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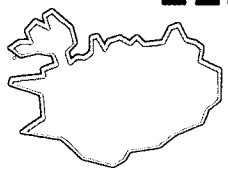
ABSTRACT

This volume on Norway describes the country's initial and continuing vocational education and training (VET) system. Chapter 1 provides background information on political and administrative structures; population; and economy and labor force. Chapter 2 describes briefly the Norwegian education and training system. Chapter 3 describes the VET system--initial VET at the upper secondary level, in higher education, and provision for individuals with specific needs. It addresses these topics: continuing VET, including general provision, business-oriented competence enhancement measures, and training as a labor market measure. Chapter 4 looks at administration of education and training, including laws and legal arrangements regarding VET and administrative arrangements, and financial arrangements for initial and continuing VET. Chapter 5 considers qualitative aspects: quality standardization and certification, teacher and trainer training, and vocational information and guidance. Chapter 6 highlights current trends: increase in the level of education and VET, stronger involvement of social partners in VET at upper secondary level, increased women's participation, internationalization of education and training, recruitment problems within technical professions, and increased focus on continuing VET. Appendixes contain the following: lists of abbreviations and acronyms, major organizations and institutions, and 16 sources for further information; glossary; and upper secondary level paths to formal vocational qualifications. (YLB)

Vocational education and training in Norway



CEDEFOP

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Vocational education and training in Norway

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CEDEFOP introduction

Objective and target groups

The publication of this description of the vocational education and training system in Norway is a step towards extending the series of descriptions of the (then 12) Member States published by CEDEFOP between 1993 and 1996 to include the three new Member States and countries covered by the European Economic Area (EEA) Agreement. The objective is to present an overview of vocational education and training activities in Norway so that it is easily understood by interested 'foreigners'. The target group includes those who may be responsible for, and concerned with, VET policy issues, researchers in this field, directors of vocational training departments or institutions, and trainers and teachers, whether they work at EU or Member State level, or for a governmental or social partner organisation. Some may be using the text at their desks as a reference document. Others may be visiting the country concerned either on a study visit or to plan or execute a bilateral or multilateral project and are more likely to wish to read the document from beginning to end.

Content and structure

The volumes in this series set out to describe initial and continuing vocational education and training (VET). As far as initial VET is concerned, this means including provision which is in some cases the responsibility of Ministries of Education and in others of Ministries of Employment or Social Affairs. As far as continuing VET is concerned, it requires coverage of provision for both the employed and unemployed, usually by a wide range of governmental bodies and ministries, by private and social partner organisations.

The structure of the report (see the list of contents) has been laid down in some detail by CEDEFOP, which has also placed limits on how long it should be. The structure is, in general terms, similar to that adopted for the reports on the Member States commissioned in 1992, but there have been some changes such as the addition of a chapter on what we have called 'qualitative aspects', including information on certification, training of trainers and guidance. We are requiring the authors of all monographs, including those updating the existing ones, to follow this amended structure, so as to facilitate readers who wish to try to make comparisons between the systems.

Choice of author and consultation procedures

For this series CEDEFOP has tried to achieve a product which in some way is impossible. We wished to have a report written by an insider of the system concerned, but easily comprehensible to the outsider. It followed that the person/institution chosen as an author is an insider, located in the country being described and, unless, as is the case in Norway, they choose not to do so, writing in their mother tongue. A further corollary of this was that CEDEFOP has tried to play the role of 'outsider' in discussions on the draft text, in order to draw authors' attention to places where the report was likely not to be easily understood by the public for which it is intended.

CEDEFOP has also stipulated that the authors must carry out a consultation on the draft with the main parties involved in VET in their country. This has meant their sending the draft not only to the various public bodies responsible for organising the system and providing VET, but also to the principal representative bodies of the social partners. The assistance of the members of the CEDEFOP's Management Board in the country concerned has in particular been requested in this connection.

Publishing and updating
It is CEDEFOP's intention, as long as the necessary resources are available, to publish these monographs in paper form in their original language and in English, French and German. In occasional and exceptional circumstances, it may publish some monographs in additional languages. Experience has, however, shown that the timescale involved in translating and publishing in hard copy form and the rate of change in the systems described means that the reports can almost never be entirely up to date. CEDEFOP intends therefore also to use electronic means of publishing, including making summaries and updates of the texts available on CEDEFOP's Internet site and the production of a CD-ROM.

Comments and feedback
As indicated above, CEDEFOP is conscious that in preparing this series it has had to make choices. We would very much appreciate having readers' views as to whether we have made the right ones concerning the scope, content and structure of the report. We would be pleased to have your comments by letter, fax or e-mail.

Vocational education and training in Norway
The Norwegian system appears to be a well-integrated one, in which vocational education and training is given a place of virtual equality with general education. A four-year upper secondary vocational education which incorporates two years in school and two years in a company as an apprentice provides a unique method of binding apprenticeship into the school system, while at the same time making the school system respond to the needs of employers and the labour market. The high levels of participation in higher education, but also the strong vocational orientation of much of that higher education, also underline the attempt at a unitary system of education and training which is egalitarian, comprehensive and of high quality. In addition, there is an interesting organisation of regional and local responsibility and a very strong participation, both formal and informal, of the social partners.

This monograph, like the recently published volumes on Sweden and Finland, underlines that while there may be much in common in the approach and particularly the overall objectives of the Nordic countries to education and training, each has a system which is substantially different from the others.

We are very grateful to Mr Halfdan Farstad of the Leonardo da Vinci National Coordination Unit who prepared this monograph. He responded very positively to the comments and proposals for changes which CEDEFOP made. We hope that together we have provided the reader with a useful tool.

Stavros Stavrou
Deputy Director

J. Michael Adams
Reinhard Nöbauer
Project co-ordinators

Thessaloniki, July 1998

Contents

Author's preface

For several years, Norway has been an active participant in the major European transnational education and training programmes. Since January 1997, Norway has participated as a full member in the CEDEFOP documentation network, after a period as observer. This monograph is a tangible result of this participation.

The main purpose of the report is to cater for the needs of people who work in the field of vocational education and training but it may also be of interest to others. Knowledge of the various training systems and arrangements is essential in order to facilitate exchanges and other types of educational interaction and cooperation within Europe.

The monograph attempts to give a complete presentation of the Norwegian vocational education and training (VET) system. The task has not been a simple one as the 1990s is a decade of reforms in education. Most parts of the Norwegian VET system have been, or will be, changed and updated in order to meet the needs of private enterprises and public authorities. The changes concern structure, administration and content. One could say that the report is a snapshot description of a system which is undergoing continuous transformation.

Work on the monograph started in winter 1997. The presentation of the training system and most of the statistical information is from July 1997, with the exception of certain economic data and unemployment figures, which are more recent. However, the principal source for the description of continuing vocational training is a report which was published in October 1997.

Major changes have been made since the first draft of September 1997. In addition to the Ministry of Education, Research and Church Affairs (KUF), the social partners were asked for comments and criticism. The Norwegian Confederation of Trade Unions (LO) and the Confederation of Norwegian Business and Industry (NHO), which are the major employees' and employers' organisations, are central actors and contributors in the area of vocational training.

Valuable contributions to the final version were given by many people, particularly by Synnøva Aga, then a head of division at KUF, who was temporarily assigned to CEDEFOP. Her considerable insight and experience of the Norwegian vocational training system, which she generously shared with the author, have been tremendously valuable. Also Michael Adams and Reinhard Nöbauer, both from CEDEFOP, have invested time in evaluating the first draft and have provided important contributions. Several of my colleagues at the National Institute of Technology deserve to be thanked for their help and support during this process. Of these, I would particularly mention Ellen Prytz. Without her assistance in producing the manuscript, the final version would have been even more delayed.

However, none of the contributors should be blamed for any weaknesses in the final version. The presentation on the following pages is solely the responsibility of the author.

It should be noted that this monograph is not 'authorised' by KUF or others who are responsible for vocational training in Norway.

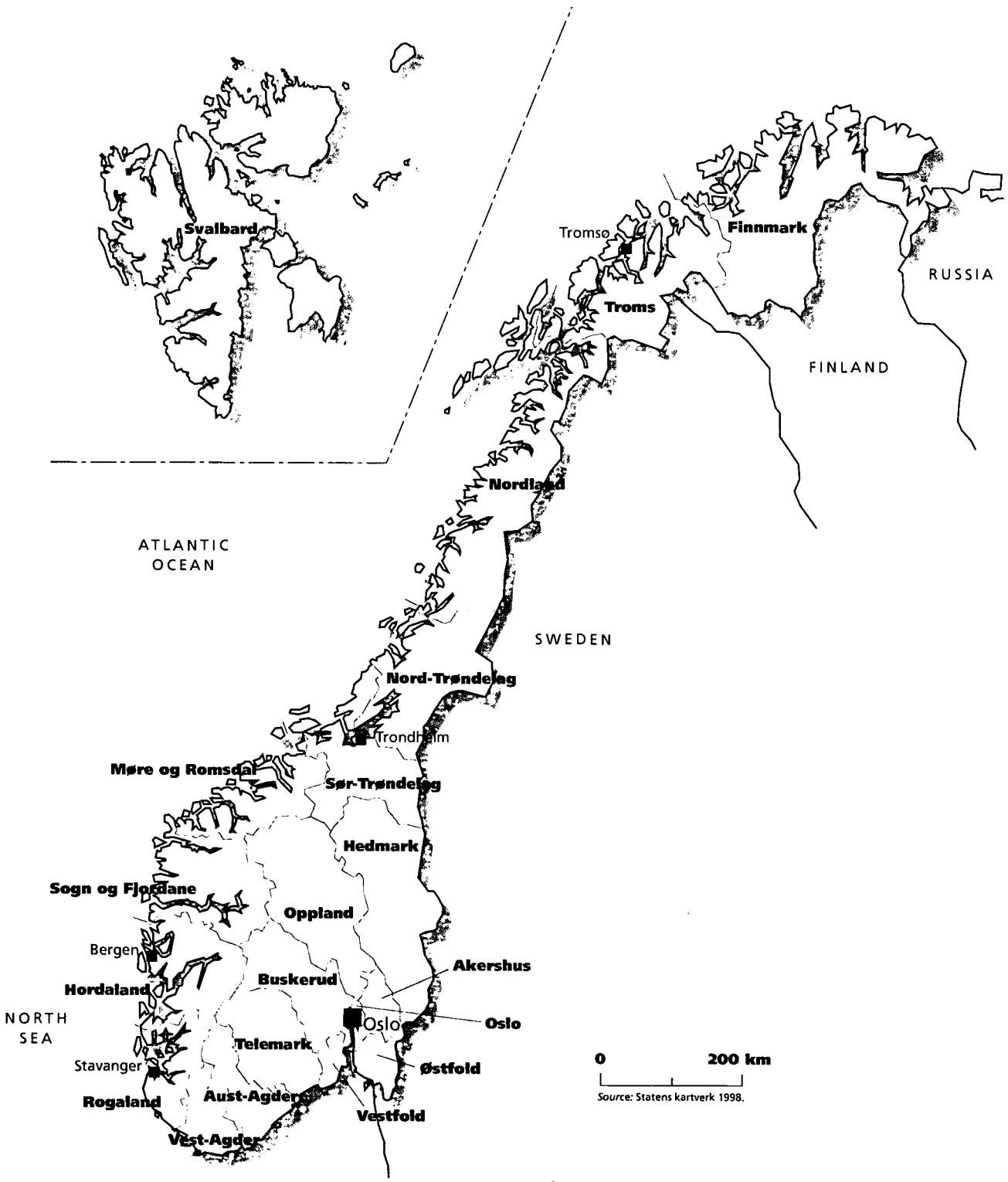
Halfdan Farstad

Halfdan Farstad

Oslo, July 1998

Vocational education and training in Norway

Norway — showing counties and principal cities



Chapter 1
Background information

1.1. Political and administrative structures

1.1.1. Size and location

The Kingdom of Norway consists of the mainland and the islands of Svalbard and Jan Mayen. Norwegian sovereignty of the Arctic regions of Svalbard and Jan Mayen was confirmed in 1920 (the Svalbard Treaty) and 1929 respectively. The total area of the mainland and the Arctic areas covers approximately 387 000 km^2. In addition, Norway has three dependencies in the Antarctic: Bouvet Island (since 1930), Peter I Island (1931) and Queen Maud Land (1939).

Of the mainland area, 72 % is mountainous, while 24 % is covered by forest. Only 4 % is cultivated land.

The mainland area stretches from 57°57'33" N. to 71°11'08" N. In spite of the northern location, the Gulf Stream and westerly winds provide a climate which is not so different from the rest of Europe. In Oslo the average temperature is 16.4°C in July, which is quite similar to the temperature in London, Zurich and Bonn. In January, the average temperature is -4.3°C.

1.1.2. Political structure

Norway is a unitary State, a monarchy and a parliamentary democracy. The constitutional foundation is *Grunnloven* (the Norwegian Constitution), which dates from 1814 (with several subsequent amendments).

Norway is a member of NATO and EFTA. Despite a positive attitude in the government and among the majority in parliament at the time, in a referendum in 1994, a small majority of the population (52 %) decided that Norway should not join the EU. However, through the EEA Agreement between the EU and the EFTA countries (1), Norway is a part of the single market and a participant in several of the EU programmes and institutional arrangements, such as CEDEFOP, Socrates, Leonardo da Vinci and Youth for Europe.

A fundamental aspect of the Norwegian constitution is the principle of separation of powers which ensures the freedom of the individual and prevents unhealthy concentration of power with the public authorities. The power of the State has three pillars.

- The *Storting*, the national assembly, has the legislative power.
- The government, which is headed by a prime minister, has the executive power.
- The courts, which are independent of both the national assembly and the government, have the judicial power.

The government rules the country. It is the *Storting*, however, which establishes the political and economic conditions for the government's work. Furthermore, the

(1) As of 1.1.1998 EFTA consists of Iceland, Liechtenstein, Norway and Switzerland. The latter has not signed the EEA Agreement.

Storting decides which political party is going to form the government (2), and the government is dissolved if a majority of the *Storting* decides so. As opposed to several other countries with a parliamentary system, the Norwegian government does not have the right to dissolve the *Storting* and call an election.

The *Storting* has 165 representatives, of whom 157 represent the counties (see below) according to a fixed distribution of seats (3). The last eight seats are not linked to specific geographical regions, but are distributed among the parties that have received too few representatives in relation to the number of votes cast nationally after the first 157 seats are distributed. The composition of the *Storting* is then more in line with the votes cast for the political parties. However, only parties that receive at least 4 % of the votes may compete for the eight additional seats.

The members of the *Storting* are elected for four years. Norwegians have the right to vote from the age of 18.

Most issues treated by the *Storting* are discussed and settled directly in plenary session. However, all bills must be treated separately by the two chambers of the *Storting*, the *Odelsting* and the *Lagting* (4), prior to the final vote in plenary sessions.

According to the constitution, the government is the king's advisory body. Each member of the government is a minister, responsible for a certain political area. The public administration is in a corresponding way organised into ministries, which are organisational units responsible for a certain sector.

1.1.3. Responsibility for vocational education and training

The Ministry of Education, Research and Church Affairs *(Kirke- utdannings og forskningsdepartmentet — KUF)* has the overall responsibility for all public education and vocational training in Norway. However, other ministries are also responsible and dispose of resources which affect continuing training. This mainly applies to the Ministry of Local Government and Labour *(Kommunal- og arbeidsdepartementet — KAD)* and the Ministry of Trade and Industry *(Nærings- og handelsdepartementet)*.

1.1.4. Regional and local government

Norway (the mainland) consists of 19 counties, which are divided into a varying number of municipalities. As of 1 January 1997, there were in total 435 municipalities in Norway.

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(2) Formally, the King asks a party leader of his own free choice after careful consideration about who will succeed in forming a government with the necessary parliamentary support. The government is formally the King's Council.

(3) The distribution of seats in the *Storting* is deliberately disproportionate, implying that votes from the less central regions, for example the three northernmost counties, count more than votes from the central areas, such as Oslo.

(4) The two chambers do not differ as regards the level of power or formal status. The division in *Odelsting* and *Lagting* is simply a practical arrangement to safeguard the existing law, secure a thorough treatment of law propositions and prevent frequent and circumstantial changes. The representatives are members of either the *Odelsting* or the *Lagting*. The distribution of the representatives in the two chambers is made by internal administrative decisions of the *Storting* itself.

Both the counties and the municipalities represent political and administrative units. The *Storting* has delegated decision-making powers to these units within certain areas, such as transport and public communication, public health service, and education and training. The conditions for local autonomy in the counties and municipalities are established by political decisions in the *Storting*, financial transfers from the government, and administrative regulations from the public administration.

Local autonomy at municipal level was authorised by law as early as 1837, and has a strong position in Norwegian society. Since 1945 several reforms have been implemented resulting in the transfer of an increasing number of tasks and power from central to regional and local authorities. Whereas the targets are set by the *Storting* and the government, the responsibility to implement the policy is placed locally. This system of ruling by targets necessitates transfer of financial resources from central to local authorities. Financial support is partly given as earmarked grants, but mainly as general or block grants. Block grants make it easier for local authorities to deviate from guidelines given by the government. Prior to 1994, when the educational reform for upper secondary schools was implemented, the field of education was often the loser in this respect.

The county governor *(fylkesmannen)* is the State representative in the counties. It is his duty to assist the local authorities and to ensure that the regional and local activities are in accordance with national political decisions and goals.

Since 1992, there has been a National Education Office *(Statens Utdanningskontor)* established in each county. These offices represent the Ministry of Education, Research and Church Affairs at the regional level and have overall general responsibility for the guidance, coordination and control of all public education and training within their geographical area (5).

1.1.5. Decision-making — an open process

One could say that the Norwegian political system has corporate features, as decision-making processes at all levels are characterised by direct involvement of, and negotiations between, interested parties. The normal procedure is that the social partners are invited to participate in publicly nominated committees to prepare major political decisions. In less important administrative and political issues, such as minor law amendments, preparatory committees are not appointed. In these cases, interested parties are invited to comment on proposals prepared in the ministries through a system of hearings. In addition to these institutionalised systems of broad cooperation, there is close contact and cooperation on a daily basis between the civil servants and organised interests outside the public sector.

In areas of great public importance and interest, subject to more or less continuous change and which require rapid political or administrative response, the

(5) At all levels, except higher education. As regards vocational training, the responsibility of the National Education Office is limited to the activity at school. As described in Chapters 2 and 3, the county vocational training board, where the major Social Partners are represented, holds the responsibility for the in-company training. This includes approving and controlling training establishments, assessing training conditions in them, and counselling and coordination at county level.

government has appointed permanent committees and similar bodies with a broad representation of interested parties. Health and education are examples of such areas. The relevant bodies at the various administrative and political levels in the educational sector are presented below (Chapter 2).

Participation by relevant actors is traditionally meant to enhance democratic influence and ensure that all relevant information and arguments are assessed in order to arrive at optimal decisions. Even if an open system like this might mean an increased risk of disproportionate influence by strong organisations, there is a general opinion that the advantages seem to outnumber the negative aspects.

1.2. Population

1.2.1. Total population

Compared with other European countries, Norway is a small country, with few inhabitants, low population density and a decentralised settling.

As of 1 January 1997, the total population of Norway (mainland) was 4 392 200. Close to 500 000 lived in Oslo, which is the capital. Bergen (223 000 inhabitants) and Trondheim (144 000) come next on the list of the largest cities in Norway. More than 2.7 million lived in cities and towns with more than 2 000 inhabitants. Only seven towns, however, had more than 50 000 inhabitants.

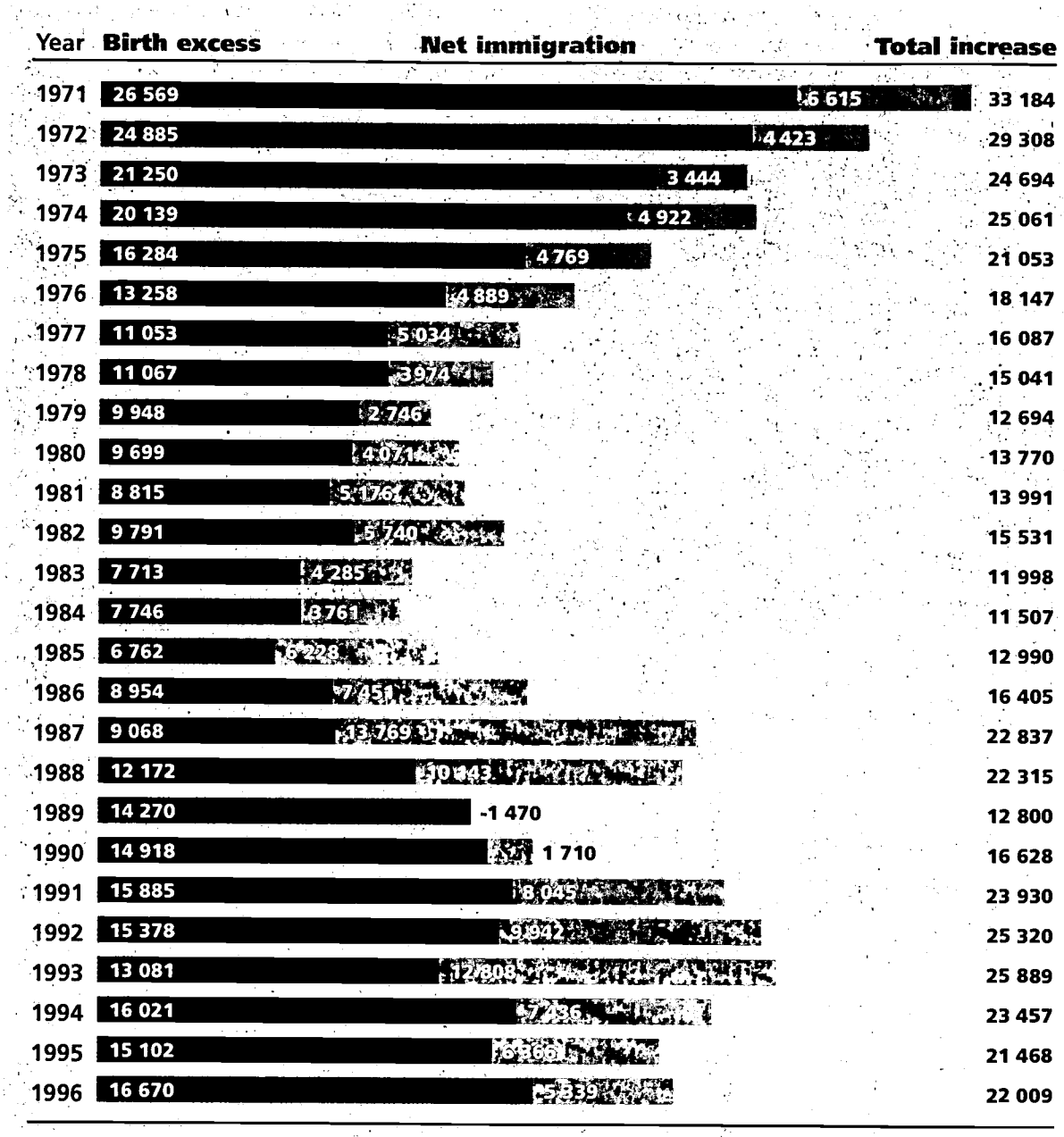
There is a Lapp population of approximately 70 000, of whom the majority live in the two northernmost counties, Finnmark and Troms. However, as there is no systematic registration of Norwegians by ethnicity, data on their age, sex, educational level and geographical distribution are not available.

The average population density is approximately 14.3 persons per km^2. There are great variations, however, ranging from 2 in Finnmark, which is the northernmost county, to 1 144 in Oslo. Approximately 30–35 % of the country's population live in the Oslo region, while 10 % inhabit the area north of the Arctic Circle.

1.2.2. Demographic trends

The annual population increase since 1991 has been stable at approximately 0.5–0.6 %, after a temporary decrease at the end of the 1980s due to a dramatic drop in net immigration.

Figure 1. Population development 1971 to 1996 (excess of births over deaths, net immigration and total population increase)



SOURCE: ***STATISTICS NORWAY.***

Figure 2. **Population by sex, 1971 to 1997, as of 1 January, in thousands and as percentage change from previous year**

Year	Males	Females	Total	Change over previous year (%)
1971	1 934	1 955	3 888	0.76
1976	1 995	2 022	4 017	0.45
1981	2 028	2 065	4 092	0.36
1986	2 056	2 103	4 159	0.39
1990	2 093	2 140	4 233	0.39
1991	2 101	2 149	4 250	0.56
1992	2 113	2 160	4 274	0.60
1993	2 126	2 173	4 299	0.60
1994	2 139	2 186	4 325	0.55
1995	2 150	2 198	4 348	0.50
1996	2 161	2 209	4 370	0.52
1997	2 172	2 221	4 393	–

SOURCE: ***STATISTICS NORWAY.***

From 1986 until 1996, the population increase was 5.1 %. All counties, except Nordland, had a stable or increasing number of inhabitants. However, there were substantial variations between the counties.

The most important trend in migration between the counties in the period 1986–96 is from north to south, and especially to the Oslo area. The trend was stronger in 1996 than earlier in the period. The three northernmost counties had a total loss of almost 1 % of their population to other counties. Another major trend is the concentration in the Stavanger region (south-west), which is the major centre of offshore oil and gas activities in the Norwegian part of the North Sea.

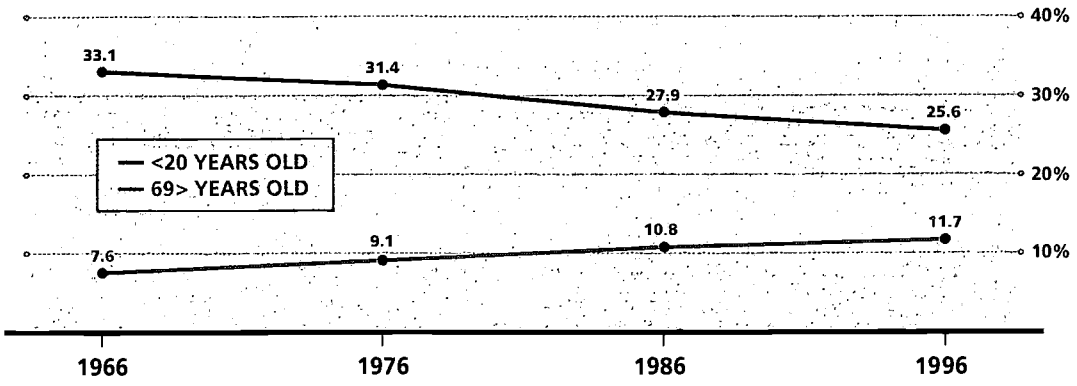
During the same period, there has been an internal centralisation around the urban areas within each county. Thus, there is a process of 'decentralised centralisation' in addition to the centralisation at national level.

1.2.3. Age distribution and birth rates

The highest excess of births since 1974 occurred in 1996. During the period 1986–95 there was a slight increase in the fertility rate from the first to the second half, from approximately 1.82 to 1.88. In 1995 the total fertility rate was 1.87. This was too low to maintain a stable population in the long run.

A gradual increase in life expectancy combined with a low birth rate has led to a gradual increase in the average age of the population. In 1996, 25.6 % of Norway's inhabitants were younger than 20, while 11.7 % were 70 or older. The corresponding numbers for 1986 were 27.9 % and 10.8 % respectively.

Figure 3. **Age distribution 1966 to 1996, as a percentage**



SOURCE: **STATISTICS NORWAY.**

1.2.4. Immigration

Net immigration to Norway has resulted in a slight population increase in recent years. The age distribution among immigrants — with 31.4 % younger than 20 and only 1 % older than 69 (1994) — reduces the increase of the average age in the population. A total of 26 200 persons moved to Norway in 1996. All the counties, except Rogaland and Hordaland, had an immigration surplus from other countries.

The total population of immigrants (6) at 1 January 1997 was 232 200 persons, or approximately 5.3 % of the total population. Half of the immigrants to Norway come from Europe, but there are also substantial minority groups with their origin in Pakistan and Vietnam. Immigrants tend to settle around the large cities. On 1 January 1996, 15.8 % of the inhabitants of Oslo were immigrants. In the school year of 1995/96, 26.7 % of all the pupils in compulsory school in Oslo were immigrants.

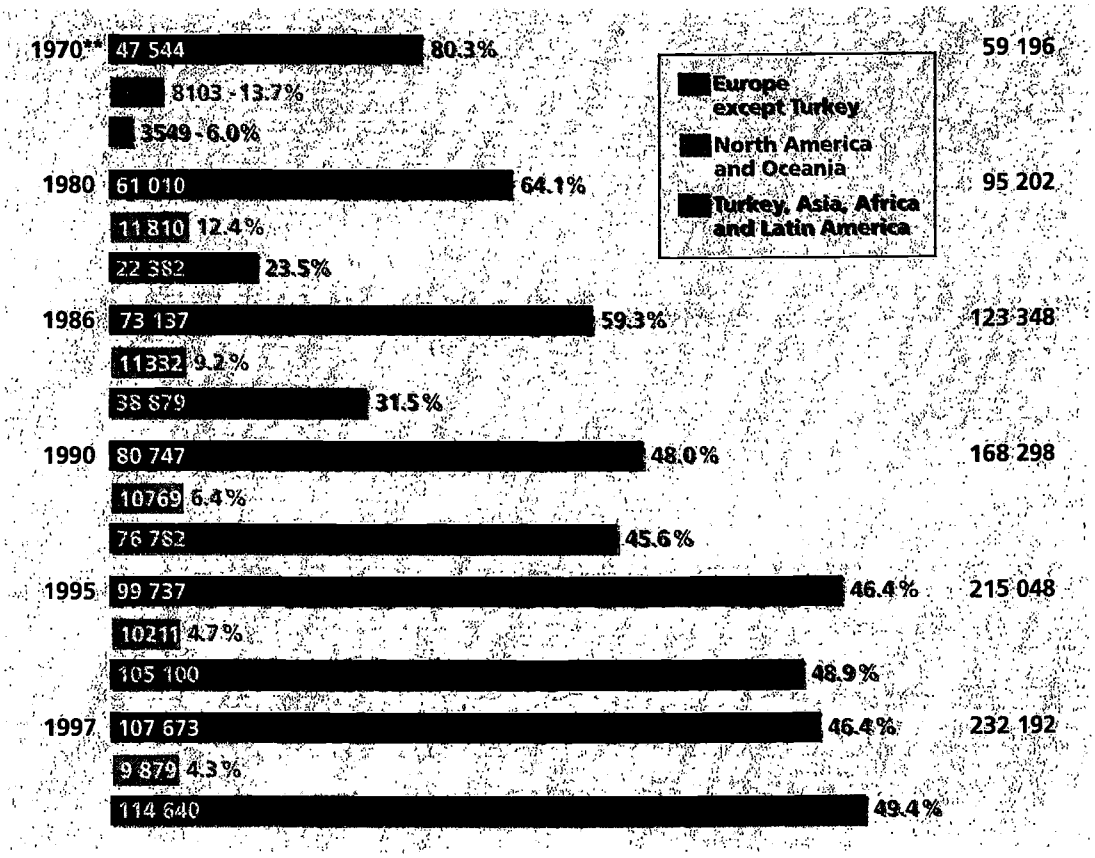
(6) The concept 'population of immigrants' comprises all Norwegian residents who do not have Norwegian parent or grandparent, regardless of the place of birth.

Figure 4. Immigrants by place of origin (1 January 1997)

Place of origin	Number	... Place of origin	... Number
EUROPE	**116 480**	***ASIA***	***76 565***
Denmark	18 236	Pakistan	20 125
Sweden	16 681	Vietnam	14 176
Bosnia and Herzegovina	11 759	Iran	8 284
United Kingdom	10 521	***AFRICA***	**19 783**
Yugoslavia	9 064	***LATIN AMERICA***	**9 485**
Germany	7 486	Chile	6 037
USA	**7 908**	***OCEANIA***	**827**
		Total	***232 192***

SOURCE: ***STATISTICS NORWAY.***

Figure 5. Population of immigrants by region* of origin 1970 to 1997 in absolute numbers and as a percentage of immigrants



* Detailed data on country of origin not available for the period 1970-90

** On 1 November for the years 1970 and 1980. On 1 January for all other years.

SOURCE: ***STATISTICS NORWAY.***

1.3. The economy and the labour force

1.3.1. Norway's economy

1.3.1.1. General survey

Norway has an open economy with extensive foreign trade. Approximately 40 % of the country's production is exported, whereas imports amount to approximately 30 % of the gross domestic product (GDP). Oil and gas, fish, forestry and hydropower constitute the basis of the Norwegian economy.

In spite of the dependency on natural resources, Norway must be considered a modern industrial nation. Mechanisation and automation characterise all industries, and a high level of investment ensures a continuing modernisation of machinery and production equipment. The use of new information and communications technology is rapidly increasing. At 1 January 1997 more than one third of the population was estimated to have access to the Internet at home or at work, and more than 30 % of households had a personal computer.

An important structural characteristic of the Norwegian economy is the predominance of small and medium-sized enterprises (SMEs). They constitute more than 99 % of the total number of enterprises, and more than 80 % of them have fewer than 5 employees. SME employees constitute approximately 70 % of the total labour force.

Only about 1 000 enterprises have as many as 100 employees or more. Many of these depend heavily on raw materials, and their location is based on easy access to natural resources and transport such as ports. As a consequence, Norway has several small industrial towns along the coast, such as Odda, Sunndalsøra and Glomfjord, heavily dependent on only one industry.

The Norwegian economy is small, open and dependent on natural resources. The currency — the Norwegian krone (NOK) — is closely linked to the US dollar, which is the standard when setting the price for important export goods and services. Thus, the Norwegian economy is vulnerable to fluctuations in international markets.

1.3.1.2. Major trends (7)

After a period of recession in the late 1980s, the Norwegian economy has flourished during recent years. Employment increased by 121 000 from 1993 to 1996, and unemployment dropped from 6 % to 4.4 % over the same period. Since 1996 the inflation rate has been the lowest since 1960. Interest rates were low as well. From 1996 there has been a favourable trade balance and a surplus in the national budget. In 1996 private consumption increased by 4.7 %. The increase in the national gross real income — i.e. 7.5 % — was the highest since the mid-1980s. Private investment, in both traditional and in new industries, has seen a significant increase. The rise in public investment and expenditure has been more modest than in the private sector. Private savings reached a peak of 5 % in 1997.

The combination of strong economic growth, a falling interest rate and low increases in prices and salaries was a result of a strict economic and financial policy,

(7) *SOURCES:* OECD, Statistics Norway, Ministry of Finance and Customs.

made possible by broad, extraordinary (8) cooperation between the (minority) government, the major political parties in parliament and the main employers' and employees' organisations. The general opinion is that this cooperation, which included low salary claims from the unions and a maximum inflation guarantee from the government, constitutes the major contribution to the improvement of international competitiveness needed to overcome the recession.

The offshore oil and gas industry has become increasingly important, as far as both investment and revenue are concerned. In 1996 Norway was the second largest exporter of oil and gas in the world, 38 % of the country's export revenues comes from this sector. The favourable trade balance and the healthy national economy are to a large extent results of the oil and gas activities.

The considerable revenues from oil and gas activities have enabled Norway to maintain a high level of consumption and welfare. The government has had the opportunity to implement measures to maintain employment at a time when international recession has caused rising unemployment in other countries. In addition, oil and gas activities have had a favourable impact on wealth creation in other sectors of the economy.

High profitability combined with a lack of labour in certain industries in 1996 resulted in a significant increase in salaries. The increase in real income per person-year in the period 1995–96 was the highest in 20 years but it has been less dramatic than in earlier periods of prosperity and has stayed at the same level as our major trading partners. In the 1970s and 1980s, by contrast, the increases in salaries were significantly higher in Norway than was the case for its major trading partners, reducing Norwegian competitiveness and creating problems for exports.

1.3.1.3. Economic development — key data

Figure 6. Economic development — key data

	1993=100						Milliard NOK**
	1980	1985	1990	1993	1995	1996	1996
GDP	72.2	84.2	91.4	100	108.5	113.7	1 010.7
Exports	51.9	65.5	86.9	100	112.3	121.5	407.5
of which: oil/gas	31.8	39.7	72.4	100	121.0	140.1	155.2
Imports	74.5	88.8	94.9	100	112.4	115.2	310.3
Consumption							
Private	79.5	92.4	94.4	100	106.8	111.8	485.7
Public	69.3	78.4	88.9	100	100.9	102.5	202.7
Inflation rate (%)	11.3 *	5.7	4.1	2.3	2.5	0.7	

*1982.
** NOK 1 million = approximately ECU 122 000 (June 1998).

SOURCE: ***STATISTICS NORWAY, OECD.***

(8) There is a strong tradition of close cooperation between the political authorities and the major social partners in Norway through the system of collecting bargaining, which is described in section 1.3.1.4. However, in the early 1990s, the social partners are said to have made an extra effort to pull in the same direction, showing extraordinary responsibility and solidarity in the nation's interest.

