



**OECD Reviews of Vocational Education
and Training**

Vocational Education and Training in Sweden

Małgorzata Kuczera and Shinyoung Jeon



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Foreword

Over recent years, Sweden has committed itself to an ambitious reform programme to enhance involvement of social partners in vocational education and training (VET), to increase provision of work-based learning within VET programmes and to promote apprenticeship. The Swedish VET system has many strengths. Sweden has a strong evaluation culture ensuring that policy is based on solid evidence; upper-secondary VET is provided in a flexible way, allowing individuals to build on their previous experience and knowledge, and Higher Vocational Education and Training launched in 2002 has filled a gap in the market for professional post-secondary qualifications and has been expanding. But many challenges remain. Numerous sectors are grappling with labour shortages increasing pressure on VET to better match provision to the changing demand for skills. The Swedish VET system also needs to respond to an increasingly diverse cohort of learners following a recent arrival of humanitarian migrants.

This OECD report, *Vocational Education and Training in Sweden*, compares VET policy in Sweden with practice in other relevant countries, and on this basis draws policy conclusions. Among others, the report argues for a stronger collaboration across schools and for concentrating VET provision in fewer institutions. It also argues that social partners should be vested with more responsibility over VET; that stronger progression pathways from upper-secondary VET to post-secondary level should be developed; and that challenges of an increasingly diverse cohort of learners should be more deeply addressed, in particular to better integrate migrants into VET. Sweden has been carrying out national investigations on a number of issues addressed in this report. This report aims to complement this work by drawing on international evidence.

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Table of contents

Foreword	3
Executive summary	9
Key findings.....	9
Key messages.....	9
Chapter 1. Assessment and recommendations.....	13
Introduction: Background	14
The labour market in Sweden	16
The VET system in Sweden.....	17
Strengths of the VET system in Sweden.....	24
Summary of policy options.....	25
Notes	31
References.....	31
Chapter 2. Strengthening collaboration and consolidation of vocational education and training provision in Sweden.....	35
Introduction: Background	36
The challenge: Small average size of VET schools with weak co-operation between them	39
Policy options	42
Policy arguments and implementation.....	43
Note.....	48
References.....	48
Chapter 3. Enhancing work-based learning in the vocational education and training system in Sweden.....	53
Introduction: Background	54
The challenge 3.1: Quality of WBL across VET schools varies.....	62
Policy option 3.1	64
Policy arguments and implementation 3.1	64
The challenge 3.2: WBL could be used more effectively to guide the mix of provision	66
Policy option 3.2.....	67
Policy arguments and implementation 3.2.....	67
The challenge 3.3: In comparison to other countries Swedish apprenticeship is relatively school driven	68
Policy option 3.3.....	69
Policy arguments and implementation 3.3.....	70
References.....	75
Annex 3.A. Characteristics of apprenticeship programmes.....	79
Chapter 4. Empowering social partners in vocational education and training in Sweden.....	81
Introduction: Background	82

The challenge: Involvement of social partner at the local level is variable	84
Policy options	85
Policy arguments and implementation.....	86
References.....	89
Chapter 5. Increasing the attractiveness of vocational education and training in Sweden	91
Introduction: Background	92
The challenge: Enrolment in VET has been falling.....	95
Policy options	97
Policy arguments and implementation.....	98
Note.....	103
References.....	103
Chapter 6. Unlocking the potential of migrants through vocational education and training in Sweden.....	107
Introduction: Background	108
Challenge 6.1: Vocational Packages are a promising but potentially risky means of facilitating the transition of young migrants to the labour market and their progression through education. ...	115
Policy option 6.1	116
Policy arguments and implementation 6.1.....	116
Challenge 6.2: Recent humanitarian migrants are a diverse group with different needs.....	124
Policy option 6.2.....	125
Policy arguments and implementation 6.2.....	125
Notes	131
References.....	132

Tables

Table 3.1. An overview of WBL in VET programmes in Sweden.....	56
Table 3.2. Comparison of WBL in apprenticeship and school-based programmes	59
Table 4.1. The levels at which there exists an institutional framework for social partner engagement (2007 data).....	82
Table 6.1. Upper-secondary VET requirements/student admissions criteria in selected countries.....	126
Annex Table 3.A.1. The duration of apprenticeship programmes and how apprentices spend their time.....	79
Annex Table 3.A.2. Minimum apprentice wages in youth apprenticeships	80

Figures

Figure 1.1. Unemployment rates have been falling in Sweden	16
Figure 1.2. Use of computers by blue-collar workers	17
Figure 1.3. Share of upper-secondary students in introductory programmes in Sweden	18
Figure 2.1. How big are VET schools in Sweden?.....	40
Figure 3.1. Share of all upper-secondary students in vocational programmes, and share of all upper secondary students in vocational programmes combining school and work-based learning	59
Figure 3.2. Employment rates among upper-secondary VET graduates in Sweden, by type of WBL .	63
Figure 3.3. Share of apprentices in Sweden	69

Figure 5.1. VET graduates one year after completing their studies	93
Figure 5.2. Post-secondary VET qualifications in the labour force	94
Figure 5.3. Enrolment in VET in 2015 and 2009	95
Figure 6.1. Sweden received a large share of young refugees and asylum seekers in recent years	109
Figure 6.2. The entry of foreign-born students has increased sharply in Language Introduction Programmes.....	113
Figure 6.3. VET Programmes attract fewer students with migrant backgrounds compared to Academic Programmes.....	120
Figure 6.4. Students with a migrant background tend to have higher but less realistic career ambitions	121
Figure 6.5. NEET rates are lower in Sweden but there is room for improvement among foreign-born youth who arrived at age 16 and over	128
Figure 6.6. Foreign-born students tend to stay longer or lag behind in upper-secondary education yet rely relatively more on adult education	130

Boxes

Box 1.1. Main conclusions from previous OECD reviews of Sweden	15
Box 2.1. Consolidation of VET provision in Denmark, Finland and Estonia	41
Box 2.2. Branch schools in Sweden	46
Box 3.1. Online training for workplace trainers in Sweden	57
Box 3.2. Responsibility for WBL in the Netherlands.....	65
Box 3.3. Requirements for companies providing WBL in the Netherlands and Denmark	66
Box 3.4. Mechanisms that can assist employers in sharing responsibilities for apprenticeship training.....	72
Box 3.5. Measures supporting disadvantaged youth during apprenticeship	73
Box 4.1. Involvement of social partners in VET in Denmark and Norway	83
Box 5.1. How pathways from VET to higher education changed over time in Sweden	96
Box 5.2. Financial incentives for adult apprentices.....	100
Box 6.1. Unlocking the potential of migrants through vocational education and training (VET)	110
Box 6.2. Short vocational programmes for young humanitarian migrants outside of regular VET	117
Box 6.3. Maximising the use of migrant skills to tackle teacher shortages in Sweden	122

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Executive summary

Over recent years, Sweden has made great strides in the development of its vocational education and training (VET) system. Work-based learning is better integrated, social partners are more engaged and the VET offer for adults has been developed. Opportunity exists however, for better co-ordination among stakeholders and changes in delivery to ensure the attractiveness of VET to an increasingly diverse range of learners and their prospective employers.

Key findings

Sweden has a strong VET system. Upper-secondary VET prepares for higher levels of education and for employment by providing students with sound basic and occupational skills. But challenges remain: enrolment in upper-secondary VET has been falling; collaboration between schools is limited; social partner engagement, while strong nationally, is highly variable at a local level. Despite the tightening labour market and emerging skills shortages, unemployment has been rising in vulnerable social groups such as non-European born migrants and those with low educational attainment.

Key messages

Improving co-operation and consolidation of VET provision

In international comparison, Swedish VET schools are small. This increases costs and risks of mismatch between provision, career aspiration and employer demand. When VET schools are small, the need for collaboration over equipment, facilities and specialist expertise increases. The current Swedish system, in which unconstrained student choice and competition between schools drives the mix of provision and public funding, tends to discourage collaboration between schools. Co-operation should be encouraged more vigorously through school evaluation and funding criteria. Involvement of social partners in regional planning should be mandatory and their perspective should be taken into account in determining provision.

In programmes where economies of scale are obtainable, VET schools should be merged to create larger institutions. In practice, this would mean that VET programmes would be offered in fewer schools. This policy option, as those discussed in other chapters of this report, should apply to all VET schools – both private and public – and to provision aimed at both youth and adults.

Strengthening work-based learning

Work-based learning (WBL) is now nearly universal in Swedish upper-secondary VET and is valued by both students and employers. These are real strengths, but there is evidence that WBL quality is variable. The provision and organisation of WBL is highly dependent on individual schools and individual VET teachers. While many VET teachers

do a remarkable job, they are often time-constrained and may lack the specialist skills to organise WBL. WBL tasks currently assumed by individual VET teachers could be usefully shared with other organisations, such as reinforced local bodies where social partners are represented.

A theoretical strength of VET provision in Sweden is that students should only be enrolled onto programmes with WBL. This is a means of testing actual employer demand for the skills being developed. However, around half of Swedish school principals report that the number and mix of VET places offered does not depend on the availability of relevant WBL. Employer willingness to offer WBL could be used more fully to steer students towards occupations in demand in the labour market.

Over recent years, the involvement of social partners in Swedish VET has gradually increased. This involvement could be further reinforced in apprenticeship programmes. Social partners in Sweden are less involved in the design and delivery of apprenticeships than in many apprenticeship countries. Swedish employers offering apprenticeships have fewer responsibilities, but also less influence over apprenticeship. Drawing on international experience, employers in Sweden should have an opportunity to select their apprentices, have a stronger influence over the content and modes of delivery of WBL and be encouraged to pay apprentices a wage.

Empowering social partners

Sweden has successfully built a national framework for social partner involvement. At local level, schools are expected to create collaborative arrangements with Local Programme Councils (*lokala programråd*) linked to school provision. The influence and involvement of local councils varies greatly across schools and programmes. Building on existing local consultation arrangements, and the successful experiences with Colleges, Sweden could establish a more systematic institutional framework for social partner engagement at local level. This would promote collaboration between different stakeholders and reinforce links between national and local bodies in which social partners are represented.

Increasing the attractiveness of VET and strengthening pathways to post-secondary education

Sweden recorded the highest drop in VET enrolment among the OECD countries between 2009 and 2015. The declining popularity of VET may be related to the weak pathways from VET to higher education. To address this challenge, Sweden may reinstall academic content in the routine coursework in VET programmes, removed by 2011 reforms, but allow students who are less interested in academic subjects to opt out from more demanding academic courses.

Cross-country experience shows that initial VET programmes that offer weak routes for progression become unattractive to students and employers. Sweden could therefore strengthen links between upper-secondary and post-secondary VET. VET graduates will often be interested in gaining post-secondary qualifications for their career development. Flexible arrangements permit students to continue working while studying and therefore to maintain income from employment. Post-secondary VET provision should be more available to adults who wish to upgrade their competences. To attract working adults, programmes should be provided in a flexible way allowing for a combination of work and study.

Unlocking the potential of migrants through VET

Sweden faces skills shortages and an ageing population. The recent increase in humanitarian migrants represents opportunities, but these can only be fully realised if Sweden can address associated challenges. Compared to other countries, migrant progression rates onto the upper-secondary VET are low. The recent innovation of partial qualifications (Vocational Packages) offers an attractive alternative for such disadvantaged learners, but also present risks.

The policy priority should continue to be that young people, including humanitarian migrants, attain full upper-secondary qualifications. Vocational Packages should act as stepping-stones alongside close co-operation between upper secondary schools and municipal adult education, strengthened individual assessment, personalised approaches and stronger career guidance. Relatively modest changes to VET delivery, notably adjusting programme duration or entry requirements, can be expected to significantly improve migrant progression onto VET.

Chapter 1. Assessment and recommendations

This chapter describes the main characteristics of vocational education and training (VET) and recent policy developments in Sweden. It assesses the strengths of the system, the challenges that remain, and summarises suggestions for policy advanced in later chapters of the report. Subsequent chapters examine different issues by presenting the topic, describing the challenge, advancing policy suggestions, providing arguments for the proposed policy solutions and discussing how these policy solutions could be implemented.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Introduction: Background

Sweden has made great strides in the development of its VET system

In the last decade, Sweden has introduced a wide range of reforms in its upper-secondary vocational education and training (VET) system. It has enhanced work-based learning by introducing stricter requirements on the provision of work placements by schools in vocational programmes and the role of the social partners by creating national architecture in which social partners can work with government to oversee the vocational education system. It has also established an apprenticeship system. Incentives are in place to encourage local engagement with the social partners, and more recently, new incentives have been introduced to encourage employers to pay apprentice wages, and to train workplace trainers so that they are adequately prepared to mentor workplace trainees and apprentices. A new and innovative system of post-secondary higher vocational education has continued to grow and develop. All these developments are positive.

But other challenges have emerged

The proportion of young people entering upper secondary VET has been falling. While apprenticeship has been launched the number of young people entering apprenticeship remains very small. Compared with many other countries, upper secondary VET schools, in terms of students enrolled, remain too small to deliver specialised vocational training. Despite successful national arrangements, local engagement of the social partners in the VET system remains patchy. The Swedish VET system also faces new challenges in responding to an increasingly diverse cohort of learners. The aim of this review, conducted a decade after a previous OECD review of upper-secondary VET in Sweden, and five years after a short exercise to look at post-secondary VET, is to address these challenges, and make proposals for how Sweden can advance further in the development of its VET system. Conclusions and recommendations from the two previous OECD studies are reported in Box 1.1.

This study draws on the extensive experience of the OECD in the area of VET

This is one of a series of OECD studies of VET and apprenticeship systems in more than 30 countries. As a contribution to this work, a background report was prepared on behalf of the Swedish authorities (Ministry of Education, 2018^[1]). The OECD team undertook two missions to Sweden in March 2018 and in June 2018, and met and held discussions with a wide range of stakeholders, including the Ministry of Education which sponsored this exercise and other interested ministries, employers and trade union groups, and made visits to several vocational upper-secondary schools. This review draws extensively on these discussions.

This review looks primarily at upper-secondary VET

The review's main focus is on upper-secondary VET, both for young people or adults returning to education. Post-secondary VET is addressed in Chapter 5 in the context of transition from upper-secondary VET to higher level education. Following this introductory chapter, each chapter will start with an introduction providing contextual information and comparing Sweden with other countries in relation to the chapter topic. Each chapter will then describe a policy challenge, followed by policy options. Finally, each chapter offers arguments supporting the proposed policy options and explores how these options could be implemented in Sweden.

Box 1.1. Main conclusions from previous OECD reviews of Sweden

The Learning for Jobs 2008 report recommended that Sweden:

- Maintain comprehensive upper-secondary education, and not to differentiate vocational education and training (VET) programmes from those preparing for higher education.
- Develop stronger mechanism through which the social partners could convey labour market requirements to VET providers, and creation of a national commission for VET composed of different government ministries and the social partners.
- Scrutinise the regulations to ensure that public and independent schools experience the same regulatory regime to ensure the competition between schools is fair.
- Publish information on the labour market outcomes of VET on a school and programme basis.
- Introduce the mandatory and quality assured 15-week work placement in upper-secondary VET, and tightening the provision of VET programmes to the availability of work placements – indication of employers skills needs.
- Develop an apprenticeship system to complement school based VET.

The 2013 OECD commentary on post-secondary VET :

- Praised the Swedish system of higher vocational education (HVET) for being a highly innovative, and in particular for its capacity to encourage partnership between employers and training providers; for inclusion of quality assured and workplace learning in HVET (2-year programmes); for strong quality assurance arrangements for both higher vocational education and professional bachelor programmes; and for strong data and evaluation culture.
- Pointed to some challenges, such as limited flexibility in provision for those who might wish to pursue post-secondary VET courses part-time, particularly adults in work; and difficult transition from HVET to university colleges and university programmes.

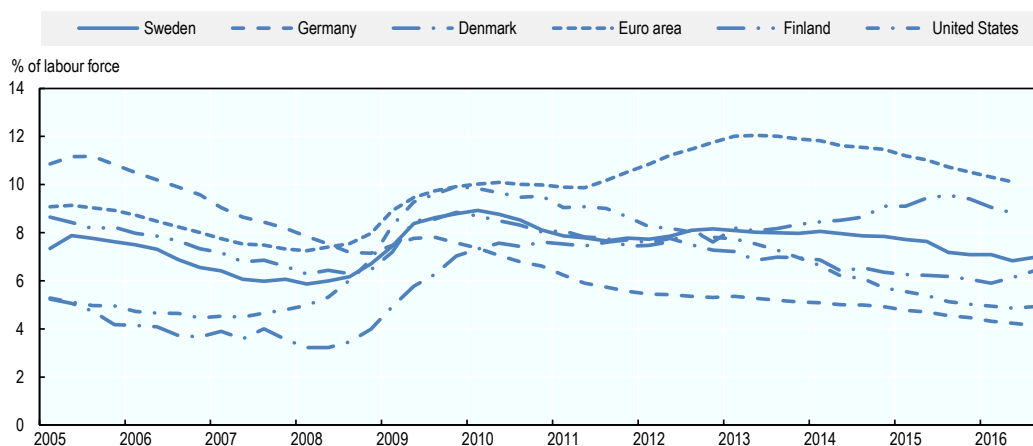
Source: Kuczera, M. et al. (2008_[21]), *OECD Reviews of Vocational Education and Training: A Learning for Jobs Review of Sweden 2008*, OECD Reviews of Vocational Education and Training, <https://doi.org/10.1787/9789264113978-en>; Kuczera, M. (2013_[31]), *A Skills beyond School Commentary on Sweden*, OECD Reviews of Vocational Education and Training, www.oecd.org/education/skills-beyond-school/ASkillsBeyondSchoolCommentaryOnSweden.pdf.

The labour market in Sweden

Unemployment is low and employers are facing labour shortages

Unemployment has been falling in recent years. In 2016, 7% of the labour force were unemployed in Sweden, below the level of structural unemployment (OECD, 2017^[4]). Shortages of skilled labour are appearing in many sectors, such as health, education and technology and in jobs requiring post-secondary and upper-secondary VET (Statistics Sweden (SCB), 2018^[5]).

Figure 1.1. Unemployment rates have been falling in Sweden



Source: OECD (2017^[4]) *Economic Surveys: Sweden 2017*, http://dx.doi.org/10.1787/eco_surveys-swe-2017-en.

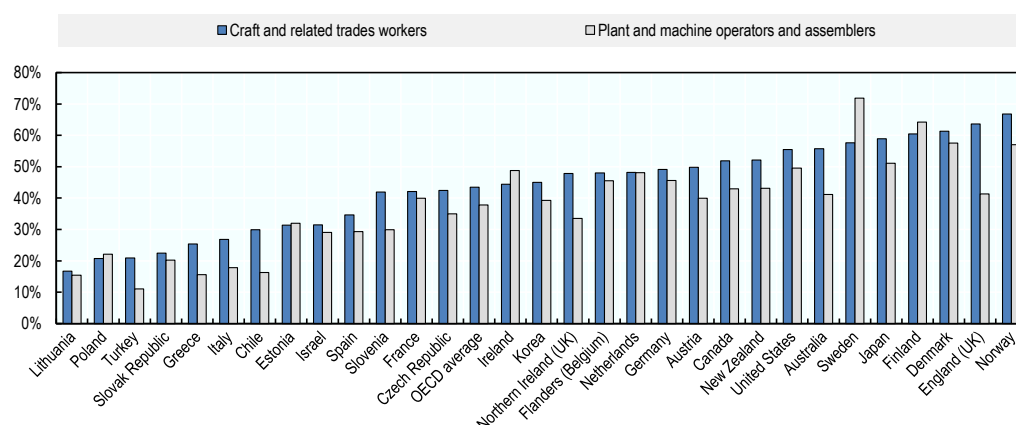
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But unemployment in some groups remains high

Despite the tightening labour market, unemployment has been rising in vulnerable social groups such as non-European born migrants and those with low educational attainment (OECD, 2017^[4]; OECD, 2017^[6]). In Sweden, even middle-level jobs requiring no more than upper-secondary education are often skills-intensive, leaving those with low skills or poor Swedish with fewer jobs to choose from. For example, workers in Sweden in semi-skilled occupations (e.g. clerks, service and shop workers, craft and related trade workers, plant and machine operators) are more likely to solve problems, use computers and other technologies than workers in similar jobs in many other countries (Figure 1.2 illustrates the use of computers in middle-skilled jobs). Sweden is responding to this challenge by facilitating access to adult education to those with a low level of education, by building a system of skills recognition allowing migrants to have their skills and knowledge recognised, and by modularisation of VET qualifications.

Figure 1.2. Use of computers by blue-collar workers

16-65 year-olds reporting using computers in their jobs



Source: Kuczera, M., T. Bastianic and S. Field (2018^[7]), *Apprenticeship and Vocational Education and Training in Israel*, OECD Reviews of Vocational Education and Training, <https://doi.org/10.1787/9789264302051-en>.

StatLink  <http://dx.doi.org/10.1787/888933927438>

The VET system in Sweden

A snapshot of the upper-secondary system

At upper-secondary level, students choose between academic and VET pathways

Compulsory education, at primary and lower secondary level, begins at the age of 6 and ends at the age of 16. Students who successfully complete compulsory education can apply for one of the 18 national upper-secondary programmes, which usually last three years. Students who have passing grades in at least 8 compulsory subjects can apply for a national VET programme and those with passing grades in 12 compulsory subjects are eligible for higher education preparatory programmes. The scope of the courses in upper-secondary school is defined by upper-secondary credits, indicating the relative weight of the course in the full programme. All upper-secondary programmes comprise a total of 2 500 upper-secondary credits. All upper-secondary school programmes include the same eight core required subjects but the scope and so the amount of credits associated with the core/foundation subjects differ across vocational and higher education preparatory programmes. In VET programmes foundation subjects encompasses 600 out of 2 500 credit points, and in higher education preparatory programmes 1 100-1 250 out of 2 500. In addition to the foundation subjects, students study programme specific subjects. Academic and vocational programmes are provided within the same institutions and education is given on a full-time basis (Ministry of Education, 2018^[1]; Skolverket and ReferNet Sweden, 2016^[8]).

At post-secondary level, there are two main paths

Depending on their choice of upper-secondary national programme, students who have completed upper-secondary school with basic eligibility for higher education can apply to universities (*universitet*), university colleges (*högskola*) and/or higher vocational

education (*yrkeshögskola*) (Ministry of Education, 2018^[1]). Transition to a higher level education is more difficult for students completing upper-secondary VET programmes as they do not acquire an automatic eligibility for higher education upon completion of upper-secondary VET.

Introductory programmes

There are four introductory programmes

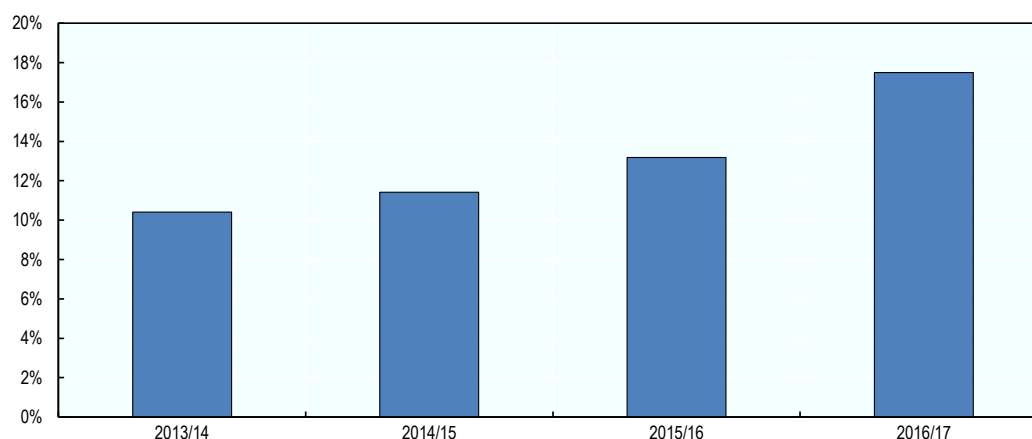
Students who do not meet the requirements for entry to upper-secondary National Programmes are admitted to one of four introductory programmes (*introduktionsprogram*) (Ministry of Education, 2018^[1]). These programmes include:¹

- Vocational introduction: includes vocationally-oriented training providing access to the labour market or to Vocational National Programmes.
- Individual alternative: prepares students for vocational introduction programmes or to the labour market. It should contain compulsory school subjects and may also contain upper-secondary subjects.
- Programme-oriented option: targets students who missed the requirements for national VET programmes in a few subjects, and it aims to transfer them quickly to a specific national VET programme.
- Language introduction: provides migrant students with training in Swedish necessary to start on National Programmes or continue other education pathways. Swedish language training can be combined with a range of courses from compulsory and upper-secondary level.

The proportion of students entering introductory programmes has increased

In recent years, the share of upper-secondary students (including those in national and introductory programmes) attending introductory programmes has been increasing and is now over 17% (Figure 1.3).

Figure 1.3. Share of upper-secondary students in introductory programmes in Sweden



Note: Upper-secondary education includes here both national and introductory programmes.

Source: Ministry of Education (2018^[1]) *Review of VET in Sweden. Background Report.*

StatLink  <http://dx.doi.org/10.1787/888933927457>

The introductory programmes cater for different groups with diverse needs

Introductory programmes cater to students with a wide range of needs, including both those who missed the requirements to enter the national upper-secondary programme of their choice by a narrow margin and those who have major weaknesses in their knowledge and skills. The programmes are designed to offer an individualised approach adapted to individual student's needs. Introductory programmes prepare students for entering National Programmes, for continuing in further education, and for transferring to the labour market. Half of those starting on an introductory programme manage to enter National Programmes within five years (Skolverket, 2017^[9]). Currently, more than half of all students in introductory programmes are migrants attending language introduction (this issue is discussed in more detail in Chapter 6 focusing on migrant population).

Upper-secondary VET

Apprenticeship and school-based VET lead to the same qualifications

Out of 18 national upper-secondary programmes 12 are vocational, all offered either as a school-based programme, or as an apprenticeship.² Programmes in building and construction; electricity and energy; and vehicle and transport enrol the largest share of VET students.

The National Agency for Education (Skolverket) oversees upper-secondary VET

This government agency manages, on behalf of the Ministry of Education, the Swedish school system for youth and adults, including upper-secondary VET. It supports and evaluates the work of municipalities, independent providers and schools. While the ministry determines policy, at operational level the agency defines learning outcomes from education and training, how education and training should be delivered and how schools and students' performance should be assessed. To this end, it develops a range of documents such as syllabi, national tests, grading criteria, and general guidelines. It also administers government grants. The agency organises support and training programmes for school-leaders and teachers, manages the registration of teachers and hosts the Teachers Disciplinary Board. It also conducts evaluations of VET policies (Skolverket and ReferNet Sweden, 2016^[8]).

The Swedish Schools Inspectorate is responsible for supervision and quality assurance

The Swedish Schools Inspectorate, a government agency, contributes to school improvement and development. To this end, it conducts regular supervision of all municipal and independent schools, from pre-school to adult education and assesses applications to run an independent school (The Swedish Schools Inspectorate, 2015^[10]).

Upper-secondary VET and academic graduates have not dissimilar outcomes

In 2016, one year after completion of their studies, around 80% of upper-secondary VET graduates were in employment. The level of attachment to the labour market and type of employment varied largely in this group, with only half of the VET graduates having a well-established position on the labour market (Skolverket, 2016^[11]). Half of the graduates were in jobs corresponding to their areas of study, a correspondence that was stronger among men than women (Ministry of Education, 2018^[1]). If the success of

upper-secondary education is measured with either finding a job or continuing in education, performance of VET graduates is similar to those coming from academic programmes. In comparison to graduates from academic paths those graduating from VET are more likely to work and less likely to study, which is consistent with outcomes set up for these two types of programmes. In 2016, 9% of graduates from VET and 8% from academic programmes were NEET (neither employed nor in education or training) one year after graduation (Statistics Sweden (SCB), 2018_[5]).

Enrolment in VET has been falling

Enrolment in VET fell until recently. Currently students in VET account for only a third of all youth in national upper-secondary programmes. Chapter 5 explores the reasons of this declining attractiveness of VET paths. Young men, migrants and the children of less educated parents are over-represented in VET programmes. 60% of VET students are men as compared to 47% in academic programmes. 80% are of Swedish background (born in Sweden and with at least one parent born in Sweden), four percentage points more than in academic upper-secondary education. Among VET students, only 34% have parents with post-secondary education, as compared to 64% among students enrolled in academic programmes (Ministry of Education, 2018_[1]).

Adult education

Many adults in Sweden participate in different forms of education and training

In Sweden, 66% of adults participate in formal or informal education, 16 percentage points above the OECD average and one of the highest rates among the OECD countries (OECD, 2018_[12]). The majority of adult learners who studied at least one year in municipal adult education opted for health and social care courses (Ministry of Education, 2018_[1]). In other OECD countries such as Australia, Denmark, Finland, and the Netherlands the overwhelming majority of the cohort returning to upper-secondary education enrol in VET programmes (OECD, 2017_[6]).

Municipalities are the main provider of adult education (komvux)

In Sweden, adults who have not completed upper-secondary education have a right to free education and training leading to upper-secondary qualifications and municipalities are obliged to provide it. Education and training in the adult sector may lead to the same qualifications as programmes for youth but is organised in courses rather than as National Programmes. Of all 61 118 students in municipal adult education who completed their studies in 2013, nearly 16% studied more than one year of VET courses, and nearly 10% studied between six months and one year.

Higher VET

Higher VET programmes, by law, must reflect the needs of the labour market

Higher VET (HVET) programmes have developed gradually over the last 15 years to offer mid-level post-secondary vocational qualifications, involving up to two years of study if pursued full time. Local training providers, in collaboration with employers, propose programmes to the National Agency for Higher Vocational Education which may then be funded by the agency for a limited number of programme starts (up to five starts). Upon expiry of one grant period, the education provider is free to apply for another set of

programme starts, possibly adjusted to changing labour market needs. To establish a new HVET programme, education providers must secure employers' involvement. All two-year programmes have to include work placements with employers. Work-based learning is mandatory in courses leading to an advanced higher VET diploma (European Qualifications Framework [EQF] level 6). Programmes leading to a higher VET diploma at EQF level 5 usually include WBL even if its provision is not mandatory.

Most programmes involve two years of full-time studies, but some are as short as six months

A one-year programme (200 credits) yields a Higher Vocational Education Diploma, while a two-year programme (400 credits) yields an Advanced Higher Vocational Education Diploma. Each programme consists of several courses, in accordance with a plan drawn up by the education providers. Students can choose a programme in 15 different fields. 80% of students are in the fields of information and communications technology (ICT), finance, administration and sales, healthcare, construction fields and in technology and manufacturing. A little over half (54%) of the students starting courses in 2017 were women, but the gender mix varies markedly across the different programmes. HVET programmes may also offer Swedish language training, targeted at migrants (representing around 20% of HVET students), and integrated with regular teaching. These programmes and their connections to upper-secondary VET provision are discussed in more detail in Chapter 5. In 2016, 93% of the students were employed one year after graduation. 68% of those employed had a job that fully or to a large extent aligned with the HVET programme attended, and 91% expressed satisfaction with their education.

