Vocational Education and Training in Norway: Growth in Apprenticeships[1]

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Introduction

Since the turn of the century, there has been a renewed political interest in vocational education and training (VET) in general, and in apprenticeships in particular, both on the national and the transnational level. Policy discourses on education and skills in developed economies have increasingly focused on VET. Vocational education and training is seen as instrumental in achieving policy objectives related to economic development, productivity, and labour market integration. The balance of objectives in the policy discourse has varied somewhat from country to country, where the role of VET is seen as pivotal in enhancing productivity in some countries, while transitions and inclusion of youths in the labour market have dominated the policy debate in others. On the transnational level, both objectives are evident (OECD 2010). Although budgetary constraints following the financial crisis have dampened public spending on VET, the renewed interest in VET and apprenticeships has increased policy makers attention to their countries' VET systems. In some cases it has led policy makers to adopt new apprenticeship schemes, including countries with skills regimes where apprenticeships have traditionally played a marginal role, like Sweden.

In this perspective, the Norwegian case may provide an interesting insight into the preconditions for a growth in apprenticeships. Norway has had a marked rise in the number of apprenticeships over the last four decades. Apprenticeships as an institution in the skill formation system survived the changes in the public school systems of the Scandinavian countries in the 1950s and 1960s unlike in Sweden where apprenticeships became a marginal element (Nyen & Tønder 2014, Olofson 2005). However, by the early 1970s, apprenticeships in Norway were at a low, with only a couple of thousand new apprenticeships a year. Since then, the number has risen to almost 20 000 by 2015, partly due to reforms of VET and in upper secondary education in general. Key factors have been the ability of employers within different industries to agree on a common position, and the ability of employers, labour and national education authorities (the state) to agree on reforms.

The Norwegian VET system in an international perspective

Norway is small country, with a population of about 5,2 million people (2016). The industrial economy is concentrated on technologies of extraction and processing of raw materials, including deep-water oil and gas technology, seafood, maritime equipment and metallurgical industry. However, 31 percent of all employed (2015) are found in the public sector, in which health care, elderly care and education employ the largest shares of the work force. The distribution of education in the population (16 years and older) is 28 percent with lower secondary education (or lower), 42 percent with upper secondary education and 30 percent with higher education (2013).[2]

Primary and lower secondary education is obligatory and uniform (with no tracking) and lasts ten years (6-15 years). All youths have a statutory right to upper secondary education, and 98 percent of 16 year olds commence upper secondary education, either on a general programme or a vocational programme. In recent years, the proportion of 16 year olds applying for a vocational programme has been around 40 percent, but the VET share is higher among older applicants, resulting in a slightly higher total proportion of applicants to a vocational programme (47 percent in 2015). This figure has however dropped somewhat in recent years. Norway has a unitary school system at the upper secondary level, with vocational programmes and general academic programmes offered within the same schools and with opportunities to switch from a vocational programme to an academic programme during the course of the programme. However, vocational programmes do not provide general entry qualifications to higher education. Vocational students achieve a trade certificate in a particular trade – a qualification whose labour market value differs between trades and labour markets, but generally provide access to work (Nyen, Skålholt & Tønder 2015).

Almost all vocational education follows the 2 + 2 – model with two years at vocational school followed by two years apprenticeships. There are national curricula also for the apprenticeship training. There are at present (2016) eight vocational programmes, branching out to 52 second year courses and apprenticeships in almost 200 trades. However, the vast majority of apprenticeships are found in about 60-70 trades. The first year in a vocational programme has a broad vocational content, and students aiming for many different trade certificates study within the same program. The programme Building and construction leads for instance to 33 different trades, although only about 5 to 10 are major trades with a considerable number of apprentices. In the second year, the vocational education is more specific, but still most second year courses encompasses several trades, in some cases many trades. Besides students have general subjects in the first two years like Norwegian, maths, English etc. Vocational students apply for apprenticeships during the latter part of the second year at school and don't make a choice of trade until then (though a few second year courses are devoted to only one particular trade). Students who are unable to secure an apprenticeship are entitled to an alternative third year at school. However these courses have been considered inferior to apprenticeships and have had low participation rates and high failure rates. As apprentices they are generally trained full time in the companies, and do not revert to school, although some may receive some training at training offices, which are separate legal institutions usually owned by a group of training companies. Exceptions to the 2 + 2 – model are rare, but a small number of trades have a different mix of school based education and apprenticeships, for instance electricians with a 2 + 2,5 model, and a very limited number of educations are purely school based, for instance pharmacy technician.