Table 1. **Harmonised indices of consumer prices for selected countries — annual rate of change, 1996**

EU-15	EU-17 *	Denmark	Germany	France	Sweden	United Kingdom	Norway	USA	Japan
2.4e	2.4e	1.9	1.2	2.1	0.8	2.5e	0.7	2.9	0.1

e = estimate
* EU, plus Norway and Iceland.

SOURCE: **EUROSTAT.**

1.3.1.4. The system of collective bargaining

Norway has for several years developed close cooperation between the social partners, represented by the Confederation of Norwegian Business and Industry *(NHO — Næringslivets Hovedorganisasjon)* and the Norwegian Confederation of Unions *(LO — Landsorganisasjonen i Norge)* on the one hand, and the national authorities represented by the government on the other. Through the system of collective bargaining the social partners and the government control wage levels and the price trend. Thus, the labour market is, to a great extent, influenced by agreements made by the social partners.

The system of collective bargaining also settles the main principles for both initial and continuing vocational training. These main principles are stated in the agreements reached between the social partners at sector level. For example, in the Basic Agreement between the Confederation of Business and Industry and the Confederation of Unions, the wage levels for apprentices during the training period is decided, and the question of educational leave is raised. Concerning the last question, there is a general agreement between the two sides of industry that:

- employees should be granted educational leave as long as special reasons do not weigh against it;
- the education may last up to two years;
- the employee has the right to return to his former job or one which is similar;
- the cost of CVT which falls within the strategic goals of a company is the responsibility of the company;
- the employers have the duty to present the objectives of the company as a basis for identifying training needs.

1.3.2. The labour market and employment

1.3.2.1. Labour force and employment

In 1996 the average size of the Norwegian labour force (9) amounted to 2 246 000 persons, which was an increase of 60 000 from 1995. In all, 76.9 % of the male population and 65.8 % of the female population were part of the labour force in 1996; 2 137 000 persons had a registered income through work. The employment ratio was 73.2 % for men and 62.6 % for women. Whereas 9.3 % of male employees

(9) The labour force consists of able-bodied individuals — employed or unemployed — between the ages of 16 and 74, whereas other countries use a different upper age limit, often 64 or 67 years.

worked part time, the number was 46.6 % for women. From 1990 to 1996, an increasing number of women were working full time, whereas for men there was a decrease in all counties. In 1996 Oslo had the highest number of women working full time, 74.9 % of female employees.

Figure 7. **Persons aged 16–74 by sex, marital status and socioeconomic group, 1981 and 1995 (in thousands)**

	1981				1995*			
			Females				Females	
	Total	Males	Total	Married**	Total	Males	Total	Married**
Total, including unspecified	2 909	1 458	1 451	955	3 140	1 579	1 561	1 016
Workers	660	520	140	101	571	444	127	86
Unskilled	459	334	126	91	398	286	112	76
Skilled	201	186	14	10	173	157	15	10
Salaried employees	980	417	563	381	1 310	542	768	552
Lower level	379	55	324	215	343	58	285	194
Mean level	480	269	212	148	768	364	404	299
Higher level	120	93	27	19	199	120	79	59
Farmers and fishermen	84	76	9	7	67	54	13	2
Other self-employed	163	98	66	56	122	78	43	34
Pupils/students	221	114	107	12	283	140	144	26
Home workers	427	19	407	334	137	3	134	113
Pensioners, disabled and sick	298	167	131	51	493	229	264	150
Others	28	18	10	2	148	82	66	42

* The figures for 1995 are not quite comparable with figures from before 1988 because of changes in the questionnaire and in the survey weeks. This is most significant for the groups home workers and pensioners, disabled and sick.

** Married females include cohabitants.

SOURCE: ***STATISTICS NORWAY — LABOUR FORCE SAMPLE SURVEYS.***

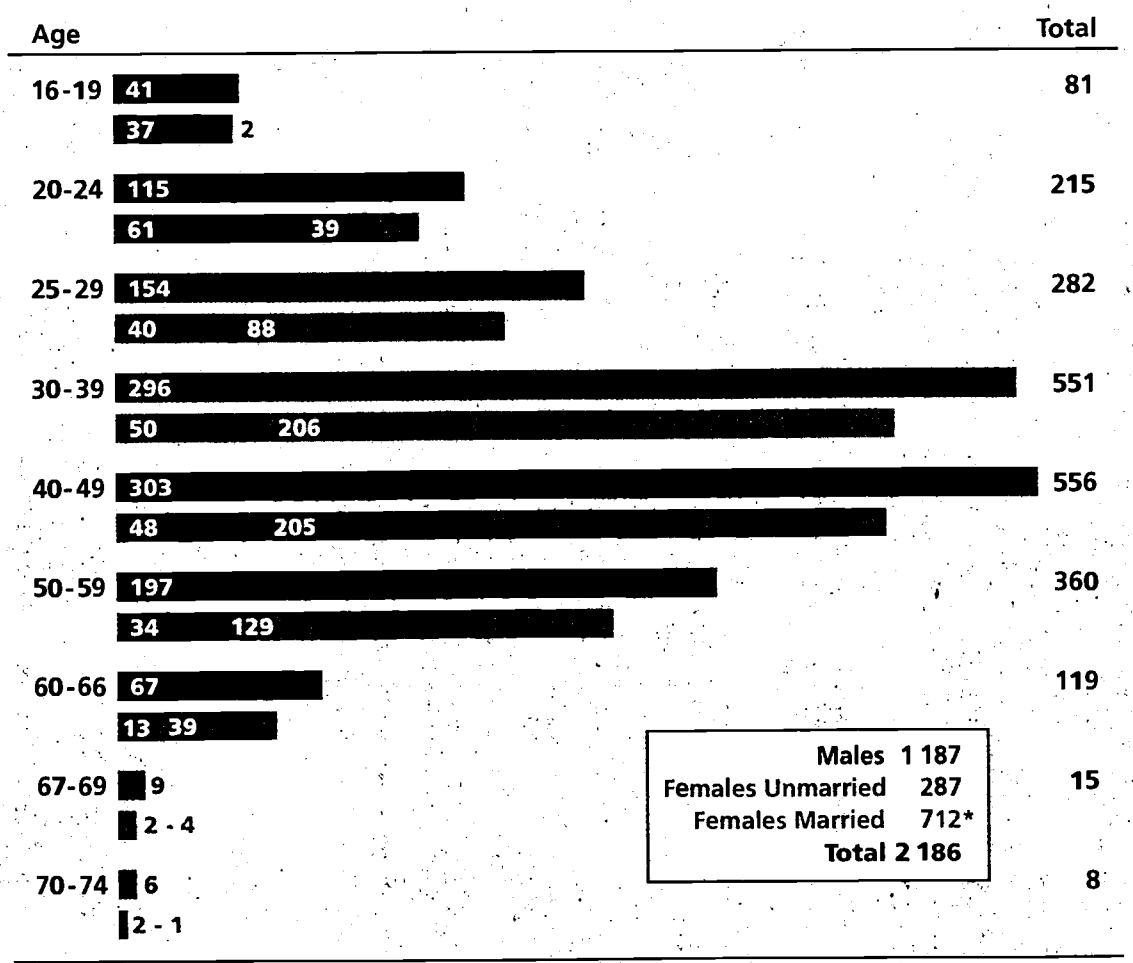
Figure 8. Persons aged 16–74 years by sex, and marital and labour force status (in thousands)

Labour force status	1990	1991	1995	...95	...95	...95
	Total	Total	Total	Males	Females Total	Females Married*
Total	3 094	3 105	3 140*	1 579	1 561	1 016
In the labour force	2 142	2 126	2 186	1 187	999	712
Employed persons	2 030	2 010	2 079	1 126	953	685
At work	1 770	1 748	1 817	1 011	806	569
Temporarily absent	260	262	262	115	147	117
Unemployed persons	112	116	107	61	46	26
Not in the labour force	952	979	953	392	561	304

* Married females include cohabitants.

SOURCE: ***STATISTICS NORWAY — NOS LABOUR MARKET STATISTICS.***

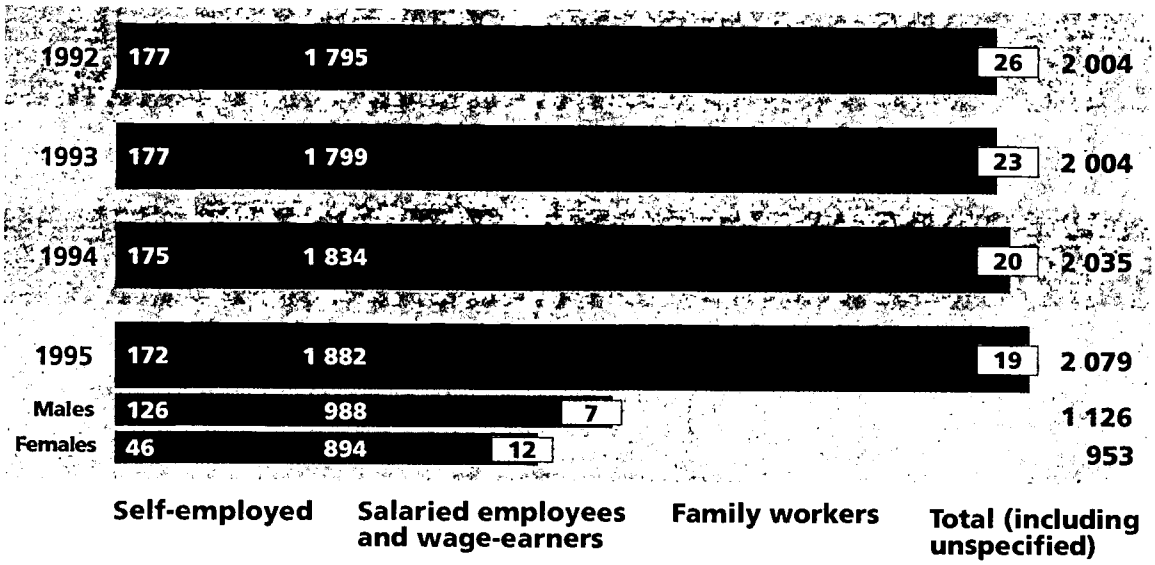
Figure 9. Persons in the labour force, by sex, marital status and age, 1995 (in thousands)



* Married females include cohabitants.

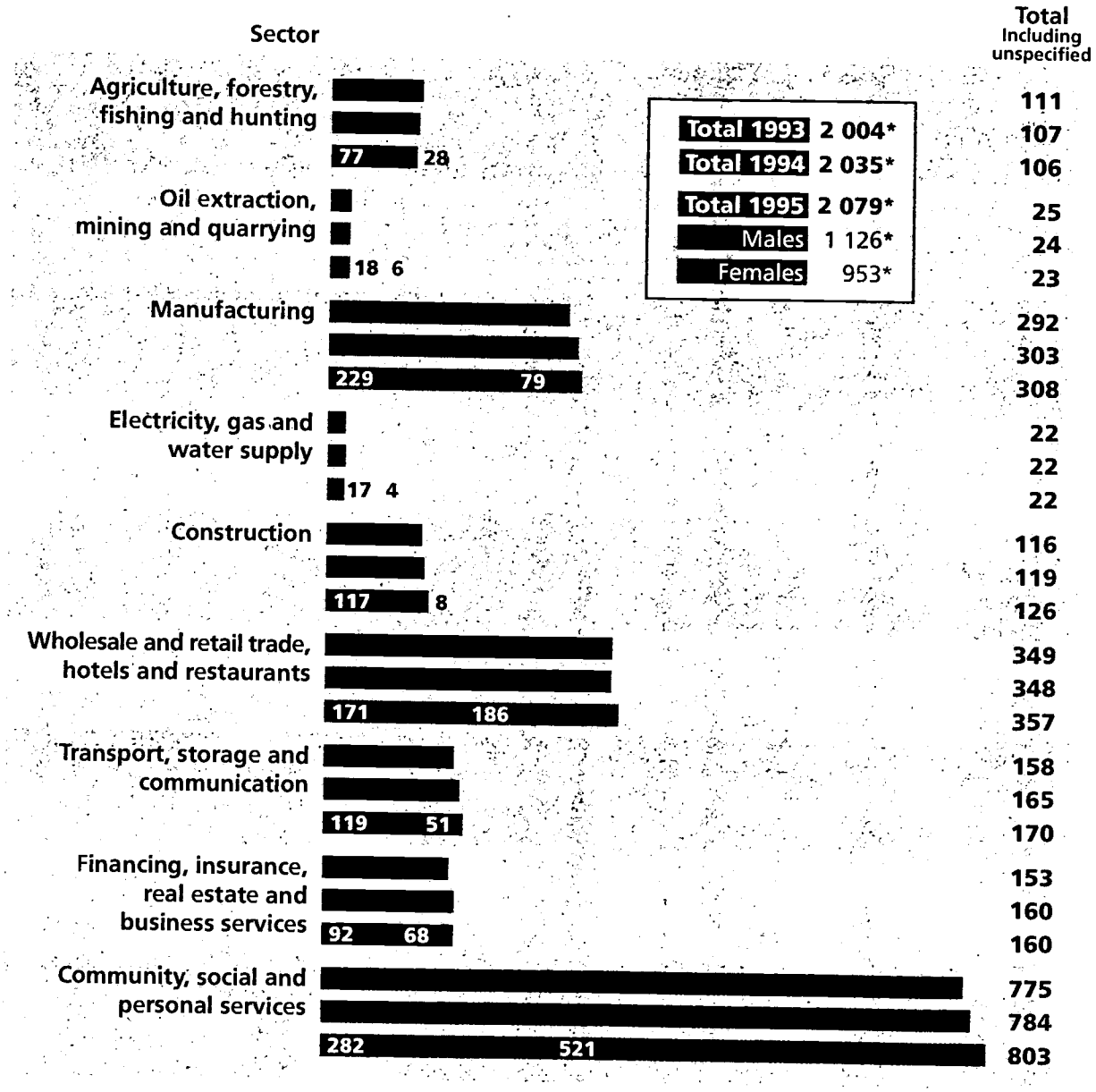
SOURCE: ***STATISTICS NORWAY — LABOUR FORCE SAMPLE SURVEYS.***

Figure 10. **Employed persons by sex and status, 1992 to 1995 (in thousands)**



SOURCE: ***STATISTICS NORWAY — NOS LABOUR MARKET STATISTICS / MORE INFORMATION: DIVISION FOR LABOUR.***

Figure 11. Economically active persons by sex and sector, 1993 to 1995 (in thousands)



SOURCE: **STATISTICS NORWAY.**

1.3.2.2. New jobs

The economic boom during recent years is reflected in the labour market. After several years with increasing unemployment, there was a shift from 1993. In the period 1993–96, unemployment dropped in almost all sectors and regions; 122 000 new jobs were created.

From 1990 to 1996, the number of employed (including self-employed) persons increased by 8.0 %. The county of Aust-Agder saw the highest increase (15.3 %), followed by the counties of Rogaland and Møre og Romsdal, with 13.4 % and 10.5 % respectively. From 1995 to 1996, the number of employed increased by

58 000, which corresponds to 2.8 %. The increase from 1995 to 1996 was highest in Oslo, 3.7 %. Most counties in eastern, southern and western Norway, had a higher increase in female than in male employment. Finnmark was the only county with a decrease in the number employed in 1996 (1.2 %), mainly among males.

Employment growth continued in 1997. By the third quarter of 1997 employment had increased by 63 000 over the last year and unemployment had dropped by 16 000.

1.3.2.3. Employment and age

For the country as a whole, there was an increase in the number of employees in all age groups from 1995 to 1996. The growth was primarily in the age group 25-54. A few counties had an employment decrease in the age groups 16-24 years and 25-39 years. For the age group 40 years and above there was an increase in all counties.

1.3.2.4. Educational level of labour force

From 1990 to 1996 there was a significant increase in the number of employed with higher education, from 21.7 % in 1990 to 26.5 % in 1996. The increase was highest in Oslo and in the county of Troms. The number of employed with an academic degree was highest in Oslo, with 38.7 % in 1996.

In 1990, 20.7 % of the labour force had only primary school education. In 1996, the percentage was down to 14.3 %. The counties of Hedmark and Oppland have the highest number of employed with only primary education, 19.5 % and 18.2 % respectively. The corresponding number for Oslo was as low as 10.7 %.

Figure 12. **Population aged 16–74 by sex, education and occupational status, 1996 (in thousands)**

MEN AND WOMEN	**3 146**	**770**	**1 640**	**703**	**33**
Outside the labour force	**899**	**393**	**376**	**108**	**23**
In the labour force	**2 246**	**377**	**1 264**	**595**	**10**
Unemployed	**109**	**29**	**60**	**17**	**2**
Unemployment rate (%)	**4.9**	**7.7**	**4.7**	**2.9**	**20.0**
MEN					
In the labour force	**1 216**	**206**	**695**	**309**	**6**
Unemployed	**59**	**16**	**43**	**9**	**1**
Unemployment rate (%)	**4.9**	**7.8**	**6.2**	**2.9**	**16.7**
WOMEN					
In the labour force	**1 030**	**171**	**569**	**286**	**5**
Unemployed	**50**	**13**	**28**	**8**	**1**
Unemployment rate (%)	**4.9**	**7.6**	**4.9**	**2.8**	**20.0**

Occupational status
Total
Primary and lower secondary
Upper secondary, general and vocational
Higher education
Unknown

SOURCE: ***STATISTICS NORWAY.***

1.3.2.5. Immigrants and the labour market

Employed immigrants are over-represented in certain sectors of the economy, such as oil and gas activities, hotel and catering, and cleaning.

Not surprisingly, we find large variations in educational level between various groups of immigrants. Among first-generation immigrants, i.e. immigrants who were born outside Norway of non-Norwegian parents, we find a higher ratio with a completed higher education than in the Norwegian labour force as a whole. This is first of all due to the high share of immigrants from western Europe and North America, of whom many are recruited to meet the need for highly specialised labour within the oil sector and other parts of Norwegian industry.

Immigrants from Asia, Africa and Latin America on the whole have a lower educational level than the Norwegian labour force. This may explain the significantly higher unemployment rate among these groups. The sex variations are larger among immigrants than among Norwegians as far as the employment ratio is concerned, with a lower level of employment among immigrant women than men.

From 1995 to 1996, there was an increase in employment among all groups of immigrants, with the exception of immigrants from African countries.

Education, language skills, duration of residence and reason for immigration are variables which seem to affect immigrants' job prospects. As shown above, there is a strong correlation between educational level and employment rate. However, the unemployment rate is high even among well-educated immigrants, and considerably higher than among Norwegians with a similar educational background. Still, only two out of ten unemployed immigrants with higher education blame discrimination for their unemployment.

1.3.2.6. Employment by industry/sector

The long-term trend of reduction in the number of people working in the primary industries and growth in the tertiary industry continued in the 1990s. There has been growth in trade, business services, hotels and restaurants, health care and social welfare.

From 1993 to 1996 there was also an increase in jobs within traditional industrial manufacturing, after a distinctly negative trend since the mid-1970s. Norwegian industry has reconquered market shares in traditional export markets and has gained access to new ones.

The number of farmers and fishermen fell by 20.2 % between 1981 and 1995. The group of other self-employed decreased by approximately 25 % during the same period. At the same time, there was a decrease of 13.5 % in the category of workers (skilled and unskilled), whereas the number of white-collar employees increased by 33.7 %.

1.3.2.7. Registered unemployment 1980–96 ([10])

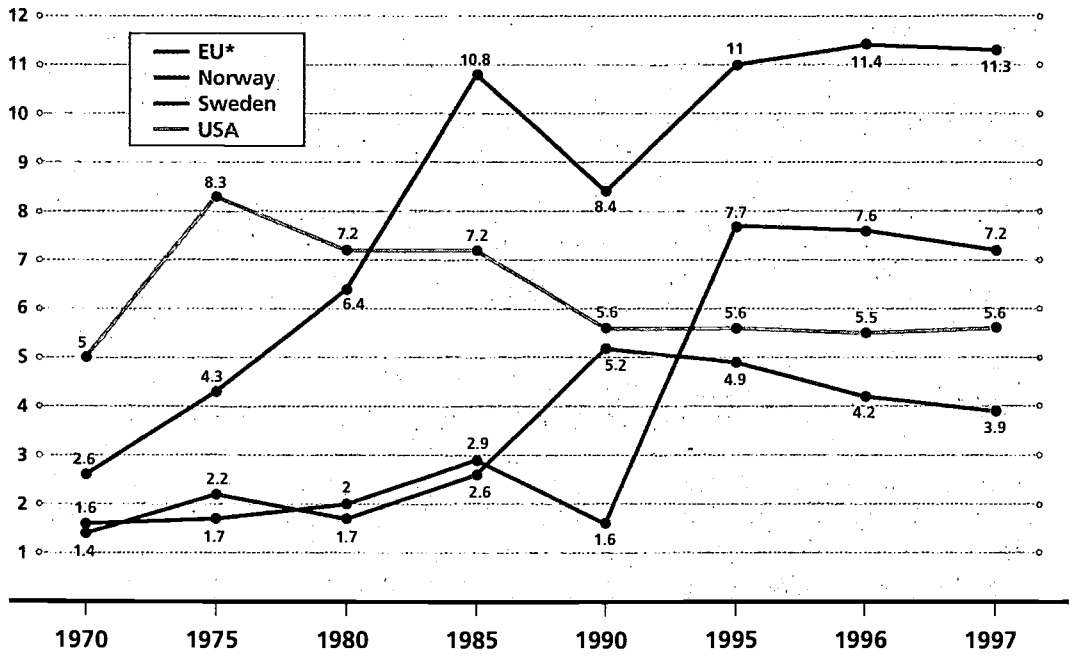
Compared with most other European countries, Norway has had a relatively low unemployment rate during past decades. With the exception of 1983 and 1984,

([10]) Source for all unemployment data: The Directorate of Labour. Registered unemployment includes only those who have registered as job-seekers at a local employment office. The data do not include persons who do *not* have an regular job, but who are participating at one of the «labour market measures» organised by the labour market authorities with the aim to qualify the job-seekers for the ordinary labour market. The labour market measures are described in Section 3.2.4.

registered unemployment was less than 3 % during the period 1970–86. From 1987 unemployment increased to reach its peak of 6 % in 1993. Employment decreased correspondingly.

By the second half of 1993 the trend in the labour market changed, and unemployment fell to 3.9 % by 1 January 1997. The positive development continued in 1997, to drop to a mere 2.5 % in November. When adding the participants in qualifying labour market measures, a total of 3.7 % was without regular work at this time. In 1993 the corresponding number was 8.2 %.

Figure 13. **Unemployment in Norway and other selected countries 1970 to 1997, as a percentage of labour force**



* EU Member States at the time.

SOURCE: ***STATISTICS NORWAY.***

1.3.2.8. Unemployment by county

In 1996, unemployment varied from 2.3 % in the county of Sogn og Fjordane to 6.7 % in Finnmark. In general, the unemployment rate was higher in the northern than in southern parts of the country. The differences were not very big, however, and the trend was not unambiguous. Oslo for instance, had an unemployment rate of 4.6 %, whereas the county of Troms had 4.7 %. Oslo, too, had an unemployment rate which was higher than the national average.

1.3.2.9. Unemployment by sex

The 1996 figures show that unemployment among women fell by 3 900 from 1995, whereas unemployment among men decreased by 7 300. This trend continued in 1997 with the result that, for the first time since 1988, the unemployment rate was higher among women than among men. In the third quarter of 1997 the unemployment rate was 4.3 % and 3.9 % for women and men respectively, whereas the overall unemployment rate was 4.1 %. At the same time, the participation of women in the workforce has never been so high.

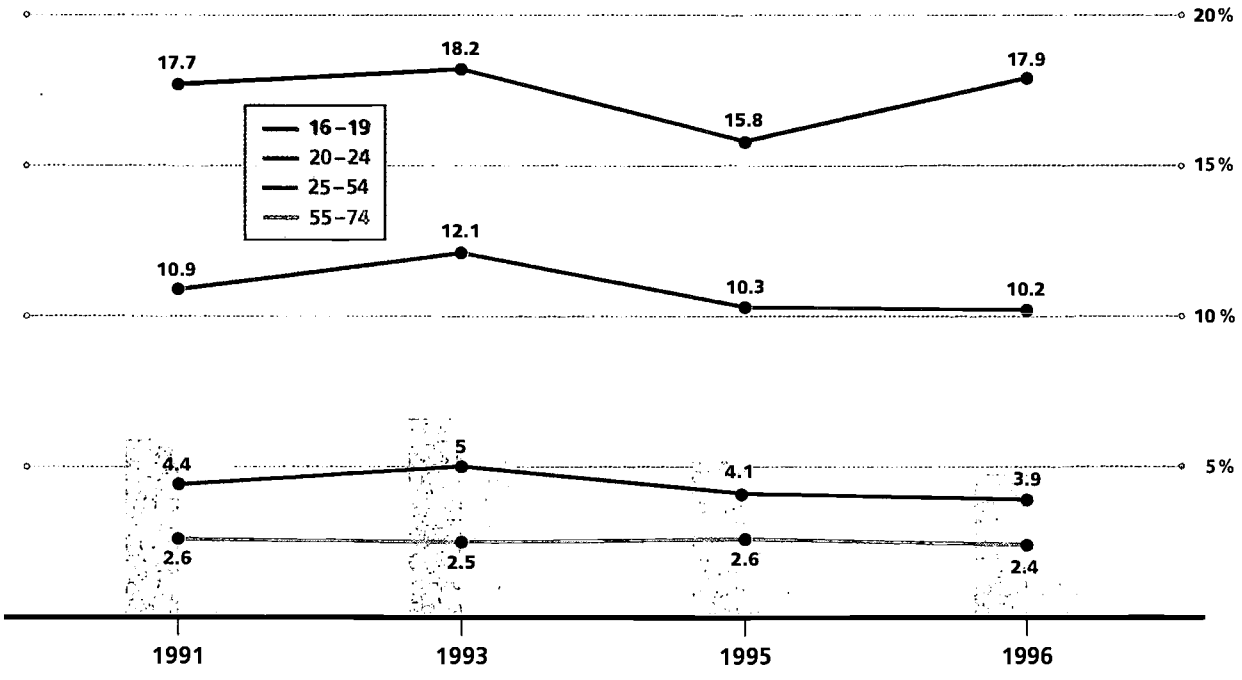
1.3.2.10. Age variations

From 1995 to 1996, there was an increase in employment for all age groups, but with a predominance of young people between 16 and 24 years of age. This is a continuation of a trend over the recent years. Still, the unemployment rate in 1996 was much higher among young people than in the population at large: 10.5 % were unemployed in the third quarter of 1997, compared with 11.5 % during the same quarter in 1996 and 12.4 % as an annual average in 1996. Unemployment among young people seems to be more sensitive to economic fluctuations than unemployment in the population at large. An effort to develop adapted education and training for youth and young adults might be an appropriate measure to reduce the level of their unemployment.

Combating high youth unemployment was a main objective when the government and the Storting decided to implement the major reform of upper secondary education and vocational training, Reform 94 (see Chapters 2 and 3). By 1996 there were no unambiguous indications that Reform 94 had had the intended effect. Such effects would primarily be expected to be shown by a larger reduction of unemployment in the 16–19 age group, which is the main target group of the reform, compared with other groups of young people. As the table shows, from 1993 to 1996 the drop in unemployment was actually higher for the 20–24 age group (15.6 %) than in the 16–19 age group (1.6 %). From 1993 to 1995, however, the decline in unemployment was almost as high among the youngest as for the 20–24 group (13.2 % as compared with 14.9 %) ([11]).

([11]) Regarding the objective of increasing the recruitment of young people to vocational training, the school part of the reform might have been more successful than the practical in-company training. The training period at school lasts for two years. For the age group 16 - 19 unemployment dropped the two first years after implementation of the Reform 94, and increased drastically the following year, indicating that many of those who completed the school-based training were not able to get an apprenticeship contract.

Figure 14. **Unemployment by sex and age, 1991 to 1996, percentage of labour force***



Note:
* Survey data. Due to methodological differences, figures differ from those registered by the Directorate of Labour.

SOURCE: **STATISTICS NORWAY.**

1.3.2.11. Variations according to educational background

Above we have seen that there is a correlation between educational level and unemployment. The unemployment rate is higher among those with only primary education than in groups with secondary and higher education.

1.3.2.12. Unemployment among immigrants

A total of 11.9 % of male immigrants were registered as completely unemployed in November 1996, down from 13.0 % one year earlier. The decrease was highest for men from South and Central America. In November 1996, 11.5 % of male immigrants from this part of the world were recorded as completely unemployed, compared with 15.2 % one year earlier. For men in the population at large, the unemployment rate decreased from 4.2 % to 3.6 % during the same period. Immigrant women experienced no change in unemployment from the previous year.

Despite the decrease in unemployment among non-western immigrants, this group still has unemployment more than four times as high as Norwegians. In November 1996, close to 14 % of all unemployed were immigrants, whereas their share of the total population between 16 and 74 years of age was just above 5 %.

1.3.2.13. Long-term unemployment

According to Norwegian statistics, a long-term unemployed person has been unemployed for a continuous period of at least six months ([12]). Long-term unemployment rose from 1987 to exceed 40 % of total unemployment in 1993. From 1993 to 1995 long-term unemployment dropped, but at a lower speed than total unemployment.

Since 1995, however, long-term unemployment has decreased more rapidly than total unemployment. In 1996, approximately 70 % of registered unemployed had been unemployed for less than six months, whereas 14 % had been unemployed for more than a year. By the third quarter of 1997 the number of long-term unemployed had reduced by 8 000 since mid-1996, down from 29 % to 25 % of the total number of persons unemployed. International comparisons between 26 OECD countries reveal that in 1995 Norway was among the countries with the lowest long-term unemployment figures as a proportion of both labour force and of the total unemployment.

Long-term unemployment is low among the age groups below 24 years of age, whereas almost one in four of all long-term unemployed is older than 60, although the latter constitute only 4.4 % of the total labour force.

People with only primary school education are highly overrepresented among the long-term unemployed, compared with those with secondary and higher education. In this group we also find almost half of all persons who have been unemployed for more than a year, despite the fact that this group constitutes just over 15 % of the total labour force.

1.3.2.14. Increasing labour shortages

Strong employment growth has resulted in a tighter labour market and increasing labour shortages. Unemployment coinciding with a relatively high number of vacant jobs indicates structural problems in the labour market. The unemployed are to a lesser extent than earlier, available and qualified for the vacant jobs. In 1995, 7 % of available jobs were vacant, due to a lack of qualified applicants. At the same time, unemployment was 4.9 %.

1.3.2.15. Scenarios for the Norwegian economy and employment

Annual growth in GDP is forecast at approximately 2.75 % in the period 1997–2001, which will be lower than in the years 1994–97. The estimate is based on planned lower investment in the oil and gas industry at the turn of the century. Private consumption is estimated to increase by 2.75 % annually in the years 1997–2001, whereas the average nominal salary will increase by approximately 4 % per year in the period 1997–2005.

The growth in employment is forecast to be less than 1 % per year in the period 1997–2001, which corresponds to an increase of 80 000 to 90 000 jobs. Unemployment is expected to continue to fall to a level of 2 to 3 %.

([12]) In other countries the time limit is often at least one year.

Whereas employment growth was stronger in the private than in the public sector between 1995 and 1997, the opposite is expected to be the case in the years 1998–2001. The forecast is based on expectations of higher investment in education, public health and welfare services for old people.

In 1997 there were tendencies indicating manpower shortages in parts of Norwegian industry as a result of the tight labour market. Another challenge was an increasing mismatch between labour market *needs* and *availability* as regards competence. One possible measure to prevent growing structural unemployment is to prepare the labour force for more geographical and occupational mobility. Development of a comprehensive and adequate system of continuing vocational training will be another crucial measure to meet this challenge.

Chapter 2
The education system

This chapter gives a brief overview of the Norwegian education and training system, including vocational training, which is an integrated part of it. A more detailed description of the various aspects of vocational training is presented in Chapter 3.

The first part (2.1) presents basic information as regards national objectives, principles of supply and participation, public expenditure and rates of participation. The important roles of the major social partners in vocational training are described along with a brief overview of the ongoing reforms in education and training at different levels.

Part 2.2 contains an historical survey of the development of education and training. Since vocational training is integrated in the overall education system, we have found it natural to include vocational training in this historical part, instead of presenting it separately in Chapter 3.

A structural overview of the system, as of 1997, is presented in 2.3, followed by a clarification as regards definitions of, and boundaries between, the concepts IVT (initial vocational training) and CVT (continuing vocational training), as we use them in this report.

2.1. Objectives, principles and actors

2.1.1. General introduction: education and training in a broader context

Education is a high priority area in Norwegian national policy. As in other policy areas, the *Storting* lays down the policy framework for the Norwegian education and vocational training system. It decides the goals, the legislation and the allocation of economic resources. The government, which is responsible for the implementation of the *Storting's* policy decisions, exercises its authority through the Ministry of Education, Research and Church Affairs *(Kirke-, undervisnings- og forskningsdepartementet — KUF)*. The ministry is responsible for all levels of education, from primary and secondary to higher education, including adult education. The responsibility comprises development of standards, supervision of providers of training, and certification. The Ministry of Education, Research and Church Affairs is also responsible for research policy.

Norwegian education and training policy is shaped in the intersection between the goals of economic and social distribution policy. It tends to include value perspectives on both production and social distribution. This policy is based on a fundamental agreement between the authorities and the social partners as regards basic norms and principles of policy-making. One result of this is that the public education and training system plays a dominant role and is well anchored in the working community and society.

Vocational training, including apprenticeship, is an integral part of the Norwegian education system. The tasks and responsibilities related to education and training and the development of skills in the workforce are shared between public authorities and the social partners. In accordance with Norwegian political tradition, the employers' organisations and the trade unions play an important and active role in both the framing and implementation of vocational education and training policy. For further description of their role, see Section 2.1.4. Education and

vocational training are viewed as central means to achieve national goals in areas such as economic, regional and employment/labour market policy.

2.1.2. Basic principles

The principles of equality and quality have a long tradition in Norway, and the overall aim for the government is to ensure equal rights in terms of educational provision, irrespective of sex and social, geographical and cultural background.

In a modern industrial and welfare society, it is an important goal in its own right to maintain a high level of education and training. Education leads to individual self-fulfilment and contributes to the development of relevant qualifications. At the same time, it enables individuals to obtain employment and thus be in a position to provide for themselves.

Equality and freedom of choice are general political principles which have wide national support and lie at the heart of the major principles and goals of national education and vocational training policy. Accordingly,

- education is a public responsibility;
- every young person completing compulsory education is entitled by law to three years of upper secondary education ([13]);
- the supply of education and training should be of high quality and broad enough to allow for a range of choices irrespective of geographical location and social conditions;
- all education and training in the public domain is supplied free of charge. The costs are covered by public budgets.

2.1.3. Costs and participation

National expenditure on education and training in 1995 amounted to 7.6 % of gross domestic product (GDP), whereas the OECD average was 4.9 %. Public expenditure in this sector in Norway reached 6.5 % of GDP in 1995, down from 8.1 % in 1994 ([14]).

Two of the reasons for the high level of expenditure are:

- long distances and low population density, resulting in a high number of small schools, especially at primary level;
- a decision by the *Storting*, stating that all books and other teaching aids in primary and secondary school, must be printed in two official languages, Norwegian and New-Norwegian. The double production is subsidised by the authorities.

([13]) Since 1994. See Section 3.1 for a more detailed description of Reform 94.
([14]) Source: OECD. The drop from 1994 to 1995 is partly explained by a significant decrease of unemployment (see Chapter 1), followed by reduced expenditure on labour market training measures.

Table 2. Public expenditure on education, including public subsidies to households, as a percentage of GDP, 1975–94

Country	1975	1980	1985	1990	1994
Norway	**6.4**	**5.8**	**5.6**	**n.a.**	**8.1**
Germany	5.1	4.8	4.6	4.1	4.7
France	5.6	5.1	5.7	5.1	5.9
UK	6.8	5.7	4.9	4.9	5.2
Denmark	6.9	7.4	6.2	6.3	8.0
Sweden	7.1	8.5	7.0	5.6	7.7

n.a. = not available.

SOURCE: *OECD 1997.*

Out of a population of 4.3 million, almost 900 000 are undergoing some form of education or training (1996). More than an additional million attend adult education courses each year. During the school year 1996/97, there were over 178 000 pupils at upper secondary level, including vocational training. Some 169 600 people were studying at colleges and universities in 1996, an increase of 70 % since 1988. An additional 10 100 Norwegians were studying abroad, 9 500 of them at higher level, and the remainder at secondary level.