The National Agency for Higher Vocational Education oversees provision

The National Agency for Higher Vocational Education also has wider responsibilities for HVET, conducting reviews and inspections, collecting and publishing statistical data, and promoting quality improvements.

Overview of policy development: 1990s reforms

Reforms from the 1990s changed the education landscape

In the 1990s, large reforms transformed the whole education system in Sweden. It also had a profound impact on the organisation and delivery of upper-secondary VET programmes to young people and adults. It made VET and academic programmes more similar and allowed VET students to continue to higher education. The reform increased the role of municipalities in the education system, including in upper-secondary VET. Through the reform, municipalities received full employer responsibility for all school staff, the allocation of resources between different parts of the school system, the organisation of schools and adult education, and continuing professional development for staff (Ministry of Education, 2016^[13]).

It also introduced a quasi-market in education

The 1990s reforms reinforced student choice and allowed private entities to establish private schools (also called independent schools). The aim of these reforms was to improve efficiency by empowering municipalities in planning and organising upper-secondary VET, increasing the educational offer and giving more choice to students and parents (Skolverket, 2012^[14]). While empowerment of schools allowed them to address

more effectively individual student needs and local labour market circumstances, competition created some risks. Competition among education providers for students inevitably creates an environment in which it is more challenging to encourage collaborative approaches. This is a particular challenge because of the relatively small size of upper-secondary VET schools in Sweden, relative to international comparators. This issue is pursued in Chapter 2.

Overview of policy development: 2010s reforms

More vocational content was added to VET programmes and apprenticeship were established

In 2011, a further reform introduced more vocational content into upper-secondary VET programmes and removed automatic eligibility for admission to higher education from VET programmes. Students opting for VET were given an opportunity of following an apprenticeship path³ (Ministry of Education, 2018^[1]). As a result, students in vocational programmes can attend a mainly ‘school-based education’ or ‘apprenticeship education’. The content and diploma goals of the two paths are the same. Work placement of at least 15 weeks was reinforced in school-based VET programmes. In apprenticeship, students should spend at least half of their learning time in the work place. Chapter 3 discusses how Sweden could further develop and capitalise on work placement in school-based provision and apprenticeship programmes while building on what already has been achieved.

It reinforced the involvement of social partners

Sweden created a framework for social partner involvement at the national and local level. At the national level, National Programme Councils advise the National Agency for Education on specific VET programmes while at the local level, partnerships with social partners are established at the school level. Chapter 4 describes in more detail the existing arrangements and provides policy options for how social partners’ engagement in VET could be reinforced.

Recent developments

Better quality work-based learning is promoted

In recent years, Sweden has launched many initiatives. To promote good quality work-based learning, the National Agency for Education has developed measures to improve the preparedness of trainers in companies, and the competences of schools to organise and improve the quality of WBL. New legislation encourages employers to pay wages to apprentices (at the moment this is rare). Chapter 3 looks at how apprenticeship might be further developed, building on these initiatives by government.

Sweden invests in adult education

The policy objective is to re-skill and up-skill the unemployed and to allow adults to complete upper-secondary education. Vocational education and training (VET) for adults is an important element of this lifelong learning strategy. But currently, provision of adult VET is fragmented. Many municipalities (the main providers of adult education) are too small to offer a variety of courses. To increase and diversify the range of provision, the government provides grants for adult education conditional on at least three

municipalities working together. The collaboration should also include other providers of adult education and training such as the Public Employment Service (PES) and reflects skills needs in the region. One of initiatives is the National Delegation for the Employment of Young People and Newly Arrived Migrants (DUA), which promotes co-operation between individual municipalities and the PES as well as other stakeholders through Local Job Track.⁴

Sweden introduced partial qualifications

In December 2017, Sweden introduced Vocational Packages (*yrkespaket*) in adult upper-secondary VET and introductory programmes. These are clusters of courses, leading to a partial qualification that can be a stepping-stone towards a full qualification. In February 2018 there were 60 Vocational Packages across a range of fields. The innovation has raised some concerns. Social partners in some sectors are reluctant to accept partial qualifications for young people. They worry that entry of young people with limited work experience and poor academic performance into the labour market may decrease the overall skills levels among their employees. Sectors facing large skills shortages are, naturally, more in favour of Vocational Packages (Ministry of Education, 2018^[1]). This issue is discussed in more detail in Chapter 6 in the context of migrants and VET.

Measures addressing fragmentation have been introduced

Fragmentation and insufficient collaboration between various stakeholders represent a challenge not only in adult VET but also in VET provision targeting youth (see Chapter 2). The Swedish government has established a Commission of Inquiry investigating the issue of fragmentation. Branch schools – currently in a pilot phase – allow provision of some elements of VET to be concentrated in fewer schools.

New reform measures aim to help newly arrived adults transition to education and labour market smoothly

While some of these targeted and universal measures are new, others were based on previously implemented measures.

- *Education and Training Obligation* (since January 2018): All newly arrived immigrants who benefit from the Public Employment Service's Introduction Programme, and who have not attained compulsory education can be referred to, apply for, and undergo education and training.
- *Education Entry Grant*: This grant aims to make it easier for low-educated adults to study at basic or upper-secondary level. The take up of the grant is lower than expected and the Swedish government plans to review it.
- *Vocational Introduction Employments (Yrkesintroduktionsanställning)*: These are based on collective agreements targeting recently arrived immigrants and other vulnerable groups (15-24 years-old). Work is combined with education with the financial support paid by the Public Employment Services. The education component (no wage entitlement) is restricted to a maximum of 25% of working hours.
- *Introduction Jobs*:⁵ The wage subsidy will be capped at a gross salary of SEK 20 000 (approximately EUR 2 000 per month), and the limit will be 80%. Uniform supervisor support is introduced.

- *Entry Agreements:* These enable newly arrived immigrants and the long-term unemployed to gain employment from an employer who participates in entry agreements. The employee is to be given the possibility of attending Swedish for Immigrants (SFI) and other short-term training programmes. An employer's total payroll expense for a position under entry agreements amounts to SEK 8 400 (approximately EUR 800) per month in 2019. In addition, the employee will receive a tax-free, individual state benefit amounting to at most SEK 9 870 per month in 2019.

Strengths of the VET system in Sweden

Sweden has a strong evaluation culture ensuring that policy is based on solid evidence

Sweden has rich sources of data, including a national register, which identifies individuals on the basis of personal identification numbers. These are linked to a range of administrative data sets, including those on education and employment. New measures are typically introduced as pilot initiatives, and if successful, scaled up. For example, the apprenticeship path operated on a trial basis initially before being introduced more widely (Ministry of Education, 2018^[1]). Areas where significant challenges are identified are examined by commissions of inquiry. For example, in the past a commission was set up to look at career guidance provision (Regeringskansliet, 2018^[15]). Currently a commission of inquiry is focusing on the fragmentation of the VET system and explores whether, and how, regional co-ordination among VET stakeholders should be encouraged and enabled.

Upper-secondary VET is provided in a flexible way and allows individuals to build on their previous knowledge and experience

Specific VET courses lead to credits, not related to study time but to the goals of the course. Thanks to a modularised structure, students can transfer credits across programmes and types of education. For example, a young person who has not acquired all the credits necessary to complete upper-secondary education can take the missing courses in the context of adult education. In upper-secondary VET, school-based VET and apprenticeships lead to the same qualifications. Students who wish to obtain a VET qualification can therefore choose a path that suits them best. While it is too early to evaluate Vocational Packages, potentially they may also promote skills acquisition among those with the lowest skills levels and facilitate completion of upper-secondary education in this population.

Higher vocational education and training has been expanding

Advanced vocational education (the precursor of HVET) was launched in 2002 after a pilot phase that started already in 1996. At this point in time, a set of post-secondary vocational programmes outside of university were provided by diverse public and private institutions subject to fragmented regulation. The government judged that these diverse arrangements needed to be drawn together under the heading of HVET to ensure quality, simplify regulation, improve the information available to students and increase labour market relevance. Since then, enrolment in HVET has been increasing fast and is expected to grow further from 50 000 today to 70 000 students in 2022 (Ministry of Education, 2018^[1]). HVET programmes are designed in close collaboration with

employers and should genuinely match the demand for relevant skills from the labour market. The growing enrolment rate shows that these programmes are in demand both among students and employers.

Sweden has strengthened links between VET and the labour market

The first OECD review of VET in Sweden argued that the VET system in Sweden was the largely separated from the world of work (Kuczera et al., 2008^[2]). At that time social partners' involvement in VET was not systematic. Since then, series of reforms have brought the worlds of VET and of work closer together. The creation of a national framework for social partners' engagements through National Programme Councils secured their systematic involvement in VET and work placement became mandatory in all VET programmes. These are considerable achievements. Building social partner engagement in VET is often very challenging.

Sweden is committed to help prepare young migrants to progress in education

Both asylum seeker and refugee children up to the age 18 have the right to attend school in Sweden up to upper secondary level,⁶ and schools are required to attempt to enrol newly arrived children within one month of their arrival. In addition, the Swedish school system has implemented measures designed to ensure that these children benefit from, and succeed in, their classes (Fratzke, 2017^[16]).

For example, newly arrived students have the legal right to tuition in their native language. Although the capacity of schools to meet existing needs varies considerably in practice, almost half of foreign-born students have benefited recently from native-language tuition. Short of tutoring, newly arrived students may receive study guidance in their native language before, during or after lessons and or in special language workshops (Berglund, 2017^[17]).

In order to support municipalities in providing newly arrived learners with appropriate education, towards the end of 2015 the National Agency for Education allocated SEK 200 million (approximately EUR 20 million) to 46 municipalities in which at least 10% of all the children in the municipality were newly arrived migrants. Then, in January 2017, a further SEK 2 138 million (approximately EUR 210 million) was allocated (2017-25) to support the capacity of public and independent schools (*friskolor*) to provide newly arrived students with education of high quality. The most relevant areas of investment are reportedly language learning, study counsellors, teachers' didactical skills, and proper organisation (Bunar, 2017^[18]).

Summary of policy options

Chapter 2: Strengthening collaboration and consolidation of the VET provision

Swedish VET is relatively decentralised and market driven with public and private providers competing for students. Chapter 2 shows that in this context, schools and school owners have weak incentives to collaborate in planning the provision of VET and that VET provision for youth is fragmented. In international comparison, Swedish upper-secondary schools offering VET programmes cater to few VET students. The chapter argues that to better match VET provision to the labour market needs and to make the system more effective, Sweden may introduce measures that foster collaboration across schools and encourage concentration of provision in fewer institutions. The

proposed measures should span the youth and adult sector and apply to all VET schools, including public and independent VET schools.

Policy options include:

- As a first step, collaboration between VET schools should be encouraged. Collaboration may cover diverse options, including sharing facilities and teachers, helping with the work-based learning component of programmes, offering specialist training to students from other schools lacking relevant teaching expertise, collective engagement with the social partners and other matters. Collaboration efforts may build on some existing initiatives, such as branch schools.
- To improve the match between the provision of VET and labour market needs, social partners should be part of this process and be able to convey their needs. Currently, provision is heavily driven by students' preferences and schools competing for students, and less so by labour market needs.
- As a second step, in programmes where economies of scale can be reached VET schools should be merged to create larger institutions, drawing on the positive experience of many other countries that have consolidated their VET school systems. In practice it would mean that VET programmes would be offered in fewer schools and the schools with VET provision would enrol a larger number of VET students. Consolidation would not prevent schools from offering both VET and Higher Education Preparatory Programmes.
- Funding incentives may be necessary to encourage and reward collaboration, and sometimes mergers, when the effect is to improve the quality of provision.
- These policy options, as well as options discussed in other chapters of this report, should apply to all VET schools, including schools run by private and public providers. Including independently run schools into this process may be a challenge. But excluding them would result in different arrangements for different providers, which would contribute to unfair competition and would discourage collaboration. This would be highly undesirable. The proposed policy options should apply to VET for youth and adults, so as different provisions complement each other. Such co-ordination of provision would allow to offer a more diverse range of courses and programmes and better address individual and local labour market needs. This is consistent with the mandate of the National Commission of Inquiry on dimensioning of upper-secondary education that focuses both on the upper-secondary system for youth and adult education.

Chapter 3: Enhancing work-based learning

Chapter 3 focuses on work-based learning (WBL) in apprenticeship programmes and WBL as a component of the upper-secondary VET programmes provided mainly in schools. In recent years, Sweden has successfully increased the provision of WBL in VET. Chapter 3 shows that Sweden could further improve the quality of workplace experience and increase the associated benefits by vesting social partners with more responsibility over WBL. It argues that by giving more prominence to WBL in planning VET provision, Sweden could tie VET delivery more closely to employer needs. Finally, it discusses how to increase the attractiveness of apprenticeships to employers and students.

Policy options include:

- To address quality challenges, WBL tasks currently assumed by individual VET teachers could be usefully shared with and supported by other bodies, such as reinforced local bodies where social partners are represented, as argued in Chapter 2 and Chapter 4.
- While retaining an important role for individual VET teachers, social partners would therefore be more involved in the organisation and management of WBL than they are now. Within this framework, the social partners, working collectively and in co-ordination with VET schools, might offer systematic support to individual companies with the provision of WBL, certification of companies offering WBL according to criteria agreed with social partners, and provide regular guidance and feedback to schools and National Programme Councils on the content of WBL and methods of assessment of practical skills.
- The responsibility of VET schools and social partners for WBL should be clearly defined and both parties should be kept accountable for delivery of WBL. The school inspectorate and social partners may share the responsibility for quality assurance of WBL in VET programmes.
- Employer willingness to offer WBL could be used more fully to steer students towards occupations in demand in the labour market, and to adjust school provision. This should improve the match between the mix of training provision and skills in demand among employers. To facilitate the match, a website platform may be created where companies and schools announce their needs in terms of WBL.
- Over recent years, the involvement of social partners in formal VET in Sweden has been gradually increasing. Apprenticeship has been growing, as have the numbers of apprentices receiving wages, but numbers remain small. Building on these trends, employers in Sweden should:
 - Be allowed to select their apprentices (as in other countries).
 - Be granted a stronger influence over the content and modes of delivery of WBL in apprenticeship.
 - Be more strongly encouraged to pay apprentices a wage.
- Wages for apprentices and stricter regulation on WBL quality would increase the cost of apprenticeship provision for employers. Financial and/or non-financial incentives may therefore also be necessary to maintain the attractiveness of the scheme to employers. Current grant support to employers providing apprenticeships should be evaluated and if necessary adjusted.
- Changes in apprenticeship schemes should be designed to increase the attractiveness of apprenticeship to employers. Governments may help employers provide good quality training and meet requirements for WBL, for example by providing a framework for co-operation across companies.

Chapter 4: Empowering social partners

Sweden has successfully built social partners' engagement in VET at the national level, but social partners' involvement at the local level varies affecting the quality of provided

education and training. The chapter argues that Sweden may create a framework for systematic social partners' involvement at the local level. The chapter discusses college initiatives that are led by the social partners and drive local provision towards specific skills requirements, often in response to labour shortages. It argues that Sweden can strengthen social partners' involvement drawing on this positive experience.

Policy options include:

- Building on existing local consultation arrangements, and the successful experience with colleges, Sweden could establish a more systematic institutional framework to engage the social partners at local level. This would promote collaboration between different stakeholders, and reinforce links between national and local bodies in which social partners are represented. A model inspired by the college initiative, in which programmes and institutions collaborate and meet the quality requirements of the social partners, could be encouraged.
- This proposition is linked to policy options advanced in other chapters of this report. Chapter 2 proposed the consolidation of VET provision in fewer but larger VET schools, facilitating social partner engagement as social partners would not have to engage with so many small institutions.
- Drawing on the Danish experience, local social partner organisations may serve as a link between local and national levels, ensuring that National Programme Councils are fully apprised of local circumstances and interests, and that local approaches take full account of national development.
- Stronger local engagement of the social partners would facilitate an enhanced role for the social partners in the quality assurance of local VET provision. This role could involve ensuring that national VET programmes are taught and configured so as to meet local labour market requirements, supporting the provision of work placements and apprenticeships, and quality assuring the work placements that are delivered. This might be underpinned by making school evaluations give credit to schools for facilitating such local engagement of the social partners, and the quality assurance which might follow.

Chapter 5: Increasing the attractiveness of VET

In Sweden, enrolment in upper-secondary VET has been falling. Chapter 5 argues that clear and workable pathways from upper-secondary VET to post-secondary education and training would increase the attractiveness of VET to students. To this end, Sweden may reinstall academic content providing eligibility for higher education in the routine coursework in VET programmes. The chapter also discusses pathways of progression from upper-secondary VET to post-secondary professional programmes and argues that these post-secondary programmes should be accessible and attractive to adults returning to education.

Policy options include:

- A strong VET system needs to be attractive to a diversity of students, including those with stronger academic performance as well as those who are less academically oriented. The evidence suggests that the declining popularity of VET in Sweden may be related to the weak pathways from VET to higher education, and VET being perceived as an option for low performing students.

- To reverse this trend Sweden may reinstall academic content in the routine coursework in VET programmes,⁷ but allow students who are less interested in academic subjects to opt out of them. Currently, all upper-secondary programmes including school-based VET and apprenticeships last three years. Combining demanding VET and academic coursework may therefore require an extension of the programme duration leading to a double qualification. The Technology Programme that can be topped up with a fourth year leading to an ‘upper-secondary’ engineering degree provides an example of a programme leading to both vocational and academic qualifications.
- Links between upper-secondary VET and the post-secondary level could usefully be strengthened and entry points from upper-secondary VET to post-secondary education diversified. For example, individuals may receive extra credits in the admission process if they bring with them the relevant work experience. Stronger and more diverse progression pathways between upper-secondary and post-secondary VET would require co-ordinated provision and co-operation among upper-secondary and post-secondary providers. Post-secondary institutions, including HVT institutions and/or university colleges, should be part of the proposed regional co-operation scheme discussed in Chapter 1.
- Post-secondary VET provision should be available to adults who wish to upgrade their competences. To attract working adults, programmes should be provided in a flexible way allowing for a combination of work and study. (Currently, most post-secondary VET programmes are full time).

Chapter 6: Unlocking the potential of migrants through VET in Sweden

Sweden is experiencing shortages of vocational upper-secondary graduates and this is expected to continue. In this context, the recent increase in humanitarian migrants presents a set of opportunities, but these can only be fully realised if Sweden can address associated challenges. Sweden already has measures supporting entry of young humanitarian migrants into vocational programmes and the labour market such as introductory programmes and, in particular, the Language Introduction Programme, which is explicitly designed for newly arrived students. However, many newly arrived students in the Language Introduction Programme experience difficulty in transitioning to a national vocational programme, exhibiting relatively low transition rates compared to other introductory programmes and to those in other countries.

As a means to address barriers preventing the success of such learners at risk of poor outcomes, Sweden recently introduced Vocational Packages into the introductory programmes. While Vocational Packages are an attractive alternative for newly arrived students, there are potential risks in introducing the possibility of obtaining partial qualifications within introductory programmes. Vocational Packages may prevent young people from considering occupations that are difficult to be modularised into shorter training programmes, resulting in young people ultimately foregoing the opportunities of building long-term employability. The introduction of Vocational Packages within introductory programmes may unintendedly provide an early exit from the initial education system for young people who otherwise show significant potential. Social partners in some sectors are concerned that young people may move into the labour force with limited work experience and academic proficiency.

For humanitarian migrants, transitions between educational institutions or programmes unfortunately present opportunities to leave or drop out of the education system. While

Sweden has a strong and well-functioning adult education system, such discontinuity is a matter for concern. For young people without an upper-secondary qualification, the transition to upper-secondary adult education is not automatic.

Policy options include:

- The policy priority should continue to be that young people, including humanitarian migrants, attain full upper-secondary qualifications. Vocational Packages should be primarily regarded as an entry point to full VET, while ensuring that partial qualifications are well integrated into the qualifications system. This can be implemented by actively providing feasible and attractive opportunities to continue in VET after Vocational Packages through building seamless VET pathways, by strengthening the co-operation between upper secondary schools and municipal adult education, and by strengthening individual assessment, personalised approaches and career guidance.
- Sweden should continue to address barriers preventing newly-arrived young migrants from accessing VET, given that newly arrived learners, in particular those who arrive in Sweden when they are in their late-teens, face extra barriers when entering into a national vocational programme. With more flexible entry requirements, more young people would enter into and complete national vocational programmes. For those who missed the chance to obtain upper-secondary qualifications within a national programme, adult education remains essential. Sweden should continue to develop and adjust a range of adult VET provision and supporting measures to better suit those students who have not attained upper-secondary qualifications and overcome institutional issues in the transition to upper-secondary adult education, including information transfer between education institutions.

Notes

¹ The Swedish Parliament reformed the introductory programmes in 2018. The resulting changes will be introduced in the school year 2019/2020. This report describes the introductory programmes as amended by the Parliament in 2018.

² Students who complete the three-year Technology Programme (TE) can also opt for a fourth vocational oriented year leading to a so-called upper-secondary engineering degree. In 2016/17 there were 527 students in the fourth year TE programme.

³ An apprenticeship path had been operating on a trial basis since 2008.

⁴ DUA has a mandate to increase dialogue between schools, employers, municipalities, public employment services (PES) and social partners to the benefit of refugees and asylum workers. DUA aims to consolidate and co-ordinate existing measures (e.g. joint skills assessment) from both PES and municipalities and build local agreements with some compulsory elements (Local Job Track).

⁵ This brings about the disappearance of former types of aid: Step-in Jobs, Special Employment Support, Enhanced Special Employment Support, Trainee Jobs Welfare and Trainee Jobs Shortage.

⁶ In order to have the right to attend upper-secondary school, asylum seekers must join the school system before they turn eighteen.

⁷ A Bill was presented to the Parliament in the second quarter of 2018 with proposals that all VET-programmes should by default include courses necessary to obtain basic eligibility to higher education. The proposal included an opt-out solution. The Bill was rejected by the Parliament (www.regeringen.se/495397/contentassets/5bd6e1343c8f403785b394ec275d7073/okade-mojligheter-till-grundlaggande-prop.-201718.184.pdf).

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Chapter 2. Strengthening collaboration and consolidation of vocational education and training provision in Sweden

Swedish vocational education and training (VET) is relatively decentralised and market driven with public and private providers competing for students. Chapter 2 shows that in this context, schools and school owners have weak incentives to collaborate in planning the provision of VET. In international comparison, Swedish upper-secondary schools offering VET programmes cater to few VET students. The chapter argues that to better match VET provision to labour market needs and to make the system more effective, Sweden may introduce measures that foster collaboration across schools and encourage concentration of provision in fewer institutions. The proposed measures should span the youth and adult sector and apply to all schools with VET provision, including public and independent schools.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Introduction: Background

In Sweden, tension has emerged in recent years between different policy objectives bearing on vocational education and training (VET) schools and their owners. VET schools are granted a substantial amount of autonomy, while remaining accountable for their results. A market in upper-secondary education (including VET) has allowed many for-profit VET schools to emerge. An over-arching issue is the relatively small size of VET schools in Sweden, relative to international counterparts. This introduction describes these developments, while the following sections discuss how they have imposed conflicting pressures on the VET school network, and how they can be addressed.

Governance in VET

Successful VET systems include a range of models. Olivier (2010^[1]) argues that a well-managed VET system is efficient, responds well to student and employer needs, is easy to access and navigate and is open to change and reform. The governance of vocational education and training is demanding, not least because it needs to involve employers and usually also unions, as well as VET providers. Governance needs to take into account how VET policy responsibilities are distributed across national, regional, local or school level, and how other bodies and stakeholders that influence VET policy interact and cooperate (Olivier, 2010^[1]).

Local autonomy and accountability in OECD school systems

Many countries have increased school autonomy, balanced by accountability

Since the early 1980s, many school systems, such as those in Australia, Canada, Finland, Hong Kong (China), Israel, Singapore, Spain, Sweden and the United Kingdom, have granted localities and individual schools greater autonomy in relation to decisions about curricula and resource allocation (OECD, 2016^[2]). These reforms were driven by the idea that individual schools, and their leaders, are better-placed than more remote central authorities to identify local requirements and learning needs, and therefore determine how they might best be met. It is also accepted that local autonomy needs to be balanced by effective accountability systems that challenge local actors to demonstrate that they are meeting locally defined needs (OECD, 2016^[2]). Accountability measures seek to ensure that all students, independently of where they live and which school they attend, receive education meeting quality standards.

The same balance between autonomy and accountability applies to VET schools

These arguments for a balance between autonomy and accountability also apply to VET systems, but they are also modified by the need for VET programmes to prepare for occupations, as well to offer general education. The level of local autonomy and national supervision can vary largely across countries, ranging from models with great institutional autonomy such as in the United States, to systems with a high level of national or regional guidance and control. Sometimes, a national (or regional) level body maintains responsibility for those aspects of VET that have an impact on the labour market (e.g. occupational qualifications).

Autonomy and accountability in Swedish VET provision

In Sweden, the owners of VET schools decide on many aspects of VET

The Swedish education system, including that related to VET, is relatively decentralised. The Programme for International Student Assessment (PISA) 2015 shows that at lower secondary level, Swedish schools have one of the highest levels of autonomy among OECD countries (OECD, 2017^[3]). These findings are an indicator of how things work at upper-secondary level as similar rules in terms of school autonomy apply to upper-secondary education. Municipalities, as the owners of most VET schools, have full employer responsibility for all school staff, allocation of resources between different parts of the school system, school organisation and adult education, developing, following up and evaluating their own activities, and continuous professional development for staff (Ministry of Education, 2015^[4]).

The Swedish government steers and oversees VET policy

Despite decentralisation, all schools (owned by independent and public authorities) are run according to the prescriptions of the Education Act. Goals for upper-secondary VET are set nationally, while localities decide how these objectives and goals should be reached. Within a nationally defined curriculum, schools choose which courses to offer to meet local and regional needs (Equavet, 2018^[5]). Measures of quality are also defined nationally and all upper-secondary schools are evaluated by the Swedish School Inspectorate. Other national requirements define funding rules and requirements for teachers.

Markets in education

Market models are intended to increase choice and drive quality improvements

In market approaches, a range of education providers, including both public and private entities, and schools compete for students. The market is intended to enlarge the choice of educational options available to parents and students and encourage more efficient provision. In some systems, schools compete for public funding through their capacity to attract students. Direct public funding of independently managed institutions, based on student enrolments or student credit-hours, is one model for this. Public funding can cover all tuition costs with no fees for students, as in Sweden, or can cover only part of the cost with students paying the remainder. In many countries, some or all privately run schools receive no subsidies from the government and rely entirely on tuition fees paid by students.

Many countries have partial markets in VET provision

Provision of VET by private providers differs by country. In Switzerland the formal upper-secondary VET system is largely run by the public sector, while the post-secondary VET and VET for adults are dominated by private institutions (OECD, 2016^[6]; Swiss Coordination Centre for Research in Education, 2014^[7]). In the Netherlands, VET programmes offered by private providers that are accredited by the ministry are fully funded with public money (Eurydice, 2018^[8]). In Norway, the overwhelming majority of upper-secondary VET students are enrolled in public institutions. In 2017/18, only 8% of all upper-secondary students were in privately run institutions (vibli.no, 2018^[9]). Privately run schools in Norway receive public money but can charge some tuition fees.

In Finland, 60% of vocational institutions are maintained by local authorities, joint municipal authorities and the State. Upper-secondary VET institutions maintained by private organisations account for 40% of the market and enrol around 20% of students (Koukku and Paronen, 2016_[10]), mainly in specialised and adult vocational programmes. When these sectors are excluded, the privately run institutions account only for 25% of the upper-secondary VET institutions (Stenstrom and Virolainen, 2014_[11]). Funding criteria are uniform irrespective of ownership. The Finnish education ministry grants authorisations to VET providers, defining the fields of education in which they are allowed to provide education and training and their total student numbers. Within this framework VET providers choose specified fields of vocational education in which they offer study programmes and qualifications (Koukku and Paronen, 2016_[10]).

The introduction of markets in VET can be challenging

Some countries, such as England and Australia are heavily reliant on private providers in VET (Field, 2018_[12]). Evidence from these countries urges some caution with a market approach. In Australia, there is a long-established market in the provision of post-secondary VET, with public and private providers competing for public money. Recent reforms, particularly in some states, have further encouraged the growth of the private sector. These reforms aim at increasing the number of VET participants, improve access to post-secondary education, and boost student choice. However, the reforms also created a system that is complex and difficult to understand for students, and where quality varies greatly across providers (OECD, 2017_[13]; Hurst, 2015_[14]).

Markets in education in Sweden

Private and public providers compete in upper-secondary education in Sweden

The market in the Swedish upper-secondary school system, including VET, involves the following elements: 1) accredited independent education providers can freely compete for students; 2) students have a far-reaching right to choose between the different education providers' offerings; 3) students' choices determine the allocation of financial resources between schools; and 4) there are no tuition fees (Skolverket, 2012_[15]).

Independent schools are run by private entities but are publicly funded

Independent upper-secondary schools are funded through a voucher system which funds schools according to the number of students enrolled. The amount of funding per student and criteria according to which the funding is allocated are roughly the same for municipal and independent schools. Permission to start an independent school is issued by the School Inspectorate and is given on the condition that the school follows the nationally provided syllabus and teaches the same democratic values as schools run by the municipalities (Skolinspektionen, 2015_[16]). The majority of upper-secondary students in independent schools attend schools run by for-profit companies (Skolverket, 2014_[17]).

The independent sector has remained relatively stable over time

In 2013/14, 27 % of upper-secondary VET students were enrolled in independent schools, rising to 29% in 2017/18. In 2013, around one in three upper-secondary schools were independently run (Skolverket, 2014_[18]; Skolverket, 2012_[19]).

The gap in resources for education has widened across municipalities

Upper-secondary providers include both the municipalities that run most public sector schools, and the private companies that own and run most independent schools (Skolverket, 2014_[17]). Municipalities are obliged to provide compulsory and upper-secondary education to all young people and low educated adults, placing them in a very different situation from independent providers. Evaluations show that larger municipalities tend to attract more students than small ones (i.e. after taking account of the fact that they have larger catchment populations) (Skolverket, 2012_[15]). Since there are economies of scale in provision, the unit cost of education in municipalities losing out in the competition tends to rise (presumably because of the fixed cost of half empty buildings, staff that need to be paid, etc.). The end result is that differences in unit expenditure (expenditure per student year) has increased across municipalities (Skolverket, 2012_[15]).

The challenge: Small average size of VET schools with weak co-operation between them*How the size of VET schools is defined*

The term “VET schools” designates schools offering VET programmes recognising that most of the upper-secondary schools in Sweden offer both VET and higher education preparatory programmes. The size of the VET school, as discussed in this report, refers to the number of students enrolled in the VET programmes by institution.

