Netherlands, the age of selection and point of differentiation is 12, at the beginning of secondary school (with no distinction between lower and upper secondary education).

French source: French data based on ICF analysis of Generation 2004. Those leaving education and training during/at the end of lower secondary education are not included.

[–] displays confidence intervals associated with percentages.

The N displayed are related to the actual number of observations in the sample and not to the weighted counts. By contrast, the associated percentages are calculated from weighted data.

Dutch source: The Netherlands data are based on ICF analysis of administrative records of a cohort of learners who started secondary school in 2004. There are no confidence intervals as the figures refer to the whole population of learners.

Understanding the characteristics of those enrolled in VET at a given time is best in the context of those who follow various pathways to ELET. It can be helpful first to look at the characteristics of the ‘average’ learner to compare the features of those who follow pathways to early leaving compared to the whole population. Then analysis can compare the characteristics of different pathways that lead to early leaving:

- those who enrol in a VET (or general education) programme and remain until completion;
- those who enrol in a VET (or general education) programme, remain in a programme and are early leavers;
- those who enrol in a VET programme, switch to general education and remain until completion;
- those who enrol in a VET programme, switch to general education and are early leavers;

(e) those who do not get to enrol in upper secondary.

The learner population in France is evenly split between male and female students. Just under a third come from low socioeconomic background (32% have at least one parent that is a worker), fewer than a quarter are migrant (23% have a parent born outside of France), 15% are above the typical age entering lower secondary education and 1.5% have registered a file to be recognised as disabled by 2007 ⁽³²⁾.

Early leavers from lower secondary education and training, by comparison, are likely to be male (58%), from a lower socioeconomic background (42% at least one parent is a worker), are likely to have at least one parent born outside of France (34%), are older when starting lower secondary education (45%, indicating that they probably repeated a grade), and suffer health problems (6% have registered a file to be recognised as disabled) ⁽³³⁾.

Figure 6 presents the characteristics of learners who made the transition to upper secondary education in France. It shows that those directed to VET tracks have intrinsically different characteristics from those opting for general education. Boys are more represented in VET tracks (60% against 45% in general education), as are those having a lower socioeconomic background (45% come from a family of workers, against 24% in general education) and those with prior difficulties at school (27% are above typical age when entering lower secondary education, compared to 5% in general education).

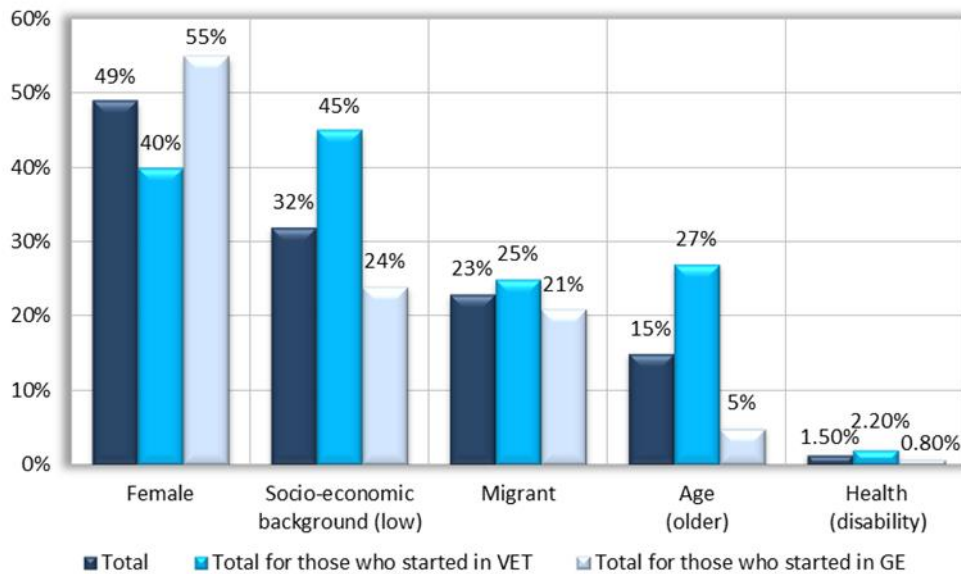
The same situation is observed in the Netherlands, despite the fact that VET tracks there attract a larger proportion of learners compared to France (52% against 38%).

Figure 7 shows that boys are slightly better represented in VET tracks (52% against 47% in general education), as well as non-western migrants (18% against 10% in general education). Older pupils typically start in VET tracks (33% against 9% in general education).

⁽³²⁾ Data on characteristics of learners are available on request for France and the Netherlands.

⁽³³⁾ Data on characteristics of early leavers are available on request for France.

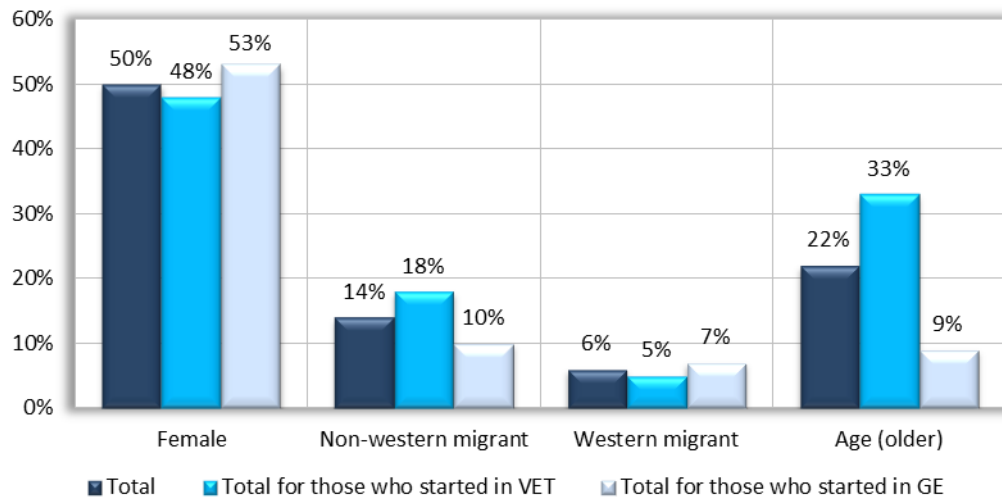
Figure 6. **Characteristics of VET and general education learners, France**



NB: Socioeconomic background: at least one parent is a worker (in 2004). Migrant: at least one parent was born outside France (in 2004). Age: % older than average at time of entering lower secondary education. Health: has filed to be recognised as a person with a disability (by 2007).

Source: Cedefop. ICF analysis of Generation 2004. Confidence intervals associated with percentages and the N related to the actual number of observations in the sample available on request.

Figure 7. **Characteristics of VET and general education learners, the Netherlands**



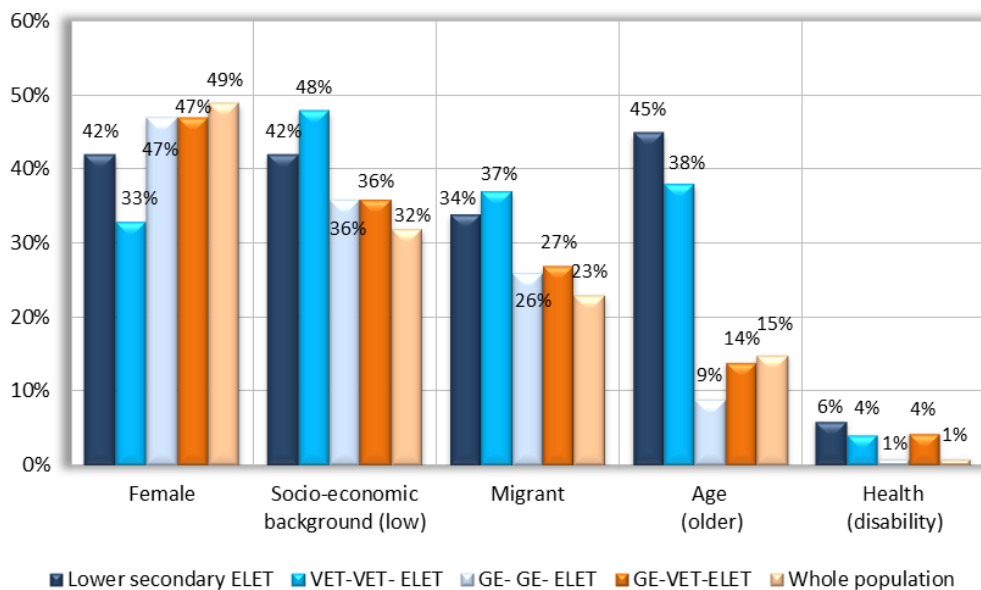
NB: Non-western migrant: someone originating from a country in Africa, South America or Asia (excluding Indonesia and Japan) or Turkey, meaning that either the person or one parent is born in the countries mentioned. Age: older than the average in 2004.

Source: Cedefop. ICF analysis of administrative records of a cohort of learners who started secondary school in 2004. Data in table format available on request.

Figure 8 compares ⁽³⁴⁾ those who followed VET programmes and became ELET to those who followed general education programmes and became ELET in France. It shows that there are substantial differences between these groups. Those who are ELET from VET are overwhelmingly male (77%), from low socioeconomic background (48%), migrant (37%), older (38%) and suffer health problems (4.2%). By comparison, ELET who followed general education are almost equally likely to be male or female, come from average socioeconomic backgrounds, have average representation of migrants, are unlikely to be older/repeat a grade and suffer average health problems.

French early leavers from VET that initially started in general education programmes mostly share the same characteristics as those who followed general education programmes and became ELET; the exception is that they tend to be older and suffer more health problems. The comparison is highlighted in Figure 8, also demonstrating these characteristics for the whole population of learners who left education and training in 2004.

Figure 8. **Characteristics of VET and general education early leavers, France**



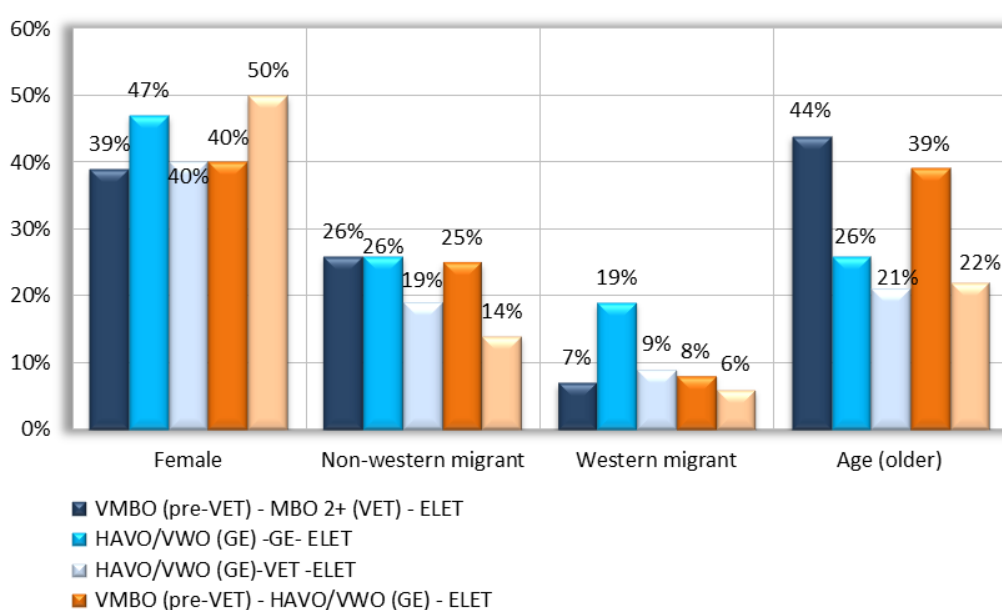
NB: Socioeconomic background: at least one parent is a worker (in 2004). Migrant: at least one parent was born outside France (in 2004). Age: % older than average at time of entering lower secondary education. Health: has failed to be recognised as a person with a disability (by 2007).

Source: Cedefop. ICF analysis of Generation 2004. Data in table format are available on request.

⁽³⁴⁾ The discussion does not include those who start in VET and switch to general education programmes and become ELET, as the incidence of this pathway is so small – only 10 learners – which is not meaningful for the purpose of the analysis.

The picture in the Netherlands as presented in Figure 9 is similar to France. Girls are less represented in early leavers who started and persisted in VET, compared to early leavers who started and persisted in general education. Switchers tend to have the same profiles as those of the track from which they originated (VET-general education early leavers look similar to VET-VET early leavers; general education-VET early leavers share many characteristics with general education-general education early leavers).

Figure 9. **Characteristics of VET and general education early leavers, the Netherlands**



NB: Non-western migrant: someone originating from a country in Africa, South America or Asia (excluding Indonesia and Japan) or Turkey, meaning that either the person or one parent is born in the countries mentioned. Age: older than the average in 2004.

VMBO – (prevocational secondary education) (four years); HAVO – hoger algemeen voortgezet onderwijs (senior general secondary education) (five years); VWO – Voorbereidend Wetenschappelijk Onderwijs (pre-university education) (six years); MBO – middelbaar beroepsonderwijs (secondary vocational education). The indication 2+ indicates programmes of level 2 or above in the national qualifications framework (and European qualifications framework (EQF)).

Source: Cedefop. ICF analysis of administrative records of a cohort of learners who started secondary school in 2004. Data in table format are available on request.

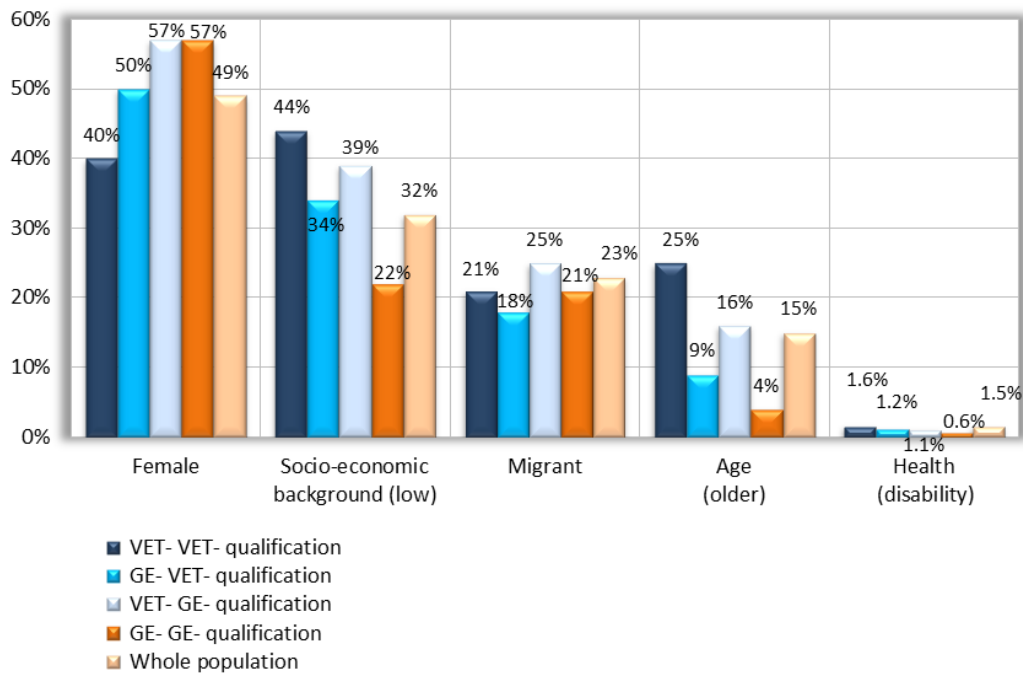
While this is only a small portion of the picture, and cannot be indicative of the quality of the VET programmes or other important factors influencing early leaving, it is clear that early leavers who followed VET have a different profile. In France, those who are older (due to having repeated a class in primary education) and those with health problems appear to be channelled into VET programmes, either initially or after they had first chosen general education and subsequently become early leavers. In the Netherlands, however, switchers who

later became early leavers do not seem to have a distinct profile, compared to those who did not make the switch and later became early leavers.

In France, the profile of completers from different pathways also differs in significant ways. The profile of those who started in VET, but switched to general education and received a qualification, share many aspects (such as gender, share of migrants, health status) as those who initially started in general education and persisted in that pathway, even if they are still more likely to come from a lower socioeconomic background.

As illustrated in Figure 10, in France, it appears that those initially enrolled in VET with profiles closer to learners in the general education track (in particular females and those who are healthy) make the switch to a general education programme during upper secondary. Consequently, those who persist in VET pathways (not making a switch and either completing or not) are characterised by a higher proportion of male learners, from low socioeconomic backgrounds, are older/repeated a grade and suffer health problems. Those who drop out from VET are most likely to have these characteristics.

Figure 10. **Characteristics of VET and general education completers, France**



NB: Socioeconomic background: at least one parent is a worker (in 2004). Migrant: at least one parent was born outside France (in 2004). Age: % older than average at time of entering lower secondary education. Health: has failed to be recognised as a person with a disability (by 2007).

Source: Cedefop. ICF analysis of Generation 2004. Confidence intervals associated with percentages available on request.

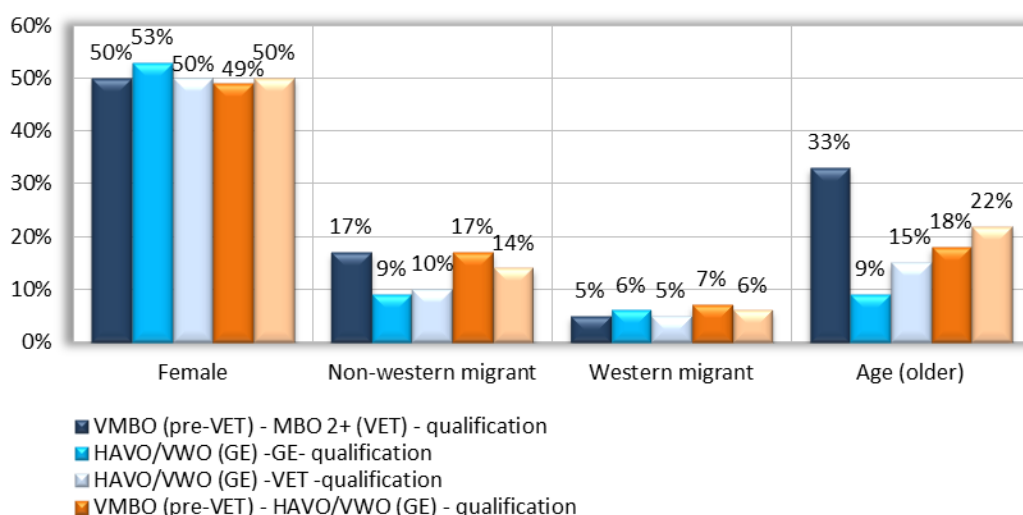
The profiles of those who make the switch from general education to VET and qualify appear similar to those who followed general education programmes

(not making the switch) and became early leavers. Therefore, there is some indication in the data that those with similar profiles to general education early leavers are reoriented to VET programmes, even though they do not seem as disadvantaged (in terms of socioeconomic background and poor prior achievement) as those who start in VET and persist. This reinforces the idea of VET as a safety net for learners from general education that may have otherwise dropped out.

Similar findings are observed in the Netherlands, as shown in Figure 11. A lower proportion of older pupils (18% against 33%) is observed among those who make the transition from VET to general education, compared to those who persist in VET. The gender variable does not seem to be associated with the decision to switch in the Netherlands; the same proportion is observed in both categories.

For VET as a safety net for learners initially starting in general education, those who make the switch and complete are more likely to be older, compared to those who persist in general education (15% against 9%), although the share of older pupils among general education–general education early leavers is even higher (26%).