Figure 15. Students by type of institution and age* — October 1995

Age	Compulsory school	Upper secondary school***	Apprentice	College**	University	Total
All ages	477 236	216 126	19 375	93 788	82 957	889 482
6–14	424 806					424 806
15	51 909	777				52 678
16	529	49 916		3		50 495
17		49 601	15	7		49 669
18		42 670	1 404	98	133	44 335
19		17 121	2 696	3 994	4 947	28 789
20		9 028	2 922	7 059	7 202	26 224
21		6 366	2 585	9 444	8 078	26 473
22		4 802	2 364	10 290	7 916	25 372
23		3 914	1 958	10 375	7 939	24 086
24		3 129	1 357	8 491	7 282	20 259
25		2 646	916	6 089	6 193	15 844
26		2 440	653	4 520	5 352	12 965
27		2 045	430	3 545	4 356	10 376
28		1 873	322	2 843	3 264	8 302
29		1 683	253	2 404	2 629	6 969
30 +		18 215	1 500	24 626	17 666	62 007

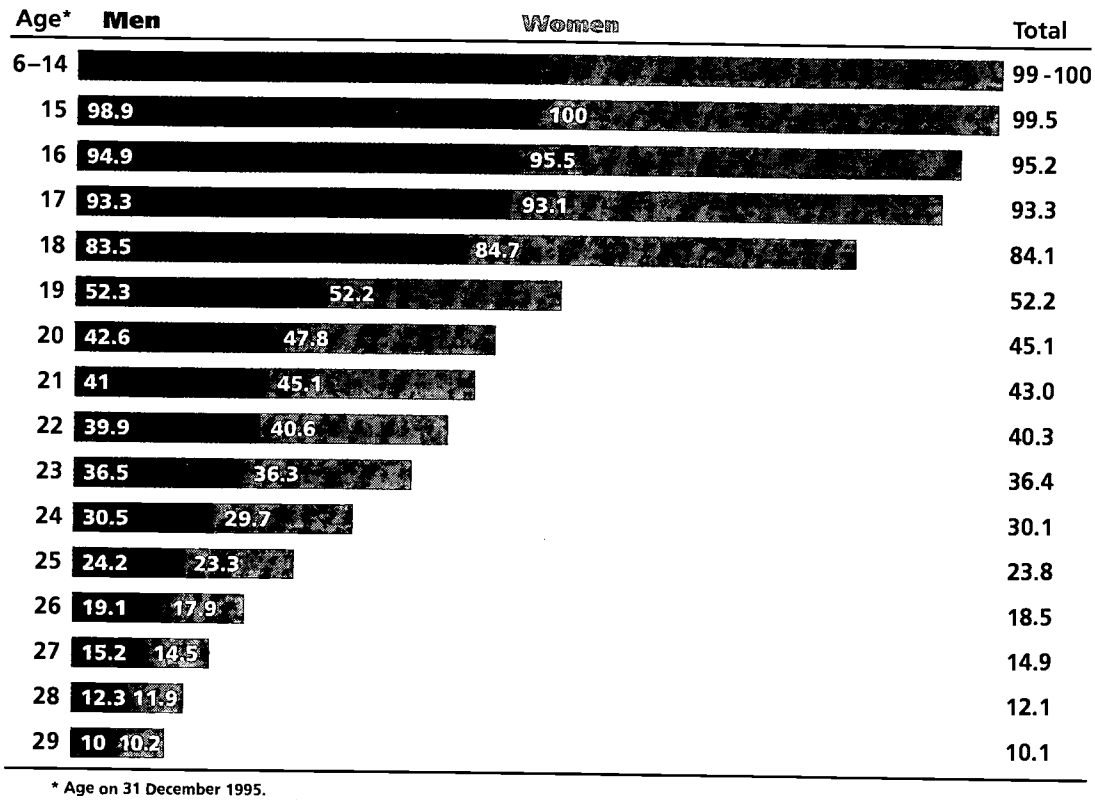
* Age on 31 December 1995.

** Higher education institutions providing training in professions such as teaching, engineering and nursing.

*** Included 19 319 students in labour market training and 5 638 students at folk high schools.

SOURCE: *STATISTICS NORWAY.*

Figure 16. **Percentage of each age group who are students 1 October 1995**



* Age on 31 December 1995.

SOURCE: **STATISTICS NORWAY.**

The educational level of the population has risen considerably during the last decade. In 1995, some 53 % of the population aged 16 and over had finished upper secondary education and training while 27 % had a college or university education.

Until a previous reform in 1976, most upper secondary schools offered either general education or vocational training. The 1976 reform implied that general education and vocational training were subject to the same law, under the same roof. Thus, today nearly all upper secondary schools provide both general education and vocational training, often in the same building.

2.1.4. The influence of social partners on education and training

Norway has a long tradition of close cooperation, both formal and informal, between the education and training authorities and the social partners. Today, the formal basis for the role of the social partners in vocational training at upper secondary level is to be found in the International Labour Organisation Convention 142 (of 23 June 1975) which Norway ratified in 1976. The convention establishes that the employers' organisations and trade unions shall influence and participate in the framing and development of vocational guidance and training.

The social partners contribute considerably to the framing and implementation of vocational training. This is institutionalised through the Vocational Training Act. It is also expressed through procedures for representation in central bodies and active participation in preparatory, implementation and control tasks within the field.

Because vocational training is of major importance to the working community as far as working conditions, productivity and profitability are concerned, the employers' and employees' organisations have considerable influence on vocational training at the upper secondary level. They have representatives in all important advisory and decision-making bodies at national and county level (see Section 4.1.2 for further details):

- the National Council for Vocational Training *(Rådet for fagopplæring i arbeidslivet — RFA)*
- the 20 national Vocational Training Boards *(Opplæringsråd)* which represent the expertise in different sectors and recognised occupations
- the Vocational Training Committee *(Yrkesopplæringsnemnda)* for each county
- the examination boards *(prøvenemndene)* in each county and the national appeals boards *(ankenemndene)*.

Through this representation, the social partners are directly involved in, among others, the framing of structure and content of recognised occupations, in development of curricula and framing the trade and journeyman's examination. The participation of pupils, apprentices and students in the preparation of education and training is, moreover, stated in the acts concerning education and training.

2.1.5. Reforms in the 1990s

Rapid technological and industrial change characterises this century, especially the post-war years. Earlier, school reforms lasted for years, whereas today their 'life expectancy' is drastically reduced. In the previous century, society was relatively stable, working life changed slowly, and most people had the same occupation their whole life. In our time, there are great changes in the production and job structure. The demands for education and specialisation are constantly increasing. Frequent technical and structural changes result in a higher geographical mobility, and an increased need for continuing training, updating and retraining of the workforce.

Thus, during the 1990s, all levels of the education and training systems have been or will be subject to major reforms regarding structure and content, as well as a change of legislative framework. At the upper secondary level, both the act regulating education and training in the schools, and the act regulating apprenticeship training have been revised and harmonised with the aim of achieving a more uniform education and better coordination between education in school and training at work.

Reforming the educational system revealed the need for a policy document defining aims, principles and basic values that all education should be based on. In 1993, a core curriculum, applying to primary, secondary and adult education, was developed and implemented. Adapted teaching (i.e. teaching adapted to the needs and competences of individual students) is a basic principle. Furthermore, humanistic, creative and social aspects of education and knowledge are emphasised.

2.2. Historical survey

2.2.1. The Union Period

2.2.1.1. General

Norway became an independent country as late as 1905. From 1380 to 1814, the country was under Danish rule. After the secession from Denmark in 1814, Norway was forced into a new union, this time with Sweden. This union lasted until 1905, when Norway gained full independence through a peaceful dissolution of the association.

Prior to 1814, there was no public school or educational policy in Norway. For more than 300 years all 'Norwegian' school legislation was decided in Denmark. Attempts to establish a Norwegian university were interpreted by the Danish authorities as a sign of increasing resistance to the union. The need for more senior civil servants however, resulted in the establishment of the University of Oslo in 1813.

The basis for today's Norwegian compulsory school was established by the first Danish Education Act on rural schools in 1739. The law ordered all children who were older than seven years and living in rural areas to attend a school where they could learn about religion and learn to read. It was the duty of the church to establish and run the schools.

In the 18th century, several towns had a so-called Latin school for boys who wanted to study, and a basic school where the pupils learned to read and write. Around 1800, lower secondary schools were established in most Norwegian towns. Several attempts were made to secularise the education system, by establishing so-called scholarly schools, which integrated modern science and religious subjects.

The union with Sweden resulted in less centralisation and more political autonomy than Norway had had in the union with Denmark. As early as 1814, the formulation of the Norwegian Constitution prepared the ground for an independent nation. At the same time, the *Storting* was established as the country's national assembly.

With its own administration in Oslo, Norway needed more civil servants than earlier, and regional education systems were developed, primarily in cooperation with the University of Oslo, in order to meet the increased need.

After 1814, there were several reforms of the public school system. Following the introduction of the parliamentary system in 1884, a common primary school for all layers of society was established in 1889. However, separate school legislation for urban and rural areas was maintained until 1959. The primary school included seven years of compulsory school for boys and girls from the age of seven.

The *Storting* introduced the first teacher training seminars in 1826, but it was as late as 1890, before an education act, the so-called Seminar Act, for teacher training was passed. In 1902, the act was amended, and teacher training was extended to three years.

In 1869 an act on higher education was passed, and lower secondary as well as upper secondary schools with Latin, science and mathematics were established. Latin was later replaced by other languages and history.

Women's right to education was strengthened towards the end of the 19th century. In 1882, women were granted permission to sit for upper secondary exams, and in 1884 they were given access to all university exams. From 1890, they were allowed to participate in teacher training.

2.2.1.2. Vocational education and training (15)

Well into the 19th century, vocational training was managed by the guilds. For hundreds of years, master craftsmen in all recognised occupations had taken on apprentices. The duration of the apprenticeship was from 3 to 12 years, and the training was conducted with hard discipline. Apprentices were not paid, but the master supplied them with board and lodging.

The content of the training was practical work under supervision. The apprentice obtained a journeyman's certificate after passing a test, demonstrating the required knowledge and practical skills of the craft.

The guilds gave rise to a trade consciousness which often developed into egotism and protectionism. The social prestige of the occupation was also supported by selective recruiting and raising the level of the journeyman's certificate.

Industrialisation created demands from industry for maximum flexibility and the right to make a living as a craftsman. The Crafts Act of 1839, and later of 1866, did not require either apprenticeship or journeyman's certificate for those who wanted to work as craftsmen.

Experience soon revealed the need to emphasise formal qualifications more strongly. The journeyman's exam, with practical and theoretical elements, was reintroduced in the Crafts Act of 1894. The craftsmen had to pass this exam in order to become members of the guilds. The regulation of apprenticeships was developed further in the Crafts Act of 1913. The employer was required to arrange the working hours of the apprentices so that they were able to attend classes at the technical evening schools (see below).

Theoretical training of apprentices was introduced as early as 1802. The apprentices had to go to school on Sundays to attend classes in the Norwegian language, arithmetic and drawing.

Agricultural schools were the first vocational schools. They were established all over the country from the 1840s. In the 1850s and 1860s, technical evening schools with programmes that lasted for three years, were established in the towns. It was only in the 1890s that a number of vocational schools were established, partly as the result of the initiative of industrialists who called for a vocational training system.

2.2.2. 1905–79

2.2.2.1. General

From 1905, the Socialist Workers' Party was represented in the *Storting.* The party heavily emphasised educational policy, and argued in favour of a public school system and against private schools.

(15) Main sources: Jon Olaf Halvorsen and Synnøva Aga, both at the Ministry of Education, Research and Church Affairs.

The idea of a complete and egalitarian school for everybody, irrespective of social background and domicile, was the basis of the 'unitary school'. In the period from 1910 to 1920, the socialist reform ideas were accepted throughout the country. With the 1915 and 1917 amendments to the education act, practical subjects, such as drawing and physical education, were made compulsory. John Dewey's slogan 'learning by doing' was introduced in the discussion on the 'work school', as opposed to the 'book school'. Links between the various levels of the education system were emphasised. Due to the recession in the 1920s, however, several of the accepted reforms were postponed or abandoned.

In 1927, a committee appointed by parliament proposed a comprehensive restructuring of the Norwegian education system, from primary to upper secondary level. The new system introduced lower and upper secondary school following seven years of primary school. In order to implement this comprehensive system, the general education system needed to be considered as a whole. The first to be considered, was the primary school, which was to be the basis of the whole system.

The primary school acts were amended in 1936. It was not until 1959, however, that there was one common primary school act for urban and rural areas, with a comprehensive school system based on seven years of primary school. Earlier, there were geographical variations as far as structure, content and duration were concerned. The so-called continuing school, which was the predecessor of the secondary school, was organised in various ways, and lasted from two to four years. In some areas the pupils were recruited after just five years of primary school, whereas in other areas, they were recruited after seven years.

With the 1959 amendment to the Primary Education Act, the ground was prepared for introducing nine years of compulsory education, with six years of primary school and three years of lower secondary school. The normal model, however, was seven years of primary school. It was not until 1971, that the nine-year compulsory primary school was adopted as the common model (16).

In 1961 the *Storting* passed an act with the objective of creating a more uniform teacher training, for teachers in both general and vocational schools. Later, teacher training was extended to four years, and training in practical methodology was introduced for teachers with a university background.

Several changes were introduced in the upper secondary school, including experiments with the so-called correspondence and evening schools, as well as a shorter upper secondary education for adults. The act relating to upper secondary education of 1974, introduced the term upper secondary school *(videregående skole)* for both general and vocational schools. Since the late 1970s, most upper secondary schools were comprehensive schools, offering both general and vocational education.

The establishment of universities and colleges took place mainly after the turn of the century, the universities of Tromsø and Trondheim were established as late as 1968.

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(16) A similar development towards an extended primary education without much specialisation and differentiation was seen in the USA and in several European countries at the time.

There was a strong increase in the number of public regional and State colleges throughout the country, partly as an element of the planned establishment of the so-called district colleges. In the areas of business administration education, a number of private institutions were established.

2.2.2.2. Vocational education and training

The formalisation of vocational training was developed further after the turn of the century. In 1910 vocational day and evening schools were established, and employers were facing increasing demands from 1913 (see above). However, the need for even more detailed and binding regulations was expressed by both industry and the trade unions. In the 1920s, a group of craftsmen proposed a separate act relating to apprenticeship to replace the existing sections in the Crafts Act.

In 1933, The National Council for Vocational Training *(Yrkesopplæringsrådet)*, was established. The board consisted of representatives from the Craftsmen's Association *(Norges Håndverkerforbund)*, industry, *Arbeidernes faglige landsorganisasjon* (the major trade union) and the Ministry of Education. In 1938, the board presented a proposal, which was passed as an act in 1940. The act proposed a vocational school including a preparatory school, an apprentice school and a school for foremen and work managers. The act also applied to the technical schools based on primary school and two years of lower secondary school.

During the same period, similar initiatives were taken in other European countries. In 1939 the international labour conference in Geneva decided to request all member States to establish systematic apprenticeship arrangements in the various recognised occupations.

The first act on vocational schools was passed in 1940, but was not implemented until July 1945. Vocational education had so far not developed according to an overall plan. New schools were established as the needs were identified. The system was complex. As early as 1910 a preparatory school for metalworkers was established in Oslo. In 1935, there were 10 vocational schools. In 1945 the number had increased to 32.

With the act on vocational schools all young people who wished to were entitled to a systematic school-based training in practical subjects. This was a major step towards equality between general and vocational training. According to the act relating to vocational schools, the employer was responsible for the apprentice attending vocational school if there was such a school in the region. The new apprentice school was a continuation of the technical evening school, and in the first years training took place in the evenings.

In 1946 the Ministry of Industry appointed a committee consisting of various representatives. It presented a unanimous recommendation in April 1948 and suggested introducing a separate apprentice act, with the goal of achieving a uniform and structured practical vocational training. This was seen as a means of giving the apprenticeship arrangement more authority and impact.

The recommendation concerning an act relating to apprentices in trade, industry, mercantile and clerical work was accepted in 1950, and the act was introduced in 1952. This was the first time apprenticeship arrangement included more than just the crafts.

According to the 1950 act relating to apprentices, an employer had to sign a contract with a person who was older than 20 years and who was hired to work in a recognised occupation subject to the act. The apprentice also had to attend apprentice school. The enterprise was made responsible for the training until the journeyman's examination and for ensuring that the apprentice attended school. If the apprentice did not receive the obligatory training and did not pass the final examination, the enterprises risked liability for compensation. It was also very difficult to break an apprenticeship contract.

The act relating to apprentices never functioned effectively. The enterprises thought the rules and the sanctions were too strict. The administration and control arrangements worked in the way described by the act only to a certain extent. Consequently, the number of apprentices decreased in the years after the act was introduced, in spite of the fact that an increase was expected.

The training under the new act was a combination of practical training in the workplace and training at school, and lasted between two and five years, depending on the occupation. Most recognised occupations had a training period of four years. For a short while in the 1960s, the training period in most recognised occupations was reduced to three years by the Ministry and the social partners, in order to make the apprenticeship system more popular among the employers. This effort, however, was a failure and the training period of most recognised occupations was soon extended again.

Eventually, the new act covered a majority of the recognised crafts and industrial occupations. Its extension was, however, a gradual process. Six crafts were included at the beginning (1952), as were six additional crafts and several recognised industrial occupations from October 1953. New recognised occupations were added as plans for curricula and apprentice schools were established. In 1980 the act covered more than 110 crafts and recognised occupations. The number of new apprenticeship contracts in 1956 amounted for the first time to more than 1 000, in 1960 to more than 2 000, in 1974 to more than 3 000 and in 1977 to more than 4 000. In 1980, 2 399 journeyman's certificates and approximately 4 700 certificates in other recognised occupations were issued.

The mercantile and clerical subjects were included in the act in 1961, but were withdrawn in 1972, as the arrangement was not very successful. Training in these subjects did not lead to a journeyman's certificate; the certificate was obtained after a period of training. In spite of several measures, there were hardly any apprentices in these subjects after a while. The negative trend in this area was reported by the press and it also spread to other, more traditional recognised occupations.

The act relating to apprentices was not nationwide, but covered densely populated areas and the areas covered by the Crafts Act. It did not establish a common, simple administration and creating such an administration was a very slow process. In several municipalities the act was administered by a secretariat which was linked to the employment agency.

The Ministry of Education had appointed a National Council for Vocational Training as an advisory body, with representatives from the social partners. National training councils for the various recognised occupations were also appointed, with the same number of representatives from the employers' organisations as the trade unions.

The training councils recommended curricula for their recognised occupation and advised the Ministry and the National Council for Vocational Training.

Although the first agricultural schools were established as early as the mid-19th century, it was not until 1965 that an act for agricultural schools was passed. At the time, there were a total of 60 schools with more than 3 000 pupils, distributed all over the country.

By the mid-1960s, the schools offering vocational training in business, crafts and industry attracted most of the pupils seeking vocational training. The provision was much poorer than within general education. Only a minority of the pupils were offered three years of education, whereas this was the normal duration in general upper secondary education. The vocational schools did not emphasise general theory, but focused on providing the pupils with the best possible education for a certain recognised occupation or group of occupations. Moreover, the capacity of the vocational schools was much more limited than for general upper secondary schools: in 1965, only 63 % of the applicants to the vocational schools were accepted, whereas 81 % of the applicants to the general upper secondary schools were accepted.

Within the recognised technical occupations, there was a distinct vertical differentiation. Skilled workers who had completed their education were qualified to attend two years of technical school which would give them the title of technician. Two or three years at a technical school gave a broader educational basis and the right to use the title of engineer. In order to be accepted at this school, it was preferable to have passed the upper secondary examination.

2.2.3. 1980–97

2.2.3.1. General

The nine-year primary and lower secondary education system was maintained until 1996, but there were several changes in methodology and content, firstly in 1987. From the autumn of 1997, 10 years of compulsory primary and lower secondary education were introduced, and the school starting age was lowered to six years of age.

Rapid growth and several mergers and reorganisations in the 1980s resulted in a rather complex higher education structure which was difficult to grasp for the users and the practitioners providing vocational guidance. This was part of the background for the major college reform in the first half of the 1990s.

2.2.3.2. Vocational education and training

The increasing discontent with the 1950 act relating to apprentices resulted in the establishment of two public boards in order to evaluate the apprenticeship arrangement and possible changes. This report laid the ground for the Vocational Training Act 1980, which replaced the 1950 act relating to apprentices and, with some amendments, still applies in 1998.

The Vocational Training Act applied to all the country's regions. The major amendments, in relation to the act relating to apprentices, included:

- the introduction of common regulations for the whole country, irrespective of county or municipality;

- extension of the act to new occupations in that the only criterion for including an occupation under the act now was a recognised need for systematic training in enterprises, whereas the 1950 act relating to aprentices was limited to crafts and industry, and, for a short period, mercantile and clerical work;

- the establishment of an obligatory and uniform country-wide administrative and consultative system in which the social partners constitute the majority in, amongst others, the vocational training board, the examination boards and the appeals boards (see Section 2.1.4), the establishment of new national bodies with responsibility for centralised consultancy — the National Council for Vocational Training (RFA) and the training councils for the various recognised occupations and groups of occupations (see Section 2.1.4), in which the social partners constitute the majority.

According to the act, the public authorities were responsible for establishing the regulations ensuring the quality of the training. The enterprises' duty to enter into a contract with the apprentices (see Section 2.2.2.2), as in the act relating to apprentices was maintained, while the apprentices were obliged to attend apprentice schools. The counties were responsible for establishing apprentice schools in the various recognised occupations.

The aims of the act as it relates to adults were taken care of by a special arrangement known as '§ 20'. The arrangement is still valid in 1998. Under it, adults older than 20 years of age may enter into an apprentice contract with the enterprise. They may sit for the trade examination as private candidates. In order to sit for the examination, they have to document a period of practice which is at least 25 % longer than the regular apprenticeship in the recognised occupation. These private candidates are not obliged to attend training at apprentice schools. However, they have to pass the same theoretical examination as other apprentices before they sit for the practical examination.

Practical training according to the Vocational Training Act is carried out according to a specific curriculum, which is recommended by the representatives of the National Council for Vocational Training (RFA) and the vocational training council for the recognised occupation in question, and is formally accepted by the Ministry of Education, Research and Church Affairs. The overall objectives of the theoretical training are also described in the curriculum.

Industry as well as the trade unions supported the development of the vocational training system throughout the 1970s and 1980s. The capacity of the enterprises to take on apprentices, however, varied according to economic fluctuations. The number of apprenticeship contracts under the new act still did not meet the needs.

As early as 1983, a working group was established in order to evaluate further measures in order to strengthen the apprenticeship arrangement and provide more apprenticeship places. On the basis of the group's recommendations, amendments to the Vocational Training Act were passed in June 1985. One of the amendments was the removal of the enterprises' duty to pay the apprentices' salary while they attended school. The issue was to be discussed during the wage negotiations instead, in the same manner as other wage questions.

The major changes aimed at increasing the number of apprentices concerned the criteria for approving the apprenticeship contracts.

Earlier only one single enterprise could be approved as a training organisation, whereas now the training responsibility could be shared between several enterprises within the framework of two structural arrangements: training circles and training offices (for details see Section 3.1.1.5).

The intention of the new bodies, which in 1998 still play a major role in vocational training, was to enable an enterprise to be involved in the training of apprentices without being the one solely responsible. Earlier, several smaller enterprises had refused to take on apprentices because the curriculum included activities that were not part of their regular production. Consequently, they were unable to provide training in all parts of the curriculum.

Two years after the introduction of the amendments, the goal of 10 000 new apprenticeship contracts per year had been reached.

2.2.3.3. The reforms of the 1990s

The basis for the comprehensive education reforms of the 1990s was established in the late 1980s. Extensive research resulted in Green Papers on adult education (NOU 1985:26), lifelong learning (NOU 1986:23) and higher education and research (NOU 1988:28). A White Paper of 1989 (St.meld. nr. 43, 1988-89) discussed structure, contents and recognition of qualifications relating to the whole education system. Primary school, lower and upper secondary school, initial vocational training based on apprenticeship, higher education and continuing training were discussed separately and as a whole. Based on a broad discussion of general and vocational education and training in the upper secondary school (NOU 1991:4), the *Storting* and the government were able to introduce the necessary measures and start the practical implementation of the reforms.

The changes are targeted both at structure and content, according to a common overall plan. The main objective is to meet the challenges of the 1990s when it comes to developing and using new technology and knowledge, and to cooperation and rapid change in a dynamic context. The reason was that the existing education and training system was out of pace with society. The country did not get '... satisfactory qualifications considering the talents of the population.' (NOU 1988:28)

In the spring of 1993, comprehensive changes were implemented in the college structure. In autumn 1994, 98 regional colleges were reduced to a total of 26 larger, State colleges with a common entrance procedure. The mergers were based on geographical, and to a certain extent, subject criteria. In spring 1995, the *Storting* passed a new act relating to universities and colleges which constitutes a common basis for organisation and management. The higher education institutions were at the same time given the responsibility for offering or organising continuing education within their respective subject areas.

Reform 94, covering general and vocational education and training at upper secondary level, was a comprehensive reform of structure and content. Among other things, Reform 94 implies the introduction of a statutory right of all young people between the age of 16 and 19 to three years of upper secondary education, as well as a public follow-up service for pupils who do not accept this offer. More theoretical subjects were included in vocational training, in order to strengthen the basis for future continuing training, possibly at institutions of higher education. (See Chapter 3 for a further description of Reform 94.)

The influence of the social partners in the preparation and implementation of Reform 94 was significant, first of all through their formal positions as representatives in the national advisory bodies, but also through their continuous informal cooperation with the administrative and political structures at national and regional levels.

From the autumn of 1997, reforms in structure and content were introduced in compulsory education. The school starting age was lowered to six years of age (from seven), and compulsory primary and lower secondary education was extended from nine to ten years. The core curriculum and foreign language training were strengthened.

Prior to the 1997 reform, compulsory education comprised two stages: the primary stage, grades 1–6, and lower secondary stage, grades 7–9. As from 1997, primary and lower secondary education consists of the initial stage, grades 1–4 (age 6–9), the intermediate stage, grades 5–7 (age 10–12) and the lower secondary stage, grades 8–10 (age 13–15).

Reforms concerning teachers' training and continuing training are being prepared in 1998, and will be implemented before the turn of the century.

Figure 17. Development of vocational education and training in Norway 1940–97

1940 Act on vocational schools
1941
↓
1949
1950 Act on apprentices
1951
↓
1972
1973 Act on teacher education and training
1974 Act on upper secondary education
1975
1976 Act on adult education
1977
↓
1979
1980 Act on vocational training
1981
↓
1984
1985 Act on financial support to pupils and students
1986 Act on recognition and financing of private higher education institutions
1987
1988
1989 White Paper on education and training
1990
1991 White Paper on higher education
1991 White Paper on organisation and administration of education
1991 Green Paper on vocational training
1991 Amendments to the act on adult education
1992
1993 Structural reform in higher education
1993 Amendments to the act on vocational training
1993 Amendments to the act on adult education
1994 Reform 94 (upper secondary education and training)
1995 Act on universities and colleges
1995 Amendments to the act on teacher education and training
1996 Amendments to the act on vocational training
1996 Act on student welfare
1997 Green Paper on continuing vocational training/lifelong learning

SOURCE: **AUTHOR.**

2.3. Overview of the structure of the education system

The public mainstream education and training system can roughly be divided into three levels:

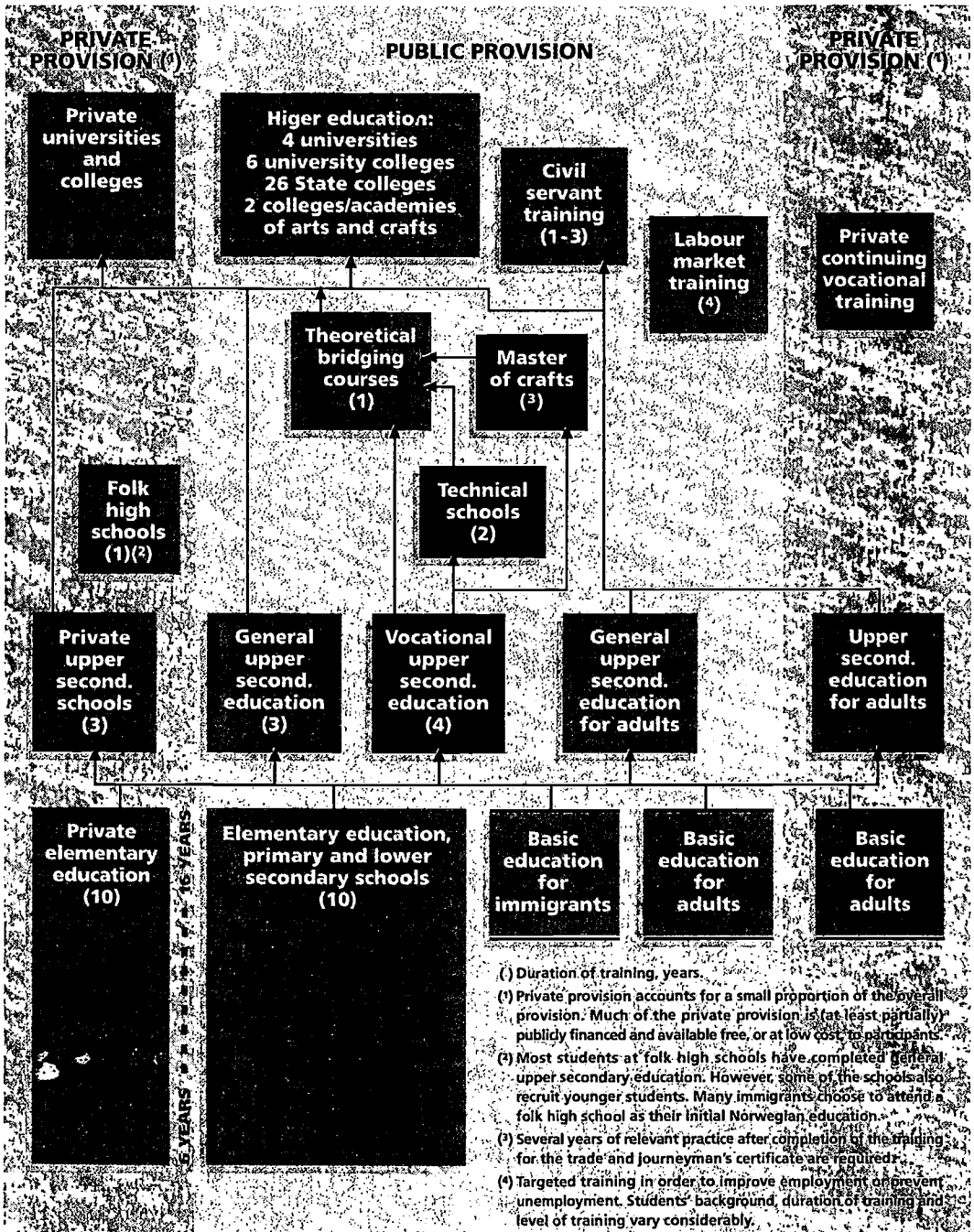
- ten years of obligatory primary and lower secondary schooling (nine years until autumn 1997), with a school starting age of 6 (7 until 1997);
- upper secondary education or training, with two main strands (for further details see Section 3.1):
  * three years of general academic education as preparation for higher education,
  * four years of vocational training, with two years at school and two years as an apprentice in an enterprise,
- higher education at universities and colleges, including vocational training.

Since 1997, there have been 10 years of compulsory basic education *(Grunnskolen)*. General theoretical subjects dominate. The basic school consists of three levels:

1st to 4th year:	*Småskoletrinnet* (lower primary school) (literal translation: 'small school')
5th to 7th year:	*Mellomtrinnet* (upper primary school) (literal translation: 'intermediate level')
8th to 10th year:	*Ungdomstrinnet* (lower secondary school) (literal translation: 'youth level').

Depending on the geographical location and density of the population some schools cover all three levels, while others only cover primary or lower secondary level.

Figure 18. **Education and vocational training in Norway — an overview**



( ) Duration of training, years.

(1) Private provision accounts for a small proportion of the overall provision. Much of the private provision is (at least partially) publicly financed and available free, or at low cost, to participants.

(2) Most students at folk high schools have completed general upper secondary education. However, some of the schools also recruit younger students. Many immigrants choose to attend a folk high school as their initial Norwegian education.

(3) Several years of relevant practice after completion of the training for the trade and journeyman's certificate are required.

(4) Targeted training in order to improve employment or prevent unemployment. Students' background, duration of training and level of training vary considerably.

SOURCE: ***LEONARDO NCU NORWAY/AUTHOR.***

Public provision constitutes the main structure in the figure. The public authorities organise and finance education and training at all levels.

There are also private alternatives and supplementary (e.g. for specific target groups) provisions at all levels. In the figure, these are shown on each side of the main structure. Formal recognition and public financial support are dependent on the approval of the syllabus and the examination by the education authorities. If students at private schools wish to achieve formal recognition and certification, they must sit for an examination organised by the public authorities.

A small part of private education provision is not formally recognised. In this case, the pupils must cover all costs of the schooling and the tuition materials. However, because public provision is well developed and generally of high quality, there is little demand for private education without formal recognition. Consequently, the number of such suppliers is limited.

In some State organisations, such as the customs, the railways, the army, the navy and the airforce, and the telephone and postal services, internal VET systems have been developed. During the 1980s and 1990s, these sectors have seen great structural changes. The social partners, especially on the employers' side, initiated a process aiming at their integration with the formal VET system at upper secondary level. Former and very specialised recognised occupations in these sectors are becoming nationally recognised by broadening their scope, thus making the students attractive to a larger part of the labour market. For example, the training of train mechanics has been extended to give the students a broader basis of general mechanics, giving both the employer and the employee increased flexibility. In particular, the army, the navy and the railway service have taken the lead in this process.

There are still extensive internal training arrangements in some major private industries such as banking and insurance.

As regards adult education and continuing vocational training (CVT), the counties are responsible for mainstream provision at upper secondary level, while the higher education institutions have a certain responsibility to organise and/or provide such training within their respective subject areas (see also Section 3.2.2.3.). Study associations offer a variety of short courses, as well as mainstream upper secondary and higher education. A growing number of private enterprises provide short courses within their fields, mainly organised as in-company training, and financed by the companies themselves. Finally, the labour authorities invest heavily in continuing training, updating and retraining of the unemployed. This labour market training *(Arbeidsmarkedsopplæring — AMO)* is provided partly by public upper secondary schools, but also by local resource centres or private training organisations.

2.4. The concepts of initial and continuing vocational training

This report distinguishes between initial vocational training (IVT) and continuing vocational training (CVT). However, this is not without problems. One of the reasons is that all education and training at upper secondary and higher levels in Norway is open to all age groups. IVT and CVT are parts of the same system, with the same

acts, curricula etc. usually covering both IVT and CVT. This is particularly problematic when it comes to vocational training for adults.

Most types of vocational training can be provided either as IVT or CVT. It is the status of the student, the pupil or the apprentice as regards already completed education and training which determines whether vocational or professional training is seen as IVT or CVT. A student completing general upper secondary education has so far not obtained any IVT. Indeed his/her studies to be a dentist at the university will represent IVT. But if the student in an earlier phase of life has received a trade and journeyman's certificate, e.g. as a hairdresser, these studies to be a dentist will represent CVT ([17]).

An increasing number of Norwegians are completing more than one type of vocational training within, and at, the same level. Combinations of various trade certificates as well as combinations of professional training, such as law, business and engineering, are quite common. Thus, the problem of distinguishing between IVT and CVT applies to both upper secondary education and training and higher education. Another consequence is that it makes classification by age an unreliable criterion for distinguishing between IVT and CVT. The Norwegian student population is relatively old: in 1996, 25.2 % of applicants for higher education were older than 24 years old, while the percentage in 1995 was 27 %.

In order to cope with the problems described above, the concept of IVT in this report comprises all public vocational and professional training provided within upper secondary and higher education, irrespective of who provides it, the source of funding and the age of the pupils/students.

The only exception is education at technical schools, which formally is on the level of upper secondary education, but where the main entrance is the trade or journeyman's certificate. Thus, in this report technical education is seen as CVT.

CVT is considered as all other vocational training, including training in enterprises and courses arranged by study associations which are not within the formal structure ([18]).

([17]) As a consequence of the implementation of Reform 94, candidates who have completed non-academic vocational training may also be admitted to higher education and training provided they have completed and passed an additional course in academic subjects. In principle, all adults have the right to sit for an examination in academic subjects with the aim of obtaining access to higher studies.
([18]) In addition, comprehensive, informal training takes place through everyday work in the workplace — an activity which is seen as very important in the development of the individual employee's own skills. As of 1997, however, detailed data on this training are scarce.

Chapter 3 The vocational education and training system — provision and participation

This chapter contains a comprehensive description of the VET system as of 1 October 1997. The distinction between IVT and CVT is made according to the description in Section 2.4.

3.1. Initial vocational education and training

3.1.1. Upper secondary level

3.1.1.1. *Overall structure*

Upper secondary education covers all education and vocational training between lower secondary school and higher education and caters for the age group 16–19. There are two main strands:

- three years of general academic education as a preparation for university or college studies;
- four years of vocational education and training, leading to a formal certification.

The latter normally includes a two-year period as an apprentice in a private enterprise or public institution (see below). Apprenticeship is thus an integral part of the new upper secondary education and training system.

In both strands, the first year is called Foundation Course and is followed by Advanced Course I.

There are a total of 13 foundation courses, each covering a general range of subjects.