Swedish schools might concentrate the provision of VET programmes if they obtain economies of scale

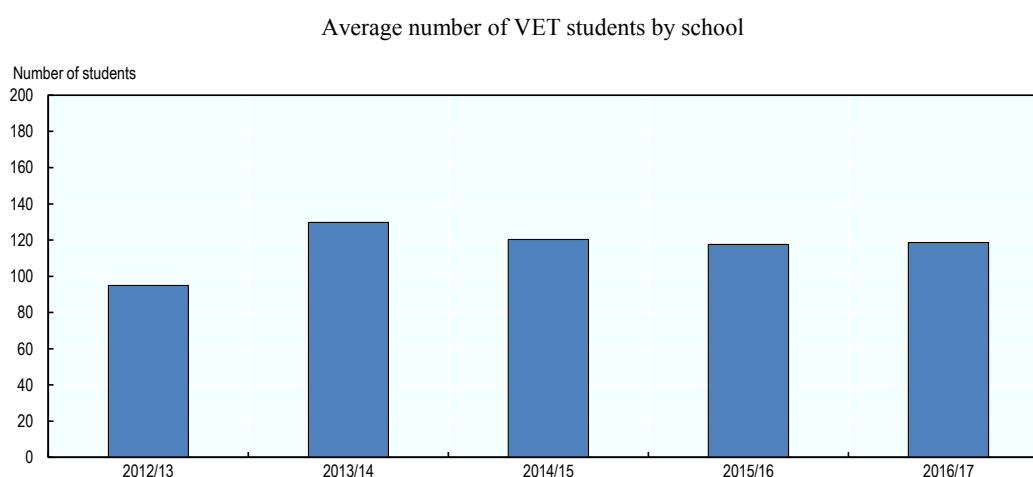
Swedish schools enrol fewer VET students on average in comparison to other countries, sometimes ten times fewer than, for example, some Finnish schools. Given economies of scale, the small size of schools increases the cost of VET provision in some programmes and increases the risk that students will follow a programme that is not adequately linked to their career interest. As a first step towards consolidation of the school network, collaboration across VET providers and VET schools could be improved, recognising that competition among VET providers and VET schools for students tends, inevitably, to discourage collaboration. Sweden might therefore improve both efficiency and the match between VET provision and labour market needs by, in the short term, promoting collaboration among VET providers and VET schools, and, in the longer term by rationalising the network of VET schools to increase the average size of VET schools.

Other countries maintain much larger VET schools than Sweden

By the standards of other European countries, Swedish VET schools are very small, with average enrolments per school at around 100 pupils (Figure 2.1). This compares, for example, to a system like that in the Netherlands where many VET upper secondary schools enrol several thousand pupils. Differences of this order of magnitude are associated with a totally different capacity to address highly specialised technical areas with dedicated staff, and to purchase the very expensive equipment associated with these specialities. In Sweden, in 2017 there were 1 313 upper-secondary schools, of which 794 provided vocational programmes (Skolverket, 2017_[20]). In the Netherlands, with nearly twice Sweden's population, there are 43 regional multisectoral VET colleges (*regionale opleidingscentra*), 12 specialist trade colleges specific for a branch of industry

(*vakscholen*), 11 agricultural training centres (*agrарische opleidingscentra*) and one school for people with disabilities in hearing, language and communication (Smulders, Cox and Westerhuis, 2016^[21]). Like Sweden, in France and Finland the majority of young VET students are enrolled in school-based programmes. In Finland, 96 vocational institutions enrol on average more than thousand students (Official Statistics of Finland, 2018^[22]). In recent years the government has further encouraged schools to consolidate. The French VET system, on the contrary, is characterised by a large number of institutions. In 2016, a VET school (*Lycée Professionnel*) enrolled 300 students on average (Ministère de l'éducation nationale, 2017^[23]). But a study by the Court of Auditors judged the system as inefficient. It recommended an increase the size of institutions and a review of the funding mechanisms that currently favour small schools (Cour des Comptes, 2015^[24]).

Figure 2.1. How big are VET schools in Sweden?



Source: Adapted from Skolverket (2017^[20]), *Accounting for Government Assignments*; Ministry of Education (2018^[25]), *Review of VET in Sweden. Background Report*.

StatLink  <http://dx.doi.org/10.1787/888933927476>

There is no definition of the perfect size for a VET provider or a VET school

Sometimes, consolidation may increase efficiency – similar or higher quality services are offered at a lower price. The efficiency gains from economies of scale may be set against some clear losses, such as longer travel times for school students. Across many countries, school mergers are often desirable, but rarely popular. As a first step towards consolidation, stronger co-operation between providers and schools may be encouraged.

Many countries have concentrated their VET provision and promoted collaboration

While Denmark, Estonia and Finland show some similarities with Sweden in their VET systems, provision in the three countries is much more institutionally concentrated than in Sweden. This reflects a trend in all three countries towards institutional consolidation, with a series of mergers leading to a considerable reduction in the number of institutions (Box 2.1).

Box 2.1. Consolidation of VET provision in Denmark, Finland and Estonia

Denmark

In recent years, the trend has been towards institutional consolidation, with a series of mergers leading to a considerable reduction in the number of VET institutions. Remaining institutions are larger and can offer students a greater choice of programmes. Currently in Denmark there are around 90 technical colleges offering upper-secondary education. Upper-secondary VET programmes are divided in two parts: a basic programme that is predominantly college based, and a main programme during which students alternate work placement with college education. The basic programme aims to equip students with general skills (e.g. in mathematics, Danish, English) and broad vocational skills. In addition to upper-secondary VET programmes these institutions also offer higher technical and commercial examinations, programmes combining upper-secondary academic and VET education and adult vocational courses. They can provide short-cycle higher education programmes and courses for enterprises in collaboration with higher education institutions (Andersen and Kruse, 2016^[26]).

Finland

Finland has encouraged mergers of VET institutions, so during the period 2005-2017 the number of vocational institutions decreased from 182 to 96, while enrolment only dropped by 2%, so that institution size increased dramatically. In 2005, there were 60 institutions with less than 300 students, falling to 28 in 2013. A similar trend was observed in adult education, where the number of providers nearly halved between 2005-2017 (Koukku and Paronen, 2016^[10]; Stenstrom and Virolainen, 2014^[11]; Official Statistics of Finland, 2018^[22]). In parallel, the Finnish government has strongly encouraged institutions and other stakeholders to co-operate and network.

Estonia

To increase the quality and efficiency of VET in Estonia, many small providers were merged into regional VET centres offering a wide range of qualifications. Adjustments will continue in line with demographic trends (Cedefop, 2017^[27]).

Source: Andersen, O. and K. Kruse (2016^[26]), "Vocational education and training in Europe – Denmark.", *Cedefop ReferNet VET in Europe Reports*; www.cedefop.europa.eu/en/publications-and-resources/country-reports/denmark-vet-europe-country-report-2016; Cedefop (2017^[27]), *Vocational Education and Training in Estonia: Short Description*, www.cedefop.europa.eu/en/publications-and-resources/publications/4155; Koukku, A. and P. Paronen (2016^[10]), "Vocational education and training in Europe: Finland", *Cedefop ReferNet VET in Europe Reports*, http://libserver.cedefop.europa.eu/vetelib/2016/2016_CR_FI.pdf; Official Statistics of Finland (2018^[22]), *Providers of Education and Educational Institutions 2017*, http://www.stat.fi/til/kjarj/2017/kjarj_2017_2018-02-13_tie_001_en.html; Stenstrom, M. and M. Virolainen (2014^[11]), *The Current State and Challenges of Vocational Education and Training in Finland* <http://www.voced.edu.au/content/ngv%3A66853>.

Insufficient collaboration has been recognised as a challenge

When VET schools are small, as in Sweden, the need for collaboration increases, so that equipment, facilities and specialist expertise can all be shared. Such collaboration means that the potential inefficiencies arising from small schools are mitigated. Such collaboration, on occasion, may also be a very effective precursor to merger, sometimes allowing existing buildings and sites of delivery to be retained. There are some good

Swedish examples of effective collaboration across providers in the area of VET (e.g. in the Göteborg region). However, in other parts of the country co-ordination is less common (Skolverket, 2017_[28]; OECD, 2016_[29]).

Despite incentives for co-operation in adult education, large differences in the level of co-operation at the regional level remain

To promote a wider range of adult VET courses, since 2016 the government has rewarded collaboration in planning the provision of adult VET across municipalities with grants. The co-operation should involve at least three municipalities and cover a range of bodies providing services for adults, such as municipalities and Public Employment Services (Ministry of Education, 2018_[25]). A study evaluating the initiative one year after its introduction shows that matching provision of education to regional demand for labour is challenging (Skolverket, 2017_[28]). Local employers felt that they were often unable to communicate their needs at the regional level, and that municipalities were concentrating too much of their attention on training in the health sector, where municipalities are the major employer. (Two-thirds of the adult VET participants are enrolled in health and social care courses). The study also reports wide variations in the level of co-operation at the regional level (Skolverket, 2017_[28]).

New structures have been created but their impact remains limited

Regional Competence Platforms (*Regionalt utvecklingsansvariga*) are bodies run by regions that are expected to evaluate the regional demand for skills and the corresponding educational offer, and to foster regional co-operation. But the scope and outcomes of the Platforms vary across regions, and their impact on planning provision of VET seems to be limited (OECD, 2016_[29]).

A National Commission of Inquiry has been set up to examine the issues of co-ordination and consolidation of VET provision

The National Commission of Inquiry on dimensioning of upper-secondary education for youth and adults is exploring how provision might be steered and co-ordinated at a regional level and how this level could be reinforced.

Policy options

- As a first step, collaboration between VET schools should be encouraged. Collaboration may cover diverse options, including sharing facilities and teachers, helping with the work-based learning component of programmes, offering specialist training to students from other schools lacking relevant teaching expertise, collective engagement with the social partners and other matters. Collaboration efforts may build on some existing initiatives, such as branch schools.
- To improve the match between the provision of VET and labour market needs, social partners should be part of this process and be able to convey their needs. Currently the provision is heavily driven by students' preferences and schools competing for students, and less so by labour market needs.
- As a second step, in programmes where economies of scale can be reached VET schools should be merged to create larger institutions, drawing on the positive

experience of many other countries that have consolidated their VET school systems. In practice it would mean that VET programmes would be offered in fewer schools and the schools with VET provision would enrol a larger number of VET students. Consolidation would not prevent schools from offering VET and Higher Education Preparatory Programmes.

- Funding incentives may be necessary to encourage and reward collaboration, and sometimes mergers, when the effect is to improve the quality of provision.
- These policy options, as well as options discussed in other chapters of this report, should apply to all VET schools, including schools run by private and public providers. Including independently run schools into this process may be a challenge. But excluding them would result in different arrangements for different providers, which would contribute to unfair competition and would discourage collaboration. This would be highly undesirable. The proposed policy options should apply to VET for youth and adults, so as different provisions complement each other. Such co-ordination of provision would allow to offer a more diverse range of courses and programmes and better address individual and local labour market needs. This is consistent with the mandate of the National Commission of Inquiry on dimensioning of upper-secondary education that focuses both on upper-secondary system for youth and adult education.

Policy arguments and implementation

This section discusses the benefits to Sweden of consolidation in VET provision. It argues that co-operation across VET providers and schools would help address some negative consequences associated with a large number of small VET schools. It also suggests how Sweden may successfully consolidate its VET system drawing on existing initiatives.

Sweden would benefit from consolidation of VET provision

VET school consolidation, through a decrease in the number of schools and increase in their average enrolment, may have some benefits, but the consolidation would need to be handled carefully to avoid undesirable effects.

Benefit 1: Larger schools can lower the cost of provision

Provision of some types of VET programme is very expensive, given the cost of equipment and the need for small groups for practical demonstrations, so the cost of good quality provision is particularly high for small schools, where class sizes are small, or where unexpected fluctuations in student numbers mean that some teachers and workshops cannot be easily redeployed. For this reason, VET providers (municipalities or private providers), and especially those with many schools attracting few students, may curtail the offer of expensive VET programmes and privilege programmes that are cheaper to offer, because they are more classroom-based or because they do not require expensive equipment. Industry representatives in Sweden have already expressed concern that some VET programmes are under-provided in some regions (Skolverket, 2015_[30]).

Economies of scale are more salient in VET than in general education

By concentrating provision, the cost of providing VET programmes could be lowered and/or quality improved, as the fixed cost associated with running a VET programme is,

within reason, independent of the number of students. For example, if there are three schools in the area offering a similar VET programme, all three schools have to equip workshops and hire VET teachers to run the programme, sometimes in very small classes. Sharing the teachers and workshops either through collaboration between schools, or through actual school mergers, would therefore yield efficiencies. While there may also be economies of scale in general education, the need for equipment and a high level of specialisation mean that these economies of scale are more salient in the context of VET.

Benefit 2: It can better match labour market needs

Providers and schools competing for students favour programmes that are popular with young people. While there might be an overlap between student preferences and labour market needs, evidence shows that the current situation leads to a mismatch in provision and demand for skills. A recent OECD study evaluating skills mismatches in Sweden argues that the current system favours short-sighted and uncoordinated approaches to education and training at the local level resulting in skills imbalances (OECD, 2016_[29]). Chapter 3 suggests that the introduction of the mandatory work placement, in principle reflecting employers' needs, could improve the match but currently only some schools evaluate the availability of relevant work places when planning the provision (Skolverket, 2016_[31]).

Benefit 3: Larger VET schools can help to address teacher shortages

Economies of scale also apply to teaching staff, particularly in the occupational fields which are less common. Concentration of VET programmes in larger institutions may therefore alleviate VET teachers' shortages that are expected to worsen in the future. It is estimated that the demand for qualified VET teachers will exceed the supply by over 30% by 2035 (Skolverket and ReferNet Sweden, 2016_[32]).

Benefit 4: Larger VET schools may facilitate the involvement of social partners at the local level

In Sweden, every VET school is expected to establish collaboration with the social partners through Local Programme Councils. Social partners' involvement is also sought by other sectors such as higher VET, adult VET and VET for people with disabilities, further increasing the expectations on social partners. Such a large number of interlocutors makes it nearly impossible to establish meaningful collaboration with each institution, and individual schools may therefore only realise very patchy collaboration. Larger schools would mean that social partners' involvement could be focused more meaningfully on collaborative endeavours.

Benefit 5: A more consolidated system may improve attractiveness of VET

Larger VET schools could become regional VET hubs, with high quality equipment and strong support of social partners. The Finnish example is instructive: extensive consolidation in the VET school network has been associated with increased enrolment in VET.

Co-operation across various stakeholders minimises the side-effects of larger schools

It has been suggested that consolidation can damage teacher morale and make for a more impersonal school environment (Ares Abalde, 2014^[33]). With these risks in mind, following school mergers teachers may need to be supported to improve co-operation and to take advantage of the better professional development opportunities that emerge in larger schools. Sometimes larger schools mean longer travel times for students, and long travel times are associated with motivation and drop out problems (Ares Abalde, 2014^[33]), though this may be less of a factor in upper-secondary schools with older students. Inevitably, consolidation tends to have the biggest impact on travel times in rural and sparsely populated areas, such as in northern Sweden. Conversely, consolidation may also mean that students in more rural areas attend a large well-equipped school, of a type previously only found in urban areas. Co-operation across various stakeholders, including stronger collaboration across providers, would help to minimise these potential side effects.

In Sweden, consolidating VET schools would create implementation challenges

In Sweden, even decreasing the number of VET institutions by half would result in an average school size of around 250 students, less than in most other countries. As the school network is gradually consolidated, additional support measures would be necessary. For example, Finland encourages institutions to network and collaborate to minimise the negative consequences of the consolidation (Eurydice, 2018^[34]). The section below discusses how consolidation might best be managed. Consolidation of VET provision in the adult sector, while challenging, should be easier to implement than in VET for youth. In adult education, municipalities keep the sole responsibility for provision of VET courses.¹ By comparison, in VET for youth the provider landscape is more complex as the provision is defined by municipalities and private providers. Municipalities are also not obliged to take into account students' choice when defining the provision of courses for adults. As argued below, student choice that drives the mix of provision in VET for youth and its associated funding discourage schools from collaboration. School specialisation and systematic use of standards would support consolidation.

Schools specialisation would be linked to consolidation

Specialisation of schools, focusing provision on just one field of study, such as health care, has many advantages and would be a natural part of the consolidation process. This could draw on experience with the recently introduced branch schools (*branschskola*) pilot scheme. Many young students are reluctant to change schools. The branch school pilot is meant to provide more insight on this topic. One option is for students to start their upper-secondary VET programme in their local school with an emphasis on more general education and training, and then move to a more specialised VET school in their second or third year. This would reduce the potential problems associated with younger students moving far from home and spending long hours on commuting, or having to live away from home.

Box 2.2. Branch schools in Sweden

In 2018, a pilot exercise was launched, designating ten schools as branch schools, offering specialised VET programmes in sectors and areas where provision is inadequate to meet labour market demand, either because there are not enough students applying for these programmes, or the cost of provision is too high for regular VET schools. VET schools can apply for state grants to send their students for at least six weeks to a branch school participating in the pilot (Skolverket, 2018^[35]), obtaining the part of their education and training that cannot be provided in the local school. An advantage of this approach is that students can receive most of their education and training in local schools and attend the more remote institution only for more specialised education and training. If successful this initiative could be scaled up, with smaller and more costly specialisations concentrated in a small number of institutions.

Source: Skolverket (2018^[35]), *Statsbidrag för försöksverksamhet med branschskola 2018 - Skolverket*, www.skolverket.se/skolutveckling/statsbidrag/statsbidrag-for-forsoksverksamhet-med-branschskola-2018.

Co-ordination across VET for youths and adults would allow to better match individual and local labour market needs

The government has already introduced financial incentives promoting collaboration across municipalities in planning the provision of VET for adults. The next step would be to encourage and build co-ordination of provision not only within specific parts of the system but also across its different elements, including VET for adults and youth. Co-ordination across youth and adult VET is one of the issues examined by the National Commission of Inquiry on the dimensioning of upper-secondary system. Co-ordination of VET provision across different parts of the system would enable the provision of a diverse range of courses and programmes and better respond to the skill needs of individuals and demand for skills from the local labour market.

Lack of co-operation contributes to fragmentation

A number of recent reports have argued for a more collaborative approach to VET provision in Sweden, whereby the number of training places in any specific VET programme and their geographic location would be determined by VET stakeholders collectively in the light both of labour market needs and student demand. The National Commission notes that the lack of co-ordination and joint planning among providers may have resulted in inefficient use of resources, shortages of VET programmes in some areas, and skills mismatch (Regeringskansliet, 2018^[36]). An OECD study of skills mismatches argues that strengthening co-operation in educational planning at the local level would help to consolidate provision and maximise the benefits from investment in education (OECD, 2016^[29]).

Existing initiatives go in the right direction but are not sufficient

Some features of the current system such as the way in which unconstrained student choice drives the mix of provision, and how school competition for students and associated funding tends to discourage collaboration between schools, would need to be addressed. Existing initiatives, such as those which aim at enhancing collaboration, are not sufficient to offset the effect. Co-operation should therefore be encouraged more vigorously, for example by linking it to school evaluation and funding criteria. Involvement of social partners in regional planning should be mandatory and their perspective should be taken into account in defining VET programmes on offer.

Note

¹ However, municipalities may procure education from private providers and students are free to choose among different institutions.

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Chapter 3. Enhancing work-based learning in the vocational education and training system in Sweden

Chapter 3 focuses on work-based learning (WBL) in apprenticeship programmes and WBL as a component of the upper-secondary VET programmes provided mainly in schools. In recent years, Sweden has successfully increased the provision of WBL in VET. Chapter 3 shows that Sweden could further improve the quality of workplace experience and increase benefits associated with WBL by vesting social partners with more responsibility over WBL. Finally, it discusses how to increase the attractiveness of apprenticeships to employers and students.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Introduction: Background

The chapter looks at work-based learning (WBL) in two contexts: full apprenticeship programmes and as a component of the upper-secondary vocational education and training (VET) programmes provided mainly in schools. In Sweden, WBL is mandatory in upper-secondary National VET Programmes and students choosing VET can opt for an apprenticeship path. These are strong elements of the Swedish VET system. This chapter argues that Sweden can further improve the quality of workplace experience by shifting more responsibility over some of its aspects to social partners.

This introduction first defines work-based learning (WBL), and then explains its potential benefits.

WBL is defined

Work-based learning (WBL) refers to learning through participation in, and/or observation of work, under the supervision of an employer. Vocational programmes including WBL typically lead to a recognised qualification, and involve a structured mix of:

- WBL: work placement with an employer that leads to the development of new skills, and that can involve productive work.
- Off-the-job education and training at school, college or other educational and training provider involving no or limited productive work.

Reasons for promoting WBL

There is wide recognition of the value of WBL

Programmes including work placements have been widely recognised as an effective means of equipping people with both generic and job relevant skills, by combining learning and work (OECD, 2010^[1]). The benefits depend on both the length and quality of work placements and together these factors define how effective WBL is in developing the skills required in target jobs, and in transitioning people, particularly young people, into the labour market.

Workplaces provide a strong learning environment

WBL allows students to acquire practical skills on up-to-date equipment and under trainers familiar with the most recent working methods and technologies. Rapidly changing technologies mean that equipment quickly becomes obsolete, and VET training providers are sometimes unable to afford modern equipment. Workplace training will therefore often be more cost-effective, since it makes use of equipment already available in enterprises. In the workplace, students also develop key soft skills, such as dealing with customers, work discipline, teamwork, and problem-solving. Much evidence indicates the growing labour market importance of soft skills (Deming and Kahn, 2018^[2]) and suggests that many soft skills are more effectively learnt in workplaces than in classrooms (OECD, 2010^[1]).

WBL improves school-to-work transition

There is some evidence that VET graduates who have experienced more WBL (such as apprentices) have stronger labour market outcomes, in terms of duration of job search, unemployment spells and wages, than those who choose another type of upper-secondary education (Bratberg and Nilsen, 1998^[3]; van der Klaauw, van Vuuren and Berkhout, 2004^[4]). Overall, countries with a high share of youth in apprenticeships have lower rates of disconnected youth and youth experiencing a difficult transition to employment (Quintini and Manfredi, 2009^[5]). First labour market experiences have lasting consequences. Youth unemployment has long-term scarring effects with high costs for both individuals and society (Bell and Blanchflower, 2011^[6]; Nilsen and Reiso, 2011^[7]).

Evidence on long-term effect is more mixed

Some research studies argue that while vocational education and training leads, in the short term, to positive outcomes by facilitating labour market entry, this initial advantage disappears in the long term (Hanushek, Woessmann and Zhang, n.d.^[8]). Forster, Bol and van de Werfhorst (2016^[9]) confirm that VET is associated with early career benefits, with the benefits being the largest in countries with strong apprenticeship systems. They show that only in some countries, the early career advantage associated with VET turns into a disadvantage later on. In others there is no clear evidence of a negative effect. Benefits associated with VET therefore depend on the content and organisation of the programme. The results of the two studies should be treated with caution as they suffer from many limitations. They draw conclusions based on an analysis of cross-sectional data, which means that they were unable to separate the age, period, and cohort effects that all influence career trajectories. A more fundamental underlying difficulty is that academic and VET programmes often prepare for different careers (Kuczera, 2017^[10]).

WBL is beneficial to employers

WBL yields useful work for the employer, and is a means of recruitment. When students undertake useful work, it benefits the employer (Walther, Schweri and Wolter, 2005^[11]; Mühlemann, 2017^[12]; Kuczera, 2017^[10]). Longer duration WBL allows employers to develop some firm-specific skills in their trainees/apprentices, as well as the broader but still occupation-specific skills that are formally required as part of the VET programme (e.g. the physics of electricity for electricians). Employers taking on apprentices or trainees can observe their performance during the work placement and recruit the best from among them.

WBL ensures VET provision matches labour market needs

Employer willingness to offer work-based learning is an indicator of their support for the associated vocational programme. Employers can influence the number and mix of places in VET through their willingness to offer workplace training. Even short work placements can serve to signal the skills needs of employers, while programmes which are more substantially reliant on WBL (including apprenticeships, but also vocational programmes with a large element of WBL) can also be more responsive to changing employer demand, as a substantial part of education and training is provided in the work place. VET colleges and schools, on the contrary, may find it difficult to respond to rapidly changing demand, as new equipment is costly, teachers and trainers cannot be easily changed or retrained, and programmes take some time to complete. As a result, in programmes dominated by school-based provision, with little or no WBL, the mix of

provision may be biased towards the training that schools and colleges can easily provide, based on their existing equipment and teaching staff.

WBL in the Swedish VET system

In Sweden, WBL is offered in different ways in different VET programmes

Sweden offers a variety of VET programmes at different levels and targeting different populations. In most cases, WBL is mandatory (Table 3.1). There is also a form of private sector apprenticeship, run by industrial sectors and provided outside the formal education system: in some trades, such as for electricians, new employees pursue this form of apprenticeship, managed by their employer, before becoming fully qualified workers.

Table 3.1. An overview of WBL in VET programmes in Sweden

VET programme		WBL
Introductory programmes	Vocational Introduction	WBL is compulsory but its extent may vary. May be offered as an apprenticeship.
	Programme Oriented Option*	WBL is compulsory in programmes preparing for school-based national VET programmes or apprenticeship (for youth), but its extent may vary. May be offered as an apprenticeship
	Individual Alternative	WBL may be offered and its extent may vary. May be offered as an apprenticeship.
School-based National VET Programmes (3 years)		WBL is mandatory. It covers at least 15 weeks corresponding roughly to 13% of the programme time.
Apprenticeship (for youth) (3 years)		WBL is mandatory. At least 50% of the programme time is spent in the workplace.
School-based VET and apprenticeship for adults		WBL is optional within school-based VET. However, to obtain state grants, schools must provide WBL representing: 15% of the study time in school-based VET and 70% of the study time in apprenticeships.
School-based VET for students with learning disabilities (4 years)		WBL is mandatory. Minimum of 22 weeks of WBL.
Apprenticeship for students with learning disabilities (4 years)		WBL is mandatory. At least 50% of the programme time is spent in the work place.
Higher VET		WBL is mandatory in programmes lasting two years and should represent at least 25% of the programme time. WBL is not mandatory in one-year programmes.

Note: * This programme has recently been reformed. Previously it prepared only for entry to VET-programmes. The new programme will prepare for all National Programmes. Changes are introduced for students who start in the third quarter of 2019.

Source: Ministry of Education (2018^[13]), *Review of VET in Sweden. Background Report*; Skolverket and ReferNet Sweden (2016^[14]), “Vocational education and training in Europe – Sweden”, *Cedefop ReferNet VET in Europe Reports*, https://cumulus.cedefop.europa.eu/files/vetelib/2016/2016_CR_SE.pdf.

Most upper-secondary VET students receive WBL

A survey of school principals and teachers showed that in 2011/12 - 2013/14, only 4% of all upper-secondary VET students failed to receive the amount of WBL formally required by the regulations. Two-thirds of the cohort received 15 weeks and around 30% received WBL of 17-49 weeks. Approximately 5% carried out workplace training lasting at least 50 weeks, corresponding to students following the apprenticeship route (Skolverket, 2016^[15]).

The VET school is responsible for WBL

The Swedish VET system is highly decentralised, with individual schools having the main responsibility for education and training provision, including the organisation and management of WBL both in school-based and apprenticeship programmes. Schools are expected to ensure in both school-based VET and apprenticeship that the WBL component is in line with the learning objectives defined in the upper-secondary VET curriculum. Schools are free to organise the time-sequencing of WBL to fit the needs of the learner and local employers. For apprenticeship training, WBL could for example be organised over a couple of days per week, every second week during the entire programme or in a block at the end of the programme (Ministry of Education, 2018^[13]). In apprenticeship programmes, a learning agreement signed by the school, the employer and the apprentice defines which parts of the curriculum will be delivered in the workplace and which in school. WBL is optional in VET for adults, presumably reflecting the fact that many adults already have extensive work experience (Ministry of Education, 2018^[13]).

A series of incentives seek to promote training of trainers

Every work place offering WBL as part of an upper-secondary VET programme must have a designated trainer who supports and monitors the student's progress during the WBL period. There are no firm training requirements for such designated trainers, but state grants are channelled through schools to provide incentives (max SEK 10 000/EUR 960 per year) to employers to train trainers. Grants are also available to social partners providing training for trainers (Box 3.1).

Box 3.1. Online training for workplace trainers in Sweden

This programme is designed for current and prospective designated trainers in enterprises offering WBL, as part of VET programmes, and for VET teachers in schools. It involves the equivalent of two days coursework, and includes four introductory general modules and a supplementary module that covers apprenticeship. Each module contains small film scenes followed by interactive exercises. All theoretical content is presented as animated short films (sketch notes). It can be followed online in a flexible way, whenever and wherever it suits the trainer, and has been developed for different devices, including smartphones and tablet computers. The training is free of charge to participants and is funded by the National Agency for Education. As of November 2018, more than 28 000 employer-based trainers had completed the programme, as well as 3 700 VET teachers (about half of the total).

Source: Ministry of Education (2018^[13]), *Review of VET in Sweden. Background Report*.

Government grants support employers and schools providing apprenticeships

Upper-secondary VET schools can apply for a grant that is partly earmarked for the employer taking on an apprentice. The school can receive up to SEK 5 000 per student per year to develop apprenticeship education, while the employer can receive up to SEK 32 500 per apprentice per year to be spent at the discretion of the employer, plus an

extra SEK 10 000 if the apprentice trainer has participated in a training programme (as described above), and SEK 500 per student and per year if the apprentice is employed, and receives a wage, according to the Law on Apprenticeship Employment. In 2017, grants to employers amounted to SEK 404 million out of which SEK 31 million were provided for the training of trainers (Ministry of Education, 2018_[13]). There are also grants to the provider available for adult apprentices if they spend at least 70% of their time in the workplace (Ministry of Education, 2018_[13]).

Financial incentives are offered to youth apprentices

In Sweden, all students under the age of 20 enrolled in education receive a monthly study allowance of SEK 1 250. In addition, young apprentices receive a monthly supplement of a similar amount that is meant to cover the extra costs associated with this form of VET. The supplement is not available to apprentices receiving a wage under the Law on Apprenticeship Employment (Ministry of Education, 2018_[13]).

Public funding supports adults in VET

Adults lacking upper-secondary qualifications who wish to return to education pay no tuition and are eligible for financial support, which depends on the age and life situation of the person, and the type and level of studies. A person in full time education can receive an allowance of up to SEK 723 per week and a loan of at most SEK 2 720 per week. An unemployed person aged between 25 and 56, enrolled in upper-secondary VET to increase the chance of getting a job can receive an additional allowance (*studiestartsstöd*) (Ministry of Education, 2018_[13]).

