Origins and development of VET 1850-2008
- an investigation into the Norwegian case

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This report is one of the first four country studies from the comparative Nordic research project, Nord-VET, supported by NordForsk (http://www.nordforsk.org/en) under the Nordic Council of Ministers. Parallel to this Norwegian report similar historical research reports are published by the project on the other countries participating in the project: Finland, Norway and Sweden.

The purpose of the project is to generate new knowledge on the strengths and weaknesses of the different models of vocational education and training (VET) at upper secondary level in the four Nordic countries. This research is expected to strengthen the knowledge base required for developing VET for the future. The Nordic countries provide unique opportunities for comparative research in the field of initial vocational education. On the one hand they are characterized by similar societal contexts; on the other hand they exhibit significant differences in their models of VET. This situation has made the Nordic countries a living experiment of diverging forms of VET, in which a variety of qualities can be explored in relation to closely related societies.

The main purpose of this project is to shed light on the different Nordic ways of handling the key dilemma of providing double access to the labour market and to higher education (HE) in vocational education. More specifically it seeks to determine how the different ways of handling this dilemma have an impact on social equality, inclusion and the esteem of vocational education.

The first four parallel historically oriented country reports are planned as a base for subsequent comparative thematic studies to be published in the next three years.
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The report is based on research work carried out during a 30 year period in which the authors have been involved. Most of it emanates from AHS, a multi-disciplinary group for the study of relations between education and work. It builds on the collective efforts of this group in the study of relations between education and work studies of VET as well as case studies of working life. It builds on a considerable number of contributions, published and unpublished, by Ole Johnny Olsen, Rune Sakslind, Tor Halvorsen, Trond Haga, Knut Venneslan, Hans Jacob Ågotnes, Knut Grove, Jan Heiret, Håkon Høst, Lars Ove Seljestad, Ove Skarpenes, Svein Michelsen as well as a contributions from a large number of hovedfag- and master students in this period, too many to mention. We thank them all for their contributions.
Introduction

The historical development of VET in the Nordic countries has not gained much attention within the field of VET research. Whether a specific Nordic” model” actually exists at all is contested\(^1\). But the concept of a Nordic model has been used in a number of theoretical approaches; in the comparative studies of welfare regimes \(^2\), in comparative industrial relations and labour market regimes \(^3\) as well as in the study of political systems and innovation systems. \(^4\) The Nordic countries are also considered as a subset of coordinated economies in the variety of capitalism literature. \(^5\) The Nordic model has also been associated with the rise of social democracy and “the third way” combining capitalism and welfare. \(^6\) Central characteristics of this model is the combination of consensual political systems and capitalist dynamics, persistent egalitarianism, strong labour movements, strong business associations, large welfare states and centrally coordinated collective negotiations, small wage gaps, universal welfare arrangements and commitment to full employment by governments. The “Nordic model” literature often focuses complementarities and the products of compromises, associated with an emphasis on prudence, technological modernization and productivity on the one side and redistributive policies on the other hand. Other observers point towards a strong protestant ethic, the relative absence of feudalism, literacy and the early formation of universal public school systems. Dølvik (2007) \(^7\) states that the Nordic countries have been marked by cultures in which small social distances, autonomy and nationalism have been mixed with respect for skills and knowledge and broad international orientations.

\(^1\) Øystein Sørensen and Bo Stråth (1997), *The Cultural Construction of Norden*. Scandinavian University Press
\(^3\) Moene, Kalle and Michael Wallerstein (2001) "Inequality, Social Insurance, and Redistribution", *The American Political Science Review* 95 (4)
The viability of the Nordic system and the third way remain contested. In the 1990ies Ralf Dahrendorf foresaw the end of the social democratic century. European outlooks and prospects seem to have shifted from social-democratic centre-left solutions to Christian-democratic centre-right. Modernizers of social democratic third way argue that social democrats have no choice except to embrace the logic of globalization and liberalization. Traditionalist defenders of social democracy vouch for the reconsolidation of old virtues and structures in the form of managed capitalism and the nation state. Liberalist solutions have to be resisted in order to sustain core social democratic values. Others argue that a trend towards liberalization could be identified, but in various forms and shapes, and that such orientations might be compatible with new politics of social solidarity. Furthermore,” that institutions of egalitarian capitalism survive best not when they stably reproduce the politics and patters of the Golden Era, but rather when they are reconfigured – in both form and function – on the basis of new support coalitions.”

VET and the Nordic countries

As previously mentioned, the Nordic countries have been associated with a number of features associated with welfare, education, egalitarianism and political consensus. But what is conspicuous is that there is not much mention of their VET systems. It is sometimes acknowledged that the skilled workers in the Nordic countries have contributed to their economic success, but not much more than that. What has the VET literature to say about Nordic VET?

In the field of vocational education and training typologies abound. The comparative institutional literature on VET emphasize the significance of various types of regimes. In a seminal contribution Greinert (1998) made a distinction between three classical training models; the market model, the comprehensive state-bureaucratic model and the dual corporatist model. In the market model, the relation between training demand and supply is regulated by the

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11 Ibid.
13 Thelen (2014:3)
14 Hilson (2008)
market, and the price of qualifications depends on its application in the labour market and in the firm. The logic of the market assumes that the most fruitful political contribution to skill formation would be the dismantling of whatever institution exceeding minimum requirements. Organized interests are considered as restraints, and cost-benefit-calculations in the labour market represent the key to hiring of apprentices.

The dual system model refers basically to relatively autonomous vocational systems with their own organizational structures and training regulations. In its ideal-type form the dual system is embedded in strong and legally founded intermediary associational institutions which manage the qualification processes and secure employer and employee initiative. The logic of the dual system emphasizes possibilities for developing apprenticeship through long term investments in skills, creating possibilities collective practices. Intermediate organized actors will contribute strongly to the formulation, administration and implementation of public policies for apprenticeship formation. The occupational principle (the principles of “beruf”), self-administration and learning through work are assumed to have significant implications for the type of solutions fashioned to address policy problems.

The state-bureaucratic control model focuses on educational governance and political control. This line of policies is heavily related to a broader educational reform context. VET, apprentice training and intermediary organizations assumes a subordinate position to the logic of the educational system at large, and apprentices are primarily considered as an educational category combining learning and work, but not as workers.

Busemeyer and Trampusch (2012) distinguish between four types of systems: Collective skill formation systems, state-bureaucratic systems, liberal systems and segmentalist systems. Here the central focus is on “the division of labour between firms associations and the state in providing and financing skills”. Two dimensions are central; the degree of firm involvement and the degree of state involvement. In statist systems the state is highly involved in VET, while employer interest and influence remains subordinate or negligible. What is special about collective skill formation systems is that conflicts between state intervention and firm autonomy are solved in specific ways. The firm is rather more involved in the produc-

17 Busemeyer and Trampusch (2012:11).
tion and financing of training than in other systems considered as state-bureaucratic or liberal/marked-based. But preserving as much autonomy for the firm as possible does not contribute the active participation of the firm in collective training arrangements. However, if the autonomy of the firm is constrained too much by external regulations, firm participation in in apprentice training is no longer viable. Second, there is the role of intermediate associations and trade unions in the administration and reform of VET, where powers are delegated to semipublic bodies empowered to monitor training practices and training quality. Crudely speaking, training firms are supervised and monitored by “their own kind”, securing legitimacy, and the appropriate leniency in the interpretation of regulations. In state bureaucratic systems the employers and the employee unions most often has a different and more subordinate role to play. In segmentalist systems\textsuperscript{18} high involvement of firms in initial VET is related to low public commitment. The difference to liberal skill formation is that the willingness of firms to participate in VET is much higher, and a considerable percentage of youth enter internal labour markets for training.

However, questions could also be raised about the seemingly homogenous and unity nature of the national VET models. National models can be loosely coupled, providing space for considerable variation in training models and training practices between different branches of working life. In Denmark as well as in Norway training structures and practices vary across important areas of working life. Accordingly the tidy picture of the different national models is substituted by a view of a landscape displaying a diversity of practices and permutations. Political intervention, aiming at a strengthening of apprenticeship policies and practices will create new but different conditions for skill formation practices in the different sectors and branches of working life, and have different implications and effects.