Figure 11. **Characteristics of VET and general education completers, the Netherlands**



NB: Non-western migrant: someone originating from a country in Africa, South America or Asia (excluding Indonesia and Japan) or Turkey, meaning that either the person or one parent is born in the countries mentioned. Age: older than the average in 2004.

VMBO – prevocational secondary education (four years); HAVO – senior general secondary education (five years); VWO – pre-university education (six years); MBO – secondary vocational education. The indication 2+ indicates programmes of level 2 or above in the national qualifications framework (and EQF).

Source: Cedefop. ICF analysis of administrative records of a cohort of learners who started secondary school in 2004. Data in table format are available on request.

The characteristics of the various pathways appears to suggest that ELVET is associated with higher proportions of males, low socioeconomic status, higher proportions of migrants, older learners and those with health problems; these are all known risk factors for early leaving. This may be exacerbated by the fact that those initially enrolled in VET pathways that have profiles similar to those in general education pathways switch to general education. The findings indicate some selection issues in terms of the profiles of various pathways through education with males, lower socioeconomic, older and those in poor health being oriented initially to VET pathways. Further, those who then make the switch from VET to general education are least likely to fit the 'typical' VET profile and are more similar to those who were following general education programmes; in contrast, those who join VET tracks after starting in general education are more likely to have characteristics associated with ELET. These characteristics may explain some of the higher early leaving rates among those who follow VET pathways.

4.3.2. Share of early leavers and types of VET programme

A review of the national data also shows significant variation between VET programmes types, in countries where different tracks exist:

- (a) in the Netherlands, the higher the level of the VET programme and related qualification, the lower the share of early leavers from the programme (Table 3);
- (b) in the Flemish Community of Belgium, while the share of ELET originating from VET schools is generally high, it is even higher when looking at apprenticeships and part-time VET that combines working and learning. This arises because apprenticeships in Belgium tend to be considered as last resort option by students and their families; these tracks have a high proportion of students who already dropped out of other programmes. It is also related to the practice of 'relegation' that is quite common in Belgium whereby students who lag behind are oriented towards another programme. Figure 16 in Section 4.4. shows that a significant share of students from general, technical or artistic education graduate in a different programme from the one they started, having been reoriented during their studies;
- (c) in Denmark, adult VET learning at upper secondary level shows the highest proportion of dropouts (45% of those registered in this type of course). There are also important differences between the share of dropouts from foundation courses and main courses (28% in foundation courses and 21% in main courses). Interviews carried out for this study noted that these differences are due to the difficulty in finding an apprenticeship place, which

is a compulsory part of all VET programmes in Denmark, when passing from a foundation to the main course. Many drop out on completion of the foundation course if they don't find a placement. The interviews noted that there are more dropouts among those who took on practical training (apprenticeship) in the training institution rather than in a company;

- (d) in Austria, there are also notable differences between share of early leavers from VET schools, VET colleges and apprenticeships. Within the apprenticeship track, the so called 'supra-company apprenticeships' have a significantly higher level of early leaving than regular apprenticeships (32.1% of those enrolled end up as ELET) (Dornmayr and Nowak, 2013). Supra-company apprenticeships are mainly attended by young people who do not manage to find an apprenticeship place; practical training is offered in a training institution rather than in a company. The interviews confirm that these programmes tend to host young people who face greatest difficulties in the education system and so are at higher risk of early leaving, which is translated into higher dropout rates.

Austria is also an interesting case, with some VET pathways more successful at retaining learners than others, or even general education tracks (see Table 4). This is the case for VET colleges, prestigious institutions offering programmes that last longer than other VET or general education and which give access to both higher education and the labour market. They prepare for professions that most countries prepare at post-secondary level (Cedefop ReferNet: Austria, 2009) so they attract different target groups from school-based VET and apprenticeships. It is likely that they attract more high achievers and young people who are strongly motivated.

Table 4. **Dropping out from general education and VET in Austria (students who started in 2008/09 who had not completed by 2013/14)**

Austria	%
Aged 14 in 2010/11 and have not completed lower secondary in 2012/13	3.6
Ended compulsory lower secondary in 2010/11 and did not start a higher programme in 2011/12	6.8
ELET general education upper secondary	7.1
ELET VET schools upper secondary	12.7
ELET VET colleges upper secondary	5.9
Ended their apprenticeship contract in 2012 and did not continue	12.8

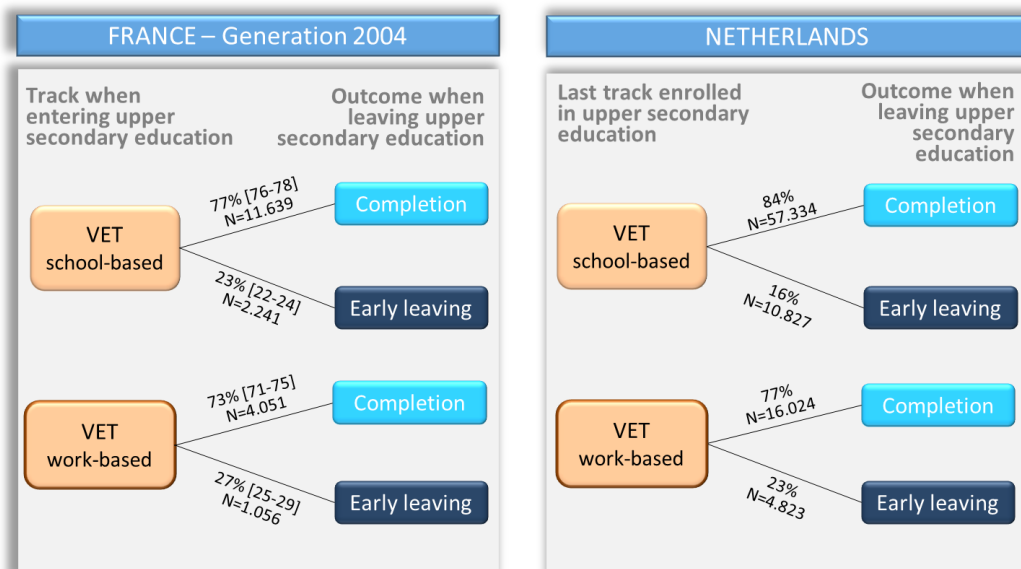
Source: For apprenticeship data: WKO, 2014.

Given the presumed important role of work-based learning in VET programmes, the expectation is that ELET from such pathways is likely to be

lower than school-based VET programmes. The data reviewed in some countries, as illustrated in Tables 3 and 4, highlight the share of learners who are ELET from apprenticeships distinct from those in other programmes. To explore this further, the microdata in France and the Netherlands distinguished between those in school-based or work-based programmes, namely apprenticeship schemes.

Figure 12 shows ELET rates from work- and school-based VET tracks in France and the Netherlands. Contrary to expectation, the ELET rate is significantly higher for those who initially started in work-based VET tracks (27%) compared to those who started their upper secondary education in school-based VET tracks (23%) in France. The same is true in the Netherlands: those last enrolled in work-based VET tracks exhibit significantly higher ELET rates (23%) than those from school-based VET tracks (16%).

Figure 12. Distinguishing between school-based and work-based VET tracks



NB: Pearson's chi2 test confirms that the differences in early leaving rates in school-based VET and work-based VET are statistically significant, in both France and the Netherlands. Percentages for France based on weighted data. Data in table format are available on request.

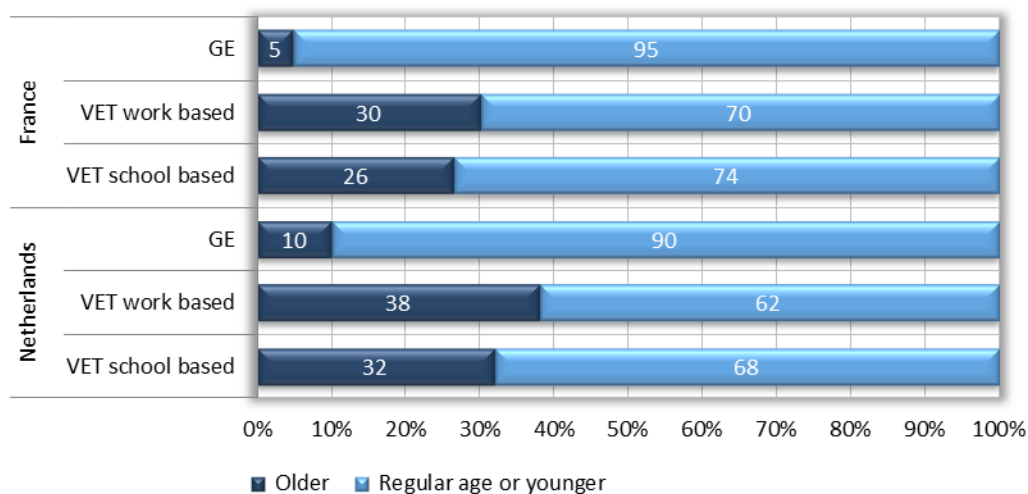
Source: Cedefop.

One possible explanation is a selection issue. VET tracks in general and work-based tracks even more, attract higher numbers of older learners ⁽³⁵⁾. This

⁽³⁵⁾ Data on the presence of older learners according to the initial track chosen (general education, school-based VET and work-based VET) are available on request for France and the Netherlands.

suggests that there are more learners who repeated classes in these tracks. Class repetition is one of the signs of academic underachievement (see Figure 13). Being older than the average age when entering lower secondary is associated with a higher risk of becoming an ELET (31% of those who are older are ELET compared to 12% of those who are average age in France; 20% of those who are older are ELET compared to 11% of those who are average age in the Netherlands) (see Section 5.3.1).

Figure 13. Relationship between age and initial track



NB: France: N= 32 349. Pearson's chi2 test confirms older pupils are disproportionately represented among VET tracks. Being older than average is defined as having entered lower secondary education at the age of 12 or more in France, and at the age of 13 or more in the Netherlands.

Source: Cedefop.

Work-based VET tracks also welcome fewer girls than school-based VET tracks (30% against 44% in France, 30% against 54% in the Netherlands) ⁽³⁶⁾.

Other factors contributing to dropping out in apprenticeships that could explain the higher rates of ELET compared to school-based VET are discussed in detail in Sections 4.4.2 and 5.4. These include difficulties finding work-based learning opportunities, learners' insufficient readiness to work, conflictual relationships at the workplace, difficult working conditions, or business closure.

⁽³⁶⁾ Data on gender and other characteristics of learners in work-based VET and school-based VET are available on request for France and the Netherlands.

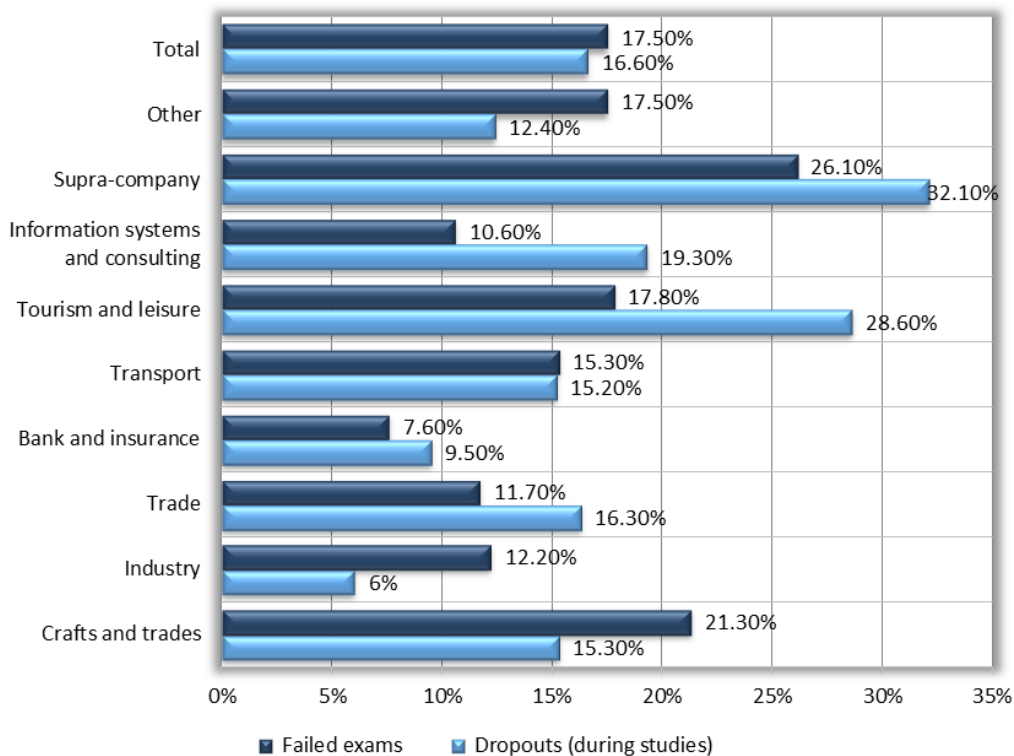
4.3.3. Early leaver differences by field of study and profession

There are major differences in the share of early leavers or related indicators (such as dropping out or class retention) between the different fields of study or sectors.

This section illustrates these differences using data collected in Austria (Dornmayr and Nowak, 2013), the Flemish Community of Belgium (Flemish Ministry of Education Statistics), Denmark (Ministry for Children, Education and Gender Equality, National Agency for IT and Learning- statistics), Germany (BIBB, 2013), and Croatia (Republic of Croatia, Central Bureau of statistics, 2010).

The share of early leavers from apprenticeships in Austria (Figure 14) ranges from 6% in industry to 28.6% in tourism and leisure studies. The share of apprentices who fail their exams ranges between 7.6% in banking and insurance and 21.3% in crafts and trades.

Figure 14. Dropouts during studies and final exams failure in apprenticeships by field of study in Austria (2011)

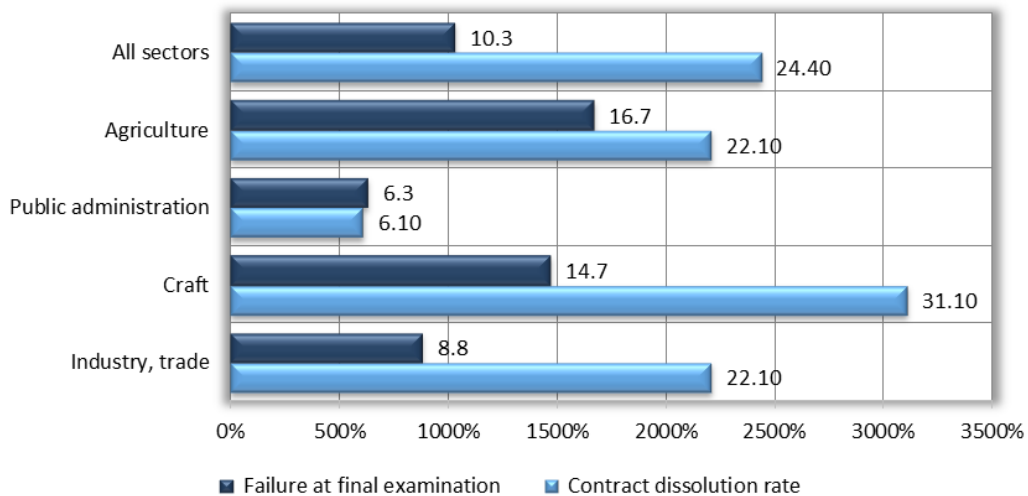


Source: Dornmayr and Nowak, 2013.

In Germany (Figure 15), the contract dissolution rate in apprenticeships is low in public administration (6.1%) and high in the crafts sector (31.1%).

Examination failure rates also differ: they are low in public administration (6.3%) but high in agriculture (16.7%) and crafts (14.7%). There are also major differences when looking at individual professions (Table 5): the highest contract termination rate is 51% (restaurant manager) and the lowest 3.7% (administrative staff). There appears to be no relationship between the number of apprentices in the profession and the rate of contract termination (BIBB, 2013).

Figure 15. **Apprenticeship contract dissolution rates and examination failure by sector in Germany (2011)**



Source: BIBB, 2013. Datenreport zum Berufsbildungsbericht 2013.

Table 5. **Premature apprenticeship contract termination rates in selected professions in Germany (2011)**

Occupations with highest contract termination rates	Termination rate (%)	Occupations with lowest contract termination rates	Termination rate (%)
Restaurant manager	51.00	Administrative staff	3.70
Specialist in furniture, kitchen and moving services	50.90	Assistant for media and information services	4.10
Specialist for safety and security	49.50	Electrician for automation technology	4.80
Cook	49.40	Aircraft mechanic	5.70
Protection and safety services	47.00	Bank clerk	6.10
Beautician	47.00	Technical system planner	6.10
Cleaning services	44.30	Technical product designer	6.20
Hairdresser	44.20	Forestry worker	6.50
Specialist in the hospitality industry	44	Assistant for office communication	6.60
Professional driver	43.70	Chemical technician	6.90

Source: BIBB, 2013.

That there are variations across countries in the share of early leavers between different fields of study or sectors is a reasonable expectation since employment opportunities in different sectors also vary by country and region. However, there seem to be general trends, such as high early leaving rates in catering and hospitality due to hard working conditions (long working hours and high levels of stress).

A better understanding of which programmes present higher dropout rates and the reasons behind this can feed into more tailored measures to tackle early leaving. Section 5.4.4 discusses the views and experience of interviewees on reasons why some sectors and professions have much higher dropout rates than others.

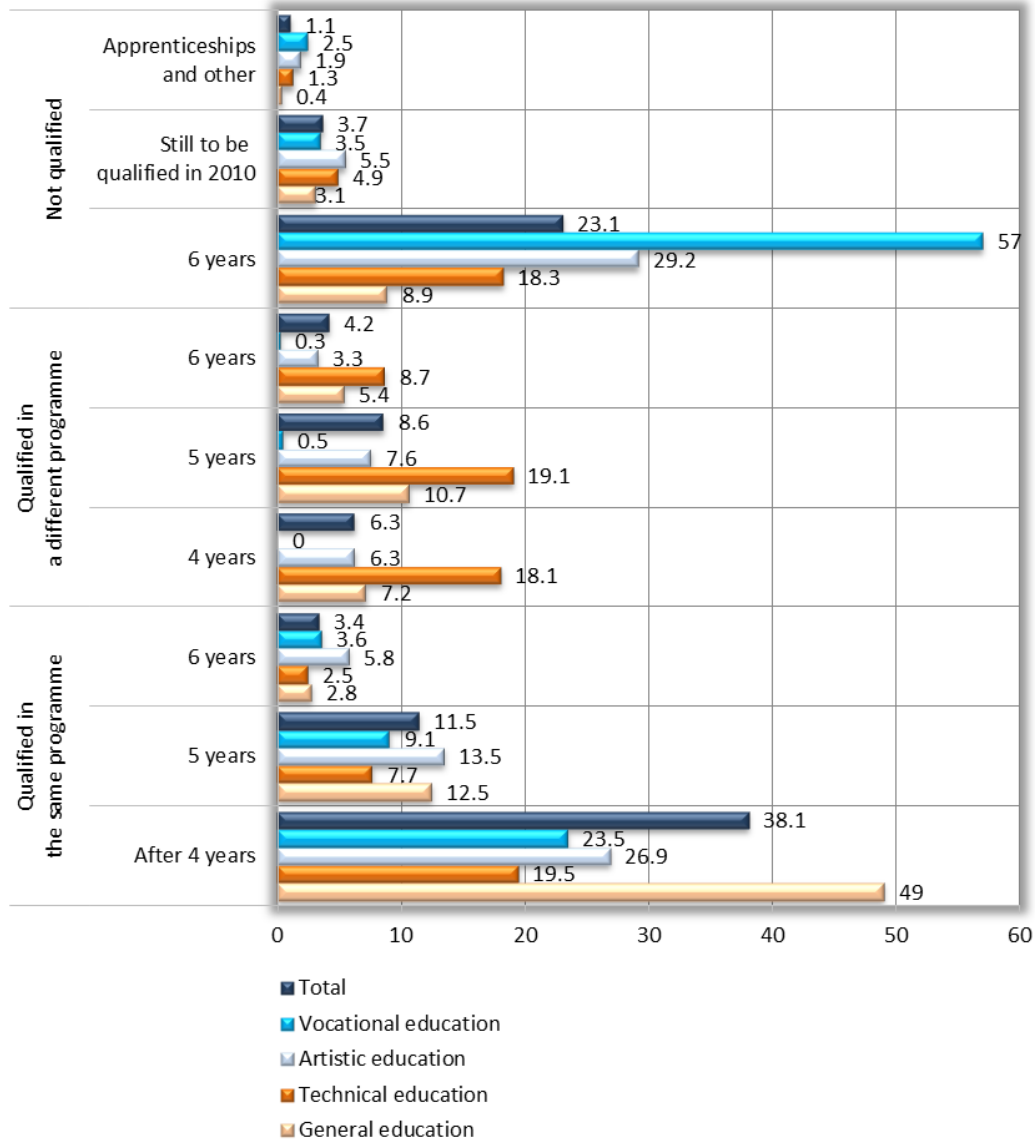
4.4. VET as prevention and safety net

While VET programmes see a significant share of ELET, most of those who start in general education and switch to VET programmes gain their upper secondary qualification. VET can act as a safety net for those who might have otherwise not felt comfortable in general education, experienced failure and potentially become early leavers.