WBL in a cross-country perspective

The use of WBL varies

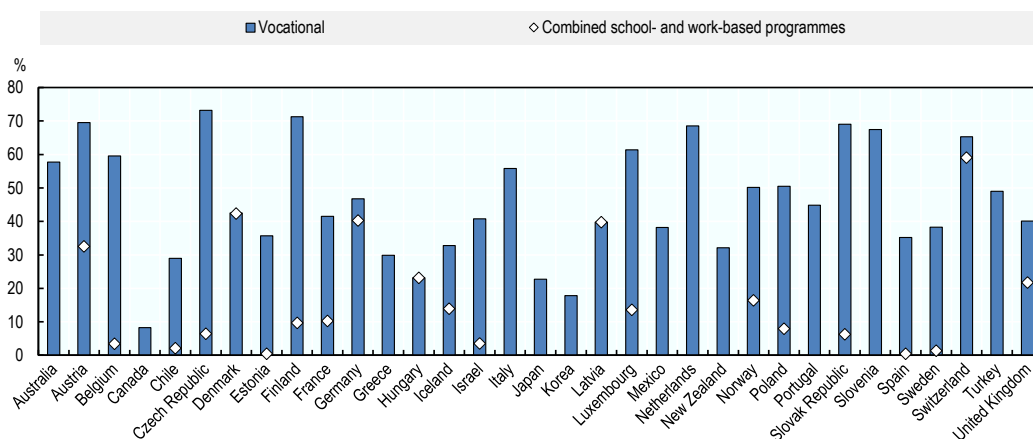
Across countries, WBL ranges from short work experience opportunities such as work shadowing to programmes like apprenticeship that involve extensive training on employer premises. In some VET programmes, a mandatory WBL component represents an important element of the learning experience. Other VET programmes are more dependent on schools, with practical elements delivered in school workshops and work-based learning being an optional and sometimes minor element. Figure 3.1 shows that in some countries, such as Switzerland, Latvia, Hungary, Germany and Denmark nearly all VET students receive WBL, while in Italy, Japan, Korea and Spain, VET is provided mainly in schools. The near-zero share of VET students in Sweden receiving WBL corresponding to representing at least 25% of the curriculum, as shown in Figure 3.1, may be underestimated. According to the national data in 2015, 3% of upper-secondary students in Sweden were in apprenticeship, with at least half of their time spent in WBL (Skolverket, 2016_[15]). The figure of 3% represents a conservative estimate as some students in school-based VET also receive a work-placement representing more than 25% of the curriculum, and therefore meet the definition of combined school and work-based programmes (Skolverket, 2016_[16]).

Comparison of WBL across selected countries

Table 3.2 compares work-based learning in apprenticeship and school-based vocational programmes. Inevitably, it provides a simplified picture since VET programmes are very diverse.

Figure 3.1. Share of all upper-secondary students in vocational programmes, and share of all upper secondary students in vocational programmes combining school and work-based learning

2015, all ages



Note: in Australia, Canada, Greece, Italy, Japan, Korea, Mexico, the Netherlands, New Zealand, Portugal, Slovenia and Turkey information on combined programmes is missing or the category does not apply. Programmes combining school and work-based learning are defined as those in which 25%-90% of the curriculum is delivered in the work environment.

Source: OECD (2017, p. 254^[17]), *Education at a Glance 2017. OECD Indicators*, <https://doi.org/10.1787/eag-2017-en>.

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Table 3.2. Comparison of WBL in apprenticeship and school-based programmes

	Apprenticeship*	School-based VET
Is WBL mandatory?	- In most OECD countries WBL is mandatory (e.g. Denmark, Israel, Germany, Finland, Norway, Sweden, Switzerland, and the Netherlands). - In countries such as the United Kingdom and Australia, apprentices have to be employed but whether apprentices receive any training on-the-job in addition to their regular work is not always specified.	- Can be mandatory (e.g. Finland, the Netherlands, Sweden, Romania). - Or optional (e.g. Estonia, Korea).
What is its duration?	Apprentices spend most of their programme time in companies.	VET students spend most of their programme time in school.
What is the status of participants?	- In many OECD countries, including Sweden, apprentices have a special apprentice contract. - In some countries such as Australia, England (United Kingdom) and Canada apprentices are regular employees.	Typically participation in WBL does not involve any change in the status of VET students.
Do participants receive a wage/allowance from the employer providing WBL?	-In the majority of OECD countries, apprentices receive a wage. -In few countries, such as Sweden, employers are not obliged to pay a wage to apprentices	Most of the time VET students do not receive any compensation from the employer.
What is the role of social partners?	Often they have a decisive role on many aspects of the programme, and in particularly on elements undertaken within workplaces.	Typically an advisory role.

Note: For a more detailed comparison of apprenticeship programmes see Annex Table 3.A.1 and Annex Table 3.A.2.

WBL in apprenticeships – a cross country comparison

Apprenticeship involves extensive WBL

Extensive work-based learning is at the core of apprenticeship programmes where working with employers typically represents at least 50% of the programme duration. Austria, Germany, Denmark, the Netherlands, Norway and Switzerland maintain apprenticeship systems enrolling a large proportion of the cohort. England is currently going through an ambitious reform that should lead to a significant expansion of apprenticeships, including the development of degree apprenticeships in partnership with universities. In Sweden, enrolment in apprenticeship stands at around 11% of upper-secondary VET students choosing this path, with most opting for school-based provision (Skolverket, 2018^[18]).

The time sequencing of WBL varies

The time-sequencing of on and off-the-job education and training varies between different apprenticeship systems – sometimes involving one or two days a week in school or college as in most dual system apprenticeships, but sometimes in larger time chunks for the off-the-job component, for example in Canada and Ireland. While some flexibility is often possible, the time sequencing of WBL is typically defined for apprenticeship programmes within the country. For example, in Norway most apprenticeships involve two years in school followed by two years in a company. This defined national pattern is very different from Sweden, where delivery of WBL is individually negotiated by the school.

Apprenticeships can serve different populations

Some apprenticeship systems serve primarily to transition young people from school to work. In Switzerland, for example, in 2014/15 three quarters (76%) of apprentices were under 20 (Mühlemann, forthcoming^[19]). Other countries have a more even mix of adult and youth apprentices, with some of the adults already having significant work experience. In Germany, in 2014 around 56% of apprentices were under 20, and a further 20% were between 21 and 23 years old, the older apprentices being a mix of those who complete the academic upper secondary *Abitur* before entering apprenticeship and others who have often spent some time in pre-apprenticeship programmes. In Australia in the same year, apprentices under 20 and those aged 20-25 represented 41% and 36% of all apprentices respectively (Australian Bureau of Statistics, 2016^[20]). In 2010 and 2011, 20 year-olds and older represented more than half of all apprentices in Finland (Stenstrom and Virolainen 2014).

Sometimes apprenticeship is preceded by pre-apprenticeship programmes

In some cases, a full apprenticeship is preceded by a pre-apprenticeship programme, which can involve general education, as well as, quite often, work placements. Such programmes are sometimes intended to serve disadvantaged youths who would not be able to enter or complete an apprenticeship without targeted preparation [see (Kis, 2016^[21]) and Chapter 6]. In Sweden, the Introductory Programmes serve a similar purpose, preparing for National VET Upper-secondary Programmes (school-based or apprenticeship) and may involve WBL.

WBL in school-based VET – a cross country comparison

In many countries, WBL is a mandatory part of VET programmes

In many countries, as in Sweden, school-based VET includes mandatory work placements with employers. Such placements are typically shorter than in apprenticeship programmes and usually do not exceed 50% of the programme. For example, in Finland a work placement of at least six months is mandatory in upper-secondary vocational programmes, and represents about 20% of the programme duration. The ongoing reform of the Finnish VET intends to further increase the role of learning in workplace (Ollikainen, 2017^[22]). In the Netherlands, students in school-based VET have to spend at least 20% of their time in work placement with companies, with the average being 30% (Smulders, Cox and Westerhuis, 2016^[23]).

Elsewhere, WBL is optional

But sometimes in school-based VET, work placements are optional. Israel has recently introduced an element of work experience in school-based VET that provides some students with the opportunity of observing real work during visits to workplaces. But the majority of VET students follow entirely school-based education (Kuczera, Bastinic and Field, 2018^[24]).

School-based practical training is also sometimes offered to those who cannot find apprenticeships

While apprenticeship has many strengths, finding a sufficient number of apprenticeship places can be a challenge. Denmark addressed such shortages by providing VET students, who were unsuccessful in finding a training place with an employer, with school-based practical training (*skolepraktik*). But outcomes, reflected in employment rates, from this programme are worse than outcomes from apprenticeship (Helms Jørgensen, 2014^[25]), a finding that may partly reflect the characteristics of students who were unsuccessful in finding an apprenticeship. Also, many students who failed to obtain a work placement drop out rather than attend the school-based compensatory path (Helms Jørgensen, 2014^[25]). The school-based option is held in lower esteem by both students and employers than apprenticeship, probably because it is seen as a path for those who failed to secure training with employers in the first place (Helms Jørgensen, 2014^[25]).

Apprenticeship and school-based VET can lead to the same qualification

In Sweden, different VET paths can lead to the same qualification. For example, an upper-secondary VET qualification in construction can be acquired through school-based VET for youth, through a youth apprenticeship or through adult VET. This means that a young person who dropped out from an upper-secondary VET programme in Sweden should be able to complete it through the VET for adults route. Other countries maintain similar arrangements. In the Netherlands, there are two vocational routes at upper-secondary level leading to the same qualification: apprenticeships with on-the-job time representing at least 60% of the programme duration and school-based vocational programmes with mandatory work placements representing at least 20% of the programme duration (Smulders, Cox and Westerhuis, 2016^[23]). Finland and Estonia also offer school-based VET and apprenticeship programmes leading to the same qualifications. Different population groups or industries may prefer one or other route: for example in the Netherlands, the school-based option is more popular with younger

students, in sectors without an apprenticeship tradition, and in programmes leading to higher level qualifications (ECBO, 2014^[26]). In Finland, vocational programmes in schools with shorter work placements are more popular among young people, while apprenticeships more often serve older students with some work experience (Stenstrom and Virolainen, 2014^[27]).

In Sweden, strengthening WBL in school-based VET and in apprenticeships may require different measures

Apprenticeship and school-based VET are structured differently. In apprenticeships, students spend most of their time with the employer, where they learn most of the skills required for an occupation. WBL as a component in school-based VET can also contribute to the development of occupation-specific competencies, but to a lesser extent. Typically, its aim is to familiarise students with the work environment and provide specific skills required in an occupation which are difficult to teach in a classroom or school workshop setting. The employer costs involved in offering shorter work placements are different from those in apprenticeships, with a smaller administrative burden, usually no wage costs and fewer demands on the time of the firm's employees. The benefits of shorter WBL to employers are also different than those associated with apprenticeships.

Issues addressed in this chapter

In what follows, the first two challenges, and connected policy options, as set out below, apply to both WBL in school-based VET and apprenticeships. The third challenge is specific to apprenticeships.

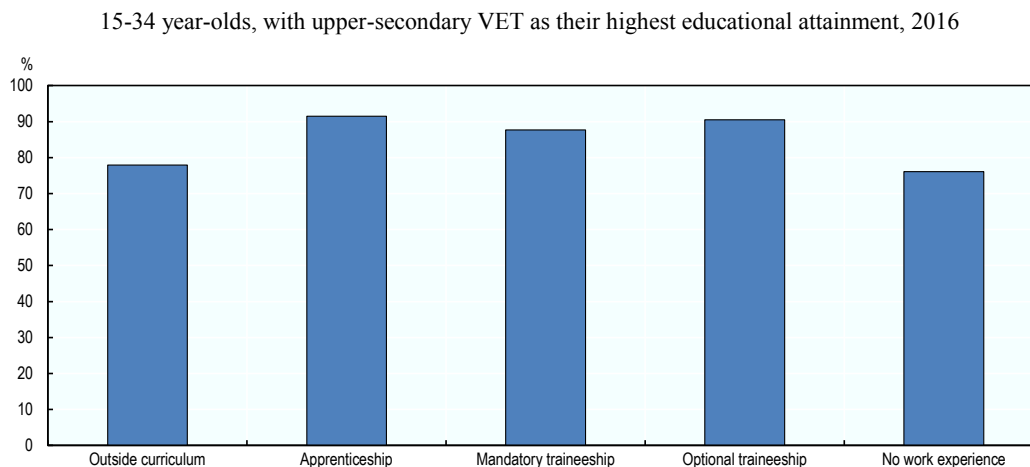
The challenge 3.1: Quality of WBL across VET schools varies

WBL yields benefits to employers and students in Sweden but the benefits could be strengthened

The benefits of work-based learning to students and employers in Sweden could be even greater if the social partners were engaged more fully, and more consistently, and if the quality of WBL was systematically assured. Evidence on the existing benefits associated with WBL in Sweden are set out below:

- *WBL provides a unique learning environment.* A survey of upper-secondary VET students revealed that young people regarded the training received in the work placement as of higher quality than the practical training received in school (Statistics Sweden, 2015^[28]).
- *WBL facilitates the transition from school to work.* Recent Labour Force Survey evidence (Eurostat, 2018^[29]) shows that in Sweden those who graduated from an upper-secondary VET including WBL are less likely to be unemployed than those who did not receive WBL, as well as in comparison with those who worked in a job unrelated to their training programme, while studying (Figure 3.2). This suggests that WBL relevant to the area of study and integrated into the curriculum may facilitate the transition from school to skilled employment.

Figure 3.2. Employment rates among upper-secondary VET graduates in Sweden, by type of WBL



Source: Adapted from Eurostat (2018^[29]), *Employment and Unemployment (LFS) Data* (database), <http://ec.europa.eu/eurostat/web/lfs/data/database>.

StatLink  <http://dx.doi.org/10.1787/888933927514>

- *WBL facilitates recruitment and increases motivation among company staff.* A study evaluating the employer benefits of WBL in school-based programmes (20-40 weeks in total) shows that it facilitates and reduces the costs of future recruitment and increases the skills and motivation of company staff, especially for those employees who supervise students (Höghiem, 2015^[30]; Karlson and Persson, 2014^[31]). Employers reported that students typically contribute productive work while in the workplace with students who carry out their placement in the third (last) year of the programme being more skilled and therefore more productive than those in earlier parts of their programme. The study shows, however, that benefits from the productive work of students carried out WBL of 20-40 weeks in total were overall rather limited (Karlson and Persson, 2014^[31]).

But the quality of work placements is not systematically assessed...

WBL is nearly universal in Swedish upper-secondary VET, and is seen as beneficial both by students and employers. These are real strengths, but there is evidence that WBL quality is variable. In addition, learning in the workplace and interaction with working life are not systematically included in school evaluations, possibly because they are seen as being outside of the school's control (Skolverket, 2016^[16]). This omission reduces the incentives for schools to invest effort in ensuring the quality of WBL.

...and provision and quality of WBL is highly dependent on individual VET teachers

The provision and organisation of WBL is highly dependent on individual schools and individual VET teachers (Skolverket, 2016^[16]). In some schools there are special WBL coordinators, but more usually the organisation and supervision of WBL is carried out by VET teachers. These teachers need to reach out to companies to secure work

placements, and then agree with the training company the content of WBL, and ensure its quality. There are many advantages of having VET teachers closely involved in WBL as they are in a position to relate the WBL to the needs of individual students. While many VET teachers do a remarkable job, teachers are often time-constrained (Skolverket, 2016^[16]). They may also lack the specialist skills – different from ordinary teaching skills – to organise WBL. VET teachers who left industry some time ago may lack professional contacts and may not be fully aware of all the technological changes taking place in the field. These factors may limit their ability to set up an effective learning plan and to evaluate student progression in the work placement (Höghelm, 2015^[30]). Independent of teacher competencies, building a system that is dependent on individuals, rather than a systematic framework is risky.

Policy option 3.1

To address quality challenges, WBL tasks currently assumed by individual VET teachers could be usefully shared with and supported by other bodies, such as reinforced local bodies where social partners are represented, as argued in Chapter 2 and Chapter 4.

While retaining an important role for individual VET teachers, social partners would therefore be more involved in the organisation and management of WBL than they are now. Within this framework, the social partners, working collectively and in co-ordination with VET schools, might offer systematic support to individual companies with the provision of WBL, certification of companies offering WBL according to criteria agreed with social partners, and provide regular guidance and feedback to schools and National Programme Councils on the content of WBL and methods of assessment of practical skills.

The responsibility of VET schools and social partners for WBL should be clearly defined and both parties should be kept accountable for delivery of WBL. The school inspectorate and social partners may share the responsibility for quality assurance of WBL in VET programmes.

Policy arguments and implementation 3.1

Policy argument 1. Sharing responsibility for WBL across various stakeholders would make its provision more systematic, and less dependent on individuals

To address the quality challenge in WBL, this report argues that the responsibility for WBL should be shared between the school and social partners and their roles clearly defined. The proposed changes would both reduce the VET teacher's workload and make provision of high quality WBL more systematic and less dependent on individuals. As an example of how this might be realised, Box 3.2 sets out how responsibilities for WBL are shared across different stakeholders in the Netherlands.

Box 3.2. Responsibility for WBL in the Netherlands

The role of bodies involving social partners

The Foundation for Cooperation between Vocational Education, Training and the Labour Market (SBB) (*Samenwerkingsorganisatie Beroepsonderwijs Bedrijfsleven*) is organised in eight ‘sector chambers’ with social partners and representatives from the VET sector equally represented (ECBO, 2014_[26]).

SBB is responsible for maintaining the qualifications for secondary VET, for accreditation and coaching companies offering work placements, and collecting relevant labour market information. SBB also works on themes with a cross-regional and cross-sector focus (Smulders, Cox and Westerhuis, 2016_[23]).

The role of the school

VET schools co-ordinate workplace learning by developing or selecting workplace training course books, the planning of education and training offered in school, and facilitating sessions allowing students to reflect on their work experience. The school also keeps track of student progress by means of regular visits to the workplace (ECBO, 2014_[26]).

Source: ECBO (2014_[26]), *Apprenticeship-Type Schemes and Structured Work-based Learning Programmes The Netherlands*, https://cumulus.cedefop.europa.eu/files/vetelib/2015/ReferNet_NL_2014_WBL.pdf; Smulders, H., A. Cox and A. Westerhuis (2016_[23]), *Netherlands: VET in Europe: Country Report 2016*, http://libserver.cedefop.europa.eu/vetelib/2016/2016_CR_NL.pdf.

Policy argument 2. Clearly defined roles and evaluation mechanisms would improve the quality of WBL

In Sweden, the contribution of schools and employers to WBL should be routinely evaluated, as a way of encouraging high quality WBL, and providing actors with the information they need to improve quality. Looking at other countries, typically, schools are evaluated by school inspectorates while the social partners support the training provided by the employer. The social partners’ role in WBL in Sweden might be developed by drawing on the experience of other countries. Social partners’ tasks may involve certification of companies offering WBL according to agreed criteria, regular feedback to schools and national regional bodies overseeing VET policy on the content of WBL and methods of assessment of practical skills. Box 3.3 provides examples of quality standards for employers providing WBL in Denmark and the Netherlands. In these two countries, social partners are actively involved in the definition of the standard and evaluation of training companies.

Box 3.3. Requirements for companies providing WBL in the Netherlands and Denmark

In the Netherlands, all companies offering work placements (both in apprenticeship and school-based programmes) have to be accredited and the accreditation has to be renewed every four years (ECBO, 2014_[26]).

One of the criteria for accreditation is the availability of a trained supervisor or tutor (*praktijkopleider*). Tutors must be qualified at least at the same level for which he/she is supervising work based learning. Furthermore, tutors must be able to share their working expertise with students and be pedagogically competent (validated by diplomas/certificates). In addition, the company has to offer sufficient training opportunities allowing students to develop the skills and competences prescribed in the curriculum. The company has to agree to cooperate with the VET school and workplace tutors have to contact the school on a regular basis. The work environment has to be safe for VET students.

In Denmark, companies providing apprenticeship training have to be approved by the social partners through the relevant trade committee. Employers have to demonstrate they are able to offer various tasks in an occupation and have required technical equipment. Committees may also assess whether the company has the staff available to perform the training. There are different types of trainers with different responsibilities: planners, training managers and daily trainers. Trainers in enterprises who are responsible for apprentices must be ‘craftsmen’. They must have completed a VET programme for which they have received a journeyman’s certificate and have work experience. Accreditation does not need to be renewed unless the company has not been active for five years or more (Andersen and Kruse, 2016_[32]).

Source: ECBO (2014_[26]), *Apprenticeship-Type Schemes and Structured Work-based Learning Programmes The Netherlands*, https://cumulus.cedefop.europa.eu/files/vetelib/2015/ReferNet_NL_2014_WBL.pdf; Andersen, O. and K. Kruse (2016_[32]), “Vocational education and training in Europe – Denmark”, *Cedefop ReferNet VET in Europe Reports*, www.cedefop.europa.eu/en/publications-and-resources/country-reports/denmark-vet-europe-country-report-2016.

The challenge 3.2: WBL could be used more effectively to guide the mix of provision

Half of the schools ignore the availability of WBL when planning VET provision

In Sweden, the introduction of local programme councils, alongside mandatory WBL was intended to tie the provision of VET more closely to the regional and local demand for skills. But this objective has only been partially realised. WBL availability does not seem to be an important factor in defining the mix of provision in VET schools. Around half of school principals reported that the number and mix of WBL-places offered does not depend on the availability of relevant WBL (Skolverket, 2016_[16]). This implies that schools first accept students, and only subsequently try to find WBL to match the number of students. Whereas the Swedish labour market is currently very tight and finding WBL

should not be too difficult, the risk is that some schools may provide unsuitable work placements, just to meet the formal requirement of mandatory WBL. The fact that more than 40% of VET teachers estimate there are not enough quality work placements in the programme they are teaching seems to support this hypothesis (Skolverket, 2016_[16]).

Schools may not be aware of existing WBL opportunities

In Sweden, schools collaborate with local social partners by establishing local programme councils that facilitate WBL alongside other functions. However, the quality of these local partnerships tends to vary across schools impacting the quality of WBL. Since collaboration with social partners is established at a very local level, schools may also not be fully aware of all the WBL opportunities in the wider region. On the employer side, employers that wish to provide WBL may also struggle to find the right school as a partner, given the large number of VET schools and no obvious regional interlocutor.

Policy option 3.2

Employer willingness to offer WBL could be used more fully to steer students towards occupations in demand in the labour market, and to adjust school provision. This should improve the match between the mix of training provision and skills in demand among employers. To facilitate the match, a website platform may be created where companies and schools announce their needs in terms of WBL.

Policy arguments and implementation 3.2

Policy argument 1. By giving more prominence to WBL in planning VET provision Sweden could tie provision more closely to employer needs

WBL provides an indication of employers' needs

Countries have developed a range of tools to guide the mix of VET provision – the numbers of students being trained in different fields. WBL availability is one such tool. For example in most apprenticeship systems, apprentices wishing to enter a certain occupational field must first find an employer in that field willing to take them on. So students will find it easier to get an apprenticeship in fields where there is a shortage of skills, and employers are keen to use apprenticeship as a means of recruitment. Alternatively planning mechanisms can be used to guide the mix of training places offered by the VET system. In Finland targets, in terms of the mix of training provision, are defined both at the national and regional level. Recent reforms in Finland have increased the pressure on VET providers to demonstrate that they are meeting regional labour market needs (Koukku and Paronen, 2016_[33]). Providers are required to participate in regional development and reflect on the regional needs in planning provision. The Finnish government has introduced 'effectiveness funding' based on graduate employment rates to encourage providers to adjust the VET offer in response to regional labour market needs (Koukku and Paronen, 2016_[33]; Ollikainen, 2017_[22]). These new funding criteria may indirectly encourage providers to secure high quality WBL as WBL improves the labour market prospects of VET students.

There would be advantages in tying the mix of provision of VET more closely to WBL in Sweden

As discussed in other parts of this report, the mix of provision in VET as between different fields of study is driven by student choice and school competition. By giving more prominence to WBL in planning VET provision, Sweden could tie provision more closely to employer needs. Information about work placements can guide entrants to VET programmes in fields where they can get a good work placement and that probably lead to a good job. It would be important for this information to come from an independent source, because schools have an interest in attracting students, and if they are in the business of providing fields of study in surplus fields, they could not be relied upon to discourage prospective students.

Collecting information on supply and demand for WBL on a website is an easy way to improve access to information

A website where employers can post their WBL vacancies and schools signal their needs in terms of WBL would facilitate access to information and improve match between VET schools and employers providing WBL. Such tools exist in other countries, for example in the Netherlands accredited companies offering work placements are listed on an open website (Stagemarkt.nl) (ECBO, 2014_[26]). In addition, in the Netherlands, students entering school-based VET programmes are advised at the outset, through an information tool, whether it will be easy, average, or hard to obtain a work placement in that field, steering them away from fields of study where it may be difficult to get a job. This model could readily be applied in Sweden.

The challenge 3.3: In comparison to other countries Swedish apprenticeship is relatively school driven

Enrolment in apprenticeships has been growing but its use remains limited

Apprenticeship enrolments have been growing over recent years, and represent an increasing proportion of VET enrolments (Figure 3.3). But, at 3% of all upper-secondary enrolments, it plays a much smaller role in the Swedish skills system than in many other countries. The low take-up could reflect entrenched student and employer preferences, it may also be that some features of its design could be tweaked to make apprenticeship more appealing both to students and employers. This section looks at this issue.

In Sweden, school maintains the main responsibility for apprenticeship

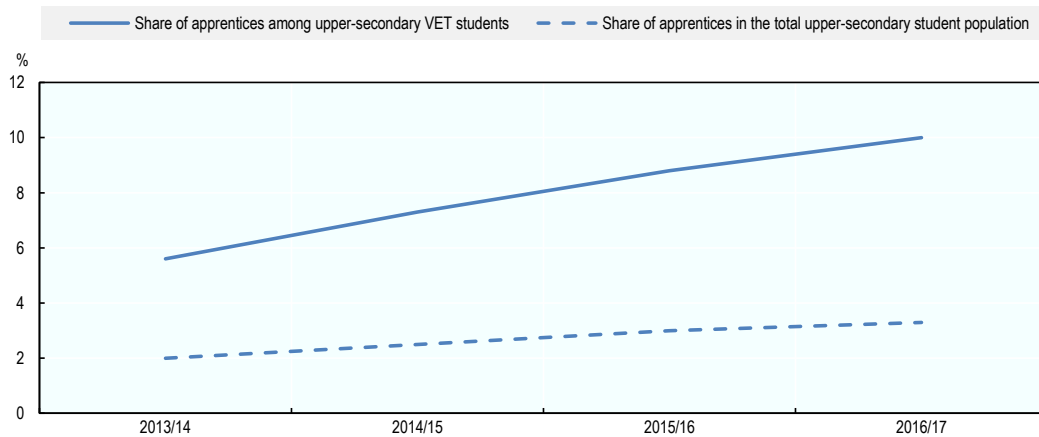
In Sweden, social partners are less involved in the design and provision of apprenticeships than many apprenticeship countries, while the role of the school is stronger. The school is responsible for matching the student to the employer, and the school defines the content and mode of delivery of WBL in dialogue with the employer. The school is also responsible for ensuring that students receive a relevant WBL experience. Consequently, Swedish employers offering apprenticeships have fewer responsibilities, but also less influence than their counterparts in other countries.

Unlike many countries, few apprentices in Sweden receive a wage

Employers in Sweden are not obliged to pay apprentices a wage (Annex Table 3.A.2). However, since 2014, employers have had the option of employing and paying an

apprentice who remains in education (Ministry of Education, 2018^[13]). According to the National Agency for Education, only around 2% of apprentices receive a wage. The Agency has launched several projects to increase the share of apprenticeships involving a wage.

Figure 3.3. Share of apprentices in Sweden



Source: Adapted from Ministry of Education (2018^[13]), *Review of VET in Sweden. Background Report*.

StatLink  <http://dx.doi.org/10.1787/888933927533>

Policy option 3.3

Over recent years, the involvement of social partners in formal VET in Sweden has been gradually increasing. Apprenticeship has been growing, as have the numbers of apprentices receiving wages, but numbers remain small. Building on these trends, employers in Sweden should:

- Be allowed to select their apprentices (as in other countries).
- Be granted a stronger influence over the content and modes of delivery of WBL in apprenticeship.
- Be more strongly encouraged to pay apprentices a wage.

Wages for apprentices and stricter regulation on WBL quality would increase the cost of apprenticeship provision for employers. Financial and/or non-financial incentives may therefore also be necessary to maintain the attractiveness of the scheme to employers. Current grant support to employers providing apprenticeships should be evaluated and if necessary adjusted.

Changes in apprenticeship schemes should be designed to increase the attractiveness of apprenticeship to employers. Governments can help employers provide good quality training and meet requirements for WBL, for example by providing a framework for cooperation across companies.

Policy arguments and implementation 3.3

Policy argument 1. Across countries, social partners typically play a more prominent role in apprenticeship systems than in school-based provision

The role of social partners in apprenticeship systems ranges from a merely advisory role to full decision-making powers. In many apprenticeship systems social partners often decide on occupational qualifications, corresponding skills, assessment requirements and methods, and the content and delivery of work placements (e.g. in countries such as Austria, Denmark, Germany, Norway and Switzerland). Norway has recently reinforced the role of social partners in apprenticeship by promoting their role from advisory to decision making in relation to the content of training taking place in companies (Utdanningsdirektoratet, 2017^[34]). The high level of involvement of the social partners reflects the central role of the employer in apprenticeship: relative to other forms of vocational training, employers therefore have more obligations but also more control.

Policy argument 2. Apprentice wage is an important element of the apprenticeship model

The apprentice wage reflects both the employer's and student's interest in apprenticeship

Initially, the reasons for the low take-up of apprenticeships in Sweden were associated with lack of information about the scheme and with apprenticeships being perceived as a path for less motivated students and those with low academic grades (Skolverket, 2013^[35]). This section discusses a potential impact of the apprentice wage on the provision of apprenticeship by employers and its attractiveness to students. If take up is constrained by lack of student demand, then if more apprentices were to receive a wage, take-up could be expected to increase. But if limited employer interest is holding back the growth of apprenticeships, then in the absence of other compensatory measures, apprentice wages would exacerbate the problem. Currently, the Swedish government helps employers to recover part of the apprentice wage cost by providing them with a grant (SEK 5 000) per apprentice and per year. Pilot projects that aim to increase the share of apprenticeships involving a wage are being introduced by the National Agency for Education. Evidence from these pilots should provide interesting insights, e.g. by comparing take-up of apprentices among companies with and without apprentice wages, and by evaluating the impact of the grant on the employer offer of apprenticeship training. This report argues that when the apprentice wage is properly set, and accompanied by other measures supporting employers, an apprenticeship including a wage can be beneficial both to apprentices and employers.

An apprentice wage motivates students

In most countries apprentices receive a wage (Table 3.2), increasing the attractiveness of apprenticeship to students relative to school-based alternatives (Moretti et al., 2017^[36]). Wages can develop self-esteem and potentially increase the motivation to complete the programme and to carry out workplace tasks diligently.

Apprenticeship with a wage can still be beneficial to employers

Apprentice wages often represents the largest part of the costs associated with apprenticeship provision for employers, but despite the wage cost, apprenticeship can be beneficial to employers (Mühlemann, 2017^[12]). The minimum an employer should pay to an apprentice should be set at the level that allows employers to at least break-even but at

the same time is not detrimental to students. In some countries, the apprentice wage is negotiated by sectors while in others it is defined nationally. Sectoral wage setting is generally preferable, as the costs and benefits of apprenticeship provision differ substantially across sectors. Employer benefits associated with apprenticeship also depend on the design of WBL. To make the investment in apprenticeship worthwhile, employers may require apprentices to become quickly productive in skilled tasks. The wage therefore provides employers with an incentive to train effectively for skilled employment.