But the issue of a possible Nordic model has not been much discussed. Instead the differences between the Nordic countries in VET policies and VET institutions have often been emphasized in the comparative literature on vocational education and training systems. Denmark is often (together with Germany, Austria and Switzerland) treated as the archetype of a

dual system, while Sweden represents a bureaucratic state system. 19 In the Busemeyer/Trampusch typology Denmark is represented as a collectivist skill formation system, while Sweden and Norway are represented as statist systems. 20 But also here there is some confusion. It has been maintained that the Scandinavian countries have been under the dominance of the political force of social democracy, resulting in a strong public commitment to vocational training, which in turn have contributed to the marginalization of the role of the employers in initial vocational training. 21 Here it seems as if the Swedish case is equated with the whole of Scandinavia. This is not unusual in non-Nordic literature. The literature on the Norwegian VET system is somewhat ambiguous. Norwegian VET system had been characterized as a school-based system, 22 as an apprentice-based system, as a system with clear liberal traits or as a mixed system, a hybrid system or a compound, combining different elements from these systems.

So why should a possible Nordic VET “model” warrant any interest? What can be learnt? Available research provides some interesting findings. While VET systems presently often struggle with declining participation rates, decreasing esteem and high dropout rates, enrolment in VET has increased in Finland, remained relatively stable in Norway or decreased somewhat in Denmark and Sweden. Apprenticeship has emerged as a desirable and highly relevant template for modern VET. This trend has gained considerable momentum in Denmark as well as in Norway. In Denmark the old system has been revitalized and reformed into a dual system. In Norway a similar but sequentially organized relation between school-based VET and apprentice training in the enterprise has been forged. Even in Sweden, where apprenticeship has been relatively marginal, a new interest in the policies and practices of apprenticeship has emerged, and a national program for apprenticeship is in the making.


However, systematic comparative studies of the historical formation of VET institutions and policies in the Nordic countries have not been carried out, and for some of these countries available materials on historical developments in VET are patchy and not easily accessible. Thus there are strong reasons for a renewal of assessment of the Nordic experiences in VET in a more European perspective. What is the character of these VET systems? Such questions warrant a solid basis in the form of historical research on the formation of these systems. Therefore we ask: What characterize the formative phase of the Norwegian VET system? Norway has historically developed heavy interdependencies to Denmark and Sweden. These interdependencies have in turn fuelled domestic debate on possible and appropriate avenues of reform of VET, where different segments of the national elites have preferred different types of solutions. The debate on Norwegian VET has gravitated on the one hand towards Swedish solutions and the construction of VET schools and Danish solutions focusing apprenticeship on the other as well as other influences. This brings about a picture of the Norwegian VET system as a melting pot, developed under conditions of egalitarianism, where educated elites have had a weak position. The Norwegian system of vocational education and training of today, may be characterized as a hybrid or an amalgamation. It combines features from dual system with features from comprehensive statist, school based VET systems, it combines public high commitment to vocational training with high social partner involvement in a number of fields in working life, and it combines a separate system for VET with full integration into a comprehensive system of upper secondary education. State involvement and social partner influence has been transformed as VET has evolved into an integral part of the upper secondary education system, circumscribed by a statutory right to upper secondary education for all youth. This right does however not extend to the provision of apprenticeships. But the right to an adequate learning outcome for the apprentice, once accepted as an apprentice, does.

Perhaps what is original about the Norwegian VET are not its ingredients per se, but the reaction of the different elements with each other and their recombination under particular societal conditions into new and perhaps unexpected forms. Emerging policies have featured oscillations over time between elements associated with different models of VET, between Danish

and Swedish influences and policies, where the appropriation of one form of international influence seems to have brought on movements in quite another direction.

This situation have created paradoxes and dilemmas, where policies and their interpretation, as well as regulations are continually politically contested from a variety of perspectives ranging from a social policy point of view, to a competence point of view, stressing the need to build a skilled worker category and training programs of the highest quality. The boundaries between the school and the apprentice policy sectors have been blurred and unclear, producing potential tensions between state structures/schools on the one hand and the social partners and the firms on the other.

All this suggests that relations between general education and VET have been complex and fluid in Norway. The working paper traces the development of this vocational modernization process, the new school types which were formed in that process as well as emerging relations between school types providing general as well as vocational training and political compromises structuring relations between them in the period 1860-2008. Focus is also on the relations of VET to general education and to the labour market. Central is the identification of drivers, key stakeholders and evolving interest coalitions and political regimes behind the development of VET.

The baseline of the report

The future of Nordic VET is a comparative project comparing VET in the Nordic countries. The project has many components, including a historical part. A model of Nordic VET may be defined in many ways and in different scientific traditions. It may be defined as a more or less tightly specified selection of traits or variables, or in historical terms by the route or path through which it has evolved.

But what constitutes such a path? First it depends on what is meant by the Nordic countries, second on how we define a path. The Nordic region denotes a small and sparsely populated area at the margins of Europe, presently comprising the nation states Norway, Sweden, Denmark, Iceland and Finland. Often it is used interchangeably with Scandinavia, especially in the English-speaking world. Furthermore, Sweden has often been associated with Scandinavia or the Scandinavian model, especially in welfare research. If restricted to the 20 century
an analysis could perhaps be based on independent states without considering its neighbours, but before that such an approach has considerable difficulties. This applies especially to Norway which was part of Denmark-Norway for 600 years, before assenting to Swedish rule in 1814 until 1905.

If we take the literature on social democracy as a baseline, the ascent of this type of regime is most often identified with the 1930ies. But some authors have argued that it might be fruitful to associate Nordic history with that of a Nordic exceptionalism or a “Sonderweg”, dating back to the 18 century of possibly even earlier, based on the enlightenment traditions of liberty and equality.\(^{24}\)

The basis for this report is the assumption that knowledge on the origins and historical formation of vocational education and training is critical for an adequate understanding how today’s system works. This means going beyond the social democratic period. We have chosen 1850 as a starting point. At this point industrialization was kicking in. The report is structured in three periods with different characteristics

1. The liberal state 1850-1930
2. The social democratic state 1930-1994
3. The NPM state 1994-

We have attempted a fairly crude periodization based on three periods. The aim is to focus different interest configurations which have been dominant in different periods, and how VET policies have been developed. We have made a distinction between the liberal state, the social democratic state or labour party state and the NPM state. This is a periodization which has been used quite often in order to analyse different types of political regimes in Norwegian history.\(^{25}\) The first period is related to the emergence of the liberal state. Before 1814, Norway had been an integral part of the Danish-Norwegian realm for 600 years. In 1814 Norway was separated from Denmark, formed its own constitution and declared itself as a sovereign state. There after Norway assented to Swedish rule. At the time Sweden had relinquished Finland to Russia, turned against Napoleon and oriented its ambitions towards Norway, which became subjected to Swedish rule until 1905. In the beginning Norway was basically ruled

\(^{24}\) Sørensen, Øystein and Stråth, Bo (1997) *The cultural construction of Norden* Universitetsforlaget: Oslo

\(^{25}\) Seip (1970)
by officials and civil servants. But as the contours of a liberal Norwegian state emerged, a
variety of social movements were mobilized and evolved through that very process. Eventu-
ally a grand coalition emerged which assumed power in 1884. The farmers and the labourers
organized themselves and became district forces in the new nation state of Norway. Political
parties were formed and parliamentary rule established. Second, the unitary school emerged
as a central element of a nation-building process. Third, a considerable number of interest
organizations in the professions as well as employer and employee organizations in crafts and
industry were formed. A variety of these movements and the organizations they created were
incorporated into the state apparatus and wielded state sanctioned expertise. Thus state capac-
ity and the state administrative traditions came to include considerably more than the classical
traits of weberian bureaucracy and rule of law.

School-like institutions for practical training and education emanated from the artisan and
handicraft movement, while home economics or domestic science evolved into a core educa-
tional project for the women’s liberation movement and women organizations. Norwegian
society kept strong agrarian features. Industrialization was slow, and industry and crafts in-
terests and their organizations had a hard time finding space and opportunity in a country
dominated by the civil service one the one hand and agrarian interests on the other. Com-
merce education evolved as a private endeavor.

The social democratic state or the social democratic order denotes the period when the labour
party came into power in the 1930ies. Older Marxist outlooks and orientations were relin-
quished. New policies for equality and equity between general and VET were formed, and
separate laws and governance institutions for the systematization of the different school types
in vocational education and training as well as apprenticeship were developed. The diverse
and specialized industrial relations system which had emerged under the liberal state was
strongly institutionalized and structurally rationalized. New boundaries were formed between
general education and vocational training. We have divided the social democratic state period
into sub-periods, where the increasing specialization of the different vocational educations
after the war period is contrasted with the comprehensivization of lower secondary education
of the 1960s and transformation of the educational system 1970s in order to reduce inequity
an open up for higher education for all.
The duration of the social democratic state is debateable. Normally it is argued that 1970 represent the divide. It is difficult to attribute this change to specific events. But as far as educational policies in general and VET in particular are concerned, 1994 represented the new order in Norwegian VET policies. Older corporatist structures were reduced, modified or demolished, and new relations between general education and VET were formed through the integration of the apprentice system into the comprehensive upper secondary school.

About the concept of VET

Last but not least there is the question of the definition of VET. In general, VET could be regarded as a standardized policy area, a policy sector or a broad social and organizational field. In comparative terms VET has traditionally been defined in opposition to general education, as practical education, as education and training for manual labour, or as training for the hand and not the mind. 26 In VET comparative practice is has almost exclusively been defined in relation to industry and the crafts, that’s is; working life in a traditional sense. But the boundaries of VET have been unclear and varied in time and space, as well as relations between general education and vocational education. Educations which at one point in time were defined as practical or vocational have often evolved into general education by means of assimilation processes and mechanisms. 27 Also relations between educational institutions and the class structure can changed over time.

Furthermore, VET can be seen as a political sphere or a policy sector where various interests groups seek to shape the use of government power. 28 Definitions of educational types may change, as well as relations to the educational system in general. 29 Such changes are also heavily dependent on the embedding of educational institutions into specific policy areas. A

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change in the definition of policy areas and educational institutions or a movement of political interest beyond previous accepted lines might also lead to a redefinition of educational institutions. For VET institutions such sectorization processes might have important implications. Here the structure of the state is of central importance.

As previously mentioned VET has usually served as a common denominator for a specific type of training, which is provided in a variety of different institutions like the firm and the school. Most often it refers to institutions that are responsible for training in industry and crafts. This type of specification might seem trivial, but not quite. In modern definitions industry and crafts represent two different and distinct types of production. Craft often alludes to work of the hand, emphasizing qualifications and manual skills. Older definitions alludes to “hand work”, “handwerk” in German or “håndverk” in Norwegian. “Craftsman”, “handwerker” or “håndverker” is whoever has the personal and material prerequisites necessary to produce artefacts. But craft production was not traditionally a specific type of production compared to industry. Instead it represented production in general. Craft could also be regarded a legal institution. According to this type of reasoning craft is a specific type of production which only certified institutions can perform. Artisan law required that only licenced masters in the trade were allowed to engage in such business activities. As a consequence of the reduced status of the guild system, these types of qualifications could no longer be adequately acquired in the firm, and school based training evolved as a functional alternative. A number of different types of schools were formed in order to serve and service the development of industry and crafts. But the formation of different school types were to a significant extent characterized by evolving tensions between crafts and industry, albeit in different forms and in different ways.

30 Starr and Immergut 1987:221
33 Ibid.
34 Ibid.
But also the concept of “industry” is ambiguous. 150 years ago the concept of industry in Norwegian usage basically included all processing of raw materials, including agriculture.\textsuperscript{36} The concept of industry also had important connotations in relation to diligence and moral qualities. The development of “Husflid” (Norwegian for “handicraft” or “house industry”) was related to the agricultural revolution. In the wake of the dissolution of the old guild structures a number of models for the production of goods were formed, and in practice it can be difficult to draw clear boundaries between them. Handicraft was also related to national self-subsistence motives\textsuperscript{37}. Handicraft was regarded as a moral endeavour, and as a central instrument towards personal industry and austerity. Handicraft acquired a particularly strong position in Norway.\textsuperscript{38} As late as 1880, handicraft was regarded as a central element of the Norwegian business community, and as an important area for public policy formation. Later on the particular aesthetic and national values associated with handicraft products and production were increasingly emphasized. However, handicrafts could not compete with industrial mass production. As industrial forms of production developed, handicraft was transformed and evolved into a more cultural art direction, under the influence for the art museums. In that process handicraft acquired a new profile focusing the national romantic ovement and the resurrection of traditional “folk” art.

Attempts were also made in order to include “practical” elements into universalised and obligatory primary education. But unlike schools for industry and crafts, practical work came to represent a type of school criticism and a contribution to didactic innovation in primary education. Crudely stated, as primary education, practical hand work evolved as slöjd for boys and needlework for girls\textsuperscript{39} in the 1870s Norwegian reformers campaigned for the introduction of handicraft and hand work in primary education equal in status to that of the theoretical subjects. Again the moral aspects of handicrafts were considered as the most important. Hand work in school was not considered in terms of materialistic interests but as general education. In 1889 education in needlework for girls was made obligatory in town schools. Also in rural areas such education was provided even though it was not obligatory. In 1908 school kitchen education was introduced. Practical work in the form of handicraft was still considered as general education, as teaching was not oriented towards economic means but aimed a serving

\begin{footnotesize}
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\item \textsuperscript{36} Halle et al (1985)
\item \textsuperscript{37} Glaambek, Ingeborg (1988) \textit{Kunsten, nytten og moralen. Kunstindustri og husflid i Norge 1800-1900}. Solum Forlag: Oslo
\item \textsuperscript{38} Ibid.
\item \textsuperscript{39} Kjosavik, Steinar (1998) \textit{Fra ferdighetsfag til forming : utviklingen fra tegning, sløyd og håndarbeid til forming sett i et læreplanhistorisk perspektiv} Oslo : Det utdanningsvitenskapelige fakultet, Universitetet i Oslo
\end{itemize}
\end{footnotesize}
a higher purpose. The work of the hand was here elevated into a general pedagogical principle of education which could be carried out in primary school\textsuperscript{40}.

The limitations of VET as “crafts” and “industry” as distinct and clearly defined (policy) areas become even more clear if we move from handicraft to the area of home-making, household management, home economics or domestic science, or “husstell” in Norwegian. The most used concepts are presumably home economics or domestic science. Both “home economics” and “domestic science” are tricky concepts, and not easily amenable to short and one-dimensional categorizations as general education or vocational education or as theoretical or practical education. What these concepts have in common is that they denote the act of overseeing the organizational, day-to-day operations of a house, and the management of domestic concerns in general.\textsuperscript{41} Domestic science or home economics was considered an important part of the education and training of young girls, and the organization of schooling in home economics evolved at the end of the 18 century in all the Nordic countries. It grew out of private homes, and eventually became a part of ordinary primary schooling as compulsory subjects for girls, but also evolved in the form of non-compulsory continuation schools for girls dedicated to this very purpose. It was also training organized for domestic work as a vocation. The parallels to the German development here also seem clear.\textsuperscript{42} Housework and household management was a vocation which had to be learned as any other vocation. On the countryside schools in home economics were formed in order to quality young women as skilled farmers’ wives\textsuperscript{43}.

Practical work or work of the hand can be seen a common denominator for vocational education and training. The teaching was intended to serve one common purpose, the work of the hand. But most significantly, these schools were not only intended to serve practical purpose. They were regarded as educational in a broad, general sense. A variety of reform projects and schools forms were formed, advocating a variety of mixes between general and vocational education, blurring boundaries between different educational projects and school


\textsuperscript{43} Fuglerud, Gerd (1980) Husetellsskolenes historie i Norge. Grøndahl & Søn Forlag A.s: Oslo
types of different origins. These boundaries have also been continuously subjected to definition- and redefinition processes from a variety of social actor groups located in different positions in the educational and social space. 44

We have focused on four case areas of VET

- Industry and crafts
- Handicrafts
- Commerce
- Domestic science/home economics

These areas have formed central elements in the formation of Norwegian VET, but have evolved along different paths. They have also developed different relations to general education. In total, these cases illustrate both similarities and commonalities in the institutionalization of Norwegian VET as well as the peculiarities of the Norwegian VET trajectory. We have therefore explored how these different areas of VET have evolved in three different periods under scrutiny.

Relations to general education

Other important elements are relations to general education. Here the early development and the strength of the unitary school ideal (enhetsskolen) have to be mentioned. For over 100 years the concept of “enhetsskole” has been a “magic word” in Norwegian policies and Norwegian society. It signaled nation building and the formation of a school for all, independent of class and geography as well as the end of class-based educational school, where schooling prepared each class for integration according to the appropriate stratum in society. The policies of the unitary school promised the breakdown of class, and every pupil was to take part in a common culture. 45 School policies were also an important lever in the rise of the liberal state. Central events in the formation and expansion of the unitary school were the 1889 law, and the 1920 budget reform and the 1936 reform. 46 Through these interventions the old parallel school structure was transformed, and a new more unitary school

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44 Grove and Michelsen (2005)
system for basic general education was formed. During the reign of the labour party state the unitary school concept was expanded to lower secondary level and then to the upper secondary level.

Another important element of Norwegian specificity centered on the weak position of Latin and Greek. In 1857 Latin composition was withdrawn from examination in the higher common school and English introduced as an option. The law of 1869 declared the classical languages obsolete and irrelevant. They were represented as unnecessary and unnatural obstacles for the population at large. Latin was now inextricably linked to the foreign, the unnatural and the Danish. No other country in Europe was even remotely in the same position at the time. Germany would not even consider recognizing modern languages and science as the equivalent to the classics in terms of the Abitur. Thus science and modern languages soon became alternatives to the classics in Norwegian academic secondary schools, and Latin was completely marginalized. Instead, the shedding of the classics opened the path for an idealized cultivation of the vernacular, of old Norse history, culture, language and the traditions associated with the ancient Norwegian nation. In 1914 a Norse line was introduced as an alternative option, stressing the importance of the tradition of national history and Old Norse literature. The Norwegian gymnasium, the carrier of general education and point of access to the University, did not become anything near the classical German Gymnasium, which remained relatively insulated from the demands of occupation and practical life. Through the learned school reform of 1896 it ceased to be a mere preparatory school for the university, and became redefined as an independent form of general education as well as professional education, providing outlets to a number of positions in the public bureaucracies. This greatly improved the status and position of the gymnasium, and the number for admissions rose considerably. As general education, the Gymnasium became both populist and egalitarian, as it provided conditions for a more inclusive form of

48 In Denmark a similar anti-latin position could be identified in the Discourse of Grundtvig, where latin was identified with the German and the unnatural. Grundtvig also asserted a heavy influence in Norway, and the "folkehøgskole" was considered as a Grundtvigian stronghold. But in opposition to the Norwegian situation, where the marginalization of Latin was carried out by the state, Grundtvig articulated an anti-state position. Froestad and Ravneberg (2006) “Education policy, the Norwegian unitary school and the social construction of disability.” Scandinavian Journal of History 31:2, 119-143  
recruitment, to the university as well as to positions in the state and in society at large. The demise of the classical languages opened up for the development of notions of “allmenndanning”, general education, “schooling for life” and the so-called “Nissen compromise”, an academic but also more “practical” type of general education.

No doubt, similar trajectories and trait could be found in the other Nordic countries. But the timing and sequencing of the Norwegian route is noteworthy. Measured by general European standards the reforms in general and basic education during the liberal regime has been considered as exceptional or even extreme by Norwegian school historian Alfred Oftedal Telhaug.  

In this working paper we have attempted to analyse how four different VET areas have evolved through three in three different periods. Sketching out this in full requires considerable space. We have had to make a number of compromises in order to illustrate important points. We have attempted a broad and relatively synthetic perspective, where the various VET areas have been given attention. Combined they provide a glimpse of longer processes of sedimentation and layering, where different ideas of VET are combined and amalgamated in the formation of these policy areas under different regimes and political coalitions. Hopefully they also provide some important clues to the specificities of the emergence of Norwegian VET.

The emergence of the liberal state and the position of VET

The first period is related to the emergence of the liberal state. Most historians split this period into two distinct regimes; the civil servant state (1814-1884) and the liberal state (1884-1950)

50 Hartvig Nissen (1815-1874) Philologist, educator and central school reformer. Nissen was a spokesman for the "compromise" position, the alignment of classical Bildung with modern, philological, national and science education. Boyesen, Einar (1947) Hartvig Nissen 1815-1874 og det norske skolvesenets reform Bind II. Oslo: Johan Grundt Tanum
51 Telhaug (2003), cited in Sejersted (2011)
Central event are the development of parliamentary rule in 1884, the formation of political parties as well as universal franchise for men in 1898 and for women in 1913. The formation of the liberal state represented at new type of relation between the citizens and the state. National self-governance and the great alliance between the workers and the farmers’ movements defeated the civil servant state. Norwegian nationalism perceived the farmers as the true bearers of national culture.

In that period a variety of social movements evolved. The farmers and then the workers organized themselves and became distinct forces in the new nation state of Norway. Political parties were formed, first the liberal party (venstre) and then the right party (høyre). However, cleavages in early 20th century Norwegian politics did not coalesce into one axis and a two party system. Instead a multi-party system developed, where the labour party (arbeiderpartiet) as well as a number of other parties which descended from the liberal party was formed. Furthermore, these divisions or cleavages were maintained through another feature characteristic of Norwegian democracy; its legalistic political style and Hegelian rule of law orientation, where the state was represented as the self-conscious actualization of reason.

Second, a number of interest organizations in the professions as well as employer and employee organizations in crafts and industry were formed. Through these processes a number of individual interest were transformed and disciplined into collective organizations. Employer and employee interest organizations and associations were formed in a variety of areas in working life. The Norwegian Federation of Labour was formed in 1899. At the end of the century the federation had 5000 members. In 1920 it had increased to 141000. Some of the employee organizations had the skilled worker and the crafts as a basis for interest formation and articulation, while others conformed to industrial in principle and organized unskilled workers on the basis of numerical strength and community. The labour movement came to integrate a variety of different groups with different strategies and ideologies to each

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53 Seip, Jens Arup (1963) Fra ettpartistat til embedsmannsstat og andre essays. Oslo: Universitetsforlaget,
other and towards the employers. The growing variations in the various branches of industry required adjustments of the labour unions as well as demands and interests according to local conditions and peculiarities. Both the trade principle and the branch principle constituted a basis for union formation. The number of associations and unions as well as the number of members increased. The basic pattern for union formation was the formation of local unions, tariff building on the basis of occupational/trade differentiation, supplemented by unions formed on the basis of specific branches of industry. But the different groups identified with each other. The formation and growth of the Norwegian Federation of Labour (AFL) can be interpreted in such a direction. Similar living conditions and social status in a society without strong class affiliations and fluent, unclear boundaries between workers and freeholders, between skilled and unskilled did probably also contribute to the homogeneity of the labour class. Such a class identity had to be created through political mobilization. Within the peak organization, the Norwegian Federation of Labour (AFL), the various unions and associations were brought together in an alliance and subjected to systematization processes, where different types of unions were moulded.

The Norwegian Association of Employers was formed in 1900, partly as a countermove to the formation of the AFL. The formation of the association grew out of the association for industry and crafts, but evolved into something quite different. The purpose was the furthering of viable and durable relations between the employers and worker, relations between employers as well as handling social questions of interest to member enterprises. In 1908 the number of member enterprise comprised 1225, employing 60 000 workers. In 1920 2000 enterprises employing approximately 395000 workers were organized in the association. But in spite of the extraordinary growth of the association, its strategy remained basically defensive in orientation. Unlike the AFL, the employer organization was not formed through organization of local associations. It was constructed from above. Admittedly local employer organizations existed, where the most important was The

60 Saklind, Halvorsen and Korsnes 1985
62 Ibid.
63 Ibid.
Association of Mechanical Enterprises (Mekaniske Verkstedsers Landsforening). But also these organizations had evolved as defensive measures taken by local employers within the various sectors and regions.

The first encompassing national tariff negotiating agreement was formed in 1909 in the iron industry. A new working day (en ny arbeidsdag) and a new regulated type of working life relations was in the making. This development culminated in the Basic agreement in 1935, the Norwegian “equivalent” of the Swedish Saltsjöbaden-agreement in 1938, where the right to unionization, worker representation, wage negotiations as well as principles for layoffs were institutionalized. After the initial confrontations it became common for the employers in the Scandinavian countries that they did not attempt to crush neither worker unionization nor tariff building. Instead union formation and tariff building was for the most part regarded as positive achievements, and collective agreements were gradually viewed as a producer of stability, conducive to both employer and worker interests. However, the degree of institutionalization of labour relations varied among the Scandinavian countries, and relations to the state was much closer in Norway than in the other Scandinavian countries.

School-like institutions for practical training and education emanated from the artisan and handicraft movement, while home economics or domestic science evolved into a core educational project for the women’s liberation movement and women organizations. Industrialization was slowing down, and industry and crafts interests and their organizations had a hard time finding space and opportunity in a country permeated by a peculiar combination of civil servant and agrarian values and policies and their development trajectory. Two factors were important. First there is the position of the civil servants. The bureaucracy was not dependant on the merchant elites which had been decimated during the Napoleonic wars. There were no competing elites like the nobility. Thus industrialization was presided over by a powerful bureaucratic state. But in general the political elites were preoccupied with state and nation-building, not industrialization. Second there is the aspect of timing. In the first phase of industrialization industrialists could work through the bureaucracy, and relations were generally cordial. Gradually the farmers acquired more influence in parliament and a majority after 1860, and as parliament was not bicameral, like in

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64 Bjørnson (2003)
Denmark and Sweden, there was no institutional check on that development. As democratization preceded industrialization, business interests also became more dependent on and had to go through democratic processes and state intervention than in Sweden, where big business interests were stronger as well as more autonomous. The rise of parliamentary rule compounded this development. What happened was basically a power struggle which took place within the state, between different state institutions.

The formation of practical education and training in 18 century Norway

The development of various type of practical education was a social question of considerable significance during the most part of the 18 century. This question had implications at almost every level of the education structure and was extremely complex. Some Norwegian peculiarities could be identified, but the development also reflected ongoing modernization processes in the Nordic countries as well as everywhere else in Europe.

The educational structure which had evolved before the 18 century was characterized by the classical institutional divide between the commoners’ school under church control which primarily prepared for confirmation on the one hand, and the university and the learned school on the other. The role of the state was in general limited to regulation and control. The sole area where the state dedicated financial resources to education was the university, which prepared for positions in the central bureaucracy and the church. Obligatory primary education was instituted as far back as in 1739, on the basis of confirmation requirements. School policies were church policies. The municipalities carried the sole financial responsibility for the common school. In 1860 the state accepted financial responsibility for the common school.

The development of more practical or vocational forms of education and training was based on private initiatives and local actors. The breakthrough for state financing of practical education and training came in the 1840s, when provision of resources were made to local

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66 Sejersted (2011)
67 Ringer (1979)
69 Ibid.
agricultural schools as well as navigation schools and schools for the training of sailors. In 1848 Parliament allocated a permanent subsidy for local seamen schools in the towns, as well as a fixed sum for the formation and maintenance of drawing schools for artisans. But the municipalities also had to do their part in the form of co-financing and the provision of adequate buildings for such purposes. The state also allocated considerable sums to travel scholarships for artisans and agronomists, to foresters and to technical training. This arrangement was considerably cheaper than building educational institutions. But little by little a variety of different types of practical schools were formed.

The dominant pattern of economic thinking which evolved in the civil servant state during the 1840ies and 50ies was “laissez faire”, when industrialization began. As previously mentioned, Norwegian society was dominated by the bureaucracy. Civil servants ruled in both political and civil life. The combination of “laissez faire” and civil servant rule requires an explanation. Somewhat paradoxically, laissez faire was often invoked towards Parliament. If parliament interference meant the more power was transferred from the bureaucracy, laissez faire was invoked. But if state bureaucratic influence could be sustained, this could be pragmatically modified by “auxiliary hypothesis”. In this way political and administrative responsibility was extended, even to the economic realm. This type of pragmatism also gradually formed the basis for the formation of a financial framework for initiatives in education and training of various kinds. In this framework local and state financing was reciprocally related, and local financing had to come first. Around the turn of the 18th century there is considerable evidence of such local initiatives. The main problem was their (lack of) institutionalization into stable school structures and financing arrangements. Another common feature was the problem of state recognition, state poverty and austerity policies. In most cases financing came from a number of sources, from the state, from municipalities or from private interests, organizations, philanthropic societies and from specific endowments. This development also came to benefit from the end of laissez faire, as well as the end of the guilds and guild privileges. Rather than curtailing local fiscal spending

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70 Ibid.
71 Aubert (1990)
72 Ibid.
The origins of schools for industry and crafts74

The origins of schools for apprentices in the crafts were the Sunday schools and the drawing schools. The first of drawings school; Det harmoniske Akademis tegneskole was formed in Bergen in 1772, modelled on the Academy of drawing in Copenhagen 75. The target group comprised persons from all classes hungry for knowledge and skills, and the purpose was the provision of education rather than workshop training. But the school was discontinued due to financial troubles in 1776. Also the Oslo school for artisans formed in 1812 was not long-lived.76 In 1818 the school was temporarily replaced by a public drawing school 77 and in 1822 by a permanent royal drawing and art school.78 Soon after a couple of such schools were formed on other towns. Drawing was at the very center of attention in these schools, and was considered as essential elements for the furthering of the artisan trades. But as demand for this type of education remained limited, the initiators appealed to the state for help. The goal was a tighter regulation of artisan trades, where completion of such a school could serve as an obligatory requirement in order to obtain a citizen letter (handelsbrev), which provided a legitimate right to trade in one specific town. In 1813 that goal was formally achieved. In new state regulations documented drawing skills were specified as a requirement in 21 different trades, if a drawing school should exist in a particular town. Journeymen and apprentices had to provide drawings for evaluation when they presented themselves for an apprentice or a journeyman’s test. But in practice this had little significance outside the capital. Drawing schools did not evolve outside the cities. Public financing was a rule not obtained and the building of such schools grinded to a halt.

The Sunday schools were a different kind of school.79 Also here the inspiration came from Denmark, from the so-called Massermann schools. The first school was founded in Bergen in 1802, followed by Trondhjem and Christiania. The rate and pace of the diffusion of these

74 This section relies heavily on Sakslind, Rune (1998) Danning og Yrkesdanning. Utdanningsystem og nasjonale moderniseringsprosjekter. NFR KULTs skriftserie nr 103: Oslo
76 Attendance rates had a seasonal pattern with reduced attendance in spring and in summer months
77 Originally one intended to found a separate art academy in the Danish tradition. But this was financially impossible.
79 Arneberg, Jan (1943) Trondheim Fagskole gjennom de første 25 år. Trondheim: Fagskolens Trykkeri.
schools is difficult to estimate, but estimates vary between 17 and 40. Apprentices were trained in general education and skills without neglecting work. These school types grew out of philanthropy. The aim was to provide general education in addition to the training which apprentices and journeymen received in the workshop. The furthering of general education among artisans and journeymen was the primary goal, but teaching in geometry and mechanics was also provided. Again initiatives emanated from local actor constellations, from individuals, endowments and charitable societies, often supported by the local municipality. But from a craft point of view there were several deficiencies associated with these types of schools. They were often considered as insufficient surrogates for a proper craftsman’s training. Standards were far too low, applications were random and there were severe problems in keeping these schools afloat over time. On the other hand these schools represented an important supplement to the common school, which suffered from grave quality problems and lack of standardization.

As previously mentioned 1848 represented a watershed for the development of the practical schools. The state intervened with financing and regulation. The result was that these schools experienced an upward turn. The municipalities, local financing and local actor constellations were again decisive elements, but school plans and curriculum had to be approved by the ministry of . Co-funding gradually emerged as a central governance principle for the provision of resources to education as well as in other policy areas. The municipalities provided adequate localities, and had to provide financing of the same magnitude as the state as well. A wave of school foundations followed. But this wave also activated inherent tensions and ambiguities, which were latent in the drawing and Sunday school modernization projects. They were considered useful, but were built on unclear ambiguous coalitions and alliances between artisans, craftsmen philanthropists, artists and intellectuals.

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80 Sollied, P.A.R., Sem Sæland and Andor Hoel (1914) *Norges tekniske undervisningsvæsen 1814-1914*. In Kirke- og undervisningsdepartementets jubileumsskrifter 1914
81 Krogvig (1918)
83 Baldersheim (1979), Seip (1970)
From origins to system formation – the technical school system

Eventually something which was called the technical school system emerged, where the different school types became objects for structuration processes in relation to each other, and organized according to levels. In this process new school type were being constructed or being subjected to restructuration processes and reclassification processes. 84 Sakslind has provided as useful shorthand for the analysis of this development. The various schools comprised:

- The drawing schools (tegneskoler) and the Sunday schools (søndagsskoler), which evolved into technical evening schools (tekniske aftenskoler) at the end of the 18 century
- Technical elementary schools (tekniske elementærskoler) were formed in the 1870s
- Elementary technical schools were re-formed into technical schools (tekniske skoler), that is engineering schools at a higher level
- Technical elementary schools were also reformed and reclassified into elementary technical schools (elementærtekniske skoler), that is schools on a lower level in the 1980s
- Technical vocational schools (tekniske fagskoler) were formed in the 1890s
- Daytime shopfloor schools (verkstedskoler) were formed in 1910.
- The Norwegian College of Advanced Technology was finally established in 1910 in Trondheim, after a long and cumbersome political process.

84 Sakslind (1998)
Figure 1: The formation of the technical school system 1770-1940.

Source: Saksln (1998) p 31
The rhythm of these processes in a systemic context emphasizing the technical educational system can be discerned from this figure.

**Technical evening schools – education and training for industry and crafts**

At the beginning of the century the guilds were not much developed, with the exception of Bergen. In the capital there were just three trades which were organized as guilds. In the 1840ties a total of 46 guilds were registered, distributed into only 15 different trades. But *laissez faire* came to mean the dissolution of the guilds. Older guild regulations were revoked, and the crafts were some time beyond any form of legal control. Anyone could start up and conduct a craft business without any form of formal competence. In the abolition of the guild regulations, the civil servants and the farmers representatives in Parliament stood firm against artisan interests. The civil servants underlined the significance of free trade and economic liberalism, while the farmers took care of their own interests. In the towns both merchants and paupers supported the law. Under the liberal state regime (1884-1935) the previous *laissez faire* policy framework was radically changed. The crafts institutions were reorganized and mobilized, and after great efforts these interests eventually succeeded in closing the “lawless interregnum”. The artisans attempted to form a new institutional foundation for the organization of skills. A number of interest organizations were formed. The Norwegian Association of Industry and Crafts was formed in 1886, and craft associations were formed in all towns. The aim was to defend and develop common interests. Through their new organizational strongholds, the crafts associations worked for the development of a new arrangement, where practical training through work was related to theoretical education in the form of a new type of apprenticeship in combination with schooling in separate schools for apprentices and journeymen. I 1894 it was decided that no-one could establish themselves a master artisans without a proper master artisans certificate, and in the artisan act of 1913 this was formally established in artisan law. These associations also formed an

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87 Pryser (1999)
innovation, the technical evening schools, which could be regarded as a kind of synthesis between the Sunday schools and the drawing schools.

Bergen was the first. After the local craft association had made a proposition for the formation of a technical evening school in 1871 the proposal was approbated by the King in 1873. In 1877 Bergen drawing school and the Sunday school merged into a technical Sunday and evening school. This provided the basis for a variety of reform processes where drawing schools were reorganized and redefined as technical evening schools. The very same year the craft law made journeyman’s exam obligatory for a local citizen charter in the trade. At the same time state allowances for technical schools and evening schools were increased. The net result was that the number of schools and pupils multiplied. At the turn of the century 18 evening schools were in operation and the volume of state subsidies increased considerably. The increase in state financing in turn led to stronger demands for state steering and control. 89

The need for increased control must not be confused with political goals for increased uniformity. Each school was based on a specific plan, approved by the Ministry of education. These plans were focused on local conditions, and teaching varied considerably in their degree of specialization. Some of them functioned as a common school for trades, while teaching at other schools was organized on the basis of the dominance of one or two trades. In larger towns the number of pupils might have been sufficient to warrant parallel teaching in several different trades or programs. Local peculiarities had strong implications for the organization of teaching. Therefore regulations had to be sufficiently flexible in order to accommodate these peculiarities 90 It was considered essential that the development of these schools were nor curtailed by artificially tight regulations.

But also the technical evening schools had their weaknesses. One of the problems was teaching evening classes. Pupils were often tired after a hard day’s work, and suffered from lack of concentration and lack of progress. Dropout rates were considerable. Lack of educated teachers also represented a problem, and not all were up to the task. All sorts of people could be found as teachers in these schools. The majority were engineers. In general subjects, primary teachers were often used. Third, it was a part time job. Teachers at the technical

89 Michelsen (1991)
90 St. prp. nr. 104 (1909)
evening schools were dependant on an “ordinary” job in addition to this position and often combined teaching with a job as a foreman, a skilled worker or a master artisan, or teaching posts in other school types. Also relations between general primary education and the technical evening schools were an endemic problem. The Ministry of education held firm that general education was not a task to which theses schools should dedicate resources. They should concentrate or the primary subject matter for these schools, schooling for work. General education subjects should therefore be avoided.  

The technical evening schools confronted heavy criticism. It was maintained that this type for school was incapable of meeting the ambitious policy goals as teaching took place in evening classes. At the evening schools in Christiania almost 80 percent of the pupils dropped out. Things were not better in Bergen. Instead day schooling was launched as an important improvement. Soon demand surfaced from industry and craft associations for the formation of short, practically oriented workshop schools preceding apprenticeship and work. The first pre-apprenticeship school was formed in1910. In 1920 6 schools had been formed with 376 pupils in total. The aim of this school type was to provide the pupils with basic practical skills and prepare them for apprenticeship. At this point the emerging industrialization of a number of artisan trades was kicking in as well as increasing specialization processes. Machinery in industrial firms was often costly, and operation required considerable skills. Allocating this type of work to inexperienced apprentices was not a very good idea. Instead a reform of basic vocational training for industry was needed in the form of practical craft and industry schools preparing for working life. Also more adequate teachers had to be found, with the necessary skills in their respective trades. Notions of a good teacher were that of a good craftsman, and the teaching of a craft was defined as an integral part of the vocation as a craftsman. In these schools only certified craftsmen would do, not dilettantes.

Systematic training in daytime rather than in the evening created new possibilities and a new framework for teaching and learning in vocational training. Soon also theoretical subjects

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91 Kilde: St.prp. nr. 104 (1909)
93 Attachment St.prpr 104, 1909
94 Rugaas, Bendik (1967) «Om yrkesskoler for håndverk og industri med særlig vekt på utdanningen av lærere til disse skolene.» Hovedoppgave Universitetet i Oslo
were introduced in these schools. Most of these schools were formed in order to cater for the training needs of the emerging industry. But also in this school type heterogeneity was considerable both as far as content and duration was concerned. Also practices for the hiring of teachers varied considerably. But in general they conformed to the old template of part time jobs, where the teachers combined a position in these schools with other engagements in working life. In theory such an arrangement would secure tight couplings between local working life and these schools. But often it proved to be a liability, as positions were considered insecure and insufficient for a decent living, and eventually full time teaching positions evolved at one particular school or in the form of a combination of different part time positions in several school types. A separate teaching profession in VET was in the making. So the technical evening schools evolved in different directions. Some also came to include practical subjects and workshop learning.

Still some basic patterns of institutionalization can be discerned. Artisan traditions were protected, but supplemented by new policies and institutions if needed. New school types like the technical evening school and the practical day school emerged. Most often initiatives came from local associations. The ministry came in as a controlling device for formal approval of school plans and recruitment criteria. But what came to characterize the development in this phase was the unclear relation between two different ways of organizing VET, the formation of schools preceding apprenticeship or the technical evening schools, providing education during apprentice training. Relations to the general education was unclear, and dominated by a variety of different local processes, producing a flora of different schools types with negligible central coordination and governance structures. No surprise; heterogeneity was considerable.

**System formation**

While the primary driving forces were local in character, these school types were also subjected to hierarchization processes and state structuration processes as well as state financing processes. The interaction of these processes was complex and varied over time, where orga-

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95 There is also much to suggest that scope of subjects in the technical evening schools were widened by the integration of practical training in school workshops. Eventually a new hybrid evolved, that of the practical apprentice schools.

96 Grove and Michelsen (2005)
nized groups intervened at the central and local level. Of seminal importance in the hierachization processes was the formation of the The Norwegian College of Advanced Technology in Trondheim in 1910. 97 It paved the way for a three tier school system of lower technical schools, schools at the intermediate level and the pinnacle of the system, the College of advanced technology.

Handicrafts
Handicrafts or house industry are charachterized by a slightly different trajectory, tightly related to the socalled handicraft movement. 98 From the 1870s onwards a social movement was formed which aimed at the strengthening of handicrafts and handicraft education and training, mainly organized by The Royal Norwegian Society for Development (Selskapet for Norges Vel)99. In 1861 the Society for the Deveopment of Female Crafts (Foreningen til fremme av kvindelig haandværksdrift) was formed. This organization focused on womens liberation and womens place in working life. A separate school for women artisans were formed (Den kvinnelige industriskole). But the focus of the schools soon shifted into the promotion of womens skills in home making.

During the 1860s a number of schools for handicrafts were formed both in the towns and in rural areas. In general these schools were financed by contributions from charitable societies, agricultural societies and local saving banks as well as liquor associations. Most of them aimed at training of young girls, but to some extent also practical schools for boys were formed, where the knife was the favoured pedagogical instrument. These schoos were eventually transformed and reorganized into socalled workschools (German: arbeitsschulen) in 1875. These schools aimed at developing prowess in hand work and self-sustainability. 100 In 1882 state financing was obtained and the increase in the number of schools was beyond anyone’s expectations. In 1891 138 schools were registered. The handicraft associations organized a broad set of courses up to 1920, and activities were growing rapidly. In the period 1890-1930 a staggering total of 3282 courses were held, averaging a total of 82 courses each year. The average number of pupils for each couse was estimated to 10-15 puils. The total

97 Halvorsen (1993), Saksland 1998
99 The Norwegian Society for Development (Selskabet for Norges Vel) was established in 1809 and acquired a large number of local chapters in all of the towns in the country. The society soon evolved in to strong political force, contributing to a number of national development projects, including the formation of the University in Christiania.
number of pupils and courses vastly exceeded that of any other type of practical schooling in this period. Also for the handicrafts the development of a specific teacher education was a major problem. Eventually the state organized teacher training for the handicrafts around the turn of the century, and finally a separate institution for teacher training in the handicrafts was established in 1917 (Statens Husflidskole Blaker). But this school evolved into something completely different than intended, from training of male handicraft workers capable of performing training in machine production and house industry into an institution for the training of slöjd teachers.101

**Domestic science**

The founding of schools for girls in domestic science, the development of an independent institution for the training of teachers in these subjects as well as the formation of a new teacher category was basically due to the women’s movements, the organizations which were formed and the National Society of Women (Norske Kvinner Nasjonalråd).102 These associations and societies wielded considerable political power. The provision of education in homemaking was an important element in the socialization of young girls. But there was no agreement on how this was to be done in the most efficient way. Traditional definitions of female education dominated, with its characteristically tight relations between education and vocation, based on natural gender dispositions. Home making was regarded as general education and vocational training for girls. But this type of unity could be interpreted in different ways. At first the unity of home and vocation was considered fundamental. At a later stage this unity was challenged by the differentiation of new forms of paid labour for women in the home and outside the home based on different conceptions of class as well as geography. A number of different patterns and movements can be discerned. On the one hand there was a movement from traditional domestic work in the family to paid labour done in the house (house industry) in the rural areas. On the other hand there was a movement which can

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101 The agricultural teacher training school for small scale farming at Sem, established in 1910, also educated a considerable number of teachers for the crafts. Osland, Oddgeir (1999). “Ved sidan av Skaugum - i skuggen av Ås: Statens småbruksskoler på Sem.” Working paper. Department of Administration and Organization Theory, University of Bergen; no. 54.

102 The Organization was formed as a peak organization for women in 1904 in order to influence the state authorities in matters of special interest for women. At the time voting rights for women had not been provided, and participation in such an organization represented an opportunity to target specific issues in the social debate of the day. Members in the organizations were a host of other Women’s organizations like Norske Kvinner Sanitetsforening, Norske kvinders totalavholdsforening, Kvindestemmeretsforeningen, kvinnelige studenters klubb and a number of local Chapters of the Housewives Association. By Norwegian standards it was a huge organization, wielding considerable political influence. Source: Melby, Kari (1995) *Kvinnelighetens strategier: Norges husmorforbund 1915-1940 og Norges lærerinneforbund 1912-1940*. Dr. philos avhandling. Universitetet i Trondheim, Den allmennvitenskapelige högskolen, Det historisk-filosofiske fakultet.
be related to the professionalization of house work as a vocation for life or in the youth phase, where young girls entered a service in a larger household as housemaids. A third movement was related to the education of the house wife as general education. All these elements were part of and became intertwined in the domestic science movement.

One of the first schools in domestic science was founded in 1875/1976 in Holmedal in Sunnfjord. Many others followed, and towards the end of the century these schools became more and more important. Tasks performed by women as mothers, housewives and the centrepiece of the family were considered as policy areas of pivotal importance for society and the nation. At first most of these schools were oriented towards agriculture. But gradually the state took over the responsibility for the provision of such education.  

In the towns middle class norms, where the man of the house was considered as the legitimate provider, was gaining increasing acceptance. A man’s duty was to provide for his family. In such circles it was considered a stigma if a woman did work outside the home. Such norms also acquired increased significance for teaching in domestic sciences. Demands for quality in domestic work increased, as well as demands for the scientific exploration and dissemination of domestic science. But domestic science did not only evolve as a product of middle class norms for the organization of house, home and family. The development and build-up of domestic science schools were linked to a variety of modernization processes and projects. It represented an important element to the development of modern agriculture and farm work, it was considered as a part of the nation building project, and it formed part and parcel of the women’s emancipation movement and the scientification of home making.

The National Association of Housewives (Hjemmenes Vel) advocated that the transfer of knowledge and skills from mother to daughter no longer was sufficient for the development of good housekeeping. Instead there was a need for schooling for girls based on a systematic scientific knowledge. The National Association of Housewives expressed a specific bourgeois version of the women’s liberation project, which emanated from the urban upper class. Focus was primarily on the systematic schooling of housemaids. After confirmation young girls

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103 Ibid., side 70 ff.
104 Hellesund and Okkenhaug 2003, s. 264.
107 Hjemmenes Vel was formed in 1989 and is probably the oldest housewife society in Europe
from the smaller farms and from the labour class was expected to fend for themselves, most often as housemaids. And housewives’ schools became a suitable way of acquiring the necessary knowledge. Up to the second world this evolved as an important part of the normal biographical trajectory where most women undertook paid labour, even though the number of house posts was somewhat reduced, in the towns from 12% in 1900 to 12% in 1930. Among possible models for the systematic preparation for housework, the development of a broader apprenticeship institution for girls was widely discussed as an interesting option. Such an arrangement would allegedly provide cheap, eager and dedicated help to urban households and the lady of the house. Relations between the lady of the house and the housemaid would have to be redefined as that between the hostess and the assistant hostess, parallel to that between the master artisan and the apprentice. But during the 30s the zest for apprenticeship declined considerably. The apprentice cause was gradually abandoned by the Housewives Association and the growth in the number of schools grinded to a halt. In 1940 the number of schools was estimated to approximately 69, comprising about 3000 pupils. They enjoyed considerable popularity. Almost 40% of the applicants were rejected.

**Commerce education and training**

Last but not least there is the issue of trade education (Handel), commerce or mercantilist education and training. Mercantilist policies were reformed as Norway was integrated into the more developed parts of the world economy. The older focus on the mining industries and lumber business based on the bourgeoisie in the east was supplanted by a broader coalition of small industry and traders. There was a huge increase of in the lumber trades, fishing and shipping. As previously mentioned, mercantilism had produced an encompassing system of privileges. This also included the right to trade. Trade rights were limited to towns, and could only be conducted by certified burghers. “Laissez faire” liberalism tore down most of these privileges, but a new type of regulation was later formed through the introduction of the citizen’s letter, in Norwegian “handelsbrev”, which became a general prerequisite for setting up a business.

Formal education in commerce became institutionalized in different types of schools in different levels in the first half of the 18 century. At first, it was introduced at the lower levels

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108 Avdem and Melby 1985
109 Francis Sejersted (1993) “En teori om den økonomiske og teknologiske utvikling i Norge i det 19 århundre”. In *Demokratisk Kapitalisme*. Oslo: Universitetsforlaget
110 Ibid.
in the educational structure, where basic accounting, financial and commercial principles as well as languages were taught. The Latin countries were at the forefront of the development, but in the last part of the century the northern countries followed suit. 111 The Nordic countries were latecomers. The German School departed from 112 ”Betriebswirtschaftslehre” and accounting rather than economics and leadership as in the USA. 113 In the Nordic countries schools for commerce was heavily influenced by this tradition. 114 Compared to school types developed in crafts and industry, commerce education evolved into a quite different trajectory. As in crafts and industry, such schools were formed through local initiatives, but they did not manage to acquire public economic support. The commerce schools provided a short education, with duration from three to six months. Normally no additional educational qualifications were required beyond that of a completed obligatory primary education, and most of these schools were situated in the vicinity of Christiania. The growth of these schools and the need for regulations were recognized by the state, but a regulatory framework for this type of schools did not materialize easily. Commerce education remained a private enterprise, and attempts at achieving state financing and regulation did not success. 115

Commerce education was normatively based on the loyalty of the clerk to his superior. Relations between the superior and the employee had to be based on trust, it was argued 116. Being employed as a clerk implied entering a social space which involved commitments where the whole of the person was involved.

These new school institutions and knowledge groups arose and legitimized themselves by the new emerging capitalist economy. There is also much to suggest that the old Norwegian merchant elites were somewhat sceptical to the worth of a school-based commercial education, and preferred apprentice-based forms of training in acquainted merchant houses in England or Germany instead. A “Handelsgymnasium” was founded in Christiania in 1875, but with great difficulties. 117 A two-year long education, it provided training in

111 Engwall, Lars and Vera Zamagni (1998) "Introduction”. In Engwall and Zamagni (eds.) Management education in historical perspective. Manchester University Press. Manchester
113 Locke (1984)
115 Grove and Michelsen (2005)
116 Ibid.
117 Ibid.
“wirtschaftslehre” as well as foreign languages, modelled on the German “Handelsschulen”. But soon such gymnasiums were formed in most towns, for the most part modelled on the Christiania template.

**Commerce education and relations to educational system**

When the study program in state economics was initiated at the University in 1905, efforts were made to secure admission for handelsgymnasium graduates. The university protested, as the handelsgymnasium, in spite of its heavy German Bildung orientation, did not provide the necessary level of education suitable for the university. However, the Norwegian Parliament did not agree. The exam in state economics was formed as practical discipline, suitable for less well-off student as well as women, and it also became available for absolvents from the handelsgymnasium. At first a number of additional qualifications and tests were imposed as necessary requirements, but they were abolished in 1910. The handelsgymnasiums became the main feeders of the new discipline. But as the study in state economics became transformed, academized and hardened into quantitative “social” economics in the school of Nobel laureate Ragnar Frisch, the demand for a higher mercantilist commercial education quickly resurfaced. In 1917 the formation of such as a school was formally passed by the Norwegian Parliament, and in 1936 the College of Economics and Business Administration was finally established in Bergen. The College was intended as an extension of the older and more practically oriented mercantilist forms of education.

According to the founders of the school it should provide scientific education and “dannelse” (Bildung), beyond that required at the gymnasium as well as research-based training. The profile of the College gravitated heavily towards the German “Handelshochschule” concept of Wirtschaftslehre (handelsteknikk), supplemented by social economics. While the German conception of wirtschaftslehre tended to be defined as Technik rather than Wissenschaft, the Norwegian conception of a commercial education came to evolve as closer to Wissenschaft. According to Amdam (1997) the curriculum in Wirtschaftslehre was fragmented into a large number of different techniques and specialities. From the point of

118 Compared to the “Handelsschulen” in Dresden, Leipzig and Chemnitz only a few curricular adjustments were made. Syvertsen, Haakon, Ivar Tryti og Jørgen Aarhoug (1975) *Oslo Handelsgymnasium 1874-1975* Oslo: Aschehoug & Co.


120 Syvertsen et al. (1975).

121 In 1917 the Danish “handelshøgskole” in Copenhagen was formed. Jensen, Olav Harald and Arnjot Strømme Svendsen (1986) *Norges Handelshøyskole femti år.* Bergen: Norges Handelshøyskole; Bergen

122 Locke (1984) Betriebswirtschaftslehre was defined by the originator (Schmalenbach) as a practical knowledge area, not as science.
views of Norwegian state economics, which had gravitated towards “Austrian” economics and “pure” Wissenschaft”, Wirtschaftlehre looked barren and without academic prospects. 123 Like its university precedent, the state economic exam, the Norwegian commercial college recruited a mixture of students from the examen artium level and the handelsgymnasien. Unlike the German Handelshochschulen, which early established linkages to the lower commercial schools through the education of teachers, securing jobs for their candidates, such linkages were not forged in England or France. 124 There is not much to suggest that such linkages materialized in Norway either. 125 To which extent it is possible to speak of a possible mercantilist or commerce educational system is unclear. Suffice it to say that such notions were entertained by many commerce associations in this period.

Commerce education, work and the labour market
What happened to the absolvents from the commerce schools and the commerce gymnasium? The goals of the Commerce Gymnasium was ambitious, the provision of theoretical and practical education for leaders of trading firms and businesses. Such positions required a combination of general education and practical training. 126 But already after 10 years the target were adjusted to the provision of education for the general businessman. 127 These schools now qualified for medium level positions in the firm. The trade schools provided inlets for lower and subordinate positions. The formation of the national business College in 1936 contributed to such notions. It was the engineers which developed into “captains of industry” in Norway. 128 But in labour market segments like banking and commerce candidates from the handelsgymnasium acquired a solid position. 129 The lower commerce school, the handelsskole was primarily related to subordinate positions and the lower commerce estate. The salesman was something quite different from the blue collar worker. The businessman was the model. Training in small businesses as a salesman was also related to the prospect of starting a business. There is much to suggest that those which went through a lower commerce education

125 Grove and Michelsen (2005).
126 Ibid.
128 Halvorsen (1993)
129 Amdam (1997)
and entered small businesses as a salesman in the period 1890-1910 wanted to set up a shop on their own in due time, and many did just that.\textsuperscript{130} Data from the census in 1887-1982 shows that many had reached such a position in their mid-thirties, as the number of independent small businessmen exceeded that of the subordinates. When reached the age of 50, more than 2/3 were independent owners of small businesses.\textsuperscript{131}

After the business Act of 1909, where the citizens letter (handelsbrev) was made into an obligatory precondition for enterprise formation, a new plan for the organization of lower commerce schools was passed by parliament in 1918. The implications were a substantial formal up-qualification of the lower salesman estate. But prospects were also gradually reduced, as possibilities for advancement receded declined to the increasing number of white collar workers. However, it is difficult to speak about the prospects of lower commerce schools absolvents in general. The work areas which absolvents were recruited to, were heterogeneous, from the great trading houses to small one-man shops as well as banking, insurance, groceries and manufacturing. Pay was in general low, and propensity for interest organization likewise.\textsuperscript{132}

**The Youth question and the practical continuation school**

Last but not least there is the issue of the practical continuation school\textsuperscript{133} The seminal event in that respect was the proposal of the vocational and continuation school committee of 1919.\textsuperscript{134} In this proposal the vocational schools and their actors and representatives, the employers and the employees and their associations on the one hand and the representatives of general education on the other, were united in the quest for a broad modernization offensive of Norwegian non-obligatory education and training. The proposal for a practical continuation school reform involved two distinct elements; It made provisions for and imposed the right and the duty of working class boys to attend this school as well as obligatory practical education in domestic science for girls. The target group of the reform proposal was youth who had absolved obligatory primary education and which had entered the labour market at

\textsuperscript{130} Sigurd Rasmussen (1958) *Fra underordnet handelsstand til moderne fagforbund*. Oslo: Aktietykkeriet.
\textsuperscript{131} Ibid.
\textsuperscript{132} Ibid.
\textsuperscript{133} This part relies heavily on Michelsen, Svein (1998) "Framhaldsskole, arbeidsskole og den norske konfigurasjonen 1900-1930. Aktører og interesser." In Rune Sakslind (red) *Danning og yrkesdanning. Utdannings-system og nasjonale moderniseringsprosjekter*. KULT's skriftserie nr 103
\textsuperscript{134} Innstilling fra den av Kirke- og undervisningsdepartementet den 31. januar 1919 nedsatte komite.
the age of 14. This group ought to be subjected to obligatory continuation education of theoretical and practical character, and brought up and socialized into responsible citizens. Transitions from school to work marked the beginning of a life phase where there was great need for distinct forms of pedagogical intervention. The state had to supplement and amplify the socialization of urban youth, as the socialization powers of the church, the family, and the work place had been weakened by the emerging industrialization and urbanization processes. Such reform proposals were not unique, and can be identifies in most European countries before the turn of the 18th century. 135

The focus of the practical continuation school was labour class youth in urban areas and their upbringing in general, and the parts which were not picked up by existing institutions, the schools and apprenticeship in the crafts. For such purposes a separate continuation school based on the pedagogics of work was most suitable. There was a broad consensus on the need to cater for the youthful proletariat, which encompassed both the labour movement, representatives from the crafts and industry, as well as the teachers and their organizations. Much of the inspiration for these notions came from Germany and Georg Kerschensteiner. Kerschensteiner (at least in his younger years) refused to acknowledge that only the gymnasium provided general education, while the others school types only provided technical and practical training. General education in combination with vocationally oriented practical training could secure moral education and make the pupils into useful citizens. 136 Soon these notion travelled to Norway and were translated into a quite different societal context. 137 In Germany the reform pedagogical movement was not in any way related to one specific school type. The reformers assumed that they had discovered a general pedagogical principle, where work could reconcile between the child and the school institution. 138 In Norway the work school principle became related to one specific school type, the practical continuation school, and the women teachers and their union forged the connection. 139 Youth was defined as a separate phase in the socialization processes of life which required separate solutions. There

136 Gonon (1992)
138 Gonon (1992)
was a need for a school which was based on the needs and requirements of the lower classes. Such a school had to be practical, but not only that. The children of the labour classes needed spiritual help, character formation and support. A school just for vocational training would not suit its purpose, it could become too one-sided and fail as a socialization institution. The practical and general educational continuation school would form a bridge between the primary school and life. But if such a school should reach its purpose it had to be obligatory. But at this point the proposal met fierce resistance from the crafts, trade and industry associations. General education was for the primary school. The vocational schools for crafts and industry were for crafts and industry to take care of. The next step in the process was the formation of the national vocational and continuation school committee of 1919. The great issue as stake was the relation between VET schools and the practical continuation school. The very kernel in the proposal was introduction of obligatory education based on the foundations for the primary school in a the continuation school for all youth up to 18 years of age who were not engaged in other educational activities all youth. This implied raising obligatory schooling from 14 to the age of 18. In the proposition the practical continuation school was partitioned in to different areas; the vocational schