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Franz Kaiser

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Editorial

This country study now appears in a fully revised form. Sweden formed a component of the original edition of the Handbook (1995) and has thus been awaiting an update for some considerable time. Many of the particular features of Swedish VET, which were also highlighted in the original edition, have been preserved. There have, however, also been a number of interesting new developments in more recent times.

In contrast to other Nordic countries such as Denmark and Norway, which tend to gravitate towards dual versions of VET, the particular characteristic of VET in Sweden is a strongly school-based system. Full integration of VET into an overall school-based education structure occurred as early as the 1970s.

VET in Sweden mainly takes place in large training centres with workshops and laboratory areas which can be best compared with the inter-company vocational training centres in Germany. In Sweden, as in many other countries where training is largely school-based, greater emphasis has been placed in recent years on closer integration of the company as a learning venue. This goal corresponds with the pressure to reduce youth unemployment, which is relatively high in European comparative terms. The proportion of company-based periods of learning has been increased over the past few years. At the same time, however, raising the attractiveness of VET in the secondary sector represents a growing challenge. Numbers of pupils are constantly declining.

There is therefore an obvious future need for concepts which can be used to counter the challenges, in particular with regard to the further development of integration of company-based learning and in respect of increasing the attractiveness of VET. This could help avoid a marginalisation of VET.

Consistent characteristics of the Swedish education and VET system are clear accentuation and realisation of the idea of inclusion, a high degree of participation structures, and firm enshrinement of the principle of lifelong learning within a continuing training sector that has a strong public foundation. These principles have evidently also proved to be a good basis for the extension of refugee integration measures.

This country study is a translation of the German edition published in 2023. Adjustments (e.g. accessibility) were necessary, so the Sweden study should be considered as an independent publication.

We hope that readers of the country study on Sweden will gain some interesting insights!

On behalf of the editors
Dortmund, Osnabrück and Bonn, in June 2026,
Philipp Grollmann, Dietmar Frommberger and Isabelle Le Mouillour

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Index of abbreviations

Abbreviation	Original term in Swedish Translation into English
apu	Arbedsplatsförlagd utbildning Relocation of training to workplaces. A methodological component of Swedish vocational education and training which takes on different dimensions depending on the programme.
CSN	Centrala studiestödsnämnden Swedish Board of Student Finance, able to provide grants for training and higher education study (the equivalent of the Training Funding Office pursuant to the German Federal Education and Training Assistance Act, BAföG).
DIR	Directive of the Swedish government
EQF	European Qualifications Framework
EU	European Union
GDP	Gross Domestic Product
GY-11	2011 reform of the upper secondary sector at Swedish comprehensive schools
KÖY	Kungliga Överstyrelsen för Yrkesutbildning Supreme decision-making body for vocational education and training in Sweden (the equivalent of the BIBB Board in Germany).
KY	Kvalificerad Yrkesutbildningen Qualified vocational education and training (follows on from training and refers to advanced vocational provision which is offered flexibly for a fixed duration and only in one region in some cases).
LiA	Lärande i arbetslivet Learning in the workplace in higher vocational education and training
LO	Landsorganisationen i Sverige The Swedish Trade Union Confederation
MYH	Myndigheten för Yrkeshögskolan National Agency for Higher Vocational Education, a state body responsible for the issuing of funding, quality assurance and labour market relevance in higher vocational education and training.
Prop.	Regeringens Proposition Government proposal. These are mostly papers which suggest a change and are based on an investigation or preliminary work conducted by a committee commissioned for the purpose.
SAP	Sveriges socialdemokratiska arbetareparti Swedish Social Democratic Party

Abbreviation	Original term in Swedish Translation into English
SCB	Statistika centralbyrån Statistics Sweden, a central government agency.
SEK	Swedish krona
SeQF	Sveriges referensram för kvalifikationer Swedish National Qualifications Framework
SFS	Svensk Författningssamling Swedish Code of Statutes. Official index of acts and directives in Sweden, an overall registry with year dates and numbers, may be researched at: URL: **http://www.riksdagen.se/sv/dokument-lagar/?doktyp=sfs** (for this reason, not all sources stated as being derived from the SFS are included in the literature and source references).
SKL	Sveriges kommuner och landsting Association of Municipalities and Provinces
SOU	Statens Offentliga Utredningar Swedish Government Official Reports. Investigations commissioned by the government. All reports have a year date and number, e.g. SOU 2002:120 and may be openly researched at: URL: **http://www.sou.gov.se/** (for this reason, not all sources stated as being derived from the SOU are included in the literature and source references).
USD	US dollar
VET	Vocational education and training
VFU	Verksamhetsförlagd utbildning Practical teaching studies as part of teacher training.
Yh-poäng	Yrkeshögsskola-poäng Credit points in higher vocational education and training. Five points correspond to one full-time week. 200 points represent one year of learning.

Basic data

Sweden/Sverige/SE (2020)

Table 1: Basic data

Basic data	Value
Area (km²)	447.435
Population density (inhabitants/km²)[1]	25
Population (millions)[2]	10,35
of which foreign nationals (in %)[3]	8,98
Age (proportion of total population) (in %)[4]	
0–14 years	17.62
15–64 years	62.05
65 and older	20.33
Labour demand (by gender) (in %)[5]	
Total	64.4
Male	69.8
Female	64.5
Labour demand (by age) (in %)[6]	
15–24 years	41.0
25–54 years	85.4
55–64 years	76.8
Unemployed persons (by gender) (in %)[7]	
Total	6.7
Male	8.3
Female	8.3
Unemployed persons (by age) (in %)[8]	
15–19 years	37.4
20–24 years	17.6
25–34 years	8.6
35–44 years	6.4
45–54 years	5.2
55–64 years	5.8
65–74 years	2.0
Literacy rate (in %)[9]	99.9

1 Statista 2021n
2 Statista 2021n
3 Statista 2021c
4 Statista 2021d
5 Statista 2021e
6 OECD 2022a
7 Statista 2021f
8 Statista 2021g
9 World Population Review 2021

Table 2: Main economic focuses (in %)

Sector	Labour demand (in %) 2020[10]	Gross added value (in % of gross domestic product (GDP) 2020)[11]
Primary/agriculture and forestry, fishery	2	1.37
Secondary/manufacturing industry	18	21.59
Tertiary/services	80	65.68

Table 3: Gross domestic product (2020) (in USD)

Gross domestic product	Value
GDP (in USD billions)[12]	541.1
GDP per capita (in USD)[13]	52,129

Table 4: Use of Gross domestic product 2020 (in %)

Use	Value
Households	13.7
Companies	65.6
The state	20.6

Source: OECD 2022b

Table 5: Inflation rate (in %)

Year	Inflation rate
2018	2.04
2019	1.72
2020	0.66

Source: Statista 2021l

10 Statista 2021h
11 Statista 2021i
12 Statista 2021j
13 Statista 2021k

Table 6: Gross earnings (monthly net in euro) in comparison to Germany and the European Union (EU)

Year	Sweden	Germany	EU average
2018	3,47	3,715	2,608

Source: Statista 2021m

Table 7: Average tax rates (in %)

Year	Average tax rates
2019	32.19
2020	32.28
2021	32.27

Source: Statistics Sweden 2021

Table 8: Gross national debt as a proportion of GDP (in %)

Year	Proportion
2019	34.87
2020	37.35
2021	39.64

Source: Statista 2021n

Table 9: Significance of foreign trade (in USD billions)

Category	2018	2019	2020
Imports	10.6	-6.6	-6.0
Exports	8.4	-3.3	-3.5
Net figure	-4.3	1.6	5.5
Business languages	Swedish, English		
Currency	Swedish krona (SEK)		
Euro reference rate (February 2022)	€1 = SEK 10.41		

Source: German Trade & Invest 2021

Introduction and summary

"Skolreformerna återspeglar samhällets förändring i stort. Men skolreformenear haar också uppfattas som instrument för att förändra samhället."[14]
Sixten Marklund (1980, p. I)

Sweden is most frequently spontaneously associated with vast areas of forest and hidden lakes and with the seclusion and polar lights of the far North, where Sámi[15] occasionally pass by with their reindeer. Thoughts turn to car journeys on lonely roads and to signs warning of a possible collision with one of the elks, the animal that has essentially become a symbol of the Kingdom of Sweden. "Kingdom" is a further keyword which has been especially linked with Sweden from a German point of view since Queen Silvia, born in Heidelberg, became a member of the Swedish royal family. Unlike the British monarchy, the Swedish royal family sets store by proximity to the people and by living a normal life. Their children attend school like other "regular families", and the King gets stuck in traffic when travelling to his castle just as others do making their way to work in Stockholm.

Sweden's Baltic coast boasts a multitude of small islands, known as skerries. One of the most beautiful groups of these is the Stockholm Archipelago. The country's history stretches back all the way to the Stone Age and to the Viking period. The island of Gotland and Visby, its centre of merchandise, are especially good places to study this alongside the excavation site of Birka, located on the island of Björkö in Lake Mälaren near Stockholm. There is also a particular link with the German Hanseatic League, prevalent in the form of inscriptions on old merchant's houses in the capital's old quarter (Gamla stan), where a German church is also to be found.

Sweden has approximately ten million inhabitants, a low figure compared to its surface area. It is a thinly populated country, and larger built-up areas and high-rise towers are only present in the agglomerations surrounding Stockholm and Göteborg and Malmö in the West. The landscape is otherwise dominated by forests and grasslands, which give way to tundra regions in the far North.

14 School reforms reflect the shift in society in general terms. School reforms should, however, also be viewed as an instrument for changing society (There are many quotes in the publication original in Swedish. The translation is not mentioned in every case. All quotes in Swedish in the text are translated by the author, only few of them remain in the Swedish original in the text, like this one here.).

15 The Sámi were originally a nomadic people inhabiting the region of Lapland. There are currently around 70,000 Sámi in Sweden, Finland, Norway and Russia. About 20,000 of these live in Sweden. The Sámi were recognised as an indigenous people in Stockholm in 1977 (see Baier n. d.).

Sweden is also well known for the world-famous author Astrid Lindgren, associated with child characters including Pippi Longstocking, Bill Bergson, Ronia the Robber's Daughter and Emil Svensson. In Germany, Emil was rechristened as "Michel" in order to avoid confusion with the protagonist of Erich Kästner's successful children's novel Emil and the Detectives. The relaxed parental approach portrayed by Lindgren and the untroubled childhood freedom her creations enjoy in locations such as Seacrow Island and Troublemaker Street are still very much reflected in the child-friendly attitudes which Swedish society displays today. The well-being and development opportunities of the upcoming generation are accorded preference over virtually everything else. While viewers of Swedish crime films may certainly gain the impression that traditional fikas (coffee breaks) are an essential part of everyday working life in the country, they will also see that nearly all activities are coordinated within a team governed by flat hierarchies. Investigations are interrupted, and people will leave work when it is time to visit ailing parents or to pick up the children from nursery school. Ursula von der Leyen experienced the latter situation first hand when she was German Minister of Family Affairs. Her Swedish counterpart left a meeting half an hour before its scheduled end in order to collect his children.

This prominent position given to children is perhaps one of the reasons for the comparatively high levels of investment Sweden makes in its education system. Ever since the war, a period during which educational policy has been dominated by the Social Democrats, the development of a school system aligned to equal treatment for everyone has been the focus. This is illustrated by the introductory quotation from Sixten Marklund. The school reforms of the 1970s transformed modern Sweden into a state entirely geared towards equality and democratic co-determination. The monarchy merely ensures glamour by way of a change and ultimately also serves as a tourist attraction.

As a result, responsibility around VET has seen a shift from trade and industry to the state since the 1970s. VET became a component of the education system. Its integration into upper secondary level II (Gymnasieskola) produced an upgrade which was not seen across swathes of the European Union until much later, when equivalence at reference level 4 of the European Qualifications Framework (EQF) was finally established.

Integration of VET into the school system was accompanied at a significantly earlier point in time by an assimilation of disadvantaged groups of persons in Sweden which incorporated all physical disabilities into general schooling. One exception in this regard is deafness, which requires a special language in order for teaching to take place. This has been recognised as a minority language since 1981, and a remarkable number of people in the country are cognisant of it.

Central state governance, which underwent a levelling in the 1990s as a result of the strengthening of local government and sought to achieve greater freedoms in the structuring of the local schools system from that point onwards, was previously already characterised by a high degree of transparency and participation. Although the socialist

features of governance are typical of Nordic welfare state models and significantly level out differences in income, they do not equate to socialist central government. Quite the contrary: all policy decisions and the expertise and empirical data on which they are based are available at all times to everyone, and extensive participation of lobbying interests and of citizens is standard practice.

The high levels of taxation, although top rates have come down over the past decades, and the relatively convergent incomes generated from gainful employment, lead to a sense of community amongst Swedes. For this reason, they are willing to support the welfare state despite the fact that it has not escaped unscathed in the wake of the neoliberal changes that have occurred in the western industrialised countries. In addition to this, the Swedes have access to a very well developed and maintained public infrastructure and to an efficient healthcare system which ensures provision in remote areas even though services are currently restricted due to a shortage of qualified nursing staff. Sweden enjoys considerable economic prosperity in overall terms. This is reflected in property ownership and in the ability to take extensive summer holidays on an annual basis. All of this doubtlessly contributes to the country being in one of the leading positions in the international better life index.

Anyone visiting vocational schools in Sweden – or rather training centres which offer the various VET programmes – will be surprised by both their technical equipment and by the modernity of the buildings. Because only 12.5 percent of learning time in standardised national VET programmes takes place at a workplace outside the schools, practical skills in the fundamental techniques of the respective occupational field are acquired at the school-based training centres. The agricultural schools are therefore home to extensive pools of machinery and various types of livestock. Schools which provide training programmes in the construction industry, for example, feature shop floors which tend to be reminiscent of the inter-company training centres found in the craft trades sector in Germany.

Alongside this particular characteristic observed from a German perspective, the vocational school staff delivering the 'vocational subjects' emerge as experts in their occupational field rather than as teachers who have undergone academic training in a single discipline (medicine, engineering etc.). In terms of habitus and career progression, they thus bear a greater resemblance to company-based training staff in Germany than to German vocational school teachers. Aside from a few exceptions, they do not hold a teaching licence for a second general subject. Nevertheless, they enjoy the same status as other upper secondary school teachers with regard to payment and contractual conditions if they have passed a teaching examination. There are two things also affecting VET which are of crucial significance to the openness of the Swedish education system to citizens and to the "newcomers" which the country has absorbed in exemplary fashion and in high numbers since 2014. Firstly, there are multifarious opportunities for the flexible recognition of competencies already acquired. These apply both to upper

secondary qualifications (general and vocational) and to higher VET and academic education. Since the 1990s, the universities and universities of applied sciences have been required on application to facilitate the validation of knowledge and skills previously obtained and to enact appropriate reductions in study volumes or to directly admit applicants to final examinations. Secondly, the Swedes have access to a very well developed and established adult education system which extends virtually nationwide. This provides a means to achieve school qualifications via the second chance route. In addition to this, an Open University has enabled higher education courses to be attended and completed either face-to-face or with the assistance of digital support since 2012. Vocational qualifications are also integrated, and this creates ideal prerequisites for the development and implementation of new occupational prospects even at a more advanced age. A further favourable aspect is the fact that all provision, including at universities, is offered free of charge as long as study places are available. This creates flexible education pathways and programmes which, as evidenced by the many posters displayed in public places, seek to attract students and trainees.

Sweden has thus acted in a highly effective way to establish a concept for lifelong learning which also incorporates VET. Together with gender equality in everyday working and family life, something which has helped bring about a high rate of employment among women, this is an important factor for economic, social and cultural prosperity in Sweden.

1 Country-specific context

In relation to the training sector, VET in Sweden is predominantly school-based. Some training programmes, for example, nursing training in the healthcare sector, also take place at the higher education level. An apprenticeship system centred on companies (Lärlingsutbildning) exists in only a few areas, such as in the skilled electrical trades. For this reason, the changes that have taken place in the school-based context over the past decades are of decisive significance to VET. At the same time, the relationship between the state, trade and industry and the population is influenced by the sociocultural structure and its associated mentality in Sweden, which is characterised by transparency, participation and imperturbability.

Sweden's geographical conditions (large surface area, low level of population density with only a few areal points of concentration and a strong decline in the number of inhabitants in the North) and its long history as an independent state since the ninth century play a crucial role for the alignment of VET into the country-specific context.

The most important information regarding the general conditions governing VET and influences and reciprocal effects vis-à-vis the (vocational) education system is set out in the following chapters. This serves the purpose of incorporating all subsequent chapters, in particular chapter 4, which is devoted to initial and continuing VET in detail.

A brief history of Sweden

The first significant settlements in Sweden arose during the Viking era between 800 and about 1000 AD as svear villages in the area surrounding Lake Mälaren, the shores of which still border the country's most important city, Stockholm. Although the Viking raids took them as far afield as present-day Istanbul and Spain, their direct territorial dominions spread out only cautiously into the areas that now make up Sweden's western coast and the coastal region of Finland, until the Kalmar Treaty of 1397 brought about a union with Denmark and Norway that was to last until 1521 (see Tuchtenhagen 2008, p. 10). Sweden relates its national state tradition to the reign of Gustav Vasa, who was elected king in 1523 and implemented both a nationalisation of the church and a line of succession to the throne. The Swedish Empire expanded far beyond its current borders during the early modern era. It took in Denmark, Norway and Finland and spread widely across the European continent to swallow up parts of the north of Germany and of Poland as well as wide swathes of Russia. These territories were gradually lost in the early 18th century, and Finland was later ceded to Russia during the Napoleonic Wars. Sweden's current territorial form dates back to 1905. Missionary activities of the Evangelical Lutheran Church means that it is a country on which religion has left its mark. Power passed from the hands of the king to the Riksdag in 1718.

A strong workers' movement emerged in Sweden as industrialisation took hold towards the end of the 19th century. The social democratic movement led to the achieve-

ment of universal suffrage, including for women, in 1921. The Swedish welfare state as we know it today came about during the 1940s and 1950s. Sweden has not been involved in any war since 1814. In 1995, it became a member of the European Union whilst retaining its own currency, the Swedish krona (SEK).

1.1 General social and cultural conditions

Sweden extends over an area of just under 450,000 km². By European standards, it is a large country with a comparatively low population density (2020: 25 inhabitants/km²). The population of Sweden has grown enormously over the past few decades (not merely since 2015) and recently surpassed the ten million mark. The economic situation in Sweden is relatively good in European comparative terms (see Statista 2021a; 2021b; 2021j).

Sweden and all the other Scandinavian Nordic states (Denmark, Norway, Finland and Iceland) share a joint history of multiple amalgamations (see Lindmark 2015, pp. 9ff.). A common feature of these countries is that policymaking has been aligned to the welfare state since the 1930s (see Michelsen 2018, pp. 12ff.; Landeszentrale für politische Bildung Baden-Württemberg 2014). They are further linked by their endeavours to achieve a reconciliation of interests between efficiency, solidarity and equality (see Michelsen 2018, p. 15; National Agency for Education 2014). Sweden takes a receptive stance to world events and within political contexts. This approach is also represented by a royal family which displays considerable proximity to the people as part of the country's parliamentary monarchy.

Anyone entering the Council Chamber at Stockholm City Hall, familiar to us as the venue for Nobel Prize award ceremonies, will be struck by its roof construction, which resembles the hull of a Viking ship and seems to open out into a blue sky above. Metaphorically speaking, this portrays the notion that the matters discussed and negotiated in this space should be accessible to all and that there should be no secrets. The creation of transparency for everyone is an integral component of Swedish politics. No museum of Swedish culture is permitted to charge an entrance fee, for example. All persons are also allowed to view the tax data of others (see Bünz 2008). Equality between men and women is a matter of course, reflected in the fact that both genders are almost equally represented in the working population[16] and further reflected in female-friendly and family-friendly policies. In addition to all of this, a dedicated Gender Equality Agency (jamstalldhetsmyndigheten) was set up in 2018. "The government of Prime Minister Stefan Löfven describes itself as a 'feminist' government" (Sauerbrey 2018). Establishing via which everyone can participate in culture and education is fundamental to an attitude encompassed by the Swedish word lagom, which may be translated as "exactly

16 This does not mean that the gender pay gap, or inequality of remuneration between the genders, has yet been overcome, even though Sweden occupies second place directly behind Finland in the relevant OECD statistics (see OECD 2017, p. 33).

right" or "just the right amount".[17] This is associated with a view ensuring that everyone in the community has their place, can be integrated, and that no one stands out especially. Modesty and reticence give rise to conditions which enable all to participate in what society has to offer (see Wolf 2011, pp. 26ff.). The political term Folkhemmet, which relates to this type of nation, was coined by the Social Democratic Party in the 1920s and 1930s. It is a good fit for this fundamental position, which is both a goal and the present reality, even if challenges constantly occur. In a speech given in 1928, Per Albin Hansson, chairman of the Swedish Social Democratic Workers' Party, stated:

> "A good home has no privileged or disadvantaged persons, no pampered children and no stepchildren. No one looks down on anyone else, no one tries to gain advantages at the expense of others, and the strong do not suppress or exploit the weak" (Althaus 2015, p. 3).

In order to understand Swedish culture, it is useful to look at the way in which the terms folkhem, lagom and Jantelagen ("Don't believe that you are something better") work together. These notions also form the foundations of the "right to roam" (allemansrätt), which permits everyone to camp or pitch a tent in the great outdoors. Of course, the expectation is that no traces will be left behind. This attitude gives rise to freedom-loving tolerance and self-responsibility and to state support systems which ensure that mobile libraries travel to the furthest most parts of the country and that children living on skerries are flown to school by helicopter if they would otherwise be disadvantaged by ice on the water's surface. One of the results of such endeavours is that Sweden has the highest rate public library usage anywhere in Europe. According to a survey carried out by a marketing research company in 2013, 74 percent of those aged above 15 borrow a medium from a public library at least once per year. By way of comparison, the rate in Germany is 23 percent (see Statista 2013).

There is also wider dissemination of cooperative forms of living, particularly in the towns and cities, lower wage differences (if the salaries of managers are excluded) (see Wolf 2011, p. 216; Deutsch-schwedische Handelskammer 2018) and an endeavour to achieve a broad balance between urban and rural areas with regard to aspects such as participation in education and culture (see Kaiser 2019). Public libraries which extend far into the country's rural regions should also be mentioned within this context. These have their roots in church-run precursors and later owed much to the workers' movement (see Undorf 1998). About 26 percent of the population currently profess to be annual active users, a figure which puts Sweden well ahead in international comparative terms (see Schwedische Nationalbibliothek 2018).

17 The old Swedish word *lagom* is associated with an image of Vikings sitting around a fire and sharing a large drinking horn. Everyone in the group was able to drink their fill whilst also allowing all the others at the fire to have enough despite receiving the horn later.

However, the prevailing social culture also causes defensive dialogues and debates. These are conducted with considerable reticence, and one of the consequences of meetings (möte) is that much time is taken up before an agreement is reached without overlooking anyone. "Things are not enacted until the best solution has been found after long-term participation involving everybody and until the relevant measures have been accepted and adopted by all those concerned" (Kübeck 2012, p. 123).

At the same time, the changes which have taken place since the financial crisis and the switch to a centre-right government have in some cases led to a softening of the social state benefits mentioned above (see Palme/Fritzmark/Bergmann 2009). The healthcare and education market has been opened up to private sector providers, which derive profits from state subsidies. This is also one of the reasons why the Social Democratic Party has gained ground in the recent past (see Herrmann/Simon 2019; Maass 2014, p. 4).

1.2 General political and legal conditions

"Structured consultation", "corporative representation" and "network culture" are all terms which are frequently used to describe the political culture of Sweden (Jahn 2008, p. 134). This is linked with a robust securing of policy decisions via the formal participation structures which form a key characteristic of Swedish politics (see the remarks on möte in the preceding section). This means that changes generally appear slowly and do not take place until multifarious consultations and pre-commissioned research studies have been completed.

Sweden has been a member of the European Union since 1994 and is a constitutional monarchy with a parliamentary form of government. The Head of State is King Carl XVI Gustaf. Gustaf merely fulfils representative duties.

The parliament (Riksdag) comprises a chamber of around 350 members who are directly elected every four years. Parties must achieve four percent of the overall vote in order to be represented in the Riksdag, from whose ranks the prime minister is chosen. The prime minister is charged with the formation of a government and decides on the ministries (department) that will be established. Seating arrangements in the Swedish parliament are determined by regional origin so as to prevent the creation of blocks and foster objective collaboration (see Jahn 2008, p. 110). The government prepares draft laws and ensures the implementation of documents adopted in parliament. It is supported by the Government Offices (Regeringskansliet) and avails itself of the services of a plethora of authorities (myndigheten), such as the recently established Gender Equality Agency, and of expert advisory bodies. Public control in Sweden is largely exercised by independent ombudspersons (ombudsman) appointed by the Riksdag itself to monitor government business. They have delineated areas of responsibility, such as children, consumer protection, ethic affairs etc. (see Leiber 2005, p. 73).

Sweden has three tiers of government – national, regional and local. The level of the regional provinces is of subordinate importance (see Svensk Regeringskansliet 2014). Each of the 21 provinces has a provincial government. Some also have sub-departments of national authorities, which come under the auspices of the ministries. These provinziallandtagen are elected regionally, and their main responsibilities encompass healthcare, the transport system, and promotion of culture (not including the school system) within the respective province. The provincial tier of government's lower significance is demonstrated by the existence of a single joint body (Sveriges kommuner och landsting, SKL), which represents both the municipalities and the provinces at a national level.

By way of contrast, the 290 Swedish municipal councils are more important by dint of the fact that they constitute a direct level of self-administration. At the local government level, they bear responsibility for nursery schools, schools, social services, housing construction and road building (see Schwedisches Institut 2013). As a result of this, they are highly relevant to schools and education policy, especially since the reform of the 1990s.

Sweden has enjoyed freedom of the press since 1766, and this means that public opinion is able to exert an influence on policymaking (see TNS-Sifo 2016):

> "The particular characteristics of Swedish press law consist of free inspection of all government authority documents and highly robust protection of sources of information. The 'right of public accessibility' permits anyone to view or copy files from state and regional authorities regardless of whether the information concerns them or not" (Jahn 2008, p. 136).

In exceptional situations, the Riksdag may also carry out public referenda on far-reaching decisions. These are, however, not binding. Such referenda have thus far only been held on six occasions, including accession to the EU and the introduction of driving on the right.

Sweden has been shaped by the politics of the Swedish Social Democratic Workers' Party (Socialdemokraterna) over a long period of time. The party has formed part of the government for over 100 years and has also ruled alone at times (see Jahn 2008). It emerged from the 2018 election as the strongest party with a 28 percent share of the vote, although this was its worst result since 1908. Right-wing populists, represented by the party Sverigedemokraterna, were gathering steam. They did not achieve their objective of taking power but were able to add around five percent to their support to end up on almost 20 percent, thus becoming the election victors in terms of voter base growth. Forming a government proved difficult. Prime Minister Stefan Löfven, Leader of the Swedish Social Democratic Party, was ultimately able to hold on to both positions despite his weakened situation (see Herrmann/Simon 2019). Löfven's successor Magdalena Andersson, who headed up an entirely social democratic administration, was

replaced in 2022 by a conservative minority government under the leadership of the Moderate Party.

Independent organisations play a prominent role in Swedish life. These are mostly associated with popular movements (folkrörelser), which may be viewed as lobbying associations, and devote themselves to a wide range of topics such as minority languages, religion, alcohol abuse or women's rights. However, they also include trade unions, consumer and housing cooperatives, sports clubs, and nature preservation societies. Over 90 percent of Swedes aged between 16 and 80 belong to at least one special interest group. On average, each person is a member of three such organisations (see Jahn 2008, p. 130).

In Sweden, the individual is fundamentally responsible for shaping their life. Dense state regulations are nevertheless in place, especially with regard to the exercising of government tasks. Taxation is also comparatively high. Average tax rates at local government level are approximately 32 percent. National taxes of between 20 and 30 percent are added to this. A study conducted in 2016, which compared the satisfaction of the Swedes with the various public bodies and government organisations, showed that the population is content with the performance of the tax office (which came 5th out of more than 25 agencies). Work placement (the Employment Agency) and the two bodies dealing with the school system occupied the bottom positions in the poll (see TNS-Sifo 2016). This illustrates that most people agree that taxpayers' money is being spent in the right way. There is, however, a certain dissatisfaction with current schooling and labour market policy.

The Swedish welfare system provides a plethora of benefits free of charge. All educational provision in Sweden, which mostly takes place on an all-day basis, is free. The same applies to adult education, advanced training, healthcare (with the exception of fees charged by doctors' surgeries and prescription contributions) and old age care (see Sanandaji 2018). Children in Sweden are supported via a parental allowance which guarantees parents 80 percent of their income after the birth of a child for a maximum period of 16 months. A few cutbacks have occurred in the welfare state since the crisis of the 1990s. These have mainly affected single parents, migrants and young people and have led to a greater burden for the middle classes (see Palme/Fritzell/Bergmark 2009). Notwithstanding this, general prosperity and the provision of social benefits to the population are shown to be relatively good. One of the reasons why financing works so effectively in Sweden is that both formal and actual retirement ages and the rate of female employment are relatively high (see Kangas/Palme 2005). Although Sweden is seeing a rising inequality between the incomes of private households, this is occurring at a low level in international comparative terms (see OECD 2017, p. 25).

The effectiveness of the Swedish healthcare system is a vexed issue. On the one hand, a high degree of patient autonomy is required, whilst containing the costs of a tax-financed organisation involves long waiting times (see Steuer 2017). On the other

hand, the system delivers a high level of quality, as is borne out by international comparisons. Two things are thus clear. Healthcare spending makes up a relatively low proportion of GDP in Sweden whilst, at the same time, the level of healthcare provision achieved is relatively high (see Sveriges Kommuner och Landstigen 2018, pp. 21ff.).

The social partnership has existed in Sweden since the late 1930s and has turned out to be extremely stable and free from any state interference (see Jahn 2008, p. 131). The high significance of employer organisations is revealed by the fact that around 75 percent of employers are organised within such a body. Following a merger between SAF (Svenska Arbedsgivareförening) and SI (Sveriges Industriförbund), the most important of these associations is Svensk Näringsliv, which translates as "Swedish trade and industry" (see Leiber 2005, pp. 77ff.). Approximately 70 percent of dependent employees are organised in trade unions (see Swedish Trade Union Confederation 2011, p. 2). Three significant umbrella organisations may be differentiated. The most important workers' trade union is the Swedish Trade Union Confederation (LandsorganisationIn i Sverige), which has close ties with the Social Democratic Party and brings together 15 individual unions. Salaried employees (70% of whom are women) are mainly organised within the Tjänstemännens Centralorganisation (TCO). Finally, there is a trade union for graduates (Sveriges akademikers centralorganisation, SACO). This is the smallest of the umbrella bodies. It has around 660,000 members (ibid.) and also incorporates 23 further sub-organisations. In overall terms, the Swedish working population exhibits an above-average degree of organisation. This also helps bring about labour policy and a labour structure which are relatively employee friendly (see Deutsch-schwedische Handelskammer 2018). Collective bargaining thus also enjoys a high degree of significance in Sweden. It regulates working times, overtime payments, paid leave allowances, sick pay, employer's liability insurance association matters and the ranges of remuneration for different levels of experience in professions and occupations (see Swedish Trade Union Confederation 2011, p. 4). The social partners are, however, not merely of relevance at a collective wage agreement policy level. In accordance with the consultative style of policymaking in Sweden, they are also integrated into government authorities and advisory processes in many places, even though this has not been mandatorily stipulated since the 1990s (see Leiber 2005, p. 79).

1.3 General economic conditions

Overall view of living conditions and economic development

Sweden is a capitalist country with a relatively pronounced social security system and with legislation in place to counter inequality (occupying 7th position in the Inequality-adjusted Human Development Index, see United Nations 2019). Nominal gross domestic product per capita is over $50,000 and thus well above the average. GDP has been exhibiting a positive development since 2012 (see World Bank 2018). A consid-

eration of the overall economic situation in international comparative terms shows that general economic conditions play a significant role in the well-being of the population as a whole as long as fair societal redistribution takes place. These calculations are influenced by an average life expectancy of more than 80, by an average period of school attendance of 17 years, and by an average annual income of almost $50,000 (see United Nations 2022). The OECD better life index (see OECD 2022c) also certifies outstanding values for Sweden. The country is above average in all thematic areas of the OECD, including civil engagement, education, work-life balance, health, subjective well-being, the environment, security, employment, housing, and social ties.

Sweden's inhabitants enjoy a leading position with regard to the assessment of quality of life. Although it is a little behind the other Scandinavian states in education and social cohesion, it has top scores for health and civic engagement.

These positive findings have their foundations in a political approach which is continuously aligned to the social state, in the decrease in new state debt, in the clear export surplus achieved over recent years, in the positive development of GDP (see OECD 2017, p. 12), and not least in the welfare-led and highly participation-oriented policies for which Sweden is well known all over the world (see chapter 1.2).

Of the products and brands from Sweden which readily come to mind, those most familiar in Germany are probably IKEA (furniture retailer), H&M (clothing), the vehicle companies SAAB and Skania, the telecommunications equipment manufacturer Ericsson, and Vattenfall, the power plant operator. This illustrates that Sweden has a number of high-tech companies which are active worldwide and interlinked with the global capital markets. The Swedish pharmaceutical company AstraZeneca and the Swedish-Swiss energy and automation concern ABB, with over 100,000 employees, are two further examples that can be added to the list. Sweden is also involved in the digital sector via enterprises such as Spotify (online music) and Skype (an Internet telephony pioneer).

In overall terms, the reports produced by the OECD attest that the Swedish economy is performing very well.

> "Sweden weathered the global financial and economic crisis with limited damage, thanks to strong macroeconomic, fiscal and financial fundamentals, as well as a competitive and diversified business sector. Output has grown faster than in most other OECD countries over recent years" (OECD 2017, p. 6).

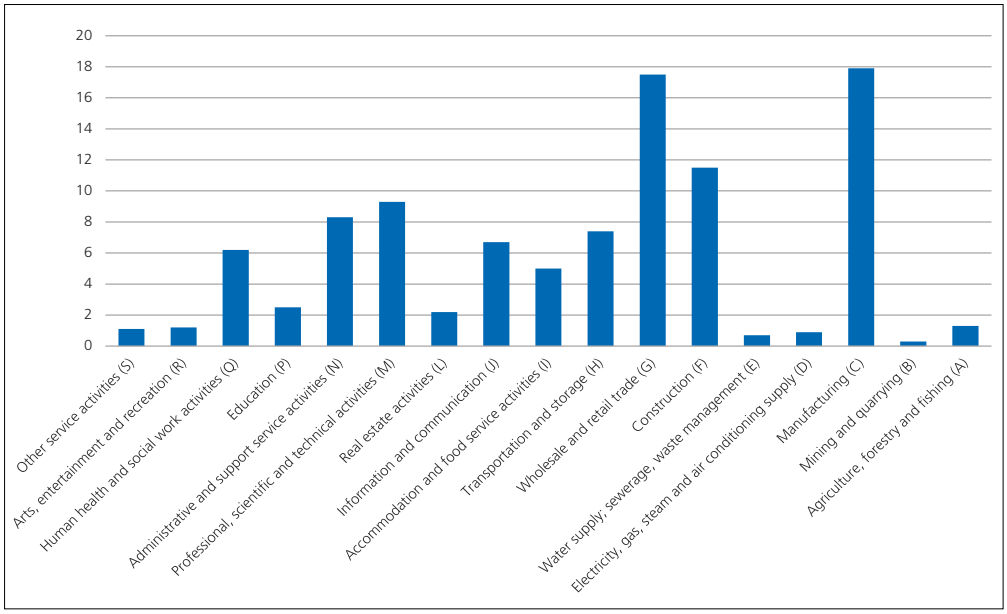
Over recent years, state fiscal policy has succeeded in reducing debt costs as a proportion of the overall national budget (2021: 39.64% of GDP) and in decreasing corporation tax (Börsenzeitung 2018) from 28 percent (2009) to approximately 20 percent (2019).