If employers pay apprentice wages, they may reasonably expect more control over apprenticeship in return

Wages for all apprentices and stricter regulations on WBL provision will tend to increase the costs of apprenticeship provision for employers. Employers will reasonably expect something in return. In line with apprenticeship design in other countries, employers in Sweden should therefore have a stronger influence over the content and modes of delivery of WBL and have the opportunity to select their apprentices. For example, in Switzerland the employer pays an apprentice wage but he/she is also in charge of recruitment. A student that is well matched with the apprenticeship position would make a greater contribution through productive work during the period of WBL, and in the long run if employed after the end of the programme. An apprentice chosen by the employer will also be more likely to be subsequently recruited. This means that employers can pay apprentice wages but still see apprenticeship as a good investment.

Policy argument 3. There are different types of incentives for apprenticeship

Financial incentives for apprenticeship have a mixed effect

In Sweden, grants are available to employers and providers that offer apprenticeships. Across-country evidence on the effectiveness of financial incentives for apprenticeships is mixed (Kuczera, 2017^[37]). Setting an effective level of subsidy is difficult because the costs and benefits differ largely across sectors and employers: for some employers the subsidy will not be enough while for others, which will take apprentices in any case, the subsidy represents “deadweight”. In Sweden, a study looking at the experience of employers providing WBL, mainly within apprenticeship programmes, shows that many employers would provide apprenticeship training without a grant (Höghelm, 2015^[30]). It also shows that the grant may have a stronger impact on small companies.

Government can support employers by making them better at training

Another way of promoting apprenticeship is for government to assist employers to provide good quality training and meet regulatory requirements. Such assistance might include measures to help enterprises with the training of trainers, guide employers with the administrative tasks associated with apprenticeship, and support employers offering apprenticeships to deal with the various challenges faced by young people – sometimes with social disadvantages – as they pursue their apprenticeships. The objective is to use regulation to improve apprenticeship quality while at the same ensuring that regulation does not offer a barrier to employers, by helping employers to comply with regulation, often in their own interest. Sweden has already introduced some of these measures such as training for trainers. Other measures that could foster apprenticeships include arrangements allowing employers to work together to provide different components of apprenticeship training in the light of their different specialisations, and to share tasks related to organisation of apprenticeships. Such measures may be particularly relevant to

small companies that often find regulatory requirements particularly burdensome. Country experience with these measures is described in Box 3.4.

Box 3.4. Mechanisms that can assist employers in sharing responsibilities for apprenticeship training

Some small or highly specialised companies are not in a position to provide WBL covering the entire work-based part of the curriculum for an occupation. In some countries there is the option of sharing responsibility for training with other training companies or with an external body set up for this purpose.

Switzerland: Two basic types of training alliances are found. In the *training company network*, two or more companies form a network to provide apprenticeship training. While the host training company is responsible for the main part of apprenticeship training, partner companies cover other fields of study where their specialist capacity is more relevant. In most cases, the host company itself provides training but in addition it also fulfils staff-related, organisational, planning and managerial functions. The *collaborative training alliance* includes a managing organisation. Training is held in the different participating companies of the alliance but the organisation is usually organised externally by a managing organisation.

Austria: *Training alliances* support companies that cannot provide a full range of skills to apprentices required for the specific occupation. They can involve: an exchange of apprentices between two or more companies; sending apprentices to one or several other companies or to their training workshop (usually for payment); and attendance of courses or programmes at training institutions against a fee. Some provinces support training alliances by providing information and support to companies about possible partner enterprises and educational institutions, and co-ordinating different training alliances activities (Federal Ministry of Science, Research and Economy, 2014_[38]).

Norway: Apprenticeship Training Agencies (ATA) (*opplæringskontor*) are owned by companies and aim to establish new apprenticeship places, supervise companies with apprentices, train staff involved in the instruction of apprentices and organise the administrative tasks related to being a training company. Many ATAs organise the theoretical part of apprentices' training. While county authorities must approve each individual company with apprentices, ATAs often sign the apprenticeship contracts on behalf of enterprises providing apprenticeship, thereby becoming accountable for completion of the apprenticeship and its results. About 70-80% of companies with apprentices are associated with ATAs. These bodies are funded through the state grant. Typically, companies pay half of the amount received from the state for apprenticeship training to ATAs. The prices of ATA services are set in an agreement between ATAs and the member companies.

Source: Høst, H., A. Skålholt, A. and A. Nyen, (2012_[39]), *Om potensialet for å få bedriftene til å ta inn flere lærlinger: En kartlegging av norske bedrifters vurdering av lærlingordningen*; Høst, H. (2014_[40]), *Kvalitet i fag og yrkesopplæringen. Arena for kvalitet – Opplæringskonferanse*, www.dcdualvet.org/en/dual-vocational-education-and-training/terminology/; Federal Ministry of Science, Research and Economy (2014_[38]), *Apprenticeship: Dual Vocational Education and Training in Austria Modern Training with a Future*, www.en.bmdw.gv.at/Vocationaltraining/Apprenticeshipsandvocationaltraining/Documents/NEU_H_P_Apprenticeship.pdf.

In principle, employers are interested in providing apprenticeships to students with strongest performance...

Apprenticeship can be beneficial to employers, with the benefits, among other things, depending on the student's characteristics. Typically, students with strong academic performance and good non-cognitive skills (e.g. punctuality, motivation, team working) are more productive and so more attractive to employers than those with low academic grades and behavioural issues. Leaving apprentice recruitment entirely to employers may therefore result in fewer apprenticeship opportunities for disadvantaged students.

...but a carefully designed apprenticeship for disadvantaged youth can be attractive to employers

Forcing employers to provide apprenticeships to disadvantaged youth is counterproductive as it may result in employers offering no apprenticeship. It can also reinforce the image of apprenticeship as a path for low performers. Kis (2016_[21]) shows that an apprenticeship targeting disadvantaged youth, when carefully designed, can be attractive to employers. Such apprenticeship has following features:

- It is designed to fit the needs of disadvantaged students. For example, disadvantaged students may require more time to master the specific skill (Kis, 2016_[21]).
- There are additional measures preparing disadvantaged students for apprenticeships. These may include, for example pre-apprenticeship programmes that create a bridge to work-based learning and improve the matching of young people with work-based learning opportunities (Kis, 2016_[21]).
- There are support measures provided to disadvantaged youth during the apprenticeship. Box 3.5 describes examples of these measures in selected countries.

Box 3.5. Measures supporting disadvantaged youth during apprenticeship

Austria

Training assistance is at the centre of the integrative VET programmes (Integrative Berufsausbildung, IBA). These programmes target young people with special needs (two-thirds of participants), disabled youth and those without a school-leaving certificate. Training assistance has both a co-ordinating and support function. Most training assistants have a special education background and come from organisations for disadvantaged youth. When IBA takes place at a training company, training assistants are in charge of administrative tasks, define the content of the training contract between the apprentice and the training company, prepare the company employees for the arrival of the apprentice, identifying a person of trust, and register the apprentice at the vocational school. Subsequently, training assistants act as mediators, provide tutorial support and design the final exam for the partial qualification pathway.

Germany

Apprenticeship assistance (*Ausbildungsbegleitende Hilfen*) is available free of charge to young people taking an apprenticeship or *Einstiegsqualifizierung*, as well as those who dropout of an apprenticeship, and supports the transition into another apprenticeship (or training programme). Assistance includes remedial education (language skills, theoretical and practical instruction) and support with homework and exams, which helps to overcome learning difficulties. Socio-pedagogical assistance (including mentoring) is also offered, including support with everyday problems and mediation with the training company, school teachers and family. The service is provided following a support plan, which is established in partnership with the young person concerned. It is delivered through individual assistance at least three hours per week; there are also small group sessions. The aim is to effectively reach out to youth with learning difficulties and those disengaged from school.

Scotland (United Kingdom)

Skills Development Scotland offers support to young people at risk of disengaging from learning working towards a Certificate of Work Readiness through My Work Coach Service. Work coaches identifies opportunities for young people and act as a facilitator between the young person and the employer. The responsibilities of work coaches include undertaking an initial evaluation of the young person; assisting them as they receive career guidance; offering advice to the VET school on a suitable work placement; meeting with the employer and/or learning provider before the start of the work placement to clarify what is expected of the young person and coaching the young person based on these discussions; and liaising regularly with the employer and the learning provider to support the young person throughout their learning journey.

Switzerland

Young people enrolled in two-year apprenticeships (leading to partial qualifications which target those who may not be able to complete or are not willing to embark on a 'regular' apprenticeship lasting typically 3-4 years) can receive individual coaching (*Fachkundige individuelle Begleitung*) designed to help them improve their academic, technical and social skills. Swiss cantons are responsible for implementation under a national framework and guidelines. Around half of two-year apprentices take up this opportunity mostly to tackle weak language skills, learning difficulties or psychological problems. Most coaches are former teachers (of vocational or special needs education), learning and speech therapists or social workers. They receive targeted training, which may vary across cantons. For example, in Zürich they must attend a 300-hour course and participate in regular team-coaching sessions. Apprentices may also attend remedial lessons at vocational schools, for example in Vaud canton, apprentices may take time off during their work placement to attend school for remedial classes.

Source: Kis, V. (2016^[21]), "Work-based learning for youth at risk: Getting employers on board", *OECD Education Working Papers*, No. 150, <https://doi.org/10.1787/5e122a91-en>.

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Annex 3.A. Characteristics of apprenticeship programmes

Annex Table 3.A.1. The duration of apprenticeship programmes and how apprentices spend their time

	Duration of the programme including off-the-job period and work placement with the company	Time allocation in apprenticeship programmes	Workplace time spent in productive and non-productive tasks
Austria	3-4 years	Around 80% in the work place	83% of the time with the company is spent on productive work
England (United Kingdom)	Minimum 12 months - average around 15 months	At least 20% in off-the-job education and training	
Germany	Mostly 3 years	70% in the work place	77% of the time with the company is spent on productive work
Israel	3-4 years	Work-based learning is provided in the last two years, 1-3 days per week	---
Netherlands	2-4 years	Often four days a week in the work place and one day at school	---
Norway	Mostly 4 years (Shorter programmes are available for disadvantaged students)	50% in the work place (typically, first two years are spent in school and the last two with the company)	1 year of training 1 year of productive work
Sweden	3 years	At least 50% in the work place	---
Switzerland	3-4 years (2 year programmes in some occupations leading a lower level qualification)	Around 70% in the work place	83% of the time with the company is spent on productive work

Source: Kuczera, M., T. Bastianić and S. Field (2018_[24]), *Apprenticeship and Vocational Education and Training in Israel*, OECD Reviews of Vocational Education and Training, <https://doi.org/10.1787/9789264302051-en>; Cedefop (2016_[41]), *Spotlight on VET: The Netherlands*, www.cedefop.europa.eu/files/8090_en.pdf.

Annex Table 3.A.2. Minimum apprentice wages in youth apprenticeships

	Do apprentices receive wages during the on-the-job period?	Do apprentices receive wage during off-the-job period?	What is the minimum wage the apprentice should receive?	Who defines the minimum apprentice wage?	Do employers pay social security contributions for an apprentice?
Austria	Yes	Yes	On average 50% of the skilled worker wage	Sectors at regional level	Yes, but the state covers parts of the insurance costs
Denmark	Yes	Yes	30-70% of the skilled worker wage, depending on the year of the programme	Sectors	No
Germany	Yes	Yes	25-33% of the skilled worker wage, depending on the year of the programme	Sectors at regional level	Yes
Israel	Yes	No	For youth apprenticeship: 60% of the minimum wage or around 35% of the skilled worker wage ¹	National: The minimum apprentice wage is set by law	---
Norway	Yes	No: during the first two years provided fully in school. Yes: in the last two years with an employer including one year of training	30-80% of the skilled worker wage, depending on the year of the programme	Sectors at national level	Yes
Sweden	No	No	-	-	-
Switzerland	Yes	Yes	On average 20% of the skilled worker wage, depending on the year of the programme	Individual company but employer/ professional associations provide recommendations. As a result, apprentice wage varies by sector	Yes

Note: Apprentice wages can vary largely across sectors and tend to increase over the duration of apprenticeship programme.

Source: Kuczera, M., T. Bastianić and S. Field (2018^[24]), *Apprenticeship and Vocational Education and Training in Israel*, OECD Reviews of Vocational Education and Training, <https://doi.org/10.1787/9789264302051-en>.

Chapter 4. Empowering social partners in vocational education and training in Sweden

Sweden has successfully built social partners' engagement in vocational education and training (VET) at the national level, but social partners' involvement at the local level varies affecting the quality of education and training provision. The chapter argues that Sweden may create a framework for systematic social partner involvement at the local level. The chapter discusses college initiatives that are led by social partners and drive local provision towards specific skills requirements, often in response to labour shortages. It argues that Sweden can strengthen social partners' involvement by drawing on this positive experience.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Introduction: Background

The introduction explores different forms of collaboration between stakeholders, including the social partners (employers and trade unions) in the development and implementation of vocational education and training (VET) policies. It compares the pattern of social partners' involvement in VET in Sweden with that of other countries.

The role of social partners

Strong VET systems involve social partners

One of the main purposes of VET is to meet the needs of the labour market. Governance arrangements therefore need to engage employers and trade unions alongside other stakeholders, such as government representatives, teachers, students and provider institutions. Employers play a particularly critical role, since they often share with schools the responsibility for provision of education and training, typically by providing work placements to VET students.

The social partners engage with VET systems at different levels

Social partner engagement occurs at national level, for example in agreeing the main policy features of the VET system; at local and regional level, for example in handling arrangements for work placements; and at sectoral level, often in designing specific programmes (for example, social partners representing the construction sector provide input in the design of VET programmes in construction). Table 4.1 shows the level of social partners' involvement across countries. Denmark and Finland, like Sweden, maintain arrangements for engaging social partners with individual institutions. The influence of social partners can be just advisory or consultative, or alternatively can involve full decision-making.

Table 4.1. The levels at which there exists an institutional framework for social partner engagement (2007 data)

	National	Regional	Institution/Local
Austria	✓	✓	
Denmark	✓		✓
Finland	✓		✓
Germany: apprenticeship	✓	✓	
Germany: school-based VET		✓	
Norway	✓	✓	
Sweden	✓		✓
Switzerland	✓		

Note: The framework for social partners' involvement at the institution level refers to formalised collaboration between institutions and companies at local level. It does not include individual companies providing work placements to students. For example, in Denmark it refers to Local Trade Committees that are set at the institution level.

Source: Tritscher-Archan, S. (2016_[1]), "Vocational education and training in Europe – Austria", *Cedefop ReferNet VET in Europe Reports*, http://libserver.cedefop.europa.eu/vetelib/2016/2016_CR_AT.pdf; Andersen, O. and K. Kruse (2016_[2]), "Vocational education and training in Europe – Denmark.", *Cedefop ReferNet VET in Europe Reports*, www.cedefop.europa.eu/en/publications-and-resources/country-reports/denmark-vet-europe-country-report-2016; Protsch, P. and H. Solga (2016_[3]), "The social stratification of the German VET system", *Journal of Education and Work*, <https://doi.org/10.1080/13639080.2015.1024643>.

How to design an effective model of involvement for social partners

VET systems engage the social partners in different ways. Effective arrangements should allow social partners to provide their input into VET regularly, in a timely manner, and in all relevant areas. Box 4.1 describes the form of social partner involvement in Denmark and Norway. In both countries, systematic arrangements give the social partners an advisory role either at regional or institution level.

Box 4.1. Involvement of social partners in VET in Denmark and Norway**Denmark**

In Denmark, social partners are involved at national and local level.

National level: Advisory

The national advisory council on vocational upper-secondary education and training (*Rådet for de grundlæggende Erhvervsrettede Uddannelser*) meets 8-10 times a year. It advises the ministry on the establishment of new VET programmes and changes in existing ones. The council includes representatives of the social partners, local governments and regional organisations, schools, teachers, and student associations. There are 31 representatives from the employer and employees organisations in the council (Undervisnings Ministeriet, 2018^[4]).

National level: Decision making

Around 50 national trade committees (*faglige udvalg*) are responsible for 106 VET upper-secondary programmes. These are composed of, and funded by, employer and employee organisations. Trade committees update existing courses and propose new ones, define learning objectives and final examination standards; decide the duration of the programme, and the ratio between college-based teaching and practical work in an enterprise; approve enterprises as qualified training establishments and rule on conflicts which may develop between apprentices and the enterprise providing practical training; issue journeyman's certificates in terms of content, assessment and the actual holding of examinations (Andersen and Kruse, 2016^[2]).

Institution level: Advisory

Each vocational college (providing school-based education and training) works with at least one local training committee that includes representatives of local employers and employees appointed by national trade committees, and representatives of staff, management and students appointed by colleges. Local training committees work closely with colleges to adapt the content of VET programmes to local needs, strengthen contacts between the college and local employers, and support colleges with the delivery of programmes, for example by securing work placements for students. They also serve as a link between local and national levels, ensuring that national committees have a good overview of local circumstances and that local policy is aligned with national objectives. For example, they assist and advise national trade committees in approving local enterprises as qualified training establishments and in

mediating conflicts between apprentices and enterprises (Andersen and Kruse, 2016_[2]). The national committees can devolve responsibilities to the local trade committees if they are better taken care of at the local level.

Norway

National level: Decision making

At the national level there is a National Council for VET (*Samarbeidsrådet for yrkesopplæring*) and nine Vocational Training Councils (*Faglige råd*), one for each VET programmes, where social partners are represented. These bodies have an advisory role in respect of the first two school-based years of apprenticeship, but a decisive role in the last two work-based years of apprenticeship. The government has to take into account the proposals of the social partners unless they are against the law or involve a substantial increase in public spending.

Regional (county) level: Advisory

Social partners sit on 19 Vocational Training Boards (*Yrkesopplæringsnemnda*), one for each county. They provide advice on quality, career guidance, regional development and the provision in the county to meet local labour market needs (Norwegian Centre for International Cooperation in Education (SIU), 2016_[5]). County authorities are also responsible for approving enterprises that provide apprenticeship training. While counties are free to develop their approval procedure they typically involve social partners from the relevant sector in the process.

Source: Andersen, O. and K. Kruse (2016_[2]), “Vocational education and training in Europe: Denmark”, *Cedefop ReferNet VET in Europe Reports*, www.cedefop.europa.eu/en/publications-and-resources/country-reports/denmark-vet-europe-country-report-2016; Norwegian Centre for International Cooperation in Education (SIU) (2016_[5]), “Vocational education and training in Europe – Norway”, *Cedefop ReferNet VET in Europe Reports*; http://libserver.cedefop.europa.eu/vetelib/2016/2016_CR_NO.pdf; Undervisningsministeriet (2018_[4]), *Om Rådet for de grundlæggende Erhvervsrettede Uddannelser - Undervisningsministeriet*, <https://uvm.dk/erhvervsuddannelser/ansvar-og-aktoerer/raad-og-udvalg/reu/om-reu>.

The challenge: Involvement of social partner at the local level is variable

Sweden has successfully built a national framework for social partner involvement

A previous OECD review of VET in Sweden, carried out in 2007 (Kuczera et al., 2008_[6]) expressed concern over weak social partner involvement in VET and weak links between VET and the labour market. Since 2007, Sweden has developed a permanent national framework for social partners’ involvement. In 2010, programme councils for each national upper-secondary VET programme were created (*Statens offentliga utredningar* (SOU), 2015_[7]). Thirteen sectoral National Programme Councils (*nationella programråd*) concern themselves with the 12 national vocational programmes and the fourth year of technology programmes (as explained in Chapter 1). Each council has 8-10 members representing industry, social partners, and sometimes national and regional authorities, and meets around six times a year (Ministry of Education, 2018_[8]). Councils advise the National Agency for Education on the quality, content and organisation of

upper-secondary VET for youth and adults, aiming to match VET provision to labour market needs. The councils advise on proposals for new subjects or courses submitted by the National Agency, which may lead to modification of the proposals, or possibly even their abandonment (Equavet, n.d.^[9]). Social partners reported to the visiting OECD team that they were generally satisfied with this framework. This is a major achievement, as international experience shows that establishing employer engagement in VET systems can be extremely challenging.

But at local level collaboration with social partners is variable

Schools are expected to set up collaborative arrangements with one or more Local Programme Councils (*lokala programråd*) in areas corresponding to the VET programmes available in the school. Local Councils are expected to include representatives from local working life, other stakeholders and social partners, and their role is to advise schools on how to adjust VET programmes to local labour market needs and support VET provision, for example by finding work placements for students. According to one survey of VET teachers, 75% reported working in schools where there was a Local Programme Council tied to the teacher's programme, and 6% report being in schools with joint councils for several VET programmes (Skolverket, 2016^[10]). But the same study shows that the influence of local council varies greatly (Skolverket, 2016^[10]; Statens offentliga utredningar (SOU), 2015^[7]). Local councils are not legally regulated (Ministry of Education, 2018^[8]), and schools are free to organise local councils to fit their needs, so that there is much variation in the quality of local partnerships. Connections between the national and local levels could also be improved. During the OECD's visits, various interlocutors expressed a view that National Programme Councils are sometimes not aware of local employers' needs.

Quality criteria for VET could better reflect occupational aspects of VET programmes

A recent government inquiry on upper-secondary VET argues that school inspections carried out by the School Inspectorate do not look at the quality of vocational training in VET programmes (e.g. quality of equipment, professional competences of VET teachers). (Statens offentliga utredningar (SOU), 2015^[7]) In some ways this is inevitable. While a school inspectorate can reasonably be expected to have expertise on the broad principles of VET, it would be unrealistic to expect it to provide subject experts who can assess the quality of teaching, the equipment required, or the key curricular elements in a course – say – in healthcare. Instead, quality assurance of this type needs to come from practitioners working in healthcare – the social partners.

Policy options

To empower social partners, Sweden may introduce the following measures:

- Building on existing local consultation arrangements, and the successful experience with colleges, Sweden could establish a more systematic institutional framework to engage the social partners at local level. This would promote collaboration between different stakeholders, and reinforce links between national and local bodies in which social partners are represented. A model inspired by the college initiative, in which programmes and institutions collaborate and meet the quality requirements of the social partners, could be encouraged.

- This proposition is linked to policy options advanced in other chapters of this report. Chapter 2 proposed the consolidation of VET provision in fewer but larger VET schools, facilitating social partner engagement as social partners would not have to engage with so many small institutions.
- Drawing on the Danish experience, local social partner organisations may serve as a link between local and national levels, ensuring that National Programme Councils are fully apprised of local circumstances and interests, and that local approaches take full account of national development.
- Stronger local engagement of the social partners would facilitate an enhanced role for the social partners in the quality assurance of local VET provision. This role could involve ensuring that national VET programmes are taught and configured so as to meet local labour market requirements, supporting the provision of work placements and apprenticeships, and quality assuring the work placements that are delivered. This might be underpinned by requiring school evaluations give credit to schools for facilitating such local engagement of the social partners, and the quality assurance which might follow.

Policy arguments and implementation

This section argues that social partners should be involved at all levels where VET policy is defined. In particular they should be more involved in development of quality criteria for the occupational elements of VET and evaluation of the outcomes.

Policy argument 1. A stronger institutional framework for the local engagement of the social partners in VET provision would have many benefits

Involvement of social partners improves labour market outcomes from VET

The engagement of social partners in VET systems helps to improve labour market outcomes for students and helps to meet the skills needs of employers. Strong VET systems, drawing on social partner engagement, yield benefits to employers by increasing the pool of qualified labour, and benefit students by facilitating their transition to skilled employment (Chapter 3 discusses in more detail benefits associated with work-based learning). In Sweden, a study looking at the provision of work placements in upper-secondary VET shows that a strong partnership between the school and local councils improves outcomes from VET (Skolverket, 2016^[11]).

It fosters innovation

The collective involvement of social partners in VET as a valuable spin-off, can encourage innovation in firms. Social partners are able to reflect upon, and share information, new technologies, production and training methods while updating the components of VET programmes. This effect is stronger for small firms, implying there is a transition of knowledge and innovation from larger companies to smaller ones (Rupietta and Backes-Gellner, 2012^[12]).

Policy argument 2. In building a stronger framework for social partners' involvement, Sweden can build on the existing College model

The social partners created colleges to address skills shortages and promote excellence in VET

Colleges are local initiatives, led by the social partners, to drive local provision towards specific skills requirements, often in response to labour shortages. To be included in a College, programmes and schools have to meet certain requirements established by the social partners, demonstrating their responsiveness to the labour market. The social partners set rules according to which each College is organised and standards for the programme that would like to become part of a College. Colleges have been created in sectors such as health, technology, transport and in the vehicle industry. They promote cooperation among municipalities, schools and local employers. For example, a College in technology (*Teknikcollege*) requires at least three municipalities to collaborate (Teknik College, 2018^[13]; Persson and Hermelin, 2018^[14]). A health and care College (*Vård och Omsorgscollege*), in addition, requires involvement of a county or a region (Vård och Omsorgs college, 2018^[15]). Schools that are part of a College have to work very closely with local employers to make sure the programme offered is relevant to the local labour market needs. Colleges may set up steering groups with industry representatives to ensure that programmes meet all the quality criteria. They may also define standards for work placements with companies, equipment used in school workshops and methods of teaching VET subjects (Teknik College, 2018^[13]).

The College has filled the gap in the system

Social partner investment in the College initiative suggests that the existing VET system has not met social partners' expectation in terms of relevance and quality of occupational preparation (Persson and Hermelin, 2018^[14]). It also shows that social partners are interested in getting more involved in VET, and that collectively they are well placed to contribute to the quality criteria of VET programmes. One study focusing on the *Teknikcollege* notes that in 2015 there were 150 schools certified to offer technical College programmes and more than 2 000 companies involved (Persson and Hermelin, 2018^[14]). According to the study, most of the technical VET programmes were part of the college scheme. Three-quarters of students enrolled in industry programmes and 40% of students in the Technology Academic Programme were in programmes certified by the College.

Policy argument 3: How to implement the proposed options

Social partners are well placed to contribute to the quality of VET programmes

Given that the college model defines a standard of excellence, guided by the social partners, there are good reasons for building on this model. Drawing on the college standard of excellence, quality criteria may be defined in terms of regional collaboration and the role of companies in provision of VET, requirements for work placements with companies, equipment used in school workshops and methods of teaching VET subject, etc. Social partners should be fully involved in development of these criteria, and support schools and companies in reaching them, for example by updating VET trainers on recent developments in the profession. They may also ensure some quality control. Reaching these objectives may require involvement of social partners at various levels. National

bodies, where social partners are represented, may be better placed to define quality criteria for specific national VET programmes while local bodies may advise and support schools with implementation of these criteria. Since social partner engagement in VET varies by sector. Development of a model drawing on the college example may need to start in sectors where social partner involvement in VET is already strong. Gradually, and after running an evaluation, a similar model could be expanded and applied in other sectors.

The proposed development should apply to all schools

Persson and Hermelin (2018^[14]) report that more than 90% of programmes certified by *Teknikcollege* are run by municipalities and few by independently run schools despite the fact that the independent sector enrolls approximately one-third of the students in industry programmes (Skolverket, 2014^[16]). In general, it makes sense for any agreed rules regarding co-operation with the social partners and provision of VET to apply in the same way to all schools, including both municipality and independently run schools. Data might be published on the schools that take part in such college schemes, and this could reasonably be part of the school evaluation process. The criteria, while demanding, should be reasonable. This means that they should be within the reach of schools catering to different populations.

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Chapter 5. Increasing the attractiveness of vocational education and training in Sweden

In Sweden, enrolment in upper-secondary vocational education and training (VET) has been falling. Chapter 5 argues that clear and workable pathways from upper-secondary VET to post-secondary education and training would increase the attractiveness of VET to students. To this end, Sweden may reinstall academic content providing eligibility for higher education into the routine coursework of VET programmes. The chapter also discusses progression pathways from upper-secondary VET to post-secondary professional programmes and argues that these post-secondary programmes should be accessible and attractive to adults returning to education.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Introduction: Background

The introduction discusses how the role of vocational education and training (VET) has evolved over time in response to changing labour market contexts and the rising level of educational attainment in OECD countries. It then describes how upper-secondary VET is articulated with other programmes, notably at post-secondary level, in Sweden and other countries.

The role of VET has changed over time

In the past, young people often enrolled in VET to prepare for specific jobs, typically blue collar jobs in sectors such as crafts, construction and manufacturing. VET rarely provided opportunities for further learning, and higher education was commonly reserved for a small minority following prestigious academic paths. But the role of VET has changed over time. VET is now widely available at post-secondary level, in preparation for a wide range of jobs, often requiring high level technical skills, such as in radiography, information technology (IT) or banking. In most countries there are also pathways connecting upper-secondary VET programmes to higher level education. VET not only now serves young people entering the labour market, but also adults returning to education wishing to upgrade their existing skills or acquire new ones.

All of these changes were driven by increasing demand in modern economies for higher level skills. While young people and their parents increasingly aspire to higher education, ageing populations have also increased attention on the importance of lifelong learning. Many countries have reformed their VET systems, partly in response to these developments. Often countries have increased the academic content of VET programmes to allow students to continue to higher levels of education and created a range of post-secondary programmes, including shorter and more applied programmes, as well as encouraging more flexible provision suited to the needs of adult learners.

Many countries have built pathways between VET and higher education programmes

More academic content – for example mathematics - can either be integrated into VET programmes or be an optional add-on. VET programmes with integrated academic content typically provide some vocational training and leads to a qualification that gives eligibility to higher education. For example in Israel, students in school-based VET programmes pass a final upper-secondary examination required for entry to higher education, exactly like students following academic paths. Alternatively, VET programmes may not automatically offer eligibility for higher education but VET students or graduates who would like to continue into higher level programmes have the option of taking additional academic courses or qualifications. For example in Switzerland, students following the apprenticeship programme may opt to take additional courses leading to an examination that qualifies them for entry to some higher education institutions (in addition to their vocational qualification).

Upper-secondary VET programmes in Sweden allow students to continue to higher education

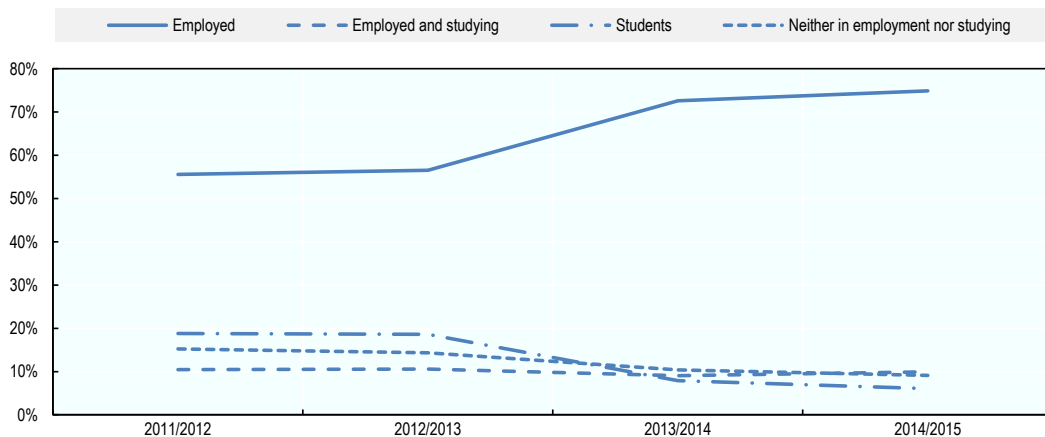
In comparison to other countries, the current Swedish upper-secondary system is relatively permeable. Clear pathways connect VET programmes to higher education, and these pathways are frequently followed. Academic courses giving eligibility to higher

education are optional but available within VET programmes. Around 70% of VET students complete their upper-secondary education with a diploma (Ministry of Education, 2018^[1]; Statistics Sweden (SCB), 2017^[2]), and of these 41% become eligible for higher education (Ministry of Education, 2018^[1]). To further improve access, since 2017, all adults have the right to study courses that give access to higher education in adult education. So the option of higher education remains open for those who did not complete their upper-secondary programme or did not acquire initial eligibility for higher education.