The French Community of Belgium made an analysis of young people's trajectories during the six years after they entered upper secondary education. The results are interesting for several reasons, the first being that they identify where learners were initially enrolled rather than only the programme enrolled in at the time of ELET. Second, the data also identify those who start in VET or general education tracks but qualify in a different programme; this helps illustrate the extent to which VET pathways play a role in providing a safety net for those who have greater difficulty adjusting to general education and so are more at risk of dropping out. Figure 16 highlights that the percentage not qualified after six years is higher in those initially enrolled in VET pathways (57%) compared to those in general education pathways (8.9%). The data also suggest that almost a quarter of those initially enrolled in general education pathways qualify in a different programme after six years. While the breakdown of which programme they qualify from is not given, this indicates that VET and/or apprenticeship pathways are likely to play a role in preventing early leaving from general education.

This analysis suggests that VET may be recuperating dropouts from general education. It is possible for a young person to start in general education at the point of differentiation between tracks, then experience failure and be reoriented towards VET.

Figure 16. **Student pathways in general education and VET in the French Community of Belgium (longitudinal data six years after start of upper secondary, academic year 2009/10, % ⁽³⁷⁾)**



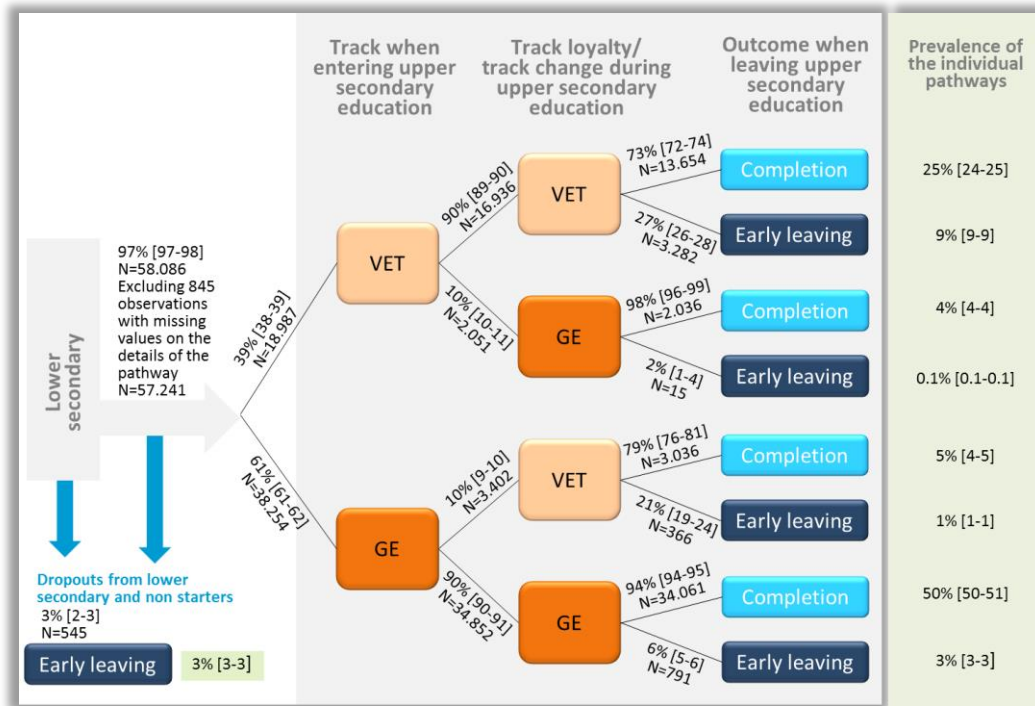
Source: Direction générale de l'Enseignement obligatoire (*Directorate General of Compulsory Education*), 2011. Indicators on education (*Indicateurs de l'Enseignement*) 2011 – Indicator (Indicateur) 20.

To examine this phenomenon further, and particularly to examine ELET and completion rates among learners following this trajectory, two further national data sets in France and the Netherlands were analysed. Survey data from France covering all those who finished their education and training in 2004 give

⁽³⁷⁾ Based on a cohort study of 52 709 students.

the prevalence of the various pathways in upper secondary education shown in Figure 17. While a relatively small proportion of those in general education pathways switch to VET programmes during upper secondary (10% of those initially enrolled in general education), most (79%) of those who make this switch go on to complete a VET qualification (equivalent to ISCED 3). This equates to 5% of all learners who may otherwise have become early leavers.

Figure 17. **Pathway analysis, France**



NB: [-] displays confidence intervals associated with percentages. The N displayed are related to the actual number of observations in the sample and not to the weighted counts. The main figures of this graph are available on request.

Source: Cedefop.

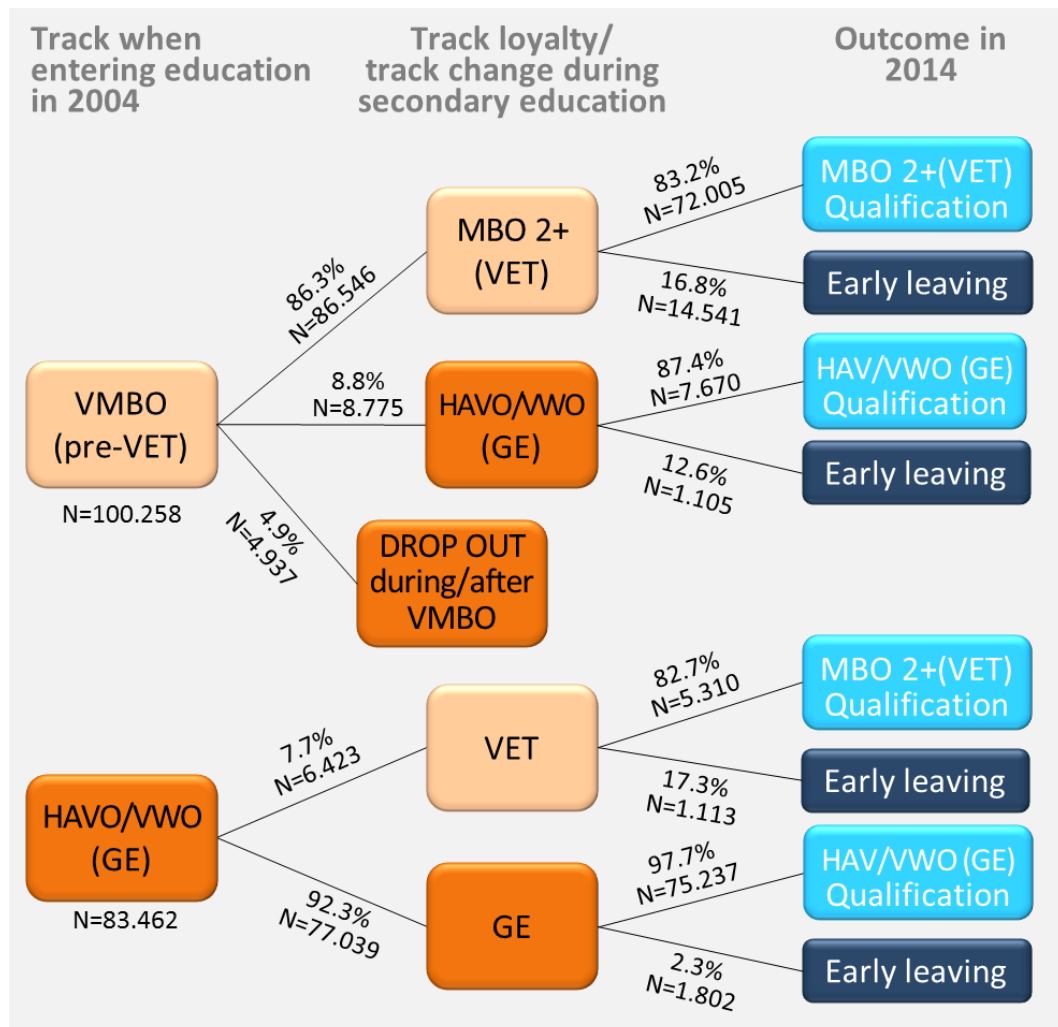
Data under 'Track when entering upper secondary education' refer to the programme enrolment of learners at the point of differentiation (following a general education or VET programme). In France, all students follow a common programme during lower secondary education, so the point of differentiation is at the transition to upper secondary education.

When looking at a cohort of learners in the Netherlands who began secondary education and training in 2004, and what their qualification status was in 2014 ⁽³⁸⁾, most qualify in the programme they initially enrolled in, as depicted in

⁽³⁸⁾ Excluding those currently in education and training.

Figure 18. A relatively small proportion (7.7% of those initially enrolled in general education) start in general education pathways and switch to VET programmes at some point during secondary school education. As in France, most of those who started in general education but made the switch to VET completed a VET qualification (82.7%). This equates to almost 3% of all learners who started in 2004 that may otherwise have become ELET.

Figure 18. **Pathway analysis, the Netherlands**



NB: Data under 'Track when entering secondary education in 2004' refer to the programme enrolment of learners at the point of differentiation (following a general education or VET programme). In the Netherlands, the age of selection is 12, so the point of differentiation is at the beginning of secondary school (with no distinction between lower and upper secondary education). The main figures of this graph are available on request in table format.

VMBO – prevocational secondary education (four years); HAVO – senior general secondary education (five years); VWO – pre-university education (six years); MBO – secondary vocational education. The indication 2+ indicates programmes of level 2 or above in the national qualifications framework (and EQF).

Source: Cedefop.

4.4.1. Attractiveness of VET

To further analyse the preventive role of VET, we compared the share of students enrolled in VET and early leaving rates expecting that relatively bigger VET systems will limit early leaving by providing alternatives to academic programmes. This would make correlation between share of VET students and ELET negative.

Three types of indicator were used to assess the relationship comparatively. Data on the share of students in ISCED 3 in the vocational track and data on the share of students in ISCED 4 in the vocational track are monitored by Eurostat and reported yearly. For the analysis, correlation coefficients with ELET based on 2005, 2007, 2009 and 2011 were calculated. As expected, the sign of correlation coefficient with the share of ISCED 3 students in the vocational track is negative: the higher the share of ISCED 3 students in the vocational track, the lower the ELET rate ⁽³⁹⁾.

To provide an alternative, the education and training 2020 (ET2020) indicator on the share of students in ISCED 3 and 4 in the vocational track was used. Data were available for 2009 and 2013 and the correlation was found to be negative and moderate ⁽⁴⁰⁾.

Based on the ET2020 indicator, those countries with share of VET students in ISCED 3 and 4 equal or above 70% have ELET rates lower than 10%. However, variation of ELET rates is much higher for countries with share of VET students in ISCED 3 and 4 below 70%.

Comparing the information on the relative scale of VET across countries with the EU indicator on ELET can provide an indication of the extent to which a broadly attended VET system can help to limit early leaving. Table 6 groups countries together according to level of enrolment in VET (high, medium or low ⁽⁴¹⁾) and according to the rate of early leaving (above or below the 10% EU target). The grouping shows that:

- (a) eight of the 10 countries with high enrolment in VET have ELET rates below the EU target (the exception is Romania);

⁽³⁹⁾ Data available on request.

⁽⁴⁰⁾ Ibid.

⁽⁴¹⁾ This is measured as enrolment in VET as share of all students in upper secondary education (%). Countries with high enrolment in VET have more than 65% of students in VET-oriented programmes at upper secondary level. Countries with low enrolment in VET have less than 44% students in VET-oriented programmes. The cut-off points correspond to values that divide the set of countries into three relatively equally populated categories.

- (b) three out of the eight countries classified as having low enrolment in VET have ELET rates above the EU target.

The analysis indicates that while high participation in VET is associated with low numbers of ELET, the inverse does not hold. The countries with low enrolment rates in VET are split equally between below and above EU target numbers of ELET.

Table 6. **Comparing ELET rates (LFS, 2013) and enrolment in VET at upper secondary level (2013)**

Enrolment	Below 10% ELET	Above 10% ELET
High (>65%)	LU, SI, CZ, NL, SK, HR, FI, AT	RO, BE
Medium (44-65%)	FR, EE, SE, DE, DK, PL, LU	ES, BG, IT,
Low (<44%)	CY, IE, EL, LT, LV	HU, UK, PT

Source: Cedefop based on ET 2020 indicators and LFS.

4.4.2. Motivational role of work-based learning

When young people choose a vocational programme they are often seeking a learning experience that is practically oriented and situated in the world of work. Work-based learning has great potential to support retention. Apprenticeships have a higher share of work-based learning compared to school-based VET so it is interesting to explore whether countries and regions with higher participation in apprenticeships, have lower early leaving rates.

In Austria, Moser et al. (2016) found a positive influence of the apprenticeship system on retention. They found that the higher the share of students in apprenticeships, the lower the rate of early leaving and that western parts of the country have a higher share of dual education and a lower share of dropouts than eastern parts. This is not so, however, for young migrants, showing the limitations of the apprenticeship system in supporting integration. Also in Austria, comparing two forms of apprenticeships – the ‘traditional’ format and the supra-company apprenticeships, where the practical part of training is offered in a training institution rather than in a company – Dornmayr and Nowak (2013) found that the latter form had higher rates of early leavers.

This study explored the relationship of work-based learning to ELET by analysing three indicators on participation in apprenticeships:

- (a) a percentage of apprentices in firms indicator, based on the Cedefop LFS 2008 data in the Directorate General for Education and Culture work-based learning in Europe study;

- (b) a percentage of 15 to 29 year-olds in apprenticeship, based on Cedefop data calculated on LFS 2013 data and TEMPREAS ⁽⁴²⁾ variable;
- (c) the incidence of apprentices (%) in the youth population (15 to 29) based on an existing study of the European Commission (2013) based on LFS data. The study classified countries into three categories: high, medium and low incidence of apprenticeships among the overall youth population.

All three indicators of work-based learning have weak negative relationships with ELET ⁽⁴³⁾. It is observed that countries with high work-based learning tend to have lower numbers of ELET. However, ELET levels vary from very high to very low for countries with low work-based learning.

Despite inconclusive results from quantitative analysis, qualitative research pointed to the relevance of work-based learning in supporting the retention of young people. Several interviewees commented on the motivational potential of work-based learning. Being engaged in a real working process enables young people to construct a meaningful vision of their learning and future, while positive working relationships and valorisation of their work by other employees can be motivating and contribute to positive self-perception:

- (a) a supervisor of apprentices in a company in Croatia observed that during their practical training, apprentices get very motivated and eventually open up, in the sense of feeling free to ask questions and make suggestions. Conversation and cooperation is very important as well as the fact that they are appreciated and treated as equal;
- (b) a VET school in Portugal increased the hours of work-based learning in a company from 420 hours to 840 hours. The idea was to provide a work placement from the first year of VET and to reinforce the hours of work-based learning overall to guarantee that apprentices are trained well enough to integrate into the labour market after certification. It was also a measure developed to increase the motivation of students in their first year of VET;
- (c) interviewees generally agreed that work-based learning offers a good context for development of a professional identity, which is associated with greater retention. This is created through the authentic interaction between the young person, his/her colleagues and the trainer/mentor and company leadership. This is one of the reasons why VET-specific measures to prevent

⁽⁴²⁾ Short description: reasons for having a temporary job/work contract of limited duration. <http://ec.europa.eu/eurostat/documents/1978984/6037342/EU-LFS-explanatory-notes-from-2014-onwards.pdf> [accessed 6.9.2016]

⁽⁴³⁾ Correlation coefficient ranges from -0.24 to -0.15 depending on the indicator. Data are available on request.

or address early leaving frequently integrate work-based learning (see Cedefop, 2016, Volume II).

4.5. VET as remedy

Section 4.2 already highlighted that there is some permeability of education pathways, with opportunities to learn and continue education in the event of uncompleted qualifications. Looking at the whole pool of 18 EU and EEA countries, about one in three (36%) young people aged 16 to 34 not currently in education or training, who dropped out during upper secondary education or below, achieved an upper secondary qualification or higher ⁽⁴⁴⁾. Survey data in France confirm this trend: almost a third ⁽⁴⁵⁾ of those who were ELET at the time of leaving education and training in 2004 had achieved at least an upper secondary qualification seven years later.

This means that not all of those who experience a dropout event become early leavers from education and training but most do, highlighting a number of key issues. Either not enough early leavers are actually reached by compensation measures or it is the measures themselves that are not effective at qualifying young people to at least upper secondary education. Compensation measures may not be designed in such a way as to lead to formal qualifications at ISCED 3 or above; they may lead to informal qualifications which would not be captured by the data, or oriented learners towards employment outcomes rather than qualifications. It may also be the case that compensation measures are also suffering from 'dropout' with learners disengaging before reaching a formal qualification.

For those who drop out but achieve at least an upper secondary qualification, and so are not considered early leavers in the statistics, there is value in looking at whether these qualifications are through VET or general education pathways. This provides some indication of the potential remedial role that the formal VET system can play in reengaging those who dropped out.

⁽⁴⁴⁾ See Figure 4, Section 4.2 Note that it was not possible to disentangle the exact timing of qualification in the data set. Therefore, in some cases, it may be that the person achieved an ISCED 3 qualification, started another ISCED 3 qualification and did not complete it.

⁽⁴⁵⁾ 31% (confidence interval of 27 to 35), see Figure 20.

The PIAAC data set suffers from limitations ⁽⁴⁶⁾ on its ability to provide information on the degree of dropout from VET programmes and the contribution of VET to the achieving upper secondary education. Despite these limitations, it is possible to look at the subsample (8.7%) of those who said that they dropped out during ISCED 3 or below ⁽⁴⁷⁾ and to see what their resulting highest qualification is. It is also possible to determine, to some degree ⁽⁴⁸⁾, what the orientation of that qualification is, to establish to what degree learners qualify from VET pathways after dropping out.

Based on PIAAC data for EU and EEA 14, looking at those who experienced uncompleted qualifications during upper secondary education or below ⁽⁴⁹⁾ that qualified at least upper secondary education ⁽⁵⁰⁾ (3.4% of all young people), most gained a VET qualification. This accounts for 2% of all young people, 23.7% of those who dropped out during upper secondary education or below, or 58.8% of those who dropped out during upper secondary education and qualified at least upper secondary education) ⁽⁵¹⁾.