Economic structure

Only a century ago, Sweden was a largely agricultural country dominated by forestry. Even today, most of the country's agricultural land is used by the forestry industry. Swe-

den has 30.5 million hectares of forests and woodland, the most of any European country (see Eurostat Agriculture 2018, p. 91). Only 6.9 percent of the country's surface area is used for agricultural purposes (EU Ø 38.8 %; ibid.). Despite the comparatively large significance of forestry and the very positive relation in European comparative terms between capital invested and profits generated (ibid. p. 28), the overall proportion of persons employed in agriculture is well below five percent (ibid. p. 24). The following Figure 1 shows the proportions of total employees accounted for by the various sectors.

Figure 1: Employment proportions of the sectors (in %)

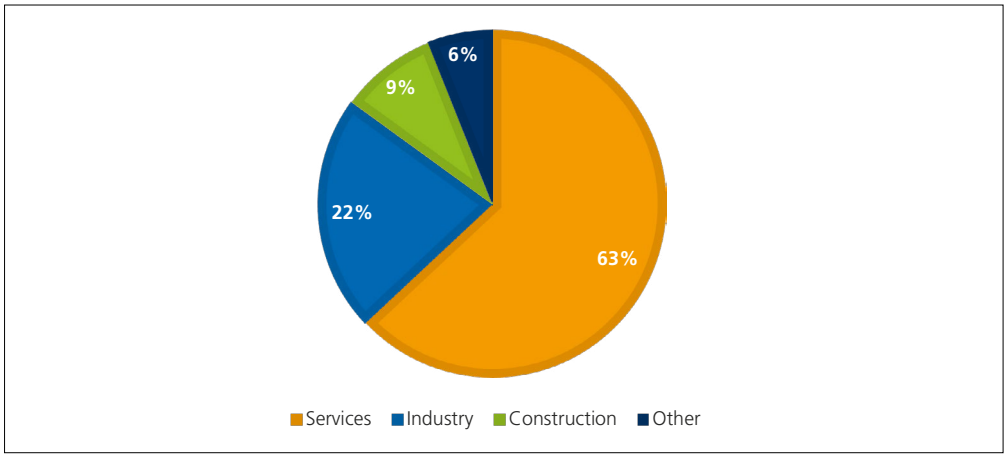


Source: Own depiction using data from Statistiska centralbyrån (SCB) 2016a (the letters in brackets in the key represent the uniform classification system for the economic sectors in Sweden)

This makes it clear that the manufacturing industry, which accounts for 18 percent of employees and is level with the commerce sector in this regard, still makes up a significant proportion of the Swedish economy. Mining and the whole of the agricultural sector, on the other hand, have very much declined in importance and now are of similar significance to the culture and leisure sector.

If value creation is viewed as the relevant factor, however, then the greatest contribution in this respect is made by the services sector, as Figure 2 below illustrates.

Figure 2: Proportion of economic areas in the industrial sector (not including the financial sector, value-oriented, in %)



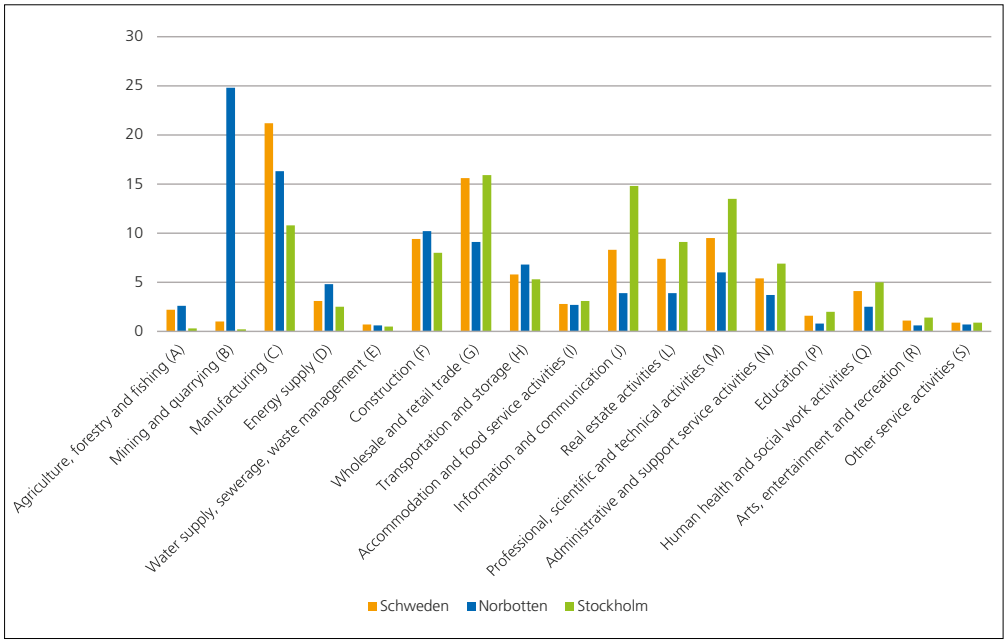
Source: Own depiction using data from SCB 2018

Like most European states, Sweden has transformed into a country characterised by services. Nevertheless, industry and manufacturing still play a significant role, especially since many services form an appendix to this sector. If economic structures are viewed from a regional aspect, then the meaningfulness of the decentralised governance practised in Sweden becomes apparent. Figure 3 contrasts the data for the economic sectors in Sweden as a whole against the data from the Stockholm region and from Norbotten, the country's northernmost province.

In overall terms, a relatively equal distribution of the sectors in the regions is revealed. Attention should be drawn, however, to three deviations which are also of relevance to the structuring of the regional education and training system. In Stockholm, the proportion of administration, IT, research and development, and healthcare is significantly higher than in the largely rural region of Norbotten where, by way of contrast, the proportions in the area of mining and energy are far above the national average. This is reflected in the above-average number of commercial and management training programmes in Stockholm and in the specialisation in mining, which is prevalent in the provision of regional VET centres and institutes of higher education in Norbotten[18].

18 Sweden's northernmost university, which is located in Norbotten, describes itself as follows: "Luleå University is the centre of research and training for the mining industry".

Figure 3: Economic structure by region and sectors 2018 (value-oriented, in %)

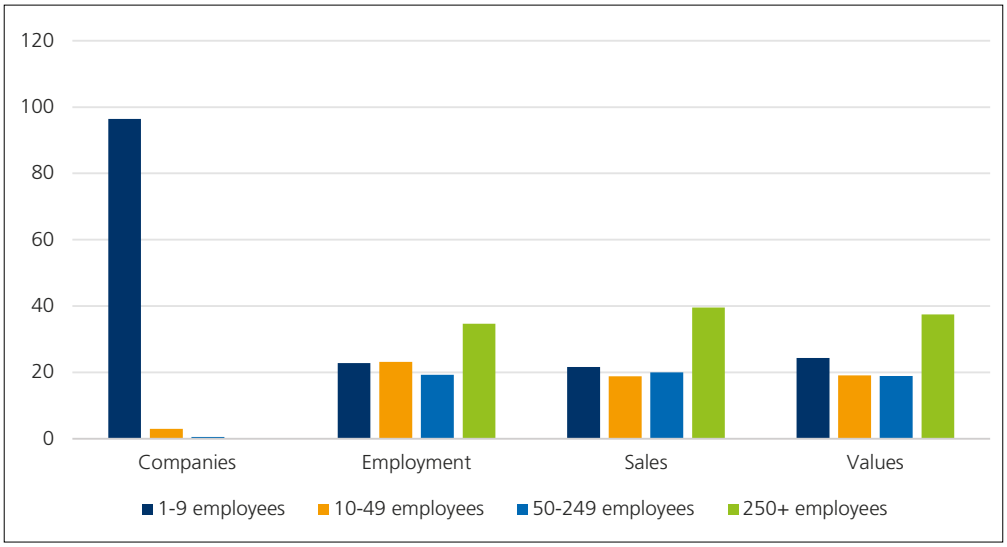


Source: Own depiction using data from SCB 2016b (explanation of the key see Figure 1)

Looking again at the company structures in Sweden under the aspect of company size, it is revealed that the country is dominated by small and medium-sized enterprises (see Figure 4).

The figure relating to company size indicates that the vast majority of firms have between one and nine employees only and that approximately a quarter of all employees work at these companies. Just over half of all workers are employed at medium-sized companies with between ten and 250 staff. It is, however, revealed that the highest level of turnover is generated by large companies, which account for almost 40 percent of sales. The largest value increases are also recorded at such companies.

Figure 4: Employment proportions and economic strength by company sizes 2018 (in %)



Source: Own depiction using data from SCB 2019. Förädlingsvärde per storleksklass (efter antalet anställda) inom näringslivet per bransch 2019.

Wage development and wage differences

Prospective remuneration is not least one of the factors which plays a role in vocational orientation and decisions. Sweden exhibits a balanced and positive wage development in overall terms. Differences can admittedly be identified in areas such as the public sector depending on whether a person is a member of the Riksdag or is employed in local government. Other sectors are similar, even though parallel income development is discernible.

Clear wage differences are, however, displayed depending on qualifications as aligned to the EQF reference levels (see SCB 2017a) and in sector-specific occupations. As Table 10 shows, average top earnings in the banking sector are twice as high as those achieved by a head of research and development, who achieves similar incomes to those of specialised medical staff or university professors. If these relatively good earners are compared with the lesser incomes, the latter are shown to be around a third lower (e.g. doctors as compared to nursing assistants).

Table 10: Wage differences by occupations

Occupational code	Occupation	Monthly wage (SEK)
1,611	Chief economist, bank	124,100
3,311	Financial trader	82,500
2,211	Medical specialist	77,900
1,112	CEO in the public sector	76,400
1,120	Head of production department	75,800
1,211	Business director	71,500
1,612	Branch manager bank/insurance	71,200
1,331	Head of research and development	69,800
1,511	Hospital or regional manager healthcare/social services	68,400
1,311	Head of IT	66,400
3,154	Air traffic controller	66,100
2,311	Professor	65,700
1,251	Head of sales or marketing	65,600
5,143	Masseur/masseuse	25,000
5,330	Nursing assistant	24,800
5,242	Dialogue marketer	24,900
9,200	Harvest worker	23,600
9,413	Coffee and pâtisserie server	21,300

Source: SCB 2017a

Table 11: Gender-specific wage differences (monthly wages in SEK)

Percentile (%)	10	25	50	75	90	Average monthly wage
Women	22,100	25,000	29,000	35,000	43,300	31,700
Men	23,100	26,500	31,300	39,400	52,000	35,700
Total	22,600	25,700	30,000	37,000	47,800	33,700

Source: SCB 2017c

Although the wage differences between women and men have not been eliminated, as is shown by a current article from the healthcare sector (see SCB 2018) and by Table 11, the differences lie in an area between 80 and 90 percent. This is relatively adjacent in international comparative terms. Nevertheless, they rise proportionately the higher the incomes.

Spending on education and educational qualifications of the population

Sweden also occupies one of the leading positions worldwide in terms of spending on education. The proportion of spending has represented between six and eight percent of GDP over recent years and reached almost 15 percent of total government expenditure in 2018 (see World Bank 2021). This permits an average ratio of twelve pupils to one teacher at the primary school level in Sweden (see Destatis n. d.) and also allows nearly 50 percent of the population in Sweden aged between 25 and 34 to achieve a tertiary educational qualification (see Eurostat n. d.).

Data from the DAAD also indicates that around a quarter of investments flow into the tertiary sector. A considerable part of the financing for the institutes of higher education comes from state funds. Only ten percent of financing is provided by private funding, which in turn largely originates from non-profit sources (see Universitätskanslersämbetet 2017, p. 120). Higher education study is free of charge for all Swedes and EU citizens. The proportion of women across all subjects is almost 60 percent (see DAAD 2018, p. 13).

2 Typical vocational education and training paths

Four education and training histories are outlined below. These correlate closely with the Swedish education system and VET system in particular and use individual biographies to illustrate how people may develop in these systems. They have been drawn up with the support of Professor Per Andersson, who conducts research at the University of Linköping (see Andersson 2017).

2.1 Classic vocational education and training at the upper secondary level with a higher education entrance qualification

Maria is 18 years old and is completing an agricultural training programme at the upper secondary level. She attends a traditional school operated by the Province of Dalarna. This contrasts with most schools at the upper secondary level, which are usually municipal/local government schools or independent/private schools that belong to a company providing training or to a private sector training provider.

During her three-year VET, Maria has focused on agriculture. This means that, as well as studying general subjects, she attends special courses relating to the whole range of agricultural tasks. The courses thus do not initially provide preparation for a certain specific occupation. Specialisation only takes place as the programme proceeds. Maria does not wish to follow her parents into farming, although she already had considerable knowledge of this sector and her own occupational preference lies within the same area. She has opted for this VET programme because she wants to become a veterinarian. A subsequent course of higher education study will be required. She could, of course, have chosen the area of healthcare. But she felt that this was too closely aligned to the field of human medicine.

If Maria were to complete only the compulsory courses in the programme, she would not have the opportunity to continue her career progression at the university level. She needs to choose a series of general courses in order to open up the route to higher education study. In order to study veterinary medicine, additional courses in the natural sciences such as biology are needed. These are otherwise only included in a general education programme providing preparation for higher education study. However, since there is considerable interest in pursuing the further training amongst participants in the sciences programme, Maria's school has been able to offer the necessary additional courses. This was an important reason in Maria's decision to opt for this school and for the agricultural training programme since pupils in Sweden may freely choose the school they wish to attend. In this way, she is able to combine acquisition of the knowledge she needs with training that extends right across an occupational field in which she feels at home because of her background. She is also able to use 15-week practical elements to obtain insights into various companies. Maria has been very successful in

her learning progress thus far and hopes to be able to commence a degree in veterinary medicine next year, when she finishes at the school.

2.2 The contribution of vocational education and training to the integration of refugees

Omid is 25 years old and came to Sweden as a refugee in 2015. In his homeland of Syria, he worked as a sales assistant in a shop owned by his family. He does not have any evidence of this work task and also holds no certification regarding existing training. He now lives in a large Swedish city and has been taking part in Swedish language courses for immigrants (svensk för invandare). These are offered all over the country and are frequently combined with cultural networking in the form of language cafés. Omid has quickly made progress in his language learning and is now seeking to find a job which will enable him to make an independent living.

The intention is to act in accordance with his own future plans and in line with his previous work experiences by trying to enter VET as a sales assistant for retail services. Because of his more advanced age, the plan is for this to take place on the basis of Sweden's existing "adult education" (lärlingsutbildning för vuxna) model rather than via the usual full-time school-based model. This apprentice training for adults primarily takes place in the workplace, and Omid is already in a preparatory measure at a large department store where he is familiarising himself with the tasks of a sales assistant for retail services in different departments. In addition to this, he is attending courses at vocational school practical workshops, where there is an opportunity to simulate situations outside real sales activity and to take a systematic approach to familiarising himself with the different quality of goods and learning to differentiate between them. Here he also simulates encounters with customers, sales conversations, and conflict situations with colleagues, all of which illustrate Swedish culture in the workplace to him. It is becoming clear to Omid that the occupation means more than merely standing at the sales counter or in the shop. Systematic stock keeping and customer service and calculation are an integral part of the job, too. His current role at the department store is to collect new goods and place them on the shelves in a way which enables customers to find the products in the places they would expect when the shop opens.

Omid has a workplace mentor who is employed by the department store and assists him with practical issues. He is also visited every two weeks by a teacher who works for a private education and training provider. The latter discusses the learning objectives with Omid and his mentor and monitors whether these are being implemented. Once a week, Omid and his fellow pupils attend the "school", which is also run by the private provider. Here they deal with the theoretical aspects of training and with fostering the development of specialist language.

The regional education and training provider won an invitation to tender issued by the local government authority and is now able to conduct a series of training courses with Omid and support him on site at the company providing training. The development of suitable occupational goals together with the trainees and the acquisition of relevant companies also form part of this training measure. The measure encompasses a training period of 40 weeks, and the hope is that the department store will offer Omid permanent employment after this phase. After a few years, Omid could then complete an external competency examination, which certifies that he has acquired a qualified vocational qualification.

2.3 Second chance training in the flexible adult education system

Anna is 45 years old and has been working in old age care for 20 years. She completed general schooling and obtained a higher education entrance qualification. However, instead of entering higher education, she worked casually for a number of years before starting a family early and having two children. In parallel to this, she began working in a care home as a semi-skilled intern (timvikarie) and ultimately obtained a job as a care assistant without having completed systematic and recognised training in this area.

As in many other European countries, quality requirements for care in Sweden have undergone change over recent years. Demands have risen, and employers must demonstrate that they have a certain proportion of qualified staff in order to be able to continue to offer services in this area. For this reason, care homes are required to increase their number of relevantly qualified skilled workers. As a consequence, they need to invest more in their qualifications. The local government authority which employs Anna has therefore launched an initiative to train staff without a VET qualification in basic healthcare provision. The first aim of this initiative is for the existing competencies of the employees to be validated. A specific and individual VET programme will then be made available for Anna on this basis. This will allow her to attend courses only in the competency areas where there are gaps in her knowledge or deficits in employability skills.

The continuing training does not provide preparation for academic study. For this reason, the training programme for Anna eschews general elements. Both for her and for her colleagues, it focuses on professional and task-related skills. Most of the training (courses) can be completed during working time. Participation is free of charge for Anna and for her employer. Only journeys and the necessary materials need to be financed.

In accordance with this approach, Anna's training measure began with a validation process during which the knowledge she had gained through her work tasks over the years was subjected to systematic analysis. As a result, her programme was significantly shortened compared to those who were not able to demonstrate so much experience in the occupation. Anna's courses thus only offer the learning material she still requires. She therefore feels that the skills she has already acquired are appreciated. Because work

in old age care does not encompass everything which a fully qualified carer would do, there are a number of important supplements dealing with matters such as care in the home and with some theoretical and legal issues which cannot be learned in practice.

Anna welcomes the fact that the training programme has been able to confirm parts of her existing skills, but she also wishes to learn more and gain the background knowledge she lacks in order to make sure she knows why she is performing certain work processes. Knowledge of intercultural care and dealing with persons who have mental and physical limitations forms a particular part of this.

This adult training programme, which is typical for Sweden, does not only mean that Anna's employer is able to obtain a tailored fulfilment of the changed skills requirements together with all the associated time and cost savings. Anna too receives written recognition of the knowledge she has already acquired and is now also in a position to gain access to jobs in the neighbouring local government area or at privately run residential homes for senior citizens. She is given long-term security of employment prospects at a time when it has become very difficult to find permanent work without the necessary training.

2.4 The practice-oriented route to qualification as a vocational school teacher

Hasse works as a vocational school teacher in the area of technical industrial training. He completed the same school-based vocational training programme, although it was only of two years' duration at the time. Hasse then went on to work in industry for 20 years. During the last ten of these years, he often acted as a mentor (handledare) for pupils from the technical industrial training programme (industriprogrammet, as it was referred to prior to the educational reform of 2011) when they were undertaking their company-based "practical placement". When Hasse learned that his former teacher was retiring and because working in industry is very physically demanding, he applied to become a professional teacher at the school and was successful in obtaining the job. He commenced teacher training at university last year. Training takes place on a part-time basis and has been structured over a period of three years for Hasse. He is completing the course in parallel with his job as a teacher, which he exercises virtually full-time. He will subsequently receive a certificate from the university. However, unlike in all other teacher training programmes, which in Sweden are fundamentally structured as courses of higher education study, he will not be awarded a degree.

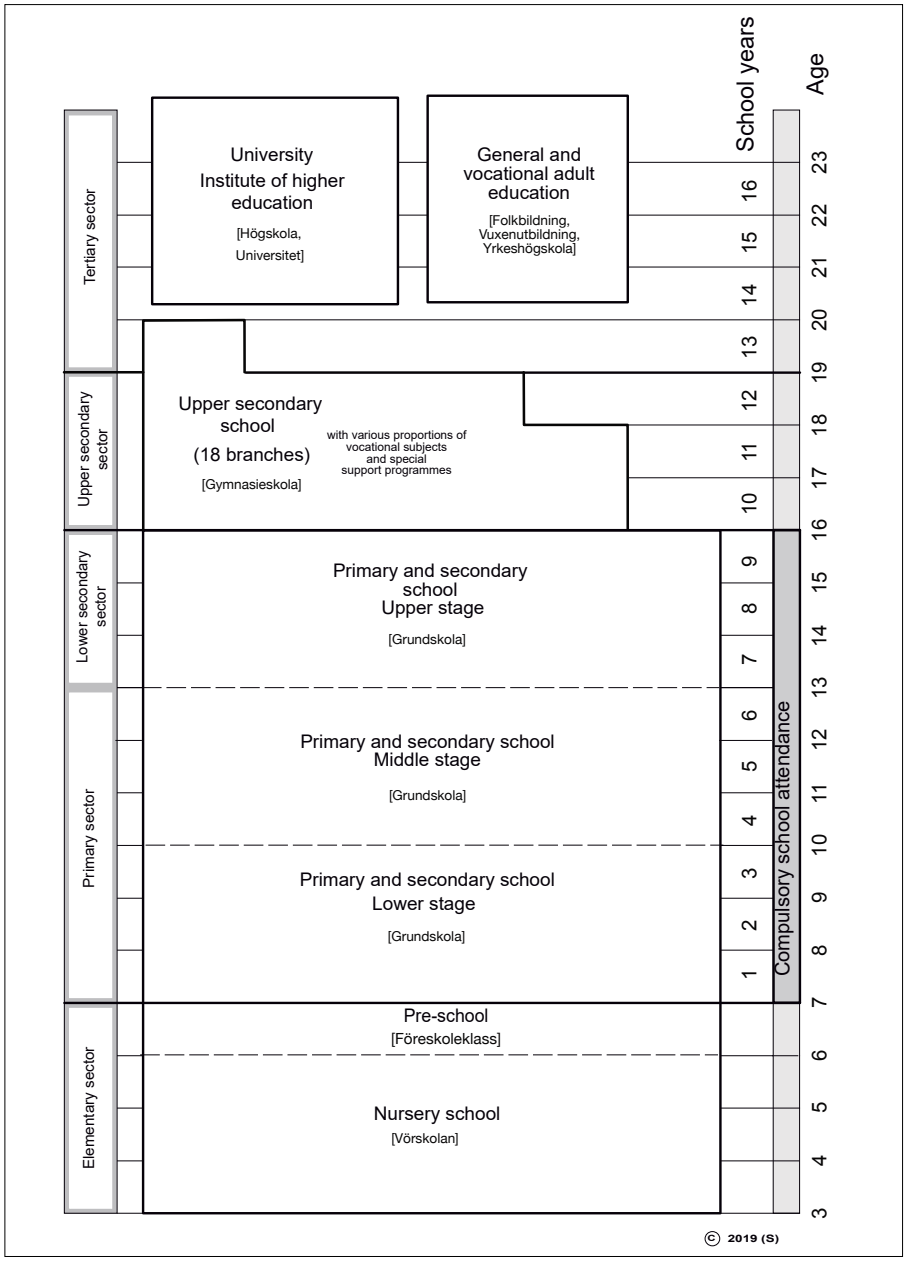
It is completely normal for teachers at vocational schools to be already working whilst they are still completing pedagogical training at university. Even today, it is possible to work in a vocational programme at a school without having achieved an academic degree. Hasse's studies largely take place in his free time, but he is released from his work on the two or three days per month on which he attends the university for face-to-face teaching. His colleague Sven, who actually works in a different training pro-

gramme, then takes care of the trainees in the technical industrial training programme if they are not spending time at a company as part of their workplace-oriented training elements. Because many parts of his studies take place via online learning, Hasse is able to divide up the phases of learning himself and also has the opportunity to deploy digital technology as a learning medium.

When he has finished and completed his examination, he will receive a better salary than now. His main aim, however, is to become a good teacher. He knows that it is by no means the case that all teachers at vocational schools in Sweden who are responsible for the occupational specialisms have passed an examination. But he wishes to be ready if a requirement is introduced that every such teacher should have completed teacher training. This differentiates them from other teachers at the upper secondary level who teach general subjects. Academic training is mandatory for the latter, for all other teaching staff at schools, and also for education staff who are involved with extra-curricular activities.

3 Overview of the education system

Figure 5: Overview of the education system



Source: Own representation

Sweden has general compulsory schooling from the age of seven to 16. According to the law, this mandatory schooling may take place at state schools, via home schooling in exceptional case or at independent schools (see Schwedisches Institut 2012). Since 1992, parents have had the opportunity to send their child to school at the age of six if sufficient places are available. The curricula and guidelines for Swedish educational establishments are stipulated in a nationally standardised way by the government in conjunction with the Skolverket, the National Agency for Education, which is also a government body. Local government authorities, which are the main providers of schools, and private providers are required to base their approaches on the state-dictated general guidelines. They are, however, independently responsible for the operation and organisation of schools. School education, higher education and adult education are all free of charge.

Two figures on the Swedish education system are set out below. These illustrate the various aspects. Figure 5 shows the official depiction of the Swedish school system by the Skolverket, the responsible body. The organigram of the education system (see Figure 15) provides a clearer illustration of duration and emphasises the stages that are familiar in Germany. It does not, however, include extra-school educational provision, which is highly significant in Sweden (see Ministry of Education and Research Sweden 2016), or special forms (schooling for Sámi peoples etc.). Designations and types of school in the depictions are briefly explained immediately afterwards.

Basic data education system

Virtually all children in Sweden attend pre-school and subsequently the Grundskola. Over 90 percent also succeed in making the transition to the Gymnasialskola (see Table 12).

Table 12: Numbers of pupils and staff in the different forms of school and education programmes

Type of school	Number of pupils	Pupils per teacher
Pre-school/Förskola	509,784	5.1
Family child day-care centre/crèche/Fritidshem	484,399	12.5
Primary/lower secondary sector/Grundskola	1,049,490	12.1
Upper secondary sector/Gymnasieskola	347,863	11.7
Adult education/Vuxenutbildning	Full-time 104,462 Part-time 234,865	15.5

Source: Skolverket 2018c

3.1 Historical and current development of the education system

Brief history of the Swedish education system

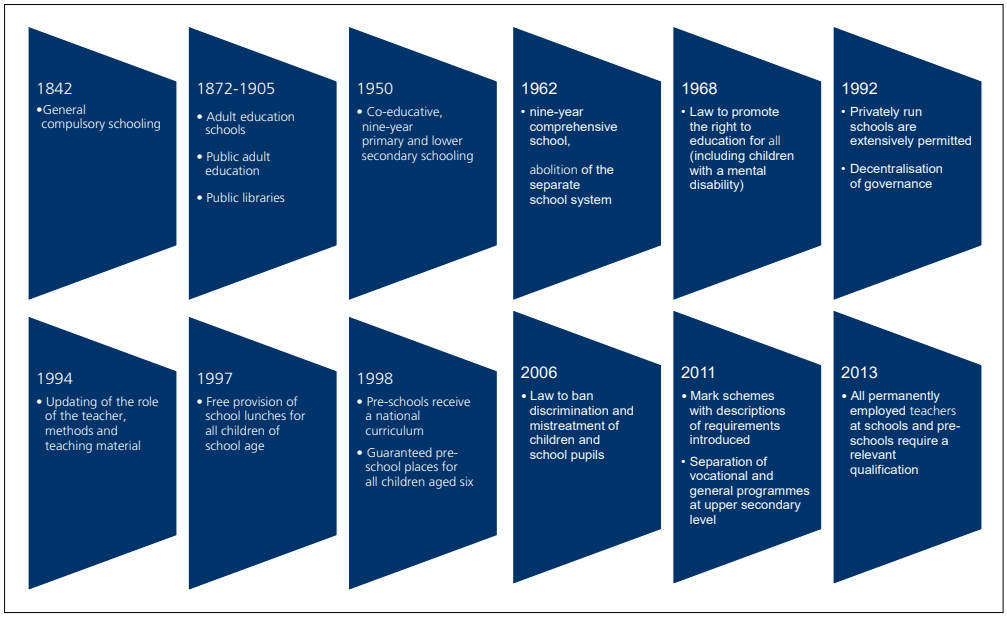
The growth in the societal need for education and learning, which is reflected in state regulation and in the expansion of the school system, began in Sweden in the mid-19th century at the same time industrialisation was taking hold. Although general compulsory primary schooling was introduced in 1842, its roots can be traced back much further to the emergence of Christianity in the country and to the associated task of gaining the ability to read and write, something which was initially the domain of the church and of parents (see Hartmann 2007). A church decree on education enacted as long ago as 1686 represented a milestone in public education and required parents to ensure that their children received teaching in the same way that the church made sure that the ruling classes taught their servants.

> "In Sweden–Finland, parents and heads of the household were made responsible for teaching children and servants to read and master the catechism, while the clergy checked the level of reading skills and catechetical knowledge at recurrent examinations at church and in the home" (Lindmark 2015, p. 11).

Compulsory schooling in the 19th century met with a relatively well-educated population, and a high proportion of religious teaching was subsequently introduced. This was not significantly reduced until 1919, when mathematics, Swedish and social studies were accorded a higher degree of significance alongside reading and writing (see Hartmann 2007). Adult education, which is of high relevance in the Nordic states, began to be established as the 19th century drew to a close. In 1872, the Swedish Parliament passed a law which, a few years later, led to the first publicly accessible courses and to the foundation of public libraries (see Edquist 2015).

Approximately 100 years after the introduction of general compulsory schooling, co-education began to drive forward the equal treatment of boys and girls (see Figure 6). Responsibility for this was transferred to the central Ministry of Education in the 1960s. This happened at almost the same time as the introduction of the nine-year general comprehensive school in 1962 and the parallel abolition of a separate school system. During this period, Sweden was already laying the foundations for inclusion via the securing of the right to education (see Marklund 1980–1987).

Figure 6: History of the Swedish education system



Source: Own depiction based on: Hartmann 2007, Schwedisches Institut 2012 and Edquist 2015

In the next decade, the 1970s, the general comprehensive school was established as the basic school for all subsequent education programmes. VET became an integrated component following the establishment of VET programmes at the upper secondary level (see Wärvik/Lindberg 2018, p. 285; Skolöverstyrelsen 1971). This was accompanied by the removal of virtually all remaining vocational training pathways outside state schools and provided by companies or sector associations. The social democrat-influenced ideal of common schooling persisted into the late 1980s before then being influenced by neoliberal notions (see Michelsen 2018, pp. 13ff.). A liberalisation of the education market occurred as a result of the 1990s reform. Private schools were authorised and financed via state funding. A decentralisation of governance also took place, and this accorded the schools at a local level and their associated governing councils' greater freedom in the structuring of curricula and with regard to freely selectable provision.

> "After the economic turn in school administration in the 1990s, the state was announcing that much of the work of the school was to be governed on the basis of the teacher groups' own professionalism and with cooperation between local educational authorities and the teaching body. This was no longer the job of the state and the Parliament" (Hartmann 2007, p. 258).

Two other associated developments were free choice of schools for pupils or their parents and a change in governance. The money now followed learners to the schools they selected (see Olofsson/Person Thunqvist 2018). By the year 2014/2015, a quarter of all pupils were already attending private upper secondary schools. The encouragement of competition amongst schools and a greater opportunity for schools to align their programmes to the regional requirements of trade and industry or to the future chances available to their school leavers did not, however, produce the desired success, although the reform fitted with the objectives of lifelong learning as formulated internationally at the time and was in line with the economisation agenda that had long been promulgated by the OECD (see OECD 1989). An entirely contrary situation emerged. More drop-outs occurred, and programmes were introduced to reflect the strengthening of the learners' interests, and while these interests were fulfilled, demand on the labour market was not met (see Lundahl 2002). Additional factors in the shape of a rise in youth unemployment and a rising demand for academic qualifications meant that these reforms came to nothing. More changes have been made since the late 1990s, and it is also justifiable to state that permanent reforms are definitely a characteristic of Swedish school history. Free school lunches were introduced right across the country, as was a guaranteed pre-school place for all children from the age of six. Endeavours to counter discrimination and bullying at schools were reinforced. In the most recent reform, the impacts of which on VET will be described in greater detail in chapter 4, successive nationally standardised tests for years 3, 6 and 9 (see Kraus 2016) were mandatorily introduced in 2008. Since 2011, a uniform mark scheme running from 1 to 6 has also been compulsory. The latter describes the learning goals and requirements for all subjects and school years. The ability for reflective thought plays a major role in Sweden and is part of knowledge evaluation.

> "Since 1992, knowledge has been spelled out in Swedish curricula as comprising familiarity, understanding and skills rather than merely facts (fakta, förtrogenhet, förståelse, färdighet). The meaning of förtrogenhet extends beyond familiarity to encompass the gaining of awareness or knowledge, close recognition, habit, insight or discernment" (ibid., p. 172).

The associated autonomous ability to deal with objects of learning acquired is dependent on the capacity for reflective thought mentioned above.

Two further aspects need to be stated in respect of the 2011 reform endeavours described (see SOU 2011:72). Vocational training programmes are once again being more clearly differentiated from the "higher education preparation" programmes, and the importance of general subjects has been repressed in order to give stronger preference to greater workplace orientation and the goal of employability. The reform has also pushed back the possibilities of decentralised governance and strengthened central stipulations, something which signifies a return to the objectives of the reforms of the 1970s.

In 2013, the decision was made that all Swedish educational establishments should in future only employ teaching staff who had completed relevant pedagogical training. However, the huge shortage of teachers, particularly in technical areas, is leading to a reality that looks somewhat different, at least at vocational schools. This was revealed in discussions which the author had with vocational school teachers at the Rikskonferens Teknikcolleges in Västerås in November 2018 and has been confirmed in a current EU project (see Hoppe/Kaiser 2021).

Current developments at the upper secondary level

The aim of current government policy is for all young people in Sweden to obtain an upper secondary qualification. The present report on the investigation into the upper secondary sector (see SOU 2017:77) is thus entitled "En gymnasiutbildning för alla". It is true that virtually all young people (99.3%) commence upper secondary education and training, but the number of them who go on to obtain a qualification has fallen in recent years. Whereas only two percent of learners in the higher education preparation and vocational programmes at the upper secondary level drop out within two years (see SOU 2017:77, p. 48), the integration programmes (Introduktionsprogram, see chapter 3.4.3), which are particularly aimed at immigrants, have very high drop-out rates of around 24 percent. While a high percentage of each upper secondary cohort thus reaches the end of the third year in overall terms, only 65 percent achieve a qualification after three years and only 70 percent do so after four years. The negative findings in the vocational and special support programmes are more significant, and it is revealed that schools at the upper secondary level do not provide the individual support which is available at the Grundskola.

The rate of those successfully completing a qualification at the upper secondary level Sweden is 77 percent. This figure is below the OECD average (see OECD 2018b). There are numerous causes for this connected with immigration and social inequality (see Öhrn 2011; Dingu-Kyrklund 2009; Schröder 2009), but the Swedish education system is also suffering from an under supply and an over ageing of trained teaching staff at the upper secondary level. Adult education and the language courses for refugees are being affected in particular. Current research is being initiated in order to find a remedy (see Dir. 2018:73).

This applies in the same way to the perception of a lacking coordination of provision in the upper secondary sector, which virtually no longer takes place systematically at a regional or local government level because of the liberalisation of the education market and is unable to pay heed to the labour market-related matching of training. A current investigation shows that state funding is disproportionately flowing into the healthcare and nursing sector and into commercial training programmes, whilst other important occupational areas are being neglected and too little training provision is being put in place (see SOU 2015:97). A government expert report accordingly recommends a lim-

ited freedom of choice for the upcoming generation and improved management of state grants for VET and advanced training and even goes so far as to propose the establishment of specialised schools with nationwide catchment areas and corresponding pay-as-you-go financing (see Dir. 2018:17). Possible ways of facilitating longer lengths of stay in the upper secondary sector are also being explored in order to ensure a higher completion rate. Responsibility for this will be transferred to the respective school management bodies which will, however, also receive local government assistance. They will be required to ensure that individual mentoring concepts are introduced at the schools and that the quality of teaching is monitored (see SOU 2017:77, p. 56).