Falling progression rates for VET graduates may reflect the competing attractions of the labour market

In 2015, around 16% of upper-secondary VET graduates continued in post-secondary education one year after completion of their upper-secondary studies (Statistics Sweden (SCB), 2018^[3]). But, as shown in Figure 5.1, the enrolment of VET graduates in post-secondary education has been declining over recent years, probably due to improving employment opportunities. Over the same time, the rate of employment of VET graduates increased. The popularity of progression pathways may therefore reflect in part environmental factors, such as the labour market situation.

Figure 5.1. VET graduates one year after completing their studies



Source: Statistics Sweden (SCB) (2018^[3]), *Statistical Database. Education and Research* (database), http://www.statistikdatabasen.scb.se/pxweb/en/ssd/START_UF_UF0507/?rxid=7655929a-d838-4f2c-aa55-8913e51cf4d1.

StatLink  <http://dx.doi.org/10.1787/888933927552>

Many countries provide a range of professional post-secondary options

An OECD report (OECD, 2014^[4]) distinguishes three types of relevant postsecondary vocational qualifications:

- Post-secondary qualifications, requiring more than six months and less than three years of full-time study (or the part-time equivalent) – for example, qualifications arising from professional academy programmes in Denmark, practical engineering programmes in Israel, junior college programmes in Korea and higher vocational education and training (HVET) programmes in Sweden. Such

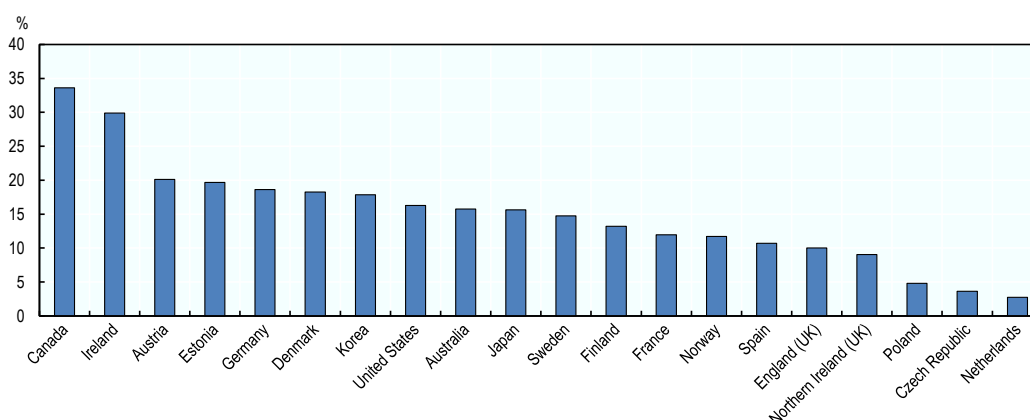
“short-cycle” post-secondary vocational programmes will be at ISCED level 4 and 5 (under ISCED 2011), and at European Qualifications Framework (EQF) level 5 and 6.

- Vocational bachelor degrees at ISCED level 6, designed to prepare graduates for occupations or careers, and sometimes described as professional bachelor degrees. These degrees are often pursued in a dedicated tier of institutions akin to universities but separate from them – some *Fachhochschulen* or universities of applied science, university colleges in Denmark, *Hogescholen* in the Netherlands, polytechnics in Finland, and universities delivering professional bachelors qualifications in Sweden. In other cases they are undertaken in universities. (In some countries there is no strict dividing line between professional and academic bachelor degrees).
- Professional examinations (sometimes also described as industry certifications) – often free of requirements for fixed programmes of study. Examples include examinations for accountants, for master builders and proprietary software certifications. Found in many different countries such as Austria, Israel, Norway and Switzerland, they typically involve a test or examination, organised by the relevant profession or industry linked to a particular occupation or competence within a profession. In some cases, they are linked to “licensed” professions – where the qualification is a legal requirement.

In the discussion that follows, these programmes may be defined as professional or VET post-secondary programmes. Separately, higher education refers to higher level university programmes including academic bachelor degrees and master degrees.

Figure 5.2. Post-secondary VET qualifications in the labour force

Percentage of adults aged 20-45 who have post-secondary VET as their highest qualification (2012)



Source: OECD (2014^[4]), *Skills beyond School: Synthesis Report*, OECD Reviews of Vocational Education and Training, <http://dx.doi.org/10.1787/9789264214682-en>.

StatLink  <http://dx.doi.org/10.1787/888933927571>

In Sweden there are two main types of post-secondary VET provision

Professional bachelor's degree programmes in universities and university colleges enrol 40% (or 140 000) of all post-secondary students in Sweden. In 2010/2011 nearly half of

these students starting on professional bachelor programmes were enrolled in nursing and other health related programmes. But in addition, higher vocational education (HVT) established in 2001, has grown fast (Kuczera, 2013^[5]). HVT programs are available in different areas, such as construction, finance, administration, sales, information technology (IT), tourism, healthcare, agriculture, media, design, engineering and manufacturing. More than half of the entrants to HVT completed upper-secondary VET, with an average age of around 30 (Myndigheten för yrkeshögskolan, 2017^[6]). The number of students in HVT has been increasing steadily and is expected to grow further from 50 000 today to 70 000 students in 2022 (Ministry of Education, 2018^[1]). Both professional bachelor's degrees and HVT programmes require a completed upper-secondary education. But applicants to HVT may be accepted through recognition of prior learning, assessed by the HVT provider, even if they do not meet formal requirements. Many HVT programmes also require specific entry qualifications defined by the provider such as professional experience (Swedish National Agency for Higher Education and the Ministry of Education and Research Sweden, 2013^[7]).

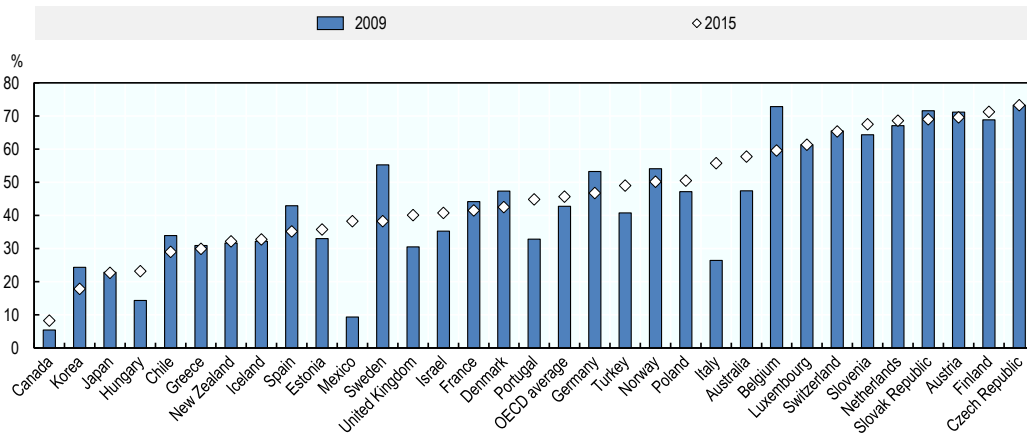
The challenge: Enrolment in VET has been falling

Sweden has recorded the highest drop in VET enrolment among the OECD countries

In 2015, on average in OECD countries 46% of upper-secondary students were enrolled in VET programmes. While this all-OECD average has been stable (Figure 5.3), in Sweden enrolment in VET dropped by 30% between 2009 and 2015, more than in any other OECD country.

Figure 5.3. Enrolment in VET in 2015 and 2009

Share of all upper-secondary students enrolled in VET programmes.



Note: Countries are ranked according to the share of enrolment in VET in 2015.

Source: OECD (2017^[8]), *Education at a Glance 2017*. OECD Indicators, <https://doi.org/10.1787/eag-2017-en>; OECD (2009^[9]), *Education at a Glance 2009*. OECD Indicators, <https://doi.org/10.1787/eag-2009-en>.

StatLink  <http://dx.doi.org/10.1787/888933927590>

The share of students enrolling in VET in Sweden has fallen

In 2016/17, only 33% of students in upper-secondary National Programmes were enrolled in VET programmes, compared to 53% on average in the period 2005-2010 (Ministry of Education, 2018^[1]; Statistics Sweden (SCB), 2017^[2]). A sharp decline in enrolment was recorded after 2011 reforms, suggesting that the reform may have caused the decline. Box 5.1 describes in more detail the impact of the two major reforms on transition from upper-secondary VET to post-secondary education. A reduction in the proportion of people seeking vocational programmes could be partly explained by the reclassification of the media program from a VET to an academic programme (Statistics Sweden (SCB), 2017^[2]). But it cannot explain the entire drop in enrolment. More demanding entrance requirements to higher education and the removal of automatic eligibility from VET programmes to higher education introduced by the 2011 reform may provide another explanation. Some argue that this differentiation signalled different status between the two types of National Programmes. The sharpest drop in VET enrolment observed among students with good performance who may well aspire to higher education seems to confirm it (Statistics Sweden (SCB), 2017^[2]).

Box 5.1. How pathways from VET to higher education changed over time in Sweden

An earlier reform gave VET graduates direct access to higher education

At the beginning of the 1990s Sweden broadened the general content of VET programmes, making VET and academic programmes more similar, and allowing VET students to continue to higher education. All upper-secondary students followed the same academic curriculum and all became eligible for higher education upon successful completion of the programme (Olofsson and Thunqvist, 2014^[10]). But as the authors show, following this reform around one third of all upper secondary students failed to gain eligibility for higher education (four years from the entry), with the majority coming from VET programmes.

Since 2011, VET students who wish to enter higher education have to take additional courses

A further 2011 reform reinforced the vocational content in VET programmes and increased requirements for entry to higher education in all upper-secondary programmes including VET (Ministry of Education, 2018^[1]). Following the reform, VET students were required to make active choices to undertake courses (previously included in the ordinary VET curriculum) to qualify for entry to higher education.

Source: Olofsson, J. and D. Thunqvist (2014^[10]), *Nord-VET-The future of VET in the Nordic Countries Report 1A Sweden The Swedish Model of Vocational Education and Training: Establishment, Recent Changes and Future Challenges Report 1A from the Swedish Project Group of the Nord-VET Project*, <http://nord-vet.dk/indhold/uploads/Report-1A-The-Swedish-Model-of-VET-final-2014.pdf>; Ministry of Education (2018^[1]), *Review of VET in Sweden. Background Report*.

In Sweden, young people believe upper-secondary VET programmes provide them with limited educational opportunities

Survey evidence shows that the majority of young people choose upper-secondary programmes that correspond to their interests, offer career opportunities and provide a route into higher education (UB Ungdomsbarometern, 2018^[11]). According to young people, VET programmes are perceived as preparing them poorly for higher education and lead to fewer career opportunities than academic programmes. Among those choosing VET, only 13% felt that their programme prepared them well for higher education, and only 30% thought it provided them with many options after completion. The corresponding figures for academic tracks were 55% and 63% respectively (UB Ungdomsbarometern, 2018^[11]). A Cedefop survey shows that, relative to other European Union (EU) countries, a high proportion of Swedish respondents saw VET as primarily an option for low performers. Nearly one-third of respondents in Sweden have a negative image of VET compared to the EU average of one-quarter. (Cedefop, 2017^[12]). More positively, Swedish respondents felt that VET provided an effective preparation for the labour market: 91% and 86% of respondents respectively agreed that VET provides skills needed by employers, and that it enables quick access to employment after graduation (Cedefop, 2017^[12]).

Policy options

- A strong VET system needs to be attractive to a diversity of students, including those with a stronger academic performance as well as those who are less academically oriented. The evidence suggests that the declining popularity of VET in Sweden may be related to the weak pathways from VET to higher education, and VET being perceived as an option for low performing students.
- To reverse this trend Sweden may reinstall academic content in the routine coursework in VET programmes,¹ but allow students who are less interested in academic subjects to opt out of them. Currently, all upper-secondary programmes including school-based VET and apprenticeships last three years. Combining demanding VET and academic coursework may therefore require an extension of the programme duration leading to a double qualification. The Technology Programme that can be topped up with a fourth year leading to an ‘upper-secondary’ engineering degree provides an example of a programme leading to both vocational and academic qualifications.
- Links between upper-secondary VET and the post-secondary level could usefully be strengthened and entry points from upper-secondary VET to post-secondary education diversified. For example, individuals may receive extra credits in the admission process if they bring with them the relevant work experience. Stronger and more diverse progression pathways between upper-secondary and post-secondary VET would require coordinated provision and cooperation among upper-secondary and post-secondary providers. Post-secondary institutions, including HVT institutions and/or university colleges, should be part of the proposed regional cooperation scheme discussed in Chapter 1.
- Post-secondary VET provision should be available to adults who wish to upgrade their competences. To attract working adults, programmes should be provided in a flexible way allowing for a combination of work and study. (Currently, most post-secondary VET programmes are full time).

Policy arguments and implementation

Policy argument 1. VET programmes that offer weak routes of progression are less attractive to students and employers

While initial VET programmes are often mainly designed for immediate labour market entry, in many countries they also provide a route into higher levels of education, including post-secondary programmes leading to high-paying jobs. Cross-country experience shows that initial VET programmes that have not been reformed and offer weak routes of progression become unattractive to students and employers [for example, see discussion on shorter duration VET programmes in the Netherlands in Fazekas and Litjens (2014_[13])]. In Denmark, weak opportunities for transition from apprenticeship to post-secondary education have been suggested as one cause of falling participation in youth apprenticeship (Jørgensen, 2017_[14]).

Policy argument 2: There are different models of including more academically demanding content into VET programmes

Combining vocational and academic qualifications may require more time

This report argues that if Sweden is going to introduce academic content into VET programmes and at the same time preserve their vocational orientation, the duration of some VET programmes may need to be extended, following the model of other countries. Completion of both vocational and academic qualifications may require an extra effort and time from students. In Poland, school-based upper-secondary VET programmes ending with a final exam giving eligibility to higher education are one year longer than upper-secondary academic programmes. In Switzerland, high performing apprentices can top up their apprenticeship education with a vocational baccalaureate entitling them to enrol in some higher education programmes (Swiss university of applied science). To this end apprentices can take additional courses during their apprenticeship programme, attend relevant classes after completion of the programme, or sit the exam directly (Swiss Education, 2018_[15]). In Norway, there are several points of entry to higher education. Among others, students in apprenticeship programmes can take additional academic courses while studying or a one-year bridging programme after completing their apprenticeship. In Norway, apprenticeship topped up with an extra year implies five years in total, as compared to the three years required to complete academic upper-secondary programmes (Cedefop, 2013_[16]). Denmark has recently created a hybrid qualification (EUX) providing young people both with direct access to the labour market and access to higher education. These programmes are more demanding than regular apprenticeship – one potential risk identified by some commentators is that they turn into academic programmes with the vocational element being lost (Jørgensen, 2017_[14]).

Demanding academic content may not suit all upper-secondary VET students

VET caters to a diverse population. In Switzerland, more than 70% of 15-year-olds with middle and low reading skills, and around 40% of high performers [as measured by the Programme for International Student Assessment (PISA) (2000)], enter upper-secondary vocational education (Meyer, 2003_[17]). In Sweden, there is a lot of variation in students' performance across VET programmes (Skolverket, 2017_[18]). The introduction of more demanding academic content in all VET programmes can be detrimental to less academically oriented students and may contribute to higher dropout rates. For this

reason, VET students should have the possibility of opting out from more demanding academic courses, but this should involve an active opt out. The default option would be to pursue the more demanding academic courses.

Policy argument 3: Post-secondary VET programmes often allow VET graduates to continue in education

Diversified post-secondary options and different points of entry facilitate transition from upper-secondary VET within education

In many countries, VET graduates who wish to broaden and deepen initial vocational qualifications can enter vocational post-secondary programmes. These programmes allow them to develop more advanced technical and professional skills and acquire additional skills, such as entrepreneurial or management capacity or to make sideways career moves. These options not only help to meet the increasing and changing skills requirements in the economy, but also serve to make the choice of upper-secondary VET programmes more attractive, by offering natural routes of progression and career development (Field and Guez, 2018^[19]). In Germany and the Netherlands, upper-secondary VET graduates represent more than 30% of all students in post-secondary VET. This is because there is a strong and clear articulation between upper-secondary and post-secondary VET programmes.

The value of VET qualifications could be better recognised in the admission process

Often VET graduates compete for entry to post-secondary vocational programmes with those coming from academic paths. Recognition of the value of vocational qualifications in the admission process may facilitate transition from upper-secondary VET to post-secondary programmes.

- This may involve recognition of relevant work experience in the admission procedure. For example, in Switzerland, many professional examinations, although they do not require fixed programmes of study in preparation, do require a few years of relevant work experience. In part-time programmes delivered by Professional Academies in Denmark, relevant work experience acquired as part of a VET programme counts towards the entry requirement. This means that adults with a relevant VET qualification can enter the programme directly.
- Sometimes, within a specific area of study there are direct paths through education. In Denmark, some VET programmes provide direct access to the professional bachelor programmes offered by university colleges. For example, upper-secondary VET graduates trained as Special Ambulance Assistants and Social and Health Assistants with strong academic records (they need to have met required grades in Danish, natural science and English) can enter bachelor degree programmes in nursing at university colleges, even without the high school exam. (Ministry of Education and Research Denmark, 2018^[20]). However, in practice the transition is often difficult as bachelor degrees in health are in high demand and VET graduates compete for places with peers coming from academic programmes.
- VET graduates may sometimes lack academic skills, and would benefit from additional support. For example in Australia, students with vocational backgrounds coming to university reported a big culture shock, reflecting not only

the formal work requirements, but also the different cultural codes and modes of study found in higher education and vocational programmes (Field and Guez, 2018^[19]). To address this issue in the Netherlands, upper-secondary (MBO) and post-secondary (HBO) VET providers have introduced measures supporting the transition of VET graduates into post-secondary programmes. The measures included providing extra lessons or additional projects in either the MBO or the HBO institution during the MBO programme, extra lessons and projects of other sorts within the MBO programme and other kinds of institutional co-operation (Field and Guez, 2018^[19]).

Policy argument 4. Post-secondary VET programmes targeting adult learners can be attractive to VET graduates

Post-secondary VET provided in a flexible way allows combination of work and studies

Working VET graduates will often be interested in gaining post-secondary qualifications that contribute to their career development. In Switzerland, around 20% of apprenticeship graduates in employment continue in post-secondary education within 2.5 years of completing their apprenticeship (Kuczera and Schweri, 2018^[21]). Some VET systems facilitate the return of adults to education through part-time, evening and weekend provision. In Denmark, post-secondary VET qualifications, including qualifications awarded by professional academies and university colleges, can be acquired through part-time programmes for adults. Programmes are provided in a flexible way as stand-alone modules (e.g. part time, e-learning, evening courses) allowing participants to combine work and study. Relevant work experience is required to start on a programme and is integrated into the teaching. The fact that programmes recognise the value of work experience allows participants to shorten the time spent in education and training (Sørensen, 2018^[22]). Flexible arrangements permit students either to continue working part-time, or even to go on working full-time while studying and therefore to maintain income from employment. Access to employment while studying is particularly important in countries where students in addition to the opportunity costs (lost salary) also incur a direct cost of education – tuition fees. But even in countries with free tuition (as in Sweden), the opportunity costs of full-time study are often high, discouraging many adults from continuing in education and training. Financial measures targeting adult learners should be evaluated before being introduced. Box 5.2 describes financial measures provided to support adult apprentices in selected countries. However, due to a lack of evaluation it remains unclear whether they increase participation of adults in education and training.

Box 5.2. Financial incentives for adult apprentices

Germany has been promoting apprenticeship among young adults (aged 25-35) in response to skills shortages and insufficient young apprentices in some sectors. In Germany, individuals may receive financial support for education expenses, travel, childcare, tutoring, and subsistence during the training. To encourage completion, apprentices receive a grant upon passing mid-term and final examinations. The role of these incentives in the observed increase in the proportion of apprentices over 23 (from 3% in 1993 to 12% now) is unclear.

In **Switzerland** in 2016, around 8% of apprentices were older than 24. In Switzerland, adult apprentices earn around two-thirds of the unskilled worker wage, compared to one-fifth for younger apprentices. All individuals under 35 can apply for a scholarship of a maximum CHF 12 000 per year (equivalent to two and half median monthly wage of an unskilled worker). Under some circumstance they can also apply for social assistance. Additional financial assistance is available to those who are unemployed.

In **Canada** unlike Germany and Switzerland, apprenticeship has traditionally been for adults. In Canada apprentices can receive up to CAD 4 000 (the minimum average hourly wage in Canada is CAD 11.43) during apprenticeship programme. The apprentice wage starts at around 50% of the skilled worker wage, which is higher than in Switzerland and Germany. A low completion rate is a challenge in Canada with fewer than half of all apprentices completing their programme within 11 years. The high dropout rate may be related to the fact that apprenticeships last five years, increasing the difficulty of sustained engagement.

Source: Mühlemann, S. (forthcoming_[23]), “The economics of apprenticeships for adults”, *OECD Working Papers*.

In Sweden, working adults could benefit from more flexible provision

Professional bachelor degrees are mainly offered as full-time programmes and cater to relatively young people (with 24 as the median student age). HVET programmes are better suited to the needs of adults as they prepare for career changes and allow participants to upgrade their skills within their area of specialisation. Consequently, students in HVET are older than those in academic and professional higher education. But HVET programmes are usually provided full-time (except for some individual arrangements), which may create hurdles for adults who are looking for more flexible provision. Currently the National Agency for HVET is exploring if partial qualifications could complement HVET in leading to full qualifications (Ministry of Education, 2018_[1]). Such modularised arrangements would allow adult learners to choose the modules that interest them most and obtain the qualification in a more flexible way.

Policy argument 4. Sweden can draw on its own experience

Sweden has already introduced measures to improve transition to HVET...

The Swedish government has recently introduced new measures to further improve access to HVET. HVET providers may now offer preparatory courses that aim to bring applicants up to the level where they can enter a full HVET programme. From 2017, municipal adult education (*komvux*) courses may also confer eligibility for admission to HVET. These developments are welcome.

...but the progression pathways could be further reinforced

The use of HVET by upper-secondary VET students may be limited by the following characteristics of the HVET:

- HVET remains small in size in comparison to university offerings.
- HVET is a relatively new type of provision and many students may not be well aware of the existing opportunities.
- HVET programmes are approved for a specific period of time after which they have to seek re-approval. This ensures HVET programmes match labour market needs, but introduces uncertainty into long term planning of educational progression. It may make it harder to permit the slower progress to completion implied by a part-time mode of study and discourage the development of more expensive education paths.
- Progression from HVET to university programmes can be difficult, as argued by the previous OECD review of post-secondary VET.

Stronger regional co-operation, as argued in Chapter 2, including HVET providers and university colleges, would help to address some of these issues. In the Netherlands, upper-secondary and post-secondary institutions have a great deal of autonomy, as in Sweden. Co-operation between various stakeholders is therefore extremely important. Close collaboration between upper-secondary VET (MBO) and post-secondary institutions (HBO) help to facilitate the transition from one part of the system to the other. In Sweden, collaboration between institutions might be pursued more energetically to establish articulations at local level.

Note

¹ A Bill was presented to the Parliament in the second quarter of 2018 with proposals that all VET-programmes should by default include courses necessary to obtain basic eligibility to higher education. The proposal included an opt-out solution. The Bill was rejected by the Parliament (www.regeringen.se/495397/contentassets/5bd6e1343c8f403785b394ec275d7073/okade-mojligheter-till-grundlaggande-prop.-201718.184.pdf).

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Chapter 6. Unlocking the potential of migrants through vocational education and training in Sweden

In response to labour market demand and the recent increase in young humanitarian migrants, Sweden has recently introduced Vocational Packages that provide the possibility of obtaining partial qualifications within Introductory Programmes. Chapter 6 discusses ways to better implement this promising measure and the importance of building seamless vocational education and training (VET) pathways. This chapter also discusses ways to address the barriers faced by an increasingly diverse cohort of VET learners.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Introduction: Background

Sweden has experienced a large inflow of humanitarian migrants in recent years. This chapter discusses how the vocational education and training (VET) system in Sweden has addressed the challenge of an increasingly diverse cohort of learners, and provides policy options on how to better integrate migrants into VET in order to better unlock their potential.

The introduction discusses the issue of migration in the context of the labour market in Sweden. It also looks at measures that have been developed to facilitate transition of young migrants into VET programmes and the labour market.

Migration in the context of skills shortages in Sweden

Sweden is experiencing shortages of vocational upper-secondary graduates

Sweden is currently facing and will continue to face a severe shortage of vocational upper-secondary graduates (Statistics Sweden, 2017^[1]) due largely to falling enrolment rates in vocational education and training (Chapter 5) as well as increasing labour market demand due to an ageing population. Meanwhile, the employment rate of vocational upper-secondary graduates (25-34 year-olds) is almost 90%, comparable to the employment rate of tertiary graduates (OECD, 2018^[2]). Sweden was the top ranking OECD country in terms of employment rate of vocational upper-secondary graduates in 2016 and the second highest in 2017.

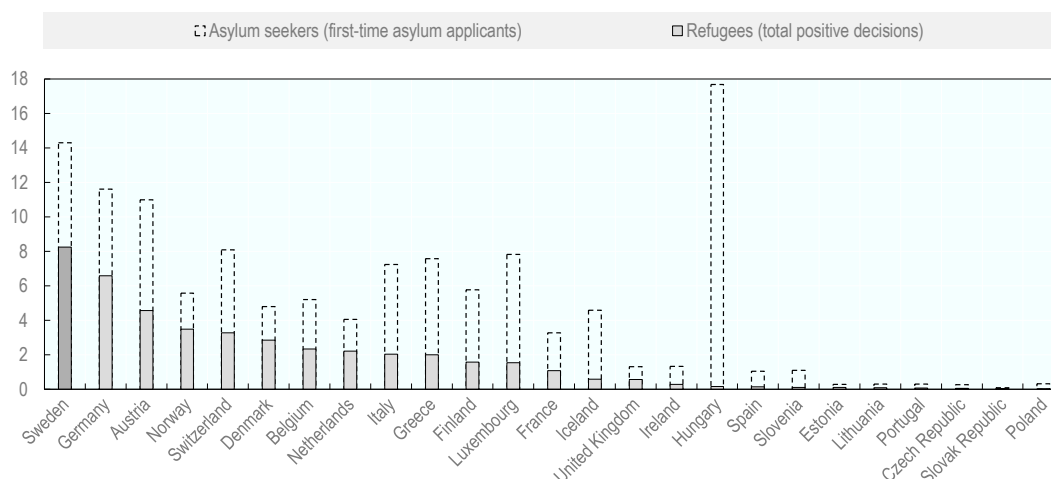
The skills shortage in the health and social care sector, in particular, is expected to worsen (Statistics Sweden, 2017^[1]). This in part reflects an ageing population in Sweden which includes the seventh highest rate of ageing among OECD countries (OECD, 2017^[3]). It is estimated that the old-age dependency ratio (the ratio of citizens over the age of 65 to the working age population) will reach almost 40% by 2035 if current trends continue. (United Nations, Department of Economic and Social Affairs, 2017^[4]). If migration were to be halted, this ratio could be expected to rise to 47%. Migrant skills are consequently a key means of tackling this challenge.

In this context, the recent increase in humanitarian migrants presents a set of both opportunities and challenges

Historically, Sweden has been one of Europe's top recipients of humanitarian migrants, both in terms of total number and as a share of population (OECD, 2016^[5]).¹ Estimates suggest that refugees make up about half of the current foreign-born population or come from a family of refugees (OECD, 2017^[6]). This trend has been more pronounced in recent years, in particular in terms of young people. Sweden received about 125 000 asylum seekers aged 18-34 between 2014 and 2017. In this period, the number of migrants in this age group who were accepted as refugees is equivalent to 0.8% of the total population aged 18-34 in 2017 – the highest rate among EU countries (Figure 6.1). About a quarter of upper-secondary entrants in 2016-17 were considered to be newly arrived migrants.

Figure 6.1. Sweden received a large share of young refugees and asylum seekers in recent years

Share of first-time asylum applicants and total positive decisions per 1 000 people aged 18-34, 2014-17



Note: Only countries with cumulative asylum applicants more than 30 000 for 2014-2017 were included. Annual aggregated data (rounded) on population by age [demo_pjan], asylum applicants [migr_asyappctza], first instance positive decisions on applications [migr_asydcfst] and final positive decisions on applications [migr_asydcfina] by citizenship and age as of April 2018.

Source: Author's own work based on Eurostat (2018^[7]), *Eurostat Database*, <https://ec.europa.eu/eurostat/data/database>.

StatLink  <http://dx.doi.org/10.1787/888933927609>

As noted earlier, in the context of severe skills shortages, the significant number of humanitarian migrants who arrived in Sweden between 2014 and 2017 presents an opportunity. However, this opportunity cannot be fully realised without addressing a series of challenges.

For example, in comparison to migrants who arrive with the specific aim of studying, working, or reuniting with family, humanitarian migrants (Box 6.1) do not usually arrive with any links to the host country. Consequently, it cannot be assumed that humanitarian migrants will have researched economic opportunities or travelled with a specific occupational ambition in mind, appropriate documents to prove their skills and qualifications, or with existing networks linking them to prospective employers.

Further, foreign-born employment rates are about 13 percentage points lower than native-born both for upper secondary and tertiary graduates – the third largest gap among OECD (OECD, 2018^[2]). Humanitarian migrants also tend to have lower education attainments and lower labour market outcomes compared to other migrants (Irastorza and Bevelander, 2017^[8]). Many newly arrived students who passed the compulsory school age experience difficulty in entering and completing upper secondary VET programmes. For example, only about 15% of young migrants who attended the Language Introductory Programme completed upper-secondary education with a diploma (8% in VET and 7% in the academic track) within five years (Skolverket, 2017^[9]).

The opportunities presented by an influx of humanitarian migrants can only be fully realised if Sweden can address associated challenges. These challenges exist from the

beginning – informing migrants of their opportunities – all the way to the end – ensuring a smooth and successful transition into the labour market.

Therefore it is important to first address the barriers that prevent humanitarian migrants from engaging in, and benefitting from, VET

In order to ensure that the VET system is well placed to take advantage of the opportunities presented by humanitarian migrants and that migrants themselves are in a position to take advantage of attractive opportunities presented by the VET system in Sweden, it is important to address the barriers preventing access to VET programmes and their completion.

Given the number and potential role of young humanitarian migrants in Sweden,³ it is to be expected that the VET system will benefit from adapting to both labour market demand for⁴ (Policy Area 6.1), and the unique characteristics and needs of, migrants (Policy Area 6.2). Indeed, like other OECD countries, Sweden has already implemented a range of relevant supporting measures.