There are various typologies of skill formation systems (Busemeyer & Trampusch 2012). One typology offers a distinction between a liberal market-based model, a state-regulated model and a corporate model (Greinert 2004). In a *liberal market economy model* vocational training is provided by individual companies based on firm-specific skills demands. There is little or no government regulation of VET. The United States is an example of a liberal model. In a *state-regulated bureaucratic model*, vocational education is primarily governed by the state, with little involvement by employers, labour or individual companies. Training takes place in the school, with some practice periods in firms. Training tends to focus on general academic and broad vocational subjects, with less emphasis on vocational specialization. Sweden and France are often cited as examples of this model. In a *corporate model*, the social partners have "ownership" and play a significant role in the governing of vocational education and training through a corporate infrastructure in which the social partners as well as educational authorities are involved. Vocational education is formally regulated by the state. Apprenticeship training at the workplace is combined with school-based training through some kind of a dual system. Germany and Denmark are examples of this model.

Norwegian vocational education and training is a mixed model with elements from different skills regimes. As such it may be categorized differently by different observers, depending on what elements of the Norwegian skills regime that weighs most heavily in the assessment. Norwegian observers tend to classify the system as a hybrid between a state-regulated bureaucratic model and a corporatist/collective model (Olsen, Høst & Michelsen, 2008; Nyen & Tønder 2014). Other researchers have placed more weight on the elements of the Norwegian model that resembles the state-regulated model (Thelen 2014), especially the fact that formal decision-making power on VET rests with the national education authorities. There is a corporatist infrastructure of tripartite bodies at the national and regional levels, with advisory but not decision making functions. On the other hand, the crucial role of trades and apprenticeship training constitutes an important difference between the Norwegian and the Swedish models. During the last two years of initial vocational education and training, students in the Norwegian model are apprentices employed by a training company. As apprentices, they receive wages that are regulated by collective agreements. Also the test required to obtain the trade certificate is generally evaluated by skilled craftsmen using work relevant criteria rather than by educators evaluating with reference to curriculum targets (Deichmann-Sørensen et al. 2012). This practice leaves craftsmen a crucial role in the certification of new

VET graduates in many trades. In all these respects the Norwegian VET model is closer to the dual Danish model than the school-based Swedish model.

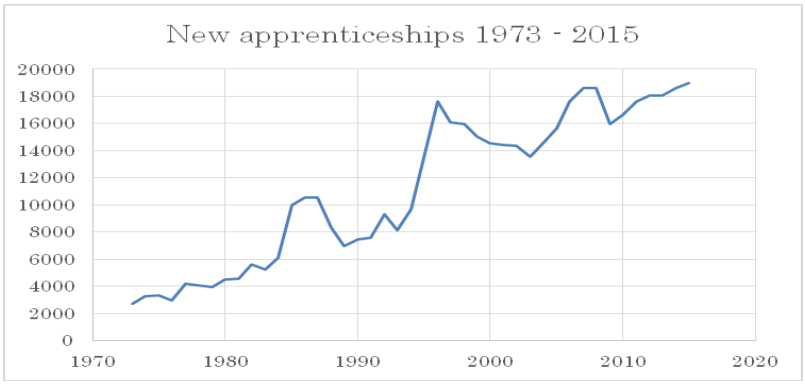
Reform and evolution of Norwegian VET since the 1970s

Institutional legacies from the 1950s and 1960s

In several historical phases the different trajectories of the VET systems of the Nordic countries has been shaped. Our perspective in this article is to describe the development of the Norwegian VET system after the 1970s and to analyse the reasons why apprenticeships regained such a central position in the VET system. It can be argued that different institutional legacies from the 1950s and 1960s can help explaining why apprenticeships regained a central position in Norway, but not in Sweden. During the 1950s and 1960s governments in the Nordic countries increasingly sought to regulate VET. But while Norwegian employers in that period actively seeked state involvement and cooperation, Swedish employers were much more reluctant to cooperate with the state. The Swedish employer organisation initially wanted a trade-based vocational education, with less public involvement. However, their policy of resisting government interference in collective agreements, rooted in the Saltsjöbaden agreement of 1938, paradoxically made them leave initial VET to the state educational authorities. Besides, strong forces within the labour movement advocated a broad general school-based vocational education, which was seen as a way of reducing class differences and providing education for all. The result was that VET in Norway became the subject of tripartite discussions, while in Sweden it became the domain of the state. The apprenticeship system survived in Norway in some sectors as a recruitment and skills development system outside and poorly linked to the upper secondary school system.

Resurgence of apprenticeship training in the 1980s

In the 1970s apprenticeship training had a weak position in Norway, with only 2-3000 new apprenticeship contracts signed each year. Some actors, including the youth organization (AUF) of the Labour Party, were in favour of abolishing apprenticeship training altogether. The main argument was that the apprenticeship system maintained and reinforced social inequalities. The opponents of apprenticeship training argued for promoting social mobility through general education and access to higher education: privileges that had previously been reserved for the middle class (Mjelde, 2002). Instead of fading into history, however, the apprenticeship system became the core of most VET, with a large increase in the number of new apprenticeships contracts as a result, as illustrated by graph 1.



Source: Høst, Skaalholt & Nyen (2012).

As the graph indicates, there have been particularly two phases with substantial increases in the number

[1] A part of this article is based on a longer article by the authors about the evolution of Norwegian VET, see Nyen, T. & Tønder, A. H. (2015). Cooperation and Reform in Vocational Education and Training. I F. Engelstad & A. Hagelund (red.), *Cooperation and Conflict the Nordic Way* (s. 201-218). Berlin: De Gruyter Open.

[2] All data in this paragaph from Statistics Norway.

of new apprenticeship, the first in the 1980s and the second in the 1990s, both due to legislative and institutional changes we describe in more detail below. The downturns in the late 1980s, early 2000 and late 2000 were mostly due to economic cycle effects, which the number of new apprenticeships each year is still heavily influenced by (Høst, Gitlesen & Michelsen, 2008).

A first new interest in apprenticeships came in the early 1980s. Legislative measures as well as new cooperative measures between firms contributed to the expansion of the apprenticeship system as a training model. In 1981 the Apprenticeship Act of 1950 was replaced by the new Act on Vocational Training. The new Act on Vocational Training applied to the whole country while the former act applied to cities and urban areas only. The legislation also encompassed new sectors and trades, for instance within chemical processing and food processing (Høst, Gitlesen & Michelsen, 2008). The new act also established a new model of tripartite cooperation within the Norwegian VET model, where employers and organised labour had an influence on the content of the training within a particular trade.

The expansion of apprenticeships to new trades and new geographical areas contributed to the strengthening of the apprenticeship system during this period. In addition there was also an increase in the state grant given to training companies for each apprentice. A new institutional element was introduced which gradually has become more and more important: a number of training offices ("opplæringskontor") were established by employers in order to strengthen cooperation in apprenticeship training. Training offices are collective enterprises owned by training companies, which perform a large number of functions. They assist the training companies in their training of apprentices, they sign the apprenticeship contracts and handle the administrative paperwork, and also work to find apprenticeship places and recruit new training companies (Skule, Stuart & Nyen 2002, Høst et al. 2014).

However, by the end of the 1980s an economic downturn led to rising unemployment, especially among youths. Structural changes in the economy had led to a long term decline in youth employment by the late 1980s and early 1990s. The economic downturn exacerbated the situation. Reduced labour market opportunities for unskilled youths led an increasing number of youths and young adults to apply for upper secondary education. Capacity problems in upper secondary education in Norway meant that a large number of applicants had to be turned down. A low progression rate in vocational programmes reinforced the capacity problems in upper secondary schools. Many students moved horizontally from one basic course to another without progression to advanced courses and/or left without obtaining formal qualifications. The structure of upper secondary education was considered an important reason: a high degree of specialisation from the first year (with over 100 different basic courses) coupled with weak links between school based courses and apprenticeships.

The Reform 94: integration of apprenticeships in upper secondary education

These problems sparked a policy process in the late 1980s which ended up in the reform of upper secondary education called Reform 94, named after the year it was implemented (1994). A public committee with representation from the social partners and other parties with stakes in the policy field was appointed in 1989 to prepare a report on how to achieve a political goal of upper secondary education for all. The main employer (Confederation of Norwegian Enterprise NHO) and employee organisations (The Norwegian Confederation of Trade Unions, LO) involved themselves heavily in the process, which led to a joint declaration on vocational education and training. The joint declaration outlined basic principles which together with the committee report formed the basis for the subsequent reform. An important feature was the principle that all VET should have a broad theoretical basis, which could provide a foundation for lifelong learning in a society where skills needs in the trades and in the labour market as a whole would change over time.