3.2 Governance and financing

Administrative governance and structure

The Swedish education system is regulated by a national Schools Act, the Skollag, the most recently amended form of which entered into force in 2011 (see SFS 2010:800). This act applies to pre-schools, primary and lower secondary schools, institutes of higher education, vocational schools, vocational preparation schools, and adult education. The basic principle of the education system is to grant all pupils equal educational opportunities regardless of gender, origin and socio-economic background. This basic principle further embraces adults, who have an entitlement to training.

The general legal conditions governing the education, training and continuing training system are stipulated by the Riksdag on the basis of the Swedish Constitution and implemented by the government bodies responsible. The Ministry of Education and Research (Utbildningdepartement) and its subordinate authorities are responsible for the whole of the public education system. Alongside its legal and internal administration divisions, the ministry has departments which deal with schools (pre-schools and primary and lower secondary schools), upper secondary schools and adult education, youth policy and popular education, the university and higher education sector and research and development. This sets out the areas of responsibility in clear terms, although VET is not a separately visible part of the education system.

The University of Agricultural Sciences, which comes under the auspices of the Ministry of Agriculture, employment agency training (Arbedsförmedlingen), which is dealt with by the Ministry of Labour, and the training programmes for military officers and police officers, which are under the control of the Ministry of Defence and the Ministry of Justice respectively, are all excluded from the governance responsibility of the Utbildningdepartement.

Skolverket (National Agency for Education), which is under the control of the Ministry of Education, is responsible for content governance of the school system and for qualitative development, including the preparation of examinations, the issuing of funding to schools/local government authorities and for the commissioning of academ-

ic research studies that are connected with these tasks (see Schwedisches Institut 2012). Operational responsibility and thus implementation of the national objectives, guidelines, directives and regulations of the education system largely rests with the local authorities (see Kraus 2016).

In order to support implementation and to secure an equal standard in educational provision, a schools inspectorate (Skolinspektion), which acts independently of Skolverket, has been in existence since 2008. This body is in charge of quality assurance at schools (see Skolinspektionen 2013).

If we first consider the school system, the education committees commissioned by the municipal councils form a further governance unit at local government level. These education committees of the individual local government authorities, in which parents, teachers' associations and employee organisations may also participate, are also responsible for distributing funding between public schools and those which are independently run. In the event of breaches of regulations by independently operated schools, the central state administrative authorities are entitled to prohibit financial support. According to the Schools Act, each municipality is required to draw up a local government school plan (skolplan) which provides a clear picture of the educational activity of each school (including financing, organisation, further development, evaluation). Together with the schools which operate independently, these schools are subject to the duty of inspection of the central state authorities. This school plan is based on the work plans of each individual school within a municipality and also reveals aspects which are not statutorily stipulated, e.g. the use of teaching materials.

The education committees have grown enormously in significance because of the decentralisation of governance which has been driven forward since the 1990s (see Alexiadou/Lundahl 2016). They make far-reaching decisions regarding the use of funding at the municipal level. The municipal level is fundamentally responsible for the following matters.

- Appointment of teachers and of additional teaching or support staff
- Construction and financing of schools
- The securing of additional premises for school activities
- Content and staff coordination of all schools
- Provision of funding in the municipal budget for the work of the school
- Preparation of a school plan for compliance with the state education laws

Even though governance of the education system in Sweden has once again become stricter as a result of the most recent school reform and despite the unambiguity of the stipulations made by the central governance authority (Skolverket) for evaluating the performances of schools, studies show that there are deviations at individual schools and in the individual actions of teachers on the basis of particular regional characteristics or occupational alignments (see Ashghari/Kilbrink 2018). At the same time,

teaching staff are being assigned a high degree of responsibility, e.g. with regard to interpretation of the central curricular stipulations because these operate by means of relatively open descriptions. The application of the verb-based Bloom's taxonomy[19] for the awarding of marks indicates that teachers have a wide interpretative leeway (see Kraus 2016, p. 172). Schools are also left largely to their own devices with regard to human resources operations. This means that a Swedish school may also have nurses, canteen staff and drivers alongside teachers. In addition to these governance institutions, a National Agency for Higher Vocational Education (Myndigheten för Yrkeshögskolen) has been in place since 2009. This governs all post-secondary forms of education and a wide range of tasks relating to VET. These include monitoring the quality and outcomes of the training programmes and analysis of current conditions on the Swedish labour market. Programme expansions or changes in initial and continuing VET are able to take place as a result.

The Swedish Council for Higher Education (Universitetsoch högskoleradet) and the University Chancellor's Office (Universitätskanslersämbetet) are responsible for institutes of higher education and universities. The latter possesses a control function and is in charge of issuing authorisation to conduct examinations and quality assurance in higher education.

Responding to questions and compiling information on higher education study is a task for the Swedish Council for Higher Education. This also includes questions relating to admission to higher education and recognition of foreign qualifications.

However, in their capacity as independent state institutions, the institutes of higher education are themselves responsible for higher education entrance qualifications, for the contents of courses and for the issuing of marks as long as teacher training is not involved. This is strictly regulated in national standard stipulations.

> "An individual higher education teacher may only propose a change to a course plan. Such a proposal may become the object of a protracted procedure, and ultimately a decision is often taken centrally" (Kraus 2016, p. 172).

19 The learning objectives taxonomy developed by Benjamin Bloom and a number of his colleagues in the USA in the 1950s (see Anderson/Krathwohl 2001) differentiates degrees of difficulty in the completion of tasks. It encompasses the aspects of knowledge, circumstances and innovative change and is also used in employment research and in the examination system in Germany (see Kaiser 2015).

The Central Council (Folkbildningsrådet) is responsible for the non-formal training sector. Its tasks include distribution of funding to the adult education centres and universities, and analysis and evaluation of the activities of popular education (folkbildning).[20]

Additional Swedish authorities include the Sámi Education Authority (Sameskolstyrelsen) and the Office for Special Needs Education (Specialpädagogiska), which is responsible for special schools and special separate programmes. The Office for Special Needs Education promotes equal development and educational opportunities for children, young people and adults with physical and/or mental disabilities. It supports schools and special schools in the municipalities by offering special programmes for disadvantaged people. The Sámi Authority regulates all activities of the pre-school establishments and compulsory schools which are offered between school years 1 and 6.

As already mentioned, Sweden increasingly has independently operated schools in the pre-school, primary and lower secondary and upper secondary sectors. These schools are subject to the respective central state administrative authority and for this reason are required to comply with the national curricula and teaching in precisely the same way as local government schools. Such schools may, for example, be run by associations, foundations, companies or private persons. Some independently operated schools, including the Montessori and Waldorf Schools, pursue an alternative pedagogical approach using special teaching methods and contents. These then need separate approval.

Financing

Education in Sweden is free of charge as a matter of principle and is available to everyone regardless of the type of school chosen.[21] In international comparative studies, Sweden is always described as providing 100 percent state financing for the whole of the school system from pre-school all the way to the concluding upper secondary school (see OECD 2018b). Funding for the school system is passed directly to the municipalities, where it is then used. The amount of funding comprises several factors, such as size of the population in a municipality, social and age structure, density of population and number of inhabitants.

20 The term folkbildning is understood to refer to the provision of courses, study groups and training programmes, which are largely aimed at and voluntarily attended by adults. Folkbildning is predominantly made available free of charge, although modest course fees are sometimes charged. "Popular education is education and training for adults. It is free of charge and voluntary in that the people themselves decide whether and when they wish to participate. Popular education may, for example, involve Swedish language course for immigrants, political working groups for people with disabilities, study provision from open universities or general training courses" (see Folkbildningsrådet 2018a, p. 1, translation through author).

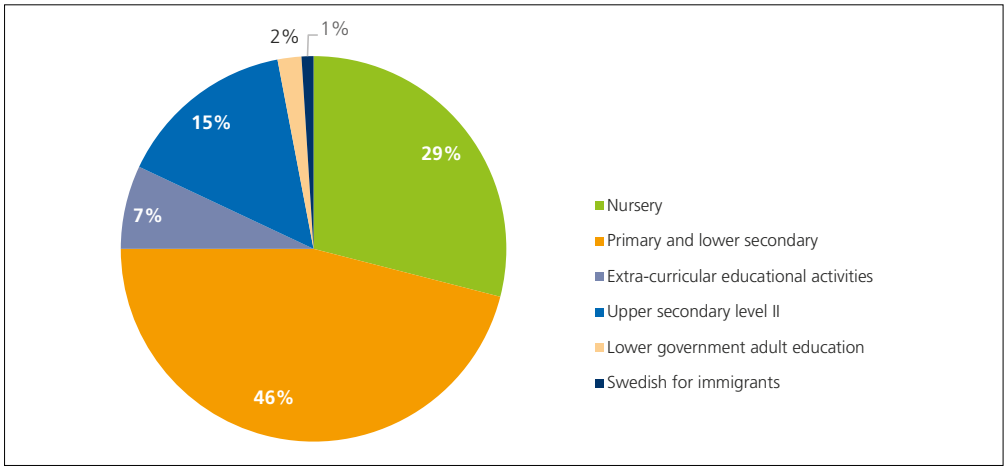
21 Some of the data relevant to financing may also be found in chapter 1.3.

Table 13: Data on the Swedish school system (2017)

Data on the Swedish school system	Information
Municipalities with their own schools	290
Number of public municipal schools	3,990
Sámi schools	5
Independent (private) schools in the compulsory sector (years 1–9)	820
Growth rate of pupils at private schools since 2010	7%
Total number of pupils	1,049,000
Costs of the municipalities for schools	€26.2 billion
Municipality costs for all pedagogical establishments[22]	€30.4 billion

Source: Own compilation using data from Sveriges kommuner och landsting 2019

Figure 7: Education investments of the municipalities (2017) (in %)



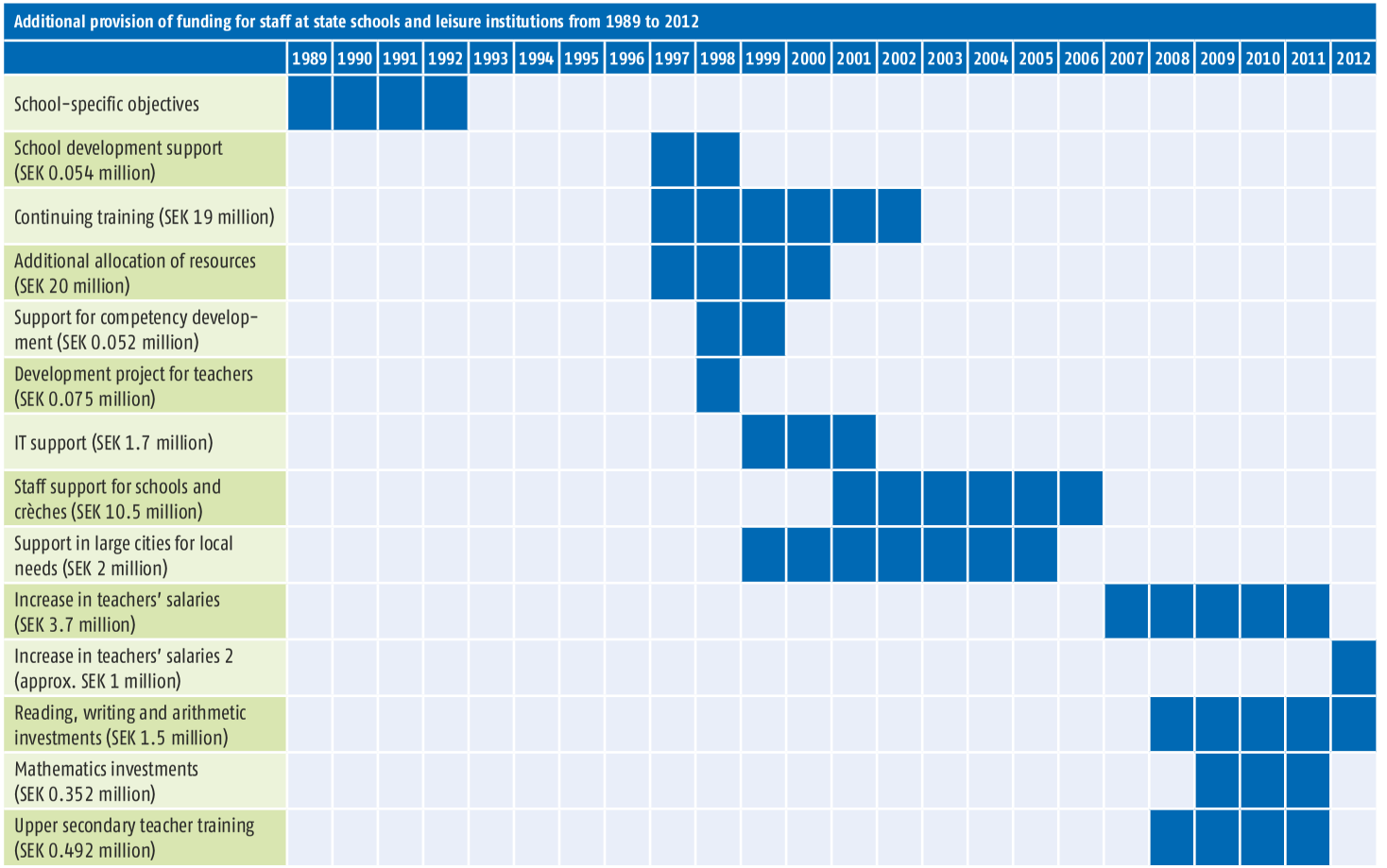
Source: Own depiction using data from Sveriges kommuner och landsting 2019

As the above figure illustrates, most of the funding made available to the municipalities is used to finance the nine-year primary and lower secondary schools (€13.5 billion), and around a third is spent on early-years nursery provision (€8.1 billion). A comparatively low proportion of 15 percent is allocated to the upper secondary sector (Gymnasieskola), including its vocational training provision, and an even lower amount of

22 The total costs for all pedagogical establishments encompass the costs of leisure institutions, libraries and child daycare centres as well as those of schools. They further include the considerable costs of adult education institutions.

two percent is devoted to adult education. The investments made in language support for immigrants are 350 million and also visible on the chart. This expenditure is largely financed by the municipalities, which in turn receive almost 70 percent of their income from the local government taxes paid by residents. State grants continue to account for around 14 percent of the income of the municipalities, and these are calculated within the local government economic compensation system. Additional grants from state funds may be provided for particular services of the municipalities or schools, and these make up around five percent of total income. To this must be added fees paid by parents, for example, for accommodation in leisure institutions, and additional funding which is made available at a national level for pre-school age teaching, for the continuing training of teachers, and for the payment of higher salaries to particularly well-qualified teaching staff (see Statskontoret 2013:10). In addition, local government authorities also receive grants from other state bodies, for instance, compensation from the Swedish Migration Agency for the training of asylum-seeking children (ibid.). Figure 8 from the report by the Swedish National Audit Office shows special investments in millions of krona at the national level (Skolverket), which were used to fund special tasks in the period prior to 2013.

Figure 8: National additional funding provided to the municipalities for education and teaching



Source: Own representation based on Statskontoret 2013

Purposes of the additional funding included specific competency development of teaching staff, HR expansion of information technology at schools, acquisition of additional teaching subject authorisations (Lärarlyfted), and one of the most recent projects conducted at the national level to expand the apprentice model at the upper secondary level (Gymnasial lärlingutbildning).

The fees incurred for a nursery school place, for example, are capped at a state-stipulated maximum amount. Parents are required to pay eight percent of these fees themselves. For a first child, parents pay three percent of their income up to a maximum of SEK 1,260 (approx. €126) per month. Two percent of income is charged for a second child, capped at SEK 840 (around €84 per month). Only one percent of parental income is payable for a third child, the maximum in this case being SEK 420 (about €42) per month. No further contributions fall due for a fourth child or subsequent children. Special schools, Sámi schools and institutes of higher education are financed directly from the state budget and do not receive financial support from the municipalities. Only ten percent of their finances originate from private funding, and even most of this comes from the non-profit sector (see DAAD 2018). Pupils, students, participants in adult education, employees and the unemployed can all draw on various opportunities for financial support. This includes state training subsidies, funding, grants, loans and also scholarship programmes.

Students, for example, receive financial support of around €300 per month regardless of their parents' income. These 300 euros received from the state do not need to be paid back. Students are also able to apply for interest-free loans in order to meet their living costs.

The salaries paid to those in the Swedish education system are based on collective wage agreements between the Association of Municipalities and Provinces (sveriges kommuneroch landsting, SKL) and the teachers' trade unions. Deviations from these salaries may take place at a school level on an individual case basis. The practice of monitoring spending also varies. Municipalities are free to decide how much freedom they wish to accord to the individual schools in the disbursement of funding (see Eurydice 2023).

3.3 Structure

Four major educational stages may be institutionally differentiated in Sweden. The first stage comprises the pre-school sector. As well as the one-year pre-school period, which provides preparation for school proper afterwards, this also includes child daycare centres (see left-hand side of Table 14). These are known as "family day homes" (fritidshem) and open leisure activity support. These are predominantly integrated into school premises. The second stage is mainly made up of the Grundskola, which constitutes a comprehensive school for all Swedish children and young people extending to the end

of year nine and to year ten in some cases. Only in a few exceptional cases do children not attend the same school (special schools, schools for the Sámi people, private schools with particular pedagogical concepts such as Waldorf teaching). National standardised curricula apply to these Grundskola.

The third stage of education essentially covers the Swedish Gymnasialskola, which offer both general education programmes with different main focuses and vocational training programmes with more or less extensive practical elements. At the same time, however, the parallel aim of all education and training programmes is the achievement of a higher education entrance qualification (in 2017, for example, 90.2% of pupils successfully completed Gymnasialskola and 72.6% obtained the higher education entrance qualification (see Skolverket 2018b))[23].

The fourth stage, tertiary education, includes continuing VET, adult education and academic provision at universities and universities of applied sciences. Teaching qualification examinations, bachelor's and master's degrees and doctorates can all be achieved at this stage. Higher education lecturer qualifications do not form part of the Swedish higher education system.

Explanations of the Swedish designations that will be used from now on and of the corresponding qualifications can be found in Table 14. This also makes the differentiation of the Swedish education system clear. The various stages are delineated from one another by a horizontal line. One exception in this regard is extra-curricular activity, which is not confined to pre-school nurseries.

23 All provision and training courses are also available to adults and are not merely aimed at young people.

Table 14: Structure of the Swedish education system

Educational stage	Explanation
Annan pedagogisk verksamhet/Fritidshem:	Support institutions for school children; other pedagogical establishments (nursery school, extra-school youth work), from nursery school age onwards large integrated into the whole-day school concept
I Förskola	Pre-school education
II Grundskola	Primary and lower secondary sector
Grundskärskola	Primary and lower secondary sector for young people with learning difficulties
Specialskola	Primary and lower secondary sector for persons with significant disabilities (autism, blindness, hearing loss)
Föreskolklass	A one-year mandatory pre-school since 2018
Sameskola	Special school for the Sámi minority in Sweden, only in Sámi regions
Komunalvuxenutbildning/Särskild utbildning för vuxen	Local government adult education, aimed at the second chance acquisition of school qualifications, also offered in a special form to those with learning difficulties
III Gymnasieskola	Upper secondary level – vocational and general programmes (not graphically differentiated in the representation of Skolverket, where only the continued special school for persons with learning difficulties is separately shown (Gymnasieskärskola)
IV Högskola/Universitet	Institute of higher education or university
Yrkeshögskola	University of applied sciences
Konst och kulturutbildningar och utbildningar med endast tillsyn	Art and cultural schools not under state supervision (music and theatre schools and pilot and acupuncture schools, for example (MYH 2018)
Folghögskola	Adult education centre
School and university of applied sciences qualifications	
Slutbetyg från gymnasieskolan	Upper secondary leaving certificate
Yrkeshögskolaexamen	University of applied sciences qualification
Kvalificerad Yrkeshögskolaexamen	Degree from a university of applied sciences, can also be obtained at adult education and continuing VET institutions
Academic qualifications	
Högskolexamen	After 2 years of study (120 ECTS points)
Kandidatexamen	After 3 years of study (180 ECTS points)
Master's examination	After 2 further years of study (+120 ECTS points)
Magister examination	After a further year of study (+60 ECTS points)
Licenciate examination	After 2 years of research (+120 ECTS points)
Doctorate examination	After 4 years of research (+240 ECTS points)

Source: Own depiction of the basis of the regulations contained in the Higher Education Act

3.4 Brief characterisation of the different educational sectors and types of school

The Swedish education system is organised in a single tier which may be divided into three stages depending on age. These are Förskola (ages 3 to 6), the nine-year Grundskola, which encompasses the primary and lower secondary sectors, and the subsequent Gymnasieskola, which covers the upper secondary level (see Table 14). There is (no longer) any division into different types of school, such as the Hauptschule, Realschule and Gymnasium found in Germany. Vocational programmes are also integrated into the Gymnasieskola. Special pedagogical types of school and the schools for the Sámi minority represent the only separate pathways, if the small number of private schools offering a reformed pedagogy are left out of the equation.

3.4.1 Pre-school education/elementary sector (Förskola)

The first stage is formed by pre-school, Förskola, which is for children aged 3 to 6. The Förskola include state and private nursery schools, open nursery schools and child day-care establishments. The municipalities are responsible for the establishment and organisation of the pre-school institutions and for their content and spatial design. The aims of these establishments are to make it easier for parents to achieve a work-life balance or to pursue their studies, to foster and support the mental development of children, and to enable them to have contact with their peers. Swedish pre-school establishments are characterised by a good pedagogical quality and by a high degree of support (see Lumholdt/McGrath-Klásen 2007). Children at nursery schools are divided into groups of an average size of 17, which are looked after by three to four teaching staff. 50 percent of these have completed academic training and are mostly qualified teachers who have specialised in "nursery school pedagogy" or who else have completed a course of study as a children's nurse (see Pramling Samuelsson/Sheridan 2009). The high pedagogical quality is reflected in equal treatment of the genders, support for cultural diversity in the individual groups, encouragement of migrant children, and endeavours to recruit more male staff (see Skolverket 2017). International comparisons constantly confirm that Sweden's work in this sector is outstanding. "Its high quality is also confirmed by two cross-cultural studies with regard to differences in pre-school quality" (Pramling Samuelsson/Sheridan 2009, p. 8).

Every child in Sweden has the right to a place in a "pre-school class" upon reaching the age of six, although it is not mandatory for this to be taken up. As opposed to nursery school provision, pre-school classes offer parents the incentive of being free of charge. This is also one of the reasons explaining the relatively high proportion of 95 percent of Swedish children who attend pre-school (see OECD 2018a). These "pre-school classes" are taught at a primary school. They follow a uniform curriculum, and the aim is to make it easier for children to make the transition from a nursery school establishment to

the primary and lower secondary school sector. A great deal of emphasis is particularly placed on the language competencies of children who still exhibit considerable problems in this area. Children aged between seven and twelve are offered care provision before and after school in crèches or at private daycare centres or are able to participate in open afternoon programmes.

3.4.2 Primary and lower secondary sector (Grundskola)

The Grundskola should not be confused with the German Grundschule (= primary school), as the Swedish Grundskola also encompasses the lower secondary sector. After completion of pre-schooling, all Swedish children and young people attend the Grundskola together. This nine-year period of compulsory schooling is made up of a lower stage, a middle stage and an upper stage. Each of these lasts for three years (see Kraus 2016).

School education in Sweden is financed by the state. Parents are also not required to make any financial contribution to teaching aids, materials, school meals or school transport. Depending on geographical location, a selection of private schools exists alongside the state schools. These are mainly dominated by the Waldorf and Montessori pedagogical concepts. Children are taught at schools near to where they live during the lower and middle stages. By way of contrast, upper stages mostly take place at larger central school hubs. One school year at the nine-year Grundskola comprises a total of 40 weeks made up of two semesters. The first semester begins around 20 August and ends shortly before Christmas. The second starts in January after Epiphany and finishes around 10 July. The school week runs from Monday to Friday, and pupils are taught in 40-minute lessons in the respective subjects (see Skolverket 2022).

The primary sector, i.e. the lower and middle stages, covers years one to six of schooling and is completed between the age s of seven to twelve or six to eleven (see Skolverket 2011c). Classes mostly comprise around 20 pupils, who are taught by two teachers. Special importance is placed on providing the children with close support. Pupils suffering from particular difficulties are provided with individual help by a team of specialists. These include school psychologists, special needs teachers and social education workers. Even during the lower stage, general studies and a first foreign language, English, are taught alongside the core subjects of Swedish and mathematics. Marks are not issued in years one to seven. Instead, nationally standardised and compulsory tests in the core subjects are conducted in years 1 and 3 in order to examine the extent to which pupils have fulfilled the performance requirements in accordance with the curricula and course plans.

The upper stage (lower secondary level) begins for Swedish pupils as soon as the six-year primary stage has been completed. Content differentiation of teaching takes place during the upper stage, and new subjects are also introduced (see Skolverket 2012b). These new subjects – chemistry, biology and physics – are, however, taught to-

gether as natural sciences rather than individually (see Skolverket 2018d). Until year 9, history, politics and geography are also conflated into a single subject – social sciences (see ibid.). As well as being instructed in the natural and social sciences from the upper stage onwards, lower secondary pupils also begin to learn a second foreign language. They are usually able to choose from Spanish, German and French. Elective subjects and practical tasks play an important role in the upper stage alongside the core or compulsory subjects. Children in the middle and upper stage are also given an opportunity to use their out-of-school time to pursue various activities, for example in different associations within the municipality. Pupils from a migrant background and with language difficulties receive assistance and support in the form of remedial tuition in Swedish or additional teaching in their native language.

In Sweden, marks are issued from year 8 onwards on the basis of a three-point scale. The grades that can be achieved are "satisfactory", "good" or "very good". No mark is awarded for a subject in which a pupil fails to achieve a grade of "satisfactory". The system does not provide for repetition of a school year. Pupils are not required to pass any particular examination in order to complete the Grundskola. Acceptance into an upper secondary school is decided in accordance with marks achieved and a final certificate issued in year 9. Compulsory schooling in Sweden ends after year 9.

3.4.3 Upper secondary sector and support course (Gymnasieskola)

96 percent of pupils completing the lower secondary sector in Sweden move on to the upper secondary level (see French et al. 2016, p. 49). In order to gain an access qualification to the Gymnasieskola, pupils must achieve a minimum mark of "satisfactory" in the core subjects of Swedish, English and mathematics and in nine further subjects. Upper secondary school generally comprises three years, although this period may vary because of the various programmes that can be selected.

Pupils have 18 different programmes to choose from. Six of these provide preparation for subsequent academic study, whereas the other twelve are more vocationally oriented and are aligned to various sectors (see Kaiser/French 2018; see also chapter 4.1). The six programmes providing preparation for higher education are divided into the areas of aesthetics, humanities, natural sciences, social sciences, economics and technology. Like the vocational programmes, these share joint elements in general subjects such as mathematics, Swedish and art (the last of which was reinforced as a compulsory component of all education and training programmes as the result of a recent decree) (see Prop. 2017/18:183, p. 167).

Upper secondary education is based on a system of a total of 2,500 points which must be achieved in order to obtain a final certificate. The 2,500 points can be supplemented by voluntarily choosing subjects worth 350 points. Pupils receive 50 or 100 points for each course. 50 points denote that a course is one semester long, whereas 100 points indicate that it extends over the whole of a school year. Courses are assessed using a

six-degree scale from A-F. This corresponds to the scale used in Germany and runs from "very good" to "fail".

Schooling in the programmes at the upper secondary level comprises a total of 53 teaching subjects or specialist areas (Ämnen) (see Table 15). The subjects listed under A are the same for everyone and compulsory. The subjects under B are optional subjects, which are chosen additionally until the full points score is reached. In some circumstances, additional courses may be chosen voluntarily if the number of pupils permits. The subjects stated under C are part of a VET qualification, although they can also be combined with subjects under A to achieve a higher education entrance qualification. Since the latest reforms, participants in the vocational programmes have no longer been mandatorily required to complete all courses from the general A area. The way in which pupils are able and free to combine subjects depends on the facts and circumstances and possibilities of the respective school (see Table 15).

Table 15: Teaching subjects and specialist areas at Swedish upper secondary schools

A: Common teaching subjects			
English	History	Sport and health	Mathematics
Natural sciences	Religious studies	Social sciences	Swedish
B: Optional Subjects			
Biology	Computing and communications technology	Entrepreneurship	Aesthetic communication
Philosophy	Physics	Business management	Chemistry
Art and culture	Modern languages	Psychology	Technology
Medicine	Humanities	Education	Special needs education
C: Vocational subjects			
Building and construction technology	Electrical engineering	Energy technology	Sales and customer service
Vehicles and logistics	Commerce	Craft trades	Craft trades science
Industrial process engineering	Hygiene	Information and communication	Law
Production science	Production equipment	Psychiatry	Service and reception
Conferences and events	Food and nutrition science	World of work (literally: people in industry)	Mechatronics
Restaurant management	Specialist terminology	Industrial machines	Agriculture
System technology (installation)	Tools and material science	Healthcare and nursing	Special education
Production planning			

Source: Own depiction based on Skolverket 2019a[24]

24 The vocational subjects are located in the third part of the table. Mixed combinations in the education and training programmes are, however, conceivable. The nationally standardised subjects of the individual education and training programmes can be found in Skolverket 2019b.

Because this multitude of vocational programmes is leading to an ever-greater fragmentation, a recommendation was made by the Swedish Riksdag in 2017 to introduce parallel structures so that vocational courses can include courses from specialist areas within the higher education preparation programmes and vice versa (see Prop. 2017/18:183).

Not all upper secondary schools in Sweden offer all programmes. Private schools in particular specialise in individual programmes. Private education and training providers mostly tend to focus on the less cost-intensive higher education preparation and commercial programmes. Technically aligned training programmes exist in cases where schools are established in conjunction with industrial companies. However, these mostly pay off because of their utilisation in continuing training. Further information on this is available from the Association of Technical Schools, which is also supported by Swedish industry (URL: **http://www.teknikcollege.se**).

Alongside the higher education preparation and vocational programmes, there are also "introductory programmes" which serve the purpose of preparing participants for the other programmes.

> "The introductory programmes should give students who are not eligible for a national programme an individually adapted education, which satisfies students' different educational needs and provides clear educational routes. The introductory programmes should lead to establishment on the labour market and provide as good a foundation as possible for further education" (Skolverket 2013b, p. 30).

The law of 2011 differentiates five different education and training courses in respect of the preparatory programmes (see ibid., pp. 32ff.).

1. **Preparandutbildning**
   A support scheme for pupils who have applied for a certain programme and not been accepted. They are offered specific assistance in a direction chosen by themselves. Support takes place individually over a maximum period of one year. Any extension requires a particular reason.

2. **Programinriktat individuellt val**
   The purpose of "programme-oriented individual choice" is for pupils to receive preparatory training aligned towards a pre-stated school-based VET programme and for them to be accepted to this programme as quickly as possible. The aim is that programme-oriented individual choice should be tailored to a group of pupils. Young people who have not achieved the marks required for their preferred programme can opt for programme-oriented individual choice. However, recognised marks in six subjects are needed in order to be admitted. One of these subjects must always be Swedish or Swedish as a second language. In addition to this, the subjects need to include either English or mathematics.

3. **Yrkesintroduktion**
   The purpose of "occupational introduction" is for pupils to receive VET which will make it easier for them to establish themselves on the labour market or which will lead to a VET programme. The aim here thus may also include transition to work rather than merely transition to a school-based VET programme, as is the case with the programme mentioned above. Occupational introduction may be designed either for a group of students or for individual pupils. Young people not in possession of the necessary marks for a school-based VET programme may participate in this provision. Occupational introduction is, however, not available to young people who are to be offered an introduction to the Swedish language.

4. **Individuellt Alternativ**
   This education programme provides preparation for occupational introduction, for other continuing training programmes and, in certain circumstances, for entry to the labour market. It is aimed at young people with a particularly high need for support, and the idea is to design individual options for individual students. Young people not in possession of the necessary marks for a school-based VET programme are able to receive individual assistance via this programme. They also receive an insight into a sector, have practical placements arranged for them or else are given help with writing or mathematical skills. As the title of the programme indicates, this is an individual provision to which the formal term "education and training course" only applies to a limited extent. This individual alternative programme is, however, not available to young people for whom the plan is to offer an introduction to the Swedish language. The training may include Grundskola subjects for which the pupil has achieved no marks or insufficient marks. Other forms of learning which are advantageous to the knowledge development of students may also be included in the training.

5. **Språkintroduktion**
   The purpose of language introduction is to provide young migrants who have recently arrived in Sweden with training which mainly focuses on the Swedish language so that they are able to progress to upper secondary education or to another school. Introduction to the language needs to be tailored to individual pupils. This programme is suited to young people who are not in possession of the necessary marks for a school-based VET programme and who need a training programme that concentrates on the Swedish language because they have recently arrived in the country.

3.4.4 Special schools for the deaf and language support (Specialskola)

Various possibilities are open to pupils in Sweden who are unable to attend a mainstream Grundskola. There are special schools (Specialskola) aimed mainly at the deaf and at people with speech disorders (Utvecklingsstörning), at which learners with additional disabilities are also taught (see Pusch 2006). There are currently eight special state schools for deaf and hearing-impaired pupils in Sweden.

Some of these have national catchment areas. Alongside the special schools, there are also resource centres for deaf and hearing-impaired pupils and for pupils with a visual, language or mental disability. In addition, they offer targeted provision in the area of leisure in order to support comprehensive competency development.

The state bears most of the costs for pupils at special schools, including journeys and live-in accommodation. A small part of the financial support is provided by the respective municipality, which pays remuneration in the amount of a sum stipulated by the government. The former central administrative body for the so-called resource centres was the State Institute for Disability Issues at School (SIH). The main task of this institute was to advise the resource centres on general legal and financial matters. In June 2001, the SIH was converted into a new authority called the Special Pedagogical Institute (SIT), with the objective of achieving better state support in special education issues. The resource centres were subsumed into the new authority.

The central administrative body for the special schools is the Office for Special Schools for the Deaf and the Hearing-Impaired (Specialskolemyndigheten)[25]. It scrutinises and decides whether a child should be accepted into a special school for the deaf and hearing-impaired. Applications for entry may only be submitted by the respective parents or guardians or by the child's home municipality. The curriculum at a special school is in line with that of the obligatory overall school system. Duration of education is ten years. A special school pursues the same objectives as the Grundskola (see Skolverket 2018e). These aims include the imparting and enshrinement of the fundamental values upon which Swedish society is based, for example, the inviolability of human life, the freedom and integrity of the individual, the idea that all people are worth the same, equality of men and women, and solidarity with the vulnerable (see ibid.). In addition to these basic principles, special schools have further particular goals for deaf and hearing-impaired pupils. One of these is the aim for all deaf and hearing-impaired pupils to be bilingual after completion of special school. This means that every pupil should be able to understand sign language and written Swedish and should also be able to express their ideas and thoughts both in sign language and in writing. A further objective is the ability to communicate in English in writing.

The management bodies and teachers at a special school are mainly able to make their own decisions regarding the planning of teaching and the choice of materials and

25 URL: **http://www.spsm.se** (status: 23/12/2022).

working methods. Although teaching is generally in accordance with the generally stipulated skeleton curriculum, it is still individually adapted to the respective pupil. This is principally facilitated by creating small groups of pupils. The awarding of marks at a Swedish special school takes place in the same way as at a mainstream Grundskola, i.e. pupils can receive three different grades in the form of "satisfactory", "good", or "very good". The grading benchmark is oriented to the benchmarks which apply at the respective special school. Pupils are given marks for the various subjects at the end of each semester in year 9 and at the end of the autumn semester in year 10. As at the Grundskola, special schools do not require any particular final examination performance from pupils. Instead, each pupil receives a final certificate based on the marks that they have already obtained.