⁽⁴⁶⁾ PIAAC does not contain information about the orientation of the programme from which the individual does not complete qualification. Nor is the timing of dropout discernible, so it is not possible to distinguish between those who completed an upper secondary qualification and subsequently started another upper secondary programme they did not complete, or whether they dropped out of a programme and then subsequently achieved an upper secondary qualification.

⁽⁴⁷⁾ Due to the design of the survey, whereby those currently in education and training were not asked if they had ever dropped out, the operational definition of dropout identified within PIAAC refers only to those who are not currently in education and training.

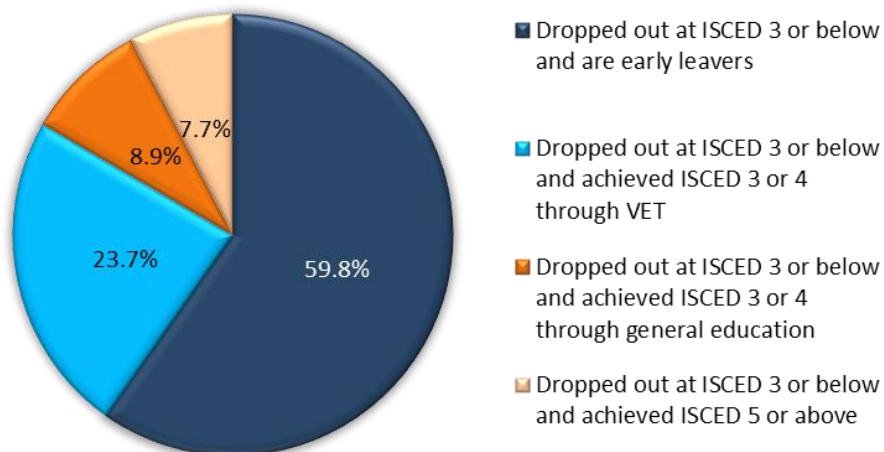
⁽⁴⁸⁾ For those whose highest qualification is ISCED 5 or above, it is not possible to discern whether they followed a pathway via VET or general education before obtaining their ISCED 5 or above qualification. In four countries (Belgium, Denmark, Italy and Sweden), the data were not distinctly coded into VET or general education (GE) as it was not possible to distinguish some of the qualifications. Therefore, for those countries, the data included a category where the orientation of the ISCED 3 qualification is unknown. Given the unreliability of the shares of young people qualifying through VET or general education in those countries, they are excluded from the following analysis.

⁽⁴⁹⁾ Young people aged 16 to 34 who dropped out at ISCED 3 or below.

⁽⁵⁰⁾ Achieved ISCED 3 or 4.

⁽⁵¹⁾ A detailed breakdown by country is available on request.

Figure 19. **Destinations of young people (aged 16 to 34) who experienced an uncompleted qualification at ISCED 3 or below in 14 EU + EEA countries (PIAAC)**



Source: Author. ICF calculations based on PIAAC; data are weighted.

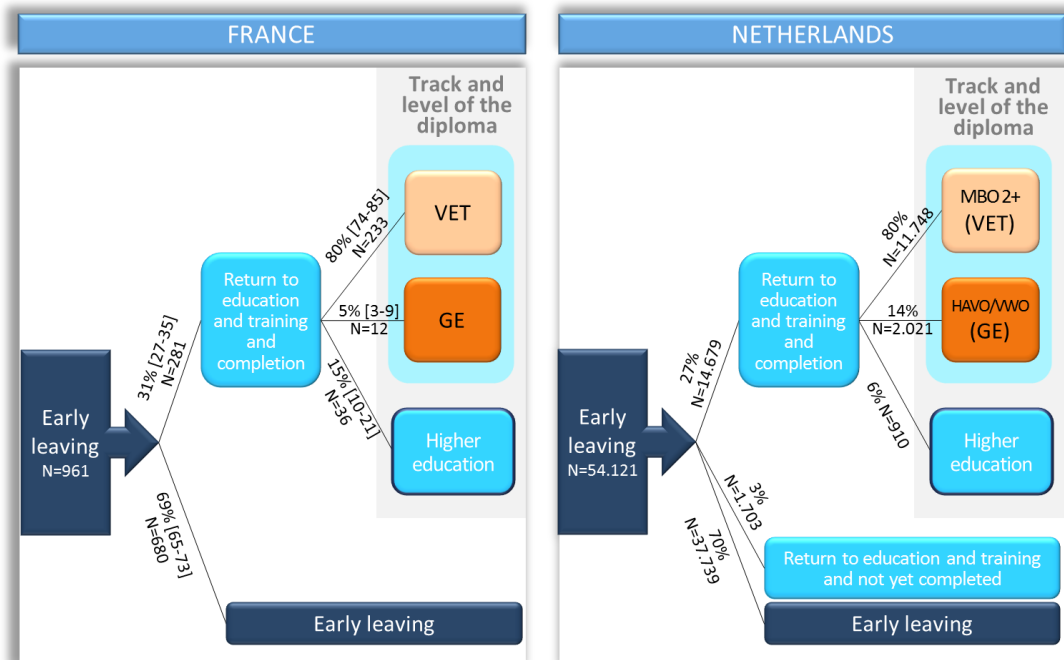
The survey data from France also reinforce this pattern, as illustrated in Figure 20⁽⁵²⁾. Among the 31% of those who were early leavers and went on to obtain a qualification, 80%⁽⁵³⁾ graduated from VET upper secondary tracks. Only 5% graduated from general education tracks. The remaining 15% graduated from higher education with their prior pathways unknown in terms of their orientation. The picture is similar in the Netherlands. A total of 80%⁽⁵⁴⁾ of the initial early leavers who returned to education and training and qualified obtained a VET qualification; 27% of them achieved this within seven years.

⁽⁵²⁾ The French Generation 2004 survey includes as an early leaver all those: under 35; who were enrolled in a training institution in France in 2003-04; who have not returned to school the following year; and had never interrupted their studies for a year or more before that date.

⁽⁵³⁾ 75 to 85 confidence interval.

⁽⁵⁴⁾ In the Dutch data, a person was considered an early leaver for the purpose of this study when s/he attended a secondary programme in 2004 and in 2014 was not in education and did not have a general secondary education qualification (HAVO/VWO) or a secondary vocational education level 2 or higher qualification.

Figure 20. **Highest qualification achieved seven years after ELET, France and the Netherlands**



NB: For those who attained higher education, there is no information on the track (general education/VET) followed at secondary level. Data in table format are available on request.

Source: Cedefop. French data based on ICF analysis of Generation 2004. [-] displays confidence intervals associated with percentages. The N displayed are related to the actual number of observations in the sample and not to the weighted counts. The analysis focuses on those who left education and training (ET) as ELET in 2004. To be considered as returners who completed, they must have obtained their relevant qualification no later than 2011. Those who are back to ET but have not completed yet are grouped with the early leavers.

The Netherlands data are based on ICF analysis of administrative records of a cohort of learners who left ET as early leavers during/at the end of the 2005/06 school year. To be considered as returners who completed, they must have obtained their relevant qualification no later than at the end of the school year 2013/14. Those who have not completed yet but are back to education and training in 2014 make up a separate category.

Comparing where students originated when they dropped out and became an early leaver is not possible with the PIAAC data but is possible with the survey data in France and the administrative records in the Netherlands.

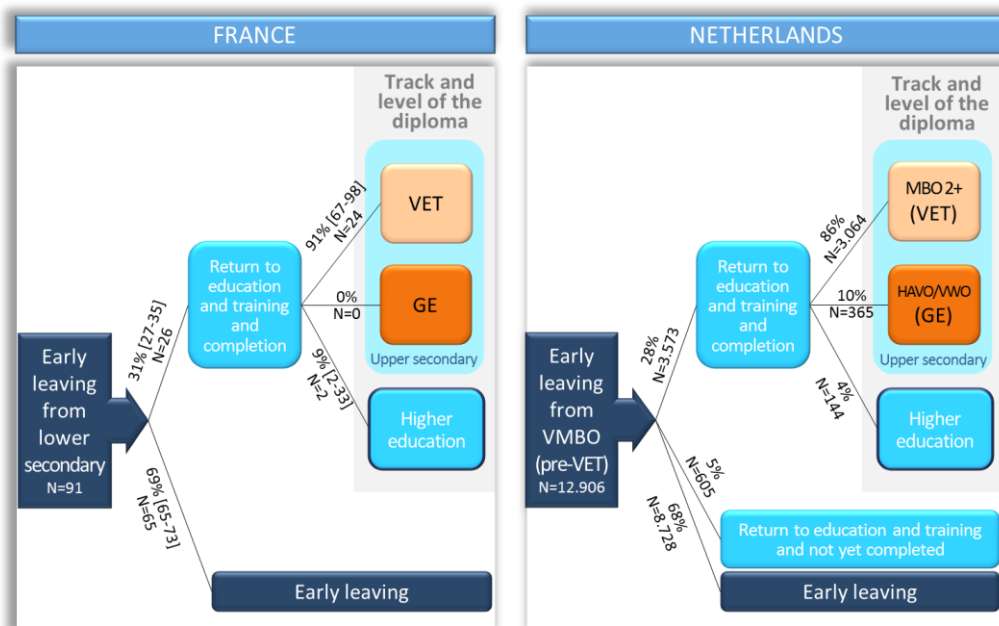
Among those who dropped out during lower secondary school before pathways into VET or general education were distinguished in France, 31% reintegrate back into education and training and complete within a seven-year time frame. For those early leavers from lower secondary education who return to education and training and complete a qualification in the following seven years, this is almost exclusively an upper secondary VET qualification (91%). The same is true for the Netherlands (86%).

For those who had made the transition to upper secondary VET education but then did not initially complete their programme and were ELET, 24% reintegrated in the following seven years and completed a qualification in both

France and the Netherlands. This compares to around half the number of general education programme students who were initially ELET (49%) and then go on to complete at least an upper secondary qualification. It suggests that drop out may be more persistent for those leave VET programmes than general education programmes; the latter being more likely to return to education and training and complete a qualification.

Regardless of the rates of return and completion, VET plays an important role for those who make the decision to reintegrate and go on to complete a programme, including for those who had dropped out from general education. Though this is true in both France and the Netherlands, the remedial role of VET is even stronger in France. In the Netherlands, 30% of initial general education early leavers obtain a VET upper secondary qualification after seven years. In France, 64% of the initial general education ELET who are completers within seven years do so through VET (see Figures 21, 22 and 23).

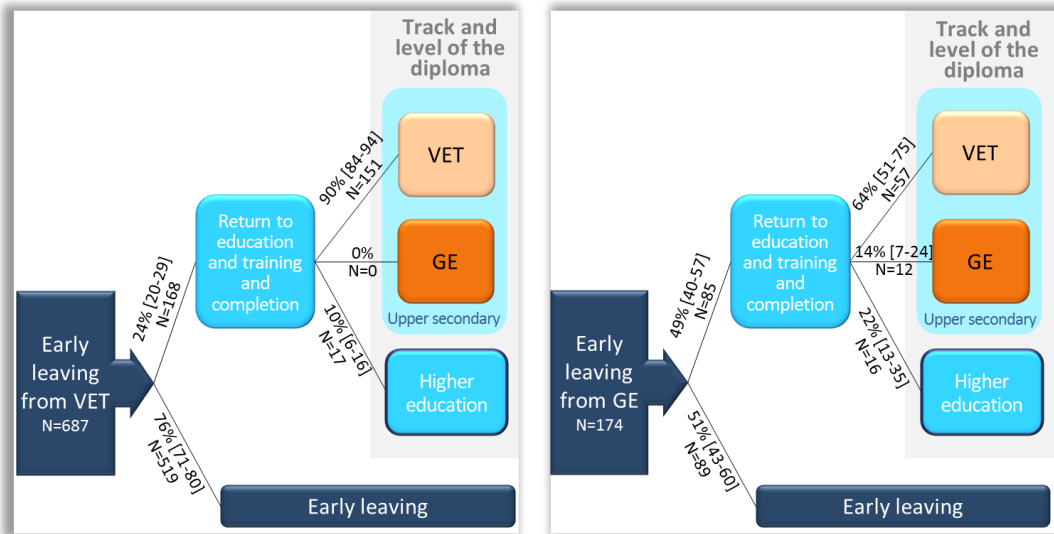
Figure 21. Remedial pathway analysis among lower secondary dropouts, France and the Netherlands



NB: For those who attained higher education, there is no information on the track (general education/VET) followed at secondary level. Data in table format are available on request.

Source: Cedefop.

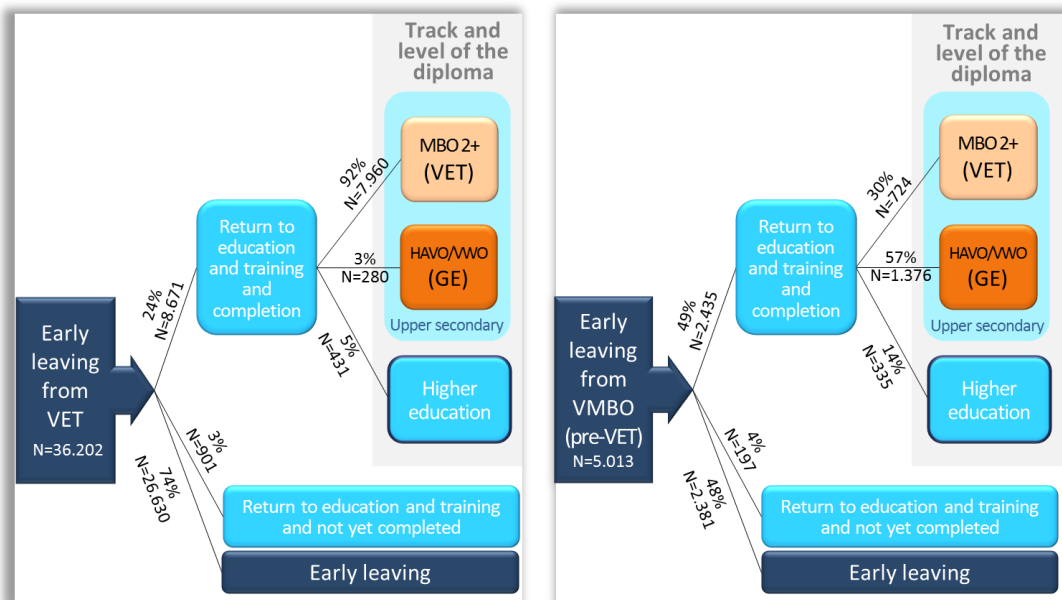
Figure 22. Remedial pathway analysis among upper secondary dropouts from VET or general education pathways, France



NB: [-] displays confidence intervals associated with percentages. The N displayed are related to the actual number of observations in the sample and not to the weighted counts. For those who attained higher education, there is no information on the track (general education/VET) followed at secondary level. Data in table format are available on request.

Source: Cedefop.

Figure 23. Remedial pathway analysis among upper secondary dropouts from VET or general education pathways, the Netherlands



NB: For those who attained higher education, there is no information on the track (general education/VET) followed at secondary level. Data in table format are available on request.

Source: Cedefop.

CHAPTER 5.

Factors influencing early leaving from VET

There is already a wealth of literature that analyses different causes of early leaving and young people's disengagement from education in general (see for example NESSE, 2010; Poncelet and Lafontaine, 2011; Lessard et al., 2013). Based on quantitative and qualitative research, these studies identify the following main factors as associated with early leaving:

- (a) family background:
 - (i) migration or ethnic minority origin;
 - (ii) lower socioeconomic status of parents;
 - (iii) parental attitudes towards education;
- (b) individual characteristics (not education related):
 - (i) gender;
 - (ii) health situation;
 - (iii) low self-esteem;
 - (iv) conflictual relationships with adults;
- (c) individual's education pathway:
 - (i) disengagement from learning;
 - (ii) absenteeism;
 - (iii) class repetition;
 - (iv) low academic achievement;
 - (v) negative perception of school/education;
- (d) school and classroom climate:
 - (i) conflict with teachers;
 - (ii) bullying;
- (e) labour market attraction.

These factors are generally confirmed through the findings presented below but this study aimed at going beyond the well-known issues. The research team paid particular attention to those factors associated specifically with ELVET; they highlighted additional factors in interviews and some of the better-known factors were described in the context of VET.

5.1. Typologies of early leavers or those at risk

Several researchers have asked the question: who are early leavers or who are those at risk of early leaving? There are three broadly cited typologies of this

group of youngsters: two look at early leavers (Kronick and Hargis, 1990 and Janosz et al., 2000) and the third one looks at students at risk of early leaving (Fortin et al., 2006). All describe early leavers as a varied group. They seek explanations for early leaving in a combination of factors related to young people's education experience, their emotional and mental well-being, their behaviours and, in some cases, their family background. All typologies show that not all early leavers have low academic performance; some are average in school and others may have even been strong performers in the past. Similarly, not all have psycho-social difficulties; some are disengaged from education without being depressed or showing antisocial behaviours. For some of the types (in particular the 'quiet' type), the authors note that there is fairly little difference between them and average students who remain in education. For other groups, the difference between those who hang on and those who drop out are quite clear. Kronick and Hargis (1990) also identify a type of students who share characteristics with early leavers (in particular poor performance) but who nevertheless remain in education (called the 'persisters' in their typology). They attribute this to the fact that these students have some compensatory behaviours which are typically extracurricular (sports, arts) or include cheating.

Table 7. **Comparison of three typologies of early leaver**

Kronick and Hargis, 1990			
Low achievers	Push-outs	Quiet	Non-curricular
Continued failure, truancy, high level of disruptive behaviour	Perceive school as not being for them, frustrated with school and in consequence rebellious	Low achievers with continued failure but don't show disruptive behaviours	Their problems lie outside of school (drugs, alcohol, abuse, poverty, health)

Janosz et al. 2000			
Maladjusted	Low achiever	Disengaged	Quiet
High level of misbehaviour (many sanctions, high truancy). Poor school performance. Weak commitment to education.	Weak commitment to education. Average to low levels of misbehaviour. Very poor school performance.	Average to low level of school misbehaviour (disciplinary sanctions). Low commitment to school (do not like it, don't care about grades, little aspirations). Average performance (but actually compared to their low personal investment in education their performance is quite good).	No evidence of school misbehaviour. Moderate to high level of commitment to education (positive views about school, no major problems with absenteeism). Average to poor performance. Generally go unnoticed until they decide to leave.

Fortin et al., 2006			
School and social adjustment difficulties	Uninterested in school	Depressive	Antisocial covert behaviour
Low academic performance. High behaviour problems. Delinquency. High level of depression. Teachers have very negative attitudes towards them. Low level of family cohesion, support, organisation.	Slightly high depression levels. Good academic performance but lack of motivation and experience boredom. Teachers have very positive attitudes towards them. Good social skills. Functional family.	Average grades. Low incidence of behaviour problems. Teachers have positive attitudes towards them. Very high level of depression. Very low level of family cohesion, support, organisation – high level of parental control.	Good academic performance. Teachers have very positive attitudes towards them. Antisocial behaviours (lying, fighting, theft, vandalism). High level of depression. Low level of family cohesion, support, organisation

Source: Fortin, L.; Marcotte, D.; Potvin, P.; Royer, E.; Joly, J. (2006). Typology of students at risk of dropping out of school: description by personal, family, and school factors. *European Journal of Psychology of Education*, Vol. 21, No 4, pp. 363-383.

Those interviewed for this study confirm that early leavers are a heterogeneous group. The interviewees also persistently mentioned factors (such as academic performance, commitment and engagement in education, disruptive behaviours, emotional and mental health issues, family support) that feature in the three typologies above.

These and other factors appear to have very strong effect on young person's engagement in education and their retention (Psifidou, 2016a). Volume II (Cedefop, 2016), using the narratives that interviewees provided about what leads young people to disengage, presents six profiles of early leavers and those at risk. The profiles show different levels of disengagement and different types of challenge. These profiles have the purpose of illustrating how different risk factors can interact and lead to early leaving.

This study explored in greater depth the VET-specific factors related to early leaving. The importance of these factors seems to vary. For those who are most disengaged and have important challenges outside of school, issues around the quality of VET and the opportunities for work-based learning may have only secondary importance. For others, those who are closer to the centre of the spectrum and who are in a more ambiguous situation with regard to engagement in education, these factors can be fully decisive. The contribution of such factors to a decision to leave education and training permanently could be crucial for those in the 'borderline' group of those who could either persist or drop out. One issue frequently mentioned, and discussed below, is mismatch between perceptions of a profession and the reality. While those young people who correspond to the maladjusted or depressive types described above might drop

out either way (often because they don't have education-related aspirations), for those in the quiet or uninterested group this could be the issue which will make them decide to drop out.

Early leaving is accepted to be related to a number of individual characteristics or factors around family background that are independent of the education system or institution; such factors were frequently commented on by interviewees. They were coded by the research team according to whether they were:

- (a) linked to the individual (but independent of his/her education) or his/her family background;
- (b) linked to the education and training system or institution;
- (c) linked to the labour market.

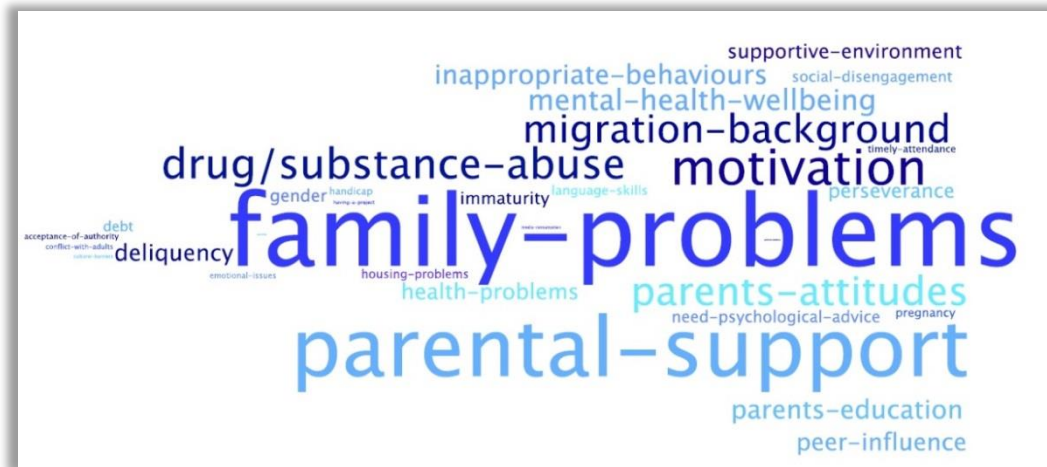
In a second instance, they were subdivided, reflecting as closely as possible the factors stated by the interviewees. The objective of this second coding was to keep a large number of factors, but at the same time to harmonise the wording to enable counting occurrence. As a result each subsection below contains a word cloud image of the different factors mentioned by interviewees. In these images, the font size of words reflects the frequency with which a given factor was mentioned.

5.2. The individual and family background

The first category of factors discussed concerns characteristics of the individuals and of their family background; interviewees most frequently cited factors related to the family environment. These factors were on one hand linked to the 'dynamics' and 'functioning' of families (dysfunctional relationships were often mentioned and coded as 'family problems') but a second very frequently cited group concerned parental support (meaning their interest, engagement and commitment to young persons' education). These factors were coded as 'parental support' or 'parents' attitudes' when concerning their views of the education system. Another group of factors frequently mentioned by interviewees was young persons' health and well-being, including issues of addiction or substance abuse. A further important group of factors is those around young people's motivation for learning and their behaviours in the education context. Most of these factors are general rather than specifically related to VET but some VET specificities are discussed below.

Interviewees mentioned 32 factors in this category. Figure 24 shows the word cloud image of this analysis.

Figure 24. **Most frequently cited individual and family background factors (based on 720 mentions)**



Source: Cedefop. Word size corresponds to frequency with which a given factor was mentioned. Colours are allocated at random. Processed with Wordle™. Data are available on request.

5.2.1. Family engagement and support

One of the factors that stands out from Figure 24, is the importance of family support for engagement in education. Family environment has diverse effects on educational pathways:

- (a) the extent to which education is valued in the family is reflected in young people's education aspirations or lack thereof. O'Connell and Freeney (2011) found that those young people who perceived that their family did not value school completion were more likely to intend to drop out. Galand and Hospel (2011) also identified parents' aspirations as related to the risk of dropping out;
- (b) lack of parental support in education activities negatively affects education achievement (Traaga and van der Velden, 2011). Beekhoven and Dekkers (2005) also found that parental support with homework was not common among those who dropped out;
- (c) parental involvement in education through communication with schools was also shown to influence level of absenteeism (Paris School of Economics, 2010);
- (d) parents' emotional support (or lack of) and the level of control they exercise over young people has a variety of effects on personality development and self-perception, as well as construction of relationships with adults. These, in turn, influence education engagement.

Parental support and involvement is particularly relevant for VET for the following reasons:

- (a) parents with a negative image of VET are likely to communicate this to their children who, in turn, feel devalued when they enrol in VET. They may guide their children towards general education though this may not be a viable option for them. This issue was emphasised by many interviewees who noted that these young people drop out from general education due to academic performance, then enrol in VET but do not engage in their education positively but rather perceive it as a failure;
- (b) the choice of profession may also be influenced by parents and may push young people towards fields of study which do not correspond to their aspirations;
- (c) interviewees mentioned, and some studies confirm (Alet and Bonnal, 2013), that parents with migrant background may underestimate the added value of VET (or specific pathways) in the country they live in. This was emphasised in interviews in Denmark, Germany and Austria which have strong VET systems which are underrated by migrant parents who prefer to direct their children towards general education or to specific VET fields such as business-related.

5.2.2. Health and well-being

Interviewees mentioned a broad range of physical and mental health-related issues as a reason for leaving education prematurely. The extent to which these reasons are more prominent in VET than elsewhere was rarely discussed by the interviewees but some conclusions can be drawn:

- (a) there are fewer opportunities for vocational training for people with physical handicap. Maladapted working environment can be one cause for dropping out;
- (b) in many EU countries there are at least some types of VET programme which are perceived, and sometimes intentionally designed, as being for learners with special education needs; this is particularly so for those with learning difficulties who have few other learning options.

The fact that health is a factor in early leaving is also confirmed by several studies that asked young people about their decision to leave education ⁽⁵⁵⁾. Stamm et al. (2011) developed several profiles of early leavers among which were the victims of bullying as well as students with problems with alcohol consumption or drug abuse.

⁽⁵⁵⁾ Allinckx et al., 2013; Beicht and Walden, 2013; BMBF, 2009; Bryne et al., 2008; ROA, 2012; ANESPO, 2011.

Though not defined as a health issue, pregnancy is also one of the reasons frequently cited for dropping out of education ⁽⁵⁶⁾.

5.2.3. Gender

Although young men are overall more likely to drop out from education and training than young women, when looking only at VET, it is not necessarily the case that young men leave without a qualification more frequently than young women. Dropping out, particularly in apprenticeships, seems to be related to the extent to which the profession is male or female dominated.

In Germany's dual system, 15% of young women who enrol in training do not achieve a qualification compared to 10% of young men (Beich and Walden, 2013). The authors correlated this information with the likelihood of the person finding a training place in a company of their preference and found that 65% of men get a placement in companies of their choice compared to 52% of women. This may suggest a relationship between the positive choice of a training programme and the likelihood of completing it. One of the reasons given by the authors is mismatch between the profession and their expectations, and the fact that when young women are not satisfied with a job, they change to another one (see Table 8 which shows that women have a higher dropout rate during trial periods). The retention and graduation rate of young women when they find their 'dream job' is higher than that of young men ⁽⁵⁷⁾.

The proportion of female dropouts from Austrian apprenticeships is also higher than for male dropouts at 18.6% compared to 14.2% (Dornmayr and Nowak, 2013). A possible explanation given by one interviewee is that women are much more likely to start those VET programmes that have higher dropout rates, namely in the hospitality and catering sector (due to hard working conditions, see Section 5.4.4), while men opt for the industrial sector where dropout rates are overall much lower than in services.

Given that there are proportionally more young men than women enrolled in VET in both Germany and Austria, the total number of male dropouts is probably higher than the number of female dropouts. However, when compared to the male and female population enrolled in VET only (not the whole age cohort), young women are more likely to drop out from VET in these countries than men.

⁽⁵⁶⁾ BIBB, 2013; Beicht and Walden, 2013; ROA, 2012; ANESPO, 2011.

⁽⁵⁷⁾ According to the survey analysis, there were 29% of young women who did not get the qualification but started training in a programme corresponding to their 'dream job' while there were 39% of young men who started a training they liked and yet dropped out (Beich and Walden, 2013).

Other data on German apprenticeship show that women have higher apprenticeship contract-termination rates in male-dominated professions than in other sectors (BIBB, 2013). While apprenticeship contract termination is not equivalent to early leaving, as many continue in a different apprenticeship, the data show that there is a clear gender-bias in apprenticeship retention depending on whether the profession is particularly gendered. While the data show that overall contract termination rates are just slightly higher for women than for men, in sectors such as craft and agriculture, they are significantly higher for women and significantly lower in administration (see Table 8). When looking at specific professions, female contract termination rates are much higher than male when it comes to male-dominated professions like automotive and mechatronics (31.4% for women compared to 22.3% for men), electrician (44% compared to 32%), IT specialist (19.7% compared to 14.2%) or industrial mechanic (9.9% compared to 8.4%). The opposite is the case in female dominated professions like hairdresser (43.1% of women compared to 55.4% of men), medical staff (22.1% compared to 35.9%) or dental medical staff (24.2% compared to 41%).

Table 8. **Apprenticeship contract termination rates per gender in Germany (% , 2012)**

	Male	Female
Total	24.0	24.9
Trade and industry	21.0	22.7
Craft	29.8	36.3
Administration	8.7	5.4
Agriculture	21.9	26.9
Liberal professions	28.9	24.2
Construction	27.5	26.5
During the probation period	7.6	9.4
After the probation period	16.4	15.4

Source: BIBB, 2013.

UK data on apprenticeships show that completion rates are higher for females in apprenticeships that correspond to EQF level 2 while gender is no longer a significant factor for apprenticeships leading to qualifications at higher level (Hogarth et al., 2009).

All the studies analysed focus on apprenticeship programmes. Though there is clear a gender-issue in school-based VET as well (see for example the French data on education participation per field of study and gender – Moisan et al., 2013), there is lack of data about whether this has any impact on student dropout rates.

The interviews conducted for this study do not indicate any clear gender pattern of dropout. This seems to suggest that dropout rates per gender vary depending on the type of VET programme and field of study. However, several interviewees observed differences in the reasons for dropping out between male and female. Dropping out due to family responsibilities, as the care of siblings or own children, is more frequent among females, and particularly acute for single mothers (Germany, Portugal). Some interviewees noted the need for additional measures such as financial support and childcare provision, as well as the availability of part-time programmes (Germany).

5.2.4. Migrant or ethnic minority background

In general, migrants tend to be over-represented in the group of early leavers, as shown by earlier analysis of LFS data (European Commission, 2009). Across the EU, the share of ELET is much higher among young people of migrant background compared to natives (26.8% versus 13.6%). The situation of students with migrant or ethnic minority background and VET is complex. There are countries where students with migrant background tend to prefer non-vocational programmes, such as Denmark or Germany. These are countries with good transition rates from VET to the labour market and medium participation rates in VET; the preference of migrant families for general education can be seen as an obstacle to labour market insertion. These countries have largely apprenticeship-based VET which may create difficulties in finding a training place if there is discrimination at entry to the workplace (Alet and Bonnal, 2013). In contrast, there are countries where those with migrant or ethnic minority background are more likely to face difficulties in academic education and tend to be oriented towards less academically challenging VET programmes. They are over-represented in VET programmes at low levels in countries like the Czech Republic or the Netherlands (see Table 9) which focuses on non-western migrants, as no data have been found on western migrants and non-western migrants are more likely to have different cultural attitudes to VET. However, even the group of 'non-western' migrants can be quite heterogeneous. There are likely to be migrant communities from certain countries which have stronger participation in VET than others. Such detailed data are not available.

In nearly all the countries reviewed below, drop-out rates in VET are higher for the group with migrant or ethnic minority (Roma) background than for other students.

Table 9. **Participation of (non-western) migrant (and ethnic minority) students in VET in selected countries and their chances to drop out**

Country	Migrant participation in VET	Status of VET	Migrant dropouts from VET
Austria	Under-represented In particular in VET colleges	Good – both when it comes to apprenticeships and school-based VET	Higher than natives
Belgium	Over-represented (both French and Dutch Communities) (school-based)	Low – often a second choice pathway	In the French Community migrants have better success than nationals, contrary to BE-fl
Czech Republic (Roma)	Over-represented in VET programmes at lowest level (school-based)	The lower level programmes have low status and do not lead to upper secondary exam	Higher than non-Roma
Denmark	Under-represented (apprenticeships)	Good	Higher than those of Danish origins
Germany	Under-represented (apprenticeships but also VET in general)	Good	Higher than those of German origin
France	Apprenticeships – under-represented School-based VET – over-represented	Varies between social groups	Higher dropout rates from school-based VET than those of French origin
Hungary (Roma)	Over-represented (school-based VET)	Low – low participation overall	Likely to be higher (VET where Roma are over-represented has highest dropout rates)
Netherlands	Over-represented in VET programmes at lower levels Under-represented in apprenticeships	Varies between social groups	Higher

Source: For the following countries: Belgium, Denmark, Germany, Netherlands, Austria, adapted from Tjaden (2013), for France, Brinbaum and Guégnard, 2011, for Hungary, Open Society Institute, 2007, for Czech Republic GAC, 2010.

The reasons why young people with migrant or ethnic minority background are more likely to drop out from VET are numerous and complex. The issues of prior academic achievement or failure, often linked to the level of language skills as early as basic education, are some of the factors. In Germany, for example, young people with migrant background are much more likely to hold only lower secondary completion certificates and not certificates to enter higher education, which makes their transition to VET more complicated. Migrant transition from schools to VET takes typically longer than for natives (BMBF, 2014).

Other issues associated with migrants' higher ELET rates include family poverty. In addition to these accepted factors, interviewees also pointed towards more specific issues:

- (a) family expectations that the young person will work in the family small business. Some migrant communities have strong cultures of family-owned

- microenterprises. The fact that the children are expected to work there creates little incentive for completion of studies;
- (b) in some communities, there is a strong feeling of identification with a territory: a specific suburb or part of the city. Other areas of the city or the town may carry negative connotations in these communities. However, the preferred territory may have no VET training centre or VET school, let alone one that would correspond to the aspirations of each young person. Hence young people prefer to go to a nearby education institution, irrespective of programmes offered, rather than reflecting on a choice of a pathway. Members of such communities may be reluctant to move out of localities and this may be even more the case for young women in male-dominated communities;
 - (c) lack of parental engagement in their children's education due to parents' poor understanding of the education system and the opportunities available. Inadequate knowledge of the system may cause parents to push children towards certain programmes in which they have low chances of success or which provide few employment opportunities. This supports the findings that in certain countries with strong VET programmes, children with migrant background are under-represented in VET, particularly in apprenticeships.

However, interviewees do not universally confirm a relationship between dropping out and migration background. One interviewee noted that in cases where young people's parents are supportive, they see many strongly motivated youngsters of migration background who have a clearer idea of their future pathway than natives. Others indicated that it depends on other immigrant population characteristics in the local area, with parents' education background, language skills, employment situation and risk of poverty all featuring. In each country and city there are communities and sub-communities that have different levels of integration and inclusion. Where migrant background is strongly related with dropping out, it is likely to result from other characteristics of the local migrant community.

5.3. Education and training organisation factors

During the research carried out for this study, interviewees emphasised issues inherent in education and training systems and institutions relating to ELVET. In France, for example, many early leaving prevention and remedial measures emphasise the responsibility of education and training institutions in retaining young people in education (not necessarily in the same programme, but allowing

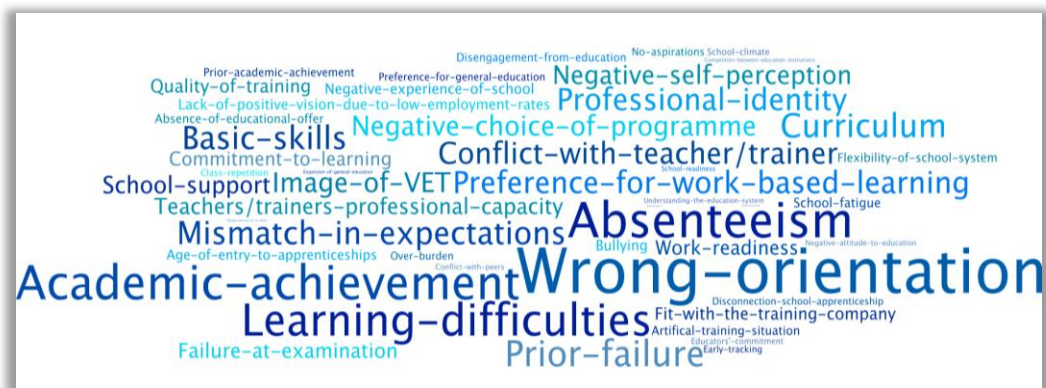
them to change to find a good matching pathway). As the issue of early leaving is high on the political agenda, there seems to be growing awareness of how the education system contributes to it when operating as a selective mechanism rather than an inclusive one.

The following subsections focus on the issues that are quite specific or strongly present in VET. However, interviewees also mentioned a range of other aspects:

- (a) the positive importance of the feeling of belonging to a group in a classroom or a company;
- (b) the influential role of families in young people's education and training;
- (c) the teacher-student relationship;
- (d) behaviours and relationships in education institutions that affect young people's self-perception and aspirations.

Many of these more general issues linked with systems and institutions are shown in Figure 25 which incorporates the 48 key factors in this category mentioned by interviewees. The most frequently mentioned factors were linked to young people's orientation towards a VET programme or a specific VET field of study and their expectations of a given programme. There is another group of factors around their previous experience of education, focused on low academic performance, having experienced failure in the past, and gaps in basic skills which make pursuit of education at upper secondary level more difficult. A third group can be identified around the quality of VET and the nature of the curriculum (particularly the curriculum being too academic), and teacher and trainer proficiency in a given profession (not just their technical knowledge). There is also a group of factors around behaviours in the education context, such as conflict with teachers, absenteeism or lack of work-readiness.

Figure 25. **Most frequently cited factors related to education and training (based on 1 141 mentions)**



Source: Cedefop. Data available on request.

Differentiation and track selection was rarely mentioned by interviewees, though it has received considerable attention from research in recent years.

5.3.1. Overall education achievement

Prior educational performance and earlier failure or low grades appear as a strong factor predicting the probability of dropping out. Several studies that controlled for this variable saw that the influence of other variables was weaker when controls were carried out. For example, Markussen et al. (2011) found that while parents' level of education influences likelihood of dropping out, when controlled for previous education performance and student engagement the influence is weaker. They suggest that family background is mainly related to student engagement and performance, influencing the probability of non-completing education and training.

Prior studies ⁽⁵⁸⁾ see education performance, attitude to education and level of engagement as key variables influencing chances of dropping out.

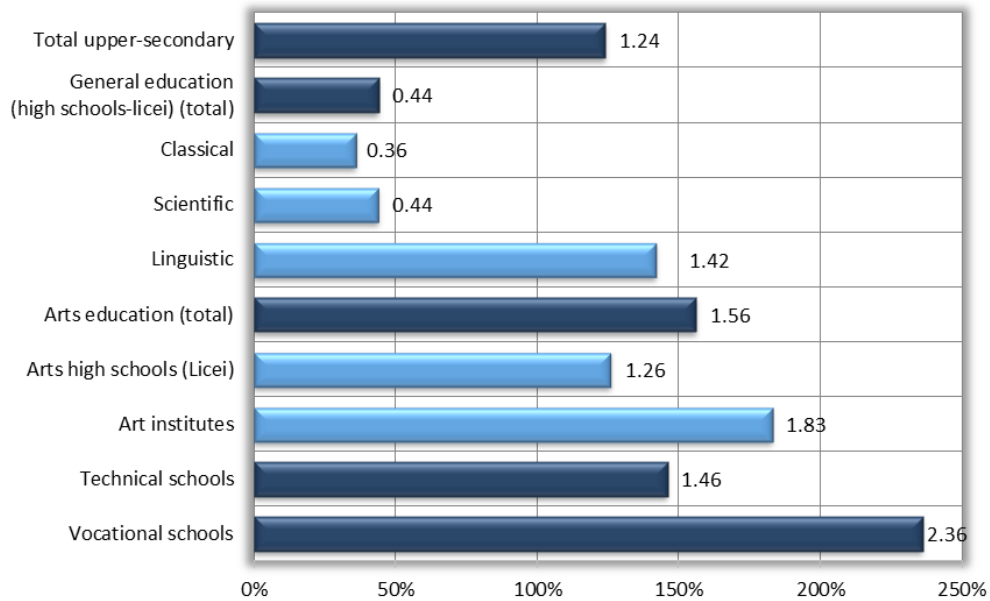
Some interviewees commented on a vicious circle whereby the students performing less well academically are more likely to be oriented towards VET and to drop out from education all together (as in Belgium-fr, Belgium-fl, and Portugal). Consequently, this concentration of students who have lower academic levels and negative experience with education in VET contributes to creating higher early leaving rates.

It is possible to see exploratory patterns from data publicly available in Italy why ELET is higher in VET tracks: the issue of selectivity. Italian data measures the numbers of young people at risk of early leaving based on failure to complete the grade in which they were enrolled at the beginning of a given academic year. Figure 26 shows that this is 0.44% of students in general education and 2.36% in vocational schools. Class repetition is an important factor associated with early leaving.

⁽⁵⁸⁾ The studies use different proxies for this variable, all shown to relate to early leaving:

- (a) education attainment prior to enrolling in the programme: Alet and Bonnal (2013) found that the lower the achievement in year nine of schooling, the higher the chances of dropping out, IVIE (2011) found that those who completed compulsory education were less likely to drop out later; EVA (2009) found that those who completed previous studies have significantly lower risk of dropping out;
- (b) academic performance (grades): O'Connell and Freney, 2012; Traaga and van der Velden, 2011; Hall, 2009;
- (c) grade repetition or past education failures: Galand and Hospel, 2011; Guerreiro et al., 2009; Fernandez-Enguita et al., 2010.

Figure 26. **Students at risk of early leaving in Italy (students enrolled in a given year who did not complete the grade), 2011-12**



Source: MIUR, 2013.

Interviewees also highlighted the difficulties young people in certain VET programmes have with basic literacy or numeracy (in Belgium-fr, Germany, Croatia, Austria, and Portugal). The gaps they have accumulated earlier create difficulties for them to follow the VET programmes towards which they are oriented. Several interviewees in charge of measures to address early leaving noted the need to put in place remedial measures for these basic skills: in Denmark, students with a low academic level in Danish and maths follow courses in these subjects to improve their performance before starting a VET programme or as part of it ⁽⁵⁹⁾.

5.3.2. Differentiation and track selection

Countries differ in the age at which students are selected into different types of education. In some countries, particularly Scandinavia, the education system is broadly comprehensive while in others, such as Germany and Austria, students are sorted for instruction into different types of schools as early as age 10. Most other European countries fall between these two approaches. In addition to the

⁽⁵⁹⁾ More information on related policies undertaken in European countries is available in Volume II (Cedefop, 2016).

timing of selection, there is also variation in the number of available pathways across countries.

Much previous research has explored the negative effects of selection age on student achievement, primarily through the Programme of International Student Assessment (PISA) data. This has mainly been to explore the relationship between socioeconomic background, track placement and student outcomes (Hanushek and Woessmann, 2005).

Early tracking can negatively affect student achievement, which may drive students to leave school due to academic failure. However, a place in a vocational track may offer students more flexible curricula and more hands-on learning experiences. It is possible that early tracking involving a vocational track and practical experience may retain students in schools longer than those in a more comprehensive education system. This was suggested by national stakeholders consulted during this study in Germany as being one of the key factors positively contributing to the potential of VET to reduce ELET.

Analysing data from PISA 2012, this study finds that there is no association between first age of selection of students in the education system and ELET⁽⁶⁰⁾.

It is expected that countries with a relatively small VET system (smaller choice of VET programmes) are likely to have a higher rate of early leaving due to lack of non-academic programme choice. National stakeholders highlighted that having various programmes that include VET provision offers more individualised solutions and responds to student motivations.

This suggests that correlation between the number of national VET programmes and ELET should be negative: the more programmes offered at national level, the lower the ELET rate. However, based on the number of national VET programmes in 2009 collected from the OECD study, the international data do not support this hypothesis (OECD, 2009). The correlation is weak and positive, rather than negative⁽⁶¹⁾.

This indicator does not capture the intricacies of pathway permeability and flexibility of VET policy measures: it simply identifies the number of pathways. It could be the case that it is the flexibility of the system, rather than the range on offer, that is related to tackling ELET. German national level interviewees identified a flexible and permeable VET system which allows for changes, and 'add-ons' from general education, without 'losing' classes already taken and having these recognised when recommencing training later on, as a major factor

⁽⁶⁰⁾ Correlation coefficient is 0.05. Data available on request.

⁽⁶¹⁾ Data available on request.

in preventing ELET. In Norway, there is also increased focus on making the education system more flexible, with easier pathways to change from one programme to another and from general education to VET.

While options to pursue a variety of academic and vocational programmes may exist, systemic difficulties in changing programmes without suffering penalties (such as losing years) impacts the potential of VET to tackle ELET. Where pathways are more flexible and permeable those who are at-risk or have dropped out can more easily transfer to another programme and experience success, rather than finding themselves ELET or remaining ELET. Any lack of flexibility and permeability impacts on the perception of VET; for example, inability to access higher education directly via vocational options and inability to move between programmes make efforts to fight ELET difficult.

The motivation of learners, and especially of those who are at risk of dropping out, is affected if learners are constantly moving horizontally rather than vertically, engaging in the same themes during each programme and/or having to begin each level again instead of building knowledge and moving upwards.

Another consideration is that the above indicator only captures the established learning pathways in terms of the number of programmes offered. Some countries may have alternative pathways offered specifically to those who at risk or who have dropped out.

5.3.3. Student orientation

Numerous interviewees discussed issues related to students' inadequate orientation as one of the reasons for dropping out. This issue is not exclusive to VET but is an issue as there are many more choices of type of programme. Several aspects are further explored below. The underlying issue is often the lack of a deliberate and reflected choice by the youngster. This is not a question of matching the young person to a programme that 'fits' their profile, implying an understanding of orientation and guidance not much applied today. The element lacking is self-reflection on aspirations and projection of oneself into the future. This approach is seen as creating engagement and motivating the young person to succeed.

Issues cited by interviewees include:

- (a) students and their families prefer to try to complete a general education programme first. If learners encounter difficulties, they drop out from general education and enrol in VET. This transition does not necessarily mean that they will again drop out from VET and finish as early leavers: Chapter 4 shows that many dropouts complete a VET qualification later. However, their chances of leaving the education system for good are higher if they already

- dropped out once. Negative self-perception, disengagement and stigmatisation that result from the first premature termination of a programme may have negative consequences for the rest of their development. In Belgium (French Community), interviewees referred to a 'relegation system' where students who fail in general and technical tracks go to VET schools and those who fail in the latter go to the 'alternance system';
- (b) VET as a negative choice. Many interviewees note that telling a young person follow a certain programme because they are 'not good enough' for others is detrimental to their future continuation. These young people often already have a negative self-image, specifically around education due to their previous difficulties. The rhetoric around their orientation is deficit rather than real opportunities and motivation, and further contributes to the existing negative spiral. Certain programmes are often chosen by default, as interviewees from Germany, Croatia and Austria mention in relation to catering;
 - (c) in the more extreme cases, some students enrol in VET programmes just to pass time until they reach the age for leaving compulsory education (mentioned by interviewees from Belgium-fr and Portugal). Many young people in Denmark enrol in education or training to receive associated financial support, and do not really care about the programme;
 - (d) those students who make a positive choice are rarely the ones who drop out. However, some interviewees noted that the fact that a young person does not have a clearly articulated wish to pursue a specific programme and choose one by default does not necessarily equate to this negative experience. It is also the role of training providers to ensure that young people build up a positive image of the profession and associated training programme and institution;
 - (e) lack of any future vision of their pathway. It is understandable that most young people at the age of 15 or 16 do not have a specific professional development plan. However, what they often lack is any reflection on their future pathway or self-reflection on their aspirations. This passive and disengaged attitude to education (and possibly learning more broadly) is a key difficulty faced by many students in VET who are told to follow a certain path rather than being engaged in a choice. They are not actor but subject in the process of choice and orientation which negatively affects their motivation. As an example, a counsellor from a town in Belgium (Flemish Community) mentioned that many students make a decision based on ease

(as in choose a course in a school located close to their home), on what their peers do, on their parents' preferences or a suggestion given by a teacher.

Several interviewees noted the possible positive role of prevocational training or initiatives where young people can try out professional activities before they choose a specific programme. The fact that such programmes are being downscaled (in France), less popular (Austria) or that the entry year to VET is no longer organised in this 'exploratory manner' (Belgium-fr) was also seen by some as being associated with early leaving. German interviewees mentioned the important role of internships in promoting good vocational decisions, and commented on the benefits of having a probation period in apprenticeships.

In Italy, lack of recognition of the school counsellor profession and correspondent training is considered by interviewees to result in inadequate guidance. In Portugal, guidance is considered to be insufficient in the case of the apprenticeships system; however, some interviewees mentioned that this may be related to a shortage of candidates and a lack of a real selection.

Beyond guidance itself, choice is also often conditioned by availability of placements in certain programmes and other organisational aspects of VET. Enrolment conditions and registration deadlines seem particularly relevant. A pedagogical coordinator from a VET school in Brussels mentions as a problem that many VET tracks are closed for registration at the end of the school year, a point where many students realise that, because of their grades, they will not be able to continue in the more academic-oriented programme.

These insights are confirmed by academic research that shows that students who are in tracks that they have not positively chosen but which they rather chose 'by default' are more likely to drop out (RAKE et al., 2012; Arponen-Aaltonen, 2012). Alet and Bonnal (2013) also found that those students who were pushed towards a track rather than making their own choice were more likely to drop out.

5.3.4. Perception of the profession

Another point linked to student orientation is the mismatch between perception of the profession they study for and its reality; several interviewees with hands-on experience of working with young people in specific VET programmes commented on this. It appears to be more common in some programmes or fields of study than others. Mismatch in perceptions does not mean that the young person will end up as early leaver; s/he may enrol in another programme that better matches his/her needs. However, it is important that this reorientation takes place rapidly, before the young person becomes disengaged.

Misperceptions can be linked to several issues:

- (a) lack of awareness of the working conditions and low readiness for them;
- (b) underestimation of the level of technical complexity of certain professions which require solid knowledge in areas such as mathematics, physics or science;
- (c) lack of understanding of what kind of jobs a given programme leads to.

During interviews, people mentioned the following as examples; these quotes correspond to one-off examples, not necessarily to statements made by several people:

- (a) in the catering sector, students often have very little idea about the hours worked and the shifts;
- (b) in the administration section, students 'want to work in the office' without knowing what the job of an assistant entails. A similar example was given for students of a programme that concerned biological analysis and for which most students had very little concrete idea about what they could do on completion of the programme;
- (c) in the beauty sector, students tend to have a 'glamorous' idea of the profession, and are not aware that they will have to perform such tasks as foot care, waxing or cleaning treatment rooms;
- (d) in car maintenance, students, particularly young men, are interested in the object – the car – but do not expect that the profession these days requires quite high level of skills in fields such as physics (electricity);
- (e) those preparing for electronic technician posts sometimes expect to find a job in a laboratory but often they have to be outside on sites doing installation work;
- (f) in a programme related to photography and film production, students had a 'glamorous' idea of the programme, looking for artistic expression. In reality, the programme prepared technicians and required a high level of technical knowledge and skills;
- (g) in programmes related to multimedia or digital design, students find that content is more difficult than they had expected since it includes programming or the use of technical software and knowledge.

5.3.5. Student self-perception linked to VET image

For some young people, enrolment in a VET programme is seen as failure and is associated with negative self-perception. The everyday language of parents or teachers may carry negative judgements and expressions about VET (young people being told with disdain 'if you do not study well-enough, you will have to go to a VET school'). When they then enrol in VET they accept the idea that they

are 'not good enough', and such negative self-perception is one of the causes of disengagement from education.

This issue was mentioned in most of the countries where interviews have been carried out, including Denmark, Germany and Austria which are internationally considered as having high quality and attractive VET.

In all countries there appear to be programmes or qualifications that are less well-regarded and recognised socially than others. In France, the VET qualification corresponding to EQF level 3 (*Certificat d'Aptitude Professionnel*) particularly suffers from bad image: interviewees confirm that there is more dropping out at this level than at the higher level. In Belgium (both the Flemish and the French Communities) and Portugal, interviewees state that apprenticeships are considered as the last resort, after other VET programmes. In Austria, interviews suggest that this is, on the contrary, the case for VET schools, while VET colleges and apprenticeships are well perceived. In Italy, significant stigma is attached to professional institutes, considered the last option for those who failed in all the others.

This creates a vicious circle: low prior education attainment (failure, repetition, bad grades) is associated with higher chances of dropping out. Students who face more substantial academic difficulties are often in higher concentration in certain VET programmes or fields of study (those that have low attractiveness). They know that they are in a programme/field of study that is not attractive. Unless there is real willingness and work to help them develop a positive relationship with the programme and profession, they are likely to disengage (or continue disengaging).

This issue was been further investigated in the present study by building a composite indicator on the perception of VET based on several 2011 Eurobarometer questions, and checking its correlation with ELET rates. However, the results were inconclusive ⁽⁶²⁾.

5.3.6. Programme content and organisation

When VET programmes are too general, not sufficiently focused on vocational skills and competences, but giving a lot of emphasis to more academic subjects and knowledge, students can be discouraged. Interviewees note that when young people choose a vocational programme they wish to pursue learning that is more practical and concrete. Instead, many VET programmes are structured to engage students in a substantial amount of theory before getting to experience

⁽⁶²⁾ More detailed information is available on request.

the practice. A study by Hall (2009) in Sweden found that the introduction of more academic content into VET increased dropout rates.

However, interviewees often mentioned the need to reinforce the basic skills of VET students, since these are necessary tools to access more theoretical content. Theoretical content cannot be excluded from programmes and changes in the nature of work, often a consequence of new technologies, may imply the introduction of more complex curricula. This is the case in the automotive sector, where computer-based work is increasingly required and manual work less so. Although this can be an obstacle, especially for students with learning difficulties, the key to engaging students seems to be integration of theoretical content with the more practical parts of training.

Learners may not see the links between theoretical courses and practical training. It was said that, in many cases, it is the learner who has to make the link between what they are learning in mathematics and the rest. Making such links is a complex process and most do not really reflect on this on their own.

The place of theoretical knowledge in VET was commented on by some interviewees. They suggested the need to make sure that this is integrated into the vocational context and meaningful for young people in the context of the profession they are preparing for.

An interviewee from a training centre in Denmark commented that by learning how to cook sauce *béarnaise* it is possible to learn about chemical reactions and why the sauce should not boil. An interviewee from a VET school in Portugal mentioned that they try to include scientific and sociocultural contents in a transversal way, for instance by asking students to translate their final projects into English and present them orally in this language. An apprenticeship supervisor from a hotel in Croatia mentioned that it is important that the hotel is involved in the creation of the school programme so that there is a congruency with the practical training.

Directly or indirectly, the interviewees called for more competence-based training. This is seen as having two main benefits:

- (a) such an approach is motivating, as it encourages recognising achievements also seen as meaningful by the young person (rather than purely academic achievements that they consider unimportant);
- (b) it encourages combining the teaching of knowledge, skills and competence in coordination.

The fact that such competence-based learning, teaching and assessment is at the heart of contemporary VET pedagogies (Cedefop, 2015) was seen by some as an added value of VET. There is an expectation that VET can more easily adopt this approach (or is already doing so) while the reality on the ground

is often lags behind this ideal. Some interviewees mentioned that assessment is often too theoretical compared to the content of the programme (Belgium-fr).

Besides competence-based training, interviewees also mentioned the existence of support measures to make sure that students improve basic skills and acquire the necessary theoretical knowledge. For instance, a 'production school' in Denmark offers academic workshops on basic skills where classes are individual and intensive.

5.3.7. Professional identity

Development of a professional identity through VET requires an engaging and motivating process which enables young people to perceive the training as meaningful. Through trainer or VET teacher role models', young people gain an idea of the profession and incorporate its codes. They get to practise, ideally in a workplace; this helps create professional identity. If VET fails to develop professional identity at an early stage of the programme, learners may progressively disengage, increasing the risk to finally drop out.

As an example, an interviewee from Austria explained the difference between two types of programmes leading to the same profession in the catering sector as follows: 'In a regular apprenticeship, students serve real customers in a restaurant or café. In the other programme, they serve other students in the workshop. In the second case, they are frustrated as they doubt the sense of these activities'.

Other interviewees also commented on aspects that illustrate the relevance developing a professional identity:

- (a) three months after the start of the apprenticeship, young people start to perceive themselves as workers (as in 'I am a house painter') and not as students. When this shift does not happen, young people are at risk of dropping out (opinion of head teacher from a training centre in Belgium);
- (b) if a teacher is not proud of his or her professional identity, they might risk transferring this to the students. It is important that the teachers express that they are proud of their profession. This can also help change the image of the school (opinion of guidance counsellor in a training centre in Denmark).
- (c) if there is a family tradition in the profession (such as sailing) the student will be motivated and will already have a picture of the profession (opinion of guidance counsellor in VET school in Croatia).

In line with these remarks of interviewees, Host et al. (2013) who studied a sample of VET students and programmes found that the following appear to have a relationship with non-completion:

- (a) development of strong professional identity in the first year of the programme. If this is absent, the choice of the second year (which is a year of specialisation in Norway, country of study) is challenging for the student;
- (b) completion is higher in sectors with a longer tradition of receiving and training apprentices;
- (c) when there is a weak link with the job this has negative effect on retention.

Regarding 'sector-specific culture', a counsellor from a training centre in Portugal mentioned that in less 'specific' programmes (for example installation of solar systems, sales employer and logistics, as opposed to kitchen and bakery or mechatronics), the main objective of students is to obtain their upper secondary education certificate, reflecting a negative choice of programme.

5.3.8. Apprenticeship and other in-company training

Despite the motivational effect of work-based learning and its contribution to development of a professional identity based on the authentic relationships on the workplace (Section 4.4.2), interviewees also mentioned a number of issues contributing to early leaving that were more specifically related to apprenticeships or programmes which required substantial periods of work-based learning. These are:

- (a) availability of work-based learning opportunities;
- (b) readiness to work;
- (c) relationships in the workplace.

5.3.8.1. Availability of work-based learning opportunities

In many systems, the lack of apprenticeship places is not considered a reason for dropping out as such but it is still frequently mentioned. In some countries, the apprentice cannot enrol in an apprenticeship without having a contract with an employer (such as Belgium-fr, France, Austria). However, interviewees in these countries commented on the difficulty of finding a placement for young people. They highlighted the fact that lack of apprenticeship places diminishes the opportunities for those who wish to pursue this form of learning and, due to insufficient supply of placements, they are rejected. They end up in a programme that is not their first choice.

In Denmark, the first year of VET studies consists of a foundation course in which students are not yet enrolled in an apprenticeship. They need to find a placement as from the second year. This transition is where a significant number of young people drop out, because they cannot find a placement. Some interviewees commented on the fact that this is sometimes discouraging young people from enrolling in VET, as they fear not finding an employer. They carry on

in general education when their future development needs might have been better served in VET.

The literature also confirms this trend. Steiner (2009) reports a lack of apprenticeship placements related to early leaving in Austria. In Denmark, Koudahl (2005) found that the mismatch between apprenticeship placement demand and supply (surplus in some sectors and shortage in others) is also related to dropping out. Also in Denmark, EVA (2012) notes the shortage of placements as a cause for dropping out. In Sweden, Vastmanlands County (2005) also considers that shortage of placements affects dropping out.

In Germany and Austria, the situation is the reverse, with a shortage of apprentices instead of placements in several companies and sectors. This is due to demographic evolution and student preferences for other pathways. Small and medium-sized enterprises face more difficulties, since trainees prefer bigger companies and change to these when they have the opportunity. Also, small firms often stop training apprentices in response to increasing formal training-related requirements (Austria).

5.3.8.2. *Readiness to work*

Interviewees noted the need in an apprenticeship or traineeship for young people to become – from one day to another – adults at the age of 15 to 16. They have to adopt the rules of the workplace and comply with basic norms related to behaviours and skills: punctuality, discipline, communication, and compliance with rules and requests. For many young people with discipline or absenteeism difficulties in school-based education, this change is radical and they are often not prepared for it.

Many interviewees commented on the lack of readiness to work as a key reason for not finding an apprenticeship or dropping out in early months. Employers expect apprentices to demonstrate motivation and commitment: when this is lacking they terminate the contract. They may also be in client-facing situations and expected to be capable of handling different types of contact; this may require a degree of maturity and self-control that they often do not possess at entry. These are some relevant comments:

- (a) a head teacher from a VET school in Austria mentioned that students feel more comfortable in their schools than in working places, because it is not compulsory to stay at school for eight hours. The pressure on the students is not as hard as it is when working for a company;
- (b) a counsellor in a training centre in Belgium-fr explained that it is often the case that breaches of contract happen because an apprentice frequently arrives late at the workplace. Also, apprentices often find the tasks too

- boring or too basic/not diversified; they do not understand that an employer has to start by giving them basic tasks;
- (c) a representative of a training centre in Portugal stated that some young people find it difficult to adapt to social and institutional rules (such as punctuality) and to the hierarchy (doing things like they are told to and not how they think it is better).

Research has arrived at similar findings. In Austria, for example, Dornmayr and Nowak (2013) found that dropping out from apprenticeships is most likely during the first three trial months (39% of those who drop out, leave at this time). Insufficient readiness to work is one of the reasons for early apprentice contract termination.

Because of this, many programmes that work with dropouts begin with short periods of work-based learning and accompany young people through the process to acculturate them.

5.3.8.3. *Relationships in the workplace*

Finding a welcoming and supportive environment in the workplace is essential to retaining young people. Conflictual relationships in the workplace are cited as one of the reasons for dropping out. Beicht and Walden (2013) found that 46% of apprentices who drop out cite problems with trainers, educators, other students or the company. According to data from the German Federal Ministry of Education and Research (Bundesministerium für Bildung und Forschung, BMBF), 2009), a conflict with a supervisor in the company is quoted in 70% of interrupted apprenticeships and complaints about teaching skills of supervisors are cited in 46% cases.

This issue was also clearly noted in the interviews. When the relationship with the mentor or the trainer is not good, young people are much more likely not to complete the programme. This may be linked to work-readiness but it was also mentioned that in some cases companies 'abuse' of the situation of trainees, do not make enough effort to provide adequate training, or the working conditions and atmosphere are 'rough':

- (a) a coach from a training centre in Belgium-fr mentioned that sometimes apprentices would leave their first apprenticeship because they did not like the colleagues or the working atmosphere;
- (b) according to a counsellor from a chamber of crafts in Germany, trainees often complain three main factors: low training quality (lack of learning opportunities and professional input), a feeling of exploitation (working time, lack of intervals) and bad working atmosphere and communication, sometimes connected to bullying;

- (c) according to an apprenticeship supervisor in Belgium-fr, employers are not trained to be student hosts and tutors during apprenticeship. They expect too much from an apprentice in the sense that they expect them to be workers while they are still young learners. Many employers lack patience to teach the apprentice how to perform tasks. They often consider young people as cheap labour and not as apprentices. Similar comments were made by teachers from apprenticeships in France;
- (d) an educator from an NGO in Belgium-fl and others in France mentioned a lack of appropriate apprenticeship placements for youngsters who still need to work on their employability skills. At first, they need to be in an environment where they are allowed to make mistakes, to learn, receive trust from colleagues and superiors. However, the business ethic 'time is money' means employers prefer workers who can do the job immediately without extra support;
- (e) as an opposite example, a director from a company receiving apprentices in Denmark mentioned that they have introduced, with a touch of humour, the 'duty to make a mistake' at least three times a day, to try to keep the focus away from difficulties and create a good work environment.

5.4. Labour market factors

Not all the reasons for dropping out from VET can be linked to the young person himself/herself or to the nature of the education system or the institution. There are a number of external push or pull factors; those related to the labour market are discussed below and those most frequently mentioned by interviewees are shown in Figure 27. Labour market factors were mentioned less frequently than those related to the education system and VET but 18 were discussed by the interviewees.

The most frequently cited factor was insufficient availability of apprenticeship placements as discussed earlier (see Section 5.3.8.1). Young people who are interested in pursuing VET but do not secure an apprenticeship are more likely to be oriented towards a type of VET which does not correspond to their aspirations. In some systems, the inability to find an apprenticeship means that they cannot pursue the training. Another group of factors focus on the attraction of the labour market and the opportunity to earn one's living; working conditions and working hours are another frequently cited factor.

Figure 27. **Most frequently cited labour market related factors (based on 294 mentions)**



Source: Cedefop. Data are available on request.

5.4.1. Attraction of the labour market

Attractiveness of the labour market is one of the external factors linked to early leaving, with several studies quoting finding a job as a reason for dropping out:

- (a) in Germany, Beicht and Walden (2013) found that 16% of apprentices who terminated their contracts found employment before completing the certificate;
- (b) in Italy, Colombo (2013) found 18.4% of students state having left education and training for work reasons. She also found this is twice as common for men as for women;
- (c) in the Netherlands (ROA, 2012), 13% of leavers state labour market-related reasons for dropping out, most quoting preference for work but some that they need an income. The percentage of dropouts who say they leave for work-related reasons is higher among those who dropped out from secondary VET in the first two years (18% cite these reasons). The survey also found that male dropouts are more likely to leave for a job than female;
- (d) in Portugal, ANESPO (2011) found that the need to find a job was the most commonly cited reason for dropping out (18.4%);
- (e) in Spain, the pull factor of finding a job was also identified as a key reason for dropping out (IVIE, 2011; Fernandez-Enguita et al., 2010, Muñoz et al., 2009).

Some interviewees noted that young people in their final year of study are particularly attractive for employers (Austria). They are relatively well qualified already (though they do not have the formal certificate) and they are cheaper than qualified workers as they are employed as unqualified labour. The possibility for these young people to still pass the final certification even if they do not finalise the whole training programme was emphasised by a few interviewees as an option for these young people.

Several interviewees from Italy and Portugal mentioned that the financial crisis has reduced the pull effect of the labour market.

5.4.2. Employment outcomes of VET graduates

A low probability of finding a job after the completion of VET could be demotivating for students to enrol in VET, complete their studies or follow retention measures. This is known as the 'discouraged student effect'.

The idea that poor employment prospects is related to higher ELET rates was tested by assessing the relationship between employment outcomes of VET graduates and ELET at national level. It was expected that the employment outcomes of VET and ELET would be negatively correlated.

Seven different indicators were used to assess the relationship, including employment rates of VET graduates, unemployment rates of VET graduates, the difference in employment rates of VET graduates and general education graduates, and the difference in employment rates of VET graduates and lower level graduates (those below upper secondary education). Data are available for all seven indicators for only one year (2009 or 2012) ⁽⁶³⁾.

If comparing the data against ELET rates, three out of seven indicators show a moderate correlation with ELET:

- (a) difference in employment between 20 to 34 year-old initial vocational education and training (IVET) graduates ⁽⁶⁴⁾ and low-educated;
- (b) employment rate of 25 to 34 year-olds with vocational education based on 2012 OECD data;
- (c) employment rates for 20 to 34 year-olds IVET graduates based on 2009 Cedefop data.

The difference between employment rates of 20 to 34 year-old IVET graduates and low educated in 2009 was found to have the strongest negative relationship with ELET.

A linear relationship was also found to be moderately negative between employment rates of VET graduates and ELET. Based on 2012 OECD data, countries with high employment rates of VET graduates (a rate higher than 84%) have ELET lower or equal to 10%. However, based on the 2009 Cedefop employment rates of 20 to 34-year-old IVET graduates, this does not hold. Countries with high employment rates of IVET graduates (a rate higher than 84%) had ELET levels ranging from 5% to 31%.

Bivariate analyses seem to indicate that there might indeed be a relationship between employment outcomes of VET graduates and ELET. The relationship

⁽⁶³⁾ A full list of indicators assessed, together with data sources, years, correlation coefficients and scatterplots, are provided on request.

⁽⁶⁴⁾ IVET defined as education and training carried out in the initial education system.

was found to be particularly strong when comparing the ELET rates with the difference in employment between 20 to 34 year-old IVET graduates and low-educated.

5.4.3. Labour market regulations

When jobs require certification, it is expected that students will be encouraged to graduate from VET. This ‘encouraged student effect’ was tested by assessing the relationship between the number of regulated occupations in the EU-27 ⁽⁶⁵⁾ and ELET. The assumption is made that the total number of professions in each EU Member State is similar and hence that the total number of regulated professions, as opposed to the relative number of regulated professions, can be used as an indicator.

A weak negative correlation was found. Based on the results, there is weak evidence that would support the presence of the ‘encourage student effect’ caused by regulation ⁽⁶⁶⁾.

- Few interviewees commented on the level of regulation of the labour market:
- (a) in those labour markets where a qualification is a requirement to enter a profession, it was mentioned as a motivation for young people to complete training. In the same context, it was said that the wages of unskilled workers are nowadays so low (for example in Austria) that they are no longer attractive;
 - (b) in it was also noted these countries that, in some sectors where the work can be quite quickly mastered and companies do not always require all the skills certified by a qualification (such as work as waiters or in hotels), there is a tendency to use apprentices extensively to avoid hiring personnel. These are also sectors that have high levels of dropout from apprenticeships;
 - (c) in countries and sectors where having a formal qualification is not a requirement for entering a profession, young people may be less inclined to complete a training programme. For instance, in Croatia, it is not necessary to have a formal qualification to be able to work as waiter. If students find a

⁽⁶⁵⁾ Based on Koumenta et al., 2014. Prevalence and labour market impacts based on the definition of regulated profession used by the EU single market regulated professions database and Directive 2005/36/EC, including licensing, accreditation, and certification. Based on the EU single market regulated professions database (accessed in spring 2012).

⁽⁶⁶⁾ Data are available on request.

job before completion there is little difference for them than if they had a qualification.

5.4.4. Working conditions

The working conditions in certain sectors were mentioned as a potential push factor for dropping out. Young people realise that in certain sectors (confectionery, chefs, waiters, retail, masonry), they have to work long hours, often weekends and the physical conditions or levels of pressure and stress are important. In tourism, many jobs have seasonal variation. These issues discourage young people from pursuing training, illustrates by the following comments:

- (a) an interviewee from Austria believes that the higher dropout rates in retail trade are due to unpleasant working conditions. Workers and trainees have to start early and finish late and often have to work on Saturdays;
- (b) interviewees from a training centre in Belgium-fr perceive that higher rates of early leaving in masonry are due to the arduous work. Apprentices encounter difficult working conditions, waking up at dawn and carrying heavy materials all day long. Also, they are confronted with an adult atmosphere at the work place which can be intimidating for some;
- (c) several interviewees from Germany observe that working time (weekend shifts) and other structural aspects in catering business that seriously conflict with interests of young people are obstacles to the completion of an apprenticeship;
- (d) a VET school in Portugal noted that due to school hours, many students had to develop their placements in the evening or weekends. Working in the evenings poses problems of transport and in some cases there is no work at these times (following the financial crisis, many restaurants have almost no work at dinner time). The school has tried to modify their class hours to facilitate placements during day time, such as leaving one day a week free of school classes or using school holidays for the placements.

These explanations were often cited by interviewees in the context of specific professions or sectors: Table 10 gives examples and shows that there were interesting differences in how interviewees perceived the trends in a given profession (low or high rate of ELET). Such differences were found within countries and are expected between countries. Employment opportunities in a given sector vary within a country as well as at EU level. However, some trends were generally observed across the countries, such as working hours, stress and working conditions in catering and hospitality. Two contrasting examples are found in the same sector (catering):

- (a) dropout rates for waiters and other support staff in catering were reported to be high due to working hours and stressful working environment. It was also noted that many people end up in this field of study by default without having chosen to study it. This is noted despite the fact that several interviewees noted an important demand for labour force in this field;
- (b) the dropout rates for chefs were reported to be low by several interviewees. Several noted that the students who choose this profession tend to be motivated and driven. The profession also has a good image. This trend was observed despite the fact that, similar to waiters, working as a chef implies long and non-standard working hours and stressful situations.

Table 10. **Factors cited in the context of different professions**

Profession	Dropout rate cited by the interviewee	Explanation given
Bakery	Low	Very good job prospects in the region (Croatia)
	High	Low attractiveness of the profession (Germany)
Beautician	High	Seasonal variations in the demand for apprentices (followed by breaches of contracts) (Belgium-fr)
	High	As above: after the holidays season there is less demand for apprentices (Belgium-fr)
Car mechanics	High	It has become a complex profession (Belgium-fr)
	High	Attracts many young people (boys) who are interested in the object (the car) but their real motivation for studies is less clear (Belgium-fr)
Carpentry	Low	Attracts young people who are really motivated to work in this sector (Belgium-fr)
	High	Low attractiveness of the profession (Croatia)
	High	Health problems due to working conditions (Austria)
Catering	High	Working hours: evenings and weekend (Austria, Portugal)
	High	It is easy to find unskilled workers in this sector. People do not need to be fully qualified to be waiters (Austria, Croatia)
	High	High levels of stress (Denmark)
Chef	Low	Attractive profession (Austria)
Cleaning	High	Last resort option for most young people, unattractive profession (Germany)
Construction	High	Economic crisis: low number of vacancies in the sector (Germany)
	Low	There is a post-crisis growth in the sector which created a growth in the supply of placements (Denmark)
Graphic design/multimedia	Low	Attractive occupation (Croatia)
	High	Though the programme is very attractive, it has high dropout rates because of the complete mismatch between the image and the reality. It is a very technical job but it attracts people with more 'artistic' aspirations (Portugal)
Hairdressing	High	Mismatch between perceptions of the job and the reality on the ground: working conditions in many saloons (Germany)
	High	Low wages (Germany)
Insurance-bank	Low	Office-based apprenticeships tend to have low dropout rates (Germany)

Profession	Dropout rate cited by the interviewee	Explanation given
Office management	Low	Attractive profession and good working conditions (Germany)
	High	Mismatch between image and reality. Students choose this programme because they want to work in an office but have no idea about the job profile (Belgium-fl)
Retail	High	Working hours: weekends (Austria)
	High	Low pay (Germany)
Wall painting	High	The apprenticeships often do not provide sufficient learning opportunities. People do not need to be qualified to do the jobs so there is little difference between those who are qualified and those who are not (Austria)
	High	Low supply of apprenticeship/work-based placements and low employment in the sector (Belgium-fr)

Source: Interviews.

Good matching between young person's aspirations and the reality of the profession is a positive factor. One interviewee mentioned the example of a highly specialised programme in the field of photography. The programme is very attractive and even selective because of the high numbers of applicants. However many young people drop out. The actual training is technical, as is the job it prepares for, but the programme attracts young people who have 'artistic' aspirations and are not interested in and ready to deal with the technical aspects.

5.4.5. Overall economic context

Several interviewees noted that the depressed economic context was demotivating for young people to complete their studies. One VET headmaster in a highly disadvantaged neighbourhood noted that, while a decade ago it was possible to motivate young people to finish their studies as they could see a qualification as a possible 'way out', this does not work anymore. Young people see the difficulties of their older peers or parents in finding employment, despite having a qualification, and they do not believe that studies will deliver them a desirable future: this aspect was mentioned by interviewees from different countries, including Belgium-fl and Portugal.

Unemployment and financial problems in the family can also prompt students to drop out, even for a precarious job opportunity, or to help in a family business. This was mentioned by interviewees in Portugal, a country where the emigration of the family – due to financial difficulties – was also often mentioned as a reason for ELVET.

An Austrian interviewee noted that the career opportunities of VET school graduates have decreased dramatically during recent decades. Many graduates are restricted to low-skilled jobs, which negatively affects their motivation and encourages dropping out.

A counsellor working for a local public authority in Belgium-fl mentions that in the 1990s and early 2000s it was easier for schools to conclude agreements with businesses about jobs for their student population. Currently this is much more difficult.

The economic context is also negatively affecting the take-up of young people into apprenticeships in a number of countries. Taking on apprentices is a commitment of three to four years to a workplace and, especially in microenterprises, employers are hesitant to make such commitments. The crisis has led to business closure and this is also affecting the availability of placements for work-based learning. In Croatia, the number of trades and crafts with licences for providing apprenticeships is decreasing because of closure due to the financial crisis; new businesses do not usually obtain a licence as soon as they open. Many companies do not have sufficient workload to share with apprentices (Croatia, Portugal).

CHAPTER 6.

Conclusions and policy messages

6.1. Refining the EU indicator on ELET to support targeted decision making at country level

The EU indicator on ELET provides a common measurement of the phenomenon but also hides a great variety of situations. The indicator does not enable to differentiate between:

- (a) people who left education at lower secondary level;
- (b) people who left during the transition from lower secondary to upper secondary;
- (c) those who completed short qualifications at ISCED 3c;
- (d) those who completed the training but did not succeed in passing the examinations.

Nor does the indicator allow identifying the share of early leavers who drop out from vocational pathways as opposed to general education.

This limits the usefulness of the indicator as basis for decision- and policy-making, especially at country level. It does not enable policy-makers to identify in which parts of the education system the problem of early leaving from ET is most prevalent and to develop targeted actions. Some countries address this gap by having different national monitoring systems; others do not yet have such data and only use the EU indicator to measure the rate of early leaving.

The study showed that:

- (a) according to PIAAC data, the share of early leavers who dropped out is relatively high (58%) compared to those who started but did not complete a programme (42%). This suggests that many early leavers are young people who do not make a transition from one level or type of education to another or who complete a programme but fail the examinations. Young people in the latter situation are likely to require different forms of support from those who leave education and training with a low-level qualification or those who drop out from a programme and leave without any qualification;
- (b) none of the international surveys enabled measuring the rate of ELVET at EU level. National data in selected countries (Belgium, France and the Netherlands) show that early leaving is more common among those enrolled in VET pathways than those enrolled in general education tracks. This reflects the selection in the education system whereby students who share

certain characteristics (low education achievement, low socioeconomic background, migration background, disability) are more present in VET tracks than in general education. Having EU data on the scale of ELVET would permit understanding aspects such as the countries in which efforts to reduce ELET should focus on VET or whether some VET systems are better than others in retaining young people.

One of the objectives of this study was to propose a definition of ELVET useful to help understand the scale of ELVET, as well as the specificities of dropping out from this type of education and training.

Based on the review of EU and national definitions, it is suggested that the definition of ELVET should:

- (a) focus on qualification attainment (upper secondary level as in the EU definition);
- (b) make reference to dropping out from a VET programme;
- (c) refer to current status of the person (not enrolled in a training programme).

Consequently the definition combines:

- (a) a measurement of the highest qualification attained;
- (b) a measurement of the type of programme from which the person dropped out.

To understand better the whole education pathway of a person, it would be useful to have information on all dropout events of a respondent, not just the last one. This would enable differentiating between those who dropped out from education and training but still achieved an upper secondary qualification (dropouts but not early leavers). Such information would also enable understanding the role VET has in retaining young people in education and training, and particularly in retaining those who already dropped out from general education or other VET programmes.

The age range could be either the same as for the EU definition or could also cover the wider age group (16 to 24). The fact that the EU definition only captures the population that is older than 18 was seen as a limitation by a number of interviewees who use EU data for decision-making purposes. The definition captures the early leaving phenomenon too late. Policy-makers noted that they needed information on early leaving which would capture information as quickly as possible after exit from the education system. The data collected according to this definition should, if possible, differentiate between different types of VET programmes.

An 'ideal' set of variables and possible related survey questions are presented in Box 7.

Box 7. Ideal set of variables to measure ELVET

1. Highest level of qualification attained (by ISCED levels), as currently measured in the LFS

- Orientation of the ISCED 3 qualification attained (general or vocational).

This would enable measuring the share of those who experienced a dropout event but nevertheless achieved an ISCED 3 VET qualification compared to those who achieved an ISCED 3 general education qualification. It would clarify the role of VET in retaining young people at risk of ELET in education and training.

2. Experience of dropping out, level and orientation of programme from which the person dropped out. The following questions could be asked to get this variable:

- Did you ever start a formal education and training programme that you did not complete? (yes/no)
- Was this before or after you attained the highest qualification that you hold (before/ after)?
- What was the level of this programme (ISCED levels)?
- What was the orientation of this programme (vocational/general)?

Ideally the set of questions would be repeated if the person experienced more than one dropout event.

3. Current status: not attending formal education and/or training.

(*) The assumption is that those who dropped out once are more likely to drop out again and eventually fully disengage from education and training.

Source: Cedefop.

Therefore, to develop an indicator on ELVET, the analysis suggests that:

- (a) the data set should contain a variable about VET orientation of upper secondary education for all respondents who have at least ISCED3 qualifications: all respondents who completed at least ISCED3 qualification would be asked whether the 'upper secondary education' programme they attended was vocational. This would provide a basis for a denominator about all VET participants (independent of their later progression in education). It would also enable the development of a dependent variable for statistical analysis of the probability of dropping out from VET (or becoming an early leaver from VET) ⁽⁶⁷⁾;
- (b) the data set should contain a variable about a dropout event that would be constructed as follows:

⁽⁶⁷⁾ The dependent variable could be defined as: dropout from VET= 1; participant in VET who did not drop out= 0.

- (i) the person dropped out;
- (ii) the dropout event was before or after s/he achieved the highest qualification held;
- (iii) the level of the programme from which the person dropped out;
- (iv) the vocational orientation of the programme from which the person dropped out.

Unlike the AES, the questions should be compulsory, to obtain data for all EU countries. In the PIAAC questionnaire, for example, the questions were compulsory.

Of the three surveys reviewed, the LFS has the largest sample size. As the indicator on ELVET would combine a relatively large number of variables (age range, current education status, highest level of qualification, dropout event, level and orientation of the programme from which the person dropped out), it would need to be based on a survey with a large sample size, like an ad hoc module of the LFS.

The 2016 ad hoc module of LFS on young people on the labour market will collect information on dropout events and the level and orientation of the programme the person dropped out from. Information will be collected on:

- (a) whether after completing the studies corresponding to the highest educational level attained, the person started other studies;
- (b) what was the level and orientation of this study (in case of several, the person is asked about the last one);
- (c) whether the person completed it;
- (d) if not, the reasons for dropping out;
- (e) date of completion (or dropping out).

Where the person did not pursue any further studies after attaining the current education level, s/he should be asked the reasons.

The LFS should use the ISCED 2011 classification which enables to differentiate programme orientation (general or vocational) at upper secondary level.

This module will undoubtedly provide valuable data to analyse ELVET. Compared to the 'ideal' set of variables proposed above, one aspect would still not be covered: incomplete studies done before the attainment of the current education level. This means that it would not be possible to analyse the pathways of young people who dropped out of a programme but ended up by attaining an ISCED 3 qualification, and whether VET or general programmes were more commonly chosen after dropping out. The ad hoc module focuses only on the last episode of dropout, so it will not be possible to analyse whether people who completed an education and training programme also experienced a dropout

event but were ultimately retained in education and training and reached a qualification.

6.2. Developing more extensive national systems to be able to monitor ELVET

Data collection and monitoring of ELVET by Member States is crucial to:

- (a) identify early leavers and learners at risk of early leaving as soon as possible, to offer them solutions and increase the chances that they attain a qualification;
- (b) improve understanding of the phenomenon in each country to target measures better to prevent and address early leaving;
- (c) assess the effectiveness of measures to address early leaving.

This implies that monitoring systems need to:

- (a) identify nominally persons at risk or who already left the education and training system. This includes information on contact details which can be used by responsible services to reach out to the individual;
- (b) contain data on individuals' characteristics as well as their pathways in order to use this information to analyse the problem of early leaving in the country;
- (c) be accompanied by process in which it is clear which organisation (and within it which person) is responsible for reaching out to the individual. This should also contain clear methodology on how such follow-up is made.

Countries can monitor early leaving from administrative data gathered by education and training providers on student enrolment. However, solely regional or school-level systems offer limited possibilities as they can erroneously capture those who are mobile (change education provider/region) as early leavers. Connecting different data sources (such as apprenticeships and school-based education governed by different authorities) is often a challenge for authorities when setting up such monitoring systems.

The study identified only a few countries that have monitoring systems on early leaving that are systematically deployed across the whole country and used to offer support to young people. Most countries have statistics on early leaving but lack systems to enable them to identify those who should be reached out to with an offer for a solution. Such systems are typically based on interconnected databases into which education providers enter data on student participation in education and training. These monitoring systems allow identifying (nearly) every young person who exits prematurely and follow-up to offer him/her an alternative programme or support. Quick reaction is important to maintain contact with the

young person and to maximise the chances that s/he will return to education and training.

Once an early leaver is identified, there should be a system to contact him/her as soon as possible. This could be the responsibility of a specialised service (such as youth guidance services) or be done through coordination of different services. The aim of this initial contact is to:

- (a) verify that the young person is an early leaver (to exclude, for instance, those who changed residence to another country);
- (b) check if the young person is already receiving support and, if not, offer it;
- (c) collect information on the characteristics of the young person and his or her needs to be able to offer tailored support;
- (d) coordinate the different services and education and training providers to offer an adequate response to each young person.

Monitoring systems on early leaving can also provide data to help understand the issue in the country.

Good comprehension requires collecting data to establish when learners leave the system (whether they leave before they enter upper secondary, drop out from upper secondary (and from which year), leave after completing a short upper secondary programme, or drop out after finalising an upper secondary programme but failing the final exam), and where are they dropping out from (general programmes or VET, type of programme, and field of study). Information on the sociodemographic characteristics of the learners (age, gender, and migrant or ethnic minority background) is useful to understand better who is leaving the system early (see Table 11).

Table 11. **Aspects to be covered by monitoring systems on early leaving at national level**

When are early leavers leaving the system <ul style="list-style-type: none">• Early leavers who do not make the transition to upper secondary education• Dropouts from upper secondary (per year of the programme)• Early leavers who completed a short upper secondary programme (ISCED 3c)• Dropouts who complete an upper secondary programme but fail the final exam
Where are early leavers dropping out from <ul style="list-style-type: none">• General programme / VET• Type of programme (e.g. school-based VET/apprenticeships)• Field of study
Who is leaving the system <ul style="list-style-type: none">• Age• Gender• Migrant or ethnic minority background• Other (e.g. disability)

Source: Cedefop.

Although availability of such monitoring systems has clear benefits in tackling ELET, system implementation and improvement can present technical challenges, mainly the need to combine data from different subsystems. For instance, combining data on apprenticeships with data on other forms of education can be complex, since early leaving in apprenticeships is typically calculated according to numbers of contracts and their terminations. This can be eased by the use of unique student registers or unique identification numbers.

Unique student registers or identification numbers not only aid more accurate data on early leaving, but also enable the tracking of individuals' educational pathways, which can help understand the issue better. Although data protection regulations may pose challenges to such systems, a few countries are now successfully using them and others are working towards their creation. Sharing experience about the nature and advantages of these systems could provide useful guidance for other countries.

Monitoring systems can also help identify those at risk of dropping out: several of those analysed collect data on absenteeism, acknowledged as a risk factor for early leaving. There are other indicators that can be used to improve the identification of learners at risk: low performance (low grades), grade repetition, disruptive behaviour, issues related to health and well-being, or family background. Early leavers are a varied group and not all exhibit clear signs of disengagement (high absenteeism or disruptive behaviour) and such signs may be preceded by less evident ones (emotional distress). Early warning systems that collect data on a variety of risk factors can help authorities and practitioners to detect the first signs of risk of dropping out and to notice the less obvious learners at risk, supporting timely interventions.

Even the monitoring of one risk indicator such as absenteeism, or a small set of indicators such as absenteeism and low performance, is already a powerful tool to identify learners at risk. Often education and training providers collect this information regularly. Authorities can have an important role in providing guidance to providers on how to analyse such data, and how to link the analysis to the development of measures for at-risk learners.

Currently, where monitoring data exist, they are being used to identify individuals at risk of or who have left education and training, and to provide overviews of performance of education institutions and possibly municipalities or regions. However, data appear to be rarely used to assess the effectiveness of measures to address ELET. This means that even if data allow identifying early leavers, they do not support evaluation of the measures in place. Unique student registers or identification numbers that allow following the learner through different education and training programmes and support measures, help collect

useful data for the evaluation of measures. For instance, such systems make it possible to analyse whether participants in different support measures have ultimately completed upper secondary education.

If monitoring systems to identify at-risk learners are to be useful in evaluation of measures they need to combine periodic data on risk indicators, information on the programmes attended by learners, and support measures applied. This would allow assessing if a particular measure has had the expected impact on risk factors, such as whether a measure focused on career guidance has led to better understanding of education options.

Volume II (Cedefop, 2016) analyses what indicators can be used to evaluate policies and measures to tackle early leaving to provide the right information to support policy decisions.

6.3. Collecting and analysing qualitative data on the causes of ELVET to inform policies and measures

Early leaving results from a variety of interacting factors. Many of these result from the way education and training is delivered within institutions, how programmes are structured and how the systems are set up. Others are linked to difficulties young people are facing outside education but which influence their engagement in learning. Understanding and addressing these factors should be at the core of policy responses to address early leaving.

This study provides an overview of factors leading to early leaving with an emphasis on those specifically associated with ELVET. However, the importance of each factor varies from one country to another and from one education provider context to another. National and regional authorities should further explore such factors in their territories.

Table 12 presents the type of information that can be collected to understand better the factors behind early leaving (the list is not exhaustive). Some of the aspects listed (level 1 in Table 12) have already been discussed as part of monitoring systems in general (see Table 11). These are often gathered in administrative data sets and include:

- (a) data on the sociodemographic characteristics of the learners such as gender and socioeconomic status of parents;
- (b) data related to the education and training system, on absenteeism, class repetition and education achievement.

There is also need for information on the reasons for dropping out. VET providers can record the reasons for dropout given by the learners themselves

through brief discussions or simple questionnaires (self-reported). These can be coded into relatively simple categories such as 'health condition', 'family responsibilities', or 'found a job' (see categories proposed in Table 12, level 2). However, some learners drop out without warning schools. Other services working with young people can help collecting data on the reasons for dropping out.

Deeper analysis of the factors linked to early leaving requires a step further in data collection. If a learner is dropping out because she or he does not like the programme, this can be a consequence of many different issues, such as a mismatch between the learner's expectations and the reality of the profession, a lack of family interest and support, or difficulties coping with tough working conditions (see categories proposed in Table 12, level 3).

Reaching the third level of detail in regular data collection is technically complex and costly at regional or national level (Psifidou, 2016b). The list of factors would be long and it would be difficult to ensure that the coding is done in the same way by different professionals. However, such an analysis at individual level is essential to understanding why a specific individual dropped out and what type of measures could help him or her come back to education and training. Designated persons at provider level, youth services (youth guidance centres), or specific services in charge of identifying and contacting early leavers, are best positioned for this.

Information on the reasons for dropout and the factors that lead to early leaving should feed into the design of policies and measures to tackle this phenomenon at different levels: to choose the type of support for an individual; to design and implement relevant measures at provider level; and to fund, design, implement measures at local, regional or national level.

Early leavers are a heterogeneous group and there is no one-size-fits-all solution. If policy-makers and measure designers and implementers have good knowledge of the characteristics of early leavers and the most common reasons for dropping out, they can use this to underpin the design of the measures. Volume II of the current research (Cedefop, 2016) shows that policies are more likely to succeed if they acknowledge the different factors that can influence early leaving, and are tailored to the different needs of people who have dropped out or are at risk of early leaving.

Table 12. Data for better understanding of early leaving

	LEVEL 1 Information on factors often available in administrative data sets	LEVEL 2 Information on self-reported reasons for dropout	LEVEL 3 Detailed information on factors linked to early leaving
Factors related to the individual and his/her family background	<ul style="list-style-type: none"> ■ Gender ■ Socioeconomic status of parents ■ Migrant or ethnic minority background ⁽¹⁾ 	<ul style="list-style-type: none"> ■ Health and well-being issues or conditions ⁽²⁾ ■ Family responsibilities (e.g. taking care of siblings) 	<ul style="list-style-type: none"> ■ Family engagement and support
Factors related to the organisation of (vocational) education and training	<ul style="list-style-type: none"> ■ Absenteeism ■ Class repetition ■ Education achievement 	<ul style="list-style-type: none"> ■ Non-availability of work-based learning opportunities or apprenticeship placements ■ Disliked programme, VET provider, staff, or colleagues 	<ul style="list-style-type: none"> ■ Student orientation (e.g. negative choice of VET programme) ■ Perception of the profession (mismatch of expectations on a profession and reality) ■ Negative self-perception of students linked to the negative image of VET ■ Programme content and organisation ■ Readiness to work ■ Relationships at workplace
Factors related to the labour market		<ul style="list-style-type: none"> ■ Attraction of the labour market (the learner found a job) ■ Overall economic context: financial problems in the family (the learner needed to earn money even if in a precarious job) 	<ul style="list-style-type: none"> ■ Working conditions
Other reasons for dropping out from a programme (not necessarily leading to early leaving)		<ul style="list-style-type: none"> ■ Change of country/region/city of residence ■ Change of education and training provider or programme 	

⁽¹⁾ In some countries there are restrictions on collecting data on migrant or ethnic minority background. In this case, there is a need for studies focused on certain populations.

⁽²⁾ Data on health issues or conditions are sensitive and need to be handled in full respect of data protection legislation. Also, learners may not feel comfortable sharing some of the information.

Source: Cedefop.

List of abbreviations

AES	adult education survey
ANESPO	Associação Nacional de Escolas Profissionais [National Association of Professional Schools (PT)]
BIBB	Bundesinstitut für Berufsbildung [Federal Institute for Vocational Education and Training (DE)]
BMBF	Bundesministerium für Bildung und Forschung [Federal Ministry of Education and Research (DE)]
DEPP	Direction de l'Evaluation, de la Prospective et de la Performance [Evaluation, Forward Planning and Performance Directorate (FR)]
EEA	European Economic Area
ELET	early leaving from education and training
ELVET	early leaving from vocational education and training
ET	education and training
EQF	European qualifications framework
ERDF	European regional development fund
ESF	European Social Fund
ESL	early school leaving
ET2020	education and training 2020
EU	European Union
EVA	Danmarks Evalueringsinstitut [Danish Evaluation Institute]
HAVO	hoger algemeen voortgezet onderwijs [senior general secondary education (NL)]
IBW	Institut für Bildungsforschung der Wirtschaft [Institute for educational research of the economy (AU)]
ISCED	international standard classification of education
ISFOL	Istituto per lo Sviluppo della Formazione Professionale dei Lavoratori [Institute for the Development of Vocational Training of Workers (IT)]
IT	information technology
IVET	initial vocational education and training
IVIE	Instituto Valenciano de Investigaciones Economicas [Valencian Institute of Economic Research (ES)]
LFS	labour force survey
MBO	middelbaar beroepsonderwijs [secondary vocational education (NL)]
MIUR	Ministero dell'Istruzione, dell'Università e della Ricerca [Ministry of Education, University and Research (IT)]

NESSE	Network of Experts in Social Sciences of Education and Training
NGO	non-governmental organisation
NUTS	nomenclature of territorial units for statistics
OECD	Organisation for Economic Cooperation and Development
PES	public employment service
PIAAC	programme for the international assessment of adult competences
PISA	Programme of International Student Assessment
RAKE	Tartu Ülikooli sotsiaalteaduslike rakendusuringute keskus [University of Tartu Centre for Applied Social Sciences (EE)]
ROA	Research Centre for Education and the Labour Market (NL)
SIEI	inter-ministerial system of information exchange (système interministériel d'échange d'informations)
SOLAS	Further Education and Training Authority (IE)
VET	vocational education and training
VMBO	Vorbereidend Middelbaar Beroepsonderwijs [Prevocational secondary education (NL)]
VWO	Vorbereidend Wetenschappelijk Onderwijs [pre-university education (NL)]
WKO	Wirtschaftskammer Österreich [Austrian Economic Chambers]

Country abbreviations

AT	Austria
BE	Belgium
BE-fr	French Community of Belgium
BE-fl	Flemish Community of Belgium
BG	Bulgaria
CH	Switzerland
CY	Cyprus
CZ	Czech Republic
DE	Germany
DK	Denmark
EE	Estonia
EL	Greece
ES	Spain
FI	Finland
FR	France
HR	Croatia
HU	Hungary
IE	Republic of Ireland
IT	Italy
LT	Lithuania
LU	Luxembourg
LV	Latvia
MT	Malta
NL	Netherlands
NO	Norway
PL	Poland
PT	Portugal
RO	Romania
SE	Sweden
SI	Slovenia
SK	Slovak Republic
UK	United Kingdom

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Leaving education early: putting vocational education and training centre stage

Volume I: investigating causes and extent

This Cedefop study examines the contribution that vocational education and training (VET) can make to reducing early leaving from education and training (ELET). Published in two volumes, this first looks at quantitative data to understand better the extent of early leaving from VET (ELVET). It analyses mechanisms for monitoring early leaving (at national and EU-levels), and examines VET and labour-market-specific factors, as well as those related to the individual and his/her family background, contributing to this phenomenon. It aims to assist national policy-makers and decision-makers at different levels in developing existing monitoring systems to measure ELVET and inform VET policies to tackle ELET. It also aims to assist European stakeholders to refine the EU indicator to capture the important variations in individual situations of early leavers. The second volume reviews VET-related measures to tackle ELET, either by preventing learners dropping out and/or by bringing those who have already left back to education and training.

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