

Continuity and Change in Norwegian Vocational Education and Training (VET)

Håkon Høst (ed.)



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Norsk institutt for studier av innovasjon, forskning og utdanning
Norwegian Institute for Studies in Innovation, Research and Education
Wergelandsveien 7, 0167 Oslo
Tlf. +47 22 59 51 00 • www.nifustep.no

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Preface

This report, which is an English edition of NIFU STEP Report 20/2008: *Fag- og yrkesopplæringen i Norge – noen sentrale utviklingstrekk*, addresses some important developments in the vocational education and training (VET) in Norway. The Norwegian Directorate for Education and Training commissioned the report, in seeking a basis for its own reporting within this field to Cedefop.

The NIFU STEP report includes topics on how access to apprenticeships develops in the conflicting relationship between education policy and the state of the market, access to VET both for young people and adults, and changes within the management of VET. In addition to summarising existing knowledge in different fields, the report contributes with new knowledge within important areas. Not surprisingly, the report has also disclosed large, unsatisfied needs for research and knowledge within this central area of vocational education in Norway.

Håkon Høst is the project leader and editor of this report, which is organized in chapters with its own authors. In addition to Høst, Eifred Markussen, Mari Wigum Frøseth, Berit Lødding and Nina Sandberg from NIFU STEP have contributed to the report. Svein Michelsen from the University of Bergen and Jens P. Gitlesen from the University of Stavanger are co-authors of chapter 2.

Oslo, July 2008

Per Hetland
Director

Eifred Markussen
Head of Research

Content

Summary	9
Chapter 1 Introduction.....	13
<i>Håkon Høst.....</i>	<i>13</i>
Knowledge basis for Cedefop reporting	13
The temporal focus of the report.....	13
The research material	14
Limitation.....	16
References.....	16
Chapter 2 How the number of apprenticeships are influenced by policy and economic cycles.....	17
<i>Håkon Høst, Jens Petter Gitlesen and Svein Michelsen</i>	<i>17</i>
The apprenticeship system – subordinated or autonomous to the labour market?17	
Reform 94 and the apprenticeship system as education.....	18
The problem of coping with market failure	20
The internal development of the apprentice system: horizontal and vertical growth.....	20
Geographic expansion.....	22
The contribution of different trades to the growth	23
Vocational education and other educational traditions	24
The apprenticeship system between expansion and cycle	24
Summary and conclusion	27
References.....	28
Chapter 3 Completion, drop-out and attainment of qualification in upper secondary vocational education in Norway.....	31
<i>Eifred Markussen, Mari Wigum Frøseth, Berit Lødding and Nina Sandberg</i>	<i>31</i>
Fewer students attain qualification in vocational than in general education programmes	32
Many applicants for vocational education programmes do not plan on achieving a vocational qualification	32
Drop-out is primarily a phenomenon among students in vocational education programmes	34
Grades from the last year of compulsory school are the most decisive for completion, drop-out, and attainment of qualification in upper secondary education.....	35
Reasons for dropping out among students in vocational education programmes.	36
Structural hindrances produce drop-out	37
More apprentices attain qualification, fewer drop out	38

The attainment of qualification among the apprentices according to their background and performance in compulsory education.....	39
What explains the attainment of qualification among the apprentices?.....	41
Reasons for dropping out among the apprentices	42
The training candidature scheme is seldom used.....	43
Summary	49
References.....	51
Chapter 4 Inclusion of adults in VET.....	53
<i>Håkon Høst</i>	53
Vocational education in school	54
Apprenticeship	55
Experience based Trade Certification	55
The 1990s regime change : The adults out of upper secondary school	57
No fewer adult apprentices.....	58
The quantitative significance of the Experience based Trade Certification	60
Trade distribution.....	61
Age and gender distribution.....	62
The Competence Reform of 1999:.....	64
Has this given adults better access to VET?	64
The number of adults in upper secondary school	64
Competence assessments	66
Health and social care dominates.....	67
Competence Reform as labour market reform.....	68
Transition from VET to higher education.....	69
Summary	69
References.....	71
Chapter 5 The status of vocational education	73
<i>Håkon Høst</i>	73
Summary	77
References.....	77
Chapter 6 Career Counselling: New subjects to guide student choice.....	79
<i>Berit Lødding</i>	79
The need to strengthen career counselling	79
Professional qualification of counsellors	80
The Elective Programme.....	81
In-depth Study Project.....	82
New division of tasks in career counselling.....	82
Evaluations of the efforts	83
Summary	85
References.....	85

Chapter 7 Governance and cooperation	87
<i>Håkon Høst</i>	87
Institutionalisation and the role of the social partners	87
From work to education – from self-government to participation.....	88
The Local Training Agencies: between company and the county VET administration	90
Dimensioning and distribution.....	91
Summary	93
References.....	94
 Chapter 8 Measures for quality improvement in VET.....	97
<i>Håkon Høst</i>	97
Still master-apprentice relationship and final craft or journeyman’s examination	98
User surveys.....	99
The Local Training Agencies are important	100
Dimensioning school places and distributing apprentices are primary tasks for the County Vocational Training Boards	100
Summary	101
References.....	101
 Chapter 9 Research-related challenges	103
<i>Håkon Høst</i>	103
The mechanisms behind the growth and the expansion of the apprenticeship system	103
The relationship between opting out and a flexible age system	103
Experience based Trade Certification and assessment of formal, non formal and informal competence.....	103
What do the changes in the governance structure mean?	104

Summary

Since the beginning of the 1990s, a number of political measures have been taken in order to strengthen the basis for the apprenticeship system as a part of the upper secondary education system in Norway (Chapter 2). The enterprises have responded to these measures through a significant expansion of the range of the apprenticeship system. This illustrates the apprenticeship system's ability to adapt to new societal, economic, and social conditions. The traditional apprenticeship areas in industry and crafts have consolidated their position as dominant within the system. Although the apprenticeship system has also expanded within the service sector, it is too early to conclude that it has achieved the same foothold here. The growth in the number of apprenticeships has particularly emerged as the result of a regional levelling out, which at the same time helps to strengthen a decentralised education system.

To what degree has the attempts to stabilise the access to apprenticeships after Reform 94 been successful? Continual cyclical variations in access to apprenticeships within industry and crafts can be documented. These demonstrate a systematic correlation with the economic cycles. Despite various political measures to stabilise access to apprenticeships, no development can be proven in the direction of market independency among the industrial and craft disciplines during the period since 1995. Model calculations imply that if the correlation between the economic cycles and access to new apprenticeship contracts has changed since Reform 94, it has been in a negative direction. Market dependency is thus at least as strong as it was previously. As such, the apprenticeship system still appears as an arena linked to the recruitment of labour and to the cycles of the work market.

Despite the growth in the apprenticeship system and improved market conditions, providing an apprenticeship place for all young people that apply is still far from accomplished (Chapter 3). About one-third of the applicants are rejected. Of these, about half disappear from the upper secondary education system. This is one of the factors that explains that a mere half of those who start a vocational education end up with formal certification, either vocational or as preliminaries to university studies. Despite the large numbers who do not achieve these goals, the alternative arrangements of lower level of competence and training candidature scheme have produced quite modest results up until now. One thing that partially accompanies the issue of drop-out is career counselling (Chapter 6), which the education authorities have now listed as a priority, though at this point, we know very little about the outcome.

Approximately 30 per cent measured as a proportion of yearly cohorts today complete an apprenticeship as a part of their upper secondary education. This is a considerable increase since the early 1970s. However, only half enter into apprenticeship contracts at the normal age, which would be at 18 years old (Chapter 5). The rest complete the apprenticeship at a later time. The Norwegian vocational education system's traditional age-based openness is kept within the apprenticeship system in this way (Chapter 4). Adults have not been displaced

by young people, but the entire increase in the search for apprenticeships has benefited the younger.

Experience based Trade Certification as a system of certification has become a more cultivated adult education system with an average age base that is nearly ten years higher than it was during the first half of the 1990s, but the system has just as much quantitative significance as it did then. A major change has happened within school-based VET. After adult access was significantly limited in 1994, the Competence Reform of 1999 opened up a new focus on adults. Even though the number basis is uncertain due to very poor statistics in this area, nothing indicates that the extent of adults in upper secondary education has increased after the reform. Rather, there appears to be significantly fewer adults at this educational level than there were during the first half of the 1990s. The exception is certain areas of school-based VET, as for example within the health and social programme, where there has been an obvious growth after the Competence Reform.

A significant change has been that around half of the adults are now undergoing an assessment of informal competence before entering this form of education. Informal competence assessments have especially gained significance in school-based vocational education. Within vocational education, it seems that the social partners still prefer Experience based Trade Certification as a system of certification and to a lesser degree being the motivating force for new forms of assessments.

Admission of adults to higher education on the basis of work experience, and approved informal competence achieved a great uplift during the first years following the competence reform, and this has had a considerable impact on applications for entry to health and social education in particular, as well as within teacher education.

After the social partners over several decades had relatively extensive autonomy in the vocational education system, the state gave the public administration complete control of this system from the 1990s on (Chapter 7). The social partners have instead been given a significant position for participation and policy advising. The changes have been explained as a desire for a more unified governance of the education sector, and greater flexibility for the government with regards to changes in vocational education.

The dimensioning of the education system and placement of apprentices have become central and comprehensive tasks for the county municipalities and vocational education offices. After Reform 94, a tendency was that the vocational training administration changed from a focus on the needs of working life to a focus on the municipal county's needs and welfare state values about redistribution. Companies generally seek out a greater emphasis on the needs of the labour market both with regard to the proportioning of school places and the placement of apprentices. Between the companies and the county municipality, the Local Training Agencies have gained a significant position in vocational education's institutional framework.

The agencies play different roles, but placement of apprentices, administrative relief, and educational cooperation are key issues.

The education authorities place great and increasing emphasis on ensuring quality in vocational education and training (Chapter 8). At the moment this is shown through a number of individual measures, although one also sees the contours of a more continuously quality assurance system that is to be adapted to a more unified quality assurance system for upper secondary education. The government's access to information about the training is limited today, especially in what is going on in company training and the quality of it. Some tools exist for quality assessment, but these are utilised irregularly, especially within in the companies. Good indicators of quality are also lacking, and for the time being there are divergent perspectives in key areas about the instructor's competence qualifications, and what forms of apprentice testing are most suitable.

Chapter 1 Introduction

Håkon Høst

Knowledge basis for Cedefop reporting

The background for this report is the Directorate of Education and Training's inquiry to NIFU STEP regarding the need to systematise knowledge about Norwegian vocational education and training (VET) policy and the effect it has had on education. This is due to the fact that the Directorate needs to report about this to Cedefop¹. The topics to be covered were the following:²

1. The socio-cultural and economic context for VET
2. Improved access to and equity in VET
3. Lifelong learning through VET
4. Improving the quality of VET
5. Strengthening the links between VET and the labour market
6. Governance and financing
7. Implementation of European Union (EU) tools

The following seven chapters of the report do not directly correspond to the topic areas, but each chapter will illuminate one or several of the topics in a range of ways.

The temporal focus of the report

As a consequence of Cedefop's wishes, NIFU STEP was asked to look at the developments during the period since 2005. Such a limitation would make the space for analysis quite narrow. First, research and statistically based knowledge about vocational education and training is very limited for the period since 2005. Second (and this should be made clear early on), it is not possible to write meaningfully about the development during recent years without having that analysis historically informed. We were later informed by the Directorate of Education and Training that even the Cedefop report itself has subsequently been changed such that the period back to 2002 should be included as well.

¹ Cedefop stands for **C**entre **E**uropéen pour le **D**éveloppement de la **F**ormation **P**rofessionnelle. They present themselves on the institution's websites as "a European agency that helps promote and develop vocational education and training in the European Union (EU). It is the EU's reference centre for vocational education and training".

² *National ReferNet reports on the progress in the policy priority areas for Vocational Education and Training*. Cedefop, Thessaloniki 2007. Cedefop's list of topics also contains an item about comparable statistics and one point about VET policy after 2010, These are not dealt with in this report.

We have aimed to obtain data from the period after 2002 in particular. At the same time, we believe data from this period must be put into context. In many areas, this means that such data must be analysed alongside the extensive political measures for restructuring vocational education during the 1990s. Thus, analysis of the former situation cannot be limited to the period immediately prior to 2002, but in many contexts will also need to include the situation prior to Reform 94.

The research material

At the same time, the bulk of the material of research-based knowledge in this field in Norway is focused on the period around the implementation of Reform 94. In many areas of vocational education and training, no research has been undertaken since the extensive evaluation of this reform. The evaluation had the character of so-called follow-up research; that is, one continuously follows the implementation and reports in order to enable the government to improve or supplement the implementation during the process (Tornes 1997). While this type of research can provide knowledge and enhancements that can contribute to better governance, it is also clear that many effects of such a comprehensive reform will not be readily evident until several years have passed. An example here can be the objective of neutralising or modifying the effect of the market on the provision of apprenticeships, such that the apprenticeship system can function as a stable part of the upper secondary education system. Another example is the objective of providing adolescents from upper-secondary school first priority of apprenticeships. During the implementation of Reform 94, we saw some immediate effects of the policy and means in these areas (Vibe, Evardsen, and Sandberg 1997, Høst, Michelsen and Gitlesen 1997, Michelsen, Høst and Gitlesen 1998). At the same time Norway was in the middle of an economic upswing, vocational education and training was changing rapidly, there were many new trades, and very little had settled.

Today, 14 years after the reform, it is possible to investigate whether a reasonably stable pattern stands out with regard to the growth and cycles of apprenticeships, and also to examine the apprenticeship system's connection to other parts of the education system. In Chapter 2, Håkon Høst, Jens P. Gitlesen (University of Stavanger), and Svein Michelsen (University of Bergen) discuss the apprenticeship system's position between policy and economic cycles. The chapter follows up a similar analysis undertaken by the same researchers in 1998. Based on unique historical material³ (about developments in the offering of apprenticeships) and a regression model, there is an investigation of whether the offering of apprenticeships is now less dependent on the market. In Chapter 4, Håkon Høst examines the development of the adults' position in trade and vocational education from before Reform 94 – via the period directly after that Reform - until today. This chapter is based on a

³ The data on apprenticeship places were partly collected during the evaluation of Reform 94, and partly in connection with the work on this report. They are based on annual reports from the Council for Vocational Education and Training (RFA), Statistics Norway, Statistics from Linda Fagopplæring and more recent data from the Directorate of Education and Training.

juxtaposition of historical data of student numbers, apprenticeship numbers, and Adult Skilled Worker Certificates with new data in the same areas, mostly obtained from Statistics Norway. However, there has not been a total reform drought since 1994. The Competence Reform emerged in 1999. Research from recent years, as well as new statistics, can tell us a lot about the changes in adult access to vocational education and training. At the same time, this is one of the areas that is most tarnished by poor statistics. This primarily pertains to student statistics. Both Chapters 2 and 4 of this report yield new information that could be important for decision makers and other actors.

In other areas, it is possible to base this account on research from recent years. For example, this account pertains to the attainment of qualifications among young people, which NIFU STEP has been studying more or less continuously since 1994. In Chapter 3, the most recent data and findings in this area have been summarised by Eifred Markussen, Mari Wigum Frøseth, Berit Lødding and Nina Sandberg. The development in the support for and status of the apprenticeship system among young people is elucidated with the help of a series of numbers of applications in Chapter 5 (Håkon Høst).

The governance of the vocational education system has been continually changing since the early 1990s. A series of large and small changes have been carried out, and there have been changes in the way the social partners from working life are entwined in governance and cooperation. This was studied as part of the evaluation of Reform 94, but has since not been a topic of research. Thus, in Chapter 7 (Håkon Høst), we must be content with a recapitulation of the newly implemented changes and position them in relation to the evaluations that were made in 1998.

The most recent reform in upper secondary education, the Knowledge Promotion Reform, has now been subjected to its own research-based evaluations, which NIFU STEP is also involved in. These evaluations have not yet been reported on. With the exception of a primarily descriptive account by Berit Lødding in Chapter 6, about what has been happening within the field of career counselling, the Knowledge Promotion Reform has not been further examined. Although the Directorate of Education is also to report to Cedefop about policy and measures not yet evaluated, it would be inappropriate for NIFU STEP to provide further detail or commentary on the Knowledge Promotion Reform. Such a description on our part would necessarily involve making choices about what to emphasise, and we will soon be in a process that anticipates the evaluation of the Knowledge Promotion Reform.

Quality is another priority for the vocational education and training authorities. This work is partly independent of the Knowledge Promotion Reform. At the same time, this is a slow and incremental process. It will take some time before one can see how the system will take shape. This is dealt with in Chapter 8 (Håkon Høst), based on the research that has recently been conducted in the field.

Håkon Høst has been the project leader and has served as the editor, but the report is a collection of chapters that different authors are responsible for. Methodologically-speaking, the report has come into existence through an examination and analysis of statistics and research in this field, but also through the building up and analysis of new data sets with regard to applications, distribution of apprenticeships and certification.

Limitation

The reports Cedefop gathers from the education authorities from different countries constitute the basis for an analysis of VET policy and VET development, along with a combined report about these in 2009. Cedefop has based its priorities on the Helsinki Communique 2006, which again is based on the so-called Copenhagen Process in the EU. In this NIFU- STEP report, we will not be describing or conducting any analysis of the EU policy in this field. This would require a comprehensive analysis of historical and contextual conditions, central actors, different interests, etc. We have not found this necessary in this context. Taking Cedefops main themes as a starting point, we have in our view, produced a stand-alone report that addresses key areas and issues within vocational education and training, as seen in a Norwegian context.

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Chapter 2 How the number of apprenticeships are influenced by policy and economic cycles

Håkon Høst, Jens Petter Gitlesen and Svein Michelsen

Previously regarded as a mechanism for the recruitment and the qualification of the labour force, the apprentice system is increasingly understood as an integral part of the education system. Its incorporation into the firm as a place of learning gives the training a distinctive and practice-oriented character, but exposes the apprentice system to the market and economic fluctuations. When the apprentice system was connected to the preparatory vocational training in school, a number of measures were taken to secure stable and sufficient access of apprenticeships. To what degree has this goal been achieved? In order to illuminate this question, we have looked closer at the development in the number of apprenticeships during the period from 1970 through 2007.

The apprenticeship system – subordinated or autonomous to the labour market?

The apprenticeship system has been a central institution for the training of tradesmen into working life in Norway for a long time. As a training program, the apprenticeship system has characteristics that distinguish it from school-based forms of vocational training. This materializes in a number of different ways, especially in the contract that is written between the apprentice and the firm. The firm has no legal obligation to take an apprentice on; on the contrary, this is incontrovertibly at the employers' discretion. Further, training is completely dependent on the work processes and production in the firm and is thereby, at least in the private sector, also embedded in capitalist market conditions. The recruitment of apprentices is in this way closely linked to the individual firm's need for labour.

However, the apprenticeship system is increasingly understood and defined as an educational scheme equivalent to other types of upper secondary education for young people. Hence, it follows that the apprenticeship system also is evaluated in line with the education system's requirements for effectiveness and transparency. It has been more or less postulated that the apprenticeship system has developed certain autonomy in relation to the labour market; as far as, end and means-end relations that go beyond the logic of the labour market can be established. In turn, this should provide space for educational policy objectives and strategies that start out in the education system's inner effectiveness and demand for education rather than the needs of working life. The scale and scope of apprenticeship planning can thus be understood as a separate task for the education system with a primary basis in the individual and society's demand for and interest in education (see also Chapter 7). The task for education policy here is twofold: integrating the apprenticeship system into the education system as a generalized education system, as well as establishing mechanisms and systems in

order to shield the apprenticeship system from market fluctuations, and stabilising it as an institutionalised training system.

The basis for this way of thinking could be attributed to the German apprentice system. German companies have usually reacted positively toward requests made by the government and interest organisations to maintain their training activities in spite of declining economic cycles. The most typical example usually provided is the automobile industry, which maintained its admittance of apprentices in the 1970s despite a recession. When the economy turned around, the German automobile industry was ready to reap the benefits of strong demand. This kind of practice is both attributable to normative factors, like for example the obligation to contribute to the reproduction of the trade, as well as the logic and values that are linked to “selbstverwaltung” within the field of vocational training in Germany (Streeck 1985, 1992). The autonomy of the trades in Germany has created conditions for “productive coalitions” organised around the production of collective goods in the form of a surplus of skilled workers at a price that the labour market has determined to be acceptable.

Reform 94 and the apprenticeship system as education

The background and basis of the efforts at transforming the Norwegian apprenticeship system through Reform 94 from being a recruitment system to becoming an education system was complex. A numerically very moderate apprenticeship system in which apprenticeships were largely filled by older youth and adults, combined with an overburdened education system and increasing youth unemployment were some of the factors.⁴ The core of the new policy for restructuring vocational training during the 1990s was the forging of tighter links between the apprenticeship system and upper secondary education. The training of journeymen and skilled workers would now normally evolve as a continuous course of study after ten-year compulsory school, comprising two years of school education followed by two years of training in the firm. This structure was carefully adapted to the new school system in which 16-19 year olds were given a statutory right to three years of upper secondary education. The reform assumed a clear redistribution of apprenticeships in so far as the applicants from the vocational trade courses of study in their 2nd year of upper secondary education were given priority.

In order to achieve such a comprehensive restructuring, a number of measures were initiated. These included the development of new and more favourable financing and grant systems for firms that took on apprentices with two years of upper secondary education, the formation of new follow-up and quality control schemes, as well as greater investment in training collaboration through Local Training Agencies and training circles (see also Chapter 7). A common characteristic of these schemes is that they were intended to *motivate* firms for

⁴ See NOU 1991: :4 *Veien videre til studie- og yrkeskompetanse for alle (The way toward academic and vocational certification for everyone)*. This is also examined in Chapter 4.

increased admission of apprentices. Furthermore, apprenticeship was intended as a generalised form of training for working life.

However, the Reform 94 model required a much more widespread and stable access to qualitatively good apprenticeships within the different trades than what historically has been the case. During the implementation of the reform, the government was rather focused on how to avoid letting fluctuating economic cycles destabilise the training system. Great emphasis was put upon the new character of the apprenticeship system as an educational scheme for young people. The general idea was that firms should no longer view the admission of apprentices as recruitment in relation to the firms' own expected needs. This message was also supported by the social partners in the working life. The leader of LO (Norwegian Confederation of Trade Unions), Yngve Hågensen, stated the following:⁵

Within the new system, the admission of apprentices into individual firms can no longer primarily be a form of recruitment based on the firm's own expected needs. The needs of the entire industry, with reasonable flexibility because some will leave the trade, must be the basis for the calculation of the number of apprenticeships. The companies must begin to view themselves as training institutions in this area.

His argument was supplemented by director Karl Glad of NHO (Confederation of Norwegian Enterprise):⁶ A precondition for achieving these goals is that the apprenticeship system change character from being a system for recruitment to becoming a system of training.

Rather than considering the admission of apprentices as entry into the workforce, a sharper distinction between apprenticeship and the skilled worker had to be made. Also the widespread norm and practice of not firing apprentices after the period of apprenticeship had to be counteracted (Michelsen, Høst and Gitlesen 1998). The anticipated result would be a disproportional intake of apprentices in relation to the company's own need for labour. This meant that the training costs had to be amortised during the training period rather than over a longer time span. The training period in the company was divided into a "training year" and a "productive year". Increased apprenticeship grants were therefore necessary for financing the unproductive training part.

The anticipated need for stricter requirements securing both greater quantity and improved quality in vocational education was based on distinctive structural features in Norwegian working life with its large proportion of small companies. In addition, it was a challenge to expand apprentice training to sectors that lacked such a tradition. One must view the education authorities and other actors' focus on the Local Training Agencies on this basis. These were considered strategically important, both for maintaining the interests of the

⁵ In Schola nr. 2, 1993, p. 20.

⁶ In Schola nr. 2, 1993.

existing training companies as well as recruiting new ones. Thus, increased public subsidies to the Local Training Agencies were considered entirely necessary.

The problem of coping with market failure

In addition, different schemes for insulating the apprentice system from shortages in the supply of available apprenticeships were debated. Among other things, a funding plan for apprentices that would include all companies, not just those who admitted apprentices, was considered. In addition, making the companies' obligation to admit apprentices obligatory was discussed. But in the Parliament white paper no. 32 (1998-99), it was concluded that such tactics should temporarily be avoided; the enterprises had to be trusted. This decision was, among other things, based on the following assessment:

The ministry assumes the labour market views itself as being well-served by keeping up the number of apprenticeships – even during periods of declining economic conditions – in order to secure sufficient skilled labour when times of economic improvement appear.