A. General and business studies

This broad channel constitutes upper secondary general education and leads for most of its participants, after two years of advanced courses, directly to higher education. However, some participants follow a vocational pathway after the foundation course.

Pupils do not have to opt between vocational and general education at the beginning of the foundation year. They all take the same subjects, except for the *valgfag* (choice subject), which is the main determinant of whether they continue with vocational or general studies in Advanced Course I.

B. The following two specialised programmes do not lead to advanced courses providing trade certificates. Candidates choosing these foundation courses obtain entrance qualifications for higher education. Most of them enter higher education.

Music, dance and drama
Sports and physical education.

C. The following foundation courses lead to specialised vocational studies and qualifications.

Health and social studies
Arts, crafts and design studies
Agriculture, fishing and forestry

Hotel and food-processing occupations
Building and construction occupations
Technical building occupations
Electrical occupations
Engineering and mechanical occupations
Chemical and processing occupations
Woodworking occupations.

All the vocationally oriented foundation courses in A and C above provide basic education covering more than one specific occupation. Having completed the foundation course, pupils choose between about 100, more specialised Advanced Courses I, which also contain some general, academic subjects. See Annex 5 for details regarding the various paths leading to formal vocational qualifications at this level.

The 19 counties are responsible for the practical organisation and implementation of upper secondary education and training. The county authorities build and run the upper secondary schools, which normally offer both academic and vocational education. As a result of a broad public supply of high quality education and training, there is limited demand for a private supply at upper secondary level. As of 1997, there were 535 public and 64 private upper secondary schools in Norway.

3.1.1.2. Basic principles

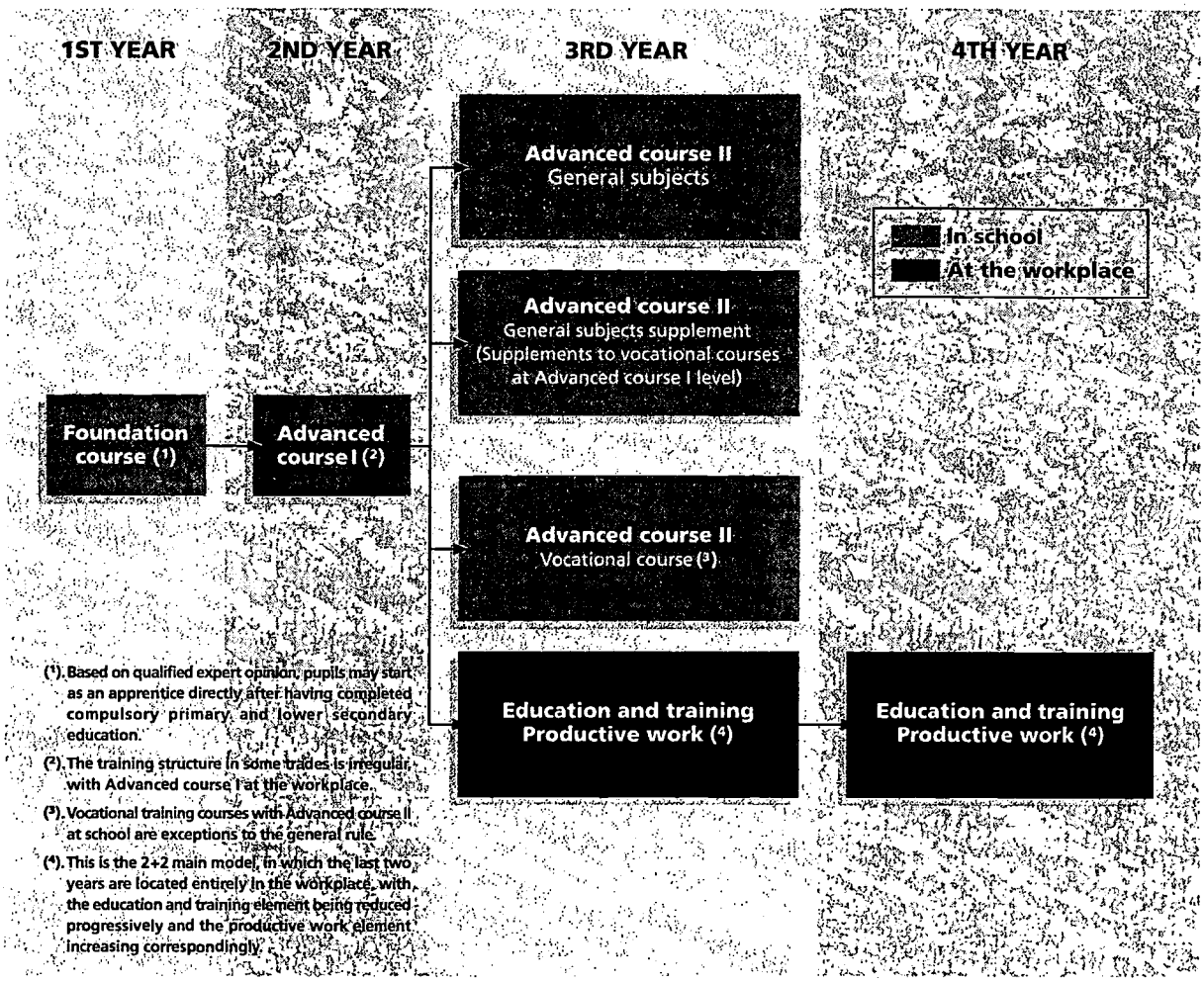
All young people who have completed compulsory primary and lower secondary education or the equivalent, have a statutory right of access to three-years' upper secondary education. Furthermore, they have the right of access to one out of his/her three preferred foundation courses. In general, nobody is guaranteed access to their first choice among the three alternatives. However, those who have a well documented need for adapted (see glossary, Annex 4) education and training, are entitled to be admitted to their first-choice foundation course. They may also be given the right to an extended education up to five years.

The statutory right to upper secondary education covers three years' full-time upper secondary education within a period of five years. Pupils and apprentices must enter the training no later than one year after completing lower secondary education to obtain the full benefit of the legal right.

Upper secondary education provides university entrance qualifications, vocational qualifications or documented partial qualifications. Each young person who enters vocational training is given the opportunity to complete his or her education with a formal qualification or a partial qualification.

The system emphasises the development of broad competence in order to establish a solid basis for continuing training. Coordination of education and training activities between schools, private enterprises and the public sector, is encouraged. Modular curricula are intended to promote adult education and training, as modules may be taken individually and combined into a valid qualification as CVT and labour market training. Adults may sit for the examinations and the trade examinations as external candidates.

Figure 19. **Structure of upper secondary education**



SOURCE: ***MINISTRY OF EDUCATION, RESEARCH AND CHURCH AFFAIRS.***

Pupils and apprentices who wish to obtain university entrance qualifications in addition to vocational qualifications at upper secondary level, may take additional theoretical courses after completion of vocational education or training. Such courses are based directly on the previous education (19). To make this possible, all pupils must obtain a broad, general and relevant body of knowledge. New curricula have been developed in all courses, designed to meet this requirement, with a balance between general knowledge and specialisation.

(19) If chosen directly after Advanced Course I, i.e. after two years of vocational education at school, one year of general education is required. If chosen after completing vocational training, having obtained the trade or journeyman's certificate, a half-year of general education is enough to obtain university entrance qualifications.

3.1.1.3. Responsibilities of county authorities

Besides being responsible for providing education for young people with a statutory right, the county authorities must ensure that young people and adults without this statutory right are given the opportunity to obtain education. Although the number of adult students decreased considerably after 1994, as of mid-1997 there were still more applicants than places in the most popular subject areas.

The county is obliged to provide education and training with a volume corresponding to 25 % overcapacity ([20]). The annual overcapacity of 25 % is meant to meet requirements from applicants who did not previously complete secondary education, but are too old to have the statutory right, as a second-chance provision.

In all counties the authorities have established a follow-up service with a responsibility to follow up drop-outs and young people who have not applied for, or accepted, a school or training place, despite their statutory right. The follow-up service is obliged to ensure that every individual within these groups, even if he/she has a job, gets the opportunity to obtain an education that leads to a recognised qualification.

Even if the county authorities have the formal responsibility for organisation and implementation, the role of the social partners in the shaping and implementation of vocational training must not be underestimated. As described above (Section 2.1.4), they are central at both national and regional levels in both advisory and decision-making bodies in the development of training appropriate to the needs of society.

Public planning and budgeting is based on the assumption that one third of the pupils entering upper secondary school will start vocational training. This corresponds to the social partners' analyses of the need for skilled workers, concluding that there is an annual need for about 17 000 new apprenticeship places.

The county authorities are responsible for vocational training in its entirety; both education at school and training in industry, business and the service sector. If there are not enough apprenticeship places, pupils have to be offered a place at an Advanced Course II at school to complete their training. When the entire training takes place at school, the total period is three years. Those who complete their training at school take the same trade examination as the apprentices and obtain the same trade certificate and the same formal status in working life ([21]).

([20]) Related to the average number of students within an age cohort over a period of three years.

([21]) However, the enterprises prefer candidates with a background as apprentices, because of their practical experience of working life.

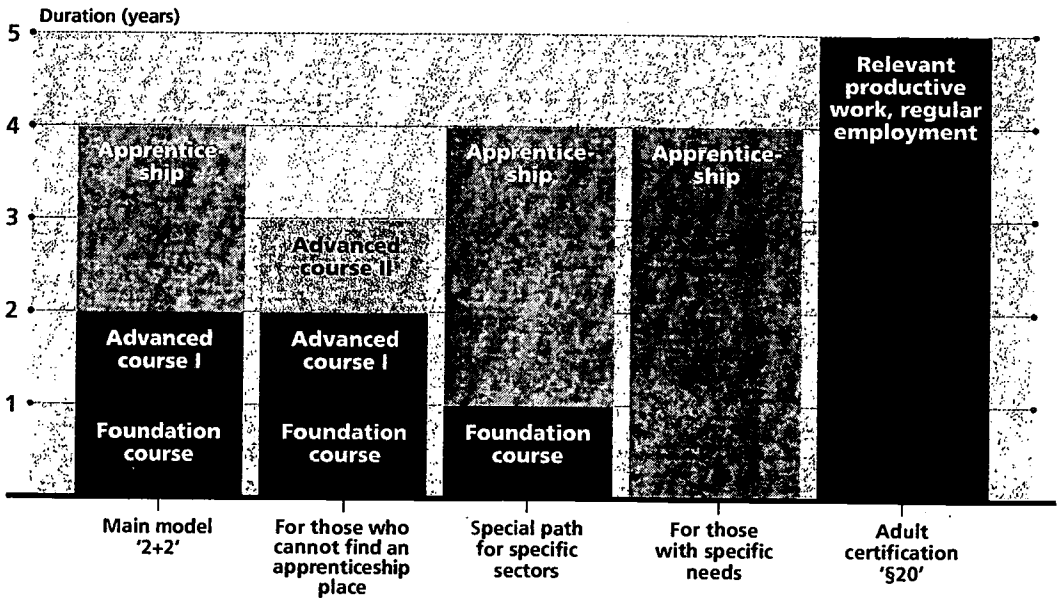
3.1.1.4. Training models

The main model for training in recognised occupations covered by the act concerning vocational training implies two years at school followed by two years of in-service training and productive work in industry, business or the public sector (22). This is known as the 2+2 model. The curricula cover the whole period at school as well as the apprenticeship period.

After Advanced Course I, the pupils sign an apprenticeship contract with an enterprise or institution which is approved the county education authorities. The enterprise or institution receives public support for assuming training responsibilities.

During the last two years of their vocational training, the apprentices take part in the day-to-day work of the enterprise within the recognised occupation in question. The training part of the apprenticeship period should be equivalent to one year of training at school, while the rest is supposed to be productive work.

Figure 20. **Alternative paths to the trade and journeyman's certificate**



SOURCE: ***MINISTRY OF EDUCATION, RESEARCH AND CHURCH AFFAIRS.***

(22) The 2 + 2 years' system was preferred in favour of an alternating system, because the latter would have been too difficult and expensive due to low population density and long distances.

Most recognised occupations follow the main model, but there are exceptions. On the recommendation of a training council, the Ministry can decide that a particular recognised occupation is to have a different period of apprenticeship.

- In certain recognised occupations the foundation course is directly followed by two years of training in the enterprise, and then an additional year of work participation (i.e. working without a full salary). The apprentice has to receive instruction in theoretical subjects during the training period, e.g. periodical training courses at school, the content corresponding to the content of Advanced Course I.

- Occupations with a recognised need, e.g. due to a high degree of specialisation, are granted an extended training period of six months, either at school or at the workplace. However, the examinations and tests for these recognised occupations follow the same principles as the main model.

Exceptions can also be made for pupils with specific, documented (usually by a psychologist after thorough examination) needs. For example, pupils with particularly low motivation can enter apprenticeship directly from lower secondary school, that is to say, without taking two years in upper secondary school first ([23]).

3.1.1.5. Apprenticeship

To take on an apprentice, an enterprise or public institution must be approved by the county authorities as a training organisation (*lærebedrift*). In order to obtain such approval, the organisation must be in a position to meet the training requirements of the curriculum for the recognised occupation concerned. A qualified training manager must be appointed with responsibility for the instruction, whereas the actual training may be provided by several employees. The training is supervised by the employees' representatives and the training manager who make sure that the training facilities are adequate, that the curriculum requirements are met and, thus, that the apprentice receives the training he or she is entitled to.

Legally, the apprentice is an employee of the enterprise and has the rights and duties that follow from statutes and wage agreements. At the same time, apprentices are entitled to loans and grants from the State educational loan fund on the same conditions as pupils and students.

During the two years in the enterprise (which is considered as one year of training and one year of productive work), the apprentice receives a wage which increases every half year. The wage is determined as a specified percentage of the agreed minimum salary (*tariffløn*) of a skilled worker in the specific occupation according to the following scheme:

([23]) It is also possible for pupils with very low motivation for schooling to have special arrangements with greater opportunities for training in an enterprise, the so-called placements. In such cases, the person is considered formally a school pupil and not an apprentice but nevertheless obtains part of the training in an enterprise for a shorter or longer part of the school period. However, it is not the same training as for apprentices. For example, the enterprise does not enter into an apprenticeship contract with the young person and does not have the same responsibilities for the professional progress of the pupil as it does for apprentices.

Table 3. **Apprenticeship wages, January 1997**

Six-month period	Training arena	Wage as a percentage of negotiable salary of a skilled worker*	Example 1: Building industry, NOK per hour**	Example 2: Public service, NOK per hour**
First	School			
Second	School			
Third	School			
Fourth	School			
Fifth	Enterprise	30	27.30 ***	24.90
Sixth	Enterprise	40	36.40	33.20
Seventh	Enterprise	50	50.65	41.50
Eighth	Enterprise	80	68.25	66.40

* Minimum salary *(tariffl*ønn*)* is negotiated every year by the social partners representing the various branches of the economy. There are wage differences between the various recognised occupations.
** Social costs are paid by the enterprise on the same scale as for regular employees. Tax is deducted from the apprentice wage.
*** ECU 1 equals approximately NOK 8.43 (June 1998).

SOURCE: ***NORWEGIAN CONFEOERATION OF TRAOE UNIONS.***

Adult apprentices aged 21 or more, without a statutory right to vocational training, have a one month probation period, as does the training organisation. During this period both the apprentice and the establishment may cancel the agreement with 14 days' notice. The apprenticeship contract must be signed within the first month of the training period.

A significant number of enterprises are able to take on apprentices and assume responsibility for training in one or more recognised occupations, thus covering the whole curriculum. Others can provide training in only parts of the curriculum, due to a high degree of specialisation or an irregular flow of orders. In such cases, enterprises often cooperate through a training office or a training circle.

A training office *(opplaeringskontor)* coordinates training activities between member enterprises which have agreed to take on a joint responsibility for training apprentices. The apprenticeship contract is drawn up between the apprentice and the training office, and the training takes place in one or more of the member enterprises.

A training circle *(opplaeringsring)* is an arrangement whereby individual enterprises, each of which has contracts with apprentices, cooperate with each other and with enterprises which are not in a position to take on apprentices alone, in order to achieve the highest possible level of quality in training. The apprenticeship contract is drawn up between the apprentice and the enterprise which holds the main responsibility for training of the particular apprentice. Thus, an enterprise or a public institution may take part in the training of apprentices even in cases where it cannot on its own provide sufficient training.

Training offices and training circles are in most cases established on the initiative of the employers' associations within the recognised occupations, but sometimes the initiative is taken by the county vocational training committees (see Section 4.1.2.2.1). Training offices and circles have to be approved by the vocational training board. Public sector institutions may establish their own training offices or circles, or they may cooperate with enterprises in the private sector in the relevant field of activity. Schools may also be associated with training offices and circles to help with organisation and training.

3.1.1.6. Second chance — § 20 of the act concerning vocational training

Section 20 of the act concerning vocational training allows adults who wish to obtain a trade and journeyman's certificate to obtain formal recognition of knowledge and skills acquired over time in the context of a job. The Section 20 measure is not a training, but a documentation, measure. Candidates do not need to go through a formal education and training process, but must have relevant experience of at least 125 % of the normal apprenticeship period for the occupation, that is to say, normally five years. They must take the same final examination as the apprentices, including both theoretical and practical elements.

As opposed to the apprentices, adults who obtain a trade or a journeyman's certificate through the system of Section 20 do not need to pass an examination in the general subjects which are required in upper secondary education. The philosophy behind this is that adults have a lot of informal knowledge compensating for these school subjects (e.g. Norwegian language, mathematics, English language, social studies).

The Ministry has proposed eliminating this difference between adult and apprentices, claiming Section 20 candidates should have to prove identical knowledge and skills as apprentices. The proposal by the Ministry has been severely criticised by both the Confederation of Norwegian Business and Industry (NHO) and the Norwegian Confederation of Trade Unions (LO). Both sides of industry believe that increased general theoretical requirements would deprive many adults of the motivation to start studying and training for the examination, thus depriving them of the chance to obtain a formalisation of their real qualifications. This conflict between the Ministry and the social partners has been unresolved for several years.

Section 20 has become more important since 1994 because of the many newly recognised occupations (or trades). Many of these are in traditionally female-dominated occupational areas such as the caring professions, child and youth work, shop work, etc. Moreover, enterprises find Section 20 to be a means of recording the skill level of their workforce and thus an effective instrument for attracting potential customers.

As enterprises must have employees with the necessary vocational skills in order to take on apprentices, Section 20 is important for the recruitment of instructors and vocational guidance providers. This provides enough reason for many enterprises to encourage their employees to formalise their knowledge by taking the trade examination in accordance with Section 20. This has therefore become an important means of documenting and recognising the value of informal on-the-job learning by the award of formal qualifications.

In the mid-1990s the number of examinations passed by Section 20 candidates accounted for some 40 % of all trade certificates. For the period 1993–95, we have the following figures.

Table 4. **Numbers passing trade and journeyman's examinations**

Year	Total	§ 20	§ 20 as % of total
1993	14 830	6 532	44
1994	15 576	6 372	41
1995	16 319	6 712	41

SOURCE: *THE MINISTRY OF EDUCATION, RESEARCH AND CHURCH AFFAIRS, SASA-STATISTICS.*

3.1.1.7. Curricula, courses and recognised occupations

From 1994 on, new modular curricula, including the specification of standards for formal certification, have been prepared in all subjects at all levels. The modules integrate theoretical and practical education. The modular structure is intended to promote flexibility and increase possibilities for obtaining formal certification.

As a result of the new curricula, vocational training is now based on a common platform with larger elements of theory and general subject areas. Distribution of subjects and duration of education in the various subjects are identical for all vocational subject areas, although the content differs according to the recognised occupation in question. Information technologies are strengthened in all areas of study.

The foundation course is meant to provide a broad knowledge base for specialisation and lifelong learning. A greater degree of vocational specialisation takes place in Advanced Course I (second year) and, especially, in Advanced Course II (third year) and in the apprenticeship period.

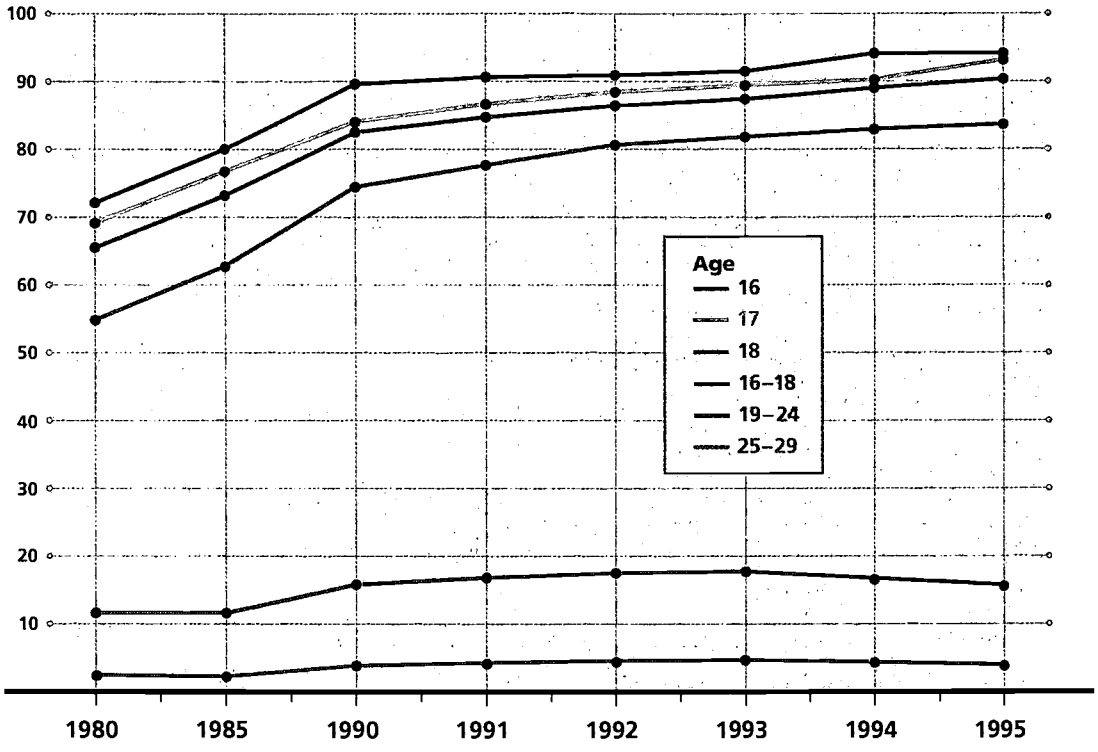
In June 1997, there were more than 180 recognised occupations in which training is completed by an apprentice period in an enterprise or in the public sector. Recognised occupations have been developed in new fields, especially in female-dominated professions and within the public sector, e.g. hotel reception work, shop work, office work, cleaning, the caring profession, child and youth work. Other newly recognised occupations include driver, mining, mechanics, forestry, fishing and hunting, and technician. In the period 1994–96, 42 new occupations were recognised. At the same time, the structure of recognised occupations under the act concerning vocational training is subject to continuous revision.

3.1.1.8. Scale and participation

3.1.1.8.1. Global overview

Over the last decades there has been a significant increase in the demand for upper secondary education and training. While 72 % of the pupils completing compulsory education in 1980 attended upper secondary school, the share has now risen to almost 95 %. In 1976 there were some 133 000 pupils registered at this level. During the 1996/97 school year, 393 out of a total of 535 upper secondary schools offered vocational training, catering for over 178 000 pupils, including general education.

Figure 21. **Students in upper secondary education (general and vocational), as a percentage of total population in each age cohort, 1980 to 1995**



Note: Apprentices are not included in these figures.

SOURCE: **STATISTICS NORWAY.**

From the 1995/96 to the 1996/97 school year, around 5 700 pupils switched from one type of training to another. This amounts to 3 % of the total. One year earlier the corresponding number was 3.5 %.

Table 5. Students in upper secondary education by subject area and age, 1 October 1996

Subject area/age	-16	17	18	19	20	21-25	26-	Total
General and business studies	23 915	23 062	25 189	4 795	1 424	2 321	2 453	83 158
Music, dance and drama	1 277	1 196	1 082	147	38	43	11	3 794
Sports and physical education	1 982	1 799	1 685	254	58	39	11	5 829
Total general subjects	**27 174**	**26 057**	**27 957**	**5 196**	**1 520**	**2 403**	**2 475**	**92 782**
Health and social studies	4 672	5 260	3 015	1 256	782	1 835	2 306	19 126
Agriculture, fishing and forestry	1 177	1 201	1 091	398	242	460	294	4 864
Arts, crafts and design studies	3 451	3 111	1 903	542	270	515	472	10 264
Hotel and food-processing Occupations	2 334	2 409	1 007	331	172	335	222	6 810
Building and construction Occupations	1 737	1 871	539	190	105	195	145	4 782
Technical building occupations	532	605	317	140	73	213	149	2 030
Electrical occupations	3 362	3 120	1 739	309	134	323	175	9 162
Engineering and mechanical Occupations	4 078	3 849	2 235	737	330	501	332	12 062
Chemical and processing Occupations	340	282	43	24	25	83	52	849
Woodworking occupations	305	338	159	67	43	159	181	1 252
Total vocational subjects	**21 988**	**22 047**	**12 049**	**3 995**	**2 175**	**4 619**	**4 328**	**71 201**
Other	928	1 216	1 160	1 406	1 038	3 614	4 939	14 300
Total	**50 090**	**49 320**	**41 166**	**10 597**	**4 734**	**10 636**	**11 741**	**178 283**

SOURCE: ***MINISTRY OF EDUCATION, RESEARCH AND CHURCH AFFAIRS.***

Apprenticeship contracts are not included in the above figures. The counties reported some 28 000 existing apprenticeship contracts on 1 October 1996.

Table 6. Current apprenticeship contracts, 1993 to 1996

Year	Number of contracts
1993	18 991
1994	21 247
1995	22 657
1996	27 944

SOURCE: ***MINISTRY OF EDUCATION, RESEARCH AND CHURCH AFFAIRS.***

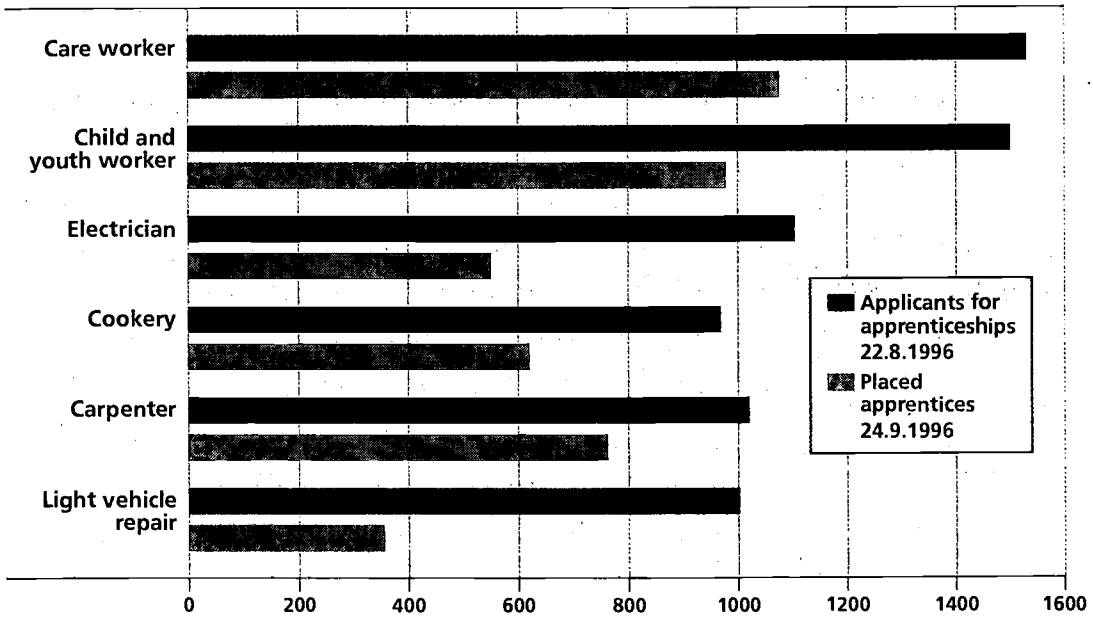
Preliminary reports from the counties from September 1996 show that more than 16 500 new apprenticeships were entered into in 1996. Of these, 7 000 were for adults. 6 400 of the 9 550 who had attended school courses in the new structure, were entitled to upper secondary education.

According to the 2+2 model, one can say that two thirds of the training takes place at school, whereas one third of the training takes place in enterprises. The explanation is that one of the two years in the enterprise is intended as regular work participation — not training. In practice, however, it can be rather different: when the first cohort under Reform 94 was due to enter apprenticeship in 1996, it was not possible to obtain apprenticeship places for all those who wished to have one. Thus, more than 3 000 applicants for company training, corresponding to more than 30 % of the total, had to receive all their training and complete their vocational education at school.

While there were too few apprentice candidates in some counties to fill all the apprenticeship places in some recognised occupations, there were young people in the same occupation in other counties who did not obtain apprenticeship places. In some recognised occupations there were too few apprentices also on a national basis. The Ministry and the social partners are cooperating closely to find appropriate measures to reduce this mismatch. They are looking for new measures to improve the framework conditions for training organisations.

As shown in the figure below, the problem of too few apprenticeship places is concentrated in a relatively small number of recognised occupations under the vocational training act. Forty-five per cent of the pupils covered by the reform who did not receive an offer of an apprenticeship were in six recognised occupations: care worker, child and youth work, the electrical occupations, cooking, carpentry and the repair of light vehicles ([24]).

Figure 22. **Recognised occupations with a significant lack of apprenticeship places, 1996**



SOURCE: ***MINISTRY OF EDUCATION, RESEARCH AND CHURCH AFFAIRS.***

([24]) This mismatch is probably due to several factors, such as insufficient labour market analysis and popularity trends (e.g. cookery) among young people. Public health institutions have been criticised for being too slow in taking on apprentices in new recognised trades, since there is an obvious lack of labour in this sector.

The following tables provide further information on trends in the supply and take-up of apprenticeship places during the period 1995 to 1997.

Table 7. Demand for, supply and take-up of apprenticeship contracts in 1996

Foundation course (area of study)	Students at Advanced Course I* 1.10.1995	Applicants for apprenticeship 22.8.1996	Intentional agreements** 22.8.1996	New apprenticeship contracts 24.9.1996
General and business studies		348	429	231
Construction and civil engineering	1 679	1 383	2 126	1 047
Electrics and electronics	3 433	1 841	1 258	970
Arts, crafts and design	1 614	1 356	949	815
Hotel and food-processing	2 760	2 194	1 981	1 456
Health and social care	4 134	3 028	2 135	2 053
Chemical and industrial processing	283	247	349	212
Engineering and mechanics	4 260	3 789	328	1 967
Agriculture, fishing and forestry	398	217	259	155
Technique in building and construction	562	417	724	305
Woodworking	472	387	438	240
Total	**19 595**	**15 207**	**13 976**	**9 451**

* Only students who attend Advanced Courses I which prepare for apprenticeship, are included.
** Intentional agreements are signed between the vocational training secretariat and enterprises which intend to take on apprentices. Later, they are replaced by apprenticeship contracts, between the enterprise and the individual apprentice. Intentional agreements can be seen as expressions of interest/need by the enterprises.

SOURCE: ***MINISTRY OF EDUCATION, RESEARCH AND CHURCH AFFAIRS.***

Table 8. **New apprenticeship contracts by sex and county, 1996 and 1997**

County	1996		1997	
	Total	Female	Total	Female
Østfold	909	260	871	325
Akershus	1 084	357	1 049	374
Oslo	1 525	480	1 403	455
Hedmark	586	157	476	151
Oppland	665	209	557	183
Buskerud	862	243	800	229
Vestfold	915	278	819	217
Telemark	703	232	650	220
Aust-Agder	523	165	359	135
Vest-Agder	808	212	718	200
Rogaland	2 118	657	2 205	644
Hordaland	1 901	559	1 649	509
Sogn og Fjordane	447	108	409	112
Møre og Romsdal	1 109	287	979	254
Sør-Trøndelag	1 104	310	966	324
Nord-Trøndelag	558	120	465	132
Nordland	958	274	887	321
Troms	617	183	594	170
Finnmark	196	87	189	59
Total	**17 588**	**5 178 (29.4 %)**	**16 045**	**5 014 (31.2 %)**

SOURCE: ***MINISTRY OF EDUCATION, RESEARCH AND CHURCH AFFAIRS.***

It can be seen from the above that:

(a) the number of new apprenticeship contracts decreased in all counties except for Rogaland, which is the centre for the oil industry;
(b) the female share of apprenticeship contracts increased.

Table 9. **Apprenticeships — applicants and intentional agreements by county, 1997**

County	Applicants	Intentional agreements*	Difference
Østfold	1 111	794	317
Akershus	1 125	1 151	- 26
Oslo	889	1 153	- 264
Hedmark	707	543	164
Oppland	753	505	248
Buskerud	799	823	- 24
Vestfold	681	742	- 61
Telemark	734	570	164
Aust-Agder	449	352	97
Vest-Agder	686	558	128
Rogaland	2 230	2 911	- 681
Hordaland	1 842	1 586	256
Sogn og Fjordane	452	482	- 30
Møre og Romsdal	1 089	1 033	56
Sør-Trøndelag	1 041	604	437
Nord-Trøndelag	739	503	236
Nordland	1 161	915	246
Troms	589	640	- 51
Finnmark	241	282	- 41
Total	**17 318**	**16 147**	**1 171**

* Intentional agreements are signed between the vocational training secretariat and enterprises which intend to take on apprentices. Later, they are replaced by apprenticeship contracts, between the enterprise and the individual apprentice. Intentional agreements can be seen as expressions of interest/need by the enterprises.

SOURCE: ***MINISTRY OF EDUCATION, RESEARCH AND CHURCH AFFAIRS***

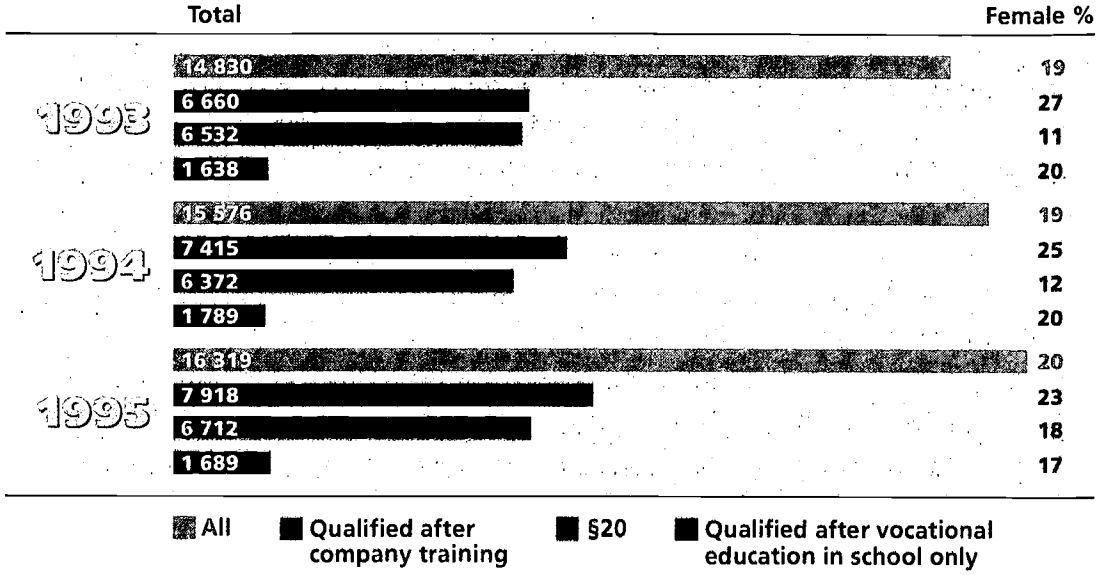
The tables show considerable geographical variations, but no systematic trend can be observed. The lack of applicants for available apprenticeship places is greatest in the recognised occupations in the fields of mechanics and electro-mechanics (traditional metalwork, shipbuilding industry).

3.1.1.8.2. Participation by women

Women play a major and important role in Norwegian working life, but they tend to choose occupations in line with a traditional pattern of sex roles. Health and social work, teaching and cleaning are sectors in which women are in the majority. The proportion of women is also high among lower-level officials in public administration.

Traditionally, the male-dominated occupations have had a formalised supply of training, regulated by the act concerning vocational training. Many female workers in traditional women's jobs had no possibility to obtain certification as a skilled worker. This to a certain extent explains the low female share of candidates for trade examinations.

Figure 23. **Vocational certification by type of training—total and female share, 1993 to 1995**



SOURCE: **THE MINISTRY OF EDUCATION, RESEARCH AND CHURCH AFFAIRS.**

There is reason to expect an increased share of female candidates for trade examinations in the years to come, due to formal recognition of occupations within traditionally female-dominated professions such as social work, reception work, shop work and cleaning.

3.1.1.8.3. Immigrants in upper secondary education and training

In the definition of 'immigrants', Norwegian educational authorities first of all emphasise language background. The concept that is most often used, is 'non-Norwegian-speaking pupils' or 'pupils from language minorities', referring to people who have a mother tongue other than Norwegian, Sami, Danish or Swedish. The terms cover all groups of immigrants, including refugees, asylum-seekers, people with residence status for humanitarian reasons, people with temporary residence status on a collective basis, those pursuing education and training, and reunited families. There are large differences between and within the various groups, ranging from people with a university background, to illiterates. Some of them have just arrived in Norway, while others were born here. Some speak Norwegian perfectly, while others hardly know the language at all.

Non-Norwegian speakers who have a valid Norwegian residence permit, whether permanent or temporary, have the same right as Norwegians to upper secondary education and training. Under age asylum-seekers may also be admitted to school while they await confirmation of their status, but have no right to complete the school year if their residence application is rejected.

People from Nordic countries and countries within the EEA area have the same right to upper secondary education and training as people who have received their primary and lower secondary education in Norwegian schools. In order to be

admitted, an applicant must normally have completed a nine-year period of primary and lower secondary education or the equivalent, i.e. corresponding both in content and level.

There are no language requirements for admission. The State finances extra language training for non-Norwegian speakers and for Sami pupils who have had little or no Norwegian language training in compulsory school. Extra language training is not financed for:

- pupils who have received extra language training for at least three years in compulsory school;
- people born in Norway;
- people who have legally resided in the country for at least 10 years;
- exchange students who are in the country for a period of one year.

Non-Norwegian speaking applicants not older than 20 years, who have a special need for adapted language training, may receive the training over a prolonged period, not exceeding five years, if this is considered necessary by an expert evaluation.

Research reveals that immigrants have weaker recruitment rates and results and higher drop-out rates than other pupils in upper secondary education and training. They have better results in general than in vocational subjects. Those who attend special classes do better than those in ordinary classes, and girls do better than boys. It seems that the drop-out rate in general education is higher for immigrants than for other pupils, and higher for boys than for girls within this group.

A study by the Vocational Training Committee in Oslo, reveals that non-Norwegian speakers have special problems when it comes to obtaining apprenticeship places.

In the school year 1996/97, the counties increased the effort to find placements in enterprises for Advanced Course I immigrant pupils. This is important, as direct contact between applicants and schools may reduce the difficulties in drawing up apprenticeship contracts. Experience from Oslo shows that placements in this respect are of special importance to non-Norwegian speaking pupils.

3.1.2. Higher education

Higher education in Norway is divided into two sectors; the university sector and the non-university sector. The latter comprises 'colleges' and 'university colleges'.

Most higher education institutions are State owned and tuition at these institutions is free. In addition, some private institutions are certified by the Ministry to offer higher education.

It is becoming more and more popular for students to study abroad; this is also considered an important element of Norwegian education policy.

3.1.2.1. Admission

Admission to higher education is decided centrally by the government. In general, both the universities and the colleges have the same requirements.

A general matriculation standard has been introduced setting minimum requirements which include the following components:

- successful completion of three years of general upper secondary education comprising Foundation Course, Advanced Course I and Advanced Course II; or
- a recognised vocational qualification / trade or journeyman's certificate.

There is a prerequisite that the applicant has passed examinations in general theoretical subjects corresponding to a specified level of attainment defined in terms of lessons per week ([25]): Norwegian (14), English (5); history and social studies (6); mathematics (5) and natural science (5). Students attending general upper secondary education meet this requirement by successfully passing the final examinations at each course level. Students who complete two years at school as a part of their vocational training have to attend a specific Advanced Course II with a theoretical focus, whereas skilled workers, i.e. persons who have successfully passed the examination for a trade or journeyman's certificate, have to spend only a half-year in upper secondary school in order to get access to higher education.

Applicants can, however, be admitted to higher education without having passed the normal upper secondary final examinations. Such students must fulfil the specific minimum subject requirements mentioned above, be 23 or more years old, and have at least five years of work experience or a combination of work experience, education and training.

For some study programmes, for example, engineering, medicine and translation, there are also more specific entrance requirements such as exams from advanced-level courses in particular subjects in upper secondary school.

Admission to many areas of study is competitive since demand exceeds the number of places available. Entry to higher education is thus regulated quantitatively and is determined by the capacity of the individual institution. This applies to study at university and non-university institutions alike.

In response to the demand for higher education, an administrative measure called national access *(nasjonal åpning)* was introduced with effect from the 1995/96 academic year. The *numerus clausus* was abolished in the faculties of Humanities and Natural and Social Sciences at the universities at a national level, meaning that all qualified applicants will be accepted by the faculty they apply to, but not necessarily at the university of their choice. The aim is to ensure education for all and to avoid too much pressure on the most popular institutions. Provisions regarding the *numerus clausus* for specific study programmes or faculties are open to revision on a yearly basis ([26]).

([25]) The requested number of lessons per week corresponds with the total after three years of general upper secondary education. For example, 14 lessons per week means 5 + 5 + 4 lessons per week at Foundation Course, Advanced Course I and Advanced Course II, respectively.
([26]) Decided by the *Storting* for the universities and by the government for the colleges.

To ensure the right for all citizens to have their real skills formally evaluated also at the higher level, a special provision to that effect has been introduced into the Universities and Colleges Act, as follows:

> *Whoever satisfies the general and, as the case may be, special admission requirements, as well as other requirements for taking the examination in a given discipline or course of study, is entitled to sit for the examination. This also applies to students who have not been admitted to the discipline or course of study.*

In the autumn of 1995, this concerned about 5 100 persons, mostly at the universities, and most of all at the University of Oslo. The practical application of this provision i.e. arranging examinations for a large number of external candidates, has led to some legal and administrative difficulties. Private candidates are charged a fee to cover costs of examination arrangements.

3.1.2.2. Public provision

As a part of the educational reforms of the 1990s, the non-university sector was reorganised starting in August 1994. Ninety-eight regional and vocational colleges were merged into 26 'State colleges'. By mid-1997, higher education in Norway was offered at the following public institutions:

The university sector

- 4 universities;
  - University of Oslo,
  - University of Bergen,
  - Norwegian University of Science and Technology *(Norges teknisk-naturvitenskapelige universitet — NTNU)* in Trondheim, and
  - University of Tromsø.

- 6 'university colleges', i.e. highly specialised national higher education institutions;
  - Norwegian College of Agriculture,
  - Norwegian College of Veterinary Medicine,
  - Norwegian School of Economics and Business Administration,
  - Norwegian College of Physical Education and Sport,
  - Norwegian State Academy of Music,
  - Oslo School of Architecture.

The non-university sector

- 26 State colleges *(statlige høgskoler)*;

- 2 colleges/academies of arts and crafts *(Kunsthøgskolen* in Oslo and *Kunsthøgskolen* in Bergen*)*.

Most traditional vocationally oriented university programmes, for example medicine, odontology, psychology, pharmacy, theology and law, have a duration of five to six years. This also applies to the university colleges.

For purposes of vocational training, the State colleges are of particular interest. They vary in size from 165 students (Saami College) to nearly 8 000 students (Oslo College) and offer programmes in teacher education, health and social work, engineering, business administration and a range of studies corresponding to traditional university subjects for the lower degree.

Vocational training offered by the State colleges is mainly short programmes with a duration of two to three years. Health and social work, engineering and teacher training are the major disciplines. Teacher training is described in Section 5.2.

Health and social work training comprises the following fields: child welfare work, laboratory technology (bio-engineering), occupational therapy, physiotherapy, radiography, social work, nursing, social education work, audiography (2 years), dispensing, dental hygiene and prosthesis and orthoptics. A large part of these programmes is spent in supervised practice in direct contact with patients or clients.

Engineering studies ([27]) at the State colleges last for three years. Optional specialisations include:

Civil engineering:	Building, construction technology, technical planning, site engineering
Computer engineering:	Computer science, management of data systems
Electrical and power engineering:	Power engineering, electronics, tele-communications, automation technology
Chemical engineering:	Analytical chemistry, biotechnology, chemical technology
Mechanical engineering:	General mechanical engineering, construction technology, manufacture, control and energy engineering

3.1.2.3. Private provision

A total of 22 private higher education institutions offer study programmes recognised by the Ministry. Nineteen of them receive State funding for (part of) their activities.

The private institutions cover a wide range of studies such as theology and religious studies, teacher education, nursing, social work education, engineering, computer technology, business administration and marketing, ballet and music. These programmes are either recognised as similar to programmes in public (i.e. State) higher education, e.g. in nursing and social work, or as alternatives at the same level, e.g. teacher training for anthroposophical schools (Rudolf Steiner).

3.1.2.4. Network Norway

In a 1988 Royal Commission report on higher education and a 1991 White Paper, the term 'Network Norway' was coined to denote a national higher education and research network based on the principles of specialisation, cooperation and communication.

A governing principle of the network is that new study programmes should be planned and viewed in relation to an overall national plan. Since then, it has been an overall goal to develop the Norwegian university and college system into a joint, integrated knowledge system characterised by consolidated academic environments and internal work-sharing and by greater coordination between all the institutions involved in higher education and research. By means of the 'Network', the intention is to increase both total quality and total productivity in the sector.

([27]) For the 'hoegskoleingenioer' degree.

3.1.2.5. Growth

There was a substantial increase, some 70 %, in the number of students in higher education from the mid-1980s to the mid-1990s. This was partly due to a rise in unemployment and partly to a change in the general attitude to higher education.

In 1995, there were some 176 700 students in higher education:

- 80 600 in the university sector, of which 74 300 in the universities;
- 68 700 in the non-university sector, of which 13 600 in private institutions.

In addition, there were 9 500 students studying abroad and 4 445 'private students' at the universities who were not formally registered.

Table 10. Students in higher education, by gender 1 October, 1986 to 1995

Year	Total	Men	Women
1986	101 187	49 500	51 687
1990	132 760	61 142	71 618
1995	176 745	78 164	98 581

SOURCE: ***STATISTICS NORWAY.***

Table 11. Students in higher education by sector/ discipline, 1995

Sector/discipline	Students
Medicine and Dentistry, Health and Social Work	24 957
Business, Engineering, Technology, Natural Sciences	41 031
Pedagogical Education and Training, Theology	18 761
Architecture and Arts	1 912
Humanities and Social Studies, Law	63 026
Others	27 058
Total	**176 745**

SOURCE: ***MINISTRY OF EDUCATION, RESEARCH AND CHURCH AFFAIRS.***

Since 1996, the demand for higher education seems to be flattening out, parallel to a drop in the unemployment figures. By 1997, the main concerns of the higher education institutions were linked to the consolidation of the new structures and further development of 'Network Norway' in order to ensure and develop further the quality in higher education.

3.1.3. Provision for individuals with specific needs

3.1.3.1. Upper secondary level

Young people with specific needs, based on physical or mental disabilities, poor qualifications, psychosocial problems or other disadvantages can be admitted to upper secondary education and training on special terms. Furthermore, they have a legal right to obtain specially adapted training. Many of them also have a legal right to adapted technical equipment such as a wheelchair and/or a computer.

Data from 8 out of the 19 counties show that 5.7 % of the students in upper secondary schools in 1995/96 were admitted on special terms. This corresponds to 8 000 pupils on a national basis. Roughly two out of three of them were boys. One fifth (18 %) attended general education, preparing for higher studies. As many as three out of five (59 %) were attending the three vocational subject areas — mechanical occupations, health and social studies, and the hotel and food-processing occupations. This distribution pattern varies significantly from the overall distribution of pupils within upper secondary education and training (see Section 3.1.1.8).

In accordance with a basic political objective of maximum integration, almost two thirds (60–65 %) of the pupils with recognised, specific needs receive adapted training within normal classes. Many of them may, however, receive parts of their training individually or in extra classes. The remainder attend classes with fewer pupils and/or reduced progress ('stretched') courses. Such a supply may also cover a smaller range of subjects. In some cases, schools organise courses which lead to partial qualifications. The supply is organised differently between counties, between schools, within the same county, and between professions and subjects. The specific need of the individual is, of course, the most decisive factor.

Young people with special training needs have the same legal right to vocational training as other pupils. If considered necessary after assessment by an expert, the duration of their training can be prolonged, or they may be allowed to take their entire training programme as an apprentice. However, the theoretical and practical requirements are the same as for ordinary training courses.

In the case of apprentices who need adapted training, the State provides extra financial and other support to training organisations which may request extra support for making adjustments at the workplace. An evaluation showed that 88 % of those candidates, who completed their training in an establishment which received extra support over the period, passed the examination for the trade and journeyman's certificate. This is close to the result for ordinary apprentices.

Despite the specific measures, the counties have great difficulties in finding enterprises which can provide apprentice places for pupils with specific training needs.

3.1.3.2. Higher education

As of 1997, the policy of an equal right to education concerns all levels. Within higher education, however, there is no legal basis for this policy. Each institution is responsible for the provision of advice and assistance to its disabled students. In practice, few institutions make a real effort to provide special services for disabled students.

In order to improve the situation and promote equal access to higher education, a number of measures have been introduced:

- all higher education institutions are legally obliged to set up a permanent committee to look into study conditions for disabled students at their institution and spend at least 5 % of their maintenance budget on measures to facilitate physical access for these students;
- financial conditions for disabled students are improved, and student housing is adapted to their needs;
- State colleges are allowed to reserve up to 10 % of places for applicants with special needs, meaning that, once general academic access requirements are met, these applicants may be exempted from normal competition;
- specific government grants are offered to cover costs of extra administration and expenditure in order to provide necessary equipment and services during examinations, such as PCs, secretaries, inspectors at prolonged exams and the renting of extra rooms.

3.2. Continuing vocational training (28)

According to the definitions used in this publication (see Section 2.4), most of the CVT provision falls outside the formal education and training system. Training provided by the technical schools is an exception. Within CVT, there is no clear pattern regarding which institutions deliver what kind of training, nor is there any formal standardisation of provision. There are many actors on the supply side of continuing training, and the division of labour is not clear in every field. The financial arrangements vary considerably.

These facts make it hard to identify a logical organisational principle for the pages below. Following a short description of the scale of participation and trends of delivery, we have chosen to give short presentations of the provision by type of supplier. In the two last sections, special emphasis is put on labour market training and business-oriented competence enhancement measures. For some recent developments relating to CVT provision, see Section 6.1.6.1 below.

3.2.1. Scale of participation and trends in delivery (29)

In the mid-1990s, approximately one quarter of the adult population participated every year in organised education and training. The main activities were internal training within enterprises and courses arranged by the study associations, each accounting for around 40 % of the total number of participants. There were no significant changes in this percentage during the previous years. In addition, comprehensive, informal training takes place through everyday work in the workplace — an activity which is seen as very important in the development of the individual employee's own skills.

A growing number of employees attend courses in order to fill gaps in their formal education. Primary, lower secondary and upper secondary education are offered by both public education authorities and various private suppliers (see below). Many adults participate in continuing education over several years through part-time studies in addition to their work, sitting for one exam at a time. Almost half of all the trade and journeyman's certificates are adult so-called § 20 candidates (see Section 3.1.1.6 above).

Training as a master in a recognised occupation is CVT for qualified craftsmen with several years of experience who wish to set up their own business or to hold a managerial position in a craft enterprise. The master's certificate should be considered as part of the formal training. It is administered by a publicly appointed Master Certificate Examination Board. The Confederation of Norwegian Business and Industry (NHO) is the secretariat for the examination board and is responsible for the practical administration of the arrangement. The study associations arrange courses in the four core subjects: business, management, marketing and vocational

(28) This section is mainly based on the Green Paper NOU 1997:25, on continuing vocational training.
(29) As of 1997, there were still gaps in the basic statistics and in the information on who has access to continuing training and the impact of such training. Furthermore, the statistical distinction between what falls within our CVT definition on the one hand, and other types of adult education and training on the other, is not clear in all respects.

theory. The master certificate training is thus mainly a business-administration continuing training, but, it also strengthens the participants' theoretical basis. From 1999, it is expected that the technical colleges will offer this theoretical training (see Section 3.2.2.1).

In 1997, the development of a more comprehensive system of adult education and continuing training was given high priority by both national authorities and the major social partners.

3.2.2. General provision: major suppliers and types of training

3.2.2.1. Technical colleges — training as a technician

The technical colleges are public schools owned and administered by the county authorities, and their activities are regulated by the act on upper secondary education. Although the training which these schools provide is not at the level of higher education, technical colleges are not upper secondary vocational schools. The technical colleges provide a two-year module-based further education for people with a trade and journeyman's certificate and a minimum of two years relevant practical experience. Applicants for technical colleges may also have longer vocational experience, education or a combination of the two.

Successful completion of studies at a technical college confers the status of technician. Training as a technician implies theoretical studies and specialisation based on the training for the trade and journeyman's certificate and the practical experience of the students. As of 1997, fully-trained technicians were admitted to higher education institutions in areas which offered further specialisation in the same field, for example engineering. Training as a technician is considered an appropriate background for entering a position as manager or foreman. Many of the trainers in upper secondary vocational education are trained at the technical colleges.

The number of students at the technical colleges dropped from almost 8 000 in 1992, to 3 747 in the school year 1996/97 ([30]). The drop might be seen as a consequence of the uncertainty of the future role and status of the technical colleges after the introduction of Reform 94. This was still under review in 1997. New admission requirements and curricula were expected to come into force in the autumn of 1999 when the training as a technician will give full admission to higher education and cover the theoretical requirements for the Master of Crafts Certificate *(Mesterbrevsordningen)* — see also Section 3.2.1.

Table 12. **Students at technical colleges, 1990 to 1996**

Year	1990	1991	1992	1993	1994	1995	1996
Students	7 422	7 591	7 971	7 488	6 672	5 423	4 919

SOURCE: **THE MINISTRY OF EDUCATION, RESEARCH AND CHURCH AFFAIRS.**

([30]) Source: NOU 1997:25.

3.2.2.2. Resource centres

Resource centres are established to provide a link between public training organisations and the local or regional labour market. They are expected to contribute to a better use of resources and to enhance the skills in schools and local society. The centres promote, market and provide training to private and public institutions on a commercial basis. The centres are often organised as separate departments within upper secondary schools, but can also be organised as limited companies or foundations.

Most of the 232 centres (1996) are small. Half of them sold courses for less than NOK 100 000 in 1994. However, the total turnover is estimated to be at least NOK 230 million. The major part of turnover is related to labour market courses (see Section 3.2.4). However, the turnover derived from training for enterprises was at least NOK 60 million.

Most centres were established during the latter part of the 1980s. At the time, the network of upper secondary schools was well developed and there was pressure in the labour market. Rapid technological development demanded flexibility in business and industry. Increasingly, the schools were expected to supply competence development for the enterprises and had to offer courses or other competence developing measures especially adjusted to the needs of the local enterprises.

The geographical distribution of the resource centres is very decentralised. Thus, the centres are able to offer specialised training to the local labour market in close cooperation with the enterprises. Examples of such training tasks are courses in foreign languages for enterprises, certification of welders for the oil industry, computer training and the placement of teachers in enterprises. Many of the centres have training on a contract basis for the employment authorities as their main activity.

The resource centres which have been involved in competence needs analysis in enterprises receive more requests for services, but only 30 % of the total offer this service (1996).

Centres which cooperate with the customer on tailoring courses before they are sold succeed in selling more courses to the enterprises. More than 80 % of the enterprises in a survey answered that the education system should focus more actively on the enterprises. It seems that the enterprises think that the authorities can offer the training and competence which they need, but that the school system is under-exploited as a source of competence in the regions.

3.2.2.3. Universities and State colleges

With the act on universities and colleges of 12 May 1995, the universities and colleges became responsible for providing or organising continuing education and training in their own subject areas. One of the challenges for the universities and State colleges will be to organise in-service courses and formal postgraduate education for primary and lower secondary school teachers.

Historically, the contact between universities and colleges on the one hand, and enterprises on the other, has been limited to certain areas. Some study programmes at universities and colleges include compulsory in-service training, such as supervised practice in a hospital or at a school. Today, the contacts are broadening, due to

practical economic reasons and a general change in attitude in the academic environment. The universities have set up special offices responsible for establishing contacts with industry.

At university and college level, continuing education *(videreutdanning)* includes courses which are mainly based on, and presuppose, completed higher education and lead to examinations and formal qualifications. Continuing education is flexible and the goal is to adapt it to the needs of the participants. It is offered both as standard education at the school or university and in various forms of flexible education, such as distance, part-time and decentralised education.

Further education *(etterutdanning)* consists of shorter courses in limited subjects. Normally, they do not lead to an examination or a formal qualification. However, it is not always fruitful to make a clear distinction between continuing and further education. The same training can be offered both as continuing and further education. The goals and the formal qualifications of the individual will determine whether the training is considered to be one or the other.

In addition, several organisations and institutions offer consultancy services to enterprises. These services may be organised by associated institutions or may be carried out by departments at the universities and colleges. They often include a considerable element of competence development and not just product development. The universities and colleges are responsible for ensuring the quality of the advanced-level education programmes provided by study associations and for recognising the qualifications of staff teaching at study circle programmes leading to examinations.

The number of students participating in continuing education at public universities and colleges was, in 1996, estimated at approximately 85 500. They include full-time as well as part-time students. This number had sharply increased in comparison with two to three years earlier. In addition, a considerable number of students participated in continuing education at private colleges. Approximately 16 500 persons completed university or college level education, organised by a recognised distance education institution, and approximately 33 000 persons participated in courses arranged by the study associations (see Section 3.2.2.4) allowing them to sit for exams at universities or colleges as external candidates. The number of courses attended by each individual is not known, so that it is not possible to calculate the number of year equivalents.

Commissioned courses in universities and colleges constitute an important part of the institutions' work regarding dissemination of knowledge and technology and enhancement of skills. The system makes it possible for enterprises to buy specially tailored or branch-oriented continuing training courses for their staff. In addition, the commissioned activities of the higher education institutions include research and development work. In 1995, the commissioned activities accounted for 15 to 21 % of the operational budgets of the universities, and 4.6 % of the colleges.

Although the activity of the individual institutions within the field of continuing education varies considerably, it has increased in most institutions during recent years. This is in line with the goals of the Ministry of Education, Research and Church Affairs. Several universities and colleges have hired specialised personnel and established units or departments for commissioned activities — including continuing education.

In cooperation with the Norwegian Executive Board for Distance Education at University and College Level *(Sentralorganet for fjernundervisning på universitets- og høgskolenivå — SOFF)*, many of the continuing education courses are being provided through distance education.

To increase continuing education in the working community, an initiative has been taken to establish a network between continuing education institutions which teach technological subjects. Within the framework of the new plan for the education of engineers, continuing education is included as an integral part of the institutions' programme of subjects.

3.2.2.4. Study associations (Studieforbund)

There are 22 recognised study associations in Norway. The study associations are umbrella organisations for a total of 359 voluntary organisations, including most political parties, employers' organisations, humanist organisations, sports organisations, organisations for the handicapped and other interest groups.

The study associations organise various types of training in close cooperation with their member organisations. Their training is an important supplement to the public supply, inasmuch as it responds directly to the needs of adults. Due to a decentralised structure, their activities are available to most local communities and business environments and also, to a large extent, the individual workplace.

As umbrella organisations for the employers' organisations, some of the study associations have considerable experience in administering and running large parts of in-company training, among others the trade certificate according to § 20 of the Vocational Training Act (see Section 3.1.1.6 above). Continuing education for most recognised occupations is administered and developed by the study associations.

The study associations offer a variety of courses all over the country. The training is aimed at adults at all levels, from the most elementary up to university and college level. Most of the courses are part of non-formal education, but the involvement in formal education is increasing. Annually a total of 750 000 participants attend their courses (1996), including approximately 22 000 adults at upper secondary level (including 5 400 § 20 candidates) and approximately 33 000 at college and university level.

Another major area of activity is to provide education and training commissioned by the employment authorities, private enterprises and public institutions.

Subsidies to specific target groups, of which various kinds of disabled persons constitute more than 90 %, are mainly used for topping-up the funding of studies. In 1996, 24 021 participants (62 % women) received public grants.

3.2.2.5. Distance education institutions

Distance education institutions in Norway are central actors within the field of adult education. Their activities receive public funding and their goal is to give adults access to initial continuing training responding to their needs, using specially adapted training material and distance communication with a teacher.

Seventeen independent institutions were recognised in July 1996. In 1995, 94 000 students registered for distance education courses, and 61 000 completed courses.

These activities measured in standard number of hours, correspond to 6 200 full-time students.

Distance education institutions offer courses over a wide range of studies. These are primarily non-formal education, but the number of courses leading to examinations, especially at upper secondary and higher educational level, is increasing. In 1994, a study on distance education revealed that 70 % of the attenders sought to improve work-related skills. Three quarters of the participants had full-time employment. Most of them would not have been able to enhance their skills without the supply of distance education — partly because they would not have had the opportunity to absent themselves from their work and partly because there was no relevant local supply in their field and at their level.

In the period 1994–95, the average age of participants in adult education and training was well over 30 and the share of women approximately 60 %.

Since modern communications technology was brought into use in distance education, there has been an increasing focus on this teaching method by education institutions. Today, distance education is offered by branch schools, independent distance education institutions and public education and training institutions.

In the period 1993–96, a national contact network for open and distance learning between public and private higher education institutions was set up through the Norwegian Executive Board for Distance Education at University and College Level *(Sentralorganet for fjernundervisning på universitets- og høgskolenivå — SOFF)* and a series of pilot projects was initiated. One of these projects, which started in 1994, consists of formalised cooperation between four institutions of higher education in open, flexible learning using electronic networks. In addition, new methods in open, flexible learning are being tested.

The Norwegian distance education institutions have a long tradition of supplying education and training throughout the country and have achieved wide recognition internationally. The secretariat of the International Council for Distance Education (ICDE) is based in Norway.

3.2.3. Business-oriented competence enhancement measures

A major part of continuing training in enterprises is targeted towards certain sectors, industries and enterprises. The measures are organised and financed in various ways. Whereas enterprises must arrange the competence enhancement themselves, a number of actions are taken and large sums of money are spent through public arrangements, administered by large trade associations. Private suppliers are becoming more active, offering courses that are tailored to the needs of the enterprises.

3.2.3.1. In-company training ([31])

A major part of the training which the individual employee needs to perform his job takes place in the enterprise. All employees have a basic competence when joining

([31]) The section is to a large extent based on the results of two research programmes from 1996 which are described in NOU 1997:25.

the enterprise. On this basis, competence related to the special tasks of the individual employee has to be developed. When the employee masters the tasks, continuing competence enhancement is necessary in order for the employee to perform his job in the best possible way. In addition, change brings a need for new competence.

Various forms of in-company courses are among the major measures aiming at competence enhancement. This applies to both in-company training within a certain recognised occupation as well as in-company management training. The in-company courses may be arranged inside or outside the enterprise. They can be run by external consultants visiting the enterprise or by the enterprise's own employees.

Various forms of job training, e.g. systematic training with or without a consultant or a trainer, apprenticeship-type training, work experience placements and induction courses for new employees, are used increasingly. Planned job rotation is another measure which is used for competence enhancement. According to the employees, competence enhancement by trial and error in everyday work is just as important as various forms of organised training. Organised in-company training probably constitutes just a small part of the total competence production in working life. A major challenge in the future will thus be to make the enterprise visible as a major arena for non-formal competence enhancement.

Enterprises spend from 1.5 to 4.5 % of work hours on training related activities. The competence enhancement seems primarily to be governed by market demands and changes in the production technology. Only a few enterprises, quite often the big ones, said in 1996 that they had a long-term plan for competence enhancement.

However, it is evident that there is a growing awareness of competence needs in the enterprises and the public sector. In 1997, the basic work and wage agreements between the employers and the employees in the private and public sectors have sections related to the development of skills and of continuing training. An increasing number of enterprises have carried out, on their own initiative and in cooperation with either their branch organisation or the public infrastructure, a mapping of skills as part of strategic planning.

In many enterprises competence enhancement is to a great extent the responsibility of the individual employee. His or her motivation for continuing training may thus be crucial. The enterprises seem to have flexible borders between the needs of the enterprise and the wishes of the employees. They try to meet the needs of the employees who take on responsibility for their own training and development. However, the training should be initiated by the individual employee, and quite often it is expected that it takes place after working hours.

When it comes to buying competence services in the form of courses or participation in courses from external suppliers, the research revealed that private suppliers are given more emphasis than public suppliers. One in three enterprises bought competence services from public suppliers in 1995, whereas almost two thirds bought services from private suppliers.

Even if there is little information available on cross-company provision of CVT, it is known that many enterprises cooperate on CVT measures, either arranged by themselves, or as commissioned courses. Some of the training receives public

support, and is organised in close contact with the social partners or with the branch organisations.

Coordinated steps by enterprises for the supply of tailor-made continuing education have first and foremost been initiated by the branch organisations in the form of specialised training establishments or branch-oriented development centres.

Quite often the networks in which enterprises cooperate deal primarily with other matters and training is only one of their activities. The networks are often characterised by personal contact and complementarity concerning problem solving, i.e. the enterprises complement each other in a way which is advantageous for all participants.

Another model is cooperation in continuing training between large companies on the one hand and small and medium-sized enterprises on the other. Such cooperation may have several forms. Often a large enterprise has a network of SME sub-contractors. In some cases, large enterprises arrange various kinds of training to ensure quality in the products or services provided by the sub-contractors. Some large enterprises require that their sub-contractors obtain certification according to an international standard such as the ISO 9000. Often business chains, for example hotel chains, arrange courses for their member enterprises.

There are no exact figures on the amount of in-service training within enterprises and the working community in general. Figures from the OECD indicate that Norway is close to the average of the member countries, as some 40 % of the workforce participates in continuing training annually. The annual investment in such training by the working community is estimated at NOK 11 500 million.

There is a clear indication that adults with upper secondary and higher education have a higher participation rate than those with a weak formal education basis.

3.2.3.2. *Public measures*

The authorities make considerable efforts to improve skills in small and medium-sized enterprises, whether in the form of programme- and project-based activities, supports for continuing education and training courses, or simply business consultancy.

Business-oriented competence enhancement measures are administered by several ministries, with the Ministry of Trade and Industry (NHD) as the major actor.

The contribution in the form of programme- and project-based activities is channelled first and foremost through the programmes managed by the Norwegian Industrial and Regional Development Fund *(Statens nærings- og distriktsutviklingsfond — SND)* and the Research Council of Norway *(Norges forskningsråd — NRF)*. The SND was established in 1993 with the aim of encouraging economically and socially profitable industrial development throughout the country.

3.2.3.2.1. Consultancy services (Veiledningstjenesten — VT)

The public consultancy services (VT) were established in order to give small and medium-sized enterprises (SMEs) access to external resources for consultancy, continuing education and training and relevant information.

The consultancy services consist of a national network of private foundations and limited companies, in addition to government agencies, in which the Ministry buys services. There are a total of approximately 600 employees in the consultancy services (1996). In 1997, the authorities allocated a total of NOK 173 million to buying VT services on behalf of SMEs and entrepreneurs. The total turnover of the consultancy services was approximately NOK 400 million in 1995.

The competence enhancement of the consultancy services covers a wide range of activities, from free business-oriented information, training in setting up a new business, consultancy and guidance (including competence mapping) to laboratory and testing activities, seminars and courses, as well as continuing education.

The activities cover both technical and business/administrative subjects, including internationalisation. Some of the activities are targeted towards the individual, whereas others are targeted towards the management and the total competence base of the enterprise. Most of the competence enhancement activities are carried out as in-company training. The courses are often tailor-made to the individual enterprise, since the training needs of the various enterprises differ from each other. The in-company courses take place both during and after working hours.

The Norwegian Trade Council is part of the public consultancy service, and offers services which are meant to contribute to increased exports and the internationalisation of Norwegian trade and industries. The grants amount to a total of NOK 185 million.

3.2.3.2.2. The Norwegian Industrial and Regional Development Fund — SND

Among the means used by the Norwegian Industrial and Regional Development Fund (SND) are loans, guarantees and grants. These are only to a certain extent spent on the training of employees. Development grants are given to competence enhancement activities in the enterprises.

The Research Council of Norway (NFR) and the Norwegian Industrial and Regional Development Fund (SND) organise extensive programmes for competence enhancement or other training in small and medium-sized enterprises. The NFR programmes primarily focus on the transfer of technology to SMEs. However, there are also more general competence enhancement programmes with other focuses, such as SME competence.

The programmes of SND are mainly of a business/administrative character. However, they also have technological programmes, such as one for establishing enterprises by means of new technology. FORNY is a programme run jointly by NFR and SND concerning research-based innovation.

The Norwegian Institute of Training is run by the Norwegian Trade Council. The institute offers a continuation of the standard college education and a number of shorter courses and seminars, as well as more general guidance, in fields such as international personnel administration.

In 1996, a total of NOK 45.7 million was granted by the Ministry of Local Government and Labour (KAD) and the Ministry of Trade and Industry (NHD) to cross-sectoral programmes administered by the NFR. The grants to SND from the two above mentioned ministries amounted to NOK 126.3 million in 1996.

There is no complete survey of the number of enterprises which are assisted in their competence enhancement by the consultancy services or programme activities. In order to indicate the scope of the courses, it should be mentioned that the National Institute of Technology *(Teknologisk Institutt — TI)*, which is the major course supplier among the consultancy organisations, arranged various courses for a total of approximately 7 000 participants (from 1 966 enterprises) in 1995.

3.2.3.2.3. Measures organised by various ministries

The goal of the Ministry of Local Government and Labour (KAD) is to contribute in various ways to competence enhancement in business and industry. This is to a large extent carried out by means of national regional development programmes, which were granted a framework support of approximately NOK 89 million in 1996. In addition, KAD had resources of NOK 83.7 million for its business and industry development in the counties and municipalities programme, as well as its labour market policy funds (In-company training — BIO — see Section 3.2.4.3 below).

The Ministry of Agriculture (LD) is engaged in various competence enhancement activities through its external administration, such as the county governors' agricultural department. In 1997 NOK 420 million was earmarked for this activity, including competence development, investment and change promotion measures in the agricultural sector.

The agricultural sector also has a fund for further education and operational business measures. In 1995, approximately NOK 5 million was allocated to courses, of which 75 % was offered by the study associations. In addition, the export programme (NOK 13 million in 1997), the consultancy and network programme (NOK 10 million in 1997) and various research programmes, as well as support to organisations focusing on competence enhancement measures, amounting to a total of NOK 14.8 million in the current year, should also be mentioned.

The Ministry of Fisheries (FID) granted NOK 11.68 million to business-oriented competence enhancement skills in 1997. These funds are administered by the Norwegian Fishing Industry Joint Board of Competence Development and the Council of Women in the Fisheries Industry (FKU). In addition, SND grants a total of NOK 50 million, via the budgets of NHD and KAD, to training the managers and middle managers in the fishing industry through the Federation of Norwegian Fishing Industry.

All of these competence enhancing measures are important because of their basis in business and industry. The measures focus on meeting the needs of the target group, and are provided throughout the country, from regional and local bases. Geographical proximity between suppliers and the target group is often an important condition for transfer of competence, as well as experience in the industry of the various enterprises. The enterprises vary in their competence needs. This necessitates differentiated competence enhancement activities. Several of these activities are in-company and thus ensure that the individual's competence enhancement is a direct contribution to strengthening the total competence base in the enterprise.

3.2.3.3. Private suppliers of continuing education

Over the past years, the consultancy and advisory sector has been rapidly growing. Consultancy enterprises target their work towards most sectors and enterprises,

ranging from local and national authorities to the food and fishing industry, the processing industry, the mechanical industry and services and trade, offering tailor-made courses, development programmes, advice and skills packages.

Approximately 75 % of the customer enterprises had fewer than 150 employees. A good third of the turnover consisted of sales to the public sector, the rest were to private enterprises. The consultants seem to act as good motivators and stimulators for the development of skills, and as a source of qualifications.

In 1996, 938 consultancy enterprises were registered in this market, of which 45 % were based in Oslo. These enterprises had a total of almost 8 600 employees, a turnover of more than NOK 6 300 million and a customer base of almost 94 000.

In principle, anyone can provide training if there is a market for it. However, the Ministry of Education has defined required levels of competence for providers of training leading to a formal qualification and examination. The same requirements apply to education and training which receive public financial support.

3.2.3.4. Training provision by sectoral, employers' and employees' organisations

The social partners have been heavily involved in providing information about the importance of a continuous development of skills and in motivating and encouraging enterprises to map their skill requirements. Joint initiatives are seen in the development of information material, in regional and local campaigns, and direct meetings with representatives from individual enterprises, with the aim of increasing the awareness of competence building and of presenting available methods and tools for the mapping of skills.

Within specific branches, agreements have been made between the social partners on various development programmes. Some of the programmes offer guidance and practical assistance in carrying out a systematic mapping of skill requirements to enterprises, free of charge. One such example is the 'development through cooperation' branch programme, which is managed jointly by the Federation of Norwegian Engineering Enterprises (TBL) and the Norwegian United Federation of Trade Unions (LO). For the purpose of mapping skills, enterprises are organised in regional networks.

Several social partner organisations offer vocational training at various levels, either on their own or together with their 'adversary'. The measures are targeted both towards the individual and the enterprise. Large trade associations carry out competence mapping in their member enterprises and organise continuing training for selected skilled workers.

Most of the social partners are members of study associations. Training activities may thus be included in the activities of the study associations.

The organisation and development funds (the O&U-funds) are a part of the wage system in the private sector. The Norwegian Confederation of Business and Industry (NHO) has entered into agreements concerning the O&U-funds with several trade unions, of which the most important partner is the Norwegian Confederation of Trade Unions (LO). Only enterprises covered by the wage agreements contribute to the O&U-funds.

The revenues from the funds are distributed by the main organisations in accordance with their joint decisions. The revenues are used for joint measures and, increasingly, for development measures in individual enterprises.

Employers and employee organisations continue to provide comprehensive training as part of their regular activities, partly through cooperation with training organisers and partly on their own account. As examples of the special measures, the following can be mentioned:

• The PIL (Federation of Norwegian Process Industries) School and the Norwegian School of Timber Technology (the sawmill industry) are established outside the traditional system for continuing education and training. They use distance education in providing CVT at the individual workplace. Both schools are recognised by the authorities as distance education institutions.

• The Norwegian Electrotechnical Development and Research Centre (ELBUS) is a non-profit institution which is owned 50/50 by the employees' and employers' organisations in the electrotechnical sector, where 93 % of the enterprises have fewer than 11 employees. Since 1993, ELBUS has created a structure of 16 regional centres, all over the country.

• The Norwegian Association of Medical Laboratory Technologists (NOBI) is one of the 36 members of the employee organisation, the Confederation of Academic and Professional Unions in Norway (*Akademikernes Fellesorganisasjon* — AF). NOBI has a membership of 2 982 women and 279 men, and is a good example of a small professional association which systematically organises continuing vocational education. In addition to organising an active continuing education and training programme for its members, both centralised and decentralised, NOBI participates as a partner in a Leonardo da Vinci project concerning a continuing education programme for medical laboratory technologists in Europe.

• The Norwegian Physiotherapist Association (NFF) has 6 500 members. Among the professionally active members 2 700 work in the public sector and 2 000 in the private sector. The further education programme of NFF consists of 60 module-based courses in physiotherapy. There are modular courses in the fields of child physiotherapy, health and environment, psychiatric and psychosomatic physiotherapy, rehabilitation and manual therapy. Each course consists of 10 modules.

NFF's module-based course system constitutes a systematic continuing education within a specialised field of physiotherapy. The organisation serves as a listening post for its members when it comes to new political and vocational challenges. The courses are in harmony with the public physiotherapist education. The professional personnel participate in the development as well as the implementation of the courses. The courses are partly funded by the employer or by the individual physiotherapist. In addition, NFF organises conferences and seminars; 1 500 physiotherapists attend the courses annually.

3.2.4. Training as a labour market measure

Labour market measures, especially training ones, are crucial in counteracting the exclusion of the unemployed from the labour market and maintaining and

strengthening their abilities and qualifications in order to channel them swiftly into vacant jobs. The labour market measures are designed to support the employment offices, with the goal of improving the efficiency of finding jobs for the unemployed and reducing the mismatches in the job market.

One of the goals is to fill the gap between the skills of the job seekers and the demands of the employers for certain skills. An effort is therefore made to meet the employers' needs for certain skills by means of labour market training (*Arbeidsmarkedsopplaering* — AMO) as well as other measures.

The labour market measures to a certain extent also include continuing training of employees in order to prevent exclusion from the labour market.

3.2.4.1. Labour market training (AMO)

Labour market training (AMO) is offered to the unemployed and the occupationally handicapped as part of the labour market strategy. The target group is unemployed, older than 19 and occupationally handicapped. Within this target group, the long-term unemployed with a weak educational background are given priority. At the end of November 1995, 70 % of those participating in labour market measures had not completed upper secondary school.

Some of the AMO courses lead to a trade and journeyman's, or other formal, certificate. Others provide specific skills and an updating of qualifications to meet acute needs in the local labour market. In exceptional cases, labour market training of a more general character is provided, for example for people with such a weak educational background that they cannot profit from vocational training.

The AMO courses are meant to be a supplement to the standard educational system, but there are often parallels in continuing education. Several AMO courses may be combined, and each of these courses may constitute modules in continuing training, so that in the long term participants may complete a training leading to a recognised occupation.

AMO courses are offered within several fields. In 1995, the majority of the AMO participants were trained in clerical work, mechanics and construction work. In these fields the demand for qualified labour was not met. Another major group is the so-called sundry courses, where applying for jobs is one of the subjects. A large number of the courses are at upper secondary level, but there are also courses at primary school level. A considerable number of the courses cannot be defined in relation to the various educational levels, but are targeted towards certain elements or part qualifications.

The courses last from one week to 10 months and are fully financed by the State. No fees are paid by the participants. On the contrary, the participants receive financial support during the training period.

The labour market training courses are the joint responsibility of the employment authorities and the education authorities. Whereas the Ministry of Local Government and Labour is financially responsible, the Directorate of Labour and its regional and local employment agencies determine the design, location, extent and type of course to be provided, taking into account both the requirements of the labour market and the individual job-seeker's qualifications and training need. The

employment agencies are responsible for the recruitment of trainees. The Ministry of Education, Research and Church Affairs has the professional and pedagogical responsibility, including responsibility for the curricula and the working conditions of teachers.

The employment authorities buy the AMO courses from the upper secondary schools, the resource centres and private suppliers.

Some labour market training courses are tailor-made to cater for immigrants, who are over-represented among the unemployed. The employment authorities and the local municipalities often cooperate in the training of newly-arrived immigrants.

The number of AMO courses varies according to market fluctuations, as the employment authorities adjust the activity according to the changes in the unemployment figures. In the period 1985–88, when unemployment was modest, between 17 500 and 11 300 participated in labour market courses. This was less than 1 % of the workforce. In 1989, unemployment increased, and the number of participants in AMO courses increased considerably, to 51 800, which was 2.4 % of the workforce. In 1994, there were approximately 77 300 participants, which was 3.6 % of the workforce. Later the number was slightly lower, due to decreasing unemployment. However, in 1995, the participants still constituted 2.8 % of the workforce (some 60 000 participants).

3.2.4.2. Rehabilitation

There is a close link between work and welfare, both for the individual and society. For the individual, work has an intrinsic value in the form of income and a feeling of belonging to and participating in society. In Norway, there is no political dispute about the idea that the disabled, as far as possible, should have full opportunities to qualify for the regular labour market. Re-education and competence building are important measures offered through the rehabilitation system.

Rehabilitation is targeted towards persons with a physical, mental or social disability which reduces their chances of getting a job. Through rehabilitation, the individual receives education and/or job training which improves his/her chances on the job market. The rehabilitation measures are partly financed as labour market measures, receiving funds from the employment authorities, and partly from the National Insurance Scheme funding of vocational rehabilitation. The type of funding depends on the reason for the rehabilitation and the measures applied.

In 1996, an average of 54 650 persons were registered as occupationally handicapped in the employment authorities' register. Of these an average of 40 250 participated in various measures, whereas an average of 14 400 were being evaluated or were waiting to participate in measures.

More than half of the occupationally handicapped, i.e. approximately 30 000, received rehabilitation grants in 1996. These grants are meant to support the subsistence of the occupationally handicapped with a permanently reduced capacity for work or considerably limited number of choices when it comes to finding a job due to illness, damage or disability. Grants are given both when the person participates in rehabilitation measures and when the person is waiting to participate in such measures.

Other forms of subsistence grants during vocational rehabilitation are sickness benefits, rehabilitation grants, disability allowances, course grants or salaries.

Rehabilitation grants are meant to cover costs related to a recognised rehabilitation measure. The objective is to cover the extra costs incurred by the rehabilitation measure for the occupationally handicapped. Thus, rehabilitation grants are offered only during the period of rehabilitation.

Rehabilitation grants are among other things meant to cover training materials, practical assistance, daily travel expenses, visits home, housing expenses, moving expenses and subsistence expenses.

There are many kinds of rehabilitation measures, as they are specifically adapted to the needs of the individuals. Most measures are for a limited period. That applies to work training and all forms of competence-development. Permanent measures, such as sheltered work, may also be a solution for some.

The major training measure for occupationally handicapped is standard school/education. In 1996 there was an average of 13 000 participants in rehabilitation measures in the standard school system. The majority of these participants receive rehabilitation grants.

For some occupationally handicapped people vocational training in sheltered workshops is an appropriate solution. There are some 100 commercial enterprises which, as part of their activity, run sheltered workshops, financed by the labour market authorities. The training in the sheltered workshops aims at giving the participants formal qualifications, such as trade certificates, course certificates, diplomas etc.

For young people who have become occupationally handicapped, rehabilitation is an introduction to working life. For older occupationally handicapped people, who already have work experience, the rehabilitation often implies an advancement or a re-qualification. Job training will give the individual practice, experience and competence in new jobs. The training may be based on the educational background of the individual, so that the person in question is qualified for new jobs within the same sector. The training may also be used to assist the occupationally handicapped to find a job in a new sector.

*3.2.4.3. In-service training (***Bedriftsintern opplaering — *BIO) and substitutes for unemployed***

In-service training (BIO) is another labour market measure directly targeted towards the enterprises' need for skills. BIO is meant to contribute to training in relation to change and recruitment in small and medium-sized enterprises. Part of the salaries of the employees participating in the training is covered by the authorities. The amount varies according to the industry. The training is provided by the resource centres, study associations, trade associations and private suppliers. In 1996, there was an average of 650 participants who received funds through this arrangement, and a total of NOK 83.7 million was spent.

The arrangement of substitutes for unemployed is a labour market measure aiming at meeting the needs of the enterprises for updating the employees' competence, as well as the need of the job-seekers for work experience. Through this arrangement

the enterprises get substitutes for employees participating in various forms of training, by temporarily hiring a job-seeker. A substantial part of the substitute's salary is covered by the employment authorities. The maximum duration is 10 months. Enterprises may make use of the arrangement on the condition that there is an unemployed person who needs the kind of work training which the enterprise can offer. The substitute is selected by the local employment office. In 1995, there was a total of 6 200 participants under this arrangement, with at any one time during the year an average of 3 330 participants. Some 70 % of the employees/jobs were in the public sector. The aim is to increase the share of jobs in private enterprises.

3.2.4.4. Basic training of non-Norwegian speaking adults

With the aim of integration in Norwegian society regarding both education and work, all immigrants receive training in the Norwegian language and civic life. Non-Norwegian-speaking adults may have up to 500 hours of training, and a further 250 hours if necessary. Immigrants, and especially immigrant women, are given priority access to this extra tuition. The municipalities are responsible for setting up and organising the training.

Chapter 4
The administrative and financial framework

4.1. Administration of education and training

4.1.1. Laws and legal arrangements regarding vocational training

Vocational education and training at upper secondary level is regulated by two different laws:

1. The act of 21 June 1974 concerning upper secondary education regulates vocational education at school;
2. The act of 23 May 1980 concerning vocational training regulates vocational training at the workplace.

Both acts underwent substantial changes in the Reform 94 process.

In 1997, the government put forward a proposal for a new, comprehensive act relating to both primary and secondary education, including vocational training. The proposal was designed to replace the various acts regulating the different types of education and training, including the two acts mentioned above.

Continuing education and training is regulated by the act of 28 May 1976 concerning adult education which was subject to some amendments in 1991. The act states that the aim of adult education is ' ... to contribute to giving adults equal access to knowledge, insight and skills which will promote individual growth and encourage personal development as well as strengthen the basis for independent achievement and cooperation with other people in work and community life'.

Higher education is regulated by three acts in addition to the legislation concerning student welfare and loans and grants to students:

- Act No 22 of 12 May 1995 on universities and colleges,
- Act No 53 of 11 June 1986 on the recognition of study programmes and State (i.e. government) funding of private higher education institutions, and
- Act of 8 June 1973 concerning the training of teachers.

The act on universities and colleges is relevant also for CVT as it states that the higher education institutions have the responsibility of organising CVT in their own subject areas.

Other laws affecting recruitment and participation in higher education, are:

- act on financial support to pupils and students of 26 April 1985, with subsequent amendments in 1989, 1991, 1993 and 1995. The act states that all registered students at recognised study programmes, at both public and private higher education institutions, may receive subsidised loans and grants from the State educational loan fund for subsistence costs ([32]). The same rights are given to students in upper secondary school who can document specific needs.
- act on student welfare of 1996.

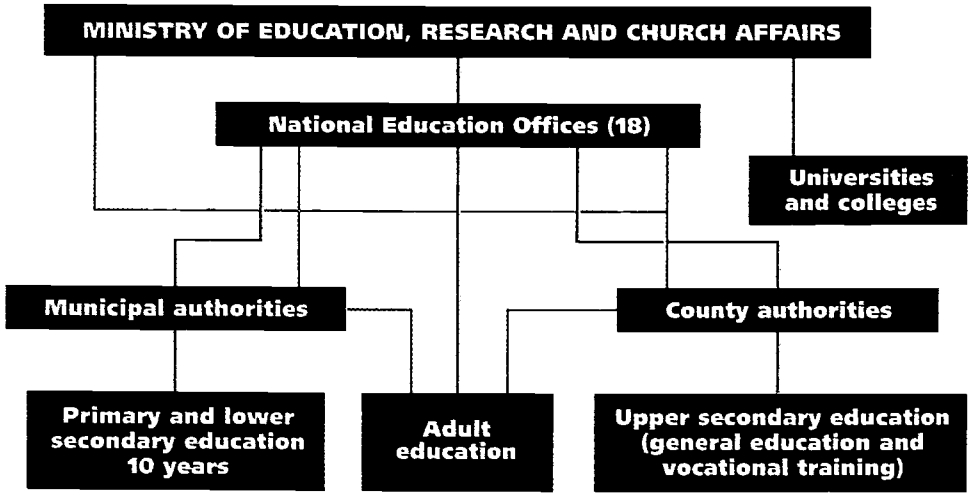
([32]) Tuition is free at State institutions, at both upper secondary and higher education level.

4.1.2. Administrative arrangements

Corresponding to the provision structure outlined in Sections 2 and 3, the administrative arrangements concerning education and training in Norway represent a clear-cut division of responsibility between three political-administrative levels.

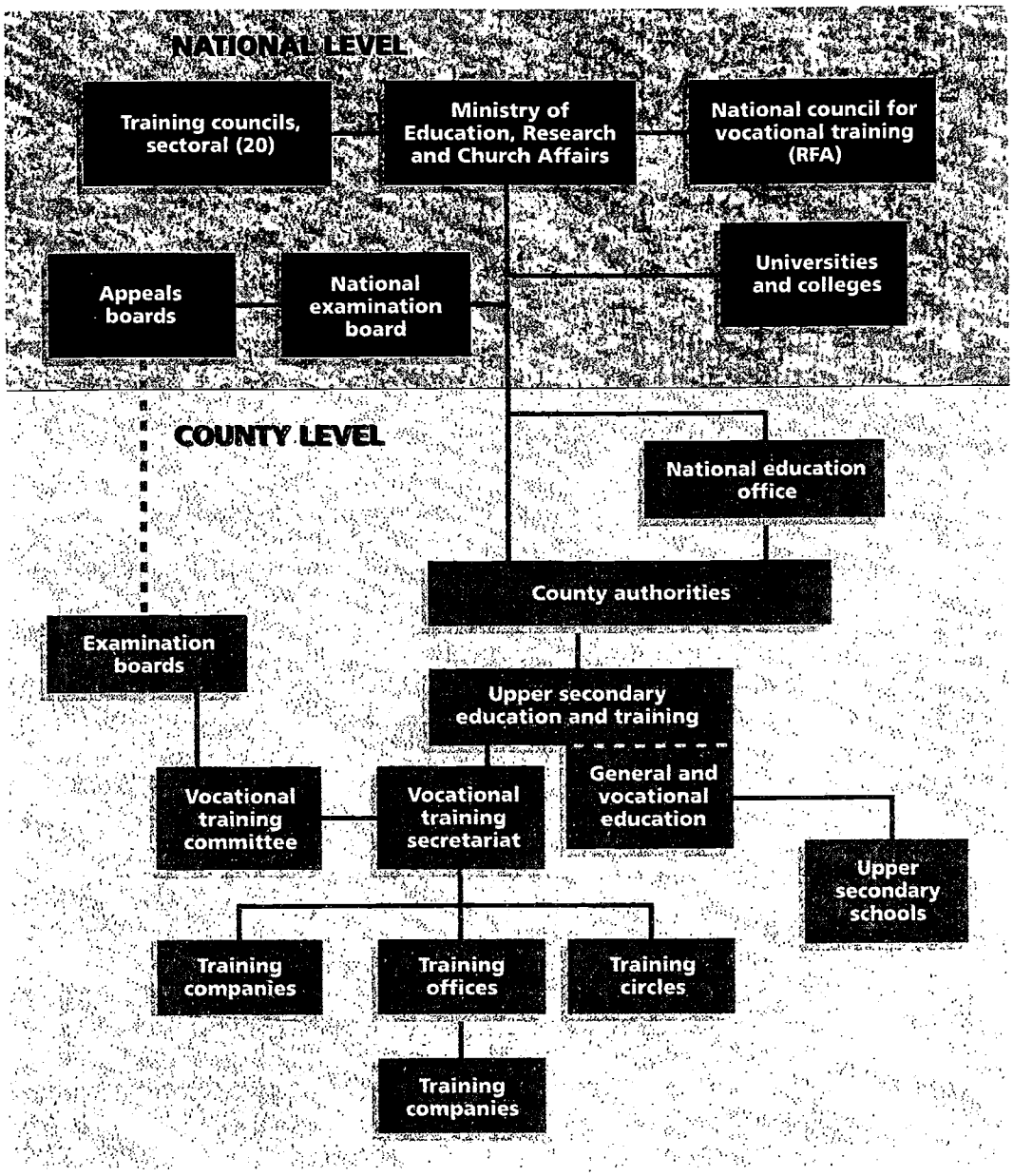
The following figure shows the main administrative structure of the Norwegian education and training system:

Figure 24. **Administrative levels in the education system**



SOURCE: ***MINISTRY OF EDUCATION, RESEARCH AND CHURCH AFFAIRS.***

Figure 25. **Administration of vocational education and training in Norway**



SOURCE: **LEONAROO NCU/AUTHOR.**

4.1.2.1. National level

The Ministry of Education, Research and Church Affairs has the overall responsibility for the whole education sector: primary, secondary and higher education. This responsibility also covers adult education and training at primary and secondary levels.

Within primary and secondary education, the formal responsibilities include decisions on syllabus, quality standards, examination procedures and certification criteria. However, the social partners make a decisive contribution within vocational training at upper secondary level, both formally through their representation in the National Council for Vocational Training (RFA) and the training councils, and informally through close cooperation on a daily basis with the civil servants in the Ministry of Education, Research and Church Affairs.

The provision of standard primary and secondary education is organised by local and county operators and by both public and private education and training institutions. Adult education at these levels, as well as CVT, is organised to a large extent by the 22 study associations and 17 approved distance education institutions.

The Ministry of Education, Research, and Church Affairs administers higher education directly. Traditionally, the administrative responsibility has been delegated to a large extent to the individual institutions in the university sector, whereas the non-university sector until the end of 1995 was administered more directly by the ministry. With the introduction of the 1995 act on universities and colleges, applicable from January 1996, the State colleges have been accorded the same administrative responsibilities as the universities.

Decentralisation of decision-making has been a general trend in Norwegian education since the late 1980s. A major step in the direction of decentralisation was made with the introduction of a new sector grant system in 1986 in which municipality and county authorities receive a block grant covering all central government subsidies for school education and culture as well as the health service. As a consequence, the municipalities and counties now enjoy greater autonomy as regards the provision of education, even if specific guidelines are given by the State as regards the utilisation of the grant.

Various other ministries are involved in the organisation of education and training measures within their specific policy areas. These are primarily the Ministry of Local Government and Labour (which is responsible for employment including education measures for the unemployed and regional and immigration policy) and the Ministry of Industry and Trade (which is responsible for industrial policy in general). In order to fulfil the objective of Reform 94, several ministries are involved in a network to increase the number of apprenticeship places in the State sector. However, the campaign in the State sector has been less successful than that in the private sector where the social partners, during the two first years of reform (1996 and 1997), succeeded in reaching the goal of finding training places for one third of those leaving Advanced Course I.

4.1.2.1.1. National Education Offices

In the early 1990s, a National Education Office was established in each county, except for the National Education Office for Oslo and Akershus, which covers the two counties of Oslo and Akershus. The National Education Offices are attached to

the Ministry of Education. The head of the office, a Director of Education, is the State representative at county level and is responsible for carrying out government tasks within the different fields of education. The areas of responsibility cover primary and secondary, but not higher education. The responsibilities in the field of upper secondary vocational training are limited to the part of the training taking place at school, as the training in the enterprises is the responsibility of the social partners, the Vocational Training Committee and the training offices.

The main tasks of the National Education Offices are activity reports, information dissemination and, to a certain extent, legal supervision. Some of the offices have received authority from the State to carry out certain special tasks, for example teaching in prisons. A special unit, the National Examination Board *(Eksamenssekretariatet)* located in the National Education Office for Oslo and Akershus, has special responsibility for the evaluation of pupils and apprentices on a national basis, for setting national examinations and appointing examination experts.

4.1.2.1.2. The National Council for Vocational Training — RFA

The members of the National Council for Vocational Training *(Rådet for fagopplæring i arbeidslivet — RFA)* are appointed by the King for a four-year period. In 1997, the Council had 15 members of whom two thirds represented the social partners; these members were appointed after being proposed by the Norwegian Confederation of Trade Unions *(Landsorganisasjonen i Norge — LO)* — five members, the Confederation of Norwegian Business and Industry *(Næringslivets hovedorganisasjon — NHO)* — four members and the Norwegian Association of Local and Regional Authorities *(Kommunenes sentralforbund — KS)* — one member.

Five members represent different parts of the school system. In 1997, this group was composed of two principals of vocational schools, one head of school administration from a county authority, one student and one representative of the teachers' organisation *(Lærerforbundet)*.

The Council's leader (chairperson) and deputy leader are elected from among, and by, the social partners. Normally, each of the two sides of industry holds the leadership for half of the period of office of the Council.

In 1992, during the preparation for Reform 94, the social partners decided to replace former members by higher level representatives from the unions and the confederation of employers.

As laid down in the 1980 Vocational Training Act, the Council gives the ministry advice on all important questions concerning vocational education and training. In addition to these general tasks, the Council has special responsibility for creating the structure and guidelines for the training council system (see 4.1.2.1.3 below). Another important task is to create a framework for recognised occupations, including the approval of newly recognised occupations.

The Council holds eight or nine meetings annually. In addition, the secretary (an official from the ministry), the leader (chairperson) and deputy leader hold a series of meetings with, among others, the ministry and the main actors among the social partners. It is partly the ministry which puts matters before the Council and partly the Council itself which takes the initiative to raise questions it wishes to have

clarified or resolved. The Council has a central role in the design and implementation of Reform 94.

4.1.2.1.3. The training councils

There are 20 training councils *(opplæringsråd)* with representatives from the social partners. The councils provide the ministry and the RFA with advice concerning vocational training in the recognised occupations for which they are responsible.

The membership of the training councils varies between three and 15 persons. The nomination process corresponds to the one within the RFA, but the social partners' representatives are proposed by the countrywide branch organisations. The ministry nominates the remainder without outside advice.

The number of recognised occupations dealt with by each council also varies greatly — from one to over 40. This is because the training councils are divided by branch or sector and thus reflect the organisational structure of the working community.

The tasks of the training councils are related to the recognised occupations for which they are responsible. Their work includes drawing up final qualifications for recognised occupations and preparing curricula according to the guidelines issued by the ministry. Another important field of activity is the development of recognised occupations themselves, both to prepare final qualifications for newly recognised occupations and to change existing ones.

In general, the training councils aim at promoting high standards of training within the various recognised occupations. They also:

- take the initiative in matters concerned with vocational training within their spheres of responsibility at school and in the workplace;
- submit expert opinions on matters such as the recognition of previous school attendance and experience;
- advise on the recognition of foreign qualifications;
- draw up papers for the theoretical part of examinations for Section 20 candidates;
- draw up guidelines for the practical part of the examinations; and
- at the same time, generally provide advice and expert opinion to the ministry on their respective recognised occupations.

The training councils participate in regional appeals boards dealing with professional matters in cooperation with the vocational training committees. Important matters which are often disputed are, for example, the status of the experience with which Section 20 candidates try to have themselves admitted to the trade and journeyman's examination.

Table 13. **Training councils, 1995 to 1999**

Name of council	Sector	No of recognised occupations*
Opplæringsrådet (OR) for:		
(Training Council for):		
• bygg- og anleggsfag (ORBA)	Construction and civil engineering	16
• mekaniske- og elektromekaniske fag (ORMET)	Mechanics and electromechanics	33
• elektro- og elektronikkfag (OREE)	Electrics and electronics	10
• kokk-, servitør- og resepsjonsfag (ORKSR)	Restaurant and hotel service	4
• tre- og møbelfag (ORTRE)	Woodworking and furniture	16
• byggtekniske fag (ORBYTEK)	Crafts in construction	11
• helse- og sosialfag (ORHS)	Health and caring	5
• kjemi- og prosessfag (ORKP)	Chemical and industrial processing	11
• næringsmiddelfag (ORNÆR)	Food production	10
• transportfag (ORTRANS)	Transport	2
• transporttekniske fag (ORTTF)	Technical skills in transport	10
• naturbruksfag (ORNAB)	Primary sector (fishery, agriculture, forestry)	6
• bilde, fotografi og grafiske fag (ORBGF)	Illustration, photography and graphics	6
• handel- og kontorfag (ORHK)	Office and trade	2
• flyfag (ORFLY)	Aviation	7
• servicefag (ORS)	Diverse services (cleaning, security, etc.)	2
• oljefag (ORO)	Oil and gas production	1
• tekstil- og konfeksjonsfag (ORTEKO)	Textiles and clothing	9
• doudji (ORD)	Saami crafts	1
• håndverksfag (ORH)	Diverse handicrafts	21

* In March 1997, the total number of recognised occupations was 183. Several new proposals were registered, but final decisions had not been made. The number of recognised occupations is most likely to increase in the sectors of oil and gas production, office and trade, health and caring, and diverse handicrafts.

SOURCE: ***MINISTRY OF EDUCATION, RESEARCH AND CHURCH AFFAIRS.***

The numbers of recognised occupations (see Annex 5) covered by a training council is not an indicator of its size. For example OREE in the electrics and electronics sector has only 10 recognised occupations, but is much larger than ORH which covers 21 recognised occupations in the diverse handicrafts sector.

4.1.2.1.4. National appeals boards

A candidate who has failed the trade and journeyman's examination may appeal against the decision of the county based examination board. The appeal is decided by a national appeals board for the recognised occupation in question. In certain recognised occupations, there is such a range of different examinations that several appeals boards are needed.

The appeals boards have three members, one from the employers' side and one from the employees' side as well as one who most frequently has a background of

teaching the recognised occupation at school. They are nominated for four years at a time by the ministry through its National Examination Board *(Eksamenssekretaritet)* (see Section 4.1.2.1.1 above). The training council for the specific recognised occupation proposes the members of the appeals board. The appeals board may either reverse the decision of the examination board or reject the appeal.

Appeals against the way a matter is handled and official errors are dealt with by the county authorities on the basis of the Public Administration Act.

Figure 26. Trade and journeyman's examinations, appeals and appeal results, 1997

Sector/area of study	Total number of candidates	Number of appeals*	Number of approved appeals*	as % of appeals
Health and social care	5 202	140	33	23.6
Engineering and mechanics	8 050	43	1	2.3
Arts, crafts and design	1 841	28	0	0.0
Others	13 237	27	0	0.0
TOTAL	28 330	238	34	13.9

* In addition, 34 appeals were withdrawn and 4 did not reach a final decision. Thus, there were a total of 276 appeals.

SOURCE: *MINISTRY OF EDUCATION, RESEARCH AND CHURCH AFFAIRS, NATIONAL EXAMINATION BOARD.*

The number of successful appeals was particularly high in the newly recognised occupations in which the examinations were arranged for the first time. This must be seen as a natural part of a learning process in developing training and its evaluation in these areas.

4.1.2.2. County level

The 19 counties are formally responsible for organising primary and secondary education. In upper secondary education, this includes school management, the intake of pupils and apprentices and the appointment of teachers. Reform 94 brings education at school and training in enterprises together into a combined education system. In 1997, the counties had full responsibility for 535 upper secondary schools and for apprenticeship measures, i.e. for vocational training in the workplace.

The county is responsible for placing apprentices with an appropriate enterprise. This is carried out in close cooperation with the county vocational training committee (see Section 4.1.2.2.1 below). Both the committee and the county education authorities are expected to maintain close relations with the enterprises and to cooperate with them in matching apprentices with enterprises. Enterprises may set special requirements as regards apprentices if these are directly connected with their activities and are not discriminatory. Places may also be allocated in other counties. The enterprise decides whether to accept the apprentice whose name is submitted by the vocational training committee. When it has accepted an apprentice, an apprenticeship contract has to be drawn up and sent to the vocational training committee for approval and registration.

4.1.2.2.1. Vocational training committees

In every county, the county council *(fylkestinget)* nominates a vocational training committee *(Yrkesopplæringsnemnd)*. The committee, which includes representatives of the social partners and is an advisory body to the county, bears a major responsibility for implementing vocational training on behalf of the county authorities.

Important tasks are to ensure that the provisions of the Vocational Training Act are followed, to arrange apprenticeship places and to place pupils in training establishments. The vocational training committee approves training organisations (see Annex 4) and supervises the training in them. It has the authority to withdraw the right to have apprentices. Furthermore, it is responsible for approving the apprenticeship contracts, for ensuring that the trade and journeyman's examinations are held in accordance with the requirements, for appointing the examination boards and for issuing trade and journeyman's certificates. The vocational training committee also evaluates the theoretical and practical grounding of the Section 20 candidates and approves it if appropriate.

Following the introduction of Reform 94, the vocational training committees were assigned a new, important and extensive task, namely responsibility for assigning apprentices to enterprises. This made it necessary for the committees to work actively with the branch organisations and enterprises to draw up needs' analyses and overviews of available apprenticeship places.

The vocational training committees are nominated for a period of four years and follow the same electoral cycle as the county council. The social partners in the county propose four of the seven members of the committees, two from each side. In addition, three members are nominated by the county, one being an apprentice and two having backgrounds respectively in business/employment and schools. The leader (chairperson) of the committee is chosen from among the social partners for a two-year period ([33]).

The vocational training committee has a secretariat that carries out the day-to-day work of the committee. It has regular contact with the training establishments and can provide expert advice and assistance in practical matters. Normally, the administration of the committees is integrated into the county's education service and placed under the county schools officer ([34]).

4.1.2.2.2. Examination boards (Prøvenemnder)

The trade and journeyman's examinations are evaluated by examination boards. In principle, each county has (at least) one examination board for each recognised

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([33]) In some counties, intensive discussions have taken place between the social partners and the authorities concerning the control of vocational training. By referring to the Local Administration Act, the county politicians, with strong support from the Norwegian Association of Regional and Local Authorities *(Kommunenes sentralforbund — KS)*, have made a lot of effort to integrate the county vocational training committees into the school administration. In addition, the chief administrative bodies of certain counties have nominated politicians to lead (chair) the county vocational training committees and thus have excluded the social partners who, by tradition and under the Vocational Training Act, are supposed to hold this role. The social partners in these counties are afraid of losing their influence over the vocational education and training system.

([34]) In Oslo, the secretariat is a part of the county industry and business department *(Næringsavdelingen)*.

occupation. In some cases, the counties cooperate on joint boards, especially for the less important recognised occupations.

The main tasks of the boards are to organise and implement the practical side of the trade and journeyman's examinations and evaluate the results. The boards can also be used as a vocational committee, i.e. as an advisory body for the county on questions relating to the respective recognised occupations. Normally, the vocational training committees use them as advisers on questions related to the approval of training establishments, to supervise enterprises, to evaluate experience, etc ([35]).

The examination boards are nominated by the county for four years at a time. Before making the nomination, the county seeks the advice of the local social partners for the relevant recognised occupation. The county, however, is free not to use the proffered advice and to nominate one of the members freely, for example, to choose one from the school system.

Until autumn 1996, the boards included representatives from the social partners. Like the appeals boards, they had three members. Upon the implementation of Reform 94, the number of members on the examination boards was reduced to two. Both members are supposed to have formal competence and ideally also work experience in the relevant recognised occupation. The reduction in the number of members has been heavily criticised by the social partners.

4.1.2.3. Municipal level

The 435 municipalities are responsible for compulsory education at primary and lower secondary level. This ensures a decentralised supply and a good geographical spread but, at the same time, represents a challenge when it comes to equality and quality control. The municipalities are responsible for planning, for constructing and maintaining school buildings, as well as for the recruitment of teachers and the running of the schools. In the school year 1996/97, there were a total of 3 208 primary and lower secondary schools in Norway.

4.1.2.4. Adult education and training

The responsibility for providing adult education and training at the different levels rests with the same bodies which provide the supply to young people. Counties provide education and vocational training at the upper secondary level whereas the municipalities deliver education at the primary and lower secondary levels.

The act of 12 May 1995 on universities and colleges puts some responsibility on the universities and colleges as regards the development and provision of continuing education and training in their own subject areas. Network Norway ([36]) is an important basis for continuing education in the vocational context. In cooperation with the Norwegian Executive Board for Distance Education at University and College Level (SOFF), many continuing education courses are being provided through distance education.

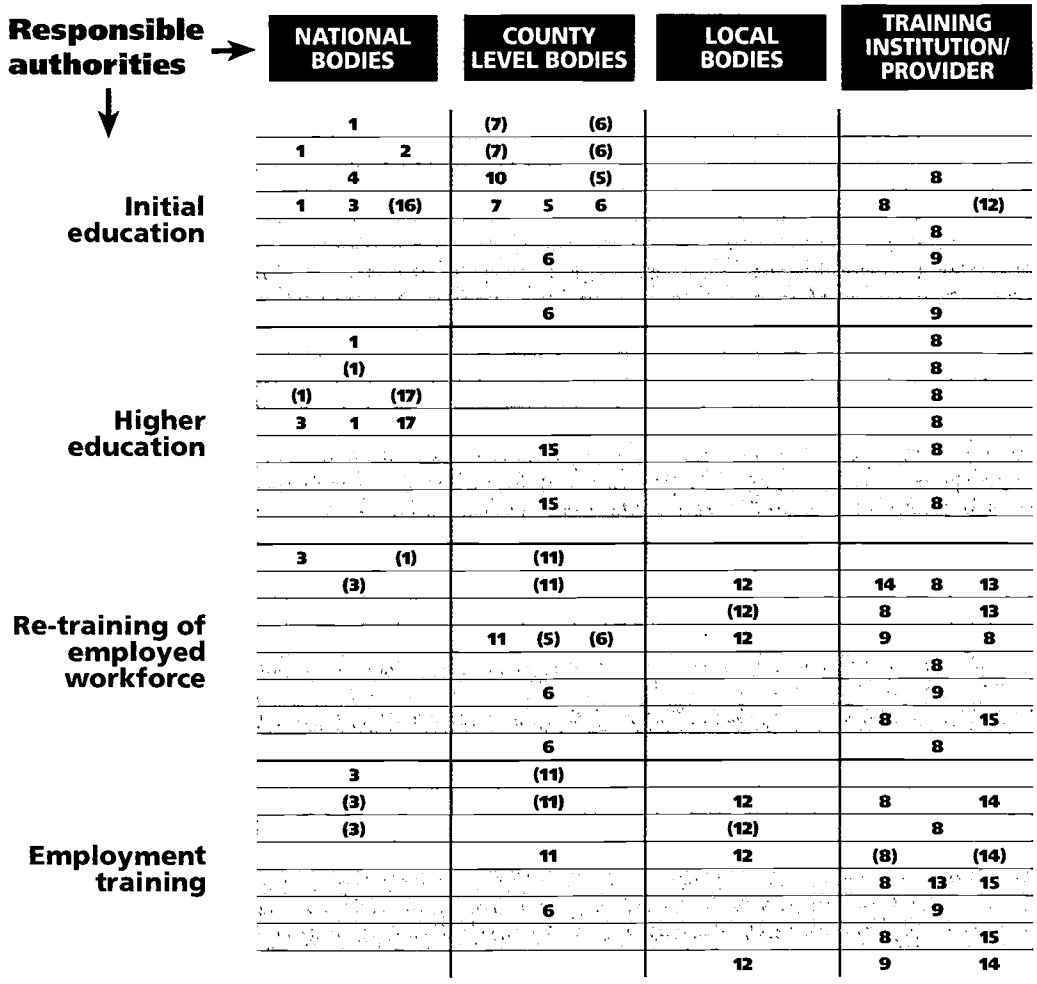
([35]) The vocational training committee can appoint vocational committees, i.e. bodies at county level, which can assist the vocational training committee and training establishments with expert advice. The counties may also use the appeals boards as advisory vocational bodies.