3.4.5 Integrated special school (Grund- and Gymnasieskärskola)

Sweden is keen to ensure that children with mental or similar disabilities are largely taught all the competencies and prerequisites that will enable them to lead a self-determined life, to pursue a normal daily routine, and to enjoy the best possible level of social participation including political involvement. In order to meet this goal, children can attend a special Grundskola, referred to in Swedish as a Grundsärskola, from year 1 onwards. This forms part of obligatory special schooling and is attended by children and young people who are in a position to be able to learn to read and write and to use these skills as a basis for acquiring new knowledge. The special Grundskola is normally located on the same site as the mainstream schools in order to allow better integration on the part of children with disabilities. Pupils at a special Grundskola study the same subjects that are taught at the mainstream Grundskola in order to impart the same basic values to all pupils (see SFS 2011:185).

Teaching takes place in the core subjects (Swedish, English, mathematics), in the practical and aesthetic subjects (art, domestic science, sport, music, handicrafts), in the societal subjects (geography, history, religion, civics) and in the scientific subjects (biology, physics, chemistry, technology).

Unlike at the Grundskola, an individual learning plan is prepared for every pupil at a Grundsärskola. This learning plan has its basis in the various prior learning and in the individual strengths and weaknesses of each pupil. In addition to this, the Grundsärskola deploys different pedagogical methods and measures with the context of the respective special school and in line with the individual requirements of learners. Upon completion of the special Grundskola, pupils receive a certificate attesting the education that has taken place. A report can also be issued at the request of the pupil or their parents or guardians. Pupils then receive a report at the end of each semester of year eight and a report at the end of the autumn semester of year nine (see Bernhard/Barow 2015).

Children and young people with a severe mental disability who are not in a position to follow teaching at the special Grundskola attend "training schools". In this case, chil-

dren are not taught in the obligatory school subjects. The aim instead is to foster various skills and task areas. For this reason, teaching is divided into the five areas of aesthetic activities, motor skills, communication, everyday activities, and pupils' understanding of reality. The main focus is placed on the imparting of practical and autonomous skills rather than on the teaching of knowledge. The aim is for pupils to receive the support and encouragement they will need in order to live independent daily lives as much as possible. Pupils at obligatory special schools complete nine years of compulsory schooling and may go on to complete a voluntary tenth year if they wish. The obligatory special school is attended by children from the ages of six, seven and eight up to the age of 16 (or 17) (ibid.).

Disabled pupils completing nine or ten years of Grundsärskola may go on to attend a Gymnasieskärskola, where they are prepared for later VET. Pupils are instructed in the core subjects of Swedish as a first or second language, English, religion, mathematics, sports, health, social sciences and the natural sciences within the scope of a four-year programme. A further aim alongside the subjects taught is that those in special national programmes for disabled pupils should work at a company for at least 22 weeks in order to gather practical and occupational experience. The intention is also for these practical placements to show whether pupils are in a position to perform normal and fundamental works in an occupational area. A teacher subsequently judges whether the pupil has passed the practical placement or not. The mark F denotes a pass. No mark is awarded if the practical placement is not passed.

The national programmes at integrated special schools include all subjects which are generally available at the upper secondary school. In the administration, commerce and logistics programme, students acquire fundamental competencies in the respective three areas and are prepared to perform basic administrative tasks, practical marketing and essential documentation. During the programme, a further aim is for pupils to develop a service-oriented attitude and the ability to interact and communicate with customers in an appropriate manner. In the specialist areas for vehicles and logistics, for example, competencies in the field of vehicle maintenance and freight processing are imparted. Within the programme, learners are prepared to carry out special tasks in this field, such as repairing vehicles and machines, washing and "overhauling" cars and driving a forklift truck. It is considered important for pupils to develop a service-oriented approach and to learn how to deal with customers properly.

Marks are also awarded at the upper secondary special school after the core subjects and programmes have been completed. Pupils who pass are given a grade between A and F. In this case, A is the highest grade and F the lowest. Pupils who do not achieve an F grade are not awarded a mark.

Pupils completing the programme who are not in a position to participate in training at an upper secondary special school are supported by individual programmes (training schools) (see Inschweden 2017). This means that the young people receive support and

teaching in programme-specific subjects rather than in the core subjects, as is the case at an upper secondary special school. The aim of this individual programme centring on programme-specific subjects which are adjusted to the prerequisites of the respective pupils is to facilitate later transition to a general programme. The programme-specific subjects include art, home and consumer studies, sports and health, nature and the environment, the individual and society, and language and communication. It is also possible for pupils taking part in individual programmes to complete a practical placement at a company if they are in a position to do so and if this would be advantageous to them. No marks are awarded for the programme-specific subjects. Instead, teachers assess and evaluate the individual abilities of the pupils on the basis of fundamental skills requirements and advanced competencies.

Children with learning difficulties but who are not diagnosed as needing any particular support are co-taught by a teacher with a relevant qualification in the classroom of a mainstream Grundskola. This form of teaching is also designated as "coordinated special teaching" in Sweden. In subjects where there is a particular need for support, individual work also takes place with the pupil on a lesson-by-lesson basis in a specially equipped side room.

3.4.6 The integration of refugees

Sweden has around ten million inhabitants, and since 2010 no other country in the EU has taken in as many refugees as relative to population size. Around a third of the refugees accepted are of school age (71,000 people in 2016). Many of these children and young people have arrived in the country without their families and now need to be integrated into the school system and subsequently into the world of work. Skolverket, the Swedish National Agency for Education, stipulates that all pupils in Sweden should attend school, including refugees.

The skills of the new arrivals are checked and assessed within two months so that teachers and school management bodies are better able to adjust to the new pupils. The local government authorities may decide for themselves whether they will offer preparatory classes or if refugees will be integrated into mainstream classes straightaway. In the preparatory classes, refugees receive teaching and support in the three subjects of Swedish, social studies and mathematics. In some cases, communication with the pupils takes place in Dari (Persian) and in Arabic, because all immigrant children have the right to develop their own native language as well as obtaining competency in Swedish (see Migration Policy Institute 2018, p. 41). The aim of the preparatory classes is to help the refugees switch to mainstream teaching in an increasing number of subjects within a year.

Skolverket produced a special guide in 2016 in order to support the teaching of new arrivals in Sweden. This also contains information on funding opportunities at the various school levels and on education programmes (see Skolverket 2016a). In overall

terms, Sweden also emerges as an exemplary country in this regard by dint of the endeavours it undertakes in the education system, even if conditions are not the same in all areas and in all local government authorities (see Migration Policy Institute 2018, p. 42). Particular mention should be made of attempts to establish bilingual pre-schools in places such as Stockholm. These teach children and their parents at the same time and are thus able to help create joint language competencies and skills for everyday life (see ibid., p. 43). Voluntary commitment also occurs outside the state school system, e.g. via the Svenska med baby initiative.[26]

One problem is the irregular distribution of the refugees. Some districts receive huge numbers of refugees whilst others take in very few. Östermalm, an economically successful district of Stockholm, received only four refugees into all of its schools, for example. By way of contrast, the schools located in the outlying area of Hägersten-Liljeholmen accommodated 261 (see Reith 2016). Integration in such districts is rendered significantly more difficult because the high number of refugees they are allocated often tend to stick to themselves. Neither are there enough school psychologists and social education workers to tackle the situation. The aim in the future is to enact laws which would force some schools to take more refugees.

After their status has been recognised, adult refugees complete a two-year introductory programme (Introduktionsprogrammet; see chapter 3.4.3) with a view to achieving rapid integration into the Swedish labour market. Highly skilled immigrants have good opportunities to work with companies. Such skilled workers can also take advantage of the language and continuing training courses that companies frequently offer. One difficulty is the integration into the Swedish labour market of low-skilled workers, for whom the companies and the market have little need. According to a current NESET study, one possible way of countering this problem would be for the state to invest more money in the education of trainees and to support jobs financially from the outset (see Bunar 2017).

Female refugees, who account for as many as 45 percent of refugees in Europe, are particularly badly affected by the difficulties of integration (see Liebig 2018, p. 4). There are multifarious reasons for their comparatively low level of integration into employment, although one positive development is that longer-term prospects seem to be opening up in Sweden and Norway in particular.

> "The employment rates of female refugees are lower to begin with and they also initially rise more slowly than those of male refugees. Nevertheless, the increase in the case of women continues over a period of at least ten to 15 years, whereas the employment rates for men – at least in the Nordic countries – stop climbing after six to ten years (or even seem to begin to decline)" (ibid., pp. 20ff.).

26 Further information on this initiative is available in Swedish on the website: URL: **https://svenskamedbaby.se/** (status: 17/09/2020).

Despite all the challenges which Sweden has set itself by seeking to integrate a comparatively large number of refugees, the country's endeavours in the field of education are exhibiting positive effects. This is made clear by a 2017 report prepared for the European Expert Network for the Social Dimension of Education and Training (see Bunar 2017), which positively emphasises the implementation of a 26-week training programme for teaching staff (see ibid., p. 9). Rising recognitions of qualifications acquired abroad (see Table 16) indicate that immigrants are gaining more educational qualifications or may also show a growing readiness on the part of the Swedish authorities to recognise these qualifications.

Table 16: Recognition of foreign qualifications

Year	Upper secondary	Post upper secondary vocational	Academic	Total
2016	12,209	3,456	11,707	27,372
2015	10,320	2,719	9,835	22,874
2014	8,363	1,909	7,729	18,001

Source: Bunar 2017, p. 8

Alongside the stakeholders already mentioned, a significant role in provision aimed at the integration of refugees is also played by the established system of adult education in Sweden, which is governed by the Folksbildningrådet in Stockholm. Data on labour market integration and language development is presented in the latest annual report on the effects and endeavours of "popular education for asylum seekers" (see Folkbildningsrådet 2017). This reveals that €17 million was made available in 2017, both for asylum seekers and other new immigrants, with the primary goal of fostering their language competency and integration. In 2017, around 110,000 people took part in over 10,000 teaching programmes in 246 municipalities (see ibid., p. 4).

3.4.7 Non-higher education tertiary sector

Several opportunities are available in Sweden for those approaching adulthood after completion of the upper secondary sector. The "studentum.se" website, for example, provides a good summary which differentiates types of training and shows equivalent alternatives (see Studentum 2018).

- Upon conclusion of the vocational training programmes at the upper secondary level, there is a chance to continue VET by taking part in **continuing VET programmes** (see chapter 4.3.4).
- There is also **adult education** provision, which is mostly offered by local government authorities (see chapter 4.3.9), distance learning programmes (ibid.) and

- **VET for young adults** who have not opted for a VET programme. This is offered in the form of normal or practice-oriented programmes.
- In addition, the **labour administration bodies** offer separate **training courses**. These tend to lead to simple qualifications in fields such as agriculture and will not be elaborated upon further.
- There is also **provision in the area of the arts**, which includes dance, theatre, photography and design.[27]

3.4.8 Higher education sector (Högskolan and Universitet)

Sweden has a total of 112 institutes of higher education and universities, although some of these operate under a common umbrella with different campus locations. Some of these institutes of higher education are very small. One case in point is that in Visby on the Baltic island of Gotland, which offers only three fields of study (business administration, website development and programming). It joined forces with the University of Uppsala in 2013 and thus now forms part of Sweden's oldest university, which was founded in 1477 and has around 20,000 students (see Börjesson/Dalberg 2021).

The largest Swedish universities are situated in Stockholm, Göteborg and Lund,[28] the last named also being one of the country's very old universities (established in 1666) and one of Sweden's major research institutes. It has locations in Helsingborg, Malmö and Lund and accommodates about 40,000 students and 7,400 members of staff. The University of Lund is thus bigger than the capital city's university, which has 33,000 undergraduates and around 1,500 doctoral students (see Deen 2007).

Most institutions of higher education and universities are state run. Only four private institutes of higher education exist. These are Chalmers Tekniska Högskola (University of Technology), Handelshögskolan i Stockholm (Stockholm School of Economics), Högskolan i Jönköping (Jönköping University) and the World Maritime University, which is based in Malmö. Because not all institutes of higher education are so broadly based as the major universities, and given the fact that some have emerged from former higher VET institutes as universities of applied sciences, teacher training in Sweden, which mandatorily takes place at universities, is concentrated at only 23 university locations.[29] In international ranking lists of universities, which use very different categories for their assessments, one Swedish university makes it into the top hundred.[30] This certainly does

27 The study does not separately address this area. Responsibility here also rests with the Swedish National Agency for Higher Vocational Education (MYH), which guarantees the quality of the respective training at the state and private sector educational establishments, some of which charge a fee to learners (see Studentum 2018).

28 Further information is available on the website: URL: **www.lu.se** (status: 17/09/2020).

29 Further information is available on the website: URL: **http://allastudier.se/skolor/p%C3%A5/h%C3%B6gskola-universitet/i/sverige/inom/246-I%C3%A4rare/** (status: 17/09/2020).

30 Further information is available on the website: URL: **https://www.timeshighereducation.com/world-university-rankings/2022/world-ranking** (status: 05/112025).

not represent top positions but is something to which Sweden's education system as a whole does not aspire. The universities and institutes of higher education are concentrated in the southern and densely populated regions of Sweden. Only the universities of Sundsvall, Umeå and Luleå are located to the north of Uppsala and Stockholm.[31] The last named, which is the most northerly, was not founded until 1971. Because of the weather conditions during the long winters, it has underground links between parts of its buildings. The University of Luleå has 10,000 students, most of whom are pursuing technical disciplines. These courses also relate to mining and the geo-sciences, which are part of the region's economy, as well as to space technology, music and wood technology.

Internationalisation is of major significance to current Swedish higher education policy. "Higher education institutions are crucial for the international exchange of knowledge" (SOU 2018:78, p. 42). Activities in both directions have been proposed, and back-up financing is in place. The aim is not merely to acquire students and external higher education teachers for Sweden. A further objective is to encourage stays abroad by students and staff. The intention is for the Sweden Institute, whose activities are aligned outwards, to strengthen Sweden's image as a higher education location. There are also plans to take a targeted approach to encouraging stays abroad by post-doctoral researchers (see ibid., pp. 21ff.). A further sign of the great importance attached to this matter is the existence of a direct link to "Study in Sweden" on the homepage of the Swedish government.[32] The training of higher education lecturers is another important factor for teaching alongside the raising of research funds. A programme of at least ten weeks is required in this regard (see Engwall 2007).

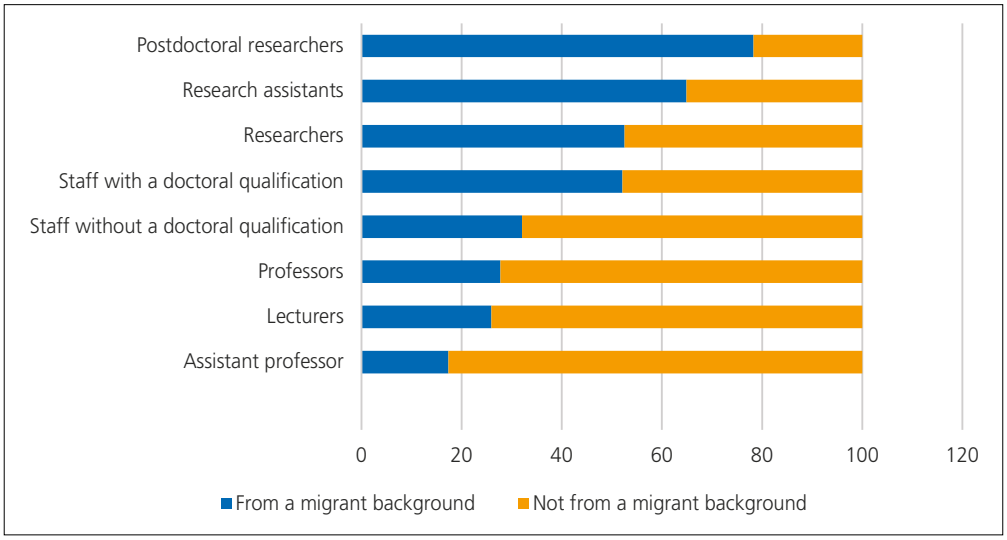
The aim of increasing internationalisation with regard to staff is already clearly visible in current statistics (see Figure 9).

Sweden uses the same information as Germany in order to compare the quality of institutes of higher education. Third-party funding raised and publications are considered to be relevant data for research performance (see Hwang 2018, p. 35). Current data on the development of higher education and of staff is provided in the annual report of the Universitetskanslersämbetet (UKÄ). This reveals rising numbers of staff carrying out research and teaching and a relative stagnation of administrative staff at the institutes of higher education (see Universitetskanslersämbetet 2018b, p. 120). The number of lecturers is constantly increasing compared to the number of professors and post-doctoral researchers. This indicates a shift by the institutes of higher education towards teaching and training establishments, a similar situation to that occurring in Germany (see ibid., p. 122). This is concomitant with a deterioration in the prospects of doctoral students who wish to be appointed to a professorship (see ibid., p. 128).

31 Further information is available on the website: URL: **www.ltu.se** (status: 17/09/2020).

32 Further information is available on the website: URL: **https://www.government.se** (status: 17/09/2020).

Figure 9: Origin of employees at Swedish institutes of higher education 2018 (in %)



Source: Universitetskanslersämbetet 2018a

In order to enrol at a university or institute of higher education, evidence of successful completion of upper secondary education is required. In some cases, however, there are also subject-specific criteria for admission to certain study programmes. Foreign applicants must also present evidence of sufficient knowledge of the Swedish language. Persons in employment aged 25 and over who have a good knowledge of English and at least five years of occupational experience may also apply for a higher education study place (see Swedish Council for Higher Education 2022).

There were around 345,000 students in Sweden in 2018. Foreign students accounted for approximately ten percent of this number (30,386) (see Universitetskanslersämbetet 2018c, p. 193).

Sweden has bachelor's and master's courses of study, state examinations for teaching qualifications and multi-stage further training in research and teaching which extends from graduate to doctoral level. Employment at the respective university is necessary in order to pursue a doctorate. The consequence of this is that professors do not have staff at their disposal in the same way as in Germany. Lecturers (who perform differing proportions of teaching and research) and post-doctoral researchers thus largely pursue their research independently (interview with Professor Viveca Lindberg and Professor Lazaro Moreno-Herrera at the University of Stockholm, 2018).

Table 17: Levels of higher education programmes

Level	Swedish designation	Translation (EQF reference level)	Scope
Bachelor	Högskolexamen	Higher education examination (5)	2 years/120 ECTS
	Kandidatexamen Högskoleingenjörsexamen	Higher education examination/ Bachelor (6)	3 years/180 ECTS
Masters	Magister examination	No equivalence	1 year/60 ECTS
	Master's examination	Master's examination (7)	2 years/120 ECTS
	Architektexamen Civilingenjörsexamen	Master's qualification – single phase (BA and MA study) (7)	5 years/300 ECTS
Research level	Licentiatexamen	No equivalence	2 years/120 ECTS
	Doktorexamen	Doctorate/dissertation (8)	4 years/240 ECTS

Source: Own depiction based on Kunglika tekniska högskola n. d.

Alongside bachelor's courses of study, many institutes of higher education offer shorter programmes which conclude with the awarding of a certificate and do not lead to the higher education and internationally recognised qualifications listed in the table. This provision also includes qualification as a vocational school teacher (see Hoppe/Kaiser 2021).

The endeavours which institutes of higher education devote to better support for their students and to quality assurance of teaching (the Association of Higher Education Lecturers being of the view that a ten-week pedagogical training course is a minimum for all higher education lecturers) are not selfless. Indeed, the financing structure of the institutes of higher education is not the least of their motivations in this regard. Funding is allocated to the institutes of higher education and universities on the basis of qualifications and doctorates successfully completed rather than merely being measured against the number of students enrolled (see SFS 2022).

3.4.9 Continuing training and adult education

The aim at this point is only to consider selected aspects of continuing VET and adult education in Sweden. They have already been addressed within the context of the educational endeavours undertaken by Sweden for new arrivals (see chapter 3.4.6) and will be returned to in a later section (see chapter 4.3.6). Because the policy of lifelong learning is firmly enshrined in Sweden, it is not unusual for adults to commence VET or to acquire a VET qualification via a shortened procedure on the basis of a multitude of recognitions of qualifications or competencies already achieved. This may take place in a "normal" VET programme at an upper secondary school or within the scope of adult education.

> "In this way, for example, adults in Sweden can use credit points-based systems to complete individual components of a programme as part of formal education in order to expand their competencies in specific areas. Participants can choose their own combination of courses which are independent in themselves and, if these combinations fulfil prescribed requirements, a qualification may be awarded" (OECD 2018b, p. 196).

This makes it somewhat more difficult to delineate adult education from VET in some cases. The fact that adult education and continuing VET are free of charge in Sweden also contributes to the circumstance that formal company-based continuing training plays virtually no role (see Skolverket 2012a). Only the learning of additional skills in the workplace is a widespread option. A shift thus also occurred in the remit of adult education, which in its original local government-based form was aimed at cultural and societal participation (the starting point being the ability to read for religious reasons, as already mentioned in chapter 3.1) away from basic cultural training and towards continuing VET. In more recent times, the objective has moved ever closer to utilisation-oriented employability. A longitudinal study focusing on the city of Göteborg as an example has illustrated these effects and encapsulates the changed motivation of the administration and the structure which has emerged in the following terms:

> "They are what neo-liberal restructuring has really meant for those affected by the marketisation of public service adult education in Gothenburg when responsibility for that education was shifted from a bureaucratic, costly, State-owned public-care-sector to a managerialist agency for the privatisation of service provision" (Beach 2004, p. 10).

A public asset made available to all in order to drive forward personal development and societal participation and which is an expression of the welfare state is (at least in Göteborg) increasingly becoming an investment in human capital which is financed and managed from market economy perspectives. Beach's analysis that the increase in growth created from business profits is becoming the guiding value is in line with the findings of Andreas Fejes (Professor of Adult Education at the University of Linköping) (see Fejes/Berglund 2010).

This contrasts with the declared goals and traditions of Swedish adult education which, according to the law most recently promulgated by the government (see Prop. 2013/14:172, p. 20), strives to act in conjunction with other common education to foster personal development and participation in society.[33] The joint declaration of those responsible for popular education policy in Sweden makes it clear that such education needs to be free of charge and that it chooses and determines its own objectives. Wilhelm von Humboldt's idea that the primary purpose of education should be to serve the com-

33 The actual wording is: "Folkbildningen ska ge alla möjlighet att tillsammans med andra öka sin kunskap och bildning för personlig utveckling och delaktighet i samhället".

prehensive development of people is cited on the following page and updated to meet the Swedish situation (see ibid., p. 21; see also Gustavsson 2003). The final section of the declaration, which states the final outcomes the new law is seeking to achieve, mentions the aspect of cost-neutrality for the state and for companies, and further states:

> "One of the things which is important in terms of promoting equality between the genders is to address various types of educational gaps. Folkbildningen bears considerable responsibility for ensuring that new Swedes (refugees and immigrants, added by the author) experience inclusion and a learning environment that fosters the establishment and integration of new arrivals. The adjustment of one of the goals of state subsidies for popular education means that more men and women born abroad can take part in popular education activities in order to learn Swedish and enter work and employment. For this reason, the proposal includes a strengthening of work towards integration policy objectives" (Prop. 2013/14, p. 172, Section 10.3, p. 66 – translation through author).

Leaving aside aspects which are not statistically ascertainable, such as educational reflected in the use of the widespread public libraries (see chapter 1.1), a consideration of the participation rate in adult education shows that Sweden displays above-average values in international comparative terms (see OECD 2018a) and that the national statistics present impressive figures (see Table 18).

Table 18: Participation and teaching hours of the Studieförbund (adult education centres)

Participants	Hours of teaching	Participants	Hours of teaching
Female participants	431,482	Male participants	267,274
Participants born abroad	142,676	Visitors to the cultural programme	19,799,200

Source: Folkbildningsrådet 2018b, p. 8

An observation of the regional distribution of participants in Swedish popular education makes it clear that adult education plays a major role in the somewhat more remote regions in particular. By way of contrast, demand in the larger built-up areas is significantly lower (possibly because of the strong competition). The only place in which there is really almost no provision is in very sparsely populated areas.

Finally, a look at the content structure of the provision in Table 19 illustrates the following main focuses.

Table 19: Proportions of topics and specialist areas in adult education

Topic/specialist area	Hours of teaching	%
Art, music and media	7,776,199	58.3
Humanities (language, history)	2,158,077	16.2
Social and behavioural sciences	884,950	6.6
Services/office	605,098	4.5
Agriculture, horticulture, forestry and fishing	417,245	3.1
Computing	223,064	1.7
Social work	218,812	1.6
Business administration and management	168,133	1.3
Healthcare and nursing	133,027	1.0
Technology and industry	126,657	1.0
Pedagogy and group leader training	125,353	0.9
Literacy skills for adults	14,023	0.1
Other	480,489	3.6
Total	**13,331,127**	**100**

Source: Folkbildningsrådet 2018b, p. 12

It is revealed that a high percentage of the sum of around €400 million which flows into adult education in Sweden each year (see Folkbildningsrådet 2018b, p. 24) is spent on cultural and general education. This is in line with the objective formulated and also means that, in accordance with the cultural goals of the country (see chapter 1.1.), all people are actually reached at least regionally. By way of contrast, courses which are clearly focused on VET topics represent a smaller proportion. This is also certainly connected with the forms of vocational adult education existing in parallel which, as already indicated, are organised differently. Despite individual criticism levelled within the country itself, Swedish adult education appears highly committed in international comparative terms, and expectations vested in it are reflected by the country's educational expenditure.

4 Initial and continuing vocational education and training

Like all other components of the Swedish education system, initial and continuing VET in Sweden has been a state task since the middle of the last century and is viewed as such both by the population and by trade and industry. For this reason, it is closely linked with the institution of the school. The schools and their teaching staff are accordingly equipped with resources and responsibilities for the imparting of occupational competencies in the form of appropriate classrooms and workshops and are also entitled to conduct examinations.

VET in Sweden, which can best be described with the term apprentice training or the Swedish expression arbedsplatsförlagd utbildnung (apu) (relocation of training to the workplace), may take place in very different forms. Until a few decades ago, it primarily meant a specific form of vocational training which followed on from the upper secondary level and only occurred in the two sectors of electrical installation and construction (see Panican/Olofsson 2012). In these sectors, training extends over a period of about two years and is carried out on the basis of collective wage agreement stipulations without the involvement of the state (see chapter 4.3.5). Trainees receive their wage from the respective companies.

These opportunities have recently been expanded into further sectors too via the use of state subsidies (see ibid.) which are paid by the labour administration organisations in order to create transitions for the long-term unemployed (yrkesintroduktionsanställning/occupational introduction appointment).

An in-service version of this model for adults has been established for some time. This mostly occurs via an employment relationship not involving subsidies but can also take place as an individual programme within the scope of the upper secondary sector.

Since about 2010, the National Agency for Education (Skolverket) has begun to establish Lärlingsutbildning in the school-based programmes (see chapter 4.3.2). This means that the proportion of company-based practice has risen from 12.5 percent to at least 50 percent (the status of the pupils, however, remains unchanged). Within this gymnasial lärlingutbildning (see Berglund et al. 2017), a statutorily regulated opportunity for companies to offer remuneration has also existed since 2014 (see SFS 2014:421). This especially happens in cases where companies have a massive shortage of young workers. Currently, however, only figures of under 500 persons are being achieved (interview with the Lärlingscentrum at Skolverket, Stockholm 22 February 2019).The following table provides a summary of the various forms.

Table 20: Use of the term apprentice in different contexts

Context/area	Swedish designation	German equivalent
Training and education statistics	Statsbidraglärling CSN-lärling	Depending on source of funding, divided into state-funded apprentices (National Agency for Education) or apprentices with their own funding support (Upgrading Training Assistance, BAföG))
System-related differentiation	Gymnasiet – gymnasial lärling KOMVUX – vuxenutbildningslärling Gymnasiesärskolan – gymnasiesärskolelärling Yrkesintroduktion	Pupils for whom the proportion of company-based practice exceeds 50% Adult apprentices in local government funded adult education Special school apprentices School-based funding programme version with an apprentice concept
Funded by the employment agency	Lärling	Funded induction in the workplace using ESF funding
Sector-oriented consideration	Eftergymnasiala lärlingar – färdigutbildningen Företagslärlingar Lärlingsliknande initiativ	Company-based apprentice training commencing after upper secondary level Initiatives similar to apprenticeships in the commercial and healthcare sectors

Source: Berglund et al. 2017, p. 19 (translation through author)

4.1 Development and significance of vocational education and training

The development of the Swedish VET system (leaving adult and continuing education for a moment) can be briefly described as apprenticeship training emerging from the traditional craft trades which was replaced between the 1920s and 1950s by a school-based VET system that gradually caused company-based apprentice training to disappear virtually entirely by the end of the 20th century (for more detail, see the following section on history). Vocational training was almost completely integrated into the upper secondary education sector in the 1970s. Following the "hype" surrounding lifelong learning and an associated strengthening of general education in the 1990s, the 2000s once again saw thoughts begin to turn back to the benefits of company-based training. The proportion of company-based practice was expanded without resulting in the conclusion of a training contract between trainees and the companies providing training that stipulated the payment of a wage. Despite the endeavours to achieve permeability between vocational and general education, a phase of company-based practice of a greater or lesser extent always remained part of vocational training during the last century. The goal of combining vocational training programmes with a higher education entrance qualification has been an aspiration since the 1970s and still exists, although it

has recently been repressed in favour of stronger labour market orientation. Nevertheless, Sweden continues to cling to a comprehensive school model, including in the area of VET, since both general education and vocational training programmes at the upper stage (upper secondary level) occur within a joint upper secondary school system and often take place jointly within the same complex of school buildings. In a certain sense, this thus continues the idea of the common Grundskola (years 1–9) and creates an integrative upper secondary stage with higher education entrance qualifications against the background of vocational and general education.

Illustrating a brief history of the Swedish VET system begins with the problem of the division of phases and requires a limitation at the outset. A women's perspective of Swedish VET history remains virtually unwritten because, similarly to Germany, the perspective is focused on the craft trades, industry or the commercial sector. As Nilsson stated in 2008:

> "[...] three major parts are discussed; vocational training preparing for occupations in agriculture, commerce and infrastructure, and handicraft and manufacturing industry" (p. 79).

By way of contrast, any appraisal of development in women-dominated occupational fields such as the healthcare and clothing sectors is very much in its infancy (see for example, Wärvik/Lindberg 2018) and would need to be systematically added in supplementary fashion within the existing broad outlines. This is not something which the present publication can address. In the case of the division of phases, which may align to economic developments, school policy decisions or foreign policy/global changes, Nilsson's division of 2008 will be largely followed, even though a cut-off point occurred between the 1990s and the present day. This has its basis in the reform of 2011 despite only being indicated from 2008 onwards.

Development from 1850 to 1920

As was also the case in the rest of continental Europe, a systematic approach to commercial and technical vocational training (for men) began within the context of liberalisation and industrialisation. As these forces took hold, it became apparent that vocational training, which solely focused on practice, would no longer be able to keep pace with the developments in requirements. In the area of agriculture, individual vocational schools commenced their work within the context of large landholdings and of the forestry industry, which was of significance to Sweden, and introduced teaching as early as the late 1830s (see Nilsson 1981). It was, however, not until after 1850 that company-based training was supplemented in some local government areas and at some companies by the establishment of technical Sunday schools and evening schools (similar to the Sunday schools in Germany). Despite their name, however, these schools imparted basic skills in Swedish, mathematics, civic education, and technical drawing rather than spe-

cific occupational knowledge (see Nilsson 1981). This development occurred as the first railways were being constructed in Sweden and was backed by an Education Act of 1842 (see Nilsson 2008). This brought in its wake an expansion of nationwide adult education, which is still a key characteristic of the country today (see chapter 3.4.9). The craft trades sector did not succeed in maintaining its role in training, and the employees in the industrial sector were also too poorly organised to have facilitated the independent non-state training structures which could have prevented state intervention (see Michelsen 2018, pp. 9ff.). Nevertheless, the Swedish crafts and trades remained in a special role in which craft trades training, which tended to be informally regulated, could continue to exist. Attendance of Sunday schools and of a number of "technical schools" was an associated factor in this regard, although such schools placed the emphasis on basic general skills and knowledge.

> "The Sunday- and evening schools soon became popular and they were, from the 1870s' onwards, by far the largest form for technical education, albeit the level of actual technical training remained low" (Nilsson 2008, p. 81).

To begin with, attendance at school was also modest from a quantitative point of view (see Ljungberg/Nilsson 2009). However, it rose sevenfold between 1850 and 1870 and ultimately reached a figure of over 10,000 participants in the 1890s (see Nilsson 2008, p. 84).

Once the barrier to company-based VET in Sweden had been overcome, a development which coincided with the freedom of trade introduced in 1846 as a result of burgeoning capitalism and liberalisation of the markets in 1864 (see Edgren 1987), the first decades of the 20th century saw the emergence of a state-governed vocational school system (see SFS 1918: 771). The subsequent changes aligned to vocational schools need to be viewed within the context of the school policy of the time. Girls' schools and middle schools were subjected to statutory regulation in 1905, and commercial schools were already emerging by 1913 (see Olofsson/Persson Thunquist 2018, p. 48). After 1918, the vocational school system was institutionally divided into apprentice schools (lärlingsskola) and vocational schools (yrkesskola). Supplementary workshop or production schools (verkstadskola) were added in 1921. In terms of content, the programmes were separated into the areas of industry/craft trades, household and commerce (see Broberg 2016, p. 173) on the basis of a commission of enquiry on the lower training system instigated by the Swedish government (1907 års tekniska kommitté), which produced a three-volume report in 1912. This proposed an area separate from the general school system in which the company-based part of training should be regulated, if it were to be regulated at all, only by agreements based on collective bargaining (see Wederhake 2017, p. 157). Whereas apprentice school took place in parallel with work (10 hours of evening teaching 30 weeks a year) and led to qualified worker status, the vocational schools took the same period of time to train adults for higher

level tasks as managers, master craftsmen or company founders, for example. Both also required parallel employment in the relevant task area. This differentiates them from the workshop schools established at a later date, which were aimed at young people not in paid employment and thus worked in the workshops at this kind of school in accordance with the normal weekly working hours as well as spending around ten hours per week learning at the apprentice school. "The core practice in the workshop school was production with economic value" (Broberg 2016, p. 175). This form of school was new to Swedish VET. It took place over the whole of the day, was aligned to the existing working time in industry and the craft trades, and increasingly created a quality of training superior to that provided by companies under rising economic pressure. At this time, however, no general statutory obligation to take part in school-based learning was in place for any of these types of school (see Nilsson 1981).