The crucial question is if or to what extent access of apprenticeships has been stabilised. In the second part of the article, we will have a closer look at the development of apprenticeships in Norway from the 1970s till today. Key terms here are *trend* and *cycle*. The first term refers to the long term tendency in the development of apprenticeships. The second refers to cyclical fluctuations. Through a regression analysis, these factors will be analysed in relation to the development of the market. Key questions are: firstly, what can explain the long term growth in the number of apprenticeships, and secondly; to what extent is it possible to draw conclusions on the development of apprenticeships as dependent on the business cycle. The last question is especially important considering the long-lasting rising economic trend in the Norwegian economy seems to be deteriorating.

The internal development of the apprentice system: horizontal and vertical growth

The internal development of the apprentice system can be grasped through focusing on the development of the trades. Here, three different factors are important:

The establishment of new trades

The development within individual trades

The expansion of geographic working area

The yearly number of new apprenticeship contracts has been growing from the beginning of the 1970s (figure 2.1). While in 1973, less than 3000 new apprenticeship contracts were signed, in 2007 the number was 18000.

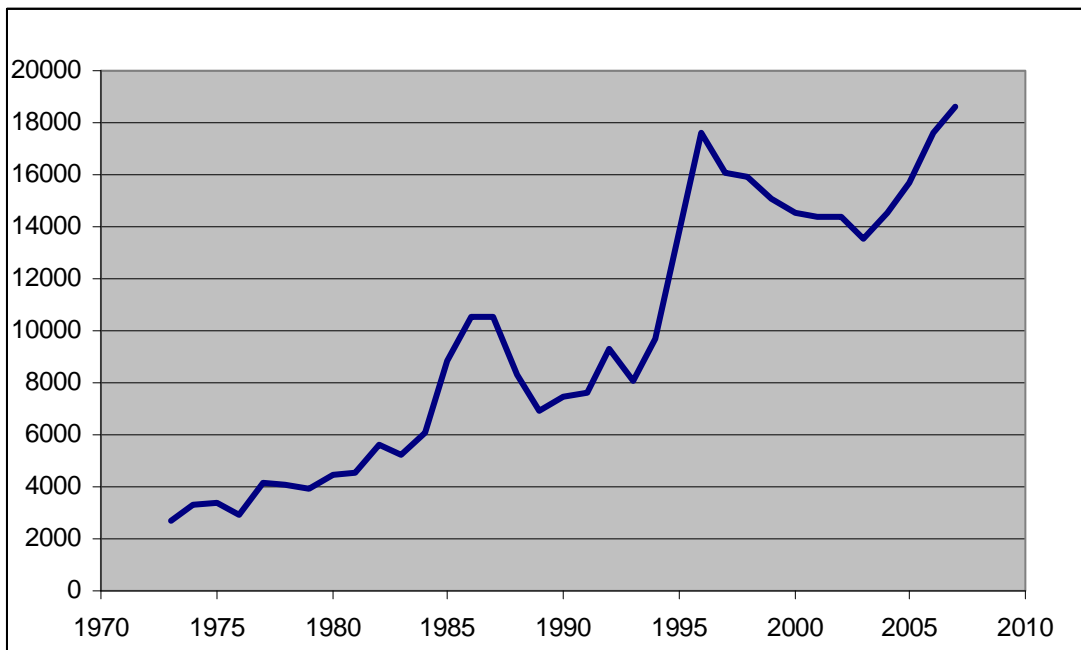


Figure 2.1: Development in the number of apprenticeship contracts entered for all trades during the period from 1973-2007.

Sources: RFA's (VET Council) annual report, Linda Vocational education, The Ministry of Education, Statistics Norway

The apprenticeship system has grown in size, primarily due to the fact that established areas for vocational education have generated more contracts, but the number of apprenticeship contracts has also expanded significantly through the establishment of new trades. We distinguish between what we call vocational education's core areas within trades and industry on the one hand, and new trades on the other. Since our objective is to view the development of the number of approved contracts distributed according to trade, it would seem reasonable to select the establishment of the Apprenticeship Act of 1950 as the starting point.

The Apprenticeship Act became operative in 1952, but from the start only pertained to six smaller crafts. Thereafter, the system grew steadily and evenly, until it in 1966 comprised 50 crafts or craft-related trades, 12 trades within the metal industry, 12 industry-related trades, and in addition trades for car mechanics, electricians, as well as shops, warehouses, and offices.⁷

After a period of stagnation and partial decline⁸ in the 1960s 19 new industry-related trades were registered during the 1970s. This included the flight trades, as well as building and construction trades. During the 1980s, a wave of 35 new trades appeared. A number of craft-oriented trades like chef, server, florist, and landscaper were now formed and covered under

⁷ Commerce and office disappeared again already at the beginning of the 1970s, because the apprenticeship system did not manage to establish roots in this sector.

⁸ For example, commerce and office trades were shut down during this period

the law, and a new generation of industrial trades appeared, the operating trades. These included among others chemical processing, lumber manufacturing and food processing. The main focus here was upgrading work in these branches from semi-skilled to skilled work through the formation of new trades.

The 1990s are characterized by new areas and sectors being integrated into the apprentice framework. This pertains to industrial trades such as forestry, hunting and fishing, maritime trades like sailing and mechanical engineering; transport and service trades such as professional driver, terminal worker, material administration, and laboratory trades. In addition, commerce and office trades have reappeared in the form of shop trades, office trades, and reception trades. Perhaps the most important expansion, at least in a quantitative sense, happened in the health and social services with the formation of the care worker trade, youth and child worker trades, and emergency medical technician trades. Altogether, 61 new trades were established from 1990 until 1996. Most of them were launched through the implementation of Reform 94. During the period from 1994 to 1996 alone, 36 new trades were started up. An important reason for this accumulation of new trades was due to ministerial reform policy. The ministry waited to approve these trades until the reform took effect (Høst 1997). Viewed from this perspective, Reform 94 opened the door to a sheer outpouring of new trades. Afterwards, very few new trades have been formed. Today, approximately 195 different vocational trades are registered in Norway.

Geographic expansion

The apprenticeship system was historically linked to the towns. When the apprenticeship system at the beginning of the 1980s was reorganized and the working area expanded to include the entire country, some counties started out nearly destitute. Other counties, with the capital Oslo at the forefront, had long traditions with apprenticeships. From 1983, the total number of apprentice contracts quadrupled on a country-wide basis. In that process a levelling out of the number of apprenticeships has taken place, measured by the relevant youth cohort in different counties. Growth has mostly been much stronger in those counties that were underdeveloped in 1983 than in the counties that had a well-developed apprenticeship system prior to 1983. The correlation between apprenticeships and the number of youth in the counties rose from 0.74 in 1983 to 0.90 in 1995 (Michelsen, Høst and Gitlesen 1998). The relative change in distribution of apprenticeships among the counties is considerable. For instance, in 1983, the number of registered apprenticeship contracts in Nordland was 400 in contrast to 2900 in Oslo. In 2007, Nordland had nearly overtaken Oslo.⁹ Oslo has experienced a strong relative decline in the number of apprenticeship contracts, from 21 percent of all contracts on a countrywide basis in 1983 to only 6 percent in 2007.

⁹ Statistics Norway registers apprenticeship spots through places of residence. In 2007, 2200 apprentices resided in Nordland, while 1950 had Oslo as their place of residence. Meanwhile, Oslo has a great proportion of apprentices with residences especially in Akershus, and are probably still somewhat over Nordland in the number of contracts (Sources: Statistics Norway 2008 Statistics bank, The Ministry of Education).

The contribution of different trades to the growth

In order to analyze the significance of the different trades for the estimated growth more closely, we will establish three categories of apprenticeships:

- craft and craft-oriented trades
- industrial and industry-related trades
- other trades i.e. new trades within sectors previously not included under the law on vocational education.

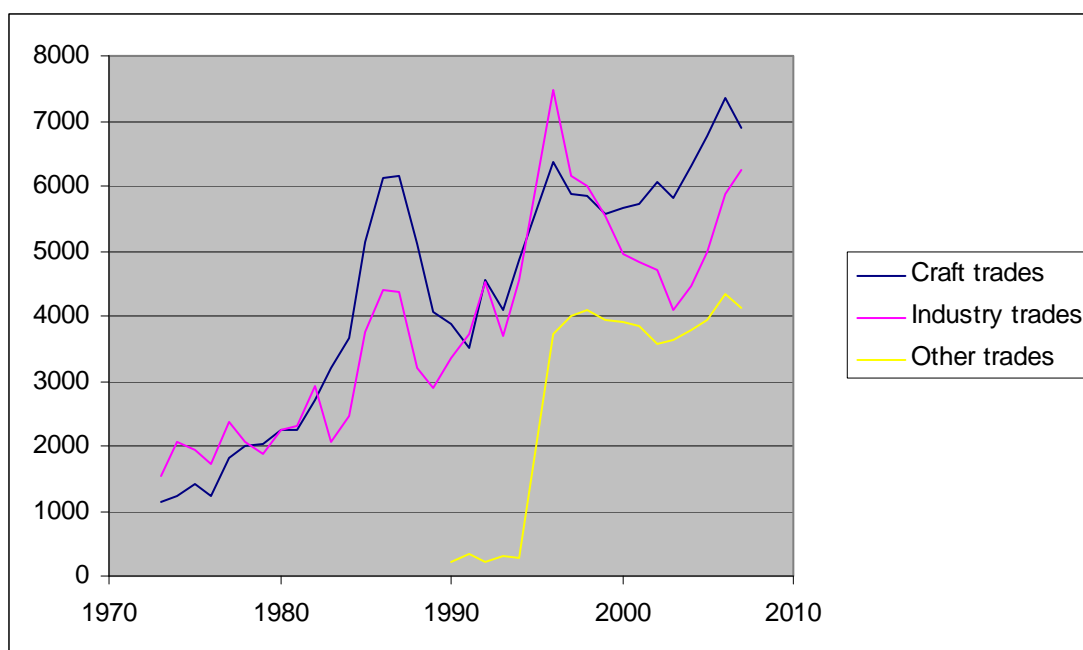


Figure 2.2: New apprenticeship contracts per year from 1973-2008, distributed according to craft, industry, and other trades.

Sources: RFA's annual report, Linda vocational education, The Ministry of Education, Statistics Norway

Figure 2.2 shows that the trades categorized as crafts and industrial trades are the more important in a purely quantitative sense. Among the crafts, two explain most of the growth during the last years, carpentry and hairstyling. However, other construction trades also contribute strongly. The traditional, smaller crafts have declined. Among the industrial trades, the electrician trade is clearly the largest, but the metal industry and automobile trades are also important. The new trades that emerged in the service sector in the 1990s increased rapidly to about 4,000. After this, there has however been no significant increase. In this case, the trades in health and social services have been the most important, but also the maritime trades are important, together with shop, office, ICT, and car mechatronics.

Vocational education and other educational traditions

Most branches of working life have their training and educational traditions essentially formalized. These are closely related to how different work areas recruit labour. The apprenticeship system has been a tradition only within the crafts and parts of industry. Other models have been vocational education in school combined with enterprise-based practice, higher professional education, and on-the-job training. The political change that took full effect in the 1990s sought to adapt these different educational traditions to a comprehensive, nationwide, restructured system of vocational education. The vision was an integrated and uniform further/higher education system capable of including all 16-19 year olds, either preparing them for higher education, or providing them with a skilled worker certificate after completed apprenticeship.¹⁰ All sectors of work life could in principle base their recruitment practices on youth with a vocational certification. In some areas this was a success, and the normal route into the vocational field has become upper secondary school followed by apprenticeship. This especially pertains to the large crafts and industrial trades, and it is also here the majority of apprenticeships can be found. In some of the new areas, for example the health and social services, the apprenticeship system has managed to establish itself, but it is not even close to becoming the main route for entering these occupations (Høst 2004). Within other areas in the service sector like banking, an apprentice system has not been considered an alternative in Norway like it is for instance in Germany (Michelsen and Olsen 2007). Within traditional areas such as graphic design the apprenticeship system are under great pressure from other educations (Høst 2000). Within commodity trades, which is one of the largest branches with several hundred thousand employees, the recruitment of apprentices is relatively insignificant in relation to the recruitment of youth and adults with other background, who are subsequently trained according to the internal systems of the company (Oldberg and Jordfald 2000). Viewed from this perspective, upper secondary education is far from delivering work-prepped youth to all branches of working life. Instead, it can be said that Norwegian trade and occupational education bears the hallmark of pragmatism characterized by widespread recognition of experience-based training at work (Michelsen and Olsen 2007). We will come back to this in Chapter 4.

The apprenticeship system between expansion and cycle

We have documented a strong growth in the apprenticeship system, both in the working area as well as in the individual trade. However, the apprenticeship system has also gone through periods characterized by ups and downs. In this chapter, we will look closer at the connection between cyclical patterns of the development of apprenticeships, and cyclical patterns in the economy. The focus is not directed toward the existence of cycles within the economy and in apprenticeships per se, but toward possible connections between them. A possible correlation would indicate the existence of causal patterns between the two. A number of different indicators can be used for measuring economic cycles. BNP or employment data are two

¹⁰ The seed of this system lied in the common/collective high school from 1976, but it was the Blegen-committee (1991:4) who took this further and laid out the basis for the integrated system of 1994.

possible examples. We have here chosen to base our report on available data on unemployment from Statistics Norway.

Since both trend and cycle explanations represent relatively long term patterns, the development of the number of apprenticeships from 1973 until 2007 can lead to analyses of the development through comparisons with trends and variations in order to historically reconstruct the development. Here we run into problems of a methodological nature. The growth in the number of trades extending to increasingly new areas of working life involves building an inflationary measure into a system level analysis. This is a reason why we have chosen to limit the analysis to new apprenticeship contracts in crafts and industrial trades. In 2007, these made up almost 80 percent of all new apprenticeship contracts. Our assumption is such that the number of new apprenticeship contracts has quantitatively developed parallel to the economic development in the industry.

We will first extract the long term trend that explains the observed variations in time. As continuous data are available from 1973, this is taken as the point of departure.

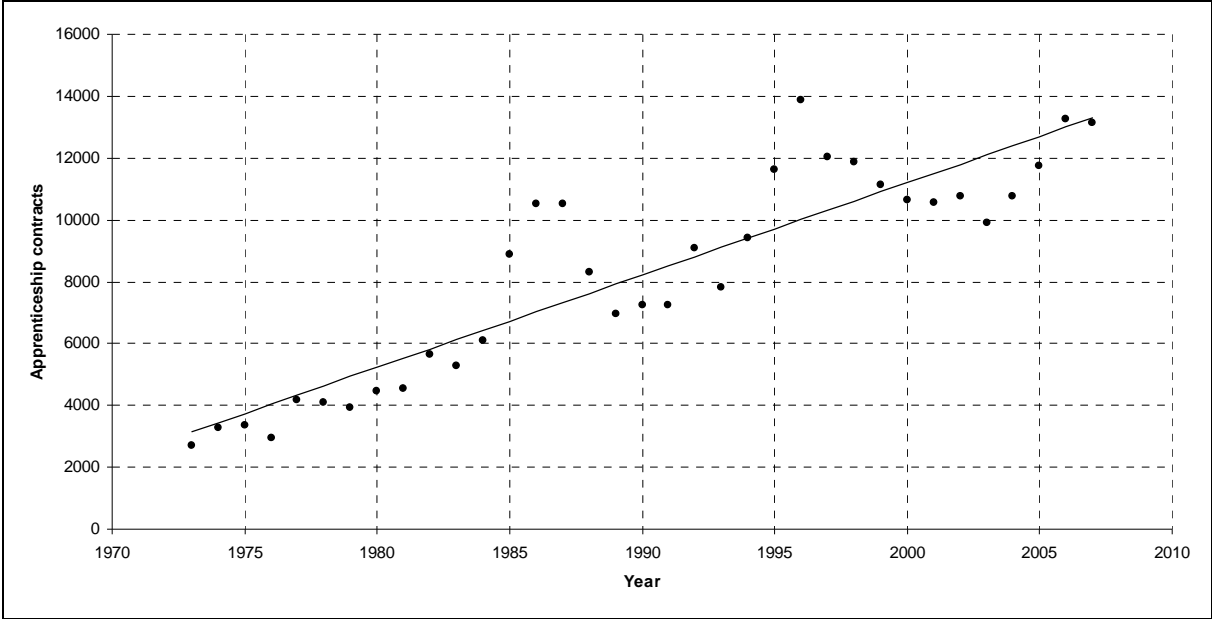


Figure 2.3: The development of the number of new apprenticeship contracts per year from 1973-2007 within industry and crafts

Sources: RFA's (VET Council) annual report, Linda Fag, Directorate of Education and Training, Statistics Norway

Figure 2.3 demonstrates a clear linear growth trend in the number of apprenticeship contracts within crafts and industrial trades from less than 3000 at the beginning of the 1970s to 13500

in 2007.¹¹ If we pull out the trend line (Figure 2.3) and instead focus on the connection between economic cycles and number of apprenticeships, the following picture emerges (Figure 2.4):

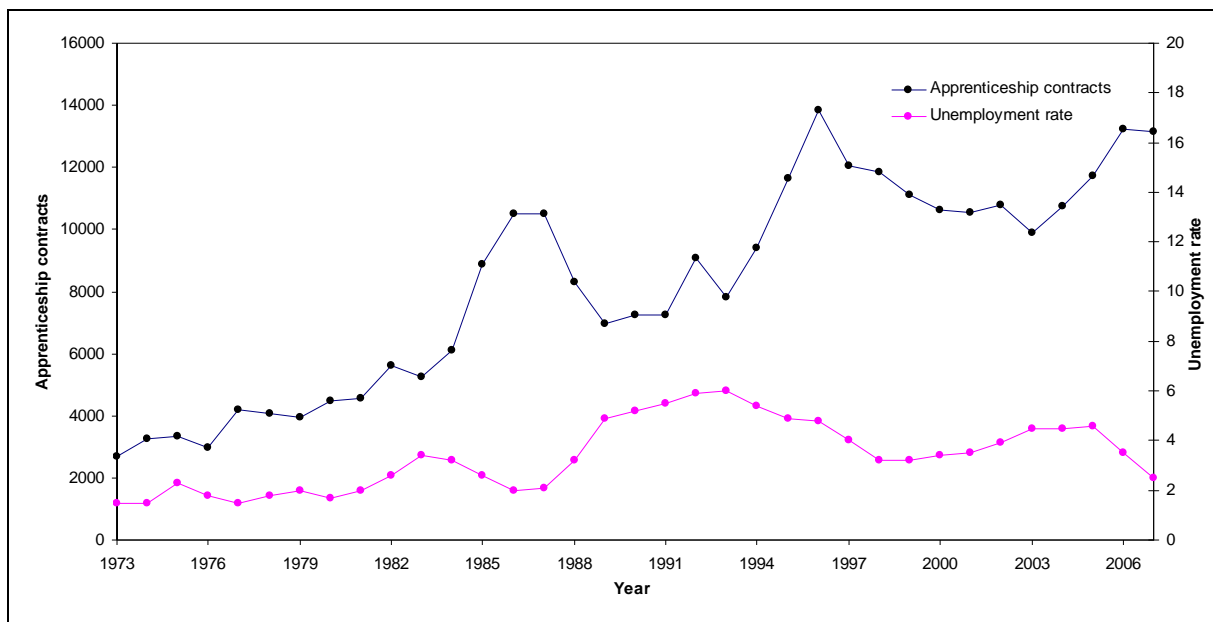


Figure 2.4: The development in numbers of new apprenticeship contracts and unemployment from 1973-2007

Sources: RFA's (VET Council) annual report, Linda Fag, Directorate of Education and Training, Statistics Norway¹²

The figure shows both the number of new apprenticeship contracts and the unemployment rate¹³. It seems as if the unemployment and number of apprenticeship contracts are moving in a counter phase around the growing trend: Periods with more new apprenticeship contracts than the trend would suggest, seem to be characterized by a tight labour market. This is noticeable especially during the recession at the end of the 1980s, with far fewer apprenticeship contracts than the trend would suggest.

¹¹ The numbers for 2007 were not complete when the calculations were done. Later figures (from Statistics Norway) show that the number of apprenticeship contracts have also increased from 2006-2007, not decreased as the figures show.

¹² The numbers for the period 1973-91 are gathered from Statistic Norway: Historical Statistics. The Labour Force Study. The numbers for 1993-97 are calculated based on the labour power and number employed provided Statistics Norway's webpage: Economic indicators in Norway. Unemployment in 1992 was calculated based on labour power and (numbers?) employed provided in the the Labour Force Study, 3.kv. 1997, Statistic of the Week, no. 44, 1997

¹³ The figure includes apprenticeship contracts also in other trades. The yearly number among these trades is, however, quite stable.

In an attempt to deconstruct the variation in the number of new apprenticeship contracts, a regression model was estimated.¹⁴ The model estimates a growth of 313 new apprenticeship contracts per year. An increase in unemployment by 1 percent (and is unchanged from the year before) will involve/entail an expected reduction of 471 apprenticeship contracts.

The model opens up for examining the degree to which Reform 94 has had any effect in terms of counteracting the dependency of apprenticeship access on the business cycle. The first students who were taken in after Reform 94 entered into an apprenticeship contract in 1996. Any effect of the reform should be recognisable by the observed pattern after the reform, that is, from 1996 to 2007, as it should have a different character than the period before the reform, that is from 1973 to 1995. But the model estimation does not indicate any change after Reform 94. If the relationship between the state of the economy and the number of new apprenticeship contracts per year has changed from 1996, then it is in a negative sense, in the way that dependency on the state of the economy is actually marginally strengthened.¹⁵

What about the special increase in the supply of apprenticeships that we saw in 1996? First of all this was a strong period of growth in the Norwegian economy. After the fall of oil prices, the bank crisis, and the decline in housing prices during the 1980s, there was growth in most of the interesting market indicators. The abnormally large growth in the number of apprenticeship contracts should perhaps be attributed to extraordinarily good upswings in the economy. However, this might be coincidental or attributable to the mobilization around Reform 94. In this case, the reform effect is quite short lived and linked to the year 1996.

Summary and conclusion

Since the beginning of the 1990s, a number of political measures have been implemented in order to establish a new basis for the integration of the apprenticeship system as an integral part of the upper secondary education system in Norway. Norwegian enterprises have responded to this policy through a significant expansion of the range of the apprenticeship system. The study shows that the growth in the number of apprenticeship contracts is both vertically and horizontally significant. A main feature of this growth is an increase in the number of trades and the introduction of the apprenticeship system in new sectors. There is also a clear tendency toward a regional levelling out. In this way the apprenticeship system's

$$^{14} Y_t = -613686 - 471,356 L_t - 1392,336 L_{t-1} + 312,739 \text{Year} - 943,467 R$$

$$(-7,376) \quad (-1,136) \quad (-3,178) \quad (7,460) \quad (-1,111)$$

Where t = indeks point in time

Y_t = number of new apprenticeship contracts in industry and craft trades, year t.

ΔL_t = shift in the percent of unemployment year t.

ΔL_{t-1} = shift in the percent of unemployment year t - 1.

R = a variable with the value 0 for all the years in the interval 1973-1995. As of 1996 R was given the value 1.

The variable for Reform 94 (R) is not significantly different from 0 and estimated with negative sign.

The numbers in the parentheses indicates the parameter estimates' T-values. The explanatory power of the model is good, with a $R^2=0,868$. Durbin-Watson's test observations for autocorrelation was 0.919.

¹⁵ The change is however not statistically significant.

ability to adapt to societal, economic, and social conditions is illustrated. The apprenticeship system has grown to become an increasingly more important educational arrangement for Norwegian youth. From being understood as a channel for the recruitment and qualification of labour, the apprenticeship system has increasingly been understood as being an integrated part of the education system.

The study documents continual cyclical variations in access to apprenticeships within industry and crafts. These reveal a systematic correlation with the economic cycles. It seems as if unemployment and the number of new apprenticeship contracts move in counter phase around a growing trend. In periods of decreasing unemployment; there is a strong growth in the number of new apprenticeship contracts, while during periods of increasing unemployment; there is a decrease in the number of apprenticeship contracts.

To what degree has the attempt to stabilise access to apprenticeships succeeded after Reform 94? The study demonstrates that despite different political measures for stabilising access to apprenticeships, no development toward increased resistance to economic cycles among the crafts and industrial trades can be demonstrated during the period after 1995. The model calculations suggest that if the correlation between the economic cycles and access to new apprenticeship contracts has changed after Reform 94, then this has been in a negative sense. The dependency on economic cycles is thus at least as strong as it was previously. In this way, the apprenticeship system still appears as an arena linked to recruitment of labour and the economic cycles of working life.

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Chapter 3 Completion, drop-out and attainment of qualification in upper secondary vocational education in Norway

Eifred Markussen, Mari Wigum Frøseth, Berit Lødding and Nina Sandberg

The Norwegian Institute for Studies in Innovation, Research, and Education has conducted a longitudinal project entitled 'Drop-Out and Qualification', a study about completion, drop-out and attainment of qualification in upper secondary education among 9,749 young people in the south-eastern part of Norway. The project followed the young people out of the last year of compulsory school, through, and out of upper secondary education from the time they applied to enter upper secondary education. The project covered a five and a half year period from spring 2002 until autumn 2007.

In Norway almost everyone enters upper secondary education after they have finished compulsory school, consisting of seven years of primary and three years of lower secondary school. The Education Act in Norway gives everybody a statutory right to take an upper secondary education when they have completed compulsory education. In 2002, when the young people we followed in this project applied for upper secondary education, they could choose between three programmes for general studies and twelve vocational education programmes. According to the Education Act, to qualify from upper secondary education in Norway means either having achieved the standards required before being admitted to higher education or qualifying from vocational training in order to practice a trade. If neither of these two, by definition the student has achieved 'a lower level of competence'¹⁶.

The programmes for general studies lead to *qualification for higher education*, which means that these students are qualified to proceed to higher education after having completed and passed the three years of school-based education. The vocational education programmes lead to *vocational qualifications*. For most trades, this means two years of school-based education followed by two years of apprenticeship in a training company. After having passed a craft or journeyman's examination, the students in vocational education programmes receive a craft or journeyman's certificate which means that they have qualified for practising a profession, for example as a plumber, care worker or electrician. Students who neither achieve qualification for higher education nor a vocational qualification achieve the formal qualification referred to as *a lower level of competence* by the Education Act. Finally, among the young people we followed in this project who did not pass all exams in upper secondary education we differentiate between the ones who *dropped out* before finishing their education and the ones who were students throughout the years *but did not pass* either because they failed in one or

¹⁶ In Norwegian named *Kompetanse på lavere nivå*. Also translated as *qualification of lower degree*.

more subjects or because they did not get grades in all subjects required to qualify for higher education or to complete a vocational qualification.

The results from the project presented here are those that are especially relevant to vocational upper secondary education and training. The results are divided into three parts. First, we place the vocational education programmes within the patterns of completion, drop-out and attainment of qualification in upper secondary education. Second, we compare the attainment of qualification in vocational and general education programmes, and examine the relationship between applying for and achieving qualification within the vocational education programmes. Finally, we focus specifically on the apprentices, and we discuss the training candidature scheme and the formal qualification referred to as 'a lower level of competence' in the Education Act.

The big picture

Fewer students attain qualification in vocational than in general education programmes

The project shows that 65.8 per cent of this group of youth achieved the standards required for higher education or a vocational qualification, and 34.2 per cent achieved a level of competence lower than this. Of the 34.2 per cent who achieved a lower level of competence, 19.4 percentage points were non-dropouts who did not pass, while 14.8 percentage points dropped out before they had finished. This was the situation when we measured the number of students who had qualified by October 2007, five school-years after these young people had left compulsory education.

There is significant variation in the dropout-rate between the different education programmes, and it is especially high in some vocational education programmes. We will return to this, but initially we will illustrate the relationship between applying for and attaining qualification within general and vocational education programmes.

Many applicants for vocational education programmes do not plan on achieving a vocational qualification

Figure 3.1 shows the development from a situation in which more than half of the cohort applied for a vocational education programme, but after five years resulted in only 15.1 per cent ending up with a vocational qualification. We see that of those who applied for vocational education programmes, a quarter ended up with a vocational qualification, a quarter qualified for higher education, a quarter were non-dropouts who did not pass, and a quarter dropped out before they had finished. Half of the students that started on a vocational track and ended up with a qualification for higher education, changed from a vocational education programme to a programme for general studies between the second and third year in upper secondary education (which is an option within the system), and the other half had

taken one of three final courses within the vocational education programmes that lead to a qualification for higher education. Originally vocational students who ended up with a qualification for higher education constituted almost every eighth student (12.4 per cent) of the entire cohort.

This provides the basis for two conclusions. Conclusion number 1: A significantly higher proportion of students engaged in programmes for general studies achieve a qualification than do students in vocational education programmes. Four out of five of those who applied for entry to the programmes for general studies in 2002 had qualified for higher education five years later, while only half of those who applied to enter a vocational education programme in 2002 achieved a qualification, and only one quarter had achieved a vocational qualification five years later. Conclusion number 2: Even though approximately half of the students in the tenth grade each year apply for entry to a vocational education programme, this does not mean that half of the cohort aims for a vocational qualification. In any case, it does not mean that half of the cohort achieves a vocational qualification.

Figure 3.1: From the application in Spring 2002 to the attainment of qualification in Autumn 2007 for 9,749 young people from south-eastern Norway, N= 9749 (source Markussen et al 2008).

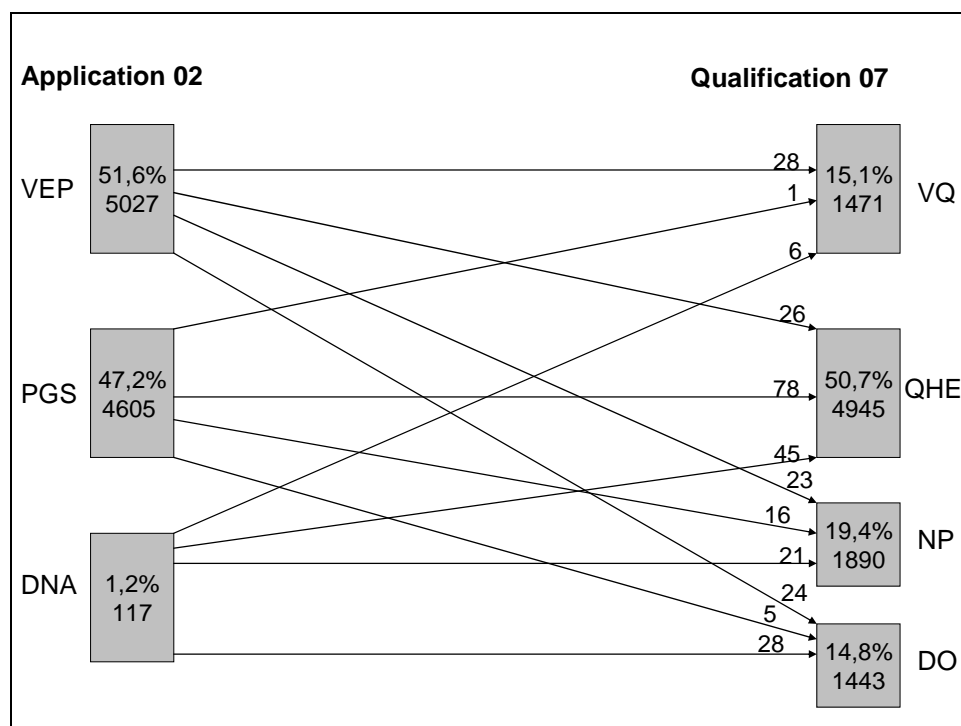


Figure clarification

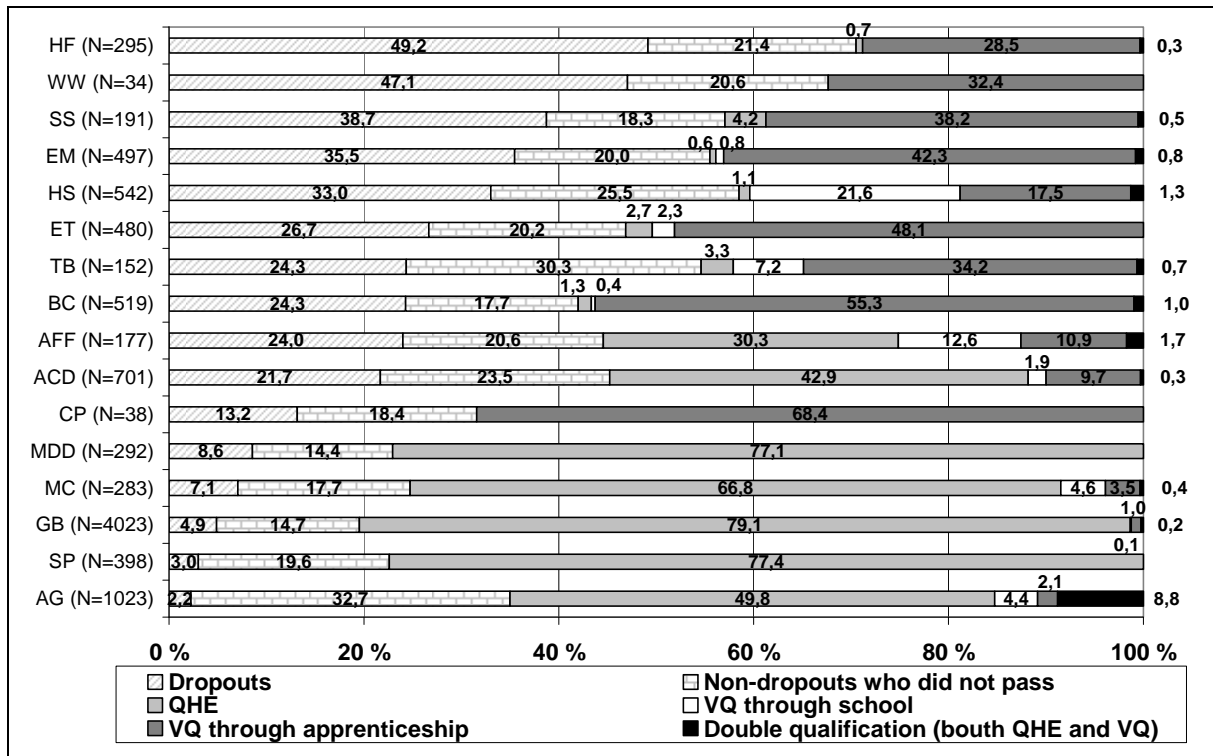
VEP = vocational education programmes, PGS= programmes for general studies, DNA = did not apply for upper secondary education, VQ = vocational qualification, QHE = qualification for higher education, NP = non-dropouts who did not pass (i.e. attended upper secondary education to the end, but without qualifying for higher education or gaining a vocational qualification), DO = dropped out before finishing upper secondary education (here, only those who dropped out and stayed out are counted, while those who dropped out but later returned until they had finished have not been included among those who dropped out).

Drop-out is primarily a phenomenon among students in vocational education programmes

In Figure 3.2, we show how the completion, drop-out and attainment of qualification after five years varied between education programmes in the cohort of youth who left compulsory education in south-eastern Norway during the Spring of 2002.

Figure 3.2 shows clearly that dropping out of upper secondary education is a phenomenon more closely related to vocational education programmes than to programmes for general studies. Students in upper secondary education do drop out of programmes for general studies, but the magnitude is entirely different. The average dropout rate was 14.8 per cent. In the general studies, the dropout rate was about half of this average or lower, but all of the vocational education programmes had a dropout rate above the average of 14.8 per cent. In these education programmes, the dropout rate varied from 21.7 per cent in Arts, Crafts and Design to 49.2 per cent in the Hotel and Food-Processing Trades. In addition, there were also some students who were non-dropouts who did not pass. For most vocational education programmes, the proportion was around 20 per cent. In the Hotel and Food-Processing Trades – from which 49.2 per cent of students dropped out and 21.4 per cent were non-dropouts who did not pass – we found that only 29.5 per cent achieved a qualification for higher education or gained a vocational qualification. The vocational education programmes with the greatest proportion of students passing was Building Construction, where the proportion of students passing was 58.0 per cent. By way of comparison, 80.4 per cent passed in the programme for General and Business studies. Here, 4.9 per cent dropped out and 14.7 per cent were non-dropouts who did not pass.

Figure 3.2: Completion, drop-out and attainment of qualification within different education programmes in upper secondary education, five years after completing compulsory school in 2002. N=9645, $p < 0.001$ (chi-square test). (Source Markussen et.al. 2008).



Abbreviations

HF (Hotel and Food-Processing Trades), WW (Woodworking Trades), SS (Sales and Service Trades), EM (Engineering and Mechanical Trades), HS (Health and Social Care), ET (Electrical Trades), TB (Technical Building Trades), BC (Building construction), AFF (Agriculture, Fishing and Forestry), ACD (Arts, Crafts and Design), CP (Chemical and Processing Trades), MDD (Music, Dance and Drama), MC (Media and communication), GB (General and business studies), SP (Sport and Physical Education), AG (additional general academic course).

QHE=Qualification for higher education, VQ=Vocational Qualification

Grades from the last year of compulsory school are the most decisive for completion, drop-out, and attainment of qualification in upper secondary education

The project showed that there was a significant bivariate variation between the completion, drop-out and attainment of qualification, and a large number of factors. We will not provide this information here, but refer the reader to the project's last report (Markussen et al 2008).

Since bivariate correlations cannot tell us anything about the effect the different variables had on completion, drop-out and attainment of qualification, a multivariate analysis was also conducted. It showed that the variable that had the greatest effect on the likelihood of passing, continuing to the end without passing, or dropping out of upper secondary education was the students' grades from compulsory education. A large number of background variables had an

effect on completion, drop-out and attainment of qualification. These include parents' education, with whom the young people lived as 15-year-olds (both parents or not), majority / minority backgrounds, whether the parents were focused on education or not, and if they were oriented toward general subjects. These factors also had an effect on grades in lower secondary education, and thereby we see that these background variables have both an indirect effect (through grades in lower secondary education) and a direct effect on pathways from upper secondary education. All of these analyses are accounted for in Markussen et al. (2008).

These background variables have to do with the kind of home the students came from, in that they measure the parents' level of education and the degree of support and help the students received at home, for example. Even though the effect of each individual background variable can be relatively weak, it must be emphasised that a collective effect of a home in which the parents lived together, had attained higher education, worked, were supportive and familiar with general subjects was highly significant for both students grades and their attainment of qualification. With this we have shown that even though the parents' education and other background variables individually had a relatively weak direct effect on completion, drop-out and attainment of qualification in upper secondary education, these factors had altogether a greater effect than the analyses of direct effects showed.

The analyses also showed that the education programme affected the completion, drop-out, and attainment of a qualification for higher education or a vocational qualification, after controlling for all of our variables, including background variables. This means that the likelihood of dropping out or continuing to the end without passing, compared with attaining a qualification for higher education or a vocational qualification was higher in some education programmes than others. Again, this means that there are some factors linked to the education programmes that do not have anything to do with the student characteristics we have controlled for, including background variables and grades from the last year of compulsory education, which affect the likelihood of dropping out or not passing. Our individual level data do not provide the basis for analysing why this is.

Reasons for dropping out among students in vocational education programmes

Significant shares of the students had dropped out of several of the vocational programmes. This gave reason to examine the experiences the dropouts had as students. As a part of the project 'Drop-Out and Qualification', individual interviews were conducted with 40 young people who had dropped out, either from the programme for Health and Social Care, which is a female-dominated education programme, the programme for Building Construction which is a male-dominated education programme, or the programme for Hotel and Food-Processing Trades, which is a gender neutral education programme.

From the programme for Health and Social Care, social exclusion was a recurring theme. This had to do with one's own experiences or about other students in the class who were actively left out by their classmates. The experience of being entirely alone, without any assistance from the school to resolve conflicts, resulted in several girls discontinuing their education. Another important reason for dropping out was the feeling of not being able to master the subject matter. From the programme for Building Construction, stories ranged from those who claimed that the level of education was far below basic and those who declared that they did not understand what they were supposed to know or how they should acquire the necessary skills. Poor social environments among students, with violence or threats of violence were also an important reason for why many of these boys had left school. A number of those who started in programme for Hotel and Food-Processing Trades spoke of being disappointed about their encounter with practical education, in contrast with the expectations they had had about having creative and exciting work as chefs and waiters. Others had experienced harassment from their classmates and in one case, harassment from a teacher, without the school managing to stop it. Perhaps training in dealing with conflict could have been decisive for a number of these youths and their previous classmates. However, an assumption would be that the school's teachers and leadership were also capable of dealing with the problems.

Focus on the apprentices

Structural hindrances produce drop-out

The project has also analysed the transition from school to apprenticeship between the second and third year of upper secondary education. We found then that 16.1 per cent of the cohort we followed applied for an apprenticeship. The analysis showed that two out of three of these received the apprenticeship they wanted. The remaining third, those who did not receive an apprenticeship, chose two different strategies. They either started something else within upper secondary education, or they dropped out. Those who dropped out constituted 17.5 per cent of all applicants for an apprenticeship. They made up half of those who dropped out between second and third year, and they made up one-fifth of the total share of those who dropped out. This demonstrates that a number of the young people who had intended to take on education as apprentices were hindered in the process. Their goal was to get a trade certificate, but they did not get the chance to realise this goal.

Some got the apprenticeship they applied for, others did not. This is the basis for asking if there is something that separates those who received an apprenticeship from those who did not. In order to examine this, we conducted an analysis of the factors that influenced the likelihood of getting an apprenticeship from not getting one. This analysis showed that the probability of getting an apprenticeship increased according to the following factors: achieving high grades in the first year; when they had passed all exams the second year; when

their rate of absenteeism during the second year of upper secondary education was low; and when the father's education was vocational education on upper secondary level (Markussen and Sandberg 2005). This illustrates that the employers chose the most qualified apprentices; it was not accidental who got to become apprentices. The solution to the problem that not all of those who apply for an apprenticeship get one is not necessarily to increase the number of apprenticeships. Judged from the characteristics of those who were successful in applying for an apprenticeship, we may assume that a greater volume of apprenticeships would not necessarily help those applicants who were unsuccessful.

We observe then, a structural hindrance in upper secondary education, a hindrance that keeps some young people from continuing the education they started. Although the counties are the 'owners' of upper secondary education, they do not have control over the second half of vocational education when the students work as apprentices in training companies. This control rests with the labour market. The labour market decides on the number of apprenticeships in each vocational area, and it is its decision as to who will be accepted. This gives reason to raise the question whether the statutory right to three years of upper secondary education is in reality a right available to all young people, or if a small proportion of 1-2 per cent of each cohort is excluded from this right.

More apprentices attain qualification, fewer drop out

A total of 19.8 per cent in our sample were registered as apprentices during the period from fall 2004 until October 2007. Measured at the end of this period, five years after they left compulsory education, 70.9 per cent of all apprentices had achieved a vocational qualification or a qualification for higher education. The majority (63.6 per cent) had earned a vocational qualification after having been an apprentice, but some had also achieved a vocational qualification through school (0.6 percent), a qualification for higher education (3.2 percent) or double qualification (both a vocational qualification and qualification for higher education) (3.5 percent). The fact that we have found apprentices with different types of qualifications, for example those who had qualified for higher education, is because we looked at *everyone* who had engaged in an apprenticeship contract during this period. Those who had qualified for higher education had left vocational education and changed to a programme for general studies. Among the apprentices, there were 24.5 percent who were non-dropouts who did not pass, and 4.6 percent who dropped out before they had finished. Compared to the whole group of young people, there was a greater proportion among the apprentices who were non-dropouts who did not pass. The proportion who dropped out was significantly lower among the apprentices (4.6 per cent) than in the entire cohort (14.8 per cent).

The attainment of qualification among the apprentices according to their background and performance in compulsory education

We have examined the bivariate relationship between some central background variables, and the completion, drop-out and attainment of qualification among the apprentices, and found the following:

Among the apprentices, a higher number of boys than girls achieved qualification. We found that 72 per cent of the boys who were apprentices achieved a vocational qualification or a qualification for higher education, compared to 68 per cent of the girls. More boys than girls achieved a craft or journeyman's certificate (66.9 per cent compared to 54.9 per cent), but more girls achieved a vocational qualification through school (5.7 per cent compared to 2.2 per cent), double qualification (6.7 per cent compared to 2.3 per cent) and qualified for higher education (5.7 per cent compared to 2.2 per cent). There were more girls than boys who were non-dropouts who did not pass (26.5 per cent compared to 23.8 per cent) and who dropped out (5.5 per cent compared to 4.2 per cent).

Parents' educational level has little effect on apprentices' attainment of qualification. The differences in the achievement of qualification between apprentices who had parents with higher education and parents with upper secondary education as their highest level of education were not significant. In these groups, 72.1 per cent and 72.5 per cent respectively had achieved a vocational qualification or had qualified for higher education. Apprentices with parents who had compulsory education as their highest level of completed education had somewhat lower levels of qualification attainment: 66.4 per cent achieved a vocational qualification or a qualification for higher education. Those who stood out were those who had parents with unknown education; in this group, 55.4 per cent achieved a vocational qualification or a qualification for higher education. Those who had parents with compulsory education or unknown education dropped out more often than those who had parents with upper secondary or higher education.

No significant difference in apprentices achieving qualification according to minority / majority background. The share of apprentices who have achieved a vocational qualification or a qualification for higher education varied from 69 per cent to 71 per cent, depending on their minority / majority background status. This can be understood based on the fact that apprentices from minority groups who do not have Norwegian as their native language comprise an extremely selected group. It has previously been shown that non-Norwegian-speaking applicants who have low grade point averages are less frequently given an apprenticeship place than applicants with majority backgrounds with the same grade point average (Lødding 1998).

Apprentices who lived with both parents achieved a higher qualification than those who did not. Among the apprentices, we also found that the achievement of a vocational qualification or a qualification for higher education was higher among those who lived with both parents as 15 year olds. Among these, 73.1 per cent had achieved a vocational qualification or had

qualified for higher education after five years, while among those who did not have such a living situation the share was 66.4 per cent. The share of those who dropped out was approximately the same in both groups, but there was a difference in the proportion of non-dropouts who did not pass: 28.9 per cent among those who did not live with both parents against 22.4 per cent among those who lived with both parents as 15 year olds.

Apprentices who had been granted their first choice of education programme when entering upper secondary education had the highest achievement of qualification. We found that among the apprentices, 72.8 per cent of those who were admitted to their first priority education programme in upper secondary education achieved a vocational qualification or a qualification for higher education. The rate was 64.9 per cent among those who were admitted to their second preference or lower.

There was no difference in significance in dropping out between the two groups, but there were fewer non-dropouts who did not pass among those who were granted their first choice than those who were admitted to their second preference or lower: 22.9 per cent compared with 29.9 per cent.

Great variation in the achievement of qualification among apprentices within different education programmes. We found a variation in the achievement of a vocational qualification or a qualification for higher education from 55.8 per cent in the programme for Technical Building Trades to 78.8 per cent in the programme for Building Construction.¹⁷ In three other education programmes, less than 70 per cent of the apprentices achieved a vocational qualification or qualified for higher education (Health and Social Care, Arts, Crafts and Design, and Hotel and Food-Processing Trades). In the remaining education programmes, 70 to 80 per cent of the apprentices achieved a vocational qualification or a qualification for higher education. The proportion that dropped out varied, but the education programme with the highest proportion was Technical Building Trades, with a 7.7 per cent drop-out rate. The proportion of non-dropouts who did not pass varied, from 36.5 per cent in the Technical Building Trades to 3.5 per cent in the programme for Health and Social Care.

Little county-based variation in achieving qualification among the apprentices. The proportion of apprentices who achieved a vocational qualification or a qualification for higher education varied from 69.6 per cent in Vestfold and Østfold counties, to 73.6 per cent in Telemark County. If we look more specifically at the proportion who achieved the craft or journeyman's certificate, we find somewhat greater variation, from 60 per cent in Vestfold and Akershus to 71 per cent in Telemark. The proportion of apprentices who dropped out varied from 2.7 per cent to 2.9 per cent in Hedmark and Østfold to 6.4 per cent and 6.6 per cent in Akershus and Oslo. The proportion of non-dropouts who did not pass varied from 22

¹⁷ We have omitted those who had taken their trade certificate within the programme for General and Business Studies (ICT – operation subject), the programme for Chemical and Processing Trades, the programme for Woodworking Trades, the programme for Media and Communication and the programme for Agriculture, Fishing and Forestry, due to low numbers.

to 23 per cent in Akerhus, Telemark, Vestfold, and Buskerud to 26 to 28 per cent in Vestfold, Østfold, and Hedmark.

Apprentices who ended up with a qualification for higher education or achieved a double qualification had the highest grade point average from lower secondary school. Apprentices who dropped out before they had finished and non-dropouts who did not pass had the lowest grade point averages (3.24 and 3.28, respectively) from lower secondary school. Those who had the highest grade point average were the apprentices who did not stick with it until the end, but who ended up being qualified for higher education (4.04) or with a double qualification (4.05). Those who finished with a vocational qualification after their apprenticeship or school had a grade point average that ranged from 3.36 to 3.57. In all of these groups, girls had a better average than boys, except those who finished up being qualified for higher education, where boys had a higher average (4.12 compared to the girls' 3.97).

Highest number of absences from the last year of compulsory education among those who dropped out. We found that the number of absences (measured as a per cent) for young people in the tenth grade were greatest for apprentices who dropped out (9.3 percent) and second highest among the non-dropouts who did not pass (6.5 percent). Those who had achieved a vocational qualification after a school-based education had the lowest proportion of absences (1.3 per cent). For those who achieved double qualification, a qualification for higher education, or completed a vocational qualification after their apprenticeship, absence varied from 3.2 per cent to 4.6 per cent. There was also a difference between girls and boys: in all of these groups, the girls had a greater number of absences than the boys.

An examination of the variation in completion, drop-out and attainment of qualification among the apprentices revealed that the variation in relation to background variables was much less than among the youth group as a whole. This can be explained by the fact that the apprentices are a selected group. Earlier, we showed that employers choose the applicants who had performed well and had low rates of absenteeism; that is, when one first becomes an apprentice, one has already demonstrated that one belongs to the group that has the greatest probability of achieving a vocational qualification or a qualification for higher education.

What explains the attainment of qualification among the apprentices?

We conducted a binomial logistic regression analysis in order to identify the factors that affect the likelihood of the apprentices dropping out or continuing to the end without passing upper secondary education five years after compulsory education, as compared to achieving a vocational qualification or a qualification for higher education. The multivariate analysis shows that far fewer factors were significant in this context when compared with the entire group of young people. Even here, this must be ascribed to the fact that the apprentices are a selected group; those who received an apprenticeship had better grades and a lower number of absences than those who did not.

We found that the grades from compulsory school had a highly positive effect on the probability of achieving a vocational qualification or a qualification for higher education for the apprentices, and that the positive effect of the background variables, including the parents' education, disappeared when we controlled for grades from compulsory school. This shows that the positive effect of the parents' educational level, mother's occupational status, and the student's living situation is transmitted via the grades.

We found an effect of some compulsory education variables in addition to the grades. Absences in tenth grade had a negative effect on the probability of passing upper secondary education with either qualification for higher education or a vocational qualification. If the young people considered themselves to be practically inclined and praxis-oriented while also focusing on homework, all had a significant positive effect among apprentices on the probability of having attained a vocational qualification or qualification for higher education after five years, and also after controlling for relevant background variables and education programmes.

Education programmes also had significance among apprentices on the probability of having passed upper secondary education after five years. Those with an apprenticeship within the programme for Technical Building Trades, Arts, Crafts and Design or Electrical Trades had a significantly lower probability of having passed upper secondary education after five years than apprentices within the programme for Building Construction. The remaining education programmes did not differ from the programme for Building Construction.

Reasons for dropping out among the apprentices

As a part of the 'Drop-Out and Qualification' project, an interview study was conducted with 29 young people who had dropped out of their apprenticeships. In individual interviews, they related their experiences and reasons why the contract had been terminated. A number of the young people emphasised health problems like injury, allergies or sickness as the reason for why they had to stop being apprentices. Technical and social aspects of the training situation were often tightly interwoven in the young people's narratives. The interview material shows that when an apprentice is assigned a place at the margin of the community of practice in the apprenticeship company, and is given simple and unchallenging work tasks over a long period of time, learning and progression are hindered, while the apprentice's motivation is gravely tested. Another problematic situation arises when the apprentice is expected to master more than he or she has learned, while the instruction is insufficient. In both cases, it seems that expectations of velocity in production are an important reason why an apprentice does not get included in the community of practice in a positive way. Whether the tasks are too easy or too advanced, the result is that the apprentice is prevented from learning and developing him / herself. The accounts provide evidence that the balance between learning and production is precarious. In line with theories about the master-apprentice relationship (Lave 1999; Lave &

Wenger 2003), a necessary condition for efficient learning is that the training takes place as shifting participation in a community of practice, in which the goal is that the apprentice will eventually become a full participant.

The training candidature scheme¹⁸ is seldom used

According to the Education Act: 'Upper secondary education shall lead to qualifications for higher education, vocational qualifications or a lower level of competence' (The Education Act, paragraph 3-3).

Lower level of competence is what one achieves when one does not qualify to enter higher education or gain a vocational qualification. The regulations to the Education Act state that a certificate of competence is issued as documentation for upper secondary education when the conditions for getting a certificate of upper secondary education or craft or journeyman's certificate are not fulfilled (regulations to the Education Act 4.33 and 4.65). Lower level of competence was added to the legal system and became a part of upper secondary education through Reform 94. Originally, this was called 'documented partial competence', and thereafter 'partial competence' and starting on February 2001, the form of competence was labelled 'lower level of competence' (Besl.O.nr. 106 (1999-2000)).

This 'lower level of competence' can be achieved in two ways, planned or unplanned. *Planned competence at a lower level* is achieved through completing upper secondary education with reduced curriculum objectives. One has realised from the start or during upper secondary education that there is little chance of getting through the difficult requirements to qualify for higher education or to attain a vocational qualification, and the student works to acquire parts of the curricula goals and modules. Those who aim at a lower level of competence within a vocational subject enter into a *training contract*, instead of an apprenticeship contract; they receive a *training place* instead of an apprenticeship place; they are *apprentice candidates* and not apprentices; and they take a *competence examination* instead of craft or journeyman's examination. Lower level of competence is documented with a *certificate of competence*, which shows what elements in the curriculum the young people have worked with and achieved certification in. This means that the certificate of competence shows what they actually know.

Unplanned competence at a lower level is achieved when the student's objective was to achieve a qualification for higher education or to complete a vocational qualification, but does not manage to meet all of the requirements of the curriculum and thereby fails to pass every subject. Unplanned competence at a lower level may be documented with a certificate of competence, but it is probably at least as common that the documentation is a transcript of grades with failing grades included.

¹⁸ In Norwegian named *Lærekandidatordningen*. Also translated as *The Training Candidature Scheme*.

We have previously shown that 34.2 per cent of those who left compulsory education in the south-eastern parts of Norway during spring 2002 had not achieved a qualification for higher education or completed a vocational qualification five years later. When we look solely at those who had been apprentices, this relates to 29.2 per cent. By definition, all of the young that neither attained a qualification for higher education nor a vocational qualification have achieved 'a lower level of competence'. One could expect that a significant proportion of the one-third who ended up with a lower level of competence had it as their education goal. This means that they had been apprentice candidates with a training contract, and had taken the competence examination and achieved a lower level of competence, documented with a certificate of competence.

During spring 2007, that is, at the end of the fifth year of upper secondary education, we found 32 apprentice candidates among the 9,749 young people in the study. In addition, 23 young people who had been apprentice candidates during their time in upper secondary education were registered. In total, this means that 55 out of the 9,749 have been apprentice candidates. This corresponds to 0.56 per cent of the youth who finished 10th grade in the south-eastern parts of Norway in 2002. We must accept these numbers with reservation, due to the varied registering of apprentice candidates, such that there might actually have been more candidates than the registers have captured, but from what we know about upper secondary education, this number is likely to be relatively correct.

We have looked more closely at these 55 apprentice candidates:

- There were 35 boys and 20 girls
- 30 of these had either not taken or passed the competence examination. These 30 had been apprentice candidates within eleven of the twelve vocational education programmes
- 18 had passed the competence examination with the result 'Passed', two with the result of 'Very Good Passed', and five were signed up to take the competence examination in July 2007. These apprenticeship candidates had taken the competence examination within fourteen different trades. These 25 are among the 65.8 per cent who have passed upper secondary education and among the 12.6 per cent who achieved a vocational qualification after their apprenticeship that we have given an account of above.

A comparison of this share of the 0.56 per cent with the 34.2 percent of youth who neither achieved qualification for higher education nor attained a vocational qualification illustrates that there must be a powerful under-utilisation of the training candidature scheme. We do not claim that 34.2 per cent are potential apprentice candidates, but a significant proportion of these would be likely to gain from taking upper secondary education toward planned competence at a lower level instead of trying to qualify for higher education or to gain a vocational qualification.

It is impossible to state the exact number of a year's cohort that should plan to achieve a lower level of competence as the objective of their upper secondary education. Yet, when we look more closely at the achievements of those who neither achieved qualification for higher education nor a vocational qualification, it is possible to suggest something about the potential among them.

We have identified how many who had passed their 1st or 2nd year in upper secondary education, among the dropouts and the non-dropouts who did not pass. We found that among these 34.2 percent, 7.1 percentage points had passed the first year, and another 17.6 percentage points had passed the second year of upper secondary education. Then we see that a total of 24.7 per cent of the sample had not passed all exams required to achieve qualification for higher education or a vocational qualification, but had passed at least one level within upper secondary education. For some of these, planned competence at a lower level and the training candidature scheme would certainly have been appropriate. However, we assume that a rather great proportion of these 24.7 per cent would have the potential to complete their educational pathway and achieve either qualification for higher education or a vocational qualification, given an appropriate adjustment and organising of the education. This leaves us with 10 per cent of the cohort of young people who had not passed any level in upper secondary education five years after finishing compulsory school, and we assume that most of these would not have had the potential for achieving qualification for higher education or a vocational qualification. For a significant proportion of these, a lower level of competence would certainly have been a very good alternative. These numbers should give an indication of the proportion of the cohorts that should aim toward a lower level of competence, or alternatively aim for qualification for higher education or a vocational qualification.

If young people who have had particular difficulties with the academic demands in place for achieving a qualification for higher education or a vocational qualification start out with an educational pathway towards planned lower level of competence instead, they would be allowed to work with reduced curriculum objectives. For many of these, this could lead to an experience of mastery rather than a continuum of new defeats as a continuation of all their defeats at lower secondary school. Academic mastery can lead to a greater degree of prosperity and social mastery, which could reduce the likelihood of dropping out of upper secondary education.

Despite the fact that the lower level of competence has existed as a part of upper secondary education since 1994, and despite the fact that many students in each cohort ought to have the achievement of 'a lower level of competence' as a goal, there are as we have shown above, very few in a planned course towards competence at a lower level.

What is the reason that this option is so under-utilised? In order to answer this, we must take a retrospective glance, and it is important to emphasise three factors. First, it is important that

this form of certification was not a part of the Government's proposal for Reform 94, but was brought into legislation and upper secondary education by the Parliament. Those who were to implement Reform 94 from a national level therefore had no feeling of ownership of partial competence / lower level of competence, which is something that could have had an influence on low use of competence at a lower level. This has been documented by Markussen (1995, 2000).

Second, the partial competence / lower level of competence option was counteracted by both sides of the labour market. A working group that was going to consider a number of conditions around partial competence, and in which the Norwegian Confederation of Trade Unions (LO) and the Confederation of Norwegian Enterprise (NHO) were represented, provided several overarching principles as a basis for partial competence, one of them being that there should be 'No new national occupational categories below the level of skilled worker' (KUF 1994: 10). It was implied here that students with partial competence as an objective should not be able to plan their education toward an occupational category. Only the representative from The Norwegian State Council on Disability opposed this principle.

In the hearing, the dividing lines were the same; organisations that work for the interests of people with disabilities and those who work toward developing the qualification of youth were against this principle, while the labour market representatives, the Norwegian Confederation of Trade Unions (LO), the Confederation of Vocational Unions (YS), the Norwegian Association of Local and Regional Authorities (KS) and the Teachers' Union, Norway, together with the National Council for Vocational Training (RFA), were for it.

This can be interpreted as a struggle over positions in the labour market. Groups who have access to the labour market, through the construction and organisation of the education system, have taken the stand in which their own interests are preserved and to protect established positions. New occupational groups below the level of skilled worker can provide competition to established occupational groups. This resistance to 'a lower level of competence' from the social partners has been documented by Markussen (1995, 2000).

Third, the form of competence also did not receive support from central national and county authorities. During the first five years after the partial competence category was established, the state-based information 'To those who want to apply for upper secondary education' contained nothing about this form of competence. In addition, the school owners (the counties), provided very little information about the partial competence. It was therefore nearly impossible for young people with weaker academic qualifications to know that it was possible to start upper secondary education with a goal other than either achieving a qualification for higher education or a vocational qualification. The lack of visibility of partial competence / competence at a lower level has been documented by Markussen (1995, 1996, 2000).

To sum up this recent historical backdrop: When planned competence at a lower level is still seldom utilised in upper secondary education, this can partially be explained by the deficient relation between ownership of this form of competence in the national and county bureaucracy and the implementation of Reform 94, the resistance of the social partners in the labour market, combined with national and county governments providing insufficient information about partial competence during the years immediately following 1994.

Since 2005, there has been a development in relation to the lower level of competence. In early 2006, the Minister of Education appointed a diverse working group that was in charge of evaluating measures for better achievement in upper secondary education. The committee submitted its report *Measures for better achievement in upper secondary education* (the GIVO report) (Ministry of Education and Research 2006) in August 2006. It made a number of proposals. One of these was a further development of the training candidature scheme. The proposal implied that an organised practice-based course of study that ends up with a recognisable and acknowledgeable documentation should be developed, that is, the certificate of practice (Ministry of Education and Research 2006: 40). The idea was that some young people would be able to gain practice-based education in a company. This should last for two years, and begin immediately after lower secondary school. A minority of the committee promoted a proposal that implied a further development of the training candidature scheme in which the responsibility for the educational pathway that leads to the certificate of practice would lie inside of the county's upper secondary education to a greater degree. The GIVO report also followed up the proposal from Markussen et al. (2006:31) to change the concept of 'a lower level of competence' to '*basic qualification*'.

The GIVO report became an important basic document for Parliament white paper 16 (2006-2007), '*... and no one was left. Early efforts toward lifelong learning*', as laid out by the Minister of Education and Research in December 2006. Here, the proposal for the certificate of practice was followed up, and the bill also stated that the Ministry would propose changing *lower level of competence* to *basic qualification*. At the time of writing (April, 2008), this conceptual shift has not been proposed by the Ministry, but from autumn 2007, trails began with the certificate of practice in three counties (Oslo, Vestfold, and Rogaland) within three disciplines: the certificate of practice as a landscape gardener, carpenter, and within industrial food production. The trial is to be evaluated.

We also know, without having a documented overview, that different approaches to the training candidature scheme and lower level of competence are taking place around the country. Two examples can be mentioned:

In Vestfold County, the possibility of applying for a planned course aimed at *basic qualification* is being offered within five educational programmes: Restaurant and Food Processing; Technical and Industrial Production; Arts, Design and Crafts, Building and Construction, and Service and Transport at three of the upper secondary schools in the county. Prior to the school year 2008-2009, Vestfold County received 85 primary applications for 87

places in these courses. This demonstrates a need and a potential. The following principles are among the basis for the offers:

- Basic qualification is a vocational pathway in which the primary model is 2 + 2 with the possibility of entering an apprenticeship contract for the last year of training, alternatively a third year at school if so indicated by special needs or circumstances.
- The applicant must be familiar with the competence they will end up with, work opportunities, and possible further educational opportunities.
- Upper secondary education is responsible for carrying out the educational proposal / offering.
- The proposals / offerings are organised in the same manner as other educational courses (class teachers, course teachers, school hours, etc.)
- That the education is shaped in accordance with the principals for and the educational programmes and programme areas of the great curriculum reform introduced in primary, lower and upper secondary education in Norway in 2006.
- It will be linked with the functions of working life and the needs of the labour market (Jonsdottir 2008).

Systematic efforts aimed at offering young people planned competence at a lower level have been made at Kjelle Upper Secondary School in Akershus since the implementation of Reform 94. In close cooperation with the labour market and private business, an arrangement has been struck that ensures that many of the young people who complete planned competence at a lower level will have a good chance at succeeding in the labour market (Kjelle Upper Secondary School 2008).

Successfully establishing competence at a lower level as an equal form of competence has a long way to go. Teachers and advisors must be persuaded that this is the right thing to do. Even in relation to the parents, the introduction of competence at a lower level can be a challenge. For instance, they must accept that their son will receive a certificate of competence and not a craft or journeyman's certificate. The boy himself must accept that he will be a semi skilled worker in the plumbing trade and not a plumber. And the labour market must firstly be willing to take these youths in as apprentice candidates and provide them with an education, and second, be willing to employ them when they have passed their competence examination. All of this constitutes great challenges. Yet they are not insurmountable, and there have been examples of it working in the Norwegian education system.

In the debate about the use of competence at a lower level, it has been argued that employing this form of competence does these young people a disservice. They are being tricked in relation to their future opportunities in the labour market, because they would be better served with a craft or journeyman's certificate than a certificate of competence. This is in itself correct; the better certification one has, the better chances one has in the labour market, and those with a craft or journeyman's certificate have a better chance of finding a job than those

who have a lower level of competence documented by a certificate of competence (Grøgaard, Markussen and Sandberg 2002). Yet what one forgets is that for these young people, a craft or journeyman's certificate is not an alternative. They do not have the necessary qualifications for passing both first and second year, and the craft or journeyman's examination. The challenge is to give them as much and as good an education as possible. Thus, it is our assessment that the planned course toward competence at a lower level in which young people can master and achieve documentation on what they actually know is a much better alternative than an unsuccessful attempt toward achieving a craft or journeyman's certificate. The latter path is characterised by defeat, and documented with grade transcripts from first and second year, which show the subjects they have failed.

It is also claimed in the debate that those who do not have a craft or journeyman's certificate will not get a job. It is our opinion that this is incorrect. It has been demonstrated in several studies that jobs exist in the labour market that can be filled by people who have not passed upper secondary education. Research by Akershus County (1996, 2008), Larsen and Hompland (1999), and Stølen (2001) has demonstrated that there will be a need for labour with a lower level of competence for many years into the future, even in the so-called information society. Stølen (2001) has showed that between 15 and 20 per cent of jobs do not require education higher than completed compulsory education, or first year of upper secondary education.

Akerhus County conducted two studies ten years apart, in which they mapped the labour market's need for competence at a lower level. In 1996, they asked 256 companies, and in 2007 they asked 231 companies in Oslo and Akershus if they needed labour with certification below the level of craft or journeyman's certificate. In both studies, 80 per cent of the companies answered that they had such a need (Akershus County 1996, 2008).

Summary

The project 'Drop-Out and Qualification' shows that 65.8 per cent of the youth cohort who finished compulsory education during spring 2002 had achieved qualification for higher education or a vocational qualification five years later, while 34.2 per cent had not passed upper secondary education. Of these, 19.4 percentage points were non-dropouts who did not pass, while 14.8 percentage points had dropped out of upper secondary education before they had finished. There is a significant variation in the dropout rate between different education programmes, and the dropout rate is especially high in some vocational education programmes. In the programme for Hotel and Food-Processing Trades, about half of all young people dropped out before they had finished. In the programme for Sport and Physical Education, only 3.0 per cent dropped out. In the programme for Hotel and Food-Processing trades, 29.5 per cent achieved qualification for higher education or a vocational qualification. In comparison, 80.4 per cent passed the programme for General and Business Studies.

The factor that had the greatest effect on the likelihood of passing, continuing to the end without passing or dropping out of upper secondary education were the students' grades from compulsory education. A great number of background variables, including parents' education, with whom the young people lived as 15 year olds (both parents or not), majority and minority background, whether the parents were focused on education, and whether they were inclined toward general subjects, had an effect. These factors also had an effect on the grades from compulsory education, and consequently these background variables have both indirect and direct effects on the attainment of qualification from upper secondary education.

The analyses showed that two out of three applicants for an apprenticeship received one. Among the one-third who did not receive an apprenticeship, half dropped out. These constitute approximately 1.5 per cent of the cohort. As a consequence, some young people who had planned to commence education as an apprentice were stopped in the process. We have observed a structural hindrance that stops some young people in continuing the education they had planned. As the owner of upper secondary education, the counties do not have control of the last half of the 2+2 model. It is the labour market's ability to control the supply of apprenticeships, and its assessment of which young people will be accepted, that determines the number and who will be accepted to become an apprentice. This gives reason to raise the question whether the statutory right to three years of upper secondary education is in reality a right available to all young people, or if a small proportion of 1-2 per cent of each cohort is excluded from this right.

Among those who became apprentices, there was a higher level of achievement than among all of the students together: 70.9 per cent qualified for higher education or earned a vocational qualification; 24.5 per cent were non-dropouts who did not pass; and 4.6 per cent dropped out before finishing. One reason for better achievement among the apprentices than among the student group overall is that apprentices are a selected group. The selection of those to receive an apprenticeship was not accidental. The likelihood of receiving an apprenticeship increased according to the better grades the youth achieved in the first year, when passing all exams the second year, having a low rate of absence from school during the second year in upper secondary education, and when their father's highest level of education was vocational education on upper secondary level.

We have examined the factors that influence the likelihood of apprentices passing compared to dropping out or continuing to the end without passing upper secondary education five years after finishing compulsory education. There were fewer significant factors in this context, when compared with the entire group of youth. Even here, this must be attributed to the fact that the apprentices are a selected group; those who received an apprenticeship had better grades and lower rates of absence than those who did not receive a place. Even for the apprentices we found that the grades from compulsory school had a positive effect on the likelihood of achieving vocational qualification or qualification for higher education.

The Education Act states that 'Upper secondary education shall lead to qualification for higher education, vocational qualifications or a lower level of competence'. Lower level of competence is achieved when one does not achieve qualification for higher education or a vocational qualification, and can for the most part be achieved in a planned or unplanned fashion. *Planned competence at a lower level* is achieved through completing upper secondary education with reduced curriculum objectives. This form of competence is seldom utilised. If utilised properly, competence at a lower level could contribute to fewer students dropping out, and several of them would receive documented certification through a certificate of competence that they could use to help them to obtain a job.

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Chapter 4 Inclusion of adults in VET

Håkon Høst

Norwegian VET has been characterised as being distinguished by a general pragmatism linked to the validation of experience-based versus school-based competence, which can be linked to the autonomy of the work environment in relation to the education system (Michelsen and Olsen 2007). An important explanation for this is that the different sectors of Norwegian working life have a long tradition of – and have had good experiences with - compensating for what can be called underproduction of young people with skilled worker certificates or other basic vocational education. This has been done through lowering the formal acceptance criteria, and instead provided employees with the possibility of an education and a formal qualification later in life. This tradition has also made the Norwegian vocational education system available to older youths and adults. This occurs to a much greater extent in Norway than in the countries to which Norway compares itself.

In most countries, vocational education has largely been reserved for adolescents. When adult access to VET became a central political concern through the increasing focus on lifelong learning within organisations such as the OECD and the EU during the latter part of the 1990s, it became clear that things were different in Norway. This is a key element when trying to understand why Norway and the other Nordic countries score highest in international studies regarding adult participation in education¹⁹.

If we look at the changes that have taken place over the last 20 years, the position of adults in vocational education in Norway has to a great degree been an issue about restructuring, rather than increasing access. In this account, we will open with the historical background of the position of adults in Norwegian vocational education, prior to introducing new data for showing developments over recent years. We will address the three main areas relevant to adult access to vocational education.

- School-based vocational education
- The apprenticeship system
- Experience based Trade Certification²⁰

¹⁹ See Rubenson (2005), “*Equity in education. Thematic review. Norway country note*”. OECD 2004.

²⁰ In Norwegian named *Praksiskandidatordningen*. Also translated *Trainee Scheme*.

Historical background

Vocational education in school

Until 1990, a lot more people received their vocational education through traditional schooling than through the apprenticeship system. Historically, there are different explanations for this. One reason is the large expansion of vocational schools from 1945 until 1980, a period during which the growth rate of the apprenticeship system was much lower: In 1981, more than 100,000 students were in vocational schools, of which 41,500 were in the industrial and craft fields. By comparison, the number of new apprenticeships during the same years was not higher than 4,500²¹. (See also Chapter 2). Vocational school education existed autonomously, certainly as education oriented towards the work place, but connections to the apprenticeship system were poor. In addition to the fact that an increasingly higher proportion of the cohorts finishing lower secondary school applied for entry to upper secondary school, the number of older youths and adults applying also increased, especially in the vocational fields of education. The unemployment issues during the 1980s further contributed to an escalation of this development. During this period, upper secondary school was not only open to adults, but age and work experience gave them extra credit upon admission so that they were more competitive than the younger ones in the competition for school places. This especially pertained to certain forms of vocational education that were not situated under the apprenticeship system, such as social and health related education, which expanded rapidly after 1976, when the act on upper secondary education integrated them into the new, common upper secondary school system (Høst 2006). Vocational education for the health and social sectors represents a different tradition than for industry and crafts, but there are many shared characteristics. Health and social care education have traditionally been school-based, but to a great extent dominated by adult women. Studies of the major education within this program (Høst 2006), auxiliary nursing, show that the dominant pattern has been to recruit adult unskilled workers and subsequently provide them with an education. Since the 1960s, this has provided tens of thousands of adult women the opportunity to obtain a vocational education. Among women born in the middle of the 1950s, as many as 15 per cent of the year's cohort has completed education in auxiliary nursing but at different stages in life. As late as in 1991, three out of four in auxiliary nursing were above 20 years of age. In addition to the regular auxiliary nursing classes in the upper secondary school being dominated by adults, other compact education was available to adults, both within and outside these schools.

In 1990, there were 36,000 adults in upper secondary school, most of them in vocational training.²² Looking at the study programs that were to constitute the vocational fields from 1994, every fourth student was over the age of 20 during the school year from 1990-91.

²¹ Source: Statistics Norway – Historical statistics and RFA yearly report 1981

²² NOU 1991: 4 *Veien videre til studie- og yrkeskompetanse for alle*

Within the female dominated courses of study, social and health education, as well as home economics and aesthetic subjects, adults (i.e. those aged over 20) constituted nearly half of the students.

Apprenticeship

In countries with which a comparison is natural, Germany, for instance, it is possible to sign an apprenticeship contract for a short period of time only, normally limited to two to three years after graduating from upper secondary education (Blossfeldt 1990). In the area we focus on here, namely VET, not receiving an apprentice education and certification during this early stage in life has been revealed as having long-term consequences, not just for the opportunity to be certified, but also for future employment and lifelong learning.

In Norway, there has traditionally been an entirely different, age-related heterogeneity among apprentices, even though the age composition has fluctuated with the state of the market and other factors. This applies to the fact that the apprenticeship system historically has been a system for recruiting labour, and in this manner, the labour market has also created the framework for the recruitment of apprentices. The training companies have traditionally recruited their apprentices freely with regard to educational background. Instead, the pattern has been that the apprentices were sent to apprenticeship school during their time in training. This characterised the apprenticeship system up until the 1990s. As late as in 1989, only one-third of apprentices had a two-year long school education in the trade prior to his / her apprenticeship²³.

In 1991, the Blegen committee²⁴ described as problematic the fact that only 43 per cent of apprentices were under 20 years old. In 1994, this number decreased even further, to 17 per cent (Michelsen, Høst and Gitlesen 1998). Thus, it can be said that until 1994, the apprenticeship system was dominated by older youths and young adults, and in this way covered a part of what one would normally define as adult education.

Experience based Trade Certification²⁵

Another key characteristic of Norwegian VET is that alongside these traditional, age-diverse educational arrangements which the school and the apprenticeship system have represented, there exists an independent adult path to attaining an apprenticeship certificate. Under this arrangement, adults are given the opportunity to obtain a journeyman's certificate on the basis of a long period of practical experience within the trade. When the Norwegian apprentice act was passed in 1950, it was stated that not only apprentices, but also experienced, unskilled

²³ NOU 1991: 4 *Veien videre til studie- og yrkeskompetanse for alle*

²⁴ NOU 1991: 4 *Veien videre til studie- og yrkeskompetanse for alle*

²⁵ This part is largely based on the article *Some remarks on Norwegian Vocational Education and Training Policies and Lifelong learning* (Michelsen and Høst 2001)

workers should have the right to obtain a skilled worker certificate. The condition was that they had to have had a 25 per cent longer practical experience period than what was normal for an apprenticeship at the time. In practice, two equal and parallel paths to skilled worker certification in Norway were established: one through apprenticeship and theoretical education, and one through practical experience as unskilled worker within the area of the trade (Holm 1960) – Experience based Trade Certification²⁶. The act applied only to urban areas, as trade and business were not considered to be sufficiently developed in all parts of the country, hence they could not meet all of the obligations required by the apprentice act. Experience based Trade Certification as a system of certification was therefore particularly relevant for people who worked in trades that were situated under the apprentice act in districts where the act did not apply. With geographic mobility in particular, it had to be possible for these persons to obtain a journeyman's certificate.

Eventually however, the reasoning for the arrangement was shifted from geographic mobility and fairness to age-based flexibility. In 1980, the apprentice act's area of applicability expanded to include the entire country²⁷. With that, the original reasoning for Experience based Trade Certification in principle disappeared. Instead, the system acquired new grounds through a linkage to the new adult education act, which was passed in 1976. This change is especially illustrated through the fact that the apprentice act changed its name to the act on vocational education. The term emphasised the idea that vocational education could take place outside of formal training and that even adults who had not completed formal training had the opportunity to acquire a certificate and thereby gain status as a skilled worker.

Within established crafts and industrial trades, many skilled workers have been recruited through the Experience based Trade Certification. For example, within the metal industry, the system has represented a very important supplement to the apprenticeship system, not just as adult education, but as an alternative for somewhat older youths. For large parts of the industry, the lack of a skilled workforce (and apprentices) was practically the norm in the 1960s and for part of the 1970s. For the metal industry, which has a long tradition within the apprenticeship system, the labour market situation meant that one was to a great degree reduced to employing unskilled workers and then training them (Michelsen 1995, Hjellbrekke 1999). The egalitarian Norwegian wage policy and the low wage disparity between skilled and unskilled workers meant that the industry appeared as a relatively attractive option for workers from rural districts with a background in farming or fishing. At the same time, the trade certificate hardly represented a mandatory prerequisite for status as a skilled worker. Up until the 1990s, it was quite common in the workshop industries for adult employees with seniority to be recognised and paid as being skilled workers without being formally certified (Fylling 1995, Korsnes 1996, Michelsen 1990, 1995, Sirnes 1988).

²⁶ Until 1994, they were called section 20-candidates, based on the decision's position in the apprentice act of 1950, later also the act on vocational education of 1980.

²⁷ Ot.prpr. nr 6 (1979-80), Innstilling O. Nr. 37 (1979-80).

Within the crafts, the Experience based Trade Certification has traditionally played a more modest role than within the field of industry.²⁸ Nonetheless, there is reason to assume that some of the same mechanisms exist here as in industry, in that the recruitment of unskilled persons and certification through the Experience based Trade Certification has significance during periods in which apprentices and a skilled workforce have been lacking.

However, certification of experienced employees on the basis of documented competence has also played another important role: facilitating the establishment and the implementation of new trades. In a study of the process industry, Olsen (1989) found that 90 per cent of those who were certified as skilled workers in the chemical processing trade, which was first established in the 1980s, did so through the Experience based Trade Certification. For the establishment of the trade, this functions as a means to help in reducing resistance among the adult, experienced workers toward the newly employed young people, educated through school and the apprenticeship system, being valued as skilled workers within their field. In addition, this helps to establish the basis for the recruitment of instructors and members of the examination boards which is necessary for the new trade to be established and reproduced. During the last part of the 1990s, the apprenticeship system managed to gain a foothold in the chemical processing trade. Now only one out of three candidates for the trade exam was unskilled workers aiming for a Experience based Trade Certification, the rest were apprentices²⁹. The recruitment pattern within the trade had fundamentally changed during a relatively short period of time. However, within many of the other industrial trades that were established in the 1980s, there had been problems with recruiting apprentices, and 25 years later, recruiting unskilled and certifying them through the system of Experience based Trade Certification is still dominant. It can be viewed as a problem for the trades that young people are not recruited, but at the same this shows the flexibility the Experience based Trade Certification creates in the system, as viewed from the perspectives of both the companies and the adult, unskilled worker.

The 1990s regime change : The adults out of upper secondary school

The extensive restructuring of upper secondary school that happened in the 1990s also had great impact on adults. Reform 94 must be understood on the basis of the mass education society and problems with waiting lists to be admitted into upper secondary school. The diagnosis was that the upper secondary school was overburdened, both due to a large number of adult students, but also as a consequence of a due to inadequately developed capacity, along with the fact that the apprenticeship arrangement was hardly an option for younger youth.³⁰

²⁸ Due to the lack of historical statistics, we base this especially on assessments performed at NOU 1978:30.

²⁹ Source: Linda fagoppl ring, Ministry of Education

³⁰ See NOU 1991: 4 *Veien videre til studie- og yrkeskompetanse for alle*, among others.

The political measures that were executed were intended to grant privileges to the young, and thereby afford them preference in publicly financed upper secondary education. Next, there has been an attempt to link schooling and apprenticeship periods closer together, both with regard to curricula, and through getting companies to employ young people from upper secondary school as apprentices. The latter was sought to be achieved through the establishment of a publicly organised apparatus that was meant to secure the connection between the schools and thereby the students, on the one hand, and the companies that needed apprentices on the other. In addition, the differentiation of apprentice grants was approved, such that the companies received about twice as many government apprenticeship grants if they admitted youth directly out of school compared with taking in adult apprentices from the outside.

From the school side of things, the new policy had an immediate effect. From 1994, the classes were filled up by the young who had a statutory right to upper secondary education. The county municipalities prioritised their resources towards the students who had now received a legal, individual right to upper secondary education. The adults did not have this legally-bound, individual right. Instead, they were covered by an obligation on county municipalities to maintain a certain educational scope, in accordance with a regulation. This was given a much lower priority (Sandberg and Vibe 1995, Michelsen, Høst and Gitlesen 1998). Education that was especially arranged for adults, for example the type that existed within an area such as auxiliary nursing, was shut down in most counties (Høst 2001). The number of adult applicants for first year training was cut in half within just one year (Sandberg and Vibe 1995). A year later, the number of adult applicants for 1st year sank noticeably, which was interpreted as being a result of the experiences the adults had with the new admission policy, both individually and as a group (Vibe 1995). The sharp decrease in applications by adults continued the following year. In addition to the fact that this must be viewed as a natural response to the new admission practice, the great improvement in the labour market from the mid-1990s may have been a significant factor behind the fact that fewer adults applied for secondary education (Støren, Skjersli and Aamodt 1998). A closer examination revealed that most of the adults who were rejected from upper secondary school in 1994 disappeared from the waiting list, in that they did not apply for upper secondary school the following year.

No fewer adult apprentices

After Reform 94, the age-related centre of gravity for new apprentices moved considerably downward, and now is at 18 years. To a large degree, the lower average age must be viewed as a result of the political measures through Reform 94. Yet, when all is said and done, entering into an apprenticeship contract is something that lies within the individual company's autonomy, and, in many cases, it seems as if companies prefer older apprentices. Around half

of the people who sign apprenticeship contracts are older than 18 years old.³¹ However, there are differences between fields. In many trades, this follows strong traditions. Within smaller craft trades, mostly adult apprentices are admitted. Another example is the graphic trades. In 1989, only 12.5 per cent of the new apprentices here were 18 years old.³² Despite the youth reform, in 2007 only one out of every three of the new apprentices in the graphic trades (now included in the study program for Media and Communication) was 18 years old.³³ Recruiting mostly adults is also the case for the study program for Health and Social care, where not more than a third of the new apprentices are 18 years old. This is the case, despite the fact that adult recruitment to this sector mostly happens through channels other than the apprenticeship system.

Støren, Helland, and Grøgaard (2007) have examined the placement procedures of apprentices from schools and found that the state of the market had an effect on the position of adults versus the position of youth. The oldest applicants benefitted during good market conditions, whereas the younger ones, who had upper secondary school admission as their legal right, benefitted during declining economic cycles, that is, when there was a greater competition for apprenticeships.

Although it varies between the different trades, the situation after Reform 94 – and today – still offer very good opportunities for adults who want to sign an apprenticeship contract within a trade to do so.

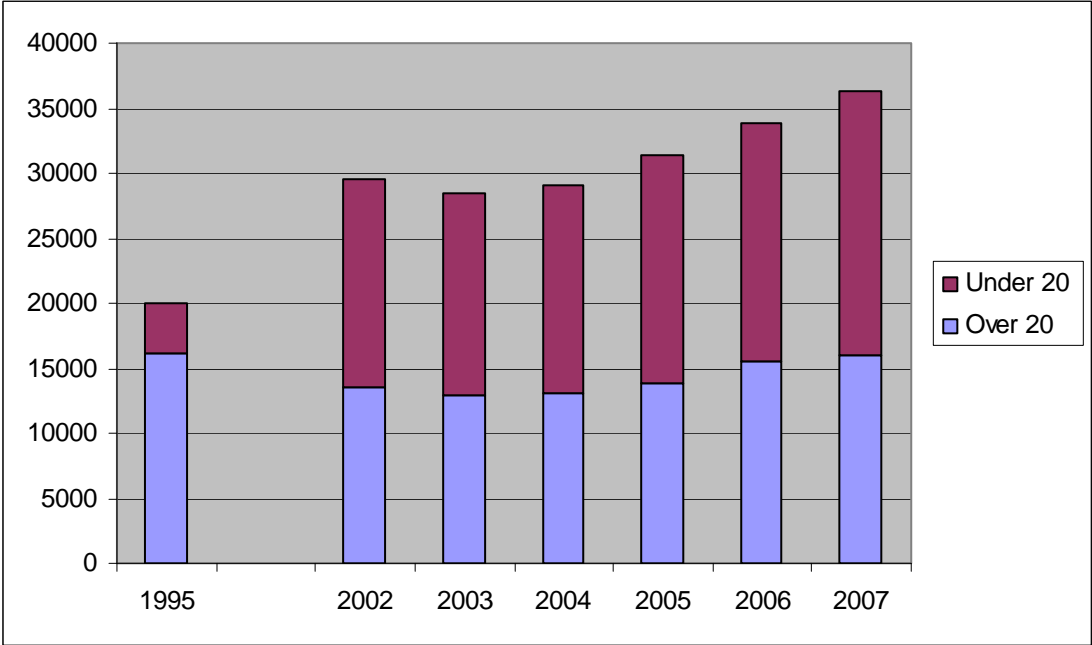


Figure 4.1: Apprentices over and under 20 years of age in 1995, and 2002-2007
 Statistics Norway

³¹ Statistics Norway 2007

³² NOU 1991: 4 *Veien videre til studie- og yrkeskompetanse for alle*

³³ Source: The Directorate of Education and Training’s website: Grunnopplæringen i tall

In terms of numbers, adult apprentices have not decreased since Reform 94 (Figure 4.1). There were just as many apprentices over 20 years of age in 2007, around 16,000, as there had been in 1995, the last year before Reform 94 came into effect within the apprenticeship system. Instead, the entire increase in the number of apprentices was made up by those less than 20 years of age.

The quantitative significance of the Experience based Trade Certification

As part of the restructuring of upper secondary education, it was suggested that the Experience based Trade Certification, or the Section 20-arrangement as it had been called, be changed. In future, the education authorities would enforce the same requirements on the Section 20 candidates in the work force that applied to apprentices. The notice of changing Experience based Trade Certification led to a strong current of adults registering for the trade certification. Numbers suggest that on average, 15 per cent of the unskilled workers within the entire NHO³⁴ area obtained a Experience based Trade Certification during the last half of the 1990s (Pape 1999). From 1996 to 2000, a total of 63,000 certificates for adults were distributed for all the fields, an increase of 120 per cent in relation to the previous five-year period.³⁵ Even though this was clearly connected to the fact that many wanted to benefit from this opportunity before the system was wound up, it was also an effect of the many new subjects that emerged under vocational education after Reform 94, in those areas that didn't have an apprenticeship tradition.

The Experience based Trade Certification was maintained in its original form, after great pressure from the social partners. This means that adult employees with long work experience in their field still have an easier theoretical route to acquire an adequate trade certificate than apprentices.

Previous studies have concluded that the Experience based Trade Certification historically has nearly had as great an importance as the apprenticeship system when one looks at the number completing the trade exam (Michelsen and Høst 2001). In the assessments that were made, the Experience based Trade Certification was estimated to have provided about 45 per cent of all completed trade exams. However, in these numbers, there are also powerful period-based fluctuations, the greatest one at the end of the 1990s.

³⁴ NHO is the National Association of employers

³⁵ Source Statistics Norway

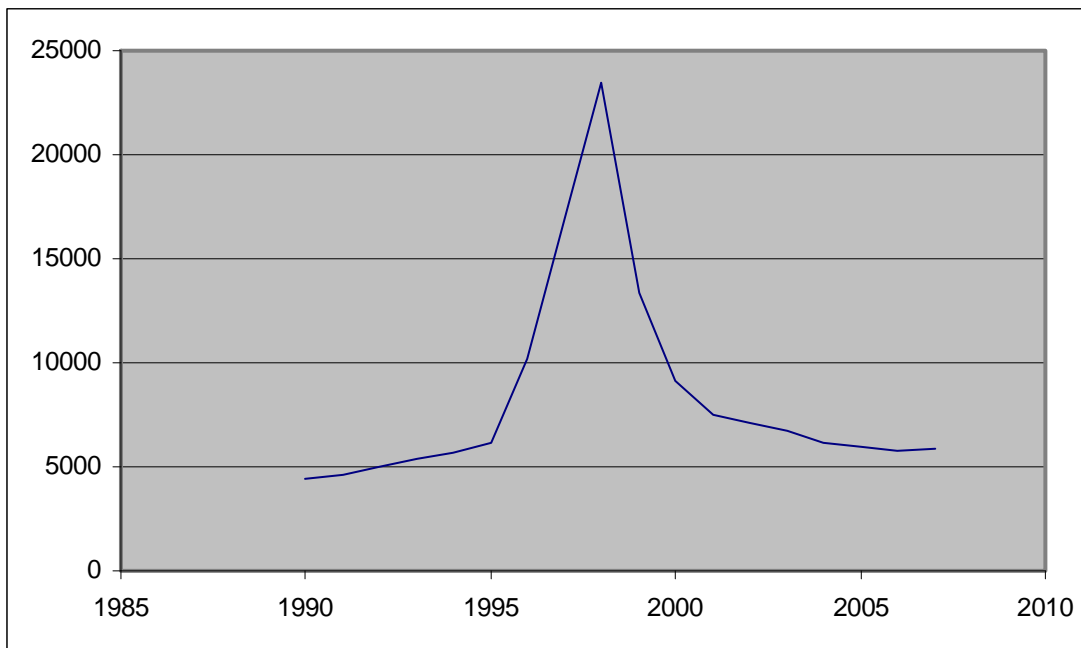


Figure 4.2: Number of Experience based Trade Certification per year 1990-2007

Source: Statistics Norway and Linda Fagopplæring³⁶

After the rapid increase at the end of the 1990s, the use of the Experience based Trade Certification has decreased since 2000, which can be understood as being the result of saturation after the increases during the previous years. From 2002 - 2007, the system contributed about a third of all skilled worker certificates. In *number*, Experience based Trade Certification have been rather stable at around 6,000 in recent years. Although this is much lower than during the last years of the 1990s, it is still higher than the level that existed during the first half of the 1990s (see figure 4.2). Even though this system has not experienced the same growth as the apprenticeship system, and thus has had less significance overall, it must still be considered to be quite important for the employees, as well as a contribution to covering the needs of the labour market's needs for competence.

Trade distribution

If present-day numbers of Experience based Trade Certification are compared with those of the first half of the 1990s, entirely different trade fields dominate the system. At the beginning of the 1990s, it was the crafts and industrial trades that did not have a tradition for using apprentices, or were unable to recruit apprentices in sufficient numbers, that dominated. From the time the new trades within the service sector emerged during the last half of the 1990s, they have constituted the centre of gravity within Experience based Trade Certification. In 2007 they made up approximately 55 per cent of all Experience based Trade Certification a proportion that has remained stable since 1998. At the same time, the new trades' share of the

³⁶ For the years 1990-1995 and 2001-2007, numbers from Statistics Norway have been used. For the years 1996-1999 data from Linda Fagopplæring are used. These can diverge somewhat in relation to SSB number from year to year, because they count somewhat different periods.

apprenticeships do not constitute more than around 20 per cent, also at the same level as they were at the end of the 1990s. The situation suggests that Experience based Trade Certification candidates will retain a more lasting role so that these trades will be able to reproduce themselves. Experience based Trade Certification is still used in most industry and craft trades, but to a much more moderate degree than during the first half of the 1990s.

Age and gender distribution

Previous studies have concluded that the persons opting for Experience based Trade Certification in general have been younger in comparison to participants in adult education (Michelsen and Høst 2001). For both women and men, the age-based centre of gravity for Experience based Trade Certification during the first half of the 1990s was among those aged 25 - 29 years. Because the apprentices during this period were also more or less adults, it meant that the division between the two systems, purely in terms of age, was less clear. It is therefore a very interesting observation that the centre of gravity, in a purely age-based sense, has moved ten years since then: first to the 30 - 34 age group in 2002 and then to the 35 - 39 age group in 2007.

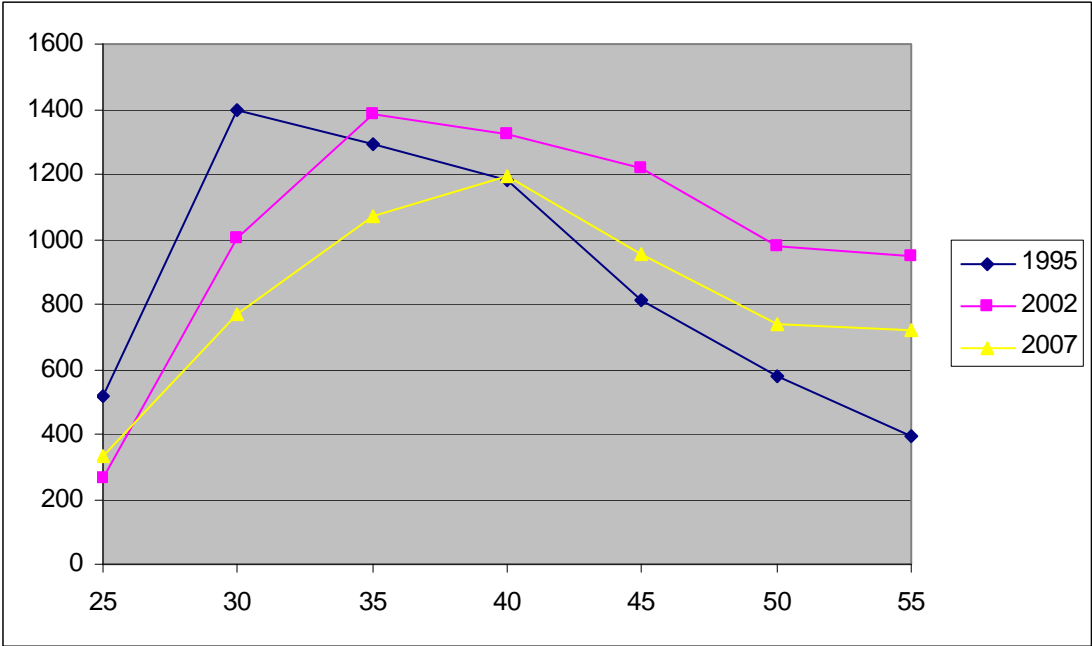


Figure 4.3: Experience based Trade Certification grouped according to age in 1995, 2002 and 2007

Source: Statistics Norway

This can be understood as a result of the fact that a greater proportion of young people go through apprenticeship than previously, and therefore there is less need to apply the Experience based Trade Certification to older youths and young adults. One must also assume that the recruitment of young unskilled workers has clearly decreased in the trade areas in which the apprenticeship system has gained a footing. The Experience based Trade

Certification arrangement is thereby in the process of becoming a more cultivated adult education system, in the way it was intended with the introduction of act on vocational education in 1980.