([36]) Network Norway is the national network of higher education and research institutions, based on the principles of specialisation, cooperation and communication, which has the aim of developing a joint, integrated knowledge network.

As described in Section 3.2, the social partners play an active role in the field of continuing education and training. The agreements between the social partners are an important basis for in-service training. Basic agreements for both the private and public sectors state that the enterprises and institutions are responsible for mapping their own skill requirements and for developing the skills of each employee in accordance with the enterprises' goals and strategies. Each employee is responsible for developing and maintaining his/her own skills. However, to an increasing extent wage agreements contain special measures which aim at stimulating and financing continuing training and the development of skills.

This implies a considerably more important involvement by the social partners in continuing vocational training. Since this relationship is now incorporated in the agreements between the social partners, it can be said that the involvement has become institutionalised.

Figure 27. **The administrative framework**



1. Ministry of Education, Research and Church Affairs (KUF)
2. National Council for Vocational Training (RFA)
3. Directorate of Labour
4. National Examination Board
5. National education offices
6. Vocational training committees
7. County authorities
8. Educational institutions
9. Training companies/offices/circles
10. Examination boards
11. County labour offices
12. Employment offices
13. Local resource centres
14. Individual companies and organisations
15. Study associations
16. National Resource Centre for Vocational Guidance (NSY)
17. National Academic Information Centre (NAIC)

Function

System regulation

Definition of contents

Evaluation and certification

Information and guidance

Delivery through

educational institutions or training centres only

apprenticeship contracts

self-education

at work place only

( ) *Organisation in brackets does not play a major role*

4.2. Financial arrangements

The financing of education and training is the responsibility of the owners of the institutions who receive State grants for setting up and providing the training. The division of responsibilities for the different levels of education is described in Section 4.1.

In 1995, official figures show that a total of NOK 60 606 million (approximately ECU 7 500 million) was spent on education and vocational training by the Norwegian authorities at all three political-administrative levels. This corresponds to approximately 6.5 % of GNP. In addition to this public expenditure on mainstream education, public and private enterprises and individuals invested more than NOK 12 511 million (approximately ECU 1 550 million) in education and training of various kinds, including continuing vocational training.

4.2.1. Initial vocational training

4.2.1.1. Total investment and source of funds

4.2.1.1.1. Upper secondary education and training

The main income of a county administration usually consists of:

- 40 % net tax revenues;
- 5 % fees and charges, etc.;
- 18 % earmarked grants from central government;
- 37 % block grants from central government.

In the block grant are included the resources for the county to be able to maintain a number of pupils/apprentices within upper secondary education, including both private and public schools. The counties use the block grant within the terms laid down by law and regulation. The counties also receive special contributions for different targets within vocational training.

Overall costs for upper secondary education in general and vocational training in particular are difficult to calculate precisely. An estimate based on the assumptions that 180 000 students/apprentices enter upper secondary education annually, that half of these choose vocational studies and that there are 17 000 new apprenticeship contracts each year results in annual costs of around NOK 7 000 million (approximately ECU 850 million). This amounts to 0.76 % of 1995 GNP. Investment in new buildings and in 'fixed' equipment in buildings is not included in this estimate.

Approved private upper secondary schools receive a direct public grant per student. The grant is supposed to cover approximately 85 % of the costs while the rest is paid by the participants.

4.2.1.1.2. Higher education

In 1996, the State spent approximately NOK 11 100 million (approximately ECU 1 250 million) on higher education, which corresponds to about 3 % of State revenues. Despite a steady increase in the real amount allocated to higher education over the past few years, higher education's share of overall public

expenditure has remained unchanged since 1993; its share of GNP has even decreased. The explanation for this, indicated in the table below, is a rapid and significant growth in the Norwegian economy over the same period (see also Section 1).

Table 14. Funding of higher education (1988 to 1995)

	1988	1989	1990	1991	1992	1993	1994	1995
as % of public expenditure	2.2	2.3	2.4	2.6	2.7	2.8	2.8	2.8
as % of GNP	1.08	1.13	1.21	1.32	1.40	1.43	1.38	1.35

Note: the figures include all higher education as the institutions receive a block grant from the ministry for all their educational activities — including vocational ones.

SOURCE: **STATISTICS NORWAY.**

State funding of higher education institutions can be divided into three main categories.

1. Ordinary operating budget
The main part of each year's allocation for operating costs at the universities and colleges is constituted by a basic allocation, somewhat adjusted in relation to inflation, salaries, and the general budget situation. As from 1990, any real increase in this part of the budget is exclusively linked to an increase in the level of activities, above all in the number of students. The formula used for the additional allocation of funds is based on estimated student costs for the field of study concerned. Operating costs related to equipment, rent, staff salaries (including staff time for research and administration, as well as for teaching etc.) are covered by this student cost based allocation. The institutions may freely transfer allocated funds between budget items within the limits laid down in relevant general regulations for State institutions.

2. Budget for investment and new equipment
Funding for new buildings is allocated after a special evaluation has been carried out. Funding for new equipment is partly connected to that of new buildings, and partly to fixed yearly allocations. In addition, extra allocations for new equipment are normally made when there is an increase in the number of students admitted to an institution (limited to the year of the increase).

3. Other measures
The Ministry of Education also funds the running of common infrastructure activities for the sector (databases, etc.), as well as common projects and measures to promote international cooperation in higher education.

4.2.1.1.3. State educational loans and grants

In addition to the direct funding of training activities at the institutions, there is substantial support for the funding of studies through the State educational loan fund *(Statens lånekasse for utdanning)*. Grants and loans are given to students in both upper secondary and higher education.

Table 15. **State grants and loans to students in upper secondary and higher education**

	1992/93	1993/94	1994/95
Number of students entitled to financial support in upper secondary and higher education	388 750	400 100	398 000
Number of students receiving support	219 547	224 333	229 898
Total loans and grants allocated, NOK (million ECU)	8 653 100 000 (1 070)	9 077 400 000 (1 120)	9 493 000 000 (1 170)
Average individual grant NOK (ECU) per study-year	11 657 (1 440)	12 569 (1 550)	15 808 (1 950)
Average individual loan, NOK (ECU) per study-year	40 498 (5 000)	41 328 (5 100)	39 090 (4 825)

SOURCE: ***MINISTRY OF EDUCATION, RESEARCH AND CHURCH AFFAIRS.***

The grants and loans are allocated according to an official cost of living estimate, being adjusted annually, mainly in accordance with the inflation rate. An effort is being made to ensure that a higher share of the total financial support awarded is in the form of grants. From 1993/94 to 1994/95, the total amount allocated as grants increased by 30 %, from NOK 2 505 million to 3 271 million. For a single student taking up the maximum grant and loan, the share of the grant increased from 22 % in 1993/94 to 26 % in 1995/96.

The principal task of the State Educational Loan Fund is to provide financial support to full-time pupils and students who undergo publicly recognised education and training beyond basic education. Support is given regardless of parental incomes for the period of time normally required to complete the particular course in question. A special grant to cover accommodation costs is available for students who do not stay with their parents or a spouse who has an income.

In principle, awards are the same throughout the country. However, students from the two most northerly counties can obtain an extra grant if they have to stay away from home to attend upper secondary education and training.

Both loans and grants are available. Students enrolled in private, recognised higher education institutions or who attend higher education abroad, can obtain a grant to cover (part of) the admission fees. There are no admission fees at public Norwegian educational institutions.

In principle, there is no difference between students in general and vocational education and training, as regards rights to educational grants and loans. Students in upper secondary vocational school with particularly high expenditure related to purchase of compulsory equipment can obtain extra support.

Students who have an income are not entitled to full grants and loans. Thus, the awards are means-tested against their own income. This also applies to apprentices, who receive a reduced salary as compensation for the productive part of their placement in the training company.

Maximum support — grants and loans — for single students attending public higher education and living on their own in 1997 was in the range of approximately ECU 750 per month, of which grants constituted 20 to 30 %. Loans carry no interest charges during the period of study.

4.2.1.2. Financial incentives to enterprises for initial vocational training

The main model for upper secondary vocational training consists of two years at school and two years in a training establishment. The period at school is financed within the framework of the sectoral support received by the counties. This support also covers the supply which must be provided at school if it is not possible to arrange apprenticeship training in enterprises. For the part of the training which takes place in the workplace, training organisations receive support from the authorities. The size of the grant is determined annually by the *Storting* and corresponds to the cost of a training place at school.

During the two years in the company, it is assumed that the apprentice participates in productive work, thus being of use to the enterprise. As a result, the apprentice receives a wage from the enterprise during this period. The level of this wage is determined by the social partners for each recognised occupation. There is thus no standard 'apprentice wage' in Norway (see also Section 3.1.1.5 above). As is the case for skilled workers and others, the income of the apprentice varies according to which recognised occupation is being pursued.

The financial support to enterprises taking on apprentices consists of several elements.

1. The basic grant

The basic grant to training organisations is designed to cover the enterprise's costs during the year of training. For apprenticeship contracts signed after January 1997, the basic grant is NOK 60 000 (approximately ECU 7 400) per apprentice per year of full-time training. In recognised occupations following the main model, this support will be provided for only one year. For apprentices in recognised occupations with a special training programme, where the Advanced Course I in school is replaced by practical training in an enterprise, the basic grant is paid for two years. If the training organisation chooses to ask a school to take over parts of the training, the grant to it will be reduced proportionally.

Financial support is calculated on the basis of one year of full-time training (paid by the State) and one year of full-time work (paid by the training organisation/employer). However, the State grant to the training organisation is paid in equal instalments, twice a year, over two years, even if in practice at the beginning the apprentice is almost 100 % in a learning position and at the end is almost 100 % in a production role.

2. The quality assurance grant

It is in the public interest that the training be of high quality. The State therefore provides a quality assurance grant to the training establishments. The grant is some

NOK 7 500 (ECU 900) per apprentice per year in the enterprise, including the period of work. The payment to the enterprises is made when the apprentice has passed the practical part of the trade and journeyman's examination. The quality assurance grant is paid by the county, which is refunded by the State.

The quality assurance grant is supposed to be used for measures which improve quality and ensure the implementation of training, for example the training of those who will be in charge of training in the enterprises. The purpose of the quality assurance grant is to strengthen the individual enterprise's ability to take on the responsibility of training skilled workers.

3. Operational grant to training offices and training circles
Enterprises which are unable, or do not wish, to take on alone the responsibility of training may cooperate with other enterprises within the framework of training offices *(opplæringskontorer)* or training circles *(opplæringsringer)* (see Section 3.1.1.5).

The operating grants to training circles and training offices are provided for the complete apprenticeship period in the enterprise. The county is responsible for the payment of the operational grant to the training circles and the training offices for the apprentices for whom it has the financial responsibility.

4. Specially targeted grants
In 1997, there was a special grant of NOK 25 000 (ECU 3 100) for enterprises which did not have apprentices during 1996. There was also a grant of NOK 18 000 (ECU 2 200) for each apprenticeship contract additional to the number of concurrent contracts held by the training organisation between December 1996 and October 1997.

4.2.2. Continuing vocational training

4.2.2.1. Total investment and financial sources

In 1997, the major sources of investment in CVT were as follows:

Figure 28. Estimated expenditure on continuing vocational training (CVT), 1997

Sources of investment	Total annual investment estimate Million NOK (million ECU)
Enterprises and working community	10 500 (1 300) (NOK 8–12 000 per person and labour year)
Labour market authorities	1 700 (210) (Labour market measures)
Education authorities, various levels (supply by study associations and distance education institutions)	200 (25)
Immigration authorities (education for non-Norwegian speakers)	265 (33)

SOURCE: MINISTRY OF EDUCATION, RESEARCH AND CHURCH AFFAIRS.

4.2.2.2. Financial incentives for investment in CVT by enterprises

There are no special taxation incentives for investment in CVT by enterprises. Like other investments, costs related to vocational training qualify for tax exemption. However, market considerations are probably far more important to the enterprises. An expected increase in competitiveness and profitability as a result of higher competence and efficiency is a major motivation when investing in staff training.

In mid-1997, there were few public arrangements for financial support of CVT in enterprises. Government support was to some extent given by the labour market authorities, as a labour market measure. The arrangement, organised as in-service training *(BIO — Bedriftsintern opplaering)* (see Section 3.2.4.3 above), is based on joint funding with a government contribution of a maximum of 50 % of salary costs. The arrangement is targeted at SMEs with less than 100 employees. The aim is to encourage organisational adaptation, adjustment and restructuring in order to prevent future unemployment. In 1997, 732 persons participated, and the total costs for the labour market authorities were NOK 58.6 million.

Support can be provided in situations where the enterprise has decided to change the product range or plans to introduce new technology in the existing production process. Vocational updating and continuing training of existing staff members is most common. But retraining of employees so that they can fill new jobs based on qualifications lacking in the existing workforce is an option. The arrangement also

covers specifically-targeted training of the unemployed so that they can meet the requirements of the jobs available.

4.2.2.3. Financial incentives for investment in CVT by individuals

There was (in 1997) no major remuneration system at the level of the individual aimed at investment in continuing training. Grants and loans for CVT are offered on the same conditions as for initial training. To a certain extent, wage agreements take into consideration the level of education and training of the employees, for example possession of the trade and journeyman's certificate.

Only a few wage agreements in the private and public sector include a right to take leave for VET purposes. The major agreements, which cover most of the labour force in both the private and public sectors, do not give any such permission.

Chapter 5
Qualitative aspects

5.1. Quality standardisation and certification

Within a centralised, homogenous vocational training system like the Norwegian, there are, necessarily, close links between quality standardisation on the one hand and certification on the other. National standards for training content are set as training goals and the competence of the fully-trained candidate is evaluated and related to these standards in final tests and examinations. This applies to all formally recognised vocational training. Training not leading to formal, public recognition and certification falls outside this pattern.

5.1.1. Quality standards and quality assurance measures

5.1.1.1. Political responsibilities and means

Setting quality standards and ensuring quality within 'mainstream', publicly recognised vocational training in upper secondary, higher and adult education are the responsibility of the national authorities.

Within upper secondary education and training, the content is the same throughout the country and is based on curricula drawn up by the Ministry of Education, Research and Church Affairs in close cooperation with the social partners, the teacher associations and others. The principles concerning the structure and content of the curricula are designed in cooperation with the National Council for Vocational Training (RFA) (see Section 4.1.2.1.2), whereas the training councils (see Section 4.1.2.1.3) have identified and specified new final qualification standards for all recognised occupations.

Training at higher education level is based on 'framework curricula' which have to be approved by the ministry for each individual training programme. Higher education institutions have more autonomy than upper secondary schools and are permitted to define training content and goals within the framework curricula.

All training targeted at formal, public recognition must follow the standards set by the ministry; the candidates are subject to the same tests and examinations. In this respect, there is no difference whether the training is provided by a public or a private organisation or what sources finance the training.

Much of the labour market training and many of the sector-oriented, specifically-tailored courses provided in response to market demands are not aiming at formal, public recognition. Thus, the training does not have to relate to public quality standards and certification requirements. A growing number of private providers of CVT, however, apply quality standards, such as the ISO certification system, which have achieved recognition in the enterprises.

5.1.1.2. Implementation and monitoring

The ministry has delegated responsibilities concerning the implementation of the quality standards to the counties and the higher education institutions, respectively. Within upper secondary education and training, management at the national level is conducted in close cooperation with the social partners through broad institutionalised arrangements (see Section 4.1).

Evaluation of training and the results achieved is conducted at different levels and by various actors.

- In connection with the implementation of the comprehensive Reform 94, a separate research-based evaluation mechanism was set up in order to ensure quality in the reform and thus in the training. A number of research teams examine different aspects of the implementation on a continuous basis, filing written reports twice a year on the degree of goal realisation. A specially nominated national working group evaluates the reports and considers the need to make adjustments and improvements. In principle, the system gives the ministry flexibility and allows for quick adjustments, if necessary ([37]).

- Both the schools and training organisations are evaluated and supervised by the county administration. The counties, through their vocational training committees (see Section 4.1.2.2.1 above), are obliged to conduct an evaluation before an enterprise can be approved as a training organisation. Furthermore, the county has a supervisory responsibility towards the enterprise throughout the training period and has the right to revoke its status as a training organisation if the training is not provided in accordance with the targets and training agreement.

- At county level, the training offices and training circles are important tools in the work of ensuring that training, both in the schools and in the enterprises, actually meets the requirements of the curriculum and provides consistent quality to the working community.

- Schools and training organisations themselves evaluate the training they provide and examine to what degree they are in a position to meet the requirements laid down in the curricula, regulations etc. This evaluation is conducted according to set procedures. Accordingly:

  - apprentices are continuously evaluated by the enterprise. This is considered an efficient quality assurance mechanism, as enterprises are preoccupied with productivity and profitability and thus with the quality of work;

  - the National Education Offices *(Statens utdanningskontorer)* (see Section 4.1.2.1.1 above) report annually on the situation within primary, secondary and higher education within their respective counties.

Moreover, an effective quality assurance mechanism is that the trade examinations are evaluated by representatives from the various recognised occupations. In general, these representatives have a strong interest in maintaining a high level of professionalism among skilled workers and will be strict regarding the certification of new candidates.

To ensure high quality training, the ministry has organised and financed the development of various methodological and other aids in order to assist school teachers and trainers in enterprises. The aids, which are supplementary to the

([37]) The social partners have criticised the ministry for its poor follow-up of the evaluation programme. The ministry has chosen to postpone any adjustments to Reform 94 until the completion of the evaluation programme, i.e. until at least 2001 or 2002.

curricula, are not to be seen as directives, but provide advice and ideas through examples of good practice. There is a separate methodological aid for project work as a form of teaching.

Reform 94 presupposes that pupils take some responsibility for their own learning. Thus they are expected to contribute actively to the planning and implementation of their education and training. Written guides have been prepared to assist young people in this respect, including participating in the democratic processes at the school.

For each specific recognised occupation, a 'log book' is used by the students throughout the training period, both at school and in the enterprise. The book specifies major themes of training within the recognised occupation. It is used by both the trainer and the student to document the training provided and the completed assignments. The professional progress of the student is evaluated in writing by the trainers every six months. The 'log book' contributes to ensuring the quality of training and motivates the students to become actively involved in their own training. Furthermore, it functions as an instrument to promote cooperation between the schools and enterprises ([38]).

The National Centre for Educational Resources *(Nasjonalt læremiddelsenter)* has been given responsibility for approving textbooks and other teaching aids used within upper secondary education and training. In its evaluation work, the Centre uses a large network of external consultants with the necessary occupational or pedagogical expertise.

5.1.1.3. Central principles in ensuring quality in upper secondary VET

To ensure that teaching and training maintain the level of quality required by employers and society, and to ensure that the system is able to adjust according to changes in technology and the social environment, the following principles have been applied to mainstream training at the upper secondary level.

- Broad curricula, applicable regardless of where the training takes place and of which groups receive the training. Previously, there were separate curricula for school subjects, apprenticeship training, labour market courses and adult education.
- Modular-structured curricula, designed to increase flexibility and to meet the specific need of some pupils to link sections of their education in order to gain recognised qualifications. This may apply to adults, participants in labour market training and students who, for various reasons, cannot follow a full course of training. The modular structure also makes it easier for schools to relate their courses to the needs of the labour market.
- A wide concept of knowledge including practical skills, ethical values and attitudes and personal qualities, like social competence and communicative skills etc., is applied.

([38]) This documentation system has for several years been used in the training of apprentices in enterprises. On the initiative of the social partners, the ministry decided to introduce the system of 'log books' also in the schools. This was heavily opposed by the major teachers' union *Lærerforbundet*. The teachers boycotted the log book in the 1996/97 school year. However, after taking the dispute to court, the ministry formally established the right to introduce the log book system from the 1997/98 school year.

- Important themes like international responsibility, environmental questions and computer technology are included in all curricula.
- All students receive computer technology training.

The curricula consist of a general part, covering both academic and vocational subjects, and a specific part for the occupation or area concerned. Within a recognised occupation, there is only one curriculum used during the whole training period, both at school and in the enterprise. In the main model at upper secondary level, the training in the apprenticeship period is a natural extension of the training at school.

Apprenticeship training is based on the premise that in-service training provides a better and more realistic knowledge of the recognised occupation. To carry out work of a high enough standard to be competitive, enterprises possess modern, often high technology equipment and use modern working methods. They are preoccupied with productivity and profitability and with obtaining and maintaining market shares. In enterprises, therefore, apprentices will achieve the training which best prepares them for post-apprenticeship employment. This presupposes apprenticeship places in enterprises which provide training of high quality.

5.1.2. Certification

5.1.2.1. *Upper secondary education*

All upper secondary education leads to a formal recognition and documentation of qualifications — either a trade and journeyman's certificate or admission to university — or recognised partial qualifications.

Vocational training traditionally took place within the craft field and major industrial fields such as mechanics, the electrical trade and woodwork. Only in the last 15 to 20 years has there been formalised training in a range of professions in the industry and service sectors.

The ministry decides, on the basis of advice from the training councils and the RFA, which occupations are to be defined as 'recognised occupations'. By mid-1997 there were more than 180 formally recognised occupations. Upper secondary training was provided in these occupations, leading to a trade or craft examination (for list, see Annex 5). Based on a passed examination, a 'trade certificate' or 'journeyman's certificate' is issued, documenting competence, within the specific recognised occupation, to meet the publicly defined skill requirements.

The National Examination Board is responsible for the development of procedures and guidelines concerning examinations and national tests, the nomination of external examiners and the supervision of the overall process.

The final trade and journeyman's examinations are organised by the county education and training administration which also issues the trade and journeyman's certificates. The social partners are heavily involved in all phases of the training and certification process (see also Section 4.1).

5.1.2.1.1. The status of the trade and journeyman's certificate

In most non-academic recognised occupations, workers can practise without having obtained a formal certification. Such workers have the status of unskilled or special

workers. The importance of the trade and journeyman's certificate is, however, growing, primarily due to the increasing emphasis being placed by enterprises on competence and the ability to learn, thus leading to additional demands from employers for documented skills. Many enterprises, especially foreign ones, require that Norwegian suppliers be able to document their professional knowledge, for example to give the share of the staff who have a trade certificate or to refer to international quality standards such as the ISO 9000.

The trade and journeyman's certificate is usually the basis for obtaining middle-ranking positions in enterprises, such as a foreman or a manager with responsibility for the training of apprentices. In order to be approved as a training organisation, an enterprise must have workers who meet well-defined vocational requirements, preferably a trade certificate.

The journeyman's certificate could form the basis for further vocational training, in order:

- to obtain a master certificate, which provides recognition of higher specialisation (at a pre-academic level), documenting that the holder meets special vocational and commercial requirements; and
- to attend technical college which, in turn, provides admission to higher education.

The trade and journeyman's certificates enjoy high status. The aim also is that Norwegian education and training should meet international requirements and obtain international recognition. In the new curricula, international certification requirements are incorporated where feasible.

Teachers of technical subjects should have a trade or journeymen's certificate and practical experience in the field lasting not less than four years. In addition they should have at least one year of theoretical study and one year of relevant pedagogical training.

5.1.2.2. *Higher education and training*

Within higher education, the training institutions themselves issue the final certificates to the successful candidates. One should distinguish between professional and academic recognition:

- *Professional recognition*: Following the European Economic Area (EEA) Agreement, the regulations concerning education and training of certain professions regulated within the European Union have been implemented in Norwegian law. This also applies to EU general directives on mutual recognition.

- *Academic recognition*: The Ministry of Education, Research and Church Affairs decides which disciplines or subjects an institution may offer, and which can form part(s) of a degree or programme protected by the law. The degrees, titles, and the professional and educational programmes that each institution may award, as well as their duration and specific requirements concerning breadth and depth, are laid down in a royal decree.

Students with a completed degree, subject, discipline, professional or educational programme from one institution are by law given credit for it by other institutions.

Each higher education institution may give formal recognition for foreign higher education degrees and studies as equivalent to, or part of, their own degrees or programmes. To facilitate the procedures for applicants, a National Academic Information Centre (NAIC), was established in 1991 to assist the institutions in this work as well as to coordinate it.

Successful completion of study programmes in higher education leads to qualifications as measured in degrees and/or in a professional qualification.

5.1.2.2.1. The degree programmes

The universities offer degree programmes at three levels in the humanities, social and natural sciences:

I — The lower university degree, 'cand. mag.', is normally obtained after three and a half to four years of full-time study (three and a half years in natural sciences, four years or more in other subjects).

II — The higher university degrees in general consist of one and a half to two additional years of study and are called: 'cand. philol.' (humanities), 'cand. scient.' (natural sciences), 'cand. polit.' (social sciences), and 'cand. san.' (paramedical/health education).

III — The doctor's degree programmes generally consist of three years of study after completion of the higher degree.

In addition, some university faculties and the university colleges offer professional degree programmes requiring four and a half to six years of study, e.g. in agricultural sciences, music, business administration, economics, psychology, medicine, dentistry, law, engineering and theology.

The State colleges offer various shorter, vocationally-oriented study programmes which lead to one of the specific college degrees:

- *høgskolekandidat* (college graduate, two to four years), or
- *høgskoleingeniør* (college engineer, three years).

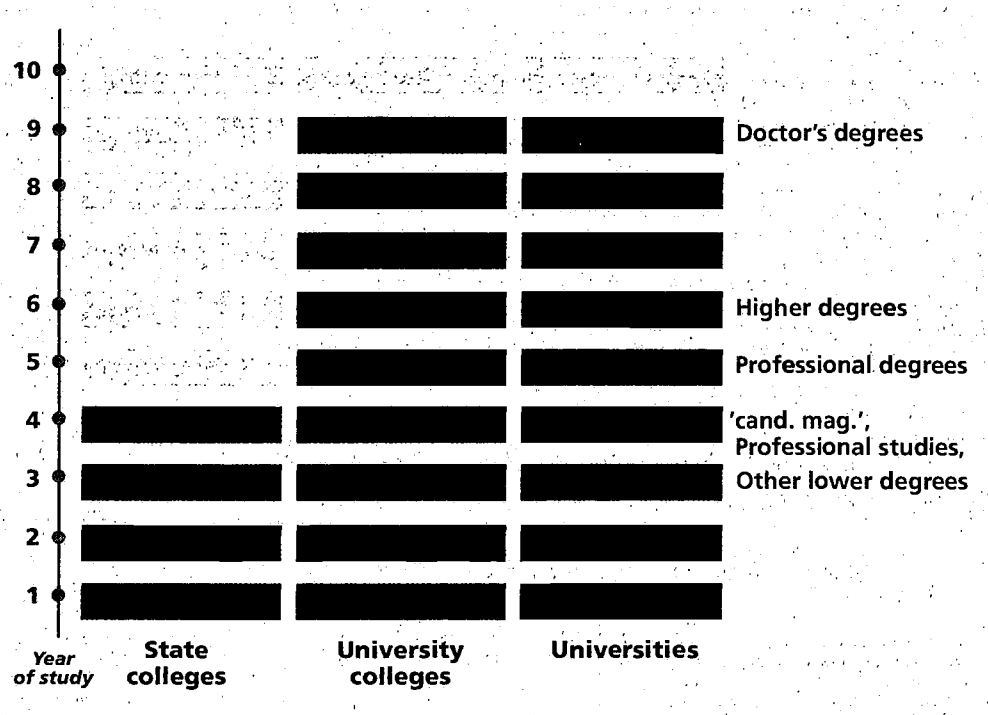
All the State colleges can also confer the 'cand. mag.' degree (corresponding to the lower university degree) for combinations of two or more of these or their other study programmes, on the basis of at least four years of study. In addition, some State colleges have higher degree programmes — mostly in cooperation with universities.

5.1.2.2.2. Interinstitutional mobility

In order to facilitate and encourage student mobility between higher education institutions within the country, degrees (most often 'cand. mag.') can be conferred on the basis of a combination of studies from two or more higher education institutions. This system generally has reciprocal recognition of study programmes between higher education institutions on a time for time basis.

It is thus not uncommon that students move around within the system, both among types of institutions and between vocational and traditional academic education. In this way, a cand. mag. degree can just as well consist of a combination of nursing and political science or physiotherapy and pedagogics as of Norwegian, English and History.

Figure 29. Overall structure of higher education



Note:
The main exception to this structure is to be found in engineering and natural science studies. These programmes are slightly shorter that the others (3 ½ years for 'cand. mag.' and 5 years in all for the higher degrees ('cand. scient.', 'engineer').

SOURCE: ***MINISTRY OF EDUCATION, RESEARCH AND CHURCH AFFAIRS.***

5.1.2.2.3. Other professional qualifications

Although any study programme in higher education can constitute part of a degree, some of the vocational (professional) programmes do not in themselves lead to a degree, but rather either lead to a professional qualification or fulfil the academic requirements that are necessary in a specific profession. Pre-school and general (i.e. primary and lower secondary) teacher education and nursing are examples of the former, as the formal requirements of supervised practice for professional recognition are part of the study programmes, whereas physiotherapy and midwifery are examples of the latter, in which it is necessary to complete periods of practice after completion of the required college programmes in order to obtain a professional qualification.

5.2. Training of teachers and trainers

High competence levels among training staff in training institutions and companies is critical for ensuring training quality. In this perspective, it is interesting to investigate the public training programmes for the groups in question.

5.2.1. Initial teacher training

The IVT for teachers in public education and training institutions varies, depending on the training level and the type of qualification sought. With one exception, all the training programmes are based on a successful termination of general upper secondary education. All programmes are, at least partly, provided by higher education institutions. In 1997, there were the following options.

a. Pre-school teachers
IVT for pre-school teachers is provided as a three-year programme regulated by a national framework plan. The programme is offered at 17 State colleges and 1 private college and comprises:

- practical and didactic training, one and a quarter years
- college education and training in relevant subjects (e.g. Norwegian, Science, Drama), one and a quarter years
- in-depth study of at least one relevant subject
- 20 weeks of supervised practice in a day care institution.

b. Teachers in primary and lower secondary school — general teacher training
This education is offered at 18 State colleges and 1 private college and consists of a four-year study programme regulated by a national framework plan. The content is:

- educational theory and practice, a half-year
- college studies in selected subjects; Norwegian, Mathematics, Religion and Ethics, Natural Science, Environmental and Social Science and one or two practical or general subjects, two years
- optional studies and areas of in-depth study, one and a half years
- 16 to 18 weeks of supervised practice in school.

c. Teachers in lower secondary education
Students who want to target work at this level, have two training options:

1. Training as a 'specialised subject teacher', provided by the teacher training department at the colleges. The three-year programme consists of:

   - two and a half years of selected subjects (e.g. physical education, mathematics and science, business administration, music)
   - a half-year of educational theory and practice
   - 12 to 14 weeks of supervised practice in school;

2. Studies of relevant subjects at universities and/or colleges to reach the graduate level 'cand. mag.' (three and a half to four years), in addition one year of educational theory and 2 to 14 weeks of supervised practice in school.

d. Teachers in general upper secondary education (i.e. academic subjects)
The teachers in general subjects at upper secondary school are graduates from universities and/or colleges who have completed three and a half to six years of studies in relevant subjects. In addition, they have completed a one-year course of educational theory and practice, including 12 to 14 weeks of supervised practice in school.

e. *Teachers in vocational upper secondary education:*
Schoolteachers within vocational upper secondary training have obtained their qualifications through one of the two following alternative routes:

1. three years of training as a 'specialist subject teacher' (see 'Training of teachers in lower secondary education' above);

2. training as a skilled worker, documented by a trade and journeyman's certificate

    - relevant job experience
    - two years of theoretical education at a technical college
    - one year of educational theory and practice including 12 to 14 weeks of supervised practice in school.

f. Teachers at universities and colleges
University and college pedagogic staff are highly qualified within their specific professions, most of them also having research experience. There is no obligatory training in pedagogics targeted at these teachers, but most higher education institutions provide short courses in pedagogics for their new employees.

g. Trainers in resource centres, study associations and other non-public training institutions
Most of the staff at the local resource centres and in the study associations are part-time employees, recruited among teachers, and with the formal training of a teacher. Many trainers in other private training enterprises do have high, formalised professional competence but are not certified as teachers. As long as they are not teaching within a public training institution which is approved for the issuing of formal competence certificates, they are not subject to any demands regarding formal education and training.

In general, teachers' backgrounds vary according to the subject(s) they are teaching. Teachers in general theoretical subjects always have higher education in the subject they are teaching.

To be admitted as a teacher in a specific vocational subject, one must have a background within that same occupation and as a minimum requirement a trade and journeyman's certificate. Many of these teachers have further education as technicians in their field. Some have completed education as an engineer in the field, often on top of a trade and journeyman's certificate and several years of relevant work experience. In addition, all teachers who want to be hired on a permanent basis must attend training in pedagogics at a State college, as either a one year full-time, or two year part-time, course.

5.2.2. Initial training for instructors and other personnel in enterprises

There are no specific IVT arrangements for enterprise-employed instructors and tutors with a responsibility for training of apprentices within upper secondary education. However, in the process of recruitment and approval of enterprises for the training of apprentices, the county education administration conducts an evaluation of the individual enterprise. The level of professional competence of the enterprise in general, and the professional and personal qualifications of the responsible persons in particular, are emphasised (see Section 5.1 above). However, there are no formal requirements as regards pedagogic training.

5.2.3. In-service training for teachers and instructors at upper secondary level

As part of Reform 94, the Ministry of Education has presented an action plan for the updating and further training of trainers to ensure high quality in vocational training at the upper secondary level. This CVT measure is targeting teachers and instructors as well as business leaders and the members of examination boards and appeals boards. The aim is to equip teachers and instructors to meet the challenges in the new curricula and the objectives of Reform 94. By mid-1997, over 60 000 teachers and instructors had participated in this training.

The vocational training offered to personnel is based on four modules, comprising one foundation module and three specialised modules. These can be taken independently of each other. The modules include relevant rules and conditions, the planning and organising of training in the enterprise, basic pedagogics and separately adapted training, evaluation and quality improvement in training. The implementation costs of the action plan are divided between the State, the counties and the employers.

5.3. Vocational information and guidance

5.3.1. Formal responsibilities

The overall responsibility for vocational guidance lies with the Ministry of Local Government and Labour and its subordinate body, the Directorate of Labour. In principle, the labour market authorities offer vocational guidance to all groups and have the role of coordinating all public activity concerning vocational guidance.

Managerial responsibility, however, is to a large extent delegated initially to the education authorities and then further to the school owners and the individual schools. According to the school curricula, all pupils shall receive vocational guidance at different stages in their compulsory education and in upper secondary school.

5.3.2. Implementation

In practice, vocational guidance is provided in two major arenas — in the employment offices and in the lower and upper secondary schools.

5.3.2.1. Vocational guidance for job-seekers

The district employment offices *(Arbeidskontorene)* provide individual guidance as well as collective information on training, education and the choice of occupation. Their main target groups are the unemployed and adults outside the regular education and training system. Also students at all levels have the opportunity to make appointments for vocational guidance at the district employment offices.

Vocational information and guidance is of particular concern for the individual employment offices in relation to the recruitment of the unemployed to labour market training — the AMO courses (see Section 3.2.4 above).

5.3.2.2. Vocational information and guidance at school

The majority of young people receive their only vocational guidance at school. Both the teachers and the school counsellors are obliged to participate in providing information and individual guidance on education and career choices. Such vocational guidance is given at both compulsory and upper secondary school. The school counsellors coordinate vocational guidance activities at the individual schools, often in cooperation with other educational institutions, enterprises and the social partners.

5.3.2.3. Follow-up service (Oppfølgingstjeneste)

Since 1994, all the counties have established a follow-up service which is a body subordinate to the county school authorities. The follow-up service acts as a 'safety net' for school drop-outs and other youngsters between the ages of 16 and 19 who are neither in the education system nor in regular work. The aim of the follow-up service is to provide the necessary information, guidance and practical assistance to direct the clients into a meaningful activity. The opportunities offered lead primarily to general matriculation, a formal vocational qualification or a partial qualification that can improve their access to the labour market. Thus, the activities of the follow-up service include a considerable element of education and vocational guidance.

Every young person in the 16 to 19 age group has a legal right to upper secondary education/training (Reform 94), and must be contacted by the follow-up service if they have not applied for, or if they do not attend, education/training. There is no obligation on young people to enter upper secondary education/training or to contact the follow-up service. However, the county authorities, through the follow-up service, are obliged to contact the young people and to try to find some meaningful activity for them. If they refuse all offers, it is necessary for the follow-up service to receive written documentation from each of them that they have been followed up and have refused to accept the offer put forward to them.

It is estimated that 7 % of all young people in the 16 to 19 age group were contacted by the follow-up service in 1997 and that, of these, 60 % accepted an offer of training or work.

5.3.3. Information and guidance materials

The Directorate of Labour supports the schools and the Employment Service by producing vocational guidance material, e.g. a booklet on the various training, education and career routes, and a 'handbook for job-seekers'. Furthermore, the Directorate has developed special computerised aids providing guidance assistance to pupils, students and others looking for work, education and/or vocational training. One of the data programmes, *Veivalg* (Which way to go), is also helping job and education seekers to establish an awareness of their own values, interests and skills. Both the written publications and the computerised aids are updated regularly.