The main features of Reform 94 were based on the report from the Blegen Committee and the Joint Declaration of the social partners. Reform 94 tied vocational school based courses and apprenticeships together and made apprenticeship a core element of (almost) all initial VET. The 2+2 model, with two years

of school-based education followed by two years of apprenticeship, was established as the main model for all vocational education and training. The number of first year courses was drastically reduced, introducing vocationally broader first year courses and more common subjects, allowing for later specialisation. It reduced progression problems as students could start VET and even continue to second year courses without having made a final choice of trade/occupation. With the reform all youths were legally entitled to three years of upper secondary education/training, where apprenticeships were counted as one year training and one year production.

Through Reform 94, the apprenticeship system was formally integrated as a part of upper secondary education, and vocational education and training became the shared responsibility of the state and the social partners. The establishment of the 2+2 model as the standard model can be seen as a compromise solution, balancing general education and breadth with vocational specialization and practical training in the workplace. Apprenticeships were seen as a way to develop work relevant competence in a small open economy that relied on competitiveness and skills development. Establishing apprenticeships as a core element would also stimulate engagement in VET by companies and the social partners, and thus ensuring that VET should be closely related to skills needs in the companies.

In later years, the main principles of Reform 94 when it comes to VET has been preserved, including the 2+2 model, but the 2006 reform, "The Knowledge Promotion Reform", reduced the number of first year and second year courses even further and made the existing courses broader. One of the aims was to improve progression by allowing students more time to consider their educational choice with a lesser risk for having to shift to a new course on the same level. A new "vocational specialisation" element, originally called "the in-depth study project", was also introduced to allow possibilities for trade-specific specialisation (usually through practice at a workplace) within the broad courses. It was argued that the combination of broader programmes and opportunities for vocational specialization were necessary to accommodate skills needs in different parts of the labour market (Nyen & Tønder, 2013).

Key factors

It was by no means obvious that apprenticeships were to become a key element of Reform 94 as the same issues of globalisation and more rapid technological change in other countries, like Sweden, led to quite different education policies. A key to the understanding of why apprenticeships regained such a central position in the Norwegian VET system is the role of the social partners in policy making in general, and on education policies in particular. A tradition for VET being the domain of both educational authorities *and* the social partners meant that employers and organised labour had a legitimate stake in policy processes regarding VET and upper secondary education. This tradition was reinforced through the institutional and legislative changes of the early 1980s, which strengthened the corporative elements of the Norwegian model and institutionalized tripartite cooperation in vocational education and training.

However, the existence of tripartite policy arenas alone cannot explain the central role of apprenticeship in the reform. A long standing cooperation between employers in crafts and manufacturing within the encompassing employer organisation NHO was very important in securing support for the reform from the employer side. Employers within crafts have traditionally preferred to develop both theoretical and practical skills simultaneously, primarily at the workplace closely integrated with the production process. Employers within manufacturing industries have on the other hand preferred vocational school based learning to take place separate from and before work place learning. These employers were able to reach compromise through Reform 94, and although it served the interests of manufacturing more than crafts, apprenticeships was a key element for crafts and construction. Equally important was the position of the trade union/labour side. Apprenticeships were accepted as a training model by the encompassing Norwegian Confederation of Trade Unions (LO), which organised both skilled and unskilled labour. This was partly due to the fact that wage differentials between skilled and unskilled labour have been a part of Norwegian collective agreements since the first nationwide collective agreement in 1907. Thus apprentices

achieving the trade certificate will receive a wage that at least partly reflects their increased productivity and compensates for the reduced wage during apprenticeships. As a result, apprenticeships had survived as an acceptable training model for the labour union side.

It should also be added that policy learning played an important role in the preparation of the Reform 94. Both organised labour and other actors in the public committee were inspired by the German model, with a broad conception of vocational competence (*handlingskompetanse*) inspired by the German *facharbeiter*. This matched well policy goals related to broad vocational educations, while at the same time reaping the benefits of work place learning through apprenticeships. Also by central politicians, apprenticeships were seen as a way to meet the challenges associated with relating VET to increasingly changing skills needs in the labour market as a result of the globalisation and rapid technological change. Besides, the ambition to provide upper secondary education to all would be costly to achieve by school based education and training alone. All parties in the tripartite cooperation had something to gain from a model which shared responsibilities and costs between the state and the social partners.

As this analysis shows, there are a number of reasons for the resurgence of apprenticeships in the Norwegian VET system, but the established tradition of tripartite cooperation in Norway, and the ability of employers to coordinate action, has at least provided a vital foundation for these reforms. It would be hard to imagine apprenticeships gaining a vital position without this institutional framework of tripartite cooperation.

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