Nonetheless, it does not follow from this that the Experience based Trade Certification has a lower centre of gravity purely in terms of age within trade areas that are unable to recruit a sufficient number of apprentices. Instead, the age distribution - and the gender distribution - of the candidates seem to reflect the recruitment pattern in the trade area in question. If we look at the age composition among female versus male Experience based Trade Certification, we see that the women are older (Figure 4.3). Although they have the same age-based centre of gravity (that is, in the interval between 35 - 39 years), the women have a more even curve with regard to age distribution than men, because there are so many female Experience based Trade Certification both among those in their 40s and over 50. This can be explained with recruitment patterns and age composition in trade areas such as care worker, cleaning and child and youth work.

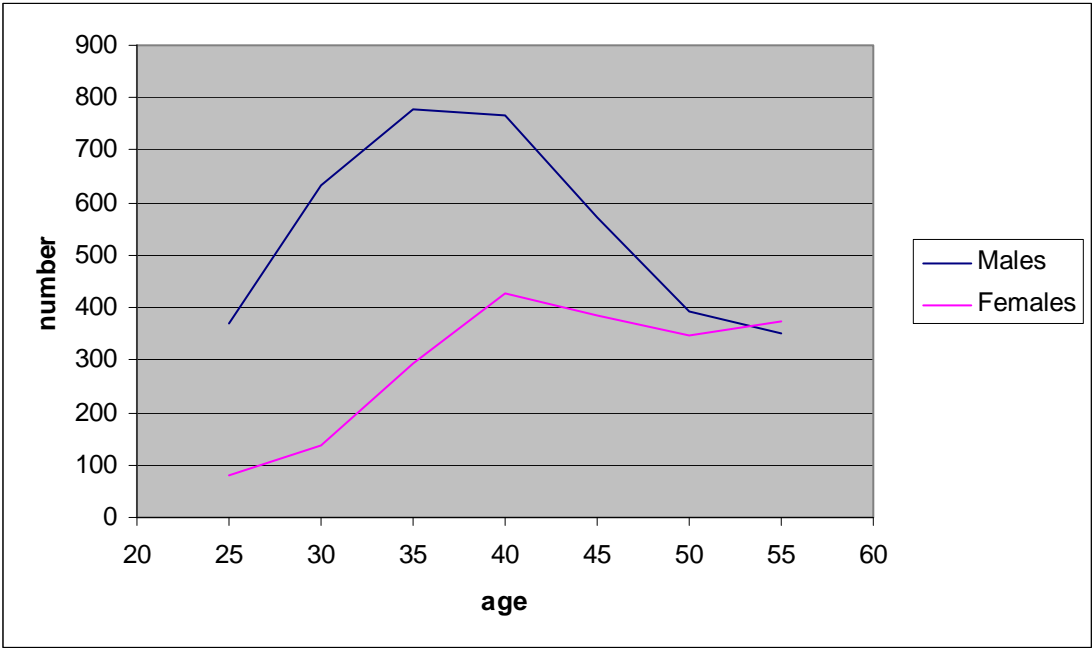


Figure 4.4: Experience based Trade Certification: Male and female distributed by age
 Source: Statistics Norway 2007

In 2007, the female Experience based Trade Certification made up a share of 35 per cent. Their share not only reflects the female percentage within vocational education, but also the percentage of the female trades in the apprentice system and practice candidacy system.

The Competence Reform of 1999:

Has this given adults better access to VET?

A key premise for the further development of education policy for adults, including VET, was created through the Competence Reform of 1999³⁷. In this context, the reform's most important principles were the introduction of the right to upper secondary education for adults born before 1978 who had previously not completed this level of education, the introduction of validation and recognition of formal, non formal and informal competence in upper secondary education as a permanent arrangement in the county municipality, admission into higher education on the basis of a validation of formal, non formal and informal competence, the introduction of flexible educational models to substitute for standardised education patterns, as well as the right to a leave of absence from work in connection with education.

The Competence Reform was directed towards the entire working life, but was particularly based in LO's³⁸ concern that their adult, poorly educated members within core areas like industry and craft trades, might fall behind in terms of competence (Ure 2007, Hagen 2008). Thus, it was a great disappointment within LO that the demand for wage compensation with regard to further and continuing education was not met, which had been one of the organisation's main demands. After this, many believe that the reform stagnated, especially because social partners in the labour market became less engaged (Payne 2005). In an evaluation of the Competence Reform and the work with lifelong learning in Norway, Ure (2007) concludes that some of what weakens the progress is the lack of institutional footing among the social partners, the way it exists in vocational training. The current situation indicates that the initiative is solely left to state authorities, which in this field is greatly influenced by the agenda of international organisations like the EU, the OECD, and the UNESCO.

The number of adults in upper secondary school

A major problem evaluating the quantitative effects of the Competence Reform is the fact that up until now there has been a very poor statistical basis. This especially applies to the number of adults who participate in upper secondary education.³⁹ The Competence Reform has introduced assessment models and training sections that are very different from what previously existed within upper secondary education, and there are few standardised arrangements for application, admission, completion, and assessment. Also, the definition of which students are adults in an educational sense differs between counties (Raabe 2007). This can probably explain many of the problems with the statistics that Statistics Norway (SSB) gets from the county municipalities. Within one important area, we have reasonably good

³⁷ See NOU 1997: 25 Ny kompetanse, St.meld.nr.42 (1997-98): Kompetansereformen og Innst.S.nr.78 (1998-99)

³⁸ LO is the Norwegian Confederation of Trade Unions

³⁹ Se blant annet St.meld. 16 (2006-2007) ...og ingen sto igjen.

numbers, namely auxiliary nursing education. The reason is that we have been able to utilise the health personnel register as a correction to Statistics Norway's numbers ((Høst 2004).

As we have demonstrated, adult admission into upper secondary school was significantly restricted by Reform 94. What has the development been like since the year 2000? In a summary report commissioned by LO, Hagen (2008) concludes that there was no significant increase in the number of adults who enrolled in upper secondary education after their right to such education was introduced. With reservations burdened by the uncertainty of the numbers, it is estimated that around 20,000 adults finish upper secondary education each year. These numbers correspond quite well to the ones that the education authorities operate with.⁴⁰

The Norwegian Institute for Adult Learning, Vox⁴¹, operates with numbers that are twice as high, but at the same time makes certain reservations regarding the statistics⁴². Their numbers include all registered adults that started upper secondary education after 2000, but who, by 2006, that had neither been reported as having discontinued, nor as having passed their education.

As Vox writes, it has been "... a significant freedom of choice within the county municipality with regard to how the adults should be reported, both concerning routines and the tools for registering."⁴³

To put the numbers into context, according to the Blegen committee⁴⁴ there were about 36,000 adults in upper secondary education in 1990. It is estimated that 610,000 adults do not have upper secondary education (Hagen 2008). The Buer committee⁴⁵ concluded that 265,000 adults both lacked and *wanted* upper secondary education. Still, very little is known about why a rather small share of these applies to undertake such education. Vox places much of the responsibility on the county municipality, by claiming that many of them are apparently more concerned with restricting adult access than easing the conditions for adults who are seeking out an educational opportunity.⁴⁶

A question is whether the new rights and criteria for entering upper secondary education for adults have provided a redistribution of the access between groups of adults. Another is whether groups of adults in need of such education have less access than previously. This

⁴⁰ *Tilstandsrapport om livslang læring i Norge. Status, utfordringer og innsatsområder.* Kunnskapsdepartementet 2007.

⁴¹ Vox is organised under the Ministry of Research and Education

⁴² Vox-speilet 2007. Voksnes deltakelse i videregående opplæring

⁴³ Vox-speilet 2007, p 7.

⁴⁴ NOU 1991:4

⁴⁵ NOU 1997:25.

⁴⁶ Vox 2006

applies to persons who need upper secondary education for employment purposes, but who already have completed other education at this level, as is the case for many of the adults in care and auxiliary nursing education (Høst 2004). This also applies to immigrant groups, and to adults under 28 years old, who do not have a statutory right to upper secondary education⁴⁷.

Competence assessments

Documentation and assessment of formal, non formal and informal competence is considered to be one of the main pillars in the Competence Reform, and one of the most important means for preparing adults for further education.⁴⁸ Vox estimates that around half of the new, adult participants in upper secondary school in 2006 had been through a validation of non-formal and informal competence.⁴⁹ There is no uniform system for the validation of non-formal and informal competence, and there are large disparities between the county municipalities in the way they organise this (Røstad og Storli 2006, Høst 2004). This must largely be viewed as a result of the reform project's "bottom-up" profile.

In general, the Competence Reform appears to have contributed to a shortening of the period of time of adult education (Høst 2004, Vox 2007). It is difficult to determine how much of this is due to assessments of formal, non formal and informal competence, and how much is due to the introduction of new and more flexible educational arrangements for adults, combining classroom teaching, internet studies, independent studies and practice, where private candidates and students blend. The connection between an assessment of formal, non formal and informal competence and the educational course to which one is assigned is not always equally clear. Both the candidate's own wishes and the availability of resources in the county municipality appear to play a part when the educations are developed (Høst 2004, Røstad and Storli 2006).

There is a lack of research on how the Competence Reform, and especially the validation of competence, intervenes in relation to vocational education. As demonstrated above, the flow of adults through the apprenticeship system has remained reasonably stable over time, and the same applies to the Experience based Trade Certification programme. We also know that there is a certain tension between Experience based Trade Certification' requirement of five years of practical work experience within the trade, and the great emphasis on "output" in the validation of formal, non formal and informal competence.⁵⁰ The Experience based Trade Certification has a long tradition in the enterprises, and precisely this factor can be assumed to

⁴⁷ The right to upper secondary education presupposes that a person is born before January 1, 1978, among other things.

⁴⁸ *Tilstandsrapport om livslang læring i Norge. Status, utfordringer og innsatsområder.* Kunnskapsdepartementet 2007

⁴⁹ Vox-speilet 2007. Voksnes deltakelse i videregående opplæring

⁵⁰ See *Rett og rimelig. Felles forståelse og praktisering av voksnes rett til videregående opplæring.* Vox 2007., among others.

have contributed to the fact that the social partners has shown no profound interest in developing new models for the validation of formal, non formal and informal competence after the Competence Reform (Ure 2007). An indication of the fact that the new competence assessments are hardly utilised within the area of Experience based Trade Certification is Vox's registrations, which show that in 2006 only nine assessments of formal, non formal and informal competence were performed in the third year of training (the company training section), in trades outside health and social work.⁵¹

Health and social care dominates

However, an area in which the Competence Reform entered with full force was the female dominated health and social care. An indicator of this is the extent of assessments of formal, non formal and informal competence. Approximately 17,000 were assessed for formal, non formal and informal competence in relation to upper secondary education through the project period from 2000 - 2002.⁵² Eighty per cent of these belonged to vocational programs. Of these, two-thirds applied to and were assessed and considered for health and social care admissions – most of them within auxiliary nursing. Later numbers from Vox confirm that this is a continuing pattern. In 2006, more than three quarters of competence assessments in vocational courses were performed within health and social care trades.⁵³

The explanation seems to be that the Competence Reform, quite unintentionally, met a great, dammed up demand for education among adult women within the field of auxiliary nursing (Høst 2004). Employees within this area are used to combining responsibility for family, education, and part-time work. Within such a setting, a part-time education will probably fit in to their schedules more easily, without paid work-leave as a condition. In addition to the fact that the county municipalities established many offers for auxiliary nursing education for adults, the new and more flexible education models introduced through the Competence Reform were utilised by the sector authorities and municipalities. Through the health and social authorities' extensive recruitment campaigns, the education of personnel at the upper secondary educational level, especially for auxiliary nurses and care workers, became a primary focal point.⁵⁴ The Competence Reform directed itself toward adults who did not have upper secondary education, but it turned out that many county municipalities made the same offer to adults without such rights. The education programmes that are financed by the health and social authorities in collaboration with the municipalities are open to adults regardless of whether they are included under this reform's restriction of the educational right of adults born before 1978 and who lack this level of education. A study of auxiliary nurses and care workers who completed their education in 2002 shows that this had been important for

⁵¹ Vox-speilet 2007. Voksnes deltagelse i videregående opplæring

⁵² Vox: *Realkompetanseprosjektet 1999-2002 – i mål eller på startstreken. Sluttrapport*

⁵³ Vox-speilet 2007. Voksnes deltagelse i videregående opplæring

⁵⁴ See Sosial- og helsedirektoratet: *Rett person på rett plass*, Rapport nr. 3, mars 2003

recruitment: it transpired that about half of the candidates already had prior upper secondary education. That is, they did not have the right to education according to the criteria of the education act (Høst 2004).

Figure 4.5 shows the development of the number of educated auxiliary nurses during four time periods - 1994, 1999, 2002, and 2007 – divided into age groups. The number of educated auxiliary nurses was more than halved from 1994 to 1999, something that doubtless is due to the changes through Reform 94 in which adult access to school-based vocational education was severely restricted. The educational opportunities that were opened through the Competence Reform have led to the number of educated auxiliary nurses again approaching the level from 1994.

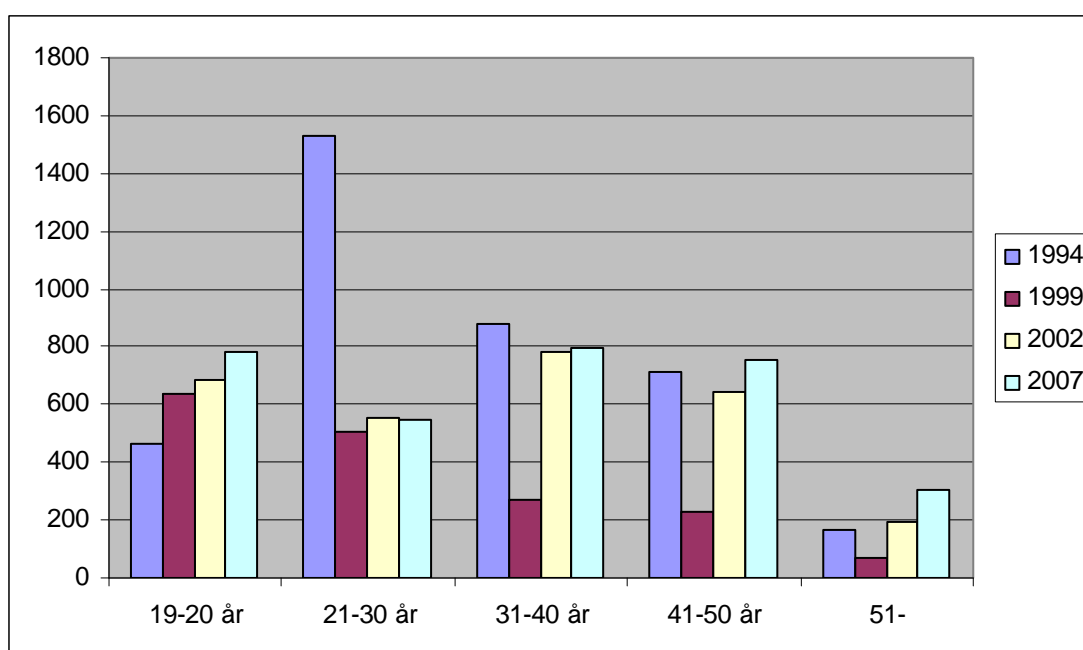


Figure 4.5: Educated auxiliary nurses according to age 1994, 1999, 2002, and 2007

Source: Health personnel register and Statistics Norway

The average age has increased, and the age-related centre of gravity has moved from the 21 - 30 interval to the 31 – 40 interval. Many also start their education after the age of 40. In this way, the development resembles the one we have shown for the Experience based Trade Certification. In contrast with the traditional vocational fields, there has been no success in focusing on youth.

Competence Reform as labour market reform

Based on the evaluation projects after the Competence Reform, Hagen (2008) sums up that the reform has not become the working life reform that the social partners proclaimed it should be, and that their studies of further and continuing education demonstrate that the measures have influenced the participation in the collective training and supplementary

education only moderately. With the exception of two programs, the Competence Development Program and the Program for Basic Competence in the Labour Market, the measures and incentives in the reform have been directed towards the formal education system. However, it can be concluded that the reforms have led to an extensive awakening about the workplace as place of learning.

Transition from VET to higher education

The Competence Reform also provided an option of seeking admission to higher education based on formal, non formal and informal competence. In 2001, this reform provided a flow of just under 8,000 applicants to higher education, of whom 6,000 applied through collective admission (Helland and Opheim 2004). It was especially the health and social care trades, but also teacher education that were popular among these students. In this way, candidates with approved formal, non formal and informal competence represent an important contribution during a period in which applications for these types of higher education are in decline.⁵⁵ However, there are issues that indicate that some of the potential has been achieved. In 2007, the number of students who applied based on formal, non formal and informal competence through collective admission⁵⁶ sank to 2,500. In addition, it can be estimated that there were between 1,000 and 1,500 who had applied through local admissions (Michelsen, Høst and Gitlesen 2006).

From 2000, a reduction in study requirements in higher education based on formal, non formal and informal competence became a possibility. The basis for this was a proposal made by Mjøs committee.⁵⁷ This is an opportunity that very few have taken advantage of so far, but a large proportion of those who have applied have been granted it (Brandt 2005). An exception is professional studies, in which there has been considerable resistance. A reason expressed for this attitude is that earlier practical experience had not been gained under supervision.

Summary

The historical backdrop for the recent attention to the topic of adult access to VET in Norway is that the system for vocational education at the upper secondary educational level traditionally has been available to older youths and adults who want education at this level. Until 1994, there was no clear boundary between youth education and adult education within either school-based or apprentice-based VET. The Experience based Trade Certification, which was considered adult education in the act on vocational education from 1980, to a certain extent was also utilised by younger people.

⁵⁵ Samordna Opptak. Søkerstatistikk.

⁵⁶ Samordna Opptak. Sluttrapport 2007.

⁵⁷ NOU 1999:17

The restructuring of upper secondary education in the 1990s dealt especially with a clearer boundary between youth and adult education. Data for the last five years say something about how and the degree to which this is achieved.

The Experience based Trade Certification has become a more cultivated adult education system with an average age that is almost ten years higher than during the first half of the 1990s, but the system has just as great a quantitative significance as it did then. Comparisons with the latter half of the 1990s are problematic due to the extreme expansion in the number of craft or journeyman's examinations taken during this period.

The apprenticeship system has become a system for younger people who have taken the path directly from ten-year compulsory school via two years of upper secondary school, and for older youths and adults with a more variegated background. The growth has occurred among the younger groups, and they are the ones who dominate the apprenticeships distributed through the county municipalities. However, it looks as if the demand for adults in 2007 is at about the same level as during the middle of the 1990s, even while at times it seems to vary with the state of the market. Most adults sign apprenticeship contracts directly with a training company without going through the county municipal apparatus.

The great change over time has taken place within school-based VET. After the adult admission was significantly restricted from 1994, the Competence Reform of 1999 created a new focus on adults. Although the numerical basis is uncertain, there is, however, little to indicate that the number of adults in upper secondary education has increased after the reform. Thus, it appears that there are significantly fewer adults at this educational level than during the first half of the 1990s. Within certain areas of school-based VET, for example within the health and social program, there has been an obvious growth after the Competence Reform. This was, however, the program that experienced the largest reductions after the Reform 94.

Admission of adults to higher education based on formal, non formal and informal competence received a huge lift during the first years after the Competence Reform, and has meant a lot for the application volume to especially health and social work education and teacher education within the college system. This level of application has declined in recent years.

Beyond quantitative changes, the Competence Reform has led to qualitative changes in the education system for adults. First, some redistribution has probably taken place between groups of adults by distinguishing between those with and without educational rights. This does not apply to all county municipalities, and primarily affects adults who lack the right to education, and who seek education within an occupational field to which they have no professional connection.

An essential change is that about half of the adults are now going through an assessment of formal, non formal and informal competence prior to the education. Along with the Competence Reform's introduction of flexible educational arrangements, this has led to a significant reduction in the length of the educational courses the individual completes in order to achieve vocational certification. Validation of formal, non formal and informal competence has become especially significant in school-based vocational education. Up until now, auxiliary nursing education has been the largest.

Within vocational education, it seems like the social partners still cling to the Experience based Trade Certification and to a lesser degree, have been motivating forces for new forms of validation.

The Competence Reform has led to a general greater awareness about the workplace as an arena for learning, but until now it has had moderate significance with regards to training employed adults in the labour market.

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Chapter 5 The status of vocational education

Håkon Høst

An important objective of Reform 94 was that a greater share of the youth cohort would undertake vocational education. A goal was set that one-third of the age cohort would enter education leading to an apprenticeship in a company.⁵⁸ At the same time, it was emphasised that the apprenticeship system, which during the 1980s and first half of the 1990s was dominated by young people over 20 years of age, should be connected to upper secondary education, and thereby provide apprenticeships for those aged less than 20 years. Through Reform 94, this was concretised such that the normal age for the transition from school education to apprenticeship in a company would be 18 years of age. In the Blegen Committee, (NOU: 1991: 4), which discussed how a desired increase in young apprentices could be achieved, the main focus was on structural limitations in schools and companies that hindered this. Questions about young people's own interest in the apprenticeship system were raised, but because of the difficulties of measuring this, the question was never followed up.

NOU 2003: 13 refers to relevant statistics that demonstrate that around half of the applicants to upper-secondary education apply for education that normally leads to vocational certification. At the same time, the committee refers to the fact that increased application to vocational study programs is not the same as increased recruitment to vocational trades, because many of the students in vocational programmes eventually apply for a course of study that leads to qualification for higher education. For example, the programme for media and communication, which falls under the vocational track, is a course of study in which only a few apply for an apprenticeship.

Using applications to the 1st year programmes that are defined as vocational as an indicator of the interest in vocational education and its status is problematic. A programme that is defined as being vocational, like the aforementioned media and communication, which in 2007 received almost 5,000 applications, is a good example. Markussen et al. (2008:61) show that in the south-eastern part of Norway, 73 per cent of the young people who in 2002 attended media and communication in 2nd year, went on to a course for general studies in 3rd year. Also, there are many students from vocational programmes who move over to programs for general studies through the system of supplementary studies qualifying for higher education. Among youth from south-eastern Norway who began upper secondary education in 2002, this applied to just under 7 per cent, including those who attained double competence (Markussen et al. 2008: 61). In addition to the aforementioned problems, there is the issue that through the Knowledge Promotion Reform from 2006 some courses have been redefined and moved from

⁵⁸ See St.meld. nr. 22 (1996-97).

being considered as being vocational to being programmes for general studies. This makes it quite complicated to compare status and interest over time on the basis of a study programme.

An alternative would be to use applications for apprenticeship places as an indicator of the status of vocational learning. There are also statistical problems here: not everyone applies through the county municipality. This especially applies to somewhat older youths who make direct contact with companies offering apprenticeships. If we limit ourselves to the 18 year olds, and use the official application statistics,⁵⁹ in principle we should capture all of the applicants for apprenticeships at this age level. Another advantage of using these numbers is that one cannot just register a possible nominal increase or decrease in the number of applicants, but that one can also compare this to the total number of 18 year olds within the various cohorts. We have chosen to examine developments during the past five years, from 2003 - 2007. During this period, no important structural changes in the education system that seem to have affected the application to apprenticeships have taken place. As a comparison we used 1996, because this was the first year in which the students from 2nd year, that is 18 year olds, had a statutory right to undertake three years of upper secondary education and thereby were given a priority in the public arrangements for distributing students to apprenticeship places. Table 5.1 shows the number of apprenticeship applicants aged 18 years and the total number of 18 year olds for the each year.

Table 5.1: Number of apprenticeship applicants among 18 year olds

	1996	2003	2004	2005	2006	2007
Applicants 18 year olds	9567	9583	10488	10572	10659	10503
Total cohort of 18-year-olds	52724	53349	54293	55704	57236	60587
Percentage of cohort who applied for apprenticeships	18,3 %	18 %	19,3 %	19 %	18,6 %	17,3 %

Sources: Læreplasztatistikk 24.7.1996, The Ministry of Education, Research and Church Affairs
Grunnopplæringen i tall, the website of the Directorate of Education and Training, February 28, 2008. Statistics Norway: Population Statistics

We see from the table that the *number* of 18 year olds who applied for an apprenticeship increased between 1996 and 2004, after which this growth levelled off. However, we are not talking about a levelling off, but a decrease in the *proportion* of the cohort who applied for apprenticeships. Based on the sharp increase in the total number of 18 year olds, the number of applicants for apprenticeships has should have increased by about 1,000 during this period. However, from 2004 until 2007, the percentage of 18 year olds who applied for an apprenticeship declined from 19.3 to 17.3 per cent. The percentage of applicants in 2007 was

⁵⁹ Taken from the website of the Norwegian Directorate for Education and Training *Grunnopplæringen i tall* 10.03.08. <http://194.143.25.137/udir/>.

also lower than in 1996, when the first Reform 94 apprentices were distributed to a training company. At that time the proportion was 18.3 per cent.

According to Helland and Støren (2004), the fluctuations in applications for apprenticeships among 18 year olds can reflect a decline in the number of students in vocational courses. However, the numbers of applications and offers to the 2nd year courses that lead to an apprenticeship do not indicate any decline in the share of 17 year olds at the 2nd year level during the years in question⁶⁰. This suggests that dropping out or opting out of vocational education occurred after this time period. One must assume that a number of these 18 year olds have moved on to supplementary studies that will qualify them for higher education instead.

Despite the fact that there has been a decline in the share of 18 year olds who applied for apprenticeship after 2003, we still conclude that the proportion of 18 year olds who applied for an apprenticeship during the period from Reform 94 until the present must be described as relatively stable. Used as an indicator of the status of the apprenticeship system, we will thereby also say that this is characterised by stability.

Besides the fact that there seems to have been stability over the past 10 years, it is much more complicated to make a general characterisation of the status of the Norwegian apprenticeship system. Here it is possible to choose different perspectives. One can be the percentage of Norwegian youth who receive vocational education through an apprenticeship. This percentage has increased greatly from the early 1970s until today, from around 5 per cent to 30 per cent, calculated from the size of the 18 year old cohort, or from around 3000 to over 18000. Still, as Markussen et al. demonstrate in Chapter 3, far fewer than 18 000 complete an apprenticeship education within a period of three years from the age of 18 years. Instead, the age span within which apprenticeship education is completed is broad (see Chapter 4).

However, the fact that more young people now become apprentices is also connected with another important aspect, namely the increased interest by the state in the apprenticeship system, which has contributed to the fact that much greater resources have been invested in the system, and that the educational structure has been arranged to help youth to take advantage of this educational path. Politically, the apprenticeship system has gone from being practically doomed in the 1960s (Michelsen 1995) to constituting a central place in upper secondary education today. While there has been a gradual increase in the number of apprenticeships from the 1970s until today (as revealed in Chapter 2), the change in political attitude was first noticed in the 1980s (Olsen 1996), and was clearly expressed through the focus on the apprenticeship system through Reform 94. This can also indicate increased status. However, the apprenticeship system's status can also be evaluated in relation to the

⁶⁰ Taken from website of the Norwegian Directorate for Education and Training *Grunnopplæringen i tall* 10.03.08. <http://194.143.25.137/udir/>.

trades it is and is not linked with, along with the development in status of these trades. Compared with certain other countries, the system in Norway is clearly narrower. Comparable trades that do not want to be a part of this system in Norway are part of the apprenticeship system in other countries.⁶¹

Viewed from the perspective of the companies, it can be said that the interest in the apprenticeship system has increased, and the interest in recruiting apprentices from upper secondary school has especially grown. Again, we illustrate this by looking at the 18 year olds. While the number of 18 year olds who have applied for an apprenticeship has been relatively stagnant from 2004 to 2007, the number succeeding in receiving an apprenticeship has markedly increased. This had led to an increase from around 70 per cent to around 88 per cent in the share of applicants of this age in relation to the number who received an apprenticeship place.⁶² This is obviously also a reflection of the economic cycles and the good labour market.

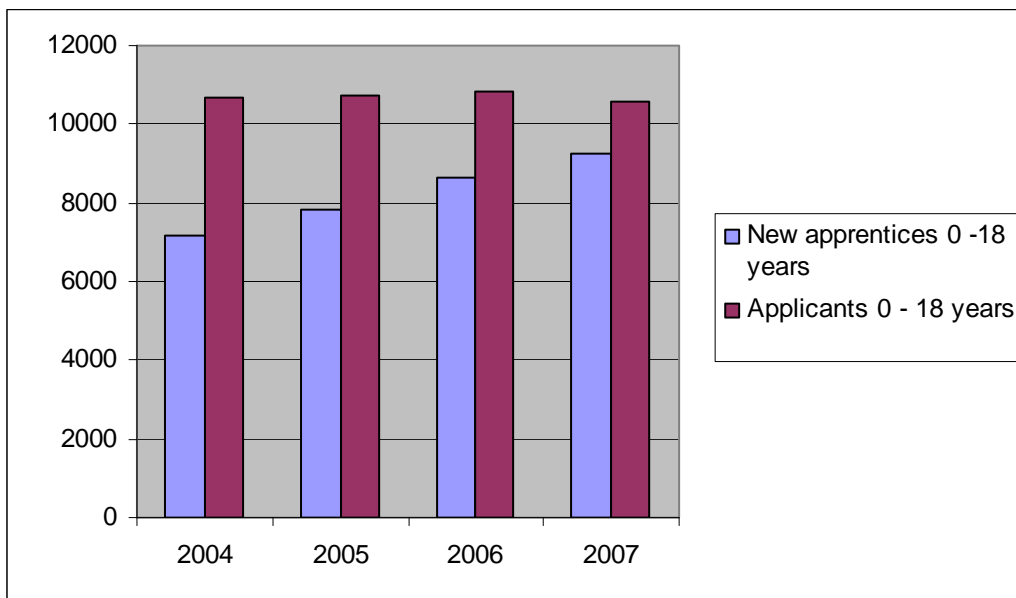


Figure 5.1: Applicants for apprenticeships and new apprentices 0-18 years 2004 - 2007

Source: Statistics Norway: Statistikkbanken (nye lærlinger). From the website of The Norwegian Directorate of Education and Training. Grunnopplæringen i tall. <http://194.143.25.137/udir/> 28.februar 2008 (læreplassøkere).

Thus, one conclusion could be that the status of vocational education among young people seems to be reasonably stable, but that the point of balance in the relationship between youth demand for apprenticeship places and the companies supplying such places has in recent years moved in favour of the of the applicants. One special case that illustrates the incongruity between the companies offering apprenticeship places and youth interest is the situation in

⁶¹ Especially in Germany, vocational education is covering a much larger area than in Norway (Michelsen 1995). A relevant example here is bank functionaries (Michelsen and Olsen 2007).

⁶² Note that even applicants and apprentices under 18 years old are part of these numbers. However, these constitute an insignificant group in this context, about 100-170 applicants.

Oslo. In Oslo, there are many more apprenticeships available than there are young people who are interested in them. To a great extent, this opens up the availability of apprenticeships for youth not only from the neighbouring county, Akershus, but also from all parts of the country. In 2007 (which was a good year for apprentices) among 18 year olds settled in Oslo, there were only 385 who signed an apprenticeship contract.⁶³ This constitutes about 7 per cent of the cohort, while in a county like Telemark, which is much smaller, there are almost three times as many, and on nationwide basis, about 14 per cent of 18 year olds hold an apprenticeship.⁶⁴ Thus, the numbers not only show an imbalance between supply and demand for apprenticeships, but also suggest that the apprenticeship system has relatively lower status among youth in the capital compared with other parts of the country.

Summary

This limited examination shows that the Norwegian apprenticeship system has grown from being relatively modest at the beginning of the 1970s, to making up a significant part of upper secondary education today. Measured as a proportion of the youth cohort, about 30 per cent complete apprenticeship education. Among those who are at the normal age, however, the application and number of apprentices is much lower. After the introduction of Reform 94, the percentage of 18 year olds who apply for an apprenticeship place is relatively stable, at between 17 and 19 per cent. However, this also suggests that the apprenticeship system has a fairly stable status among youth. Still, it has received higher status in society, something that is revealed particularly through the increased supply of resources. The companies' demand for apprentices has also increased and is almost twice as great as the number of 18 year old applicants for apprenticeships. Further, there is a large geographical imbalance. In Oslo, the demand for apprenticeships among youth is only half as great as it is on a nationwide basis. The companies compensate for these imbalances by admitting many adult apprentices, and in the capital, by accepting applicants from outside the city.

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⁶³ Source: Statistics Norway 2007: Statistikkbanken

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Chapter 6 Career Counselling: New subjects to guide student choice

Berit Lødding

The need to strengthen career counselling

The need for an improvement in occupational and educational counselling or career counselling, which has become the common term, has been widely acknowledged in Norway for a long time. With the comprehensive Knowledge Promotion Reform that is being implemented in primary and secondary education from 2006, occupational and educational counselling to young people has come into focus like never before. The aim is to bring about a significant improvement of the guidance service through several means, involving co-operation between a range of different actors. Improving professional qualifications of counsellors is one important approach. Because of the desirability of strengthening students' basis for choosing educational programmes and subjects in upper secondary education, two new fields of study in lower and upper secondary school have been established. One has been named the Elective Programme and is taught from levels 8-10. The other, called In-depth Study Projects, is being taught in the vocational tracks in upper secondary education. The overarching objective for these initiatives is to reduce the number of students dropping out and to reduce the extent of young people changing track after having embarked upon upper secondary education.

Important reasons for improving and developing this field are given in the Organisation for Economic Co-operation and Development's 2002 country report on career counselling in Norway (OECD 2002). Among the positive characteristics outlined in the country report was the mention of a well-established advisory and information service internal to the school and strong local ownership, together with a well-structured follow-up service that supports young people outside upper secondary education. Among the weaknesses that were pointed out are the fragmentation of the service, weak connections to the labour market, and the absence of a coherent focus on strategic development. Weak professionalisation and lack of education for counsellors was also emphasised and understood in relation to the fact that the service, as it has been developed, has focused more on information than on guidance. The need for improving the guidance service was also emphasised by the Committee for Quality in Primary and Secondary Education in Norway (NOU 2003:16) and discussed in two later Parliament white papers (St.meld nr. 30 (2003-2004); St.meld. nr. 16 (2006-2007)). The so called GIVO committee, a working group that was appointed by the Ministry of education for evaluating measures to improve the completion rate in upper secondary education, also dedicated a great deal of attention to the topic of career guidance (Kunnskapsdepartementet, 2006).

In order to stimulate coordination and cooperation on career counselling from the lifelong learning perspective, the Norwegian Directorate for Education and Training has supported pilot projects that have been developed in the counties of Akershus, Telemark, and Nordland. Other counties have also conducted development work within the field of career counselling. In the pilot project counties, the development of different models of partnership between different actors have been important instruments in the efforts to secure better organisation, more relevant content and increased proficiency in counselling services. The target groups for the development work in the counties vary. Telemark has established a career counselling centre that is open for everyone who might want guidance. The idea is to offer school students better counselling services by improving the skills of the counsellors. Nordland mainly focuses on adult users, while the vision in Akershus is development at the systemic level for better exploitation of resources, networks and competence for the benefit of the young people.

Professional qualification of counsellors

The lack of continuing education and in-service training among counsellors is documented in a study from 1999 (Teig 2000). It emerged that half of the counsellors had relevant education (defined in such a way that it included a half -year course of study in general psychology or sociology, for example), while a quarter of the counsellors had less than this, and another quarter lacked relevant education entirely. Further, it was reported that the average age of counsellors was 55 years, while it had been 45 years in a similar study ten years earlier. This indicates widespread stagnation in the career, or even that the function has traditionally been understood as a sideways career development accompanying gradual reduction of classroom instruction for teachers on their way to retirement (OECD 2002: 17).

The formal qualification requirements for the counsellors have traditionally been teacher education and three years' experience gained from working in the school system. Several colleges and the Norwegian University of Science and Technology (NTNU) offer a range of courses of varying duration for counsellors (NOU 2003: 16: 211). At the time, the OECD (2002) described the educational opportunities as very limited and pointed out that there are drawbacks in having teacher education as the basis of qualifying as counsellor.

The educational courses have traditionally been shaped in accordance with the fact that the counselling service included both career guidance and educational welfare services. The Committee for Quality in Primary and Secondary Education in Norway argued in favour of an organisational division between these fields, based partially on the preliminary results from the research organisation SINTEF's evaluation of the project *Separate counselling services* (Buland & Havn, 2003). It was emphasised that the project probably led to better career counselling, without weakening the educational welfare service (NOU 2003:16:216), which suggests that the goal for the *Separate counselling services* trial project was met. Today, proposals for separate counselling services exist (White paper 16, 2006-2007), although the decision to separate them has not been made at the national level. However, separation of the

counselling services has been implemented in a number of places. The Norwegian Directorate for Education and Training has established a team of counsellors which is to work toward strengthening career counselling.

It is evident from Parliamentary report 16 (2006-2007) that competence criteria should be defined for educational welfare service and for career guidance. These criteria are expected to be available during school year 2008/2009. Several examples of cooperation between school owners and institutions of higher education about the educational opportunities for advisors already exist. In addition, several school owners have decided on formal educational requirements for counsellors before the directions have emerged at a national level.

The Elective Programme

The time frame for the Elective Programme is 113 class periods, each lasting 60 minutes. The subject is taught at the lower secondary level, and school owners decide how the hours should be divided between the years. The Elective Programme is to become compulsory from school year 2008/2009. The subject was put through a period of testing during the two preceding years.

One of the objectives of the Elective Programme is to bridge lower and upper secondary education, which in Norway are the responsibility of different school owners, the municipality and the county respectively. Traditionally, attention on students' choice of education has not started before the tenth grade. The Elective Programme provides the opportunity for starting the process in the eighth grade. The idea that the students benefit from trying out and having a taste of possible educational choices seems to have played an important role in shaping the new subject. This principle was also emphasised by the Committee for Quality in Primary and Secondary Education in Norway (NOU 2003: 16). The Standing Committee on Education, Research and Church Affairs states in a recommendation to the parliament (Innst.S.nr. 268 (2003-2004): "The subject must provide the students experience with content, projects, and working methods that characterise the different educational programs. Sitting in on classes in upper secondary school and / or work placement in local working life can be possible means". Furthermore, it pointed to information communications technologies as providing great opportunities.

The overall content of the Elective Programme will be presented in three main areas: selection, testing, and reflection. In the first phase, which can begin as early as in the eighth grade, each student will get an idea of his / her own interests and skill profile as it relates to the 12 educational programmes in upper secondary education, through the help of a test (skoletest.no). With this, a process of awareness-raising can take place, and it will encourage students to draw their parents, other relatives, friends, and teachers into conversations about the profile and start finding out which educational programmes they want to get to know better. The testing itself can take place in an upper secondary school or in a local workplace.

Based on national guidelines, the curriculum for the Elective Programme should be shaped locally. The owners of lower secondary schools are responsible for preparing the curriculum. Furthermore they are responsible for the teaching to be conducted in accordance with the curriculum and for the students to be evaluated according to the competence aims of the curriculum. The objectives and content of the different phases that the students go through (the preparation phase, the execution phase, and the evaluation phase) are to be stated in the curriculum.

In-depth Study Project

The timeframe for the other new subject 'In-depth Study Project' is 168 hours during the first year and 253 hours during the second year. This subject will only exist within the vocational tracks in upper secondary education.

The objective of the subject is that the students should get the opportunity to try out one or more trades and gain experience with the content, tasks and working methods used. During the first two years of upper secondary education, the students should be able to advance by studying subjects from the third year in depth, and take relevant common core language subjects and common core subjects from programmes for general studies from the third year. In the second year of upper secondary school, students can also advance by gearing for the competence aims from the curricula for apprenticeship training from their own or other relevant programmes.

The school owners are responsible for the content of local curricula in the In-depth Study Project. Furthermore they are responsible for the teaching being conducted in accordance with the curriculum and for the students to be evaluated according to the competence aims of the curriculum. The schools are encouraged to obtain information from and to seek out cooperation with other upper secondary schools, local business and industry and local or regional development bodies.

New division of tasks in career counselling

The Committee for Quality in Primary and Secondary Education argued that the companies should play a more active role in general educational and occupational counselling. Partnerships and pupils' enterprises (created out of one particular subject in lower secondary school aimed at teaching students how to start and run a business) were mentioned by the Committee as possible channels for increasing contact between the schools and the labour market. According to the Committee, the school's primary task is to *teach children and young people how to choose*. They considered it unrealistic to expect counsellors in lower secondary schools to have a complete overview of all the trades with their associated educational paths. The task of the school must be to arrange for such information to be provided by others, argued the Committee, pointing out that upper secondary schools and the labour market must

take on greater responsibility for providing information to school students (NOU 2003: 16: 218).

On the whole it is possible to detect a shift in the perception of the counsellor's role, from the ideal of being an expert in relevant trades and their associated educational paths, toward tasks such as coordinating and organising in order for others to give the young people such information. Thereby one could ensure that the information provided is of a higher quality and relevance. This implies a professionalisation of the counselling service. At the same time, the school facilitates the exchange of information with upper secondary schools and the business and commercial world through cooperation. The partnership projects in the three counties mentioned above are examples of such cooperation.

One factor that can complicate cooperation within the Elective Programme subject is that ownership and responsibility for lower and upper secondary schools is divided between the municipality and the county respectively. In 2007, the Parliament decided to strengthen career counselling directed towards lower secondary schools by providing a block grant of 11 million NOK to the counties. Parliament thereby sought to strengthen the work aimed at preventing changing disciplines and dropping out from upper secondary education. It did so by giving the counties, as school owners and having responsibility for upper secondary education, the task of contributing to an improvement in the quality of career counselling directed at students in lower secondary school.

Evaluations of the efforts

Over recent years, occupational and educational counselling in lower secondary school has been characterised by great development activity, with efforts that have been evaluated. The experience gained from previous efforts to raise the quality of educational counselling (such as the *Bevisste utdanningsvalg (Conscious educational choices)* project (<http://buv.utdanningsdirektoratet.no/>) and the *Delt rådgivningstjeneste (Separate Counselling Services)* project) (Buland & Havn 2003), are important elements in the Knowledge Promotion Reform.

Another pilot project should be mentioned here. During the 2003/2004 school year, students in the Skedsmo municipality were exposed to an early version of the two new subjects (the Elective Programme and the In-depth Study Project), through the "Correct first choice" project. This was a 20 hour course over three to five days in which they became familiar with some of the content and working methods within a range of vocations. The project was evaluated by NIFU STEP (Vibe 2006). Vibe conducted an effect evaluation on the "Correct First Choice" project. He showed that undertaking this project did not have a direct effect on the likelihood of students changing their choice of education during the school year. However, he also showed that the "Correct First Choice" provided a better basis for choosing a particular education track, together with the fact that an improvement in the knowledge basis

increases the likelihood of students changing their initial choice. Therefore, he concluded that the course had a small indirect effect on the likelihood of making a new choice while students are still in lower secondary school. The user study revealed that the course was very well-received.

Development of the contents of the new subjects, Elective Programme and In-depth Study Project presupposes good collaborative relations. It is clear that the exchange of information and collaboration between schools, local working life, and local or regional development networks will need to be treated seriously in order to succeed in improving career guidance to young people. The challenges might entail reaching a shared understanding of what constitutes good career counselling, how the tasks should be divided up between the partners up and then carried through. The demand for mutual understanding in such collaborations will be significant, not just between lower and upper secondary school, but also between educational institutions and working life.

The implementation of the Elective Programme and In-depth Study Project are being evaluated by the NIFU STEP and Fafo research institutes respectively, as part of a comprehensive evaluation of the Knowledge Promotion Reform. For the VET (vocational education and training) area, the experiences gained from implementing the In-depth Study Project in the vocational education programmes in upper secondary school are the most relevant, but at the moment information is not available, since the deadline for the first reports from the evaluation the Knowledge Promotion Reform has been postponed. For the same reason, no report is available from the evaluation of the Elective Programme at the lower secondary level. However, some observations can be made, based on five school visits to the five counties involved in the preliminary testing of the subject before it becomes mandatory from the 2008/2009 school year. These case studies demonstrate great variation between the ways the students are testing possible educational and vocational options. One school put all its efforts into the school's own resources and the teachers' competencies. Several schools established collaborative projects with upper secondary schools, in which students were given the opportunity to try out possible subjects. Another school has succeeded in mobilising the local labour market. The result of the latter is that all the students have been spending one week in a workplace. These work experience placements are to be followed-up by the school stimulating the students to reflect on what they have experienced, and for them to contribute towards clarifying what they view as possible educational and vocational choices. Seeing as the development of the curriculum has been delegated to the local level, it is not surprising to find rather different interpretations of what the Elective Programme subject should be, just before the subject is to be implemented throughout the country

The NIBR research institute has evaluated partnerships for career counselling in Nordland (Feiring & Helgesen, 2007), while NIFU STEP has evaluated partnerships for career counselling in Akershus (Borgen, Vibe & Røste, 2008) and conducted an experiential analysis of partnerships for career counselling in Telemark (Røste & Borgen, 2008). The three

evaluations focussed on different models for organising career counselling. The models were developed with reference to an understanding of the local needs for career counselling. One finds that actors such as NAV (the Norwegian Labour and Welfare Service) and school owners can be more or less prominent partners in the different partnerships. One of the central questions raised is whether a single organisational model can be used to accommodate the need for career counselling in a lifelong perspective in the adult population on the one hand, and the needs of students in lower secondary school on the other (Røste & Borgen, 2008).

Summary

The strengthening of career counselling has many facets and involves many different actors at different levels. As is evident from Chapter 3 of this report, dropout rates in upper secondary education are much higher in vocational than in general courses of study. The extent to which increased attention and mobilisation for better career counselling for young people will reduce dropout and the rate of changing tracks in upper secondary education is a question that can only be answered several years ahead.

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Chapter 7 Governance and cooperation

Håkon Høst

Institutionalisation and the role of the social partners

The Norwegian system of vocational education and training became institutionalised relatively late. In addition, the vocational schools and the apprentice act was regulated by different sets of legislation until 1980. This reflects a particularly Norwegian characteristic with regard to political configurations, the relationships between public authorities and the labour market, and the relationship between different interests in the labour market, primarily craft and industry. While the vocational schools have been regulated by law since 1940, the first Norwegian Apprenticeship Act was passed as late as 1950. Before this, education in craft trades was to some degree regulated through legislation that regulated the craft, while industry had not developed these types of regulations for practical learning in the workplace (Michelsen 1991). Nevertheless, agreements concerning apprentices were reached through wage negotiations. Different actors within industry and craft had different perspectives on the degree to which the state should be involved, and the role it should play in apprenticeship administration. One attempt in the 1920s to establish an apprenticeship system in working life independent of the state, failed due to internal disagreement.

After the adoption of the Apprenticeship Act, working life's social partners were entrusted with a high level of autonomy for the administration and control of the apprenticeship system through that which was usually called professional self-government. This included political development, implementation, evaluation, and control of the apprenticeship system (Michelsen and Høst 2004). Representatives of the different industrial branches had a monopoly on the representation within the regional Vocational Training Boards that controlled curricula and testing within each trade, and the social partners had the full right of veto in relation to the establishment and dismantling of trades. In the cities, independent apprenticeship committees were established, which were supposed to be responsible for the local management of the system. These were composed of representatives proposed by the social partners and where one of the criteria was that a certain proportion of the representatives should have trade or craft certificates. In the larger cities, independent secretariats for the VET boards were established. When the new the Act on Vocational Education and Training was made applicable to the entire nation from 1980, the VET boards with their secretariats were handed over to the county municipalities. It was estimated that the municipalities were too small to manage this task, while at the same time the county municipality needed new tasks (Michelsen, Høst and Gitlesen 1998). Still, the vocational training administrations were still strongly oriented towards working life. This is especially demonstrated by the fact that it was knowledge and experience from working life and the

trades, not educational merits, which was considered to be the most important qualification when officials were to be recruited to the VET administration.

From work to education – from self-government to participation

While the Local Government Act of 1990 repealed special legislation with regard to the organisation of the municipalities, the regulation of vocational education was such a sensitive area that the special organisation went untouched at first. Both the county municipalities and the national government needed to have the organisation and administration of vocational education fully integrated into the management of the upper secondary education system when Reform 94 was to be implemented. At the same time, there was concern about making sudden changes that could complicate the relationship between the state and the social partners. Particularly in connection with getting companies to offer an adequate number of apprenticeships for young people from upper secondary school, the state had to play on the same side as the organisations (see also Chapter 2). The various county municipalities chose different strategies with regard to how to proceed and how far one should go in the direction of reorganising the vocational training administration. Even if the speed of reform was different, the direction was the same everywhere. The VET administration on county level gradually became more tightly integrated into the county municipal administration, and the activity oriented more towards the needs of the county municipality with regard to the organisation of upper secondary education, and less towards the labour market.

In certain county municipalities, the reorganisations led to conflicts between the county municipality education administration and the VET administration (Michelsen, Høst and Gitlesen 1998). At the same time, research showed that there were no direct connections between the form of organisation and what could be called the vocational education and training system's position and influence in the county municipality. This was certainly the case in the short run.

A topic of continual controversy since this period has been the right of the VET managers at county level to meet in order to discuss and coordinate interests at a national level. The forum for VET managers has been dismantled since 2008, which is something that has led to strong protests from representatives of the social partners who believe that there is still a need for such vocational training forums.⁶⁵ Those who view this from the perspective of the county municipal education administration believe instead that the termination of such special interest forums would lead to better cooperation.

From 1992, the secretariat for the National VET Council⁶⁶ was formally integrated into the Ministry of Education, Research and Church Affairs, and gradually further incorporated into

⁶⁵ <http://www.nettby.net/main/fagopplaering>

⁶⁶ The National VET Council was until 1992 named Råder for fagopplæring i arbeidslivet (RFA). From 2004 it is named Samarbeidsrådet for Yrkesopplæring (SRY).

the Ministry's other affairs. The National VET Council has from 2004 had its mandate redefined, and will no longer supervise the quality of vocational education and training, approve new curricula and trades, or the dismantling of existing ones, etc., but will instead be an advisory policy board for the national education authorities (Deichmann-Sørensen 2007). A corresponding shift in tasks has occurred in the County Vocational Training Boards.

The vocational training councils, which originally had a close connection with the individual trades, have also had their previously independent secretariats integrated into the education administration of the Ministry. At the same time, the vocational councils have been rationalised such that they are structured according to the vocational education programmes. The vocational councils can make recommendations, but it is the state that has the last word with regard to curricula, for example. A central argument for these changes has been that they should make it possible for the educational authorities to evaluate more flexibly the ability of the trade structure to meet the labour market's demands.

It is important, however, for the education authorities to have close contact with the labour market, both in order to give vocational education and training its necessary legitimacy, and especially to secure the necessary number of apprenticeships that the integrated education system after Reform 94 presupposes. In addition, the authorities have to fulfil the obligations Norway has taken on in relation to the ILO's⁶⁷ conventions. These considerations in particular contribute to the fact that, at regular intervals, focus is directed towards fundamental aspects of the collaborative arrangements. The Committee for Quality in Primary and Secondary Education in Norway⁶⁸ recommended, for example, that the integration of the secretariat of the National VET Council in the ministry should be re-evaluated because the close integration could raise questions about independence in relation to the state. However, this was not followed up in the subsequent political treatment.

The prevailing climate of cooperation between the education authorities and the social partners' representatives in the National VET Council seems to be quite good. The VET Council leaders consider their new mandate and position as a revitalisation of the cooperation. They argue that they have gained a better general overview, and that they to a lesser degree than previously identify only with the interests of their own organisation (Hagen and Skule 2007). A more critical observation concerns the disappearance of the traditional self-government in VET as contributing to a strengthening of the hegemony of school interests in the Norwegian education administration. This may in the long run undermine the distinctiveness of vocational education and training (Olsen 2008). However, no research-based evaluation of these comprehensive changes in the embedding of VET has been conducted since the evaluation of Reform 94. A possible effect in relation to the quality and

⁶⁷ International Labour Organisation

⁶⁸ NOU 2003: 16 *I første rekke*

character of vocational training will in any case be problematic to find if it is evaluated after such a short time.

Viewed from a neo-corporate perspective (Streeck 1985), all of these changes can be understood as a movement away from self-government, in which the social partners were given considerable space for self-regulation in policy making and policy administration, to a regime of participation, in which the social partners are consulted for advice, but are clearly subordinate to the state. A supplementary perspective would be to see the development as a part of the influence of New Public Management in the 1990s based on a critique of the strong position of the professions and special interests in state administration.

The Local Training Agencies: between company and the county VET administration

One development which was already visible in the evaluation of Reform 94 was the increasing significance of the Local Training Agencies (Michelsen and Høst 1997). The Local Training Agencies grew rapidly just before and around the implementation of Reform 94 (see Chapter 2). They are both cooperative organs for the companies and at the same time, they constitute the contract part of the apprenticeship contracts on behalf of the member companies. There are great differences in the activity profile at the same time as there is also great variation between trades and between types of companies in their affiliation with Local Training Agencies. One interpretation of their expansion is that it can be viewed as a reaction to the fact that the VET administration was incorporated further into the county municipal administration and to a lesser extent than previously were understood as the mouthpiece for the labour market (Michelsen and Høst 2004). Implied in such an understanding is that the companies withdraw from cooperation with the VET administration, and that instead the Local Training Agencies become a place for vocational development and influence.

Another interpretation is that the expansion of the Local Training Agencies can be viewed more as being the result of a need for developing a more flexible and network-influenced way of governing in the intersection between the public and the private – theoretically often termed governance (Rhodes 1995) – for being able to master more complex surroundings in this way. To a large extent, the Local Training Agencies relieve the county VET administration of large tasks such as finding apprenticeship places and distributing them, but also providing vocational counselling and undertaking quality assurance (see also Chapter 8). The agencies represent an arena for shared training within a number of trades and industries, and they relieve the companies of administrative tasks relating to apprentices.

The significance of the Local Training Agencies was examined in connection with the evaluation of Reform 94, but the development has since not been the object of in-depth study. Still, Deichmann- Sørensen (2007) has examined a sample of companies' connection to and perspectives on the significance of the Local Training Agencies. The study confirms the findings from the evaluation of Reform 94 to a certain extent, in that greater significance is

assigned to these agencies for training than to the county VET administration, and that the Local Training Agencies have taken on some of the tasks that were previously carried out by the county VET administration. Still, it is not possible on this basis to say anything about the direction of the development in recent years. There is a lack of updated data on the size, extent, and significance of the Local Training Agencies, and especially the company structure connected to them.

The social partners have no formal influence on the Local Training Agencies, even though some of the Agencies' boards have employee representation (Michelsen og Høst 2004). This seems to reflect a general characteristic of the vocational training system of the present-day. There are no strong indications of significant social partner influence of the apprenticeship system at the company level.

Dimensioning and distribution

Until 1994, dimensioning of the educational offer largely concerned securing an acceptable number of school places. With an increasing youth cohort and a continually greater percentage of these opting for upper secondary education, with growing youth unemployment and older youths returning to school, the capacity became a great challenge for the county municipalities throughout the 1980s. The pressure on upper secondary education resulted in a game between the state and county municipalities about how the expenses should be shared (Michelsen, Høst and Gitlesen 1998).

However, the work of dimensioning upper secondary education system raised entirely new challenges after 1994. In contrast to previous times, apprenticeship in a company should be an integrated part of a four-year course of education. The county municipalities were obliged to furnish school places to the students who did not obtain an apprenticeship after two years at school. Therefore, it became an urgent task for the county municipality to distribute the maximum number of students into apprenticeship places. Even though priority was given to the distribution of places to the so called Reform 94 students (16-19 years of age) at the expense of older youths and adults, they were left with many students who were entitled to school education in the trade.

At the same time, the new link between school education and apprenticeship led to different industries and companies becoming focused on securing "their" classes in upper secondary education. Thus, dimensioning and distribution became one of the most important areas of contact between working life's partners and the county municipalities within the field of vocational education and training. The evaluation of Reform 94 showed that different county municipalities chose somewhat different approaches to the task of dimensioning the number of school places. Traditionally, the youth applications had been central to the dimensioning of upper secondary education, especially because this is a very concrete entity, which can quickly direct political pressure towards the county municipality (Støren, Skjersli og Aamodt

1998). Over time, some basic application patterns contribute to the shaping of the structure of supply of school places, with an accompanying infrastructure in the form of schools, equipment, and teachers. This becomes a basic premise for the work of dimensioning the availability of school places, even though this premise is not always clearly articulated (Michelsen, Høst and Gitlesen 1998). With Reform 94 and the linking of school places and apprenticeships, the needs of the labour market are manifested in an entirely different way than previously. Despite the fact that granting the students' first choice proved to be a criterion for success, the emphasis on the needs of the labour market, which in most cases is understood as being the current supply of apprenticeships is greater than it used to be. Some county municipalities put more emphasis on the students' choices than other county municipalities, but common to most during the years after Reform 94 was an increasing tendency in the direction of dimensioning the school places available more in accordance with the estimates of the supply of apprenticeships. In order to manage this, more or less formalised contact arrangements were developed in relation to working life's partners and the companies.

The establishment of a public system for the distribution of apprentices was a great challenge for county municipalities. The tighter integration of the VET administration into the county municipality contributed to the internalisation of welfare policy norms of redistribution and to a greater sensitivity to the needs of obtaining an apprenticeship for the students, even those who were not the first choice of the companies. In some instances, this contributed to friction with the Local Training Agencies, who wanted more emphasis on the needs of the labour market. In this way, the boundary between school and working life, and public and private were changed somewhat during the process (Michelsen, Høst and Gitlesen 1998).

As far as we know, no research on the development of the system for the distribution of apprenticeships has been conducted since the evaluation of Reform 94. As shown in Chapter 4, an increasing percentage of the students have been distributed into apprenticeships during recent years. This has happened at the same time as there has been a clear increase in employment, which as demonstrated in Chapter 2, can be explained largely by economic conditions.

With regard to dimensioning, Econ Analyse (2007) conducted a study for The Ministry of Education and Research, in which they attempted to map out the actors that participated in the process of deciding the education programs to be offered in the county municipalities for young people and adults respectively. They also looked at how the actors contributed and what was emphasised in the process of dimensioning. The study was internet-based and directed toward the county municipalities, of which 16 out of 19 participated. It was also directed towards "actors in working life", which here includes the Norwegian Labour and Welfare Administration (NAV), the organisations in the labour market, some Local Training Agencies and some individual companies. As a quantitative study, the number of informants was relatively low, 78 in total. As Econ explains it, the findings are in no way representative,

but must instead be viewed as expressions of views. In addition, three county municipalities have been selected for more thorough case studies.

Most of the participants who were asked stated that they had contributed on one level or another in the process of determining curricula and the number of school places available. However, the variation is large in terms of how much they have contributed. The social partners have been the most active, and they contributed most through committees and panels. The municipal sector has been the least active. According to the county municipalities the knowledge basis for dimensioning is good. They are divided just about down middle when they report the extent to which the students' wishes versus the needs of the labour market and offers of apprenticeships have been the most important premise. The representatives of the companies tend to think that too much emphasis is put on student preferences and too little on the needs of business. These findings confirm more or less what is known from previous studies. Yet for our purposes, the problem is that the study is neither based on previous studies and analyses of these conditions, nor does it attempt to say anything about possible changes in the field and the direction of the field in recent years.

A new and important element has been introduced during the past few years: the increasing significance of labour immigration. About half of the county municipalities anticipate receiving skilled workers from other countries, and think it is therefore more difficult, but also less important, to dimension Norwegian vocational education based on the needs of the market. This is an issue that deserves to be followed up.

With regard to adult applicants for education, no corresponding dimensioning process takes place in the county municipalities (Econ 2007). The most important reason for this is that the training offered is adapted to the applicants' desires to a much greater degree, which is due especially to the regulations about adults' rights according to the Education Act. According to the study, classes for adults have scarcely been established, but they are offered vacant places in ordinary youth classes. A lot of this type of education is put out to tender. The study also confirms other studies that have found that a large number of adults do health and social subjects.

Summary

After the social partners have had a relatively large space for independently governing the apprenticeship system over several decades, the state from 1990s onward placed the control of this system entirely under the public administration. Instead, the social partners have been given a significant, position for participation and policy advising. The changes have been based on a desire for a more uniform steering of the education sector, along with greater flexibility for the authorities with regard to changes in vocational training in order to meet the needs in education and the labour market.

From the 1990s onward, the Local Training Agencies have been allocated a significant place in the institutional framework of vocational education. The offices play different roles, but distribution, administrative relieving of duties, and training cooperation are key tasks.

The dimensioning of the education system and the distribution of apprentices have become central and comprehensive tasks for the county municipalities and the VET administration. One of the development tendencies has been that the vocational training administration tone down the traditional orientation towards working life, focusing instead on the needs of the county municipality on the one side and welfare state values about redistribution of services on the other. On their part, the companies have generally wanted a greater emphasis to be placed on the needs of the labour market, both with regard to the dimensioning of school places and the distribution of apprentices.

There are different interpretations of what these development features mean with regard to governance and cooperation, and how they have been applied in later years. Since the evaluation of Reform 94, however, there is still a lack of research that can answer this.

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Chapter 8 Measures for quality improvement in VET

Håkon Høst

Work on quality in VET as part of basic education is given a high priority by Norwegian education authorities. In 2006, the Norwegian Directorate for Education and Training submitted the *“Proposal for national regulations in the work on quality in trade and vocational education.”* The proposal was a follow-up to a previously discussed draft and even though it is a proposal, in practice it has been granted status as a prevailing understanding among the education authorities. The proposal points out eight so-called focus areas for quality work that should be followed up at all levels of VET, and which one should aim for, in order to develop good indicators that make the follow-up easier:

1. Completion in vocational education and training
2. Flexible VET for adults
3. Career counselling
4. Competence among teachers and instructors
5. Teaching aids
6. Content and structure in the training
7. Student and apprentice evaluations
8. Communication and knowledge administration

Most of these areas are described in other sections of this report. However, the Directorate’s proposal puts a great deal of emphasis on how quality work should be systematically followed up at different levels. The Knowledge Promotion Reform assumes a larger degree of local flexibility of action, but to juxtapose decentralisation to a small degree of central control, as has traditionally been the case, can be misleading. This fails to take a number of other sources of control into consideration, like the evaluation and return of information. In the Knowledge Promotion Reform, the test of whether the local level has been successful in its implementation will emerge through the development of different forms of quality assurance procedure. A full set of such procedures have been developed within the national quality evaluation system. Their final form has not been found at all levels, but some of the main characteristics seem clear. There is the “recipient” (teachers, apprentices, and companies offering apprenticeships) that should be mobilised and contribute with quality judgements. From a tendency in Reform 94 towards national standardisation and control through the documentation of examined curricula, it improves the likelihood of local autonomy in the framing of the education’s actual content, while the result is controlled through the monitoring of quality. Still, this is far from uncomplicated, as the work with developing indicators of quality in vocational and trade education has fallen short. This has been made clear particularly through the evaluation of Norwegian participation in VET LSA, a “PISA-study” for vocational education (Michelsen and Olsen 2007).

As part of the evaluation of the National quality assessment system for basic education, the Work Research Institute evaluated the quality assessment system linked to VET (Deichmann-Sørensen 2007). A general evaluation is that such a quality assessment system – which today can hardly be said to be developed as a system – means more radical readjustments within VET than in the rest of basic education. This is because the VET system represents another educational tradition both in terms of organisation and content. The perspective then is for the quality assurance system within the VET system to adapt to – as far as possible– the educational system on this level. The report lists three areas where this requires changes in organisation and content:

- “1. Changes in relation to tasks and functions of the County Vocational Training Boards: primarily as a transition from being a control and certification organ, to become a reinforced policy-forming organ.
2. Changes in relation to the administration of a decentralised educational responsibility, including the apprentice companies’ responsibility for the implementation and follow-up of regular quality assessment routines, school owner’s responsibility for following up quality routines and evaluations vis-à-vis central authorities, County Vocational Training Boards, users and the individual apprentice company, along with the introduction of new procedures for state-based supervision through the County Governors Offices⁶⁹.
3. Introduction of new tools for measuring basic skills (national tests), tools for mapping user evaluations (Apprentice survey and Student survey), the establishment of a quality portal for comparative evaluations (the School Portal, still incomplete with regard to VET), development of new methods, tools, and procedures for evaluations during the process of education, development of new indicators for evaluations during the process and competence on several levels.

Still master-apprentice relationship and final craft or journeyman’s examination

The report’s mapping shows that quality evaluation routines at the general level are well incorporated into the companies offering apprenticeships and that the best incorporated are the routines that are the closest to the company’s work organization. Colleague advising or peer review, defined here as close cooperative relations between apprentices and experienced co-workers, is especially emphasised as important. This also confirms previous findings (Wærness and Lindvig 2005). Ongoing conversations between the apprentice and the instructor are also emphasised as of high importance, together with semi-annual apprentice discussions and training in the company’s general routines of quality assurance. What has the lowest priority are formalised methods for individual training.

⁶⁹ State representative at the county level

The instructors are certified workers with additional instructional duties. Only a few of these have any formal pedagogical education in their field. Only 31 per cent of the companies in the Work Research Institute's survey were in total agreement that more systematic instructor training was needed. This supports previous findings with regard to the training of instructors (Hagen, Nyen and Folkenborg 2004). This showed that it was the instructors' competence in the trade that was considered important. A study of a limited number of instructors showed that 56 per cent had participated in courses and training for instructors in the vocational education. The Local Training Agencies are considered to play a key role in the adapted training of instructors.

During the period from 2000-2003, the education authorities conducted a project about alternative forms of evaluation and testing in VET. The intention was to test out a system with more evaluation and documentation during the apprenticeship period, in order to improve the quality in the training and reduce the use of resources in the traditional craft or journeyman's examinations. An evaluation of the project concluded that assessments during the process provide a broader picture of the apprentices' competence than an ordinary craft or journeyman's examination (Havn and Buland 2003). Further, it was believed that evaluations made in the process contributed to greater focus and structure in the learning process, and that the apprentices themselves thought reflection and learning of their discipline were stimulated. Attempts at using in-process evaluation models have since been further developed, and are practised in most counties today. In-process evaluations are viewed as important instruments in the training, but the intention that they should be a complete or partial substitute for the final craft or journeyman's examination was largely rejected by the companies (Deichmann-Sørensen 2007).

User surveys

There is great interest in user-surveys, but at the same time only a small minority of companies who participate in them (Deichmann-Sørensen 2007). The most important one, *Lærlingsinspektørene*, is a nationwide, internet based questionnaire about the students' and apprentices' own evaluation of the training environment in schools and companies. The study has been conducted three times since 2002, and provides information about wellbeing and the work environment, bullying, individual follow-up, co-determination, motivation, evaluation of instruction and advising, and satisfaction in a number of areas. An analysis of the national results from 2003 - 2004 concluded with very high rate of satisfaction among apprentices. Ninety-six per cent reported that they were content in the workplace (Wærness and Lindvig 2005). In addition, most reported that they were much more motivated to work as apprentices than going to school. Another conclusion was the emphasis on the fact that colleagues had greater significance for their well-being than instructors and professional leaders.

One of the means for quality development has been selecting so-called demonstration schools and demonstration companies. A main criterion for being selected as a demonstration

company is that the company has distinguished itself with regard to preparing for good learning benefits for different categories of apprentice. The evaluation of this system concludes that even though it contributed to learning in both the company in question and in the network between the demonstration companies, the dispersion effect to other companies was small. National and regional education authorities did little to help contribute to such dispersion (Hagen and Nyen 2005). The Work Research Institute's study confirms this summary to a large extent. A corresponding evaluation about the significance of vocational championships as World Skills is conducted. At present these have had a limited effect.

It is concluded that the companies have "*a weak culture of evaluation.*" While half of the companies providing apprenticeships had experienced an increase in the number of cancelled apprenticeship contracts, only five per cent of these knew that this had been followed up afterwards. What it is important to notice is that most companies with apprentices are small companies with limited capacity to develop education plans and quality assurance procedures.

The Local Training Agencies are important

It is evident from the report that the companies' membership in Local Training Agencies represents a possible compensation for their small size. Two out of three companies in the study were members of a Local Training Agency⁷⁰. There is no nationwide overview of the apprenticeship companies in the Local Training Agencies, but previous studies have shown that around two-thirds of the apprentices have contracts with a training company through a Local Training Agency (Michelsen and Høst 1997, 2004). Most companies in the Work Research Institute's study also believed that it was more important for the apprentices' learning benefits that the company had contact with the Local training Agency rather than with the county municipality, and they also had more frequent contact with the Local Training Agency than the VET administration in the county municipality.

Dimensioning school places and distributing apprentices are primary tasks for the County Vocational Training Boards

From the perspective of the county municipality and County Vocational Training Boards, there are also interesting findings in the Work Research Institute's Report. Among other things, it emerged that tasks like dimensioning school places and distributing apprentices have substituted advice and control as the main tasks. Professional operation and development tasks have been taken over by the county municipality on the one hand, and on the other, by the Local Training Agencies. According to the report, the County Vocational Training Boards have, mostly focused on young apprentices with "normal course progress", and very little on adults, people with other mother tongues, and Adult Skilled Worker Certificates, for example.

⁷⁰ Local Training Agency (Opplæringskontor) is also translated Training Office

The study presumes to have found two different patterns within the quality work of the county municipalities. In cases where one has a VET administration with large capacity, the method of advising and control of the companies still has a strong position. In other county municipalities, often where there is less capacity in the VET administration, quality work is to a greater degree based on trust and development of a broad network of external cooperative partners, while also using several quality tools.

It has also been emphasised that the quality system at all levels has two sides, one for control and one for learning. With regard to the control side, there is tension between the different administrative levels and the private part of the system, namely the companies offering apprenticeships.

Summary

The education authorities put great and increasing emphasis on the work with quality in VET. At the moment, this has the character of a number of individual measures, while at the same time one sees the contours of a more overall quality assurance system that should be adapted to an overall quality assurance system for the upper secondary education system. Such a system should have a double function through the fact that it should maintain both learning and control. Today, the authorities' availability and access to company training and its quality is limited. There are some tools for quality assessment, but these are utilised unevenly. Good indicators of quality are also lacking, and at the moment there are divergent perspectives in key areas about what the instructors' competence should be, together with the forms of examinations which are the most suitable.

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Chapter 9 Research-related challenges

Håkon Høst

Based on the topics and research this report highlights, several research-related challenges have emerged. We will be content to address the ones we consider to be of greater importance.

The mechanisms behind the growth and the expansion of the apprenticeship system

There is little doubt that companies have responded to the measures put in place to increase the number of apprenticeship contracts. At the same time, it has been proven that the apprenticeship system's dependency on the state of the market has not decreased; rather the opposite has taken place. The apprenticeship system has also expanded into new sectors, some of which were initially less dependent on the state of the market. Presently, however, there is little to suggest that the system has gained the same foothold in these new sectors as within traditional industry and crafts. Thus, we have a less than total knowledge of the mechanisms at play with regard to the admission of apprentices, how they enmesh with established recruitment patterns, and in particular, how these vary between industries.

The relationship between opting out and a flexible age system

The Norwegian system for vocational education at the upper secondary level is plagued by persistently low levels of attaining certification and high levels of dropping or opting out. Ample access to apprenticeships does not seem to solve this problem. Compensatory means, such as achieving a lower level of competence has not spread very broadly either. At the same time, the Norwegian system (to some extent in opposition to the political intentions) has maintained its historical distinctiveness with a significant age-related openness. This means that many options can still be found for those who have a need for vocational education and certification later in life. There is little doubt that this secures the flexibility of readjustment and re-schooling for businesses and employees. Yet we do not know much about the degree to which this captures those who drop out of upper secondary education early on.

Experience based Trade Certification and assessment of formal, non formal and informal competence

Despite the fact that validating of skills and competences acquired through formal, non formal and informal training was introduced as a permanent part of the upper secondary education system through the Competence Reform nearly 10 years ago, the system has not gained a foothold outside of school-based vocational education. Within work-based vocational education, it is the Experience based Trade Certification, adopted through the Apprentice Act of 1950, that still dominates. Health and social care, which has been the largest field for the new competence assessments up until the present time, are in the process of being transferred

to the apprenticeship system. There is very little knowledge about how these different validation regimes relate to each other, except for at the overarching quantitative level.

What do the changes in the governance structure mean?

The governance and administration of the Norwegian VET-system has in different ways been reformed since the beginning of the 1990s. Since the apprenticeship system became a central part of the upper secondary education system, the education authorities have also wanted to integrate it into the overall steering of the education system. This raises the question about how far this path can be followed without shifting the balance in the system to such an extent that it becomes destabilised, for example in that the working life part of the system disintegrates and becomes less controllable. The question regarding cooperation and control has to do with planning, predictability and transparency both with regard to accessibility of apprenticeships and the quality of them. Research that can provide illumination of how these connections develop and will appear under the new VET-regime is needed. The growth and significance of the Local Training Agencies can also be viewed as a part of this picture, and considering the scope this structure has attained, it represents a great challenge for research.