Box 6.1. Unlocking the potential of migrants through vocational education and training (VET)

An OECD project that connects humanitarian migrants and VET

This chapter was prepared in parallel with the ongoing project Unlocking the Potential of Migrants through VET. The project aims to produce new insights into how vocational education and training (VET) systems can best respond to the opportunities and challenges presented by recent migrants, so as to achieve better outcomes for both migrants and for economies as a whole. The project includes a focused VET review of Germany, as well as a cross-country component focusing primarily on Germany, Italy, Sweden and Switzerland. Within the scope of the cross-country study and this VET review of Sweden, the OECD review team visited Sweden to gain an understanding of the dynamics of the VET system with a particular focus on recent humanitarian migrants. The findings of these visits will feed into the cross-country report to be published in mid-2019. Some of the findings from this project are presented in this chapter for the purpose of peer-learning.

Definition of humanitarian migrants

The key demographic discussed in the project described above and this chapter is refugees and asylum seekers aged 16-35, although youth with an immigrant background – native-born youth with both parents who are foreign-born and foreign-born youth – are also considered. In Sweden, a student is considered to be newly arrived for up to four years after their arrival at a Swedish school (Skolverket, 2018^[10]).

“Humanitarian migrants” (often referred to as refugees) denote people who have successfully applied for asylum and have been granted some sort of protection – refugee or other status. “Asylum seekers” are people who have formally applied for asylum, but whose claim is pending (OECD, 2016^[11]). For more detailed definition within the Swedish context, see (OECD, 2018, pp. 16-17^[12]).

Measures supporting entry of young humanitarian migrants into vocational programmes and the labour market

Two relevant measures that are already in place in Sweden are: the Introductory Programmes, in particular the Language Introductory Programme; and Vocational Packages, a recently introduced measure designed to facilitate the transition into the labour market of individuals who are far from obtaining a full VET qualification. These specific measures are explored below, while other measures are presented in Chapter 1.

Introductory Programmes are aimed at facilitating the transition to upper-secondary VET as well as the labour market

Preparatory or transitional programmes can be very successful in assisting youth-at-risk to make a successful entry or transition into regular upper-secondary VET (Kis, 2016^[13]). They help youth-at-risk to overcome multiple barriers related to human, social and cultural capital that may otherwise prevent them from thriving in education. Such Introductory Programmes (*introduktionsprogram*) are hosted within upper-secondary schools in Sweden.

Introductory Programmes are intended to facilitate transitions from compulsory into regular upper-secondary schools as well as other forms of education including adult education. These programmes also aim to smooth transition of young people to the labour market.⁵ Other countries also provide programmes with similar aims (Box 6.2).

Unsurprisingly, students with migrant backgrounds are overrepresented in these programmes due to a lack of language skills and basic competencies. A lower share of foreign-born students in Sweden (39%) attain basic academic proficiency in Programme for International Student Assessment (PISA) – level 2 in all three PISA core subjects (maths, reading and science) – compared to the OECD average (49%) while a higher share of native students attain the proficiency (76%, compared to the OECD 72%) (OECD, 2018^[14]).

There are four Introductory Programmes that offer students an education that can be adapted individually to their educational needs (see Chapter 1 for a more complete description). This adaptive aspect of the programme is important, as there is no diploma goals or programme structure (Ministry of Education, 2018^[15]). Upon completion of the Introductory Programme, students receive an upper-secondary school certificate (not diploma) specifying the education the student has received. Work-based learning is compulsory in two of the Introductory Programmes and three of the programmes have the option of offering an apprenticeship (see Chapter 3).

The Language Introduction Programme is designed for newly arrived students

Introductory programmes are designed for young people who have not met the qualification for a National upper-secondary Programme. In particular, the Language Introduction Programme prepares newly arrived students to learn the Swedish language up to the level required for the next steps. This programme teaches Swedish or Swedish as a Second Language at the compulsory school level and may be combined with Swedish for Immigrants (SFI) or other initiatives that would be helpful for the student's knowledge development. A recent change (July 2018) strengthened its tie with other subjects, which should be added soon after the language teaching began, based on the student's aspirations or skills (Ministry of Education, 2018^[15]).

For example, students in the programme are eligible to attend any other Introductory Programme, including the Vocational Introduction Programme or Individual Alternative Programme, depending on the student needs and the focus of education. However, they can progress onto a National Programme only if they meet a set of criteria: mastery of Swedish as a Second Language at a compulsory school level, plus passing grades in English, mathematics and five other subjects (for VET) before the year they turn 20 (Ministry of Education, 2018_[15]).

There has been an increase of migrants in the Introductory Programmes, in particular the Language Introduction Programme

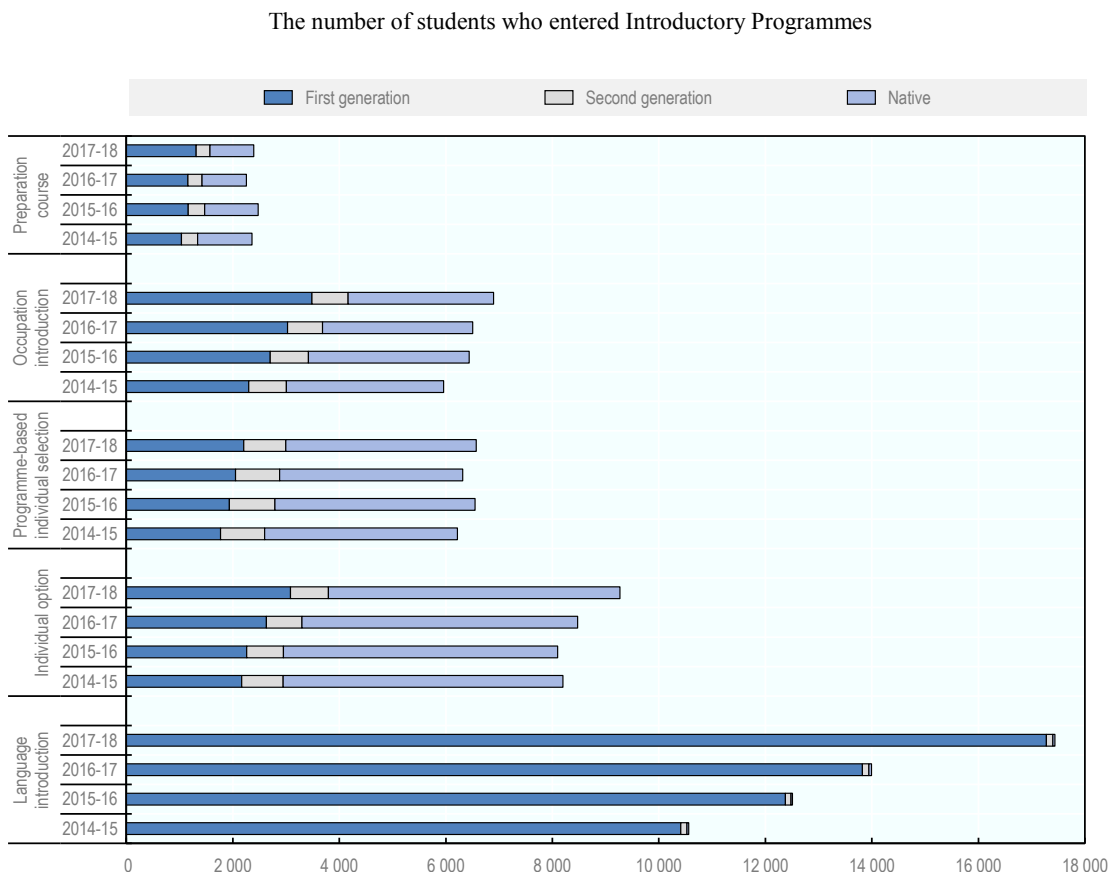
The significant increase in the number of new arrivals at upper-secondary schools was most pronounced in the Introductory Programmes (Figure 6.2), in particular the Language Introduction Programme (Skolverket, 2017_[16]; Skolverket, 2018_[10]). This programme admitted over 90% more students in 2016-17 than 2015-16. As a result, with more than 35 900 students enrolled in 2016-17, it became the fourth-largest programme out of all upper-secondary programmes, making up about 10% of all enrolments. Although precise data are not available, it is clear that this increase directly mirrors the increase of humanitarian refugees and asylum seekers in the student population. In principle, all students who began the programme in autumn 2016 were newly arrived and the majority had only been in the country for one year (Skolverket, 2018_[10]).

Similarly, the share of foreign-born students in transitional programmes has increased significantly in some other OECD countries. For example in Germany, the number of foreign-born in the pre-vocational year – the major transitional programme in Germany – increased from 18 000 in 2014-15 to 81 000 in 2016-17. Around 70% of this group (55 000) was born in one of the main asylum countries (Statistisches Bundesamt, 2018_[17]).⁶

Many newly arrived students in the Language Introduction Programme experience difficulty in transitioning to a National Programme

While many young migrants, in particular newly arrived, attend the Language Introduction Programme, a significant number experience difficulty transitioning to further educational or labour market options. For example, according to the Swedish National Agency of Education,⁷ 36% of students in this programme transferred to a National Programme within five years⁸ and 15% obtained an upper-secondary diploma⁹ and 14% proceeded with secondary level adult education. More specifically, more students proceed to a National Vocational Programme (in particular in health and social care), mainly because its admission requires passing grades in fewer subjects than for National Programmes preparing for Higher Education. Out of those newly arrived students who advanced rapidly from Language Introduction to a National Programme, the majority entered an academic track. In comparison, entry onto VET programmes is more common for students who spend more time in the Language Programme (Skolverket, 2016_[18]). In sum, 21 % of students who started in the Language Programme in 2011 transitioned to a Vocational Programme within five years, but only 8% received a VET diploma (Skolverket, 2017_[9]).

Figure 6.2. The entry of foreign-born students has increased sharply in Language Introduction Programmes



Source: Adapted from the National Agency of Education (2018_[19]), *Statistics*, www.skolverket.se/statistik-och-utvardering/statistik-i-tabeller/gymnasieskola/skolor-och-elever.

StatLink  <http://dx.doi.org/10.1787/888933927628>

Other Introductory Programmes have higher transition rates

For comparison, the transition rate of all Introductory Programmes combined is 48% within five years. Yet, whole other Introductory Programmes have higher transition rates, those who entered a National Programme from the Language Introduction Programme were more likely to obtain an upper-secondary diploma than those who entered from all other Introductory Programmes (except for programme-oriented Individual Options).

Other countries exhibit higher transition rates from their Introductory Programmes

Direct comparison with other OECD countries regarding transition rates is not feasible because of different programme lengths, objectives, content, quality, entry requirements, etc. Nevertheless, transitions from preparatory programmes to regular VET programmes appear to be higher in some other countries. In the Netherlands, for example, out of students in the level 1 programme in upper-secondary school-based VET (MBO 1), 60% transit to level 2 (Fazekas and Litjens, 2014_[20]). This level 1 programme can be seen as

roughly equivalent to the Swedish Introductory Programme in the sense that it focuses particularly on young people with an immigrant background but without a prior qualification at a lower secondary level or sufficient Dutch language skills (Cedefop, 2016_[21]).¹⁰

Under the German dual system in Bavaria in 2016, about 40% transitioned from a two-year preparatory programme [Vocational Integration Classes (*Berufsintegrationsklassen*)] to a dual or school-based VET (Schiffhauer and Magister, 2016_[22]). The results are better three years after completing the transitional programmes: 70% enter into VET (BMBF, 2016_[23]). In Switzerland, 78% of those in the transition system proceed into VET while 7% proceed into general education (Babel, Laganà and Gaillard, 2016_[24]).

Vocational Packages: A measure that changes the composition of VET qualifications as a means to address barriers preventing the success of learners at risk

Adjusting the duration and scope of qualifications can help learners at risk of poor outcomes achieve the qualifications necessary for employment and progression in the education (Kis, 2016_[13]). In this regard, Vocational Packages (*yrkespaket*)¹¹ may enable those who are not being qualified for a National Programme (in particular, newly arrived) to be able to work with a partial qualification rather than no qualification at all (State Public Investigations, 2018_[25]).

Vocational Packages were introduced in December 2017 in both adult education and Introductory Programmes although similar forms existed previously. The Packages are nationally or regionally defined, and provide targeted training, leading to a partial qualification. The Packages may decrease time spent at school or training through modularising skills and by delivering qualifications that are in high demand in the labour market (Ministry of Education, 2018_[15]).

The courses in a Vocational Package should meet requirements for employment, leading to a partial qualification, developed with employers, industry experts, local authorities and schools, and flexible in terms of skills, requirements, curricula and duration. In addition to courses that are included in a particular Vocational Package, the Package can be combined with different levels of courses if necessary, for example courses from compulsory or upper secondary levels. The Vocational Introduction Programme is particularly relevant for Vocational Packages. Different packages can be combined based on a student's career goal or employer needs (Skolverket, 2017_[26]).

Vocational Packages are an attractive option for newly arrived students

In comparison to native learners, newly arrived humanitarian migrants often have greater needs for income (for example, to support family members and pay off debts). This can prevent them from engaging in regular VET or other types of regular – and typically long duration – education and training programmes (Kis, 2016_[13]). Swedish law permits full-time employment at age 16 under the supervision of local authorities, so some newly arrived (regardless of age) may choose to work as soon as possible. Instead of leaving these newly arrived in the labour market as unqualified workers, or leaving them in education programmes that they are unlikely to complete, partial qualifications are an attractive solution.

For adults, Vocational Packages have already been in practice in some sectors, such as health and social care. As the nationally defined packages (October 2016) standardise the

already existing arrangements that were defined locally and regionally, the packages can also facilitate the process of skills and qualification recognition. Employers are therefore strongly supportive for the use of the packages among adults.

For young people aged between 16 and 20, the packages have been offered in the Introductory Programmes. In April 2017, the National Agency was tasked to further develop the packages as a tool to accumulate partial qualifications step by step towards an upper secondary vocational diploma not only in adult education but also in the Introductory Programmes. They might allow some students to enter the labour market with a partial qualification after the training for example, through the Vocational Introduction Programme. Or, they can lead to further educational pathways. If successful, Vocational Packages for young people could result in a larger potential skills pool for the labour market, as the size of the student body in the Introductory Programme is quite large. However, this raises several concerns.

Challenge 6.1: Vocational Packages are a promising but potentially risky means of facilitating the transition of young migrants to the labour market and their progression through education.

Vocational Packages offer an alternative way for young people to obtain qualifications...

Vocational Packages offer an alternative way for young people to take steps towards obtaining an upper-secondary qualification or to transition to the world of work as a qualified worker. It is expected that they will be especially attractive to young people with disadvantaged backgrounds, including newly arrived students, who may learn more effectively while working, being motivated and self-sufficient – and as Vocational Packages can be combined with an apprenticeship. The packages, allow different combinations of existing courses delivered at different educational levels, can be an efficient and attractive tool for education and career development.

...however, there are potential risks in introducing the possibility of obtaining partial qualifications within Introductory Programmes

The introduction of Vocational Packages within the Introductory Programmes may unintendedly provide an early exit from the initial education system for young people who otherwise show significant potential. Social partners in some sectors have expressed concern that young people may move into the labour force with limited work experience and academic proficiency.

In addition, Vocational Packages may prevent young people from considering occupations that are difficult to be modularised into shorter training programmes. They may also result in young people ultimately foregoing the opportunities of building long-term employability, instead focusing on the short-term.

Policy option 6.1

Policy option 6.1: Ensure that partial qualifications are well integrated into the qualifications system and that partial qualifications are recognised as part of full upper-secondary qualifications. This means that those with partial qualifications should be encouraged to complete upper-secondary education when possible by taking missing courses.

1. The policy priority should continue to be that young people, including humanitarian migrants, attain full upper-secondary qualifications. Actively provide feasible and attractive opportunities to continue in VET after Vocational Packages by:
 - a. Building seamless pathways between programmes preparing for partial qualifications and upper-secondary or higher VET programmes.
 - b. Strengthening the co-operation between upper-secondary schools and municipal adult education.
2. Ensure youth who opt for Vocational Packages do not rule out the option of obtaining a full upper-secondary VET qualification by:
 - a. Ensuring individual assessment functions well in terms of deciding whether a student in an Introductory Programme undertakes a Vocational Package.
 - b. Implementing measures to facilitate the transition from Introductory to National Programmes, such as developing recently adapted measures that aim to strengthen Introductory Programmes and in other provision targeting young migrants, and strengthening career guidance to help migrant students to better transition to National VET Programmes (Box 6.3 for the measures tackling teacher shortages in order to increase learning intensity).

Policy arguments and implementation 6.1

Policy argument 1. Vocational programmes for young people that are lower than upper-secondary levels usually aim at transitioning them into upper-secondary vocational programmes

Most upper-secondary VET programmes last three to four years and lead to full qualifications. In general, vocational programmes that are lower than upper-secondary levels, typically lasting one to two years, act very clearly as stepping stones to upper-secondary vocational programmes (Kis, 2016^[13]; Kuczera and Field, 2018^[27]). These VET programmes are mostly pre-vocational or other transitional programmes and rarely lead to any qualification as they are outside of the regular VET system.

In regular VET, two-year VET programmes in Switzerland and Norway lead to a partial qualification (Kuczera and Field, 2018^[27]). Both of these programmes usually aim at transitioning to a regular upper-secondary VET programme. Sometimes they also aim at preparation for entry to the labour market, but in this case, are mostly aimed at adults with work experience.

There are no exactly equivalent approaches in other countries to Vocational Packages – the uniqueness is that the packages for young people lead to a partial qualification outside of regular VET programmes. But implications can still be drawn from programmes that play a similar role. For example, Denmark, Finland, Germany and Switzerland offer

shorter, pre-vocational programmes for young people outside of regular VET (Box 6.2) – some of these programmes specifically target humanitarian migrants. These programmes offer strong work-based components and encourage young people to enter a regular VET programme. They can prepare students for entry to the labour market but do not lead to any qualification. These programmes cover a broader age group than the packages in the Introductory Programme but a narrower age group than the packages as a whole.

The health care sector in some Länders in Germany such as Bavaria offers a one-year school-based VET programme leading to a partial qualification but this typically encourages and leads to a three-year apprenticeship rather than entry to the labour market (Bergseng, Degler and Lüthi, forthcoming^[28]). The Netherlands also discourages students completing MBO 1 (level 1 programme in the upper-secondary VET) from entering the labour market and encourages them to continue onto higher level VET (Fazekas and Litjens, 2014^[20]).

Switzerland has taken a more systematic approach to awarding partial qualifications for young people who have difficulty in transitioning to full VET. Compared to the regular three-four year VET (the Federal VET *Diploma* programme, EFZ or *Eidgenössisches Fähigkeitszeugnis*), two-year apprenticeships in the regular VET system lead to a partial qualification (the Federal VET *Certificate* programme, EBA or *Eidgenössisches Berufsattest*). Upon completion, EBA graduates may enter the labour market directly, or transfer to EFZ (typically, EBA apprentices can join the second year of EFZ). Evaluations show that 41% of EBA graduates progress onto EFZ within two years of completion. Among those who do not pursue further training, 75% find employment within six months of completion (Kis, 2016^[13]). Within about four years, one in four EBA graduates obtained a VET diploma through EFZ (Swiss: 27%, foreign nationals: 20%), while a further 8% had enrolled on a VET diploma programme (FSO, 2018^[29]). Together with the Norway's two-year apprenticeship, available evidence points to positive outcomes from these programmes (Kuczera and Field, 2018^[27]).

Box 6.2. Short vocational programmes for young humanitarian migrants outside of regular VET

Denmark's basic integration education (IGU)

Denmark offers a basic integration education (*Integrationsgrunduddannelsen*, IGU) programme that aims to a smooth labour market transition. It was initiated as a three-year trial scheme by a tripartite agreement in 2016. It lasts two years and is offered for a clear target group: newly-arrived refugees aged 18-40 with a focus on adults with work experience. This programme leads to a certificate of completion but not a formal qualification. It has strong work-based components with financial incentives for both participants and their employers. The training positions that IGU offers are equivalent to regular basic VET programmes (EGU), i.e. same wage rates and labour rights including unemployment benefits, paid holiday leave and pension (Sammen om Integration, 2017^[30]). This programme is highly flexible: it can be linked with other programmes and there is also possibility for already-employed people to start IGU with their current employer to get appropriate qualifications (Danish Ministry of Immigration and Integration, 2018^[31]; Ramboll, 2018^[32]).

Finland's pre-vocational programme for immigrants (VALMA)

This programme (*ammattilliseen peruskoulutukseen valmentava koulutus* or VALMA) aims to help newly arrived learners to move on to programmes leading to upper-secondary vocational qualifications. It lasts between 6 and 12 months. Migrants are provided with information and guidance on different occupations and vocational studies. When migrants later apply for an upper-secondary vocational programme through a joint application system, they can receive extra points for completed preparatory education (OECD, 2017^[33]).

Germany's preparatory traineeships (EQ)

Preparatory traineeships (*Einstiegsqualifizierung*, EQ) support young people who did not secure an apprenticeship and is designed to increase their opportunities to enter regular VET following the programme. It includes both school-based and work-based provision. The Federal Ministry for Labour and Social Affairs designed the measure in 2004 in co-operation with key stakeholders from industry and trade. This measure does not necessarily target migrants but around 40% of students had migrant parents. 70% of EQ participants found an apprenticeship within half a year following completion and 40% undertook their apprenticeship in a company where they had interned (Popp et al., 2012^[34]). Generally employers view this measure positively (Degler and Liebig, 2017^[35]). A more supportive scheme called “EQ plus” has been introduced, which combines EQ with other vocational or socio-pedagogical support measures such as ‘abH’ training related assistance or ‘VerA’ – prevention of dropout from training (Bergseng, Degler and Lüthi, forthcoming^[28]).

Switzerland's Pre-apprenticeship for humanitarian migrants (INVOL)

Integration Apprenticeships (*Integrationsvorlehre*) is a form of pre-apprenticeship. The programme is a one year long preparatory training courses designed to facilitate enrolment in a dual-track VET programme. It combines on-the-job training or traineeships lasting at least eight weeks with the goal of acquiring basic competences in an occupational field and language training to achieve A2 level of Common European Framework of Reference for Languages. It is a pilot programme (800-1 000 positions per year for 2018-21) designed to help the transition of refugees and temporarily admitted persons (aged 18-35) with work experience or training, into VET and then the labour market. Through this programme, the Federal Council collaborates with the cantons, professional organisations and VET institutes.

Source: Jeon, S. (forthcoming^[36]), *Unlocking the Potential of Migrants through Vocational Education and Training: A Cross-country Review*.

Policy argument 2. The success of Vocational Packages can be measured through how well they encourage and support young people to obtain a full VET qualification.

Vocational Packages should be primarily regarded as an entry point to full VET

Vocational Packages may need to be revised frequently based on changing labour market needs as the packages focus on lower and narrower qualifications, meaning that the skills earned from the packages can quickly become obsolete. In those cases, Vocational Package graduates would need to continue VET to upskill or renew skills.

Therefore, Vocational Packages should emphasise that this partial qualification is not an end or exit from education but is in fact a starting point. Sweden should look to build seamless pathways from Vocational Packages to both National VET Programmes and adult VET.

Sweden should monitor Vocational Packages over the long term

There is not yet sufficient evidence to support the hypothesis that measures such as Vocational Packages would be an effective step for young people towards obtaining full qualifications later in life, particularly those with a humanitarian migrant background, nor that those measures would provide them with opportunities for skilled employment at a later phase of their career. It would be helpful to conduct a longitudinal follow-up study, in addition to an overall evaluation, in order to monitor the success and the effectiveness of these measures. Such a study should involve longer-term evaluation among those who completed Vocational Packages and their employers, as to whether: 1) Vocational Packages contribute to building resilient learners; and 2) the measures have contributed to easing skills shortages in their sectors and businesses in the long term.

Policy argument 3. Sweden could attract more migrant as well as native students into National VET programmes

Migrants are not familiar with the VET system

The health and social care sector has the country's most severe skills shortages and already attracts the largest number of foreign-born adult trainees.¹² It also exhibits the highest share of students with migrant backgrounds among upper-secondary VET programmes (Ministry of Education, 2018_[15]). This is an example of why Sweden can benefit from attracting even more migrant students into National VET.

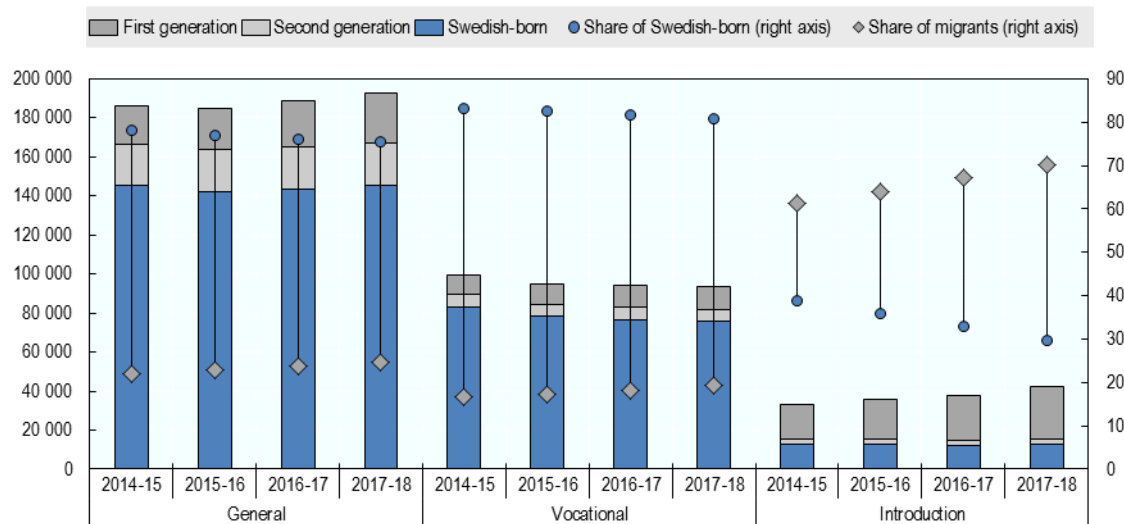
However, in general few young migrants appear to be interested in VET (Figure 6.3). The number and share of students with an immigrant background in VET programmes has increased slightly in recent years, but this is only because VET has experienced a general decline in attractiveness.¹³ This is unfortunate, as VET often results in good employment outcomes (OECD, 2018_[2]), reflecting both employer demand for skills and the likelihood of better integration overall.

Among newly arrived, students are increasingly moving into general upper-secondary education, which contributes to a labour surplus in some fields such as social sciences (Statistics Sweden, 2017_[1]). VET could be an attractive option for many of these students, even if they have strong academic potential, particularly if they are made aware of labour market trends. In 2013-14, 17.8% of newly arrived students attended general education, increasing to 19.3% in 2016-17. In the same period, the share of these students in VET

decreased from 10.7% to 9.5%. For comparison, the share in the Introductory Programme has been relatively stable at about 72% over this time period. This trend can also be observed in many OECD countries through Programme for International Student Assessment (PISA) data analysis: young people increasingly want to pursue higher education and work in high-skilled jobs (Musset and Mytna Kurekova, 2018^[37]).

Figure 6.3. VET Programmes attract fewer students with migrant backgrounds compared to Academic Programmes

Number and share of Swedish-born students and students with a migrant background, by programme and year



Note: Academic and vocational upper secondary education are national programmes.

Source: Author's own work based on National Agency of Education (2018^[19]) Statistics, <https://www.skolverket.se/statistik-och-utvardering/statistik-i-tabeller/gymnasieskola/skolor-och-elever>.

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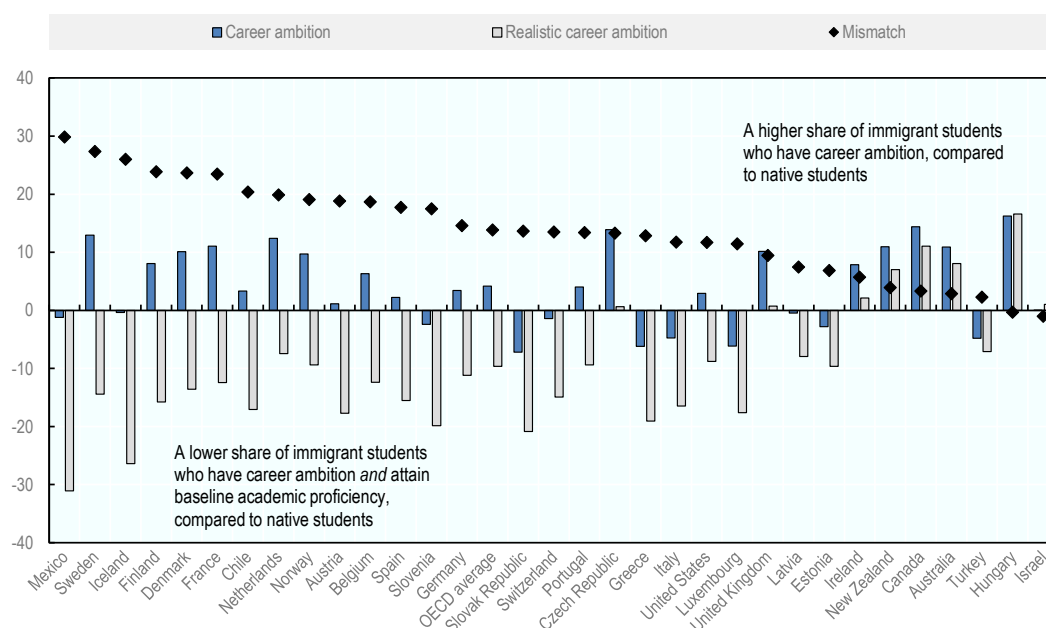
Choice of upper-secondary education by migrants is influenced by diverse factors

For migrant students, these choices are often influenced by a preference formed by their country or culture of origin or the ambitions of aspiration of parents and families. In fact, and confirmed by analysis based on PISA data (OECD, 2018^[14]), compared to native students, students with a migrant background tend to have higher, but less realistic career ambitions (Figure 6.4) and primarily choose an academic track in upper-secondary education (The Upper Secondary Education Inquiry, 2016^[38]).

Compounding this issue, regard for VET in the country of origin of a young migrant can be low, in some cases as the result of a weak VET system. For example, in Syria from which the highest number of recent arrivals came to Sweden (Statistics Sweden, 2017^[39]), the VET system has not been sufficiently geared towards the needs of the labour market and has been considered to be a second-best option with only tenuous links to more promising streams. In addition, the absence of a lifelong learning facility makes it almost impossible to re-enter the school system as an adult (European Training Foundation, 2003^[40]).

Figure 6.4. Students with a migrant background tend to have higher but less realistic career ambitions

Differences in the percentage of students who expect to become high-skilled professional between immigrant students and native students



Note: Students with ambitious career expectations are those who expect to work as a manager, a professional or an associate professional by the age of 30 (the control is whether one of the parents is high-skilled professional). Students with ambitious but realistic career expectations are those who expect to become managers, professionals or associate professionals and technicians by the age of 30 and who achieved at least PISA proficiency level 2 in all three PISA core subjects – science, reading and mathematics.

Countries are ranked in descending order of the gap between these two differences.