Development from 1921 to 1970

Workshop and production schools, which had only actually been conceived as a replacement, experienced enormous growth in the wake of the economic recession of the 1920s because fewer and fewer young people were able to find work and thus took this alternative route. In light of the rising costs, a government commission of 1934, which also presented detailed figures on unemployment (see SOU 1934:11, p. 30), called for the introduction of state-financed training as a means of combating youth unemployment. These demands were rejected by the social partners (see Olofsson/Persson Thunquist 2018, p. 50), and a crucial change for Swedish VET ensued. The schools were expanded, and the number of pupils doubled within ten years (see Wederhake 2017, p. 150). Because they had become a massive cost factor, the schools were called upon to take responsibility for their own maintenance, establishment and expansion (see SOU 1938:26). In order to motivate pupils, they were paid a "monetary bonus" (flitpäng) for exhibiting appropriate behaviour and for achieving sufficient work productivity. This bonus, which was financed from the sale on the open market of products made by pupils, began to disappear as revenues came to be used for school investments and activities. This also changed the character of the pupils' workshop, which increasingly turned into a learning venue (see Broberg 2016). The workshop schools were the original core of the later school-based Swedish VET system. The system behind this new type of school was also strengthened by unification of its providers. Private institutions tended to withdraw from the vocational school system, and the municipalities dominated (see Nilsson 2008, p. 85). Nevertheless, the growing criticism levelled against the existing company-based training was of crucial significance. This was continued over a longer period of time by the trade unions, which only viewed the company-based training model as a gateway to cheap wage labour and were also dismissive of the quality of the training itself (see ibid.). By way of contrast, the employers' side placed the blame on the poor quality of the evening schools. Finally, an enquiry conducted in 1938 revealed

that only five percent of trainees at companies had taken part in systematic training (see SOU 1938:26).

> "The enquiry report stressed that an increasingly forced working pace in combination with a system of payment by results made it more and more difficult to find space and supervisors for apprentices in companies. (...) Workshop schools should be established in different parts of the country. The intention was not to completely relieve trade and industry of responsibility for vocational training; rather, it was to achieve a more efficient allocation of responsibility between stakeholders in working life, on the one hand, and the state, the counties and the municipalities, on the other" (Olofsson/Persson Thunquist 2014, p. 8).

In light of the bad prevailing situation at the companies, the state enquiry proposed expansion of the workshop schools. The idea here was very much to offer high quality of delivery rather than to absolve the companies of responsibility. All of this occurred around the time of the Conference of Saltsjöbaden, which was highly important in terms of Swedish labour policy and industrial relations and took place on 20 December 1938. At this conference, the two major social partner stakeholders – the Svenska Arbetsgivareförening (SAF) for the employers and the Landsorganisation i Sverige (LO) for the employees – both agreed that their affairs would be regulated in the future without interference from the state and without strikes wherever possible following collective bargaining between the two social partners. This included matters relating to VET (see Olofsson/Persson Thunquist 2014, p. 7). Support from the state in the respective training matters would have run contrary to this. At the same time, it emerged that the notions of the employer side and employee side seemed to be incompatible, especially with regard to training issues. Too wide a gulf opened up in respect of approaches to remuneration, working time and content quality of training. Ultimately, the two parties also quarrelled over the issue of pay-as-you-go financing, meaning that no agreement could be reached (see Nilsson 2008, p. 85). All that remained therefore was a strict separation between areas of responsibility. Finally, the companies withdrew from vocational training, the poor condition of which the state was no longer prepared to accept (see Petersson 2013).

One consequence on the state side was the establishment of workshop schools at the level of the provinces in 1941 (centrala verkstadskola). In 1943, a state office for VET was founded (Kungliga Överstyrelsen för Yrkesutbildning, KÖY), which included the social partners in its decisions and also assumed responsibility for managing a central set of statistics on issues relating to VET (see Wederhake 2017, pp. 152ff.). A joint council was established by the social partners. This dealt with VET issues affecting the labour market (Arbetsmarknadens Yrkesråd, 1944). On this council, the employers' bodies were largely represented by the same persons who sat with the KÖY. However,

none of this was able to prevent a decline in training figures in company-based VET nor a parallel increase in pupil numbers at the vocational schools (see Nilsson 2013, p. 25).

In effect, the young people voted with their feet. They followed the invitation of the schools and preferred to remain within a more familiar learning environment instead of taking up company training provision, which was increasingly only achieving success in a small number of special areas. At the same time, some companies recognised the possibilities of using state subsidies to set up their own schools. These aligned their provision to the state stipulations but also to the occupations of the companies (see Karlsson/Lundh Nilsson/Nilson 2016). In 1943, for example, Kockums shipyard in Malmö founded a school, which by 1955 had been expanded into an industrial school offering several VET programmes and taking in around 120 pupils a year (see Yokohama/Nilsson 2016). Further schools were established within the environments of other major companies such as ASEA. In some cases, these private VET schools were structured so that elements of the practical training were integrated into the production process of the companies. This meant that a training concept with lower costs could ensue because the companies were able to make use of the productivity of the trainees (see Wederhake 2017, p. 153).

A report by the National Schools Commission in 1946 ushered in more changes. Years 1 to 6 were made the same for all schools and therefore for all children. The comprehensive school was thus established in Sweden (see Olofsson/Persson Thunqvist 2014). From year 9 onwards, however, the plan was to introduce differentiated programmes. Some of these were to have a vocational alignment and prepare pupils for transition to VET or to higher VET (see ibid., p. 13; SOU 1948:27). Even at this time, systemic integration of VET into the Swedish school system was being indicated.

In her comparative study, Wederhake described the attitude of the employer side in the late 1950s as follows:

> "The employers were aware that young people preferred to keep their education and training pathways open for as long as possible. However, this meant that company-based training programmes were constantly losing attractiveness. For this reason, one of the objectives aspired to was to equalise the status of vocational training with that of upper secondary education and thus retain the former as an attractive option. The SAF was also keen to interest pupils in post-secondary VET, which was now gaining in significance" (Wederhake 2017, p. 171).

To this extent, and possibly unintentionally, the employers were encouraging a development towards the strengthening of school-based VET and were thus weakening their own role in vocational training vis-à-vis that of the state in order to ensure that VET remained a competitive educational pathway in the first place.

In 1955, the state increased its financial subsidies to these private and public VET institutions in order to counter a growing labour shortage (see Nilsson 2008, p. 86).

No specific upper limit was set for these allowances. The government also reformed the general school system on a stage-by-stage basis and extended the period of compulsory schooling. Within this context in 1963, it set up a commission of enquiry (Yrkesutbildningsberedningen) for the reform and interlinking of vocational schools (see SOU 1966: 3). A significant rise in the number of pupils at vocational schools occurred during the following years. The figure increased from under 100,000 in 1950 to almost 200,000 in 1967. This quantitative expansion was, however, not initially accompanied by a structural reconfiguration of VET. All that happened was an increase in investment on the part of the state and the dissolution of the KÖY and the integration of its function into the State School Agency (Skolöverstyrelsen, SÖ), now known as Skolverket. This was already indicating what would take place in institutional form in 1970 – the incorporation of VET into upper secondary schooling.

Development from 1971 to 1993

In Sweden, the decisive reform of the general and vocational school system of the late 20th century took place in the 1970s and related to the upper secondary sector (see Skolöverstyrelsen 1971). It is described in drastic terms by the Norwegian education organisation researcher Svein Michelsen in his latest publication on the history of VET in the Nordic countries:

> "At some point the state-led rise of the comprehensive school in Sweden meant that firm-based apprentice skill formation was threatened and eradicated" (Michelsen 2018, p. 14).

He is not alone in this analysis, since the state-driven expansion of the comprehensive school indeed destroyed the remnants of company-based and workplace-based VET and the sector-specific trade and technical schools which still existed in the agricultural and clothing branches (see Nilsson 2008, p. 87) and created a different understanding of the objective of VET in Sweden from this point onwards. Employment and the world of work were to be an object of learning for the general school, which is made accessible to young people if they are in possession of the necessary personal maturity and are able to devote themselves to a more specific training. At the same time, the intention was not to stipulate the future direction of education and training in advance. Points of access to academic training were to remain in place.

The reform of 1968 (see the organigram of the education system on p. 172) anticipated the 1970 reform by drawing a distinction between two-year vocational programmes and general higher education preparation programmes with a duration of three to four years (see Lundahl et al. 2010). But this reform had preparatory activities and began with the establishment of a commission, which presented its report on the possible further development of the upper secondary sector in 1963 (see SOU 1963:42) and led to a decision in parliament in 1964 to undertake a restructuring (see Olofsson/Pers-

son Thunqvist 2014). The aims were for the vocational programmes to attain greater breadth whilst also creating space for well-founded theoretical components, for their curricula to undergo fundamental revision, and for their specialisation to be reduced. The crucial proposal, however, was that they should be coordinated with the existing general educational programmes of study and should be transferred into a joint upper secondary comprehensive school in the long term. Vocational schools with relatively individual training programmes oriented towards local needs and opportunities had still existed in the 1950s, but these were now to be standardised across the country. The essential goal of these reform proposals, which were driven by the Social Democrats, was to increase the flexibility of workers who had completed a vocational programme.

> "The final qualified education, which was described as the responsibility of trade and industry, should take place afterwards" (ibid., p. 14).

The changes in forms of learning, which prescribed a greater degree of school orientation, also affected the vocational programmes, which were now to be viewed to an even lesser degree as completed training courses. They were instead to be much more regarded as vocational orientation and preparation programmes with increasing specialisation. However, integration did not mean a simultaneous participation by learners in vocational programmes with learners in general educational programmes. It did not even involve a comprehensive requirement to attend the basic general subjects in the vocational programmes (see Lundahl et al. 2010, p. 48). Instead, development was much more of a step-by-step nature. Strong resistance from the companies was initially encountered. But the numbers of participants rose at the same time, and this indicated that the pupils welcomed the change. At the upper secondary level in the 1970s, this ultimately brought about an increase in full-time school-based teaching at the vocational schools as opposed to part-time school-based provision and a rising proportion of vocational courses compared to theoretical general programmes. As far as the learners were concerned, this initially meant that they were able to acquire practical skills, such as simple haircuts and small repairs, whilst also remaining open to the opportunities afforded by subsequent developments.

Despite this success, which can be measured against the fact that numbers even reached a proportion of 75 percent of all pupils at the upper secondary level in the mid-1980s (see Olofsson/Persson Thunqvist 2014, p. 18), the vocational programmes also revealed their weaknesses in that they were unable to develop the specialist occupational level that was actually in demand on the labour market. According to an enquiry conducted in 1983/1984, the proportion of company-based practice in these programmes was under six percent (see ibid., p. 18). This was not necessarily disadvantageous from the point of view of the trade unions, since their aim was also to bring about an improvement in the training conditions for workers who were already older (see Karlsson/Lundh Nilsson/Nilsson 2018). For this reason, they put their faith in

a "lower" or broader entrance qualification which would then result in the necessity for an expansion of continuing training and of lifelong learning. These considerations were formulated by Rudolf Meidner, a Jewish socialist and trade union economist who had fled to Sweden from Germany to escape the Nazis and who became well known in the country for his radical redistribution plans in the 1970s (see Gowan 2018). As early as 1968, he stated:

> "My horror notion is that we will get a new stratification, namely, the healthy, the young and the well-educated in the market economy sector, on the one hand, and a disabled, poorly trained and older part of the population, on the other, which is protected by society. Such a development must be prevented" (Meidner 1968, p. 7).

This was, however, an unsatisfactory state of affairs from the perspective of the employers. By way of contrast, Olof Palme, who was the minister in charge of education at the time, defended the strategy of "recurring education" at a meeting of OECD education ministers (see Wärvik/Lindberg 2018, p. 285). The differing interests of the parties involved were reflected in the debate surrounding the reform. The prevailing opinion was that fundamental training was a task for the state, a view that had already been formulated in an official report in 1966. "Grundläggande utbildning är samhällets uppgift, inte företagens"[34] (SOU 1966: 3: 128).

But the reform of the upper secondary sector did not merely represent a huge change for the company-based training structures of industry and the craft trades. The same applied to some areas of VET which had developed a sector-specific training structure separate from the state schools and was now forced to adapt to the given conditions (see Lundh-Nilsson 2013 for the forestry sector and Wärvik/Lindberg 2018 for the healthcare sector). This makes it clear that high proportions of practical training have always taken place in the hospital sector and that the person delivering practical teaching at the clinic was sometimes identical to the person in the classroom. Even at this time, there were already practical rooms for teaching at the schools and a systematic practical plan which provides for experiences in different institutions (hospitals, nursing care at home, first aid). This situation-oriented curriculum attracted criticism and was to be turned into a theoretically aligned model more closely based on standardised textbooks (see Wärvik/Lindberg 2018, pp. 286ff.).

The change in the 1970s was accompanied by a steep rise in full-time school-based VET, which shifted from the companies to schools (see Nilsson 2008, p. 82). This increased further as a result of the extension of the vocational programmes to three years in the 1990s (see Prop. 1990/91). The tendency towards liberalisation and individualisation, seen globally in the 1990s (see OECD 1989), was reflected in the reforms of VET and training in Sweden. Science and technological developments were declared to be

34 "Fundamental training is a task for society, not for the companies" (translation through author).

the driver of the necessary investment in human capital (see Wärvik/Lindberg 2018, p. 288). State governance withdrew into broad framework tasks and delegated detailed implementation to the municipalities in their capacity as school providers. The latter were also required to ensure appropriate working conditions for their staff.

> "The first steps towards larger local government responsibility and autonomy took place at the end of the 1970s. The state guide of 1980 on teaching contents at adult education centres revealed the tendency to controlling these via target stipulations" (Lundahl 2008, p. 31).

The relative successes of this decentralisation, which was accompanied by an increasingly liberal attitude towards governance, led to a further strengthening of the local government authorities and to individualised school decision-making. The centre-right government that was in power between 1991 and 1994 set itself against the central state school policy that had previously prevailed by making deep cuts (see Virolainen/Persson-Thunqvist 2017). For this reason, the reform of the 1990s was accompanied both by decentralisation and governance in accordance with stipulations and by a huge encouragement of competition between public and private schools, which subsequently recorded a significant growth (see Lundahl 2002). They were financed by the state via a payment of 85 percent of the costs of a place at a public school (see Prop 1991/92:95), the idea being that parents should make compensatory payments. This state of affairs was also continued by the subsequent Social Democratic government (see West/Nikolai 2017).

The change that was crucial to VET, however, was the extension of VET programmes to three years, the consequence of this being the establishment of equivalence between vocational and general education. Greater freedom of choice of the components of the programmes (subjects and courses) was also introduced. This was mainly reflected in an expansion of the general subjects and an accompanying mandatory requirement for extra-school practice in the workplace (see Nilsson 2008, p. 88). Because the municipalities now bore greater responsibility for equipping schools, some local authorities withdrew from the provision of all vocational programmes for cost reasons (see Lundahl 2002). In 1993, the private schools were also afforded the opportunity to offer vocational programmes if Skolverket in its capacity as the National Agency judged the quality to be appropriate. This led to the establishment of "industry schools" which were formed as attachments to large companies such as ABB, Volvo, SAAB, Scania and Perstorp and rapidly attained considerable popularity (see Lundahl 1998).

The reform's entry into effect coincided with the economic crisis of the 1990s in Sweden, which led to an enormous increase in youth unemployment and greater interest on the part of young people in vocational training programmes whilst also causing massive criticism of prevailing VET policy (see Nilsson 2008). The consequence was a close succession of reforms and changes which are now virtually impossible to trace in

detail. The defining aspects, however, were a turning away from the strong central state and a strengthening of self-governance of the education systems by the citizens themselves. It was now incumbent on them to make decisions for a future that was no longer predictable and to assume responsibility for this.

> "A strong state was no longer seen as able to plan the lives of the citizens in an uncertain future. Instead citizens were expected to equip themselves with knowledge and skills and thereby become 'empowered', so they could flexibly adapt to changing societal circumstances that nobody could steer or purposefully contribute to" (Wärvik/Lindberg 2018, p. 288).

As a consequence, the three-year VET programmes also came to be seen as the first stage of vocationally-oriented education. The councils responsible at the municipalities and schools made the decisions, something which was sensible and proportionate at a local level. Although they were also responsible for linking the school with company practice, this function was only fulfilled in exceptional cases and thus continued to rest with individual teachers (see ibid.).

On the one hand, the reform aimed to achieve a broadly based education which was aligned against the economic spirit of the age (see SOU, 1992:94, p. 57). On the other, it sought a form of self-governance which would support qualification for employment. Only a few changes took place at the curricular level, however. In 1994, therefore, the government enacted a total of 16 different national education programmes for the upper secondary sector, 14 of which were vocational. It also provided a broad opportunity for local adaptation and for occupational specialisation. In addition to this, there were possibilities for individual adjustment via choices made by the pupils themselves and for specific student support on the basis of decisions made by teachers (see Lundahl et al. 2010, p. 49).

The most recent reforms up until 2011 and current developments

In 1996, the government reformed higher VET, i.e. the area which follows on from the vocational training programmes at the upper secondary level, in order to address youth unemployment and to align qualifications more closely to the needs of the labour market (see Lindell/Stenström 2005, pp. 195ff.). This took place against the background of the negative results produced by enquiries in 1995 into higher VET (kvalificerad Yrkesutbildningen, KY) (see SOU 1995:38). The aims of the reform were closer alignment to the actual requirements on the labour market and implementation of learning in the workplace (see Persson Thunqvist 2015, p. 6).

The number of vocational programmes was also reduced to twelve, and an expansion of the higher education preparation programmes and of the specific support programmes (introductory and transition provision) took place (see Table 21).

Table 21: Upper secondary programmes after 2011

Vocational programmes	Higher education preparation programmes
Children and leisure	Business and economics
Building and construction	Aesthetics and art
Electricity and energy	Humanities
Vehicles and transport	Natural sciences
Craft trades	Social sciences
Hotel and tourism	Technology
Industrial engineering	
Agriculture and nature	Introductory/transition provision
Restaurants and food	Individual alternative
Building technology and property	Career preparation
Commerce and administration	Individually selected programme
Healthcare and nursing	Language support
	Vocational orientation

Source: Own listing based on Skolverket 2019b

The Commission of Enquiry for the upper secondary sector, which presented its final report in 2008 (see SOU 2008:27), laid the groundwork for the later reform. The reform of 2011 once again reinforces the differences between the higher education preparation programmes and the vocational programmes at the upper secondary level (see Persson Thunqvist 2015). In a certain way, it reverses many of the reforms of the 1990s. The vocational programmes are seeing an increase in their workplace-related elements in general terms and in particular in the new approaches to the dualisation of training in gymnasieskola-based apprentice training at the upper secondary level (gymnasial lärlingsutbildning). Broberg gets to the heart of this in her historical consideration:

> "The workshop schools of the early 20th century brought work to the students in school, while the modern VET brings the students to work outside the school" (2016, p. 182).

In the 1990s, programmes which in a sense represented an individual mixture of vocational and general components were still being approved. These were now abolished, and the proportion of general subjects in the vocational programmes was reduced (see Wärvik/Lindberg 2018, p. 292). The aim is to facilitate a more direct transition to the labour market for young people, the key objective of vocational training according to the GY2011 (see Skolverket 2011a). The school is responsible for the organisation and guarantee of a high-quality phase of workplace-linked learning (Arbetsplatsförlagt lärande, WBL). The new National Plan of 2011 stipulates a standardised duration of

15 weeks for this (see Skolverket 2011a, pp. 23ff.). The law describes the objective as follows:

> "Workplace-based learning (WBL) means that pupils complete part of their training at one or more workplaces outside the school. The aim of vocational education and training is not only occupational knowledge. There is also a focus on ensuring that learners understand work culture and that they develop an occupational identity by becoming part of the employment community. For this reason, WBL is a key component of every VET programme. WBL means that learning takes place in courses or in parts of courses at one or more workplaces. WBL should therefore be regulated by the specialist plans" (ibid., p. 23, translation through author).

This section makes it clear that company practice has grown in significance for VET in Sweden. Deviations by the school from the 15 weeks stipulated are only permissible if a company closes and no other possibility is available (see ibid.). The previous assumption had been that a broad basis of knowledge represented good preparation for working life. Now the view of the public debate has narrowed to focus on a relatively seamless transition to company work practice. The reform of 2011 has also led to a massive strengthening of gymnasieskola-based apprentice training. The aim is to achieve a huge expansion of the practical elements from the present 15 weeks up to at least 50 percent of learning time (see chapter 4.3.2).

A comparison of the proportion of young people who progress to vocational programmes, including those who enter gymnasieskola-based apprentice training with those taking part in higher education preparation programmes shows declining numbers that have currently fallen to 37 percent at the upper secondary level (see OECD 2018a, p. 2). Nevertheless, there are considerable variances between the regions in the number of pupils in vocational programmes. Proportions for the vocational programmes in rural areas are significantly higher than those in the towns and cities (see School Statistics of Skolverket 2018).[35] The attempts of Skolverket to create orientation to the needs of the labour market (this particularly concerns strengthening apprentice training and the regional colleges) and the possibility of receiving a higher education entrance qualification after completion of a vocational programme are both aimed at increasing attractiveness (see SOU 2017:77, pp. 58ff.). In a way, Sweden is simultaneously aspiring to two objectives which seem to contradict each other. These are specialisation and greater workplace orientation in VET, on the one hand, and retention of an adequate general education which permits a broad choice of higher education subjects, on the other. However, the fact that the institutes of higher education are increasingly placing

35 The following website provides information on the proportion of pupils in every upper secondary programme across the various regions: URL: **https://www.skolverket.se/statistik-och-utvarderingar/statistik-om-forskola-och-skola/sok-statistik-om-forskola-skola-och-vuxenutbildning?sok=SokA** (status: 07/08/2020).

special requirements on the admission of students to certain courses for which demand is very high sometimes makes it difficult to sustain the dual objective of trainees in the vocational programmes who are aspiring to a course of higher education study, as is illustrated by the typical VET history outlined in chapter 2.1. The slightly exaggerated quotation from a professor in the field of VET in Sweden also points in a similar direction:

> "If additional courses are not completed, the vocational programmes in Sweden mostly only permit commencement of a course of higher education study in theology or archaeology, because these are the areas in which demand for available places is so low" (translated interview in German with Viveca Lindberg, 9 December 2018, Mariehamn).

Skolverket is aiming to complete a review of the qualifications in the vocational programmes at the upper secondary level by 2019. There are a total of 179 vocational qualifications within these vocational programmes and within the introductory programmes with their own study goals, which arise from the specialisations contained in courses completed towards the end of the programmes, and the intention is for these to be updated with regard to outcome, contents and designations with the particular goals of meeting demand on the current labour market and of reflecting a level of competency which leads to employability (see Skolverket 2018a).

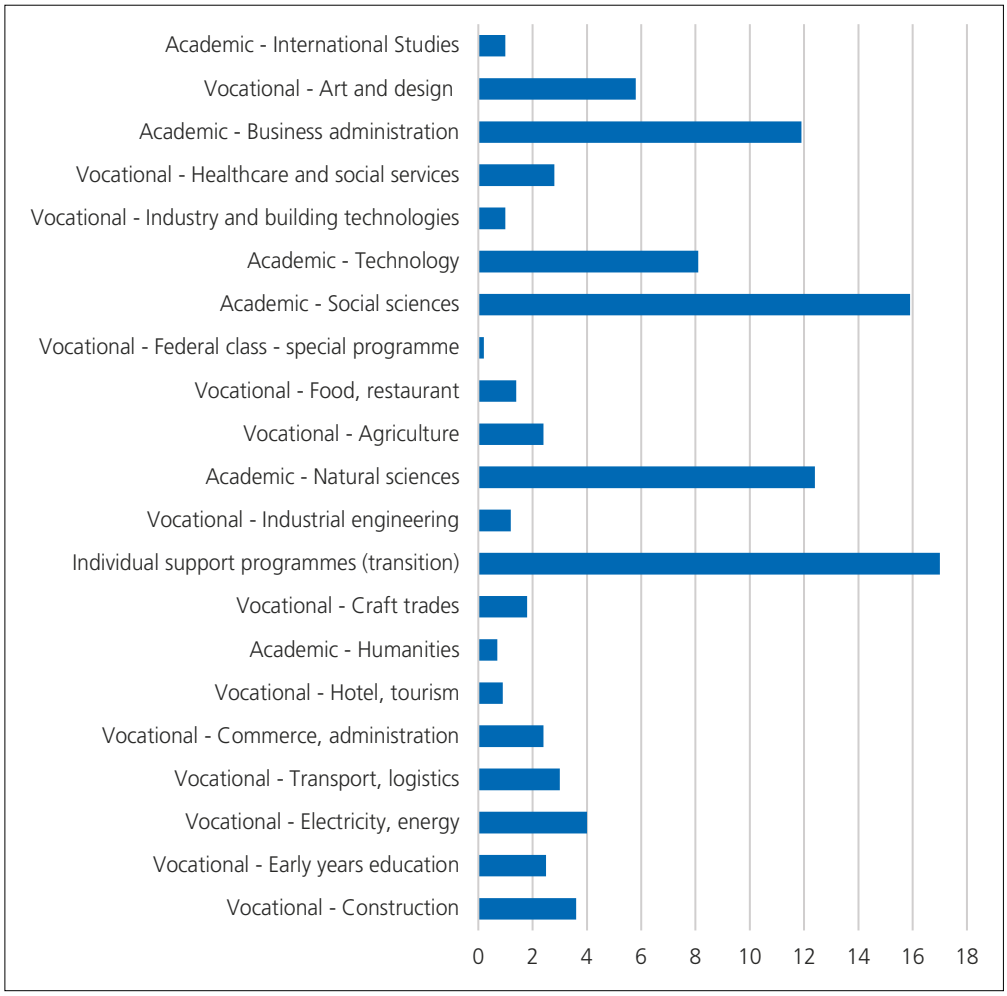
4.2 Structure of vocational education and training and provision

A consideration of the proportions of the various programmes at the upper secondary level[36] shows that the higher education preparation or vocational programmes now reach approximately 50 percent, whilst the "introductory programmes" (integration programmes which provide preparation for the actual programmes (language and development support), of which the individual programmes also form a part), account for a figure of 17 percent. The vocational programmes thus only account for slightly more than a third of pupils.

Figure 10 provides a more detailed insight into the distribution of pupil numbers across the individual programmes. The various integration programmes are summarised within the figure. It becomes clear that there are both very small and larger numbers of participants in the different higher education preparation programmes (designated here as "academic") and in the vocational programmes. Programmes only offered at a single school in Sweden because they are occupation-specific courses for which there is low demand are designated as federal classes in the figure.

36 Access to the statistics is available via the website of the National Agency for Education: URL: **https://www.skolverket.se/skolutveckling/statistik/sok-statistik-om-forskola-skola-och-vuxenutbildning?sok=SokB&vform=21&run=1&flik=s** (status: 20/02/2022).

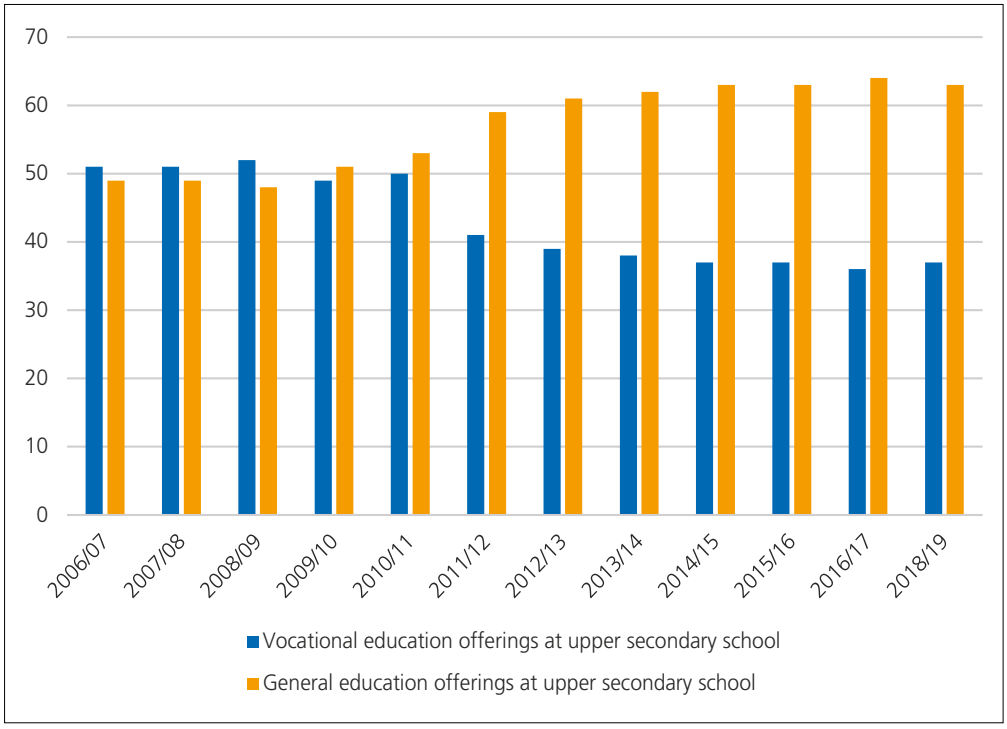
Figure 10: Detailed pupil figures for the upper secondary programmes 2020 (in %)



Source: Skolverket Statistik (URL: **https://www.skolverket.se/statistik-och-utvarderingar/statistik-om-forskola-och-skola/sok-statistik-om-forskola-skola-och-vuxenutbildning?sok=SokC&verkform=Grundskola+och+sameskola**, status: 11/06/2026) (translation through author)

With regard to the development of pupil proportions in upper secondary programmes over the past years, a 2018 publication by Cedefop shows a huge decline in the vocational programmes since the reform of 2011 (see Figure 11), which actually had the opposite objective. Pupils are clearly less attracted by a higher degree of job and labour market orientation than educational policy had expected.

Figure 11: Pupil figures divided in academic and vocational programmes in upper secondary school 2020



Source: Own figure based on Skolverket 2018

Higher VET plays a significant role alongside higher education study programmes (see OECD 2013). This refers to the vocational part of adult education, which comes under the responsibility of the National Agency for Higher Vocational Education (Myndigheten för Yrkeshögskola/MYH) (see Bollin 2017). Table 22 illustrates the high significance of higher VET, which has around 20,000 entrants per year and a good subsequent rate of employment.

Table 22: Data on higher vocational education and training (2017)

Data	Value
Institutes of higher vocational education and training	220
Approved programmes, of which begun this year	1,965 768
Valid applications per place	1.9
Number of participants	50,300
Average age (years)	31.4
Proportion of migrants	19%
Proportion of women	54%
Entrants	20,300
Success rate	73%
Employment in line with training	68%
Tax money spent (€ millions)	Approx. 180

Source: Myndigheten för Yrkeshögskola 2018

Youth unemployment[37] (15 to 24-year-olds) serves as an indicator for transitions from VET to the labour market. This was 17.2 percent in 2018, above the EU average level. The rate of inactive young people (NEET) was 3.3 percent amongst 15- to 19-year-olds in 2017. The corresponding figure for 20- to 24-year-olds was nine percent. Both of these figures are well below the EU average. OECD figures from 2019 further show:

> "About 4.6 % of tertiary-educated 25–29-year-olds are NEET, compared to 10.8 % on average across OECD countries, while the share increases to 7.8 % among those with an upper secondary or post-secondary non-tertiary education (OECD average: 16.8%). Among 25–29-year-olds without upper secondary education, 24.6 % are NEET in Sweden, compared to 40.1 % on average across OECD countries" (OECD 2019, p. 2).

An analysis by Engdahl and Forslund from the year 2015 shows poor labour market opportunities for the following three groups in particular:

> "(...) high-school dropouts, young persons with immigrant background and, especially, young disabled persons. It seems particularly problematic that the group of high-school dropouts is increasing and the group of young disabled both is increasing and doing worse over time. Another possible problem is that young Swedes with tertiary education enter the labour market at above-average ages" (Forslund 2019, p. 8).

37 Statistics from 2013 indicate that 60 percent of unemployed young people have been out of work for less than three months. This demonstrates that unemployment arises at the transition between school and work and is not of a structural nature (see Ministry of Employment Sweden 2014, pp. 3ff.).

Table 23 provides a summary of the main transition to or from vocational education and training.

Table 23: Educational transitions in comparative terms Sweden – EU (in %)

Indicator		Sweden	EU Ø
Early school leavers (18–24 years old) 2017		7.7	10.66
Early school leavers (18–24 years old) 2017	Native-born	6.2	9.6
	Foreign-born	15.5	19.4
NEETs (of all 20–24 years old) in 2017		9	14
Employment rate of recent graduates by educational attainment (age 20–34 having left education 1–3 years before recent year) 2017	ISCED 3–4	84.4	74.1
	ISCED 5–8	91.7	84.9
Share of 25–34-year-olds with upper secondary or post-secondary non-tertiary as their highest attainment (2018)		35	41
Percentage of first-time upper secondary graduates with a vocational qualification(2017)		33	40
Employment, unemployment, and inactivity rates of 25–34-year-olds with upper secondary or post-secondary non-tertiary (2018)	Employment rate	85	78
	Unemployment rate	5	7
	Inactivity rate	11	16

Sources: Own representation based on European Commission (2018), p. 3; OECD (2019), p. 6

4.3 Summary of forms of provision of vocational education and training

The following remarks offer a summary of existing officially regulated VET provisions for which a standardised curriculum is stipulated. Since anyone in Sweden is permitted to set up a company which provides craft trades services, a multitude of different types of unregulated training is conceivable. These may take place in the shape of semi-skilled or auxiliary tasks undertaken after completion of the Grundskola or Gymnasieskola. One Waldorf school leaver, for example, reports a "contractless" apprenticeship with a master bookbinder who trained in Germany. Over a period of three years, he was shown virtually all techniques and production measures and received the necessary skills to exercise this craft trade professionally himself (interview with Ruhi Tyson, November 2018, Stockholm, see Tyson 2017). These are presumably exceptions, but they exist in Sweden because of the low level of regulation of company-based training by the chambers and guilds. Also, regulated apprenticeships after upper secondary school exist in very few sectors (see chapter 4.3.5). The following fundamental possibilities exist.

- Completion of a "training programme" within the scope of upper secondary school which encompasses 15 weeks of practical placement (see chapter 4.3.1).

- Completion of gymnasieskola-based apprentice training which involves significantly more of a practical element but which remains within the responsibility of the school and enables learners to retain the status of pupil (see chapter 4.3.2).
- Completion of training which supports people with particular limitations (see chapter 4.3.3).
- Entry into higher VET after gymnasieskola-based training or from employment without training (see chapter 4.3.4).
- Completion of apprentice training in some sectors after attending a vocational programme at upper secondary school (see chapter 4.3.5).

4.3.1 Vocational education and training at a gymnasieskola at upper secondary level II

Gymnasieskola-based VET is the standard route to a vocational qualification in Sweden and provides a formal link between vocational training and the acquisition of a higher education entrance qualification within a school setting. A 15-week company-based practical placement is stipulated in all vocational programmes. This mostly increases in scope over the three years of training and is mainly focused on the final year (interviews with vocational school teachers, November 2018, Västerås). Support programmes, referred to in Swedish as Introduktionsprogramme[38] exist alongside the vocational programmes. Some of these provide preparation for vocational programmes and are aimed at disadvantaged persons. There are twelve different vocational programmes within the scope of gymnasieskola-based VET at the upper secondary level (list follows). These are, in turn, specialised and differentiated by means of optional courses (see Table 23), with the result that they may lead to over 100 different specialised qualifications. The twelve vocational programmes (see Skolverket 2018a - translation through author) are: children and leisure, building and construction, electricity and energy, vehicles and transport, craft trades, hotel and tourism, industrial engineering, agriculture and nature, restaurant and food, building technology and property, commerce and administration, and healthcare and nursing.

A number of special VET programmes, which offer training in areas such as dance, aviation, and shipping operations and take place at specialised schools, exist alongside the twelve vocational programmes recorded here (see Skolverket 2011a, p. 16).

A somewhat more detailed portrayal of the possibilities and structures of vocational programmes at upper secondary school (see Table 24) will be provided using the example of the “craft trades” vocational programme, which offers qualifications for various areas of the craft trades. Block A initially denotes the core upper secondary subjects. The subjects stated in Block B are common to all occupational specialisms in the “craft trades” vocational programmes. Block C lists special subjects for carpentry, floristry,

38 Because these programmes provide preparation for vocational training rather than constituting a formal component of it, a detailed presentation has been included in chapter 3.4.3, which deals with upper secondary education.

hairdressing and other craft trades occupations. They are followed by the optional subjects/courses via which specialisation takes place. Because the number of subjects to be chosen is aligned to the respective vocational programme, no single standard figure can be given in respect of how many subjects must be taken. This is guided by individual interests, by respective support needs, and by the occupational specialisation.[39]

The number of points signalises the significance of the subject for the respective vocational programme. Level is mostly indicated by the positioning of the subject in the course of the respective vocational programme. The detailed descriptions for the subjects placed lower down thus exhibit a higher technical level. Examples of occupational fields covered by the craft trades vocational programme are glass blowing, carpentry, hairdressing, flower arranging, smithery, hair and make-up styling, interior construction, ceramics, saddle making etc. (see Skolverket 2022).

Taking the craft trades vocational programme as an example (see ibid.), it exhibits the following learning objectives.

- Knowledge of the history and development of the craft trades
- Knowledge of working conditions and of development opportunities in the respective sector
- Knowledge of style periods and of the skills and techniques associated with these and knowledge of application and visualisation
- Knowledge of the origin, properties, functions and areas of application of materials and products, knowledge of their environmental impacts and knowledge of how their manufacture and handling affects the environment
- Knowledge and selection of materials in accordance with areas of application, costs, quality and environmental impacts
- Significance of the physical and psychosocial working environment
- Knowledge of laws and of other regulations and of agreements in the respective craft trades sector

Alongside these learning objectives, there are also stipulations for evaluation of performance. Within the context of knowledge of materials, for example, the following differentiations are made.

39 The website of the National Agency for Education *Skolverket* lists examples of subjects which need to be taken for the various vocational qualifications. Boat building is one such instance (see Skolverket n. d.).

Table 24: Subjects for the Hantwerk vocational programme with points[40]

A: Core upper secondary subjects			
English (100)	History (50)	Sport/health (100)	Mathematics (100)
Natural sciences (50)	Religion (50)	Social sciences (50)	Swedish (100)
Swedish as a second language (100)			
B: Subjects common to all vocational specialisms			
Entrepreneurship (100)	Craft trades (200)	Craft trades science (100)	
C: Special subjects for carpenters, florists, hairdressers, textile designers; other craft trades occupations			
Carpentry (400)	Craft trades science (100)	Floristry (400)	Craft trades science (100)
Textile design (400)	Craft trades science (100)	Hairdressing (400)	Craft trades science (100)
D: Optional subjects/courses related to the specialism			
Administration/billing (100)	Company communication (100)	Architecture (100)	Images/drawing (500)
CAD (100)	Computerised sample processing (200)	Computer-aided production (200)	Design (300)
Digital construction (200)	Electrical engineering (200)	Shaping (500)	Business management (600)
Manual sample production (200)	Commerce (100)	Craft trade (850) (specialisation in the respective craft trades)	Craft trades science (100)
Sales and customer service (300)	Procurement and logistics (200)	Chemistry (100)	Alarm and security technology (100)
History (250)	Massage (200)	Mathematics (300)	Medicine (200)
Natural sciences (150)	Programming (100)	Social sciences (150)	Swedish (100)
Swedish as a second language (100)	Applied programming (100)	Display design (300)	Botany (200)

Source: Skolverket 2022 (website providing information of the craft trades vocational programme, valid until autumn 2022; translation through author)

40 Points at upper secondary school approximately reflect the number of hours, although autonomous learning periods of the pupils are also included in the calculations. "One standard, which applies in schools we have visited, is as follows. 96 hours are needed for a 100-point course in a vocational programme, and a 100-point general course takes 87 hours. This standard is calculated by dividing the guaranteed teaching time in a vocational programme (2,430 hours) and in a general higher education preparation programme (2,180 hours) by the total number of points covered by the programmes (2,500 points)" (Skolverket 2015, p. 14, translation through author).

To achieve the best mark of A:

> "Pupils describe the function and benefits of the respective material and product in a detailed and balanced way. They also give a detailed description of their use. On the basis of pre-stipulated application purposes, they are able to select the appropriate material or product in each case and explain why they have opted for this material or product as opposed to others. They are also able to formulate alternatives whilst taking due account of the economic and ecological factors informing their decision. They give a detailed description of the impacts on production and of the effects for the environment caused by handling the material or workpiece and offer an insight into the complex relationships between production and environmental impacts" (Ämnesplan Hantverk 2022, p. 6, translation through author).

To achieve the lowest pass mark of E:

> "Pupils describe the function and nature of materials and products in basic terms and provide basic indications of their use at work. On the basis of pre-stipulated results, they are able to suggest usable materials and are able to point to a few fundamental correlations regarding quality and the environment. They are able to provide indications of the correlation between production, material and the environment" (Ämnesplan Hantverk 2022, p. 8, translation through author).

The craft trades vocational programme encompasses 46 courses with different numbers of hours and varying degrees of specialisation. Some examples of these are as follows

- Carpentry 1–6
- Floristry 1–6
- Hairdressing 1–6
- Textile design 1–6
- Craft trades technology 1–6

Taking the content of the highest level without specialisation in the field of carpentry as an example, the following contents/competencies are found in course 6. Varied techniques in complex constructions. Efficiency and creativity in production work with a focus on profitability and quality of the result. Environmental aspects with regard to production work and transport of materials are covered within this context.

- Working in project contexts. The person's own occupational development opportunities and technological development of work are addressed within this context.
- Planning of procurement and of the price structuring of products, goods and services for better profitability, including covering possibilities to display goods.

- Sketching technology for the presentation of ideas to customers and for the further development of creative joinery designs. In conjunction with technical communication within the sector.
- Analysis of colour, form and proportions for improvement of the quality of the result.
- Communication on the work process and evaluation and analysis of the final result.
- Digital techniques in production work and for the description of work processes and results.
- Ergonomics in the workplace in accordance with the safety regulations and use of protective equipment including attention to the environmental consequences, e.g. via recycling and sorting of waste.
- Customer-oriented and responsible actions in production, distribution and service.
- Creative and positive actions in service situations. Body language and cultural differences in communication with customers. Application of good sales ethics (see Ämnesplan Hantverk 2022, p. 21, translation through author).

The vocational programmes at the upper secondary level have been exhibiting decreasing participation numbers for some years, particularly on the part of the pupils (see Persson Thunqvist 2015). Nevertheless, in this case, too, the figures vary widely both regionally and in the respective training programmes[41]. The reasons for the declining tendencies are presumably connected with the rising attractiveness of the provision of academic education, which, if nothing else, is also being fostered by OECD policy. Another cause, however, is the fact that increased workplace orientation has led to greater difficulty of access to all higher education programmes (see Andersson/Lindberg 2022). Further conspicuous aspects are revealed if pupil numbers are considered against the background of origin (see Table 25).

41 See the statistics of the National Agency for Education: URL: **https://www.skolverket.se/skolutveckling/statistik/sok-statistik-om-forskola-skola-och-vuxenutbildning?sok=SokB&vform=21&run=1&flik=s** (status: 10/02/2022).

Table 25: Origin of pupils in upper secondary programmes

	Number of pupils who applied (first choice)				Number of pupils admitted			
	Absolute figures				Percentage figures			
	Total	Born in Sweden and at least one parent from a foreign background	Born in Sweden, foreign parents	Born abroad	Total	Born in Sweden and at least one parent from a foreign background	Born in Sweden, foreign parents	Born abroad
Gymnasieskola overall	134,717	88,677	11,693	28,660				
Vocational education and training	**47,913**	**31,705**	**2,796**	**10,661**	**55.2**	**67.9**	**48.0**	**29.8**
Children and leisure	4,966	3,125	370	1,265	54.0	67.7	45.9	28.8
Construction and plant technology	6,453	4,724	252	1,100	56.5	68.1	49.6	25.6
Electricity and energy	6,787	4,390	450	1,451	57.5	71.8	51.3	31.0
Cars and transport	6,383	4,279	316	1,344	49.2	62.0	45.9	21.9
Commerce and administration	3,956	2,419	399	976	53.5	68.3	40.1	28.0
Craft trades	3,074	2,323	219	474	56.4	64.8	37.9	29.5
Hotel and tourism	1,166	823	64	235	66.6	76.8	50.0	45.1
Industrial engineering	2,008	1,367	73	427	58.2	70.3	50.7	31.9
Agriculture	3,542	3,316	53	155	62.3	62.9	58.5	50.3
Restaurants and food	1,967	1,546	71	299	68.2	73.9	67.6	46.8
Real estate	1,538	1,051	113	280	58.8	70.4	62.8	29.6
Healthcare and nursing	5,591	2,048	387	2,525	47.6	74.5	51.9	32.1
Nationwide federal classes	482	294	29	130	38.0	49.0	31.0	18.5

	Number of pupils who applied (first choice)				Number of pupils admitted			
	Absolute figures				Percentage figures			
	Total	Born in Sweden and at least one parent from a foreign background	Born in Sweden, foreign parents	Born abroad	Total	Born in Sweden and at least one parent from a foreign background	Born in Sweden, foreign parents	Born abroad
General (higher education preparation)	**76,747**	**54,395**	**8,443**	**12,728**	**70.4**	**77.3**	**61.3**	**50.7**
Trade and industry	17,592	13,118	2,015	2,252	68.6	74.4	57.9	48.0
Aesthetics	7,568	6,304	345	814	74.0	76.4	67.8	60.9
Humanities	723	553	59	105	74.7	77.8	54.2	71.4
Natural sciences	16,975	10,325	2,366	3,998	72.4	82.3	66.4	53.4
Social sciences	20,841	15,036	2,675	2,925	68.2	74.4	57.4	48.5
Technology	11,883	8,651	886	2,103	72.4	81.4	64.8	43.8
International Baccalaureate	1,165	408	97	531	65.2	80.9	67.0	61.2
Support programmes overall[42]	**10,057**	**2,577**	**454**	**5,271**	**-**	**-**	**-**	**-**
Individual alternative	2,455	1,261	140	842	-	-	-	-
Career preparation	425	142	49	192	-	-	-	-
Individually selected programme	1,339	565	108	516	18.7	23.5	25.9	15.9

Source: Own depiction based on Skolverket 2019b (translation through author)

42 An explanation of the differences between these programmes can be found in the section on upper secondary education in chapter 3.4.3.

Table 25 differentiates the Gymnasieskola programmes and applications and applicants accepted in its rows and columns, respectively. Pupils are differentiated according to whether one or both of their parents are from a migrant background and according to whether they were born abroad.[43] The data from Table 25 makes it clear that about 35 percent of pupils from a migrant background applied for vocational programmes, whilst around 57 percent sought to enter the higher education preparation courses. Only 7.5 percent applied for the support programmes. It is revealed that a lower percentage of pupils born abroad in particular progress to vocational programmes. In the agricultural programmes, only around 50 percent of pupils who make an application and are deemed to be competent succeed in gaining admission. High figures of 46.8 percent and 45.1 percent are shown in the areas of "restaurant and food" and "hotel and tourism", respectively.

4.3.2 Gymnasieskola-based "apprentice training" at the upper secondary level (Svensk Gymnasielärling) and its current challenges

The term "apprentice training" encapsulates very different concepts.

> "The concept of the apprentice is subject to various interpretations, and vocational training carried out at upper secondary level differs in crucial aspects from the apprentice training that still exists in Sweden. Apprentice training is governed by collective wage agreements and takes place in a number of sectors following completion of school-based VET at the upper secondary level. New training agreements between the social partners in several sectors have now also led to other versions of apprentice training, which are referred to as youth jobs or occupational introduction. This makes the picture increasingly difficult to understand" (Panican/Olofsson 2012, p. 28, translation through author).

The structure of gymnasieskola-based apprentice training (gymnasial lärlingsutbildning) is a direct result of the reform of 2011, which aimed to increase the employability of those completing vocational programmes (see Berglund 2013, p. 1). Participants retain their status as pupils even though most training time is spent at one or more company-based training places (workplaces). For this reason, and despite the fact that the designation lärling (apprentice) is included in the name of the programme, they are pupils, rather than employees as in the training model in Denmark, Austria and Germany (see ibid., p. 2). Nevertheless, the intention is for this model to make it easier to acquire the vocational skills and knowledge, which Lindberg designates as vocational knowing within a direct field of action. The idea is also that it should extend beyond such skills and knowledge to incorporate ethical decisions (see Lindberg 2003a and 2003b). School-based apprentice training was introduced back in 1992 as a possible special route for pupils who did not fulfil the requirements of the general subjects and

43 Deviations between the individual absolute figures and the total are caused by missing data.

thus became part of the individual programmes which already existed as a special pathway (see Karlsson/Lundh-Nilsson/Nilsson 2016, p. 370).

A gymnasieskola-based apprentice training model was launched as a fixed-term project to run from July 2008 to June 2011 (see SFS 2007:1349) with the goal of initially implementing approximately 2,000 training programmes by 2011 but with the long-term aim of accommodating 30,000 upper secondary pupils in such training arrangements (see Cedefop 2018). The pilot phases actually succeeded in involving 13,000 pupils, but only 44 percent of those commencing training in 2008 went on to complete the programme by 2011 after the regular period of three years (see Berglund/Lindberg 2012, p. 2). The pilot project was conducted within the context of the later directive of 2011 (see SFS 2011:947). This was enshrined in law in 2014 and stipulated both fixed-term contracts of employment between the apprentices and the companies and payment of a wage by the employer (see SFS 2014:421).

This first model already specifies that the state should provide funding to support gymnasieskola-based apprentice training with the aim of facilitating the operation of such training programmes by the schools (see updated version of the directive of 2011 SFS 2018:104). The objectives are to encourage participation by the companies and to support and drive forward training for company-based training staff (see Skolverket 2018b).

> "School management bodies taking part in the experimental activity are awarded state subsidies to a maximum amount of SEK 57,500 (€5,750) per year of study for every upper secondary pupil participating. Employers which receive apprentices may spend state subsidies on the development of training at the upper secondary level and on remuneration of pupils. Maximum public expenditure on such development costs is SEK 10,000 (approx. €1,000) per year of study for every pupil participating. In addition to the total amount, a further maximum sum of SEK 10,000 (approx. €1,000) in state subsidies may be awarded per year of study during which a pupils takes part in training at the upper secondary level towards the remuneration trainees receive from the employer. This is possible if their mentor in the workplace has completed mentorship training which the Swedish National Agency for Education intends to introduce" (SFS 2014, p. 421 originally 2007, § 21, translation through author).

Since an agreement was reached between the social partners and the public sector, trainees have also received a training salary to be paid by the companies. The social partners in the metal industry, for example, concluded an agreement with regard to the regulation and remuneration of gymnasieskola-based apprentice training in 2017. This sets out that, depending on the year of training, learners are paid between 60 and 85 percent of the bottom collective wage level during their time in the workplace.[44]

44 URL: **http://gymnasielarling.se/wp-content/uploads/2018/08/Utbildningskontrakt-GLA-IN-exempel.pdf** (status: 11/06/2026).

The challenge of this intervention with regard to securing the imparting of the competencies which are to be acquired exists at several places. In terms of content, this means that 80 percent of vocational-related input needs to be taught in the workplaces (see Berglund/Lindberg 2012, p. 4). The new educational plan of 2018, like the other vocational programmes, stipulates the acquisition of a higher education entrance qualification. The aim is also that all theoretical aspects of VET should be achieved in occupational contexts. This means that systematic competency development must take place in the workplace and must be ensured on the part of the school (see Lagström 2012). The standardised 2,500 points for the upper secondary programmes are also to be achieved and secured in the workplace (see Table 26).

Table 26: Subjects and points of gymnasieskola-based apprentice training compared to the traditional vocational programme

Subject/area of competency	Upper secondary apprentice	Vocational programme
Swedish or Swedish as a second language	100[45]	200
English	100	100
Mathematics	100	100
Religion	50	50
History	50	–
Sports and health	50	100
Social sciences	50	100
Art	–	50
Natural sciences	–	50
Total	500	750
Vocational subjects, mandatory and optional	1,600	1,350
Project work[46]	100	100
Individual choice	300	300
Total number of points	**2,500**	**2,500**
Learning in the workplace (minimum)	**1,250**	**375**

Source: Kristmansson 2016, p. 7 (translation through author)

Investigations into this programme at the pilot phase (see Berglund/Lindberg 2012) and during the subsequent period (see Berglund et al. 2017; Kristmansson 2016; Paul 2017 and Andersson 2018) show that this new form exhibits strengths and weak-

45 100 points (*Gymnasialpoäng*) are the equivalent of 100 hours of teaching.

46 Both projects and the individual choice of subjects are allocated 100 or 300 points in all upper secondary programmes.

nesses. Paul (2017, pp. 265ff.) was able to demonstrate, for example, that texts, instructions and documentation are dealt with extensively in the workplace in the healthcare sector and that, to this extent, sufficient learning opportunities are offered to develop occupationally-specific decision-making competency with regard to written language. The "apprentices", however, are not involved in the development of these texts, and this means that a systematic school approach is essential for the necessary competency development. At the same time, it becomes apparent that different objectives are associated with the development of writing skills at the respective learning venues – texts as learning opportunities at school and texts as tools in the workplace. This indicates the necessity for an improvement in understanding between staff in the workplace and teachers at schools.

> "The study reveals that students' ability to take part in the writing of the workplace is not discussed between the school teachers and the workplace representatives" (ibid., p. 266f.).

The initial studies by Berglund and Lindberg (2012) already emphasise the significance of trilateral talks between teachers at schools, staff at companies and pupils. They make it clear that these joint discussions on the introduction of learners in the company are of huge importance for regular observation of the learning process. Ultimately, they must also form the foundation for the stipulation of marks relating to the subjects associated with learning in the workplace (see ibid., p. 1). These are new challenges of teachers, who are responsible both for identifying companies and workplaces which offer appropriately comprehensive learning opportunities and for the implementation of the systematic trilateral talks (see Andersson 2018). In some cases, it is revealed that not all learning opportunities are in place and that plans need to be adjusted individually. Because the teachers have no influence on work processes on site, difficulties arise in the fulfilment of learning tasks, and problems occur when weaker learners need to be placed and teachers are not willing to risk the loss of the company providing training. The different objectives pursued by the partners when negotiating this form of vocational training (see Andersson/Wärvik/Thång 2015) are reflected in the practical structuring of the training (see Kristmansson 2016).

This form of vocational training is, however, still only chosen by under ten percent of all young people in a cohort (see Andersson 2018, p. 260), and in certain circumstances, it may be hard to procure a sufficient number of high-quality company-based training places. Networking between the schools and the social partners within the local environment is thus accorded a high degree of significance, as is demonstrated by a current survey of school teaching staff (see Kaiser/Struck/Frind 2020). With regard to the company-based component at the upper secondary level, care must also be taken that the mentors in the workplace are in possession of sufficient vocational teaching competency to guarantee a positive company-based learning experience (see Cedefop 2009,

p. 30). Nevertheless, a number of examples can be found of upper secondary schools which promote this form of training in a targeted manner and offer a broad provision of apprentice training programmes. The upper secondary school in Uddevalla designates itself as a leader in this relatively new type of programme (see Uddevalla Gymnasieskolan 2015), and its former principal is now one of the heads of the Lärlingscentrum at Skolverket (interview with the Lärlingscentrum Skolverket 22 February 2019). A more recent survey carried out by the West Sweden Chamber of Commerce also indicates the successes the new programme has enjoyed.[47]

4.3.3 Support-oriented vocational education and training provision

At this point, it is important to refer back to Sweden's inclusion-oriented educational policy. This is also to be found in the preliminary remarks to the upper secondary curriculum:

> "Teaching should be adapted to each pupil's circumstances and needs. It should promote the pupils' further learning and acquisition of knowledge based on pupils' backgrounds, earlier experience, language and knowledge. The Education Act stipulates that the education provided in each school form and in school-age education should be equivalent, regardless of where in the country it is provided. National goals specify the norms for equivalence. However, equivalent education does not mean that the education should be the same everywhere or that the resources of the school are to be allocated equally. Account should be taken of the varying circumstances and needs of pupils. There are also different ways of attaining these goals. The school has a special responsibility for those pupils who for different reasons experience difficulties in attaining the goals that have been set up for the education. For this reason, education can never be the same for all. The school should actively and consciously promote the equal rights and opportunities of pupils, regardless of gender. The school also has a responsibility to combat gender patterns that limit the pupils' learning, choices and development. How the school organises education, how pupils are treated and what demands and expectations are made of them all contribute to shaping their perceptions of what is female and what is male. The school should therefore organise education so that pupils meet and work together, and test and develop their abilities and interests, with the same opportunities and on equal terms, regardless of gender" (Skolverket 2018d, p. 6).

The existing special programmes within the context of the Swedish upper secondary school have already been described in chapters 3.4.3., 3.4.4 and 3.4.5. It is clear that the individual programmes (individuella program) exhibit different lengths and contexts and may fundamentally be carried out by all upper secondary schools in order to meet the needs of pupils who are unable to participate in any of the existing national voca-

47 URL: **https://www.vastsvenskahandelskammaren.se/globalassets/formular/kompetensforsorjning/rapporter/glu-vs-gla-2019-vastsvenska-handelskammaren.pdf** (status: 11/06/2026).

tional programmes (see Cedefop 2009). The most frequent cause of restricted opportunities is inadequate learning performance in the subjects of Swedish, English and mathematics. The aim of the special programmes is to facilitate a later switch to a national or regional programme for these pupils. If this is not achieved, then those completing the stipulated curriculum are issued with a final assessment (training certification). The quantitative proportions of participants are shown in Figure 10 in chapter 4.2.

In the individual programmes, an attempt is made to focus on the skills that need to be fostered and to structure the courses appropriately wherever possible. Despite this egalitarian goal cited at the start of the chapter, there is criticism of the implementation, which leads to disadvantage in a regional and individual regard. In her study, Monica Johansson was able to show that support structures differ both between schools and between the programmes selected (see Johansson 2017, p. 63). In the "Introduktionsprogramme", learners only have recourse to the support structures and to teaching staff. They are unable to participate in the support structures of other programmes, although this is possible the other way around. Pupils in the "Technology" higher education preparation programme, for example, can benefit additionally from the mathematics support courses which take place during the afternoon, whilst pupils in the area of healthcare and social services are free to decide whether they wish to avail themselves of this extra assistance (see ibid., p. 72).

4.3.4 Higher vocational education and training (YH-utbildningar)

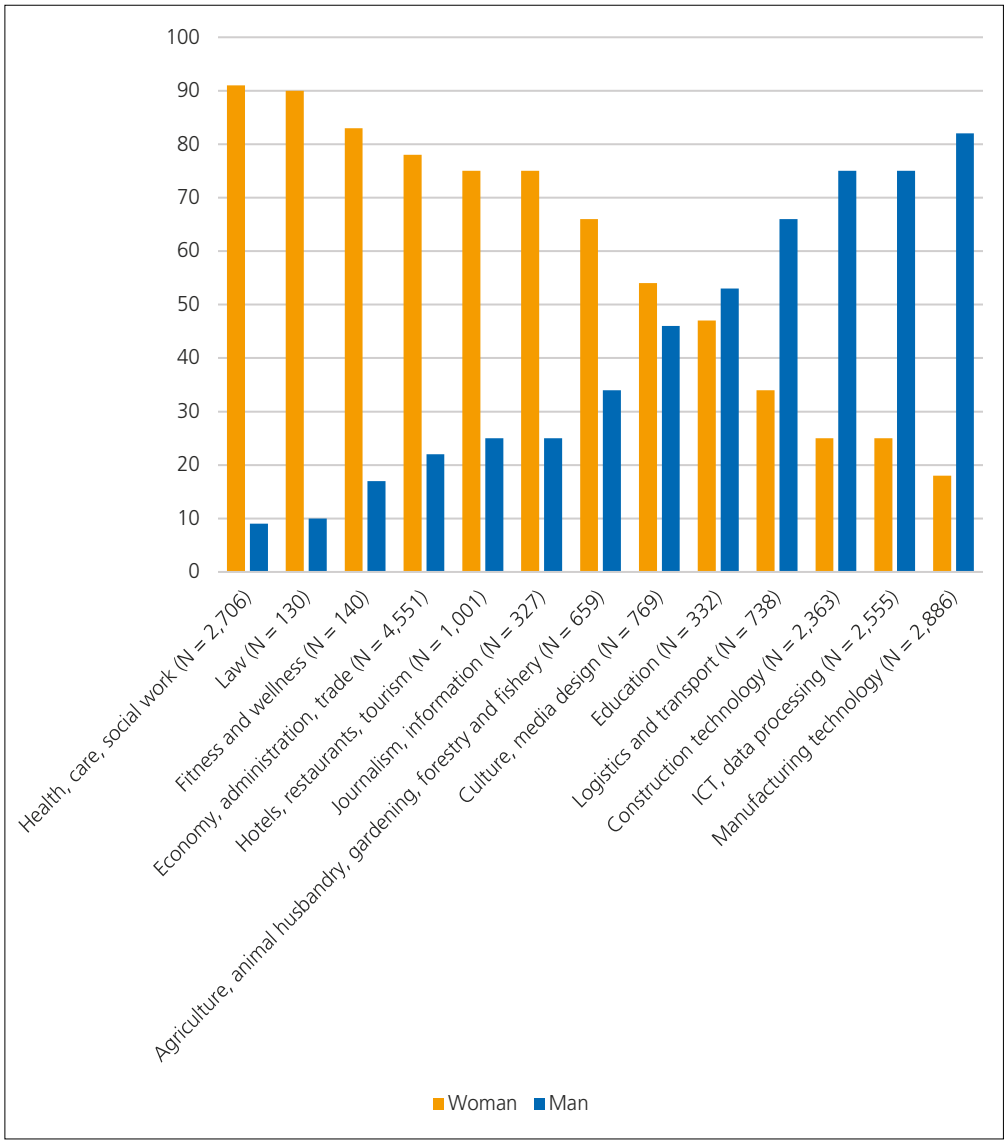
The National Agency for Higher Vocational Education (Myndigheiten Yrkeshögskola, MYH) (see chapter 3.2) is responsible for higher VET in Sweden. Until 2013, higher VET was organised outside higher education programmes in the form of kvalificerande Yrkesbildning (KY) and represented a very flexible higher VET system at the higher education level (see Yhutbildningar 2019). It was and is a combination of learning in the workplace and supplementary school-based instruction/attendance of additional courses. Depending on regional labour requirements, schools, institutes of higher education and – predominantly – private providers developed courses of varying durations with the aim of covering respective needs and of making qualified staff available to the labour market. The designation changed to YH-utbildningar in 2013. The reason for altering the name was to make it clear that this training level is equivalent to higher education (see Lag 2009:128). A law passed in 2009, which was revised in 2016 and 2018 (SFS 2016:1183 and SFS 2018:1352), spells out the objective of the continuing training programmes. This is to impart relevant skills and knowledge by building on the national upper secondary training programmes. The aim is for competencies taught to be aligned to current work processes as well as having a firm base in scientific theory (see ibid., § 4ff.).

The fundamental principle here, too, is that programmes are free of charge for students except for teaching materials. Fees may be incurred if programmes are conducted

on behalf of companies. Such cases, however, need to be approved by the authorities (see ibid., § 8ff.). The law sets out flexible rules regarding qualification of teaching staff deployed, and virtually all qualifications are accepted as a prerequisite. The provider is merely required to commit to competency development on the part of its staff. One of the consequences of this is that employment at these training institutions is not recognised as practical phases in connection with the courses of study undertaken by vocational school teachers (see chapter 5.4). The openness of the statutory regulation makes sense in many instances. The main aim of the system is to facilitate refresher training for current needs, meaning that state-of-the-art technologies in companies become an object of learning.

Figure 12 shows the high degree of significance of technology-oriented higher VET or advanced training programmes. Alongside the area of healthcare, nursing and social work, most participations are recorded in provision in technology and development followed by the growing area of commercial programmes in the widest sense.

Figure 12: Number of persons admitted to higher vocational education and training by training programme and gender (2016)



Source: MYH 2017, p. 12 (translation through author)

The providers of higher VET, regardless of whether they operate in the private sector or are public institutions such as schools, are required to have a special council in place for every programme offered. The membership of these councils is made up of the regional social partners (see Ministry of Education and Research Sweden 2013a, p. 9).

Involvement of local companies is not restricted to planning. They also participate in integrating learning opportunities in the companies (see Littke/Thång 2015) and in the acquisition of suitable teaching staff for the respective specific courses. The length of the programmes ranges from five months to a maximum of two years on a part-time basis. The number of participants in Sweden increased more than threefold between 2001 and 2011 (see OECD 2015, p. 31), and the OECD's comparative study states that the system of the National Agency, which awards funding to cooperative associations of training providers, is very much a prime example of a quality-assured flexible system (see ibid., p. 54). Admission requirements are relatively openly formulated and permit the recognition of competencies acquired by informal means. Nevertheless, the OECD Report (2015, p. 7) contains a number of critical points.

- There are limited opportunities for part-time teaching in post-secondary VET, which lead to recognised qualifications within the meaning of vocational programmes at the upper secondary level, and this sometimes makes access more difficult for adults in the world of work.
- Transition from higher VET to higher education is difficult in some cases because there are no systematic regulations governing credit transfer.
- The development of a systematic qualifications framework for the whole of the post-secondary system and for higher education would help increase the consistency of qualifications. This could encourage an effective linking of these areas as well as delivering other valuable benefits.
- There are gaps in learning opportunities in the workplace in the higher VET programmes.
- Further expansion of higher VET is attractive, but this will depend on the level of demand form companies.

A longitudinal study conducted between 1996 and 2008 showed that higher VET exerts positive effects on the income situation of participants, which doubtlessly forms part of the motivation to participate alongside the aim of securing long-term employment prospects. Compared with programmes at the upper secondary level and entry into the labour market without completion of higher VET, income grows by about five percent more on average per year as a result of participation in higher VET.

> "The annual return to AVET[48] seems to be in the range of 3.5 to 7.5 percent. Such estimates of vocational education are higher than for comprehensive education. Thus, on average, individuals taking AVET programs receive higher earnings than those participating in comprehensive education programs" (Andersson/Nabavi/Wilhelmsson 2014).

48 Note by the author: AVET stands for advanced vocational education and training.

4.3.5 Post-secondary "apprentice training" (Yrkesintroduktionsanställning)

As already indicated, the vocational programmes at the upper secondary level tend to be wide-ranging based. Those who complete these programmes are subsequently able to enter the labour market directly, but much is learned and reinforced during initial employment. Gymnasieskola-based apprentice training is a more recent deviation from these training pathways (see Skolverket 2013a). Special regulations have, however, existed in some sectors for many decades. These permit certain tasks to be performed only after systematic training has taken place and are aligned to the traditional company-based apprentice model (see Karlsson/Lundh-Nilsson/Nilsson 2016). Examples include the construction industry and the skilled electrical trades. These exceptions are governed by a separate directive with statutory status (SFS 2013:1157, last amended via SFS 2016:428). The prerequisite is that there is an existing agreement in the sector between the collect wage partners which stipulates such company-based VET with a contract of employment (Yrkesintroduktionsanställningar/YA-anställningar) (see Installatörsföretagen 2019a). The intention of the social partners who were signatories to the Agreement of Saltsjöbaden in 1938 – regulation of competency development in their own sectors via collective wage agreements – thus lives on in certain niche areas (see chapter 4.1). One of the most recent agreements relating to electrical installations was revised and renewed as recently as 2017 (see Avtal 2017). This governs the following provisions.

- Admission of trainees to the occupation of electrician
- Agreements on the curriculum and its contents
- Salary during the period of training

Employers paying less than the collective wage agreement stipulates may apply for support for electrical trainees. The updated directive of 2017 has created further opportunities for the long-term employed and for more recent immigrants in particular (see SFS 2013:1157, § 1). Financial assistance is possible if trainees are not already under contract, if apprentices are aged between 15 and 25, and if the employer has also completed the training programme in accordance with the regulations of the Central Committee of the Electricity Industry (see Installatörsföretagen 2019a). The law (see SFS 2013:1157, § 6) further sets out that at least 15 percent of training time must be dedicated to supervision or training, that a contract of employment for at least 75 percent of working time must be in place, and that the minimum duration of such a contract is six months. If these conditions are fulfilled, companies providing training are able to receive a state subsidy for a period of six to twelve months. The underlying contracts must list the type of training involved and the collective agreement under which it is governed, and must also state how it is organised with regard to time and contents and the name of the person at the company who is responsible for training (see ibid., § 7ff.).

The parties to the collective wage agreement regulate wages and other agreements. The website of the trade union organisation "Elektrikerna", for example, points out that a probationary period of 720 hours is permissible and that payment of wages is staggered in two phases.[49] The equivalent of around €1,400 is paid during the probationary period, and this goes up to at least €1,600 during the following months. Rates are thus significantly higher than the usual training allowances in Germany, but there is also no loss of time due to school-based teaching. The electrician's wage of about €1,800 falls due on the first day following the awarding of the certificate provided that the person is working full-time and no supervision is taking place any longer.

The employer organisations make further training aids available to their member companies, such as the templates for evidence of company-based training shown below (see Figure 13) in the same way in which employer associations in Germany provide report books and training evidence materials.

Figure 13: Example of evidence of post-secondary company-based training for apprentices in the electrical industry

Customer satisfaction and service				Cable routing			
The following examples relate to contents and topics which foster customer satisfaction and which are important to good service.				The following examples relate to contents and topics which are of relevance to cable routing. Lay cable clip-rail			
Take part in meetings with customers				Cable lines			
Modes of behaviour when dealing with customers				Wire connections			
Good sales technique Bookkeeping				Supporting bars			
Forms of payment							
Week	Time	Works completed	Signature Trainer	Week	Time	Works completed	Signature Trainer

Source: Own depiction based on Installatorsföretagen 2019b (translation through author)

Virtually no foreign language material or research exists in respect of this form of training. "Apprenticeship training in the building and electronical sector has not been the object of much research and is not in focus of the current debate on youth unemployment and vocational education" (Karlsson/Lundh-Nilsson/Nilsson 2016, p. 370).

One of the few exceptions appears to be a study by Fjellström (2017), which accompanied eleven trainees in the construction sector as they made the transition from

49 Further information is available on the following website: URL: **https://www.sef.se/arbetsgivare/larling/loner/** (status: 26/01/2022).

the upper secondary level to post-secondary apprentice training. It shows the strong influence of work matters and orders on competency development, which like individual motivation also depends on support trainees receive.

> "First, the way the learner is guided by co-workers has shown to be crucial. Second, the trust from the management as well as co-workers to engage in complex tasks that challenges them to think is thus an important factor. Third, a close connection between performing tasks rapidly and the payroll system encourages the learner to advance task improvements and thus promotes vocational learning. Fourth, participating and being a part of the community where engaging in different tasks is combined contributes to becoming a part of the building process" (ibid., p. 14).

The challenges revealed are thus similar to those in gymnasieskola-based apprentice training. In this case, however, these challenges are not as intensively tracked by a publicly appointed person (the state-employed teacher). Instead, monitoring only takes place by the training staff at the company and by the trainees.

The number of persons in post-secondary VET is relatively small. Information in this regard stems from calculations of the employment agency and the central statistics, not from the central pupil statistics (see Table 27).