Written information material on education, training and specific occupations is also produced and distributed by the Ministry of Education, Research and Church Affairs. Furthermore, the major social partners such as LO and NHO have increased their efforts in recent years and invested in the production of written and video vocational guidance materials.

Some of the publications are translated into English. The computerised aids will be extended and also made accessible to interested parties from abroad.

5.3.4. International cooperation on vocational information and guidance

In recent decades, there has been increasing European cross-border cooperation between training organisations and public authorities on the exchange of information concerning education, jobs and living conditions. In recent years, this international cooperation has been institutionalised and structured through the establishment of specialised organisations and networks. This is an important measure to increase the quality of vocational guidance within the context of increasing mobility in a common European education and labour market.

5.3.4.1. EURES

A major body involved in the international exchange of information about education, training, the labour market and living conditions is EURES. The Norwegian unit located in the European Department of the Employment Service in Oslo was established within the framework of the EEA Agreement and constitutes the Norwegian link to the European network of national employment services. The unit's central task is to spread information to other European countries about vacant positions, the labour market situation and living conditions in Norway, and to provide the same kind of information concerning other European countries to Norwegian District Employment Offices and other interested parties.

5.3.4.2. The National Resource Centre for Vocational Guidance — NSY

The National Resource Centre for Vocational Guidance *(Nasjonalt senter for yrkesveiledning — NSY)* was established under the Ministry of Labour as recently as 1996. The Centre is a joint venture between the Ministry of Education and the Ministry of Labour and receives financial support from the Leonardo da Vinci programme.

The activities of NSY represent a strengthening and a broadening of the European perspective in the field of vocational guidance and fall within three main areas.

- *Information activities*

The Centre collects and updates information about educational options and conditions and labour market and living conditions in other European countries and distributes it to interested parties in Norway. Similar information about conditions in Norway is distributed to interested parties in other European countries. The national equivalents to NSY all over Europe are central actors within NSY's network. The information services are targeted at organisations, such as education authorities, training institutions and the social partners, rather than individual school counsellors and students. There is, of course, close cooperation between NSY and EURES.

- *Development of training modules for guidance personnel*

There is an obvious close connection between the level of competence of the personnel involved in vocational guidance and the quality of the service they provide. NSY, the labour market authorities and the Ministry of Education, Research and Church Affairs have joined forces to develop a common framework for continuing education (in-service courses of one year) in the field of guidance and socio-pedagogical work. Within the same framework, a part-time course based on distance learning has also been developed. The aim of these actions is to achieve a general high level of competence among school counsellors and staff at the district employment offices and thus raise the quality of the vocational guidance.

In close cooperation with the key institutions with competence and interest in the field of vocational guidance, NSY took the initiative to strengthen this training by developing two extra modules — both theoretical and practical — with a special focus on the European perspective in vocational guidance. In line with the basic training of vocational counsellors, the two modules will be offered by at least one State college and as an ODL option.

- *Specific Leonardo da Vinci programme-related activities*

NSY is assisting the Leonardo National Coordination Unit (NCU) in information and promotion work with the aim of increasing the number of Norwegian participants in Leonardo projects within the field of vocational guidance. This is partly done through the distribution of written material such as the NSY publication 'EuroCompass' and partly through information meetings and conferences.

5.3.4.3. NAIC

The National Academic Information Centre (NAIC), located in the University of Oslo, is another important actor in the field. The centre provides information and guidance concerning higher education abroad to students, and advises Norwegian universities on the evaluation of foreign qualifications as a basis for further study in Norway.

Chapter 6
Trends and perspectives

Although Norway is not a member of the European Union, developments in Norway in most areas are closely linked to, and affected by, what is happening in the Union. As well as the traditionally close links with many of the EU Member States, this relationship is due to Norway's open economy and its integration in the EU economy through the EEA Agreement.

In this context, both current trends and forecasts must be seen in the light of:

- existing political and administrative decisions and plans at the national level;
- European trends and decisions in the field of education and training;
- technological and economic developments at the national, European and global levels;
- the current demand for specialised labour, both within the public (for example, health care and education) and the private sectors;
- ideological and political priorities among central actors such as LO and NHO;
- developments related to the utilisation of natural resources, pollution, etc.

6.1. Current trends

The most important trends in the field of VET in Norway have already been described quite thoroughly in previous chapters. Below, we will summarise some of them.

6.1.1. A general increase in the level of education and vocational training

The general level of education in the Norwegian population has risen steadily in recent years and is still rising. Reforms within the public education and training system in the 1990s are strengthening this trend by improving both the quality and the quantity of the provision through measures such as:

- the introduction of a statutory right to three years of upper secondary education and training combined with increased capacity and the development of newly recognised occupations at this level;
- updating and broadening of the training content and expansion of the apprenticeship arrangement, implying a more active involvement of the social partners (improved quality);
- expansion of second chance provisions targeted at young adults with no formal IVT;
- improving the provision within publicly-financed adult education at primary and secondary levels;
- modernising the technical colleges (upper secondary level);
- increasing capacity at the universities and other higher education colleges.

There has been an increase in the total higher education student population of 70 % over the past seven years. In 1992, 27 % of all Norwegian 19 year olds applied for admission to higher education; in 1995, this had increased to 31 % and in 1996 to 35 %. It is estimated that at least 40 % of the age cohort in the future will enrol in higher education.

Table 16. **Number of applicants to higher education and total year cohort, aged 19**

	1992	1993	1994	1995	1996
Number of applicants aged 19	16 487	17 377	17 248	16 749	17 797
Year cohort aged 19	61 208	59 603	56 345	53 474	50 877
Applicants as % of cohort	26.94	29.15	30.61	31.32	34.98

SOURCE: STATISTICS NORWAY (STATISTISK ÅRBOK).

The present capacity in higher education corresponds to that which is necessary to provide places for roughly 50 % of each year cohort for a study programme of six years, and the policy at the moment is moving towards a consolidation at approximately this overall level.

6.1.2. Stronger involvement of the social partners in VET at upper secondary level

The role in VET of the most important social partners has been strengthened in recent years. The national associations of employers (Confederation of Norwegian Business and Industry, NHO) and employees (Norwegian Confederation of Trade Unions, LO) are actively involved in policy-making and practical implementation at both national and regional levels. The RFA and the national training councils (see Section 4.1.2.1 above) have been central to the preparations for Reform 94 and the development of new, recognised occupations, whereas the vocational training committees, the training offices, the training circles and the individual enterprises hold crucial positions in the fulfilment of the objectives concerning apprenticeship training at regional and local levels.

6.1.3. Increased women's participation

The female share among students is increasing at all levels in the education and training system. For several years now, women have been in the majority within general upper secondary education. As a result of Reform 94, which introduced several new recognised occupations in sectors traditionally dominated by women, the female share within upper secondary vocational training has also seen a considerable increase.

Within higher education in recent years, women have accounted for 50 % or more of the students at colleges and the shorter university studies. For the academic year 1997/98, preliminary records show a female majority also at the higher university level.

Statistics show that boys and girls, and men and women have different preferences when it comes to the choice of education and training. While girls, in line with traditional roles, dominate the health and social studies subjects, boys totally dominate the traditional occupations within industry and crafts.

A recent interesting observation is that women's choices in higher education seem to lead many of them towards a career within new growth areas such as media,

marketing and business counselling. A possible explanation is a general interest in obtaining a job with direct human contact.

6.1.4. Internationalisation of education and training

In recent years, the government has given priority to strengthening the international perspective in most education and training and, in general, to improving young people's ability to function and compete in an international working context. This must be seen in the light of an increasing internationalisation of the economy, frequent and extensive travelling and rapidly growing global communication networks.

At the upper secondary level, international subjects and trends are integral to all new curricula since 1994. Within higher education, thousands of young Norwegians are attending study programmes at foreign universities and colleges while several hundred foreign students receive their education at Norwegian institutions of higher education.

6.1.5. Recruitment problems within technical professions

At present there is a problem recruiting enough students to higher technological and scientific studies to meet the projected demand despite the fact that career prospects for people with such qualifications are very good. Until recently, however, fresh graduates in science and engineering had some difficulties on the labour market. The capacity in technology and science studies is now larger than the number of applicants. In some sectors, enterprises have difficulties in recruiting engineers to fill vacant positions. In response to this challenge, the Norwegian labour market authorities have launched several measures in order to recruit engineers from other European countries.

6.1.6. Increased focus on CVT — updating and further training

Under rapidly changing conditions, it is important for enterprises to develop a culture of learning and a system which can respond quickly to the new requirements. Both the government and the social partners have made great efforts to increase such awareness in enterprises.

Many large enterprises have established their own training divisions to ensure the necessary updating and training of their staff. Due to limited resources and/or a low awareness, most SMEs have to rely on a wider 'training infrastructure' and cross-enterprise contacts and cooperation. The government and the social partners have provided supportive infrastructure and development measures in order to accelerate the relevant network-building to allow for an efficient flow of knowledge.

All interested parties agree that the situation calls for the development of closer cooperation between the working community and the education and training institutions. At present, there is a gap between the provisions offered and the training needs of industry. Partly due to a lack of flexibility and slow formal decision-making processes, many training institutions have problems in keeping up with developments in technology and markets.

The development of human resources has become an important element in the annual wage negotiations in both the private and the public sector. In the private

sector, the Norwegian Confederation of Trade Unions (LO) and the Confederation of Norwegian Business and Industry (NHO) have been invited to look into central issues for a future reform of supplementary and further education in collaboration with the government.

6.1.6.1. The 'Buer' committee

The so-called 'Buer' committee was appointed by the government to prepare a Green Paper which can form the basis for a national action plan for an extended provision of CVT and the development of human resources in the workplace and in society. The committee's mandate included the investigation and analysis of the following:

- methods for analysing future competence needs in the individual workplace, the public sector and the economy at large;
- how the system of providers of education and training can meet the competence needs of the various sectors and the needs of each individual in relation to employment and wealth creation, including challenges as regards restructuring of the workplace and the increasing use of information technology;
- obstacles to and incentives for continuing education and training;
- systems for the documentation and evaluation of functional/real competence;
- different models for the organisation and funding of CVT and the short- and long-term consequences of different models for the country's economy, the labour market and the development of wages and incomes;
- motivating measures (incentives) targeted at both providers and potential participant groups;
- issues relating to the statutory right to continuing education and training.

The committee submitted its report and recommendations in October 1997. A White Paper based on the report was presented to parliament in spring 1998. Abridged versions (in English) of the Green and White Papers can be found on the Internet at (respectively):
- http://odin.dep.no/kuf/publ/97/buer/es0.htm
- http://odin.dep.no/repub/97-98/stemld/42/engelsk/index.html

However, there are relatively few concrete proposals for action, and there is uncertainty as to the degree of responsibility for further action, particularly in so far as financing of training is concerned, of government bodies and the social partners.

6.2. Perspectives

In the late 1990s, an important objective of education and training is to make the workforce even better prepared to meet the challenge of continuous changes in national and international technologies and markets. Furthermore, education and the acquisition of knowledge are recognised to be the main driving forces for change, innovation and growth in society and consequently a key to economic, social and cultural development.

Based on the current national situation and on international trends, an educated guess is that the following topics will be among the most central on the Norwegian VET agenda in the coming years.

• *Consolidation of Reform 94*
The education authorities will put great effort into completing the successful implementation of the recent reforms. Ongoing evaluation could possibly lead to minor adjustments in Reform 94 but there is no reason to expect major changes as regards basic principles.

• *Further development of the apprenticeship training system*
There is reason to believe that the social partners will be given more responsibilities within IVT, both as policy counsellors and as providers of practical training. The apprenticeship arrangement will be expanded by the addition of even more recently recognised occupations. The government will strengthen efforts to increase the number of apprenticeship places in the enterprises and to minimise the number of candidates forced to complete their training at school — an alternative already regarded as less attractive.

• *Strengthened cooperation between enterprises and upper secondary schools*
Cooperation between schools and enterprises will be strengthened further in order to ensure high quality training provision and an increase in apprenticeships.

• *Improved vocational guidance*
In order to reduce the current mismatch between offered and requested apprenticeship places, career guidance at school will be given higher priority. The most important social partners already demand that the provision offered by the authorities must be based to a greater extent on the needs of the labour market and to a lesser extent on the individual wishes of the students. This also relates to the current problem in recruiting enough students to higher technological and scientific studies.

• *Improving ICT education and training at all levels*
The development of information and communications technologies (ICT) and their rapid introduction into working life represent an extraordinary challenge to the VET system. To meet the challenge and remain up-to-date and competitive, the education authorities and the enterprises will have to invest billions in computers, software and infrastructure over the next few years. There will be a significant increase in ICT training within both IVT and CVT.

• *Further development of CVT*
Knowledge today quickly becomes out of date. The established CVT system has neither the structure nor the breadth to cope with rapid change. Thus, new systems of CVT and lifelong learning must be developed. Against this background, there are high expectations resting on the follow-up to the Green Paper from the 'Buer' committee. Special emphasis has to be put on the issues of financing, leave and substitute arrangements.

• *Extensive utilisation of open and distance learning (ODL) training methods*
To meet the needs of both flexibility and professional updating, the utilisation of new ICT measures will see a rapid increase in the training of staff in enterprises, especially in SMEs located outside the most urban areas. CD-ROMs, the Internet and other possible ODL tools allow for training independent of time and place and will to some extent replace traditional classroom style training, reducing costs and personnel/capacity problems for the enterprises. Furthermore, ODL will probably be widely used by individuals with access to a home computer seeking personal development.

• *Capacity increase in training of personnel within the health sector*
The increasing needs of a health sector faced with an ageing population mean that there has to be an expansion in the capacity to train medical doctors, nurses and other paramedical personnel.

• *Documentation of real competence*
Great efforts will be made to find new ways of documenting personal competence. The need for — in principle — continuously updating and retraining through CVT measures will increase the significance of non-formal training especially targeted at selected tasks, technologies and professional groups. The importance of personal qualifications such as direct communication and cooperation skills, creativity and learning capacity is growing in the post-industrial society. An increasing number of people attend only parts of larger, formal training programmes. Employers, employees and governments all over Europe are working to develop methods of standardisation and documentation of these skills.

• *Further development of international cooperation in education and training*
Cooperation with EU and other EEA countries in education and training will be further developed within the framework of EU programmes and other initiatives to which Norway has access through the EEA Agreement.

Annexes

Annex 1

List of abbreviations and acronyms

This list refers primarily to abbreviations and acronyms in Norwegian and in these cases an English translation is provided. However, it also includes some English abbreviations which are used extensively in the text.

AF	Akademikernes Fellesorganisasjon Confederation of Academic and Professional Unions in Norway
AMO	Arbeidsmarkedsopplæring labour market training
BIO	Bedriftsintern opplæring in-service training
CVT	continuing vocational training
ELBUS	Elektrobransjens utviklingssenter Norwegian Electrotechnical Development and Research Centre
ICDE	International Council for Distance Education
ICT	information and communication technologies
IVT	initial vocational training
KAD	Kommunal- og arbeidsdepartementet Ministry of Local Government and Labour ([39])
KS	Kommunenes Sentralforbund Norwegian Association of Local and Regional Authorities
KUD	Kirke- og utdanningsdepartementet Ministry of Education and Church Affairs ([40])
KUF	Kirke-, utdannings- og forskningsdepartementet Ministry of Education, Research and Church Affairs
LO	Landsorganisasjonen i Norge Norwegian Confederation of Trade Unions
NAIC	National Academic Information Centre
NFR	Norges forskningsråd Research Council of Norway

([39]) After the change of government in the autumn of 1997, the name of this ministry was changed to *Kommunal- og regionaldepartementet*, the Ministry of Local Government and Regional Development.
([40]) Previous name of the ministry, later changed to KUF.

NHO	Næringslivets Hovedorganisasjon Confederation of Norwegian Business and Industry
NITO	Norges ingeniørorganisasjon Norwegian Association of Engineers
NOBI	Norsk bioingeniørforbund Norwegian Association of Bio-engineers
NOS	Norges offisielle statistikk Official Statistics of Norway (published by Statistics Norway)
NOU	Norges offentlige utredninger Green Paper, Royal Commission Report
NSY	Nasjonalt senter for yrkesveiledning National Resource Centre for Vocational Guidance
O&U-fond	Opplysnings- og utviklingsfond information and development fund
ODL	open and distance learning
PIL	Prosessindustriens Landsforening Federation of Norwegian Process Industries
RFA	Rådet for fagopplæring i arbeidslivet National Council for Vocational Training
SND	Statens nærings- og distriktsutviklingsfond Norwegian Industrial and Regional Development Fund
SOFF	Sentralorganet for Fjernundervisning på Universitets- og Høgskolenivå Norwegian Executive Board for Distance Education at University and College level
SSB	Statistisk sentralbyrå Central Statistics Office
TBL	Teknologibedriftenes Landsforening Federation of Norwegian Engineering Industries

Annex 2

Major organisations and institutions

1. Public institutions at national level

Kirke-utdannings- og forskningsdepartementet — KUF
(Ministry of Education, Research and Church Affairs)
PO Box 8119 Dep
N-0032 Oslo
Tel. (47) 22 24 90 90
Fax (47) 22 24 95 40
E-mail: postmottak@kuf.dep.telemax.no
Internet: http://odin.dep.no/kuf/

Kommunal- og arbeidsdepartementet — KAD
(Ministry of Local Government and Labour)
Following the reorganisation of this ministry in late 1997, tasks and responsibilities under KAD were divided. The relevant ministries as of 1998 are:

Arbeids- og administrasjonsdepartementet
(Ministry of Labour and Government Administration)
PO Box 8004 Dep
N-0030 Oslo
Tel. (47) 22 24 90 90
Fax (47) 22 24 27 10
E-mail: postmottak@aad.dep.telemax.no
Internet: http://odin.dep.no/aad/

Kommunal- og regionaldepartementet
(Ministry of Local Government and Regional Development)
Postboks 8112 Dep
N-0032 Oslo
Tel. (47) 22 24 90 90
Fax (47) 22 24 95 45
E-mail: postmottak@krd.dep.telemax.no
Internet: http://odin.dep.no/krd/

Nærings- og handelsdepartementet — NHD
(Ministry of Trade and Industry)
Postboks 8014 Dep
N-0030 Oslo
Tel. (47) 22 24 90 90
Fax (47) 22 24 95 25
E-mail: postmottak@nhd.dep.telemax.no
Internet: http://odin.dep.no/nhd/

Rådet for fagopplæring i arbeidslivet — RFA
(National Council for Vocational Training)
PO Box 8119 Dep
N-0032 Oslo
Tel. (47) 22 24 90 90
Fax (47) 22 24 95 40
E-mail: postmottak@kuf.dep.telemax.no
Internet: http://odin.dep.no/kuf/

Nasjonalt læremiddelsenter
(National Centre for Educational Resources)
Grev Wedels plass 1
N-0151 Oslo
Tel. (47) 22 47 65 00
Fax (47) 22 47 65 52
E-mail: nls@nls.no
Internet: http://www.nls.no/

Eksamenssekretariatet
(National Examination Board)
Tordenskioldsgate 12
N-0160 Oslo
Tel. (47) 22 00 38 00
Fax (47) 22 00 38 91

National Academic Information Centre — NAIC
PO Box 1081 Blindern
N-0317 Oslo
Tel. (47) 22 85 88 60
Fax (47) 22 85 88 69
E-mail: NAIC@admin.uio.no
Internet: http://www.uio.no/www-adm/inta/naic

Norges forskningsråd — NFR
(Research Council of Norway)
P. O. Box 2700 St Hanshaugen
N-0131 Oslo
Tel. (47) 22 03 70 00
Fax (47) 22 03 70 01
Internet: http://www.sol.no/forskningsradet/

Nasjonalt senter for yrkesveiledning — NSY
(National Resource Centre for Vocational Guidance)
PO Box 8127 Dep.
N-0032 Oslo
Tel. (47) 22 94 24 00
Fax (47) 22 94 27 61
E-mail: nsy@adir.aetat.no
Internet: http://www.link.no/aetat

Arbeidsdirektoratet
(Directorate of Labour)
PO Box. 8127 Dep.
N-0032 Oslo
Tel. (47) 22 94 24 00
Fax (47) 22 94 27 50
Internet: http://www.aetat.no

Statens lånekasse for utdanning
(State educational loan fund)
PO Box 195 Økern
N-0510 Oslo
Tel. (47) 22 72 67 00
Fax (47) 22 64 26 36
Internet: http://www.lanekassen.no/

Statistisk sentralbyrå — SSB
(Statistics Norway, Central Statistics Office)
PO Box 8131 Oslo
N-0033 Oslo
Tel. (47) 22 86 45 00
Fax (47) 22 86 49 73
Internet: http://www.ssb.no/

2. Social partners

Næringslivets Hovedorganisasjon — NHO
(Confederation of Norwegian Business and Industry)
PO Box 5250 Majorstua
N-0303 Oslo
Tel. (47) 23 08 80 00
Fax (47) 23 08 80 01
E-mail: firmapost@nho.no
Internet: http://www.nho.no/

Landsorganisasjonen i Norge — LO
(Norwegian Confederation of Trade Unions)
Youngsgate 11
N-0181 Oslo
Tel. (47) 23 06 10 50
Fax (47) 23 06 17 43
E-mail: redaksjonen@lo.no
Internet: http://www.lo.no

Yrkesorganisasjonenes Sentralforbund — YS
(Confederation of Vocational Unions)
PO Box 9232 Vaterland
N-0134 Oslo
Tel. (47) 22 05 36 00
Fax (47) 22 05 37 20
E-mail: klausf@ys.no
Internet: http://www.ys.no/

Akademikernes Fellesorganisasjon — AF
(Confederation of Academic and Professional Unions in Norway)
PO Box 506 Sentrum
N-0105 Oslo
Tel. (47) 22 82 33 00
Fax (47) 22 42 45 48
E-mail: af@af.no
Internet: http://www.af.no/

Kommunenes Sentralforbund — KS
(Norwegian Association of Local and Regional Authorities)
PO Box 1378 Vika
N-0114 Oslo
Tel. (47) 22 94 77 00
Fax (47) 22 83 22 22
Internet: http://www.ks.kommorg.no/

3. Others

Det norske høgskolerådet
(The National Council of Colleges)
PO Box 148 Sentrum
N-0102 Oslo
Tel. (47) 22 82 24 50
Fax (47) 22 82 24 51

Det norske universitetsrådet
(Norwegian Council of Universities)
Harald Hårfagresgt. 17
N-5020 Bergen
Tel. (47) 55 58 98 30
Fax (47) 55 58 98 40
E-mail: ur@dnu.uib.no
Internet: http://www.uib.no/Universitetsradet/

Senter for internasjonalt universitetssamarbeid — SiU
(National Centre for International University Cooperation)
Harald Hårfagres gate 17
N-5020 Bergen
Tel. (47) 55 54 67 00
Fax (47) 55 54 67 20
E-mail: siu@siu.no/
Internet: http://www.siu.no/

Annex 3

Sources for further information

A. Bibliography

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Statistisk Årbok 1997 (Statistical Yearbook 1997) Statistics Norway, Oslo, 1997.

St. meld. nr. 4 (1996–97): Langtidsprogrammet 1998–2001 (White Paper, Report No 4 to the *Storting* (1996–97): The Long-Term Programme 1998–2001). Ministry of Education, Research and Church Affairs. Oslo 1997

The development of education 1994–96. Norway — National Report. Report prepared for the International Conference on Education, 44th session, Geneva, 1996. Ministry of Education, Research and Church Affairs, Oslo, 1996

B. Additional websites (see also Annex 2)

BIBSYS, database, cooperation between all major libraries in Norway
http://www.bibsys.no/english.html

ODIN — Offentlig dokumentasjon og informasjon i Norge
(Public documentation and information in Norway)
http://odin.dep.no/

Statistics Norway
http://www.ssb.no/www-open/english

Norway Online Information Service
http://www.norway.org/

ESOP — dokumenter fra regjering og Storting
(Documents from the government and the parliament)
http://www2.interpost.no/esop/esopsok.shtml

Annex 4

Glossary

The following list has been prepared by the author. It makes no claim to be an authoritative terminological work but explains how terms have been used in this report.

The monograph has been written in English, but the use of specific terms has to some extent been influenced by the original Norwegian term. For this reason, the term in Norwegian has been given first, and its use in English may not be identical to the normal use of the term in the training systems of anglophone countries.

Etterutdanning / Further education
Short updating training

Fagprøve og svenneprøve / Trade examination and journeyman's examination
Occupations and crafts recognised under the act relating to vocational training have a combined practical and theoretical examination at the end of the study/apprenticeship period. A successful passing of the examination is rewarded by a trade and journeyman's certificate.

Grunnkurs / Foundation course
The first year of upper secondary education, general or vocational, provided at school.

Grunnskole / Compulsory school
Primary and lower secondary school; a 10-year period of compulsory, general education from age 6 to 16

Lærebedrift / Training organisation
Employing organisation in the private or public sector which provides training, particularly of apprentices, leading to a recognised qualification

Network Norway
Network Norway is the national network of higher education and research institutions, based on the principles of specialisation, cooperation and communication, which has the aim of developing a joint, integrated knowledge network.

Oppfølgingstjeneste / Follow-up service
Each of the 19 counties has a follow-up service for young people between the ages of 16 and 19 who are entitled to attend upper secondary school but who are neither at school nor at work. The service provides information, guidance and assistance to direct such people into a meaningful activity.

Opplæringskontor / Training office
An establishment at county level organising the formal cooperation between enterprises within an area of training, e.g. the building and construction area, sharing responsibility for training apprentices. The apprenticeship contract is drawn up between the apprentice and the office and the training takes place in one or

more of the member enterprises. The training offices are owned and run by sectoral organisations and enterprises.

Opplæringsråd / Training councils
Twenty national advisory bodies each of which provides advice to the Ministry of Education, Research and Church Affairs concerning one or a few particular recognised occupations. Each body has representatives from the social partners.

Opplæringsring / Training circle
A county-based arrangement whereby individual enterprises may cooperate and be approved jointly as a training establishment. The apprenticeship contract is drawn up between the apprentice and the enterprise with the main responsibility for training.

Reform 94
A comprehensive reform of upper secondary education and training undertaken in 1994, introducing major legal, structural and content changes in the public provision.

Ressurssenter / Resource centre
A training organisation, often established as a department of an upper secondary school, which promotes, markets and provides training measures to local private and public institutions on a commercial basis. The centres may also be organised as foundations or as individual limited companies.

Section 20 (§20) of the act relating to vocational training
Section 20 (§20) of the act relating to vocational training allows adults who wish to obtain a trade certificate and thereby a formal recognition (documentation) of professional knowledge and skills required over time in the context of a job to register for the trade and journeyman's examination without having to undergo systematic training.

Statistisk sentralbyrå (SSB) / Statistics Norway
The central bureau of statistics of Norway.

Statlig høgskole / State college
There are 26 State colleges which provide tertiary education but which are not part of the university sector.

Studieforbund / Study association
Non-profit organisations, generally linked to existing organisations or associations, which provide education and training for adults at all levels.

Teknisk fagskole / Technical college
Public schools owned and managed by the counties which are not viewed as part of the regular upper secondary education and training system, although the training is at the upper secondary level. The training, involving a greater degree of academic specialisation than that obtained through the trade certification system, confers the status of technician. The students are mainly recruited among workers who already hold a trade and journeyman's certificate. Thus, the technical colleges deliver continuing vocational training to skilled workers.

Tilpasset undervisning (opplæring) / Adapted education (training)
Education or training which meets special needs but is on an individual basis in the same class as mainstream pupils.

Videreutdanning / Continuing education
Education/training which expands an individual's competence in a specific area.

Vitenskapelig høgskole / University college
Distinct from the four universities, there are six highly-specialised national higher education institutions known as university colleges, offering specialised, professional training.

Yrkesopplæringsnemnd / Vocational training committee
An advisory body, one in each county, containing representatives of the social partners, which advises the county authorities and bears a major responsibility for implementing vocational training on behalf of the county authorities.

Annex 5

Paths leading to formal vocational qualifications, upper secondary level

The following list shows vocational training options at upper secondary level. The Advanced Courses I and II represent possible choices of further specialisation based on the particular Foundation Course. Except for those marked *, the Advanced Courses II lead to a trade or journeyman's certificate or other documentation of vocational skills.

Foundation course	Advanced course I	Advanced course II/ in-company training
General and business studies	General subjects	General subjects*
	Business and administration	Business and administration*
	Hotel reception services	Hotel reception services
	Retailing	Retailing
	Clerical subjects	Clerical subjects
Health and social care	Caring skills	Care worker
	Nursing auxiliary	Nursing auxiliary
	Child and youth work	Child and youth worker
	Skin care	Skin care skills
	Pedicurist	Pedicurist
	Medical service skills	Dental secretary
		Pharmaceutical technician
		Medical secretary
	Environment and maintenance work	Cleaning operative
	Ambulance service	Ambulance service
Agriculture, fishing and forestry	From all Advanced Courses I in the area of study	Land management
	Fishing and hunting	Fishing and hunting
	Aquaculture	Aquaculture
	Forestry	Forester
		Forestry equipment operator
		General forestry
	Agriculture and land management	General farming (agronomist)
		Farrier
	Landscape gardening/sports ground management	Landscape gardener
		Sports groundsman/sports-ground management
	Market gardening and gardener	Gardener
	Reindeer herding	Reindeer herding
	Ecological farming	Ecological farming

Arts, crafts and design	Furrier (special path)	Furrier
	Sewing	Sail making Milliner Women's tailor Men's tailor Costume-maker Industrial sewing Pattern grading
	Art crafts and design subjects in various areas of study	Textile printing/embroidery
	Textile printing/embroidery	Textile printing/embroidery
	Knitting/ weaving	Knitting/weaving
	Hard/plastic materials	Hard/plastic materials
	Drawing/design/colour	Drawing/design/colour
	Advertising/illustration/design	Interior design Display
	Activator	Activating
	Photography	Photography
	Pre-printing (graphics)	Pre-printing
	Flower arranging	Flower arranging
	Hairdressing	Ladies' hairdressing Men's hairdressing
	Wigmaking and stage make-up (special path)	Wigmaking and stage make-up
	Glassmaking (special path)	Glassmaking
	Saami crafts	Saami crafts
	Gold and silver work	Goldsmith Silversmith Filigree worker
	Engraving (special path)	Engraving
	Shoemaking (special path)	Shoemaking
	Taxidermy	Taxidermy
Hotel and food-processing	Industrial food production	Industrial food production Dairying/the dairy industry
	Fish-processing	Fish-processing Fishmonger/fish wholesaler
	Meat-processing	Butcher Meat sorter Sausage maker Retail butcher
	Baking and confectionery	Baker Confectioner
	Cookery	Cook Institutional cook
	Waiting	Waiting

Building and construction	Carpenter	Carpentry Wooden housing prefabrication Sale of lumber and building materials
	Bricklayer	Bricklaying
	Cementing trades	Reinforcing Concrete moulding Formwork Cement industry work
	Construction and mining	Asphalt work Road/construction trades Tunnelling and blasting Mining Roadbed construction
	Construction machinery operator	Construction machinery operator
	Stonemason	Stonemason
	Plasterer (special path)	Plasterer
	Scaffolding	Scaffold building
Technical building trades	Plumbing Copper and sheet metalwork	Plumber Copper and sheet metalwork
	Painting and papering	Painter Paperer
	Technical drawing	Technical drawing
	Surface treatment	Machine and industrial painter Galvanising Thermo-metal spraying Hot dip galvanising
	Glaziery (special path)	Glass work Master glazier in lead glass Glass grinder
	Chimney sweeping (special path)	Chimney sweep
	Insulation (special path)	Insulator
	Roofing (special path)	Roofer
	Mapping and surveying	Mapping and surveying
Chemical and process trades	Chemical processes	Chemical process industry Wood-processing industry Metallurgical process trades
	Laboratory trades	Laboratory trades
	Dry cleaning (special path)	Dry cleaning

Woodworking trades	Piano tuning/repairing	Piano tuner/piano repairer
	Lumber trades	Lumber trades Laminated wood trades
	Joinery	Joiner Wooden model builder Basket maker Cooper Organ builder Parquet layer
	Wood carving Wood turning (special path)	Wood carver Wood turner
	Upholstering	Upholsterer Industrial upholsterer Saddler
	Wooden boat builder	Wooden boat builder
Electrical trades	Electrical trades	Power-station fitter Electric motor and transformer repairer Lift installation fitter Electrician, repairs Signals fitter Power station technician Electrician Railway electrician
	Electronics	Space technology Electronics serviceman (8 different trades) Telecommunications fitter Production electronics technician
	Automation	Automation worker Board assembler Winder and transformer fitter
	Marine subjects	Able seaman training
	Aircraft trades	Aircraft technology (followed by in-company training; either aircraft mechanic systems, aircraft mechanic components, aircraft mechanic engines, aircraft mechanic airframes or aircraft mechanic interior and equipment) Avionics (followed by in-company training in either systems avionics or component avionics)

Engineering and mechanical trades	Machine trades	Machine operator Toolmaker Measurement controller Nautical instrument maker Machine moulder Pressure diecasting
	Plate metalwork and welding	Plate metalworker Welder Industrial plumber Aluminium construction NDT control, radiography NDT control, ultrasonic NDT control, magn.par./liquid penetrant Smith
	Vehicle spraying	Vehicle spraying
	Refrigeration fitting	Refrigeration fitting
	Heavy machinery	Construction machinery repairer Farming machinery mechanic
	Mechanical processes	Skilled operator, chemical/technical industry Metal moulding Ceramic moulding Cable maker Wallboard/particleboard production Ceramic decoration Material administration
	Marine technical operations	Motorman
	Electromechanical subjects	Precision mechanic Metal component maker Automation mechanic Chassis builder Locksmith Train mechanic Optical and geodesic instrument maker Industrial mechanic
	Transport	Heavy vehicle driver Terminus staff
	Spare parts mechanic	Spare parts mechanic
	Well service technician	Well service technician
	Motor vehicles	Light vehicle repairer Heavy vehicle repairer Engine mechanic Motorcycle repairer Vehicle damage repairer Wheel components repairer

Gunsmith	Gunsmith
Bookbinding Printing	Bookbinding Printing Paperboard binding Serigraphy
Plastics	Plastics
Industrial fabrics, yarnmaking	Industrial fabrics, yarnmaking and spinning (special path) and spinning
Industrial fabrics, weaving (special path)	Industrial fabrics, weaving
Industrial fabrics, knitwear (special path)	Industrial fabrics, knitwear
Industrial fabrics, dyeing, printing finishing (special path)	Industrial fabrics, dyeing, printing finishing
Industrial fabrics, fishing (special path)	Industrial fabrics, fishing gear
Watchmaker (special path)	Watchmaker
Shipbuilding	Machine operator Plate metal worker Welder
Industrial plumber	Industrial mechanic
Orthoprosthesis (special path) Orthopaedic shoes (special path)	Orthoprosthesis Orthopaedic shoes
Various Advanced Courses I	Bicycle repairman

CEDEFOP — European Centre for the Development of Vocational Training

Vocational education and training in Norway

Luxembourg: Office for Official Publications of the European Communities

1999 — 153 pp. — 21 x 29.7 cm

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URL: http://www.jean-de-lannoy.be

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Fax (32-2) 735 08 60
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URL: http://www.libeurop.be

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Fax (34) 915 38 21 21 (Libros),
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E-mail: clientes@com.boe.es
URL: http://www.boe.es

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URL: http://www.mundiprensa.com

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Fax (33) 140 58 77 00
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URL: http://www.ftbcc.it/licosa

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URL: http://www.mdl.lu

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Christoffel Plantijnstraat 2
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2500 EA Den Haag
Tel. (31-70) 378 98 80
Fax (31-70) 378 97 83
E-mail: sdu@sdu.nl
URL: http://www.sdu.nl

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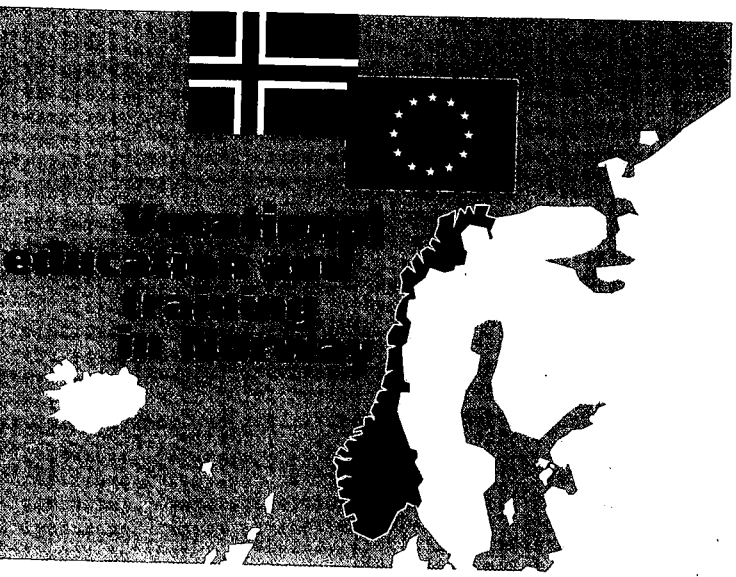

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