Source: Adapted from tables 8.6-8.11 in OECD (2018^[14]), *The Resilience of Students with an Immigrant Background: Factors that Shape Well-being*, OECD Reviews of Migrant Education, <http://dx.doi.org/10.1787/9789264292093-en>.

StatLink  <http://dx.doi.org/10.1787/888933927666>

Increasing the attractiveness of VET and active career guidance can help young migrants

For high performing migrants with high aspirations, increasing the attractiveness of VET could benefit both students and the labour market (see Chapter 5). Increasing attractiveness could be accomplished by providing clearer pathways toward higher VET and higher education, more active career guidance, extensive reach-out, and attractive information on vocational training and occupations.

Young people from disadvantaged backgrounds, including migrants, tend to have narrower and weaker understanding of career opportunities than their native-born peers. They require, consequently, greater help from state agencies in accessing information. Research also highlights that career guidance should not be limited to the provision of information, but include opportunities for migrants to explore for themselves from an early age, through career events, job shadowing and work placements. This is particularly important for young people whose families lack first hand insights into careers of interest.

Compulsory, proactive provision of such information from a young age can address the gap in knowledge (Musset and Mytna Kurekova, 2018^[37]).

Additional support for learning is necessary for the transition to VET

Evidence shows that 52% of students who migrated to Sweden after the age of seven qualified for a National Programme at the upper-secondary level. The share drops to 28% of students among those who arrived between the ages of 12 and 15 (in their last four years of compulsory schooling), compared to the national average of close to 90% (OECD, 2017^[41]). For these lower performing migrants, additional support that help them enhance their academic skills would be necessary, in part through improving the quality of teaching through increased hours of tuition, including extracurricular activities. In order to do so, Sweden first needs to tackle teacher shortages (Box 6.3).

Box 6.3. Maximising the use of migrant skills to tackle teacher shortages in Sweden

Severe teacher shortages in Sweden

Sweden is experiencing severe teacher shortages and this is expected to continue. The demand for teachers sharply increased partly due to the recent increase of migrants. 8 500 (or 55%) more entrants per year are required in teacher education programmes to reach the goal for qualified teachers that the National Agency for Education believes is optimal (Swedish Higher Education Authority, 2018^[42]).

In view of this shortage, the Education Act allows for employing uncertified teachers of VET subjects without a time limit, whereas in regard to other teachers, there are limitations. However, if there is a certified VET applicant available, the provider of education should employ her or him over the uncertified teacher. 45% of active VET teachers have no educational college degree (*yrkeslärarutbildning*) – a prerequisite for obtaining teaching certification. Exemption from teaching certification may help meet the quantity needs but may undermine the teaching quality in VET schools. This VET teacher deficit concerns not only upper-secondary education but the entire labour market supply (Statistics Sweden, 2017^[1]; Skolverket, 2018^[43]).

Migrant skills can help tackle teacher shortages

A report by National Agency for Education concludes that teacher education programmes would have to be significantly larger than today in order to meet the future needs of qualified teachers (Skolverket, 2017^[44]). Clearly, Sweden has put efforts into addressing teacher shortages, however as this problem persists, migrant skills could be an additional means of tackling the teacher shortages.

The demand for migrant teachers has increased in part due to the increase in number of migrant students with diverse background. For example, such teachers can be called upon to help address issues related to the tendency for students from migrant backgrounds to be concentrated particularly in schools facing greater challenges (Berglund, 2017^[45]).

The 16-18 year old demographic in Sweden is expected to increase more than 30% between 2016 and 2035. Overall, a 15% deficit is expected in all teaching professions by 2035, which will create a more competitive environment for VET teacher recruitment in addition to skills shortages in some VET sectors (Statistics Sweden, 2017^[1]).¹⁴

Sweden's mechanisms to encourage migrants who have teacher qualifications to continue their teaching career in Sweden

Several authorities and bodies work together to assess and validate skills and qualifications. The Swedish Council for Higher Education (*Universitets- och högskolerådet*) is responsible for assessments of university degrees from other countries. Universities themselves assess whether an applicant to a particular course or programme is eligible (Bunar, 2017_[46]). According to the Swedish Council for Higher Education, the number of applications for assessment of foreign education grew from 18 001 in 2014 to 29 187 in 2017 for all levels of education, with the largest number being Syrian nationals).¹⁵ The average processing time for an assessment is about 5-8 months for academic education, 6-10 months for post-secondary vocational education and 2-4 months for upper secondary education, as of September 2018.

For newly arrived teachers, three major initiatives at the national level offer alternative paths to resuming their profession in Sweden.

- **Bridging programmes for people with foreign degrees in teaching** was introduced in 2007 and provides those with foreign degrees in teaching with a maximum two-year university programme, including in-service practical training. The programme can encompass an additional equivalent of half a year of language studies in Swedish or English if that is deemed necessary. Advanced knowledge in Swedish language is the most critical part of requirement (Bunar, 2017_[46]).
- **Boost for Teachers programme (*Lärarlyftet*)** was introduced in 2007, further developed in a second phase until 2018, and has been prolonged until 2019. This programme focuses on enhancing the qualifications of teachers who are not qualified for all subjects or age groups they teach, with the goal of increasing the number of fully certified teachers in the education system. The government also supports continuous professional development for teachers (OECD, 2017_[41]).
- **Fast track (*Snabbspår*) programme for teachers** was introduced in 2016 partly as a response to the teacher shortages and partly to the enormous need for native-language teachers and bilingual teachers to support newly arrived students. The programme's operation and effectiveness have been featured in several international reports (OECD, 2016_[5]; OECD, 2017_[41]). Under this programme, validation, further education, in-service training and work placement are reconnected in an efficient way, shortening the newly arrived teacher's path to becoming a certified teacher and becoming employed (Bunar, 2017_[46]). From 2016 to February 2018, 985 people participated in the training of which 510 people completed the training, 390 people were still in training and 85 people had dropped out (Government Offices of Sweden, 2018_[47]).

Individualised approaches and quality insurance also help

International evidence suggests that individual coaching or case management may help ensure the development of the skills migrants commonly need to prosper in the labour market and so enable better transitions. This is an area where Sweden has strengths, but these should also be applied to Vocational Packages. Sweden already has desirable instruments including native-language tuition and individual study plans, but quality

varies across municipalities (Skolverket, 2018_[10]). Sweden should also take into account organisational variations of Introductory Programmes across municipalities, which may affect student motivation and opportunities to access to National Programmes (Skolverket, 2018_[10]), and should ensure quality and co-ordination nationally.

The government recently allocated SEK 300 million (approximately EUR 29 million) per year for 2018–20 to reinforce Introductory Programmes in order to enhance the transition to National Programmes or other educational programmes (Government Offices of Sweden, 2018_[47]). The National Agency of Education is currently working with Introductory Programme developers to better support municipalities in terms of provision of these programmes. This is an appropriate direction and can strengthen National VET Programmes and encourage and support the transition of newly arrived to these programmes.

Challenge 6.2: Recent humanitarian migrants are a diverse group with different needs

Newly arrived learners, in particular those who arrive in Sweden when they are in their late-teens, face extra barriers when entering into a National Vocational Programme

Young humanitarian migrants arrive in Sweden facing multiple difficulties and challenges. This is even more the case for groups such as young refugee women (Liebig and Tronstad, 2018_[48]) and unaccompanied minors (Aycan and Wadensjö, 2017_[49]; OECD, 2018_[2]). These groups require additional care and support, and evidence suggests that Sweden exhibits relatively effective and good practices for these groups despite room for improvement (Liebig and Tronstad, 2018_[48]).

Difficulties facing late-arrival migrants regarding the National Programme entry

The success rates of migrant students getting into VET is much lower compared to native Swedish students. Admission rates for upper-secondary VET applications in 2016-17 were 32% for foreign-born individuals, 59% for second generation, and 75% for native Swedish.¹⁶ Despite the overall paucity of data, available evidence from other OECD countries show similar patterns. Several reasons may explain this gap, including generally lower levels of educational achievements among migrants compared to native students – mainly due to language barriers – or effectiveness of preparatory programmes targeting migrant students.

In addition to academic requirements, all residents, regardless of whether they are migrants or otherwise, are only entitled to begin their upper-secondary National Programme up to the end of the spring term in the year they turn 20 years of age. This puts additional pressure on new and late arrivals. Entitlement to adult education starts from age 20 and its entry requirements differ from the National Programmes, being often less demanding. For asylum seekers, this limit is the year they turn 18 and they do not have right to adult education.

Late-arrivals often face extra challenges as the older a migrant is on arrival, the less chance he or she has to succeed in economic life (OECD, 2018_[14]). In fact, the average age of refugee children in Sweden has gone up: in 2000, the average age of arrival was 8.4 while in 2010, it was 9.7 (Grönqvist and Niknam, 2017_[50]). One obvious reason why there are more challenges for older children is linguistic, as a child can learn a language

faster when he or she is younger and to fully master a language for school requirements in Sweden usually takes between six and eight years (Skolverket, 2011^[51]).

Policy option 6.2

Policy option 6.2: Address barriers preventing newly-arrived young migrants from accessing vocational education and training (VET).

1. Provide alternative strategies to ease the difficulties facing students in entering National VET Programmes.
2. Develop and adjust a range of adult VET provision and support measures to better suit those students who have not attained upper secondary qualification.

Policy arguments and implementation 6.2

Policy argument 1. With more flexible entry requirements, more young people would enter into and complete National VET Programmes

Flexible arrangements may facilitate transition to national upper-secondary programmes

Compared to other OECD countries, the requirements to pursue VET at upper-secondary level in Sweden are relatively restricted, as the country requires passing grades in eight compulsory subjects. While requirements for upper-secondary VET entry slightly vary across countries (Table 6.1), in general, completion of lower secondary level is required. In work-based VET systems where students need to find an employer to continue their studies, academic competencies (study record, grades or ranking) are not mandatory but may be an advantage – similarly for work experience. This is sometimes the case for school-based VET system when providers have autonomy to organise a tailored test.

In this regard, adjusting entry requirements or allowing additional time to enter a National VET Programme from Introductory Programmes (for example, introducing flexible entry age limits for National VET, or more specifically apprenticeship) may encourage entry into a National VET Programme and completion at an earlier age (than later in their adult life) and result in a higher transition rate to a National VET Programme among migrants. In fact, the issue regarding the age limit was discussed in the 2016 Upper Secondary Education Inquiry (2016^[38]), which did not result in any change. Opportunity exists to build more evidence to see whether some flexibility may be beneficial to increase the uptake of upper-secondary qualifications. For example, allowing students to study in an Introductory Programme to enter a National Programme within 3-5 years can be one option.

Table 6.1. Upper-secondary VET requirements/student admissions criteria in selected countries

Country	Legal requirements	Academic and other requirements/criteria
Austria	Entry at 15 onwards	Completion of nine years of compulsory schooling. No specific school qualification is required.
Denmark	Entry at 15 up to 24	Danish 9th grade leaving exams or exam grade average equivalent to 2 or higher in maths and Danish (level G). ¹⁷
Finland	Entry at 15 up to 25 (minimum 15 – no maximum age for apprenticeship)	Completed the basic education syllabus. Admission can be based on academic performance and work experience. Providers decide to organise an entrance exam or an aptitude test.
Germany	Varies by regions, sectors	No formal requirements but lower-secondary qualifications or language skills are generally required (vary across Länders).
Italy	Entry at 15 up to 18	First-cycle leaving certificate (eight years of education). Schools establish their own criteria when excessive applications.
Netherlands	At least 16	No specific requirements for entry level 1. Admission requirements apply for courses from level 2 upwards: e.g. a school-leaving certificate or completion of a basic VET for level 2 entry.
Norway	Entry at 15 up to 24	Completion of compulsory education (not pass grade but participation).
Sweden	Entry at 15 up to 20	Pass grade (A-E) in Swedish, English and mathematics and in at least five other subjects (total eight subjects).
Switzerland	15 - varies by cantons	Completion of lower secondary level. Various training companies also require applicants to sit an aptitude test; entrance examination for full-time vocational schools

Note: Age requirements may differ depending on sector. Academic criteria include equivalents. Denmark and Finland offer VET in English or other languages, in which case an equivalent level of language of instruction is required instead.

Source: Eurydice (2018^[52]), *Organisation of Vocational and Technical Upper Secondary Education (various countries)*, <https://eacea.ec.europa.eu/national-policies/eurydice> for Finland, Italy, the Netherlands, Norway, Sweden and Switzerland. Euroguidance Austria (2014^[53]), “The Austrian education system”, <https://www.bildungssystem.at/en/> for Austria. The Danish Ministry of Higher Education and Science (2017^[54]), “Admission to vocational education and training (VET)”, <https://ufm.dk/en/education/recognition-and-transparency/recognition-guide/admission-vet> for Denmark. The Finnish Ministry of Education and Culture (2018^[55]), “Qualifications and studies in vocational education and training”, https://minedu.fi/en/qualifications-and-studies_vet for Finland. The European Migration Network (2016^[56]), *Synthesis Report – Integration of Beneficiaries of International Protection/Humanitarian Protection into the Labour Market: Policies and Good Practices*, https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-we-do/networks/european_migration_network/reports/docs/emn-studies/emn-studies-00_integration_of_beneficiaries_of_international_protection_eu_2015_en_final.pdf. For France, Forum Réfugiés-Cosi (2018^[57]), “France: Access to the labour market”, www.asylumineurope.org/reports/country/france/reception-conditions/employment-and-education/access-labour-marke. For the age of compulsory schooling, see OECD (2018^[58]), *Education at a Glance 2018: OECD Indicators*, <http://dx.doi.org/10.1787/eag-2018-en>.

Migrant students need more time to succeed

The benefits of a more flexible age limit may be small but still larger than the apparent drawbacks. Evidence from the Swedish National Agency of Education shows that 36% of students who started the Language Introduction Programme in 2011-12 enrolled on a National Programme within five years, but the share increases to 47% within six years (Skolverket, 2018^[10]). Researchers show that newly arrived migrants perceive Introductory Programmes as transition programmes and want to proceed to mainstream

upper-secondary schools before they feel pressure of “getting too old” to start a National Programme (Sharif, 2017^[59]; Nilsson Folke, 2017^[60]).

Considering that newly-arrived migrant students require more time to learn language, cultural norms and other skills, Bavaria (Germany) started a 1+3 model within its regular VET, allowing migrants one additional year for intensive language training, if necessary, before continuing to the usual 3-year apprenticeship. This is in addition to the existing transitional programmes. The previously mentioned EBA in Switzerland was implemented with the same goal. For some students, this kind of additional time allowance could make a huge difference in their educational and career paths.

Flexible age limits are somewhat typical for VET systems that are mainly work-based, allowing wider access to apprenticeships. It might be argued that this flexibility in terms of age eligibility for entry into upper-secondary VET may be related to weaknesses in adult education provision. However, this does not appear to be the case. In Switzerland, the adult participation rate in education and training is as high as in Sweden: in 2016, 69% of adults aged 25-64 in Switzerland and 64% in Sweden.¹⁸ In Norway, the statutory right to upper secondary education and training is valid until the academic year a student turns 24 (Eurydice, 2018^[52]).

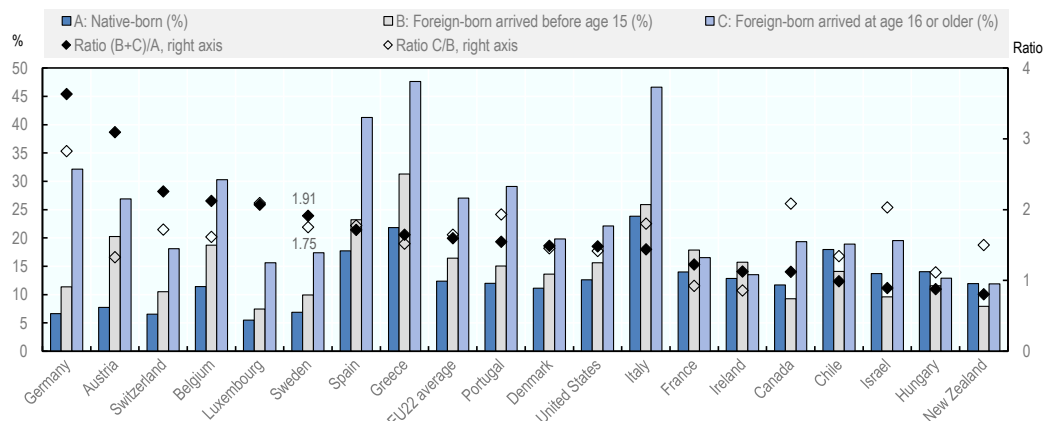
Late arrivals are overrepresented among NEETs in Sweden

Late arrivals among migrant students are particularly penalised in Sweden. For migrants who were aged 15 or under when they arrived, the rates of those who are not in employment, education or training (NEET) are much lower in Sweden compared to other OECD countries. However, for those who were 16 or older when they arrived, NEET rates are almost double (1.75) those who arrived before age 15 (Figure 6.5) – a gap higher than most EU countries (e.g. in Denmark the ratio is 1.46).

Ensuring that late arrivals also benefit from VET in Sweden would help them to acquire necessary qualifications for work and to more quickly integrate into society, in addition to the long-term benefits. The transition of students who began the Language Introduction Programme clearly shows the impact of the age of arrival in terms of next steps. Four years after the entry to the programme at age 16 or younger, 48% had entered or completed a National Programme. This compares to 38% of those who entered the programme at age 17, or only 10% of students who were 17 or over (Skolverket, 2018^[10]).

Figure 6.5. NEET rates are lower in Sweden but there is room for improvement among foreign-born youth who arrived at age 16 and over

Shares and ratios of native- and foreign-born 15-29 year-old NEETs, by age at arrival in the country (2017)



Note: Ratio by place of birth $[(B+C)/A]$ is the ratio of foreign-born (%) to native-born (%). Ratio by age of arrival (C/B) is the ratio of migrants who arrived at age 16 and older (%) to those who arrived at age 15 and younger (%).

Source: Adapted from Table A2.3 in OECD (2018_[2]), *Education at a Glance 2018: OECD Indicators*, <http://dx.doi.org/10.1787/eag-2018-en>.

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Policy argument 2. Transitions between educational institutions or programmes unfortunately present opportunities to leave the system

For young people without an upper-secondary qualification, the transition to upper-secondary adult education is not automatic

Because of the risk of dropout, unnecessary transitions should be avoided if possible – the ideal situation is a student completes an intended qualification level in one educational institution. Students who have not entered or completed a National Programme may face difficulties in transitioning to education as adults – whether in municipal adult education or otherwise – compared to adults who completed an upper secondary qualification. Generally, participation rates in adult education tend to be lower among low-educated (OECD, 2016_[61]).

There are two possible reasons for this. First, newly arrived young people and other youth at risk may not have sufficient information, guidance or understanding on how to proceed with adult education after leaving an Introductory Programme, including Vocational Packages. Second, they may be discouraged from continuing any form of education because they feel a sense of failure (Sharif, 2017_[59]; Nilsson Folke, 2017_[60]). Instead, they may prefer to work in a temporary or seasonal job out of economic need rather than continuing upskilling to seek higher qualifications. Some might have opted for Vocational Packages from the Introductory Programmes; but if they decided to work for some time, choosing Vocational Packages means opting out of a transition to a National Programme – only because of age limits – unless they continue in VET through adult education.

Issues to overcome for the smoother transition to upper-secondary adult education

For those who are not able to transfer to a National Programme, there are issues to overcome in order to facilitate the transition from the Introductory Programme to adult education. The follow-up study on the Language Introduction Programme by the Swedish National Agency of Education highlights the challenges faced by students in the transition from the programme to adult education (Skolverket, 2018^[10]). Almost half of those students who started the programme began adult education within four years, while around one-fifth of these students experienced an interruption or did not fully complete the adult education programme.¹⁹ The results of the study also suggest that adult education providers and upper-secondary schools should collaborate and co-ordinate in order to provide greater support in this transition into, continuation through, and completion of upper-secondary adult education. For many migrant students, adult education – a system Sweden is rightfully proud of – may still be a new concept.

Information transfer for humanitarian migrants is another challenge. Newly arrived are often moved around due to their insecure legal status and housing issue.²⁰ For this reason, some migrant students have to restart at new schools several times, with new teachers, students and curriculum. The Swedish National Agency of Education has noted that administrative and academic information is not passed smoothly between schools and education institutions when newly arrived students change schools or municipalities. This is partly due to a lack of an established system of transfer and the fact that Introductory Programmes as well as adult education programmes are designed differently across municipalities (Skolverket, 2018^[10]).

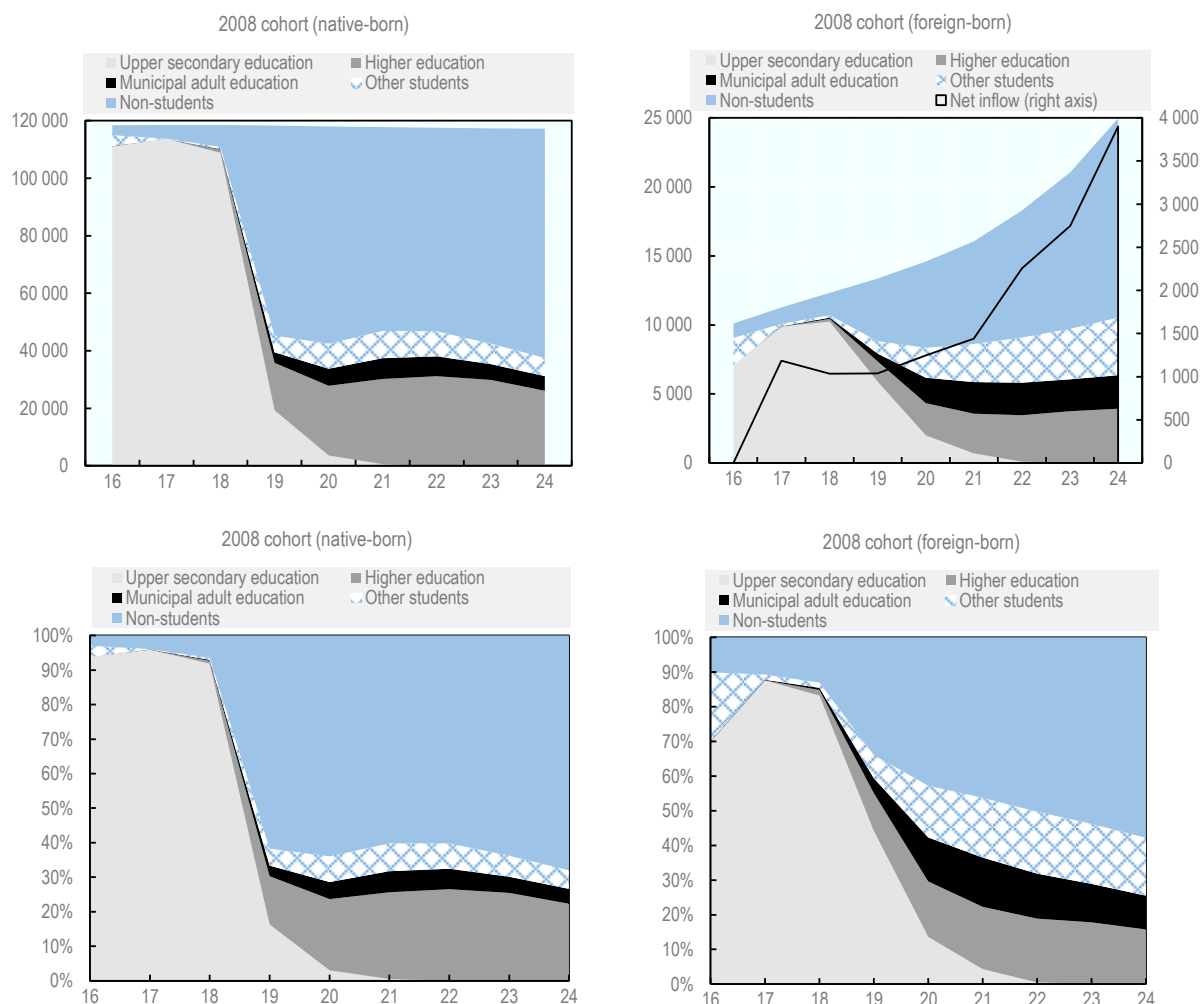
Similarly, for those young humanitarian migrants who might already have been through several different municipalities and educational institutions, attending yet another new institution – such as an adult education provider – with the hope of obtaining a higher qualification that is not guaranteed to lead to secure employment requires significant commitment and time and resource investment.

Adult education is essential for young migrants in particular

Foreign-born youth rely on adult education relatively more than native-born youth while they stay longer or lag behind in upper-secondary education, simply because they need more time to build their skills and knowledge (Figure 6.6). This suggests that adult education presents a good opportunity for migrant learners, but many of them need more time to succeed in the upper-secondary education system rather than, or prior to, transitioning to adult education. Extra guidance and counselling mechanisms in the transition to adult education would be helpful for those who have not made their way into a National Programme, those who have dropped out, or those who are not yet in employment or are in a job with little promise.

Figure 6.6. Foreign-born students tend to stay longer or lag behind in upper-secondary education yet rely relatively more on adult education

Number and share of students (16-24) who were 16 years old in 2008 (2008-16), by type of education and place of birth



Note: This graph is based on cross-sectional data, but follows the corresponding age-year data of the cohort who was 16 years old in 2008 until 2016. Other students include advanced vocational education (KY), Folk High Schools students in long courses, students in the preparatory year of science and technology in universities and university colleges, post-graduate students with an activity rate more than 1%. From 2015 Arts- and culture courses are included in Supplementary education programmes and from 2016 Supplementary education programmes have been replaced by Arts- and culture courses.

Source: Author's own work based on Statistics Sweden (2018^[62]), "Population 16-74 years of age by sex, age, types studies the autumn term, level of educational attainment of the parent(s) and national background. Year 1999-2017", Statistics Sweden (database) www.statistikdatabasen.scb.se/pxweb/en/ssd/START_UF/UF0507/StudiedeltagandeF/?rxid=9dd6b114-cafe-4a1d-ae87-33817431d20f.

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Notes

¹ Between 2004 and 2013, over 20% of permanent migrant inflows into Sweden were made up of humanitarian migrants – by far the largest share of all OECD countries (OECD, 2016^[5]). The country has had the fourth largest number of asylum applicants in 2015 at about 163 000 among OECD countries after Germany, Hungary and the United States (OECD, 2017^[6]), although this number has drastically gone down to fewer than 30 000 in 2016 and 2017. In 2018, the number was 3 824 as of March 2018.

² Finland, Iceland, Japan, Korea, Norway, Turkey and the United Kingdom have no available data on this.

³ The share of this age group out of all asylum seekers has been consistently greater than 40% despite a slight decrease in 2015-16 (data before 2017 from Eurostat (46.4% in 2014, 39.7 % in 2015, 38.5 in 2016, and 41.3% in 2017) and 2018 data (43%) from the Swedish Migration Agency). This share has grown closer to the higher EU average over recent years. Recognition rates – representing the share of asylum seekers whose applications have been approved – among this age group are relatively high in Sweden, though lower in 2017 than 2014.

⁴ While asylum seekers have relatively high chances of gaining permanent residency in Sweden in comparison to other EU countries, their prospects for finding employment are less promising than in other refugee-receiving countries (Irastorza and Bevelander, 2017^[8]).

⁵ This additional aim was added when Introductory Programmes replaced Individual Programmes as part of the 2011 reform, in an attempt to reduce dropout rates from upper secondary education (Arreman and Dovemark, 2018^[63]).

⁶ Data does not distinguish by legal status and citizenship is therefore taken as a proxy for asylum seeker or refugee status. The definition of ‘main asylum countries’ follows the definition used by the PES and includes the main eight countries of origin of asylum seekers in the past years: Afghanistan, Eritrea, Iran, Iraq, Nigeria, Pakistan, Syria and Somalia.

⁷ Results from following 7 213 students who began Language Introduction Programme in 2011 and 2012 (Skolverket, 2017^[9]; Skolverket, 2018^[10]).

⁸ This is the lowest compared to other Introductory Programmes in the cohort started in 2011, followed in 2016.

⁹ It is worth noting that students whose asylum cases were pending have no social security number that have not been able to follow up for this result (e.g. 60% of students who started Language Introduction Programme in 2016 had no identity information and 46% in 2017) (Skolverket, 2018^[10]).

¹⁰ However, the size is much smaller and apprenticeships are much more common in MBO 1 (the transition rate to level 2 is 21% for apprentices due to higher employment rates) (Fazekas and Litjens, 2014^[20]), compared to the Introductory Programmes in Sweden.

¹¹ See (Skolverket, 2017^[64]) and (Skolverket, 2017^[65]).

¹² See Table 3 (learners completing upper-secondary VET-courses in adult municipal education in 2013) in Skolverket (2017^[66]).

¹³ Among upper-secondary VET programmes, the foreign-born students tend to be over-represented in the care sector (37%) compared to Swedish students despite the fact that this sector only attracts 10.5% of all VET students (Ministry of Education, 2018^[15]).

¹⁴ The forecast of teacher shortages is due to the expected increase of the student number. For example the demand in the primary schools is expected to increase by about 25% and in secondary

schools about 35% by 2035. Another reason of the increased teacher demand is that currently active teachers without a teaching degree will eventually be replaced by teachers with a teaching degree (Ministry of Education, 2018^[15]).

¹⁵ A person may have applied for assessment of several courses (Swedish Council for Higher Education, 2018^[67]).

¹⁶ Sweden's admission rates are the number of students admitted to their first choice divided by the number of applicants who sought their respective programmes in the first place. Applicants include non-eligible persons. Statistics Gymnasieskolan – Elever – Riksnivå for Sweden.

¹⁷ For example, FVU (Preparatory Adult Education) level 4, AVU (General Adult Education) Danish as a second language, Danish 3 Exam or the Study Test in Danish as a Second Language (Higher Education Exam).

¹⁸ Analysis based on (Eurostat, 2018^[7]) using [trng_aes_101].

¹⁹ For example, 18% experienced interruption and 14% have not fully completed during their first fall semester in adult education at the primary and secondary level (Skolverket, 2018, p. 47^[10]).

²⁰ For those under the age 18, they can start schooling even if the settlement is not confirmed – this is understandable, but it can cause a complication for tracking in the education system if the students have to move for a permanent accommodation after having started a school already. This is a challenge for schools and municipalities in providing education for them sustainably.

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OECD Reviews of Vocational Education and Training

Vocational Education and Training in Sweden

One of a series of studies on vocational education and training, this review focuses on the vocational education and training (VET) in Sweden and concludes with policy recommendations.

Over recent years, Sweden has launched a series of reforms to enhance involvement of social partners in VET, to increase provision of work-based learning in VET programmes and to promote apprenticeship. Higher vocational education and training launched in 2002 has been expanding. At the same time, numerous sectors are grappling with labour shortages increasing pressure on VET to better match the provision to changing demand for skills; and fewer young people opt for VET programmes than in the past.

This report suggests several ways in which the Swedish VET system may respond to these challenges. Sweden may encourage co-operation between schools, for example by linking it to school evaluation and funding criteria. The report also argues that Sweden may further enhance social partners' involvement in VET by creating a framework for systematic social partners' involvement at the local level and by providing social partners with more responsibility over some aspects of VET.

Consult this publication on line at <https://doi.org/10.1787/g2g9fac5-en>.

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