Table 27: Quantitative significance of and admissions to post-secondary apprentice training[50]

Information	Company-based training programmes from January 2014 to March 2016	Newly concluded contracts April to July 2016	Employees aged under 25 years	Unemployed persons 19 to 24 years
Born outside the EU	6.0%	4.7%	5.0%	15.8%
Women	28.7%	7.3%	49.7%	42.3%
Pre-upper secondary qualification	12.3%	7.3%	8.1%	25.0%
Upper secondary qualification	85.0%	89.8%	66.3%	54.9%
Higher level educational qualifications	2.7%	2.9%	24.8%	19.6%
Total number of persons	**2,142**	**384**	**147,979**	**107,783**

Source: Konjunkturinstitutet 2016, p. 8 (translation through author)

Around 2,000 persons were in such an apprenticeship programme between 2014 and 2016, a modest figure compared with the total number of employees and unemployed

50 Percentage proportions of the respective characteristic of participants (multiple responses possible) and figures in absolute terms in the bottom line.

persons aged under 25. The vast majority (85%) has completed training at the upper secondary level. The comparatively low proportion of women, under a third, also comes as no surprise given the sectors in which this form of training exists. The Konjunkturinstitutet study of 2016, which was commissioned by the Swedish government in order to investigate whether state funding exhibited contradictory effects, did not confirm this fear. Instead, it indicated that this form of training is embarked upon by as many as one quarter of young people who were previously registered as unemployed (see ibid., p. 9). It is likely that a low level of state funding will continue to take place in light of the fact that the number of young persons employed via company subsidies is low compared to the subsidies made available by the employment agencies (Arbetsformedlingen) (0.4% in 2015; see ibid., p. 10). There is no expectation of a systematic expansion of this form of training, which generally constitutes a five-year programme if the three-year vocational programme at the upper secondary level is taken into account.

4.3.6 Initial adult training and company-based continuing training

Following the preceding remarks on the various forms of VET, it only remains to add that there are also short-term training courses or advanced training courses instigated by companies which are neither statutorily regulated nor statistically recorded. The aim of all other training measures (supported or fully financed by the state) is the acquisition of nationally standardised and governed qualifications which are aligned to the upper secondary curricula (see chapter 4.3.2) or to higher VET (see chapter 4.3.4) or else to secondary apprentice training in the construction and electrical engineering sectors, which attract low levels of subsidies. Adult VET is monitored and governed by the Myndigheten för Yrkeshögskola, which acts as the supervisory authority. State funding of approximately €180 million was available in 2017, and this was used to finance 220 institutions and around 50,000 adults in Sweden. Adult VET is free of charge for participants, although learners or their employees may be required to contribute to teaching materials or to special items of expenditure in certain circumstances.

In terms of content, however, most adult VET does not differ from the VET offered within the scope of the upper secondary vocational programmes (see Groll 2010). Local government adult education provision (KOMVUX), which is the responsibility of the municipalities, therefore offers programmes which are curricularly identical to those at the upper secondary level. At the same time, however, individually tailored programmes (see Andersson/Fejes/Ahn 2004, p. 61; see also the VET history in chapter 2.3) are also available.

An adult education campaign of the 1990s focused on the funding of adult education with the aims of raising the general level of education and of enabling more people in Sweden to achieve an upper secondary qualification (see SOU 1996: 27). A national funding measure, which expired in 2002, offered 100,000 study places in adult education and instigated a debate on how more funding of adult education could be realised

at the level of the municipalities. This discussion shows the high degree of significance attached to adult education if it is also borne in mind that around 700,000 study places/ per year were available in Sweden at the turn of millennium if all institutions (adult education centres, universities etc.) are taken together. This is an impressive figure in a country of approximately ten million inhabitants (see SOU 2008: 27).

5 Important general conditions and factors determining vocational education and training

5.1 Legal standardisation of vocational education and training and school-based and company-based training

In Sweden, responsibility for the area of education and teaching fundamentally rests with the state. In the late 1930s, the social partners largely withdrew from a VET system that was based on collective wage agreements and left matters concerning both initial and continuing training to the state. Apart from a small number of exceptions, legal regulations thus relate to laws and directives promulgated by the Ministry of Education.

However, against the background of a somewhat more comprehensive perspective, statutory regulations relating to the structuring of working life also form part of the framework factors. The Labour Act (see Arbetsmiljölag 1977:1160), for example, also governs the tasks of employers in respect of health and safety at work and cooperation between the social partners.

5.1.1 Foundations under education law

Regulations under education law have their foundations in the Schools Act of 2010 (see SFS 2010:800), which forms the basis for the reform of the upper secondary sector – referred to in abbreviated form as Gy 2011. It contains provisions for pre-schools, for the nine-year comprehensive schools (Grundskola), for the upper secondary sector, and for all other areas of the public education system such as provision for immigrants, local government-run adult education, the special schools, and extra-curricular educational activities. The Schools Act describes the rights of pupils and their parents and also includes elements such as a continuation of the practice, whereby pupil decisions regarding school choice are crucial to the budget of the respective school. Since 1994, pupils have thus in a certain way become customers of the schools, which largely orientate themselves to their pupils' wishes and interests. The Schools Act further regulates the governing influence of the participating institutions and levels, including mandatory or recommended stipulations for education and training providers with regard to alignment to the national curricula. It sets out decisions in respect of the possibilities open to independent schools and the flexibility accorded to municipalities in the light of regional conditions.

Provisions under educational law also include regulation of the necessary teaching qualification. Equivalence between pre-school teaching staff and other teachers was enshrined in law in 2011 (SFS 2011:326). Since this time, only teachers at vocational schools have been excluded from the general requirement to complete a regulated teaching qualification (lärarlegitimation) prior to commencement of their duties.

The legal provisions of 2010 brought content-related regulations in their wake for all forms of school. Despite the existing diversity of provision leading to qualifications in VET, the Gy 2011 is thus of crucial significance because virtually all other VET regulations are aligned to its stipulations. The provisions under educational law which are in place for the integrated vocational programmes at the upper secondary level therefore actually constitute Sweden's VET law. Their validity is governed by the directive documents of the reform of the upper secondary sector of 2011 (Gy 2011). This includes the following directives.

- SKOLFS 2011:144, the directive for the curriculum at the upper secondary level.
- SKOLFS 2010:14, in which the respective examination objectives are regulated.
- SKOLFS 2010:261, which contains a precise description of the subjects which are common to all programmes at upper secondary school (see Skolverket 2011a and the brief summary provided in Skolverket 2011b).

The vocational programmes currently in place are listed in these documents, although the latest curricular structures are subject to constant alteration. SKOLFS 2017:16, for example, introduced small changes to the fundamental objective of the upper secondary sector and provided indications of the reliability of digital examination instruments.

Endeavours to strengthen learning in the workplace or to integrate company-based learning have added further stipulations to the underlying provisions under education law, which govern the new area of gymnasieskola-based apprentice training. One such example is the statutory regulation of 2014 (see SFS 2014:421). Rules regarding the amount of subsidies for companies taking part in gymnasieskola-based apprentice training also came into force at this time (see SFS 2018:104). Although funding is initially allocated to the schools in their capacity as training providers, it is then passed on to the companies and subsequently to the pupils.

5.1.2 The legal foundations of academic education and adult education

The area of academic programmes is still essentially subject to the legal basis established in 1992 (see SFS 1992:1434), even though regular updating has occurred via further subsequent directives. The most recent revision was introduced via the directive SFS 2017:279. This directive mainly emphasises the freedom of research and teaching and the different training levels. Requirements for teaching staff were formulated in 2010, but only in general terms. The directive also governs the respective responsibilities of the local decision-makers of the national government and of the provinces. Regulations regarding the various examinations passed in 1993 govern the levels of higher education qualifications and the prerequisites for these (see SFS 1993:100).

Adult education at a national level is mainly statutorily regulated by the Schools Act of 2010 (see SFS 2010:800), although constant small changes have been made. The most recent of these was via SFS 2018:1368. This highlights the need to accord greater

consideration to minority languages at all administrative levels in the relevant municipalities and also makes it mandatory for linguistic diversity to be taken into account in provision of adult education by the local government. Adult education is governed in a similar way to the other areas of the Swedish VET system covered by the Schools Act of 2010 in that more detailed provisions of implementation and the reciprocal relationships between the upper secondary sector, adult education and higher education are regulated by subsequent directives which extend to embrace aspects such as contents, examination conditions and requirements for teaching staff. The basis for this is the directive of 2011 (see SFS 2011:1108), which contains more precise provisions regarding adult education for persons with restrictions and the structuring of provision for Swedish for immigrants. This makes it clear that a key task of adult education is to facilitate qualification at the upper secondary level by offering supplementary courses or courses which have not yet been completed. Sweden's citizens are, however, also able to initiate or apply for courses. The financing and implementation of these is then scrutinised at the local government level. "Orientation courses", which are either instigated by staff or else originate as the result of private initiatives (see ibid. § 6) are limited in scope to a maximum of 200 ECTS and pursue the following objectives.

- Help with well-founded decisions regarding choice of study programmes or occupations, improve skills needed to enter higher education
- Introduction to various areas of knowledge/preparatory courses
- Creation of opportunities for the validation of existing knowledge
- Support in native language or introduction to higher education study in the native language
- Support in the form of occupationally related Swedish/introduction to specialist language
- Impart basic digital skills
- Impart basic knowledge of working life and of the labour market in Sweden (ibid. § 6, translated by the author and last amended by SFS 2018:753)

This enables the standardised provision (kurser), the aims of which are governed by the adult education curriculum at a national level (see SKOLFS 2012:101) and broken down into individual subjects, to be accessed on the Skolverket website and[51] to be supplemented regionally.

Alongside local government adult education, which should primarily be viewed as a supplementary institution for schools at the upper secondary level and mainly aims to impart the skills needed to enter higher education, the adult education centres (folkhög-

51 Further information is available on the following website: URL: **https://www.skolverket.se/undervisning/vuxenutbildningen/komvux-grundlaggande/laroplan-for-vux-och-kursplaner-for-komvux-grundlaggande/kursplaner-for-komvux-pa-grundlaggande-niva** (status: 26/01/2022).

skola) and the study associations (studieförbund) also offer "free" popular education. Popular education constitutes a significantly broader spectrum of provision. One of the reasons for this is that it is aligned to societal and cultural goals rather than to higher education entrance or employment. The directive of 2015 governs possible state subsidies whilst also explicitly excluding any profit-oriented activity on the part of organisations receiving grants (see SFS 2015:218).

5.1.3 Legal foundations of labour market-oriented and higher vocational education and training

By way of contrast, the objective of the directive for the labour market policy programme, which is implemented by the Swedish Employment Agency (arbedsförmedlingen) and falls within the area of responsibility of the Ministry of Labour rather than that of the Ministry of Education, is to provide direct support for the promotion of employability (see SFS 2000:634). In this case, the aims of the measures are to avoid impending unemployment and ensure re-entry to work. The regulations only cover persons aged over 20. They encompass training, the granting of assistance in accordance with the Unemployment Insurance Act (see SFS 1997: 238), and help with finding a route into self-employment. The training programmes may be opened up to all persons in individual cases if there is increased demand in certain occupational areas (see ibid. § 10). These measures, which are funded by the Employment Agency, are not intended to compete with existing provision. They are of a maximum duration of 40 weeks and may be aimed at either higher education or the upper secondary level (see ibid. §13). Practical placements at companies are also funded. These are, however, monitored by regional committees so that they do not cause the loss of regular jobs. Such work arrangements, which are sometimes referred to as Yrkesintroduktionsanställning, are periods of employment not exceeding six months, which are the equivalent of semi-skilled tasks. They should not be confused with post-secondary company-based VET, which is mostly of two years' duration and for which the same designation is used (see chapter 4.3.5).

The area of higher VET (since 2013 referred to as YH-utbildningar) is governed at the higher education-equivalent level by the law of 2009 (see SFS 2009:128). This was adjusted in 2016 and 2018 (see SFS 2016:1183 and SFS 2018:1352) to reinforce the alignment of higher VET to the requirements of working life. Remarks regarding its stipulations have already been made in chapter 4.3.4. These make it clear that the level is comparable with that of the German trade and technical schools but that the system is significantly more flexible by dint of being aligned more closely to regional labour market requirements whilst still containing a high number of full-time students. This differentiates it from the educational areas stated above. The directive of 2009 (see SFS 2009:130) delineates higher VET from general higher education and prohibits duplicates both in this direction and in the direction of the vocational programmes at the upper secondary level. The national body responsible (MYH) decides whether a pro-

gramme can be offered by a provider (university of applied sciences, university, private provider) within the scope of higher VET. The descriptions which need to be submitted for this purpose are also regulated by the directive (see ibid. § 6), which makes it clear that the decision is informed by demand on the regional labour market and by previous quality assurance results of the provider (see ibid. § 7).

5.2 Governance structures in vocational education and training and school-based and company-based training

5.2.1 State governance

Essential power of governance for VET fundamentally rests with the Swedish national state, primarily with the Ministry of Education and its subsidiary authorities (see chapters 1.2 and 3.2). Leaving academic education aside, three institutions/bodies are crucial to VET at the national level.

1. The National Agency for Education (Skolverket) is responsible for the school system as a whole and thus also for the gymnasieskola-based vocational programmes and for the special forms of programme resulting from the creation of apprentice programmes run by the schools.
2. The Schools Inspectorate (Skolinspektionen) is responsible for the monitoring of quality at schools and therefore also responsible for the quality of the school-based vocational programmes and for the quality of local government adult education. It is of crucial significance to the approval of private schools and providers in particular.
3. The National Agency for Higher Vocational Education (MYH) is responsible for the approval of provision and also takes care of quality control (MYH 2018). The decisions it makes regarding the approval of provision, which is always for a fixed term, are informed by indications from trade and industry or by the demand for qualifications on the labour market. In order to fulfil this task, the MYH conducts its own analyses and research at the national level using relevant sector experts (see Bollin 2017).

There is also a body in charge of adult education at a national level (Folkbildningsrådet), which is responsible for the adult education centres. The Employment Agency (Arbedsförmedlingen) initiates supplementary measures for the avoidance or elimination of unemployment.

Councils involving the social partners are installed in all these institutions, as will be shown in the following sections.

5.2.2 Participation of the social partners and sectors

In connection with VET, the reforms which have taken place in Sweden over the past years have displayed an ever lessening of target orientation towards academic programmes in favour of addressing the requirements of working life or of trade and industry. This has been associated with a strengthening of the influence of the social partners, which have been involving themselves in the content formulations of vocational qualifications and in decisions regarding their institutional and regional placement, albeit at different levels of intensity (discussion at the Lärlingscentrum Skolverket February 2019).

At a national level, the social partners cooperate with state structures for qualifications frameworks and with all institutions which are responsible for education and training nationally (see Cedefop 2016a). Twelve national programme councils (nationella programråd) have been set up for the governance of programmes in the upper secondary sector (gymnasialyrkesutbildning), which account for the most significant proportion of VET. This means that each vocational programme has its own council, which regularly meets with the persons responsible at Skolverket in order to consult on the organisation, contents and quality of the programmes.[52] The councils have between six and ten members who are each appointed by Skolverket for a period of three years and are nominated by their home organisations to attend the meetings, of which there are around six per year (see ibid.). The main involvement is by the social partners from the respective sector organisations, although the regions and competent bodies are also represented. These councils are able to serve as a vehicle for the implementation of local initiatives and of necessary content changes occasioned by a shift in work organisation or technology. Frequent topics at these meetings are contents, content sequences and the structuring of related courses, information material for pupils, advanced training for teaching staff in the programmes, contract structures for apprentices, examination structures, provision for adults, and the analysis of labour market needs (see Cedefop 2016a, pp. 44ff.).

The National Agency for Higher Vocational Education (MYH) also has a council, the very name of which epitomises the orientation of higher VET in Sweden. The Labour Market Council (arbetsmarknadsråd) provides very strong representation for the social partners, who are the sole participants aside from the representatives of the Association of Municipalities and Provinces (SKL) and the Employment Agency (arbedsförmedlingen). The committee, chaired by the Head of the MYH, mainly consults on the labour market analyses the MYH carries out and on the consequences of these for the further structuring of vocational programmes. The National Agency for Higher Vocational Education has also established additional advisory committees for higher VET, in which the social partners participate (see Cedefop 2016a, p. 45).

52 A list of all programme councils is available at: URL: **https://www.skolverket.se/om-oss/organisation-och-verksamhet/nationella-programrad-for-gymnasial-yrkesutbildning** (status: 22/02/2019) (in Swedish).

A number of legal regulations are in place at the municipal and local level regarding the participation of the regional social partners and of other organisations. Councils are involved in programme development at the individual schools, which receive advice on the vocational programmes from the respective councils (lokola programråd). However, no detailed statutory provision is in place to govern how these councils work and are organised. They are generally used to support schools in the search for suitable practical placements and to provide any specialist advice that may be needed on the organisation of examinations. Similar participation also applies to the activities of the Employment Agency and the labour market policy-oriented tasks it pursues.

Teknikcolleges, which have become popular in recent times, are regional consortia of education and training providers, companies and local government policymakers which use these somewhat more independent structures and initiatives in an attempt to counter bottlenecks in demand on the labour market, particularly within the area of initial and continuing technical VET. Both social partners are always involved because the initiative is backed by the Association of Industry, which is funded by and represents the employers and employees (see Teknikcolleges 2018). Education and training providers at all levels are also affiliated to this body (discussions at the Rikskonferens Teknikcolleges 2018, Västerås). Similar approaches based on an initiative by the SKL may also be found in the area of the healthcare sector. The Association of Municipalities and Provinces has formed a consortium at a national level, with the trade union representing local government employees and with employers in the private healthcare sector.

5.3 Financing of vocational education and training and education

Apart from a tiny number of exceptions, all VET in Sweden is financed from tax revenues. As already indicated in the basic data on the country (see chapter 3), Sweden's spending on education is also very high compared to other states. This is associated with the goal of making fair educational opportunities available to everyone. As a consequence, the schools offering vocational programmes are very well equipped (see Kaiser 2018, Slides 23ff.).

Every Swedish citizen has the right to endeavour to secure financial support from the state in order to facilitate individual learning. This applies regardless of whether their aspiration is to pursue vocational aims or to embark on programmes of study at institutes of higher education and irrespective of age and current employment situation (see Cedefop 2016a, p. 54). Higher VET qualifications are funded in particular with the aim of motivating young people to enter higher VET or academic courses of study. Studies confirm that financial support for people whose parents have lower educational qualifications has brought about an increase in this group in higher VET and in academic programmes of study (see CSN 2011a and b).

The financing of schools shifted in the wake of the reform of 1994 to the extent that allocation of funding is determined by the number of pupils at the respective school. The flexibility of the system thus produced means that a school will suffer financial losses if a pupil leaves during the current school year (interview with a school researcher at the University of Stockholm, 23 February 2019). Another consequence is that pupils and their parents become influential customers. The schools address their interests and avoid alienating them wherever possible, at least in areas where there is a choice of schools. The fact that this would give rise to a private market for schools was originally intended. The ensuing "explosion" in the profits being made by private schools operators is, however, now causing concern for Swedish taxpayers and policymakers.

> "JB-GYMNASIET, a market leader with 10,000 pupils and 1,500 employees at 36 schools, went bankrupt just prior to the upper secondary school leaving examinations in 2013. The company had previously inflated itself by enticing pupils with free laptops for everyone and by offering 'ultra-modern' curricula for computer-aided learning. Teachers received bonuses for high average marks, an important argument that helped lift turnover. Another plus was a greater opportunity vis-à-vis public schools to exclude "problem pupils" from classes wherever possible" (Borchert 2017, translated from German).

This is turning the system of independent schools into an absurd business idea whilst also threatening the quality of the Swedish school system. Private providers are developing low-cost programmes, and this is giving rise to high costs on the part of state schools, which are unable to set off their investments in technical courses against high pupil numbers in other programmes. The only remaining exceptions are industrial companies which become school operators and offer technically-oriented and comparatively expensive programmes whilst potentially being able to use their facilities to deliver the practical elements of the training (see Cedefop 2016a, p. 26).

Higher VET also constitutes an exception to full state financing. This may be contracted out to or at least be subsidised by companies (see Ministry of Education and Research Sweden 2013b) which have a keen interest in the training of their staff.[53] Mostly, however, support from companies takes the form of introductory courses in the workplace or else occurs via the sponsoring of machine equipment or other teaching materials (see ibid., p. 30).

Introductory courses in occupational activities, which have already been mentioned in chapter 4.3.5 in connection with company-based post-secondary apprentice training, represent further opportunities for companies to receive state support.

53 Such an example was presented in chapter 2 as a biographical history from the healthcare sector.

5.4 Training of vocational education and training staff

VET staff in Sweden, insofar as pedagogically qualified, exclusively comprise teachers at vocational schools and at higher VET institutions (see Lindberg 2005). There are no staff qualified in pedagogical processes with responsibility for work-based learning at the companies. The law makes no formal requirements with regard to the qualification of teaching staff at institutions of higher VET (see SFS 2009:128). They merely need to exhibit the competencies necessary for their courses and should be afforded the opportunity to pursue continuing training by the provider. It is, however, entirely unclear what these continuing training programmes consist of and whether they lead to any kind of pedagogical qualification (see ibid., § 6).

No formal demands are placed on company-based training staff, although the National Agency for Education Skolverket prefers instructors (Handledare) in the practical phases to be in possession of pedagogical qualifications. The National Agency for Education makes an online course available for this purpose, which it promotes by means of a short film.[54] The incentive to take part in this training, which extends over five modules, is a state subsidy which the employer is able to receive if "certified" instruction in the workplace can be given during the practical phases. The subsidy is based on regulations which are published annually (see SFS 2009:128). In the case of gymnasieskola-based apprentice training, the legal foundation is the law of 2014 (see SFS 2014:421).

The historical development of the training of vocational teaching staff reveals an increase in the scope of training. Requirements regarding the professional competency and pedagogical training of teaching staff – including in the field of VET – rose as labour market-related education developed during the first half of the 20th century. Training gradually expanded from five to 15 weeks (1950) and to 33 weeks by 1960. Training for vocational school teachers in industry and the craft trades was extended to 40 weeks in 1973 (see Dir. 2008:41, pp. 1ff.). The reform of the upper secondary sector and of local government adult education in the early 1990s created new demands for the training of vocational school teaching staff. An investigation into qualification requirements for teachers in vocational subjects at the upper secondary level was carried out in 1993. In the final report entitled "Höj ribban!" (Raise the bar!) (SOU 1994: p. 101), the proposal was made that, as well as undergoing basic vocational training at the upper secondary level and attaining occupational experience, applicants for the teacher training programme should complete a higher education programme with at least 80 credit points. Teacher training at the time encompassed only 40 points for practical training. In September 1996, the government adopted a further change to stipulations for the training of teaching staff at the upper secondary level. This meant that those

54 The film and further information on the qualification of instructors are available at: URL: **https://www.skolverket.se/kompetensutveckling/kurser-och-utbildningar/sok-kurser-och-utbildningar/skolverkets-webbaserade-apl-handledarutbildning#h-Aplhandledarutbildningensinnehall** (status: 11/06/2026) (in Swedish).

studying for a vocational teaching qualification needed to pass 40 points in order to be admitted to the teaching profession. In addition to this, relevant vocational higher education and training comprising at least 60 credit points is required in order to be able to teach a further (general) subject. Coherent teacher training and a teaching degree (yrkeslärarexamen) were introduced in 2001 to replace a series of earlier teacher training programmes. Training was once again expanded in this connection to include the requirement that 90 credit points need to be completed in pedagogical training in the general sector. A qualification for teachers in vocational subjects now comprises a total of 120 credit points, whereby much of this scope may be recognised from other areas (VET at the upper secondary level, advanced training courses in higher VET etc.)[55].

Until the mid-1990s, vocational school teacher training took place at special institutions and was of a duration of one year. The admission prerequisites were basic vocational training and at least seven years of recognised occupational experience. A study commissioned in 2008 (see Dir. 2008:41), which presented its results before the end of the same year (see SOU 2008:109), led to a draft resolution in the following year. It was revealed that the need for trained vocational school teachers had trebled between the mid-1990s and 2009 and that the number of applications for teacher training focusing on VET had fallen sharply during the same period (see Prop. 2009:10:89, p. 29). The proposal, which bore the title "Best in class – a new form of teacher training" (Prop. 2009/10:89) stipulated that there should only be four different types of teacher training qualifications in Sweden from 2010 onwards.

- Pre-school teacher qualification (förskollärarexamen)
- Middle school teacher qualification (grundlärarexamen),
- Specialist teacher qualification (ämneslärarexamen)
- Vocational school teacher qualification (yrkeslärarexamen) (see ibid., p. 1).

The proposal also sets out standardisation in that the training of all teachers should comprise three essential components. These are extensive studies in the subjects/thematic areas taught, (practical) support studies in teaching and at school consisting of at least 30 ECTS, and the study of pedagogy and didactics encompassing a minimum of 60 ECTS. Requirements in the fields of early years education and special needs education were also increased. Teachers wishing to work in the area of supporting disadvantaged persons must now complete an eighteen-month course of study (90 ECTS) in addition to the teacher training examination.

Today's bachelor's courses of study for teachers in pre-education and in the primary sector incorporate a total of 210 ECTS points. This represents a minimum duration of seven semesters. Specialist studies encompass 110 points and thus account for the ma-

55 URL: **https://www.studera.nu/att-valja-utbildning/lararutbildningar/lararutbildningsguiden/yrkeslarare/** (status: 15/02/2022).

jority of the credit that needs to be achieved. This element also includes methodology, which students obtain at practical placement schools via observations and surveys or by trying out teaching methods. 90 ECTS points also need to be achieved for teacher training, which includes pedagogical and didactic exercises and teaching practice. Future teachers in these study programmes must also complete basic courses in languages and mathematics. Further qualification in the form of an additional master's degree may be acquired by undertaking a course of study comprising a total of 240 credit points as long as 60 points are contained within the intended teaching activity in early years education and the primary sector (see French/Lent/Will 2014). The teacher training courses of study for the lower and upper secondary sectors even comprise 270 ECTS points at the bachelor's level. Both programmes of study require the completion of 180 credit points for specialist studies and 90 credit points for teacher training. These are arranged in the same way as for teachers in the elementary and primary sectors. Further training leading to a master's degree is possible in this case, too, if courses with a scope of 60 points with main focuses on the lower or upper secondary sectors are integrated into the programme of study (see ibid., pp. 74ff.).

Although there has been a rise in the content-related and pedagogical requirements of the work of teachers at vocational schools (see Alvunger 2016), these remain relatively low compared to the formal qualifications requirements described above. A course of study at the university level comprising at least 90 ECTS is stipulated for persons who have already concluded a programme of study which matches the occupational field (e.g. nurse, early years education, engineering etc.) or who have completed VET. 30 of these 90 ECTS should relate to the core areas of pedagogy to which the other teacher training courses apply, and 30 ECTS should involve school-based practice. The practical element of the training may be waived for teachers who have been working for many years via validation of existing knowledge. Interestingly, the proposal makes reference to the particular requirements made of vocational school teaching staff with regard to specific methodological demands. Some of these are associated with the shifting of parts of training to the workplace and thus correspond to the area of conflict contained within their identity formation (see Köpsén 2014; Nylund/Gudmundson 2017).

> "In order to obtain the necessary methodological knowledge, it is very important for the teaching courses at the heart of the pedagogical studies to be permeated by a vocational pedagogy perspective and for the practical school-based element of training to take place within the scope of the vocational programmes at the upper secondary level" (Prop. 2009:10:89, p. 30).

The statutory regulations make it clear that the prerequisites for admission to vocational school teacher training and for subsequent work activity are formulated in a very open manner. Ultimately, only a course of study of 90 ECTS is required, and this may also be reduced to 60 ECTS if practical teaching experiences at vocational schools have been ob-

tained. It is incumbent on the respective university at which the course of study is completed to decide how recognition of the admission requirements takes place and what this represents on an individual case basis (see ibid., p. 55). The university, the competent bodies and the social partners should be involved in decision-making in individual cases whilst according due consideration to the respective specialism (see ibid., p. 54).

One example of this admission regulation may be consulted in a publication produced by the University of Örebro (see Örebro 2018), which relates to the government proposal of 2009 already described (see Prop. 2009/10:89), to the relevant existing provisions under higher education law (see SFS 1993:100), and to the Directive of 2008 (see Dir. 2008:41). Similar approaches may be found at the other universities. On the basis of the Higher Education Act of 1993 (§7), the University of Örebro is mandatorily required to validate existing competencies on application and to provide a credit transfer to the course of higher education study. The revision of Sweden's 2006 Higher Education Directive[56] expressly declares the equivalence of the recognition of occupational experiences. Like all other institutes of higher education, the University of Örebro also imposes the condition for recognition that "experience must relate to learning outcomes in the relevant courses" (Örebro 2018, p. 2). As explained below, this shows that the emphasis is placed on knowledge finally acquired rather than on learning in itself. As well as describing the sequence of the validation procedure, the instruction contains a series of helpful questions for oral validation in the discussions between applicants and higher education lecturers (see ibid., p. 4).

A consideration of the contents of vocational school teacher training in Sweden gives rise to the following picture.

There is a stipulation which sets out certain thematic areas for the programme of study. The programme of study takes place in cooperation with a partner school that offers the relevant VET programmes for which students have fulfilled the professional prerequisites prior to commencement of their studies. The courses for school-based practice may not be held in schools at which students are already employed. Such a circumstance regularly occurs. The pedagogical course of study covers 60 ECTS and contains the following core areas that must be addressed.

- History, organisation and general conditions of schools including basic school values in Sweden, basic democratic values and human rights
- Curriculum theory and didactics
- Scientific theory and research methodology
- Development, learning and special needs education
- Social relationships, conflict resolution and leadership
- Support and analysis of learning and development

56 Directive SFS 2006:1053, from which these instructions arose, is no longer locatable as an original source because it was merely drawn up as a transitional regulation to adapt to EU stipulations and has now been replaced by Dir. 2008:41.

- Evaluation and assessment
- Pupils' development of language and knowledge in a society characterised by cultural diversity (Malmö Universitet: Yrkeslärarutbildning)[57]

This summary makes it clear that there is no sort of specification on qualification as a vocational school teacher and on the tasks this involves and that it is very questionable as to how professional methodological orientation is to take place if the teaching staff at the university do not fulfil the technical prerequisites and do not have any insight into VET.

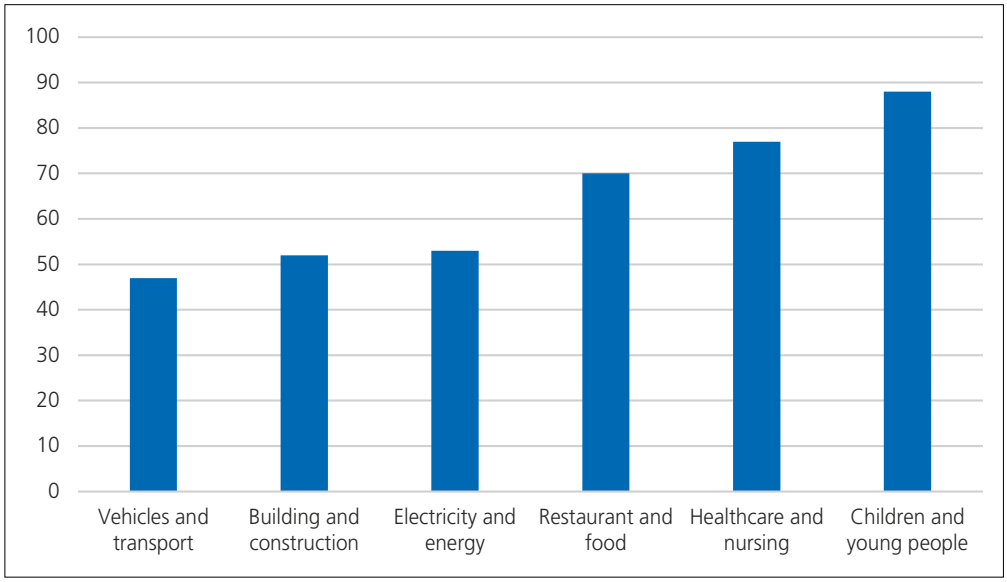
Given the responsibility placed on teaching staff employed at vocational schools in Sweden and in light of the fact that they both deliver the teaching and conduct the final examinations, the comparatively low formal requirements come as a considerable surprise, and a high formal bar in terms of qualifications could indeed be set (see Skolverket 2016b). Ultimately, vocational school teachers also act on behalf of the state in identifying competencies that have been acquired by informal means (see Andersson/Fejes/Ahn 2004). This means that they help to shape the occupational pathways of people who were not even their pupils (see Ashghari/Kilbrink 2018). In addition to this, the changes which have arisen as a result of the new statutory regulations regarding gymnasieskola-based apprentice training have led to new requirements in respect of the analysis of work situations that are conducive to learning and in respect of the structuring of regional cooperation agreements (see Berglund/Lindberg 2012; Andersson 2018).

Despite all of this, the admission prerequisites for teachers at vocational schools who are employed to deliver the vocational programmes are completely different to and, in education system-specific terms, lower than those of all their colleagues who may be teaching the subjects of Swedish, mathematics, English or social sciences at the same schools. In a recent publication, Finnish and Swedish lecturers at institutes of higher education compared the training pathways of the two countries (see Isacsson/Amhag/Stigmar 2018). It is astounding that the programmes of study in Sweden are shifted to university (see Kaiser/Lindberg 2019), whilst the formal admission requirements are significantly less stringent. In the neighbouring country of Finland, by way of contrast, the programme of study may "only" be allocated to the universities of applied sciences, but the minimum admission requirement is a bachelor's degree in the subject to be taught (see Mahlamäki-Kultanen/Muttonen/Javonen 2018). Study places for vocational teacher training are also much sought after in the country (see Kaiser 2020).

57 Further information on the pedagogical study at the University of Malmö is available at: URL: **https://www.skolverket.se/om-oss/organisation-och-verksamhet/nationella-programrad-for-gymnasial-yrkesutbildning** (status: 22/02/2019) (in Swedish).

Despite the requirements that have formally been put in place, not all staff teaching at vocational schools in the vocational programmes in Sweden are in possession of a teacher training qualification (see Figure 14).

Figure 14: Proportion of teachers in the vocational programmes at the upper secondary level who have passed the teacher training examination (2015/16) (in %)



Source: Own depiction based on Andersson (2017)

An article by Björn Andersson (2017), a reporter with the journal Tidningen Gymnasiet, which is published by the Teachers' Association, illustrated the plight of vocational teaching staff at Swedish schools. It also highlighted the low level of formal training, particularly in the technical programmes – under 50 percent in the automobile area, for instance – whilst at the same time pointing to an impending gap in provision as a result of over ageing. This situation is also reinforced by the Cedefop prognosis (see 2016a, p. 12). The expected consequence is a shortage of 4,500 vocational school teachers in Sweden by 2035. However, in order to ensure that the quality of VET remains high, the government believes it is important to stick to the target that all teaching staff at vocational schools should have passed the necessary examination by the mid-2020s. A slight rise in the number of persons completing the qualification may create a mood of confidence, but the problem will remain, at least in the medium term, and the objectives of the government could be viewed as highly ambitious.

Conversations with vocational school teachers at last year's National Conference of the Teknikcolleges tended to cast doubt on whether teaching staff who have merely completed VET at the upper secondary level despite having a wealth of occupational

experience really feel that they are easily in a position to successfully master the requirements of a pedagogical programme of study at university level. Exemption from the necessity to obtain a teaching certificate technically ends in July 2022 (see Andersson 2017). Given these changed requirements, it remains to be seen what decision will be arrived at by experienced teachers who have been working at schools for many years. It is also unclear how willing individual schools will be to compromise in the way they deal with the instruction once it enters into force.

5.5 Vocational education and training research

At the state level, Sweden does not have an institution that explicitly addresses VET research. The area or areas of VET are largely integrated into Skolverket (National Agency for Education), a large body with approximately 750 employees. A separate Lärlingscentrum within Skolverket, which has about five staff members, has only recently been set up to look at VET specifically with regard to the establishment of a school-governed apprentice system.

Nevertheless, Skolverket commissions a number of research assignments in order to describe developments in VET (see e.g. Berglund/Lindberg 2012; Berglund et al. 2017; Gåfvels/Paul 2019) and publishes the relevant statistics relating to school-based VET. No private research institutions operating in the area of VET research exist in Sweden.

The doctoral thesis submitted by Lindberg (2003a) contains a detailed inventory of Swedish VET research which was later also published in English at the behest of Skolverket (see Lindberg 2004). This inventory consists of around 70 publications in the field of VET research conducted on the basis of research into national databases and using international journals. These date back to the 1950s (see ibid., p. 4). The number of dissertations produced, however, does not increase appreciably until the 1980s, and the number of publications per decade does not exceed ten (see ibid., p. 5). Key thematic areas include system structures and policy, vocational school teaching staff, VET at schools and a number of subject-related and international comparative studies. Lindberg notes a huge upsurge in international comparative VET data with Sweden via the European Union.

More major current research projects, which are looking at historical or political and structural development, are founded on the allocation of funding by the National Research Council (Vetenskapsrådet). A further funding provider is “Norden”, a consortium set up by the Scandinavian states, which also financed a comparative project on VET in Denmark, Finland and Sweden from 2013 to 2016 (see Michelsen/Stenström 2018; Jørgensen/Olsen/Persson Thunqvist 2018). There are also a number of research projects commissioned by policymakers which look at the effects of policymaking in VET, especially statistically (e.g. Panican/Olofsson 2012; Olofsson 2017). Finally,

other projects trace the changes in the policy alignment of the Swedish VET system in recent times (e.g. Admann 2014; Wärvik/Lindberg 2018; Alexiadou/Lundahl 2016, Lemar 2001; Lundahl 1997, 2002; Nylund 2013; Lundahl/Sander 1998; Lundahl et al. 2010). With regard to more distant past developments of the education and VET system in Sweden, we find works which tend to pursue a historical research approach (e.g. Broberg 2016; Edgren 1987; Edquist 2015; Evander 2013; Håkansson/Nilsson 2013; Karlsson/Lundh-Nilsson/Nilsson 2016, 2018; Nilsson 1981, 2013). Where Swedish VET researchers act as book publishers in international series, then articles from the Scandinavian countries and from Sweden itself are more prevalent (such as e.g. Choy/Wärvik/Lindberg 2018 or Moreno Herrera/Teräs/Gougoulakis 2018).

Research projects within the context of the training of vocational school teachers which adopt a pedagogical perspective take place at the Universities of Stockholm, Linköping, Göteborg, Malmö and Umeå. These universities boast a longer tradition in this area and have set up small research groups in some cases[58]. They also conduct projects which are financed by funding from the National Research Council. One example here is a project which was lead managed in Umeå und Göteborg from 2016–2019 by Per Åke Rosvall and carried out in conjunction with Matthias Nylund and Kristina Ledman entitled "Critical thinking in vocational education and training? State citizenship in the governance documents of the vocational programmes and in teaching practice".[59] The establishment of newer professorships at small universities means that VET research is also being conducted in Karlstad, Växjö, Kristianstad and Falun. In Falun, for instance, one object of investigation is the establishment of research groups at schools to help with their development (see Lundgren/Fändrik/Nerström 2017).

One event which is of significance both for Swedish VET research and for the establishment of networking at a national and international level is the International Conference on current projects of the University of Stockholm, which has been held annually since 2012. It is organised by Professor Moreno-Herrera, Professor Lindberg and Professor Terräs and produces a number of publications (e.g. Moreno Herrera/Teräs/Gougoulakis 2018). Then there is also the NORDYRK Conference in Linköping, which is organised by Professor Per Andersson and his colleagues, and relates to Scandinavian VET and adult education.[60] In addition, we have the "Nordic Journal for Vocational Education and Training",[61] which is devoted to VET research. It is published online and contains articles in the Nordic languages and in English. The journal has been in exist-

58 One example is the "Vocational education and training" research group at the University of Stockholm: URL: **https://www.su.se/english/research/research-catalogue/research-groups/f/vocational-and-educational-training** (status: 11/06/2026).

59 Further information on the project is available at: URL: **https://www.swecris.se/betasearch/details/project/201502002VR** (status: 18/09/2020) (in Swedish).

60 URL: **http://nordyrk.net/** (status: 08/08/2021).

61 The website of the journal may be accessed at: URL: **https://www.njvet.ep.liu.se/** (status: 18/09/2020).

ence for eight years and publishes about two issues a year under the charge of Professor Andersson at the University of Linköping. Both these networking activities have also been linked with the European Research Network Vocational Education and Training (VETnet) for several years. They make mutual reference to one another and bring together researchers from both.

Two doctorate programmes, which have been funded by the Swedish Research Council (Vetenskapsrådet) since 2010, are also not without influence in respect of further professionalisation in Swedish VET research. These have helped create a network of VET researchers both domestically and internationally (see Lindberg 2010; Lindberg et al. 2014). The first theses produced within the scope of the programmes are now available and deal with fundamental issues relating to VET practice in Sweden (e.g. Gåfvels 2016; Paul 2017; Tyson 2017; Lagercrantz All 2017). The relocation of vocational teacher training to the universities has also been crucial to the increase in doctorates in the area of VET research since this has led to the establishment of more professorships (see Kaiser 2020).

The plethora of articles from Swedish VET research that have appeared in international journals cannot be enumerated here. The usual practice at Swedish universities is for doctoral theses to consist of several articles which are published in international and national journals and then submitted for the doctorate together with a connecting text. Supervision and support for doctorates is also precisely regulated with regard to the proportions of time to be devoted by the supervisors. We may thus assume that support is relatively intensive. In addition to this, doctoral candidates always have contracts with the respective university for the duration of the doctorate. This means that there are no doctorates that are completed on an in-service basis as long as these are successfully completed within the maximum term of six years (conversations with Ruhi Tyson, Lazaro Moreno Herrera und Viveca Lindberg in November and December 2018 and in February 2019). For information on problem areas in Swedish VET research, see also chapter 5.8.

Mention should further be made of research projects in Sweden from adjacent areas, such as labour research, which are also adopted internationally (see von Otter 2004; Gustavsen 1994; Hakansta 2009). These, however, does not relate very closely to VET and the associated pedagogical processes.

5.6 Procedures for quality assurance in vocational education and training

There are various areas of responsibility for the contents and objectives of VET depending on the type of training. Table 28 below provides an overview.

Table 28: Areas of responsibility for the objectives, contents and awarding of certificates and for quality assurance in vocational education and training

Diploma/education	Responsible for goals and contents	Responsible for awarding diploma and certificates	Responsible for quality assurance
Vocational diploma at the upper secondary level	Government; The National Agency for Education	Schools/education providers Headmaster/director	The governing body of the school provider; The Swedish Schools Inspectorate
Diploma in higher vocational education and Advanced diploma in higher vocational education	Education providers	Education providers	Education providers; Swedish National Agency for Higher Vocational Education

Source: Skolverket (2019), p. 50

The fundamental principle is that all training institutions are statutorily required to implement quality assurance processes. The precise structuring of these processes is not stipulated. Nevertheless, most establishments use the normal key indicators of average marks, participation rates and completion rates (see Skolverket 2019, p. 51).

Sweden has had a National Qualifications Framework (SeQF)[62] in place since 2015. This is oriented to the European Qualifications Framework and is significant in respect of the alignment of qualifications to relevant reference levels (see Table 29).

Table 29: The Swedish Qualifications Framework (SeQF)

Level SeQF	Qualifications	Level EQF
8	Doctorate diploma	8
7	Master's diploma	7
6	Bachelor's diploma Advanced diploma in higher vocational education	6
5	Qualified graduate from upper secondary engineering courses Diploma in higher vocational education	5
4	Upper secondary level	4
3	–	3
2	Compulsory education for young and corresponding education for adults, special needs schools and Swedish tuitions for migrants	2
1	Special needs education	1

Source: Co-creative youth 2017

62 The SeQF is available in Swedish at: URL: **www.seqf.se** (status: 26/01/2022).

The Qualifications Framework regulates the alignments and competency descriptions at the different qualification levels as well as governing responsibility of the National Agency for Higher Vocational Education (MYH) for alignments of certifications to the Qualifications Framework and the necessity for agreement with the Council for the National Qualifications Framework (Rådet för den nationella referensramen för kvalifikationer). The council consists of 13 persons, including representatives of state bodies in the education system and of the social partners. In this case, attachment to the National Agency for Higher Vocational Education indicates that alignment of flexible qualification programmes is viewed as the key governance function of the Swedish Qualifications Framework.[63]

5.7 International mobility/internationalisation/international vocational education and training cooperation

As well as the international networking already mentioned, which takes place to an increased extent between the Scandinavian states at a government and research level, Swedish researchers are, by dint of their cultural cosmopolitanism and good knowledge of English, also active in a broader international sense. Swedish universities are also home to a multitude of researchers from migrant backgrounds, including in VET.

At the level of VET, a school-based system also clearly encourages networking. In Sweden, one in ten young people in a vocational programme in the upper secondary sector spend a period of their training abroad (see SCB 2017:1). This means that Sweden far exceeds the goals set within the EU and is the number one country in respect of trainees who spend time at a different workplace abroad during training.

In international comparative terms, Sweden exhibits a relatively high proportion of stays abroad during VET. Around a third of all young people aged between 18 and 34 spent time abroad at least once during training. The proportion of women is slightly higher than the proportion of men (see Cedefop 2017).

63 Further information is available at: URL: **https://www.myh.se/in-english/seqf** (status: 11/06/2026) (in Swedish).

Table 30: Country comparison of the percentage proportion of young people who have completed a stay abroad of at least two weeks in relation to all young people in training in 2017

Country	Proportion in %
Sweden	9
The Netherlands	5
Italy	4
Austria	4
Belgium	3
Poland	3
Portugal	2
Slovenia	2
Hungary	2
Spain	1
Bulgaria	0

Source: SCB 2017:1, p. 1

5.8 Major debates and approaches to reform in vocational education and training

The reform of the Swedish VET system of 1994 brought about a significant decentralisation and liberalisation of the education market and led to a series of both positive and negative effects (see Fejes/Berglund 2010; Dingu-Kyrklund 2009; Wärvik/Lindberg 2018). Current main reform approaches, however, are centring on specialised qualifications in the workplace. Nevertheless, there are presently no serious signs of a departure from the school-oriented system or from state dominance in the governance of the VET system.

Trust in state action remains high in Sweden, and recent economic development does not give rise to any cause to doubt the system's functional effectiveness. After all, Sweden has succeeded in further reducing youth unemployment over the past few years.

International reports and our own findings indicate that the current challenges and reform approaches can be summarised under the following headings.

- ***Contradictory aims of Swedish VET policy and apprentice training***
  Sweden continues to pursue the objective that further educational options should follow on from a vocational pathway, and very well-developed adult education and flexible higher VET create good choices in this regard. Despite this goal, an expansion is taking place in the form of trainings which lead more clearly to employability skills rather than to further study (see chapters 4.3.2 and 4.3.4). This means that

VET at the upper secondary level is becoming less of an initial orientation within an occupational field which can still be changed. There is now less emphasis on serving the purpose of enabling the world of work and employment culture to be explored within a sector – in conjunction with periods of training spent abroad – whilst pupils maintain a protected and distanced status. Increased involvement of the companies as a learning venue and as a wage-paying employer in some cases means that VET at the upper secondary level is creating an altered situation for VET learners, who may link up with a company and be integrated into its strategy to cover workforce requirements. It remains unclear whether the high number of mobile trainees can continue to be achieved and whether stays abroad will still take place. It is also questionable whether the target for subsequent entries to higher education can be met, something which would be an indicator of the maintenance of open educational pathways (see Persson Thunquist/Hallqvist 2014). The most significant reform of Swedish VET within the area of the apprentice system could thus become a training strategy for young people with lower-level abilities. This may trigger a kind of devaluation of all vocational programmes at the upper secondary level if this image cannot be turned around. The Swedish trade unions are sceptical about a massive expansion of the apprentice system because they fear a new low wage sector (see Altinget 2016) that does not guarantee the kind of high-quality training which the vocational programmes at public schools are (still) able to deliver. This scepticism appears to be understandable.

- ***Workplace orientation without state power***
  The workplace orientation mentioned in the previous section seems to have become something of a cure-all for Swedish VET and is currently generating a whole host of investigations and endeavours to reinforce it. There is seemingly no recognition of the fact that the shifting of periods of learning to workplaces does not produce any progress in itself. In fact, the associated gradual integration into a "community of practice" and participation in workplace-related learning tasks can only be successful if this learning and related competency development is also aligned to the individual needs and possibilities of the learner and to the curricularly stipulated learning aims and if trainees are actually assigned work tasks that are conducive to learning (see Andersson/Wärvik/Thång 2015; Berglund/Lindberg 2012). If systematic higher qualification of company-based training staff does not take place in parallel together with a necessary upgrading of their employment, which is also reflected in the pay scales, then the requirements made of vocational school teachers will be excessive because they do not possess the power to exert an influence on training in the workplace (see Andersson 2018). This makes the endeavours being undertaken by the state in the form of online courses offering a total training time

of two days appear to be something of a fig leaf, even though they are promoted by conferences and by meetings between teachers and company representatives.

> "The programme involves the equivalent of two days' coursework and includes four introductory general modules and a supplementary module that covers apprenticeship. The courses are free of charge and can be followed online in a flexible way, whenever and wherever it suits the trainer" (Cedefop 2016b, p. 12).

It is thus ultimately incumbent on the individual trainer to ensure that the work tasks offered actually correspond to the requirements of the school curriculum and that quality of training is not below the level of that imparted to fellow pupils who are attending the standard programme at a school (see Wärvik/Lindberg 2018).

- ***Rising requirements in a changed labour market***
  Sweden's economy will continue to develop towards a structure which is closely aligned to the knowledge of employees. To this extent, demand for highly qualified workers will continue to rise (see Cedefop 2018). Over the coming years, increased demand will occur in the commercial management occupations and in the construction industry (see ibid., p. 2). The strongest level of demand will be in nursing and in technical engineering. By way of contrast, demand in the manufacturing sector will continue to decline. The consequence may be a realignment of the vocational programmes, which will need to react to this change by introducing further differentiation at an earlier stage in the commercial programmes and by expanding the area of healthcare and nursing in a way that includes early specialisation. A further question that needs to be posed is how Sweden will deal with the rising requirements in the labour market and with the falling level of qualification occurring because of the rising number of new arrivals, the term which the Swedes use to refer to immigrants (see OECD 2017, p. 15).

- ***Increasing the competencies of new arrivals***
  Many Swedish laws are currently being adjusted in light of the rising number of new arrivals. Massive investments are being made in the area of sfi (svensk för invandare), and particular efforts are being undertaken to get immigrants into work quickly. In 2015, the government, the social partners, the public and the municipalities, the Employment Agency and other state bodies began to consult on how to facilitate labour market integration for newly arrived immigrants. The aim was to shorten the period between arrival and entry into work, especially for those who still required training (see Cedefop 2018, p. 19). Today, the labour administration authorities are managing programme implementation at a local and regional level, including training provision in work-related Swedish, the rapid validation of skills and competencies, and the recognition of foreign qualifications. They are creating

opportunities for additional training programmes focusing on occupations that are confronted with a shortage of skilled workers. Sweden also benefits from a good tradition and a wealth of experience in language programmes. Nevertheless, the expectation must be that some years will pass before the large number of immigrants will be available to the Swedish labour market and to the institutes of higher education in an equivalent way. Swedish institutes of higher education and universities have begun to open up by offering more English language provision in order to become attractive to students from abroad. This certainly represents a further promising strategy to counter demographic change and to avoid a split in society between the privileged – people who have lived in Sweden for several generations – and non-privileged persons from a migrant background. It is as of yet not possible to assess whether it will be worthwhile for Sweden to apply a strategy which has already been adopted in some Finnish vocational school centres – namely, offering vocational qualifications in English which draw in well-qualified people from abroad and which may also provide an economically interesting field of activity for schools.

- ***Training for VET research***
  In order to strengthen and further expand VET research which is independent of the state and of current political objectives, a number of successful developments have been instigated over the past few years in connection with the funding of programmes for doctoral candidates. These include bolstering international networking and the establishment of a separate publication body for Scandinavian VET research. Nevertheless, further endeavours on the part of the Ministry of Education are required, firstly in order to strengthen research within the context of training for vocational school teachers. Secondly, networking with related disciplines needs to be fostered so that research into social issues such as gender, migration, age, wage differences and sector-specific habitus concepts and working conditions can be afforded broader attention. A further focus must be placed on conducting evaluation research into learning in the workplace in order to facilitate areas of potential for the systematic development of occupational knowledge, skills and comprehensive personal development at work. One problematic aspect in this regard seems to be the hugely diverging requirements in respect of the low level of academic research training given to teachers compared with the rising demands for VET research which has a strong academic basis and is methodologically sophisticated (see Kaiser 2020). A study in Germany shows the correlation between expansion of academic training for vocational school teachers and professionalisation of vocational and business education research (see Götzl et al. 2018). New career pathways would be conceivable here, and these could also include the institutes of higher education as an employment perspective for ambitious vocational school teachers, as is the case in Finland (see Lindberg 2018; Isacsson/Amhag/Stigmar 2018).

- ***Individualisation and career choice competency***
  If requirements increase with regard to people's control of their vocational development and the shaping of their own occupational history, including in connection with an increasingly unclear growth in opportunities, then the question arises as to where and when young people's systematic career choice competency is developed. If even proven VET experts in Sweden are scarcely any longer able to keep track of the possibilities (conversations with researchers and experts involved with administration), it will be necessary for early excursions into the world of work and systematic self-reflection to be interlinked in the Swedish Grundskola in order to allow career choice competencies to be developed.

- ***Attractiveness of VET***
  Interest in the vocational programmes has drastically declined since the reform of 2011, which actually set out to bring about an increase in participant numbers in these programmes (see Figure 11). The impression that opting for a vocational programme at the upper secondary level brings a severe curtailment of opportunities in its wake clearly seems to have been disseminated across the growing Swedish population. A negative impression of VET is gained if good marks achieved at the preparatory Grundskola seem to have been wasted when a vocational programme is subsequently chosen. "Vocational education and training should not involve wasting your marks" (Skolverket 2018f, p. 10[64]) runs the provocative statement included in a brochure issued by the National Agency for Education, which seeks to do away with all the new mythologies rejecting VET. An attempt is made to point out that subsequent transitions to a course of higher education study and stays abroad in connection with the vocational programme are just two of the possibilities available (see ibid.). In 2018, the government launched a vigorous campaign against this current trend, which has meant that two thirds of pupils progress to "higher education preparation programmes". The corresponding figure in the 1970s, following the integration of such programmes into the upper secondary sector, was a mere 30 percent. There is no empirical confirmation as to whether a general trend connected with the misguided educational policy signals sent out by the OECD and the EU in the 1990s, all of which called for broad basic training and the expansion of academic programmes for a developing "knowledge society", is being reflected in Sweden. It is also possible that young people do not wish to leave the protection of the school environment at such an early stage and therefore lose their peer group (see Struck 2017). Implementation of apprentice training and the associated expansion of practical orientation do not seem to be generating the desired effects – i.e. an increase in vocational programmes. Even the companies which are active in the Teknikcolleges and in their regional network do not appear to see gymnasiesko-

64 The original states: "Du ska inte kasta bort dina betyg på en yrkesutbildning" (translation through author).

la-based apprentice training as an attractive alternative, because they tend to associate this programme with recruitment of young people with lower-level abilities (discussions with vocational school teachers at the Rikskonferens Teknikcolleges November 2018, Västerås).

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Skolinspektionen: Gymnasiallärlingsutbildning. En kvalitetsgranskning av gymnasialskolans yrkesförberedande utbildningar. Rapport 2013:2, Stockholm 2013

SKOLFS 2010:14: Förordning om examensmål för gymnasieskolans nationella program.

SKOLFS 2010:261: Förordning om ämnesplaner för de gymnasiegemensamma ämnena.

SKOLFS 2011:144: Förordning om läroplan för gymnasieskolan.

SKOLFS 2012:101: Förordning om läroplan för vuxenutbildningen. URL: **https://www.skolverket.se/download/18.6bfaca41169863e6a65cc21/1553967485476/pdf3814.pdf** (status: 27/01/2022)

SKOLFS 2017:16: Förordning om ändring i förordningen (SKOLFS 2011:144) om läroplan för gymnasieskolan.

Skolöverstyrelsen: Läroplan för gymnasialskolan – Lgy 70. Allmän del. (Curriculum for the upper secondary sector general part) Stockholm 1971

Skolverket: Vi ser över yrkesutgångarna inom yrkesprogrammen. Stockholm2018a

Skolverket: Statsbidrag för gymnasial lärlingsutbildning 2018. 2018b

Skolverket: Snabbfakta. Stockholm 2018c

Skolverket: Curriculum for the compulsory school, preschool class and school-age educare (revised 2018). 2018d

Skolverket: Läroplan (Lspec11) för specialskolan, förskoleklassen och fritidshemmet/ Lehrplan für Spezialschulen. 2018 aktualisiert. 2018e

Skolverket: Gymnasiemytologin. Stockholm 2018f

Skolverket: The Pre-school is for your child. A booklet about the curriculum for the preschool. Stockholm 2017

Skolverket: Utbildning för nyanlända elever (Education for newly arrived pupils) 2016a

Skolverket: Supporting teachers and trainers for successful reforms and quality of vocational education and training: mapping their professional development in the EU – Sweden. Cedefop ReferNet thematic perspectives series. 2016b

Skolverket: Undervisningstid och heltidsstudier i gymnasieskolan. Stockholm 2015. URL: **https://www.skolverket.se/getFile?file=3485** (status: 20/10/2019)

Skolverket: Utvecklinmgen av lärlingsutbildningen. Rapport 2013:397. Stockholm 2013a

Skolverket: Curriculum for the upper secondary school. Stockholm 2013b

Skolverket: Curriculum for Adult Education Programme 2012. Stockholm 2012a

Skolverket: The school is for your child. A booklet about the new curricula and the new Education Act, specifically for those with children in the compulsory school, the compulsory school for learning disabilities, the special school or the Sami school. Stockholm 2012b

Skolverket: Läroplan för gymnasieskolan 2011, examensmål och gymnasiegemensamma ämnen. Stockholm 2011a

Skolverket: Kort om den svenska gymnasieskolan. Stockholm 2011b

Skolverket: Curriculum for the compulsory school, preschool class and the leisure-time centre 2011. Stockholm 2011c

SOU 2018:78: Internationalisation of Swedish Higher Education Institutions. Summary of the reports. 2018. URL: **https://www.regeringen.se/contentassets/2522e5c3f8424df4aec78d2e48507e4f/internationalisation-of-swedish-higher-education-and-research.pdf** (status: 11/06/2026)

SOU 2018:3 Internationalisation of Swedish Higher Education and Research – A Strategic Agenda. Stockholm 2018

SOU 2016: 77: En gymnasieutbildning för alla – åtgärder för att alla unga ska påbörja och fullfölja en gymnasieutbildning. Betänkande av Gymnasieutredningen. Stockholm 2016
SOU 2015: 97: Välje Yrke – Slutbetänkande av Yrkesprogramsutredningen. Stockholm 2015
SOU 2011:72: Gymnasial lärlingsutbildning – med fokus på kvalitet! Hur stärker vi kvaliteten i gymnasial lärlingsutbilnding. Slutbetänkande av Nationella Lärlingskomittén. Stockholm 2011. URL: **https://www.regeringen.se/rattsliga-dokument/statens-offentliga-utredningar/2011/11/sou-201172/** (status: 27/01/2022)
SOU 2008:27: Framtidsvägen – en reformerad gymnasialskola. Betänkande av gymnasieutredningen. Utbildningsdepartment. Stockholm 2008
SOU 2008:109: En hållbar lärarutbildning. Betänkande av Utredningen om en ny lärarutbildning. Utbildningsdepartment. Stockholm 2008
SOU 2002:120: Åtta vägar till kunskap. En ny struktur för gymnasieskolan. Bilagar 4: Förändriga av den svenska gymnasiala utbildningens struktur – en historik. Stockholm 2002, pp. 499–538
SOU 1999:119: Utvärderingen av KY-Rapport från en forskargrupp. 1999
SOU 1999:122: Kvalificerad Yrkesutbildningen Slutbetänkande från Kommittén. 1999
SOU 1996:27: En strategi för kunskapslyft och livslångt lärande. 1996
SOU 1995:38: Yrkeshögskolan. Kvalificerad eftergymnasial yrkesutbildning. 1995
SOU 1994: 101: Höj ribban! Lärarkompetens för yrkesutbildning
SOU 1992: 94: Skola för bildning
SOU 1963:42: Ett nytt Gymnasium SOU 1966: 3: Yrkesutbildningen. 1966
SOU 1948: 27: 1946 års skolkommissions betänkande med förslag till riktlinjer för det svenska skolväsendets utveckling. 1948
SOU 1938:26: Betankande met utredning och förslag angående centrala verkstadsskolor. 1938
SOU 1934:11: Åtgärder för bekämpande av ungdomsarbetslösheten. 1934
Statskontoret 2013:10: Reurserna i skolan (2013 investigation of the National Audit Office on the use of funding in the school system). Stockholm 2013
Sveriges Komunaloch Landstigen: Hälsooch sjukvårdsrapporten 2018. Stockholm 2018
Universitetskanslersämbetet: Higher Education in Sweden. Status report. Stockholm 2018b
Universitetskanslersämbetet: Universitet och högskolor – Årsrapport 2018. 2018c

Further information

Legal foundations, training regulations, curricular materials

The legal foundations of vocational education and training are addressed in chapter 5.1, where relevant indications of sources can alos be found. All the links provided below are in Swedish.

The central point of research for national legal sources is a database maintained by the Swedish parliament in which all legal foundations may be found under the abbreviation SFS (svensk författningssamling/Swedish Code of Statutes). This may be researched at: URL: **https://www.riksdagen.se/sv/sok/?avd=dokument&doktyp=sfs** (status: 02/03/2019).

Regulations which affect the Swedish school system and which are currently valid are collated on the website of Skolverket (National Agency for Education) at: URL: **https://www.skolverket.se/regler-och-ansvar** (status: 02/03/2019).

Indications of vocational school curricula as amended, the equivalent of training regulations in Germany, may be found at: URL: **https://www.skolverket.se/undervisning/gymnasieskolan/laroplan-program-och-amnen-i-gymna-sieskolan/gymnasieprogrammen** (status: 02/03/2019).

Addresses

The English names of the following institutions are set out before the official Swedish designations. Further address and contact details are provided if available

Swedish Ministry of Education
Utbildningsdepartementet
Drottninggatan 16, Stockholm
Phone: 08-405 10 00 (växel)

National Agency for Education
Skolverket
Fleminggatan 14, Stockholm
Postal address: Skolverket, 106 20 Stockholm
Phone: 08-527 332 00
E-Mail: **registrator@skolverket.se**
Web: URL: **www.skolverket.se**

National Agency for Higher Vocational Education
Myndigheten för Hökskolan
Postal address: Myndigheten för yrkeshögskolan; Box 145; 721 05 Västerås
Visitor address: Ingenjör Bååths gata 19; 722 12 Västerås
Phone: 010-209 01 00
E-Mail: **info@myh.se**
Web: URL: **www.myh.se**

Higher Education Authority
Universitetskanslersämbetet
Löjtnantsgatan 21, Stockholm
Phone: 08 563 085 00
Fax: 08-563 085 50
E-Mail: **registrator@uka.se**

Employment Agency
Arbetsförmedlingen
Visitor address: Hälsingegatan 38, Stockholm
Postadresse: 113 99 Stockholm
Phone.: 0771-60 00 00
Web: URL: **https://arbetsformedlingen.se/**

Swedish Ministry of Labour
Arbetsmarknadsdepartementet
Fredsgatan 8, Stockholm
Phone: 08-405 10 00
Fax: 08-20 64 96

Internet addresses for further research

URL: **http://www.sou.gov.se/** (index of all investigations commissioned by the Swedish government, stored as PDF documents)

URL: **https://sharingsweden.se** (wide-ranging provision of information brochures and brief summaries on Sweden, including topics such as the government and education system, the economy and culture (published by Svenksa institutet (see: URL: **https://si.se/**), a public institute with the remit of promoting Sweden across the world, comparable to the Goethe Institute in Germany).

URL: **https://www.teknikcollege.se/** (Website of the regional technical VET consortia in Sweden, a new form of VET in the technology sector).

URL: **https://www.tannbergsskolan.nu** (Website of a Swedish vocational school in the rural north-west of the country. Includes a digital tour which provides an insight into all the equipment at the school including the workshops).

Statistical sources

URL: **https://ec.europa.eu/eurostat/web/main/home** (Eurostat is a Directorate of the European Commission which is responsible for the preparation of comparable statistics within the European Union).

URL: **https://www.scb.se/en/** (Swedish central statistics agency which also has information in English).

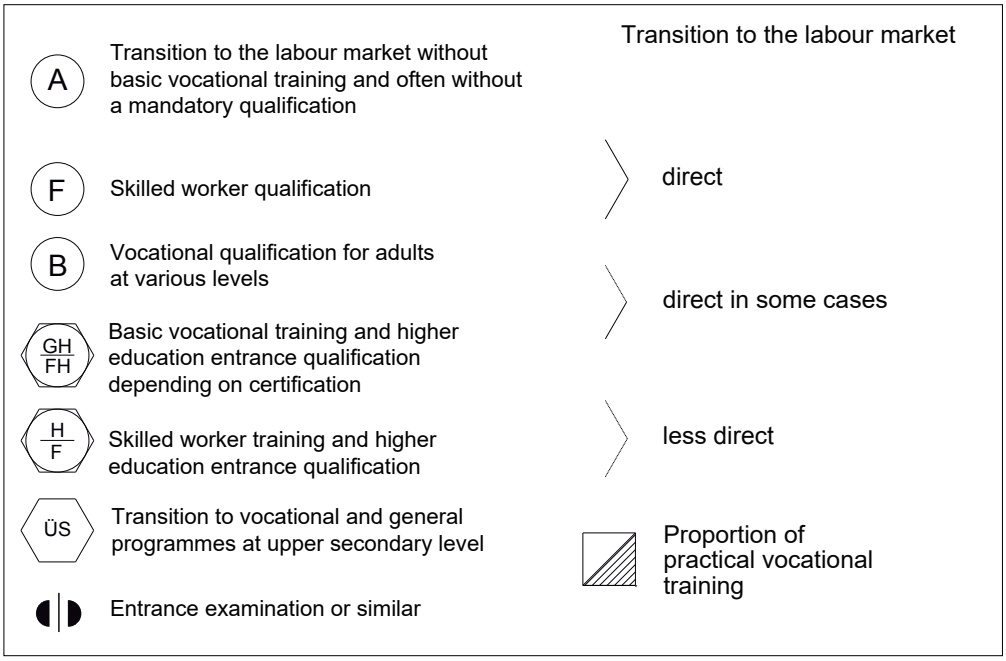
URL: **https://www.skolverket.se/skolutveckling/statistik** (School statistics of "Skolverket", the National Agency for Education).

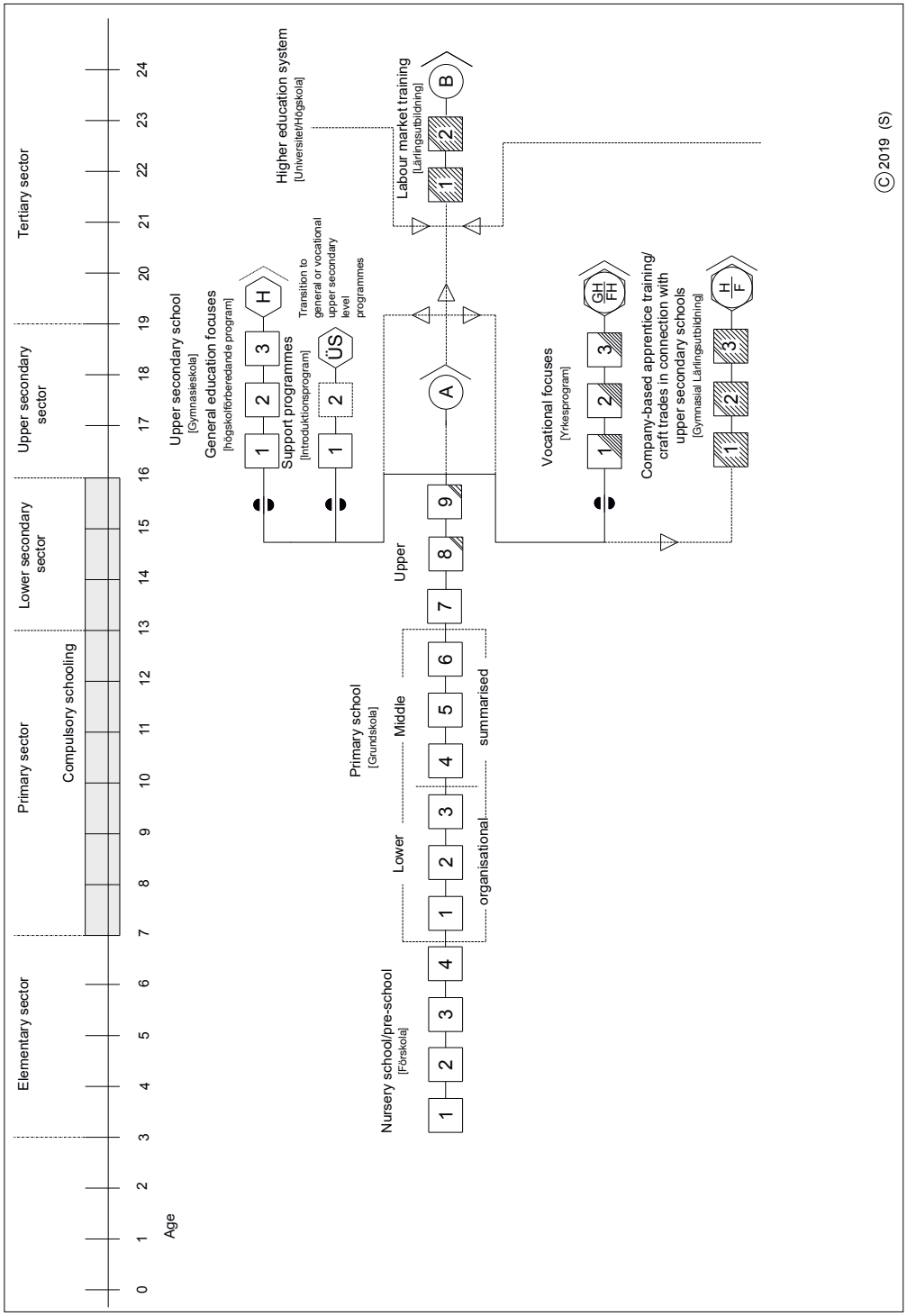
URL: **https://www.uka.se/** (Swedish Higher Education Authority (Universitetskanslersämbetet), which acts on behalf of the government and is responsible for the development and quality assurance of academic education in Sweden and prepares the official statistics)-

URL: **https://www.handelskammer.se** (Website of the German-Swedish Chamber of Commerce containing information on Swedish trade and industry and on wage structures).

Organigram of the education system

Figure 15: Organigram of the education system (general education and vocational training including higher education)





Source: Own representation

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The "International Handbook of Vocational Education and Training" (IHBB) has developed into a practice-related standard work for comparative VET research in the German-speaking countries. The studies concentrate on national vocational education and training and education systems and provide an introductory insight into the general socio-economic conditions and educational policy competencies in the respective countries. The Handbook presents the education systems from a VET perspective and traces their structural and historical lines of development. The International Handbook of Vocational Education and Training was founded by Dr. Uwe Lauterbach and Professor Wolfgang Mitter at the German Institute for International Pedagogical Research in 1994. It originally comprised a loose-leaf compilation and has been supplemented and updated on an ongoing basis ever since.

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Sweden is characterised by a welfare state policy understanding. It has a high level of state involvement in the education system, which also includes vocational training. Permeability is guaranteed between different educational pathways, and individual support is practised inclusively. The school-based VET system gives young people access to all sectors without the need for special prerequisites. Through the integration of VET programmes into the upper secondary school, education is also formally linked to access to higher education. The subsequent higher education and adult education is free of charge and flexibly geared to labour market requirements in the vocational qualification sector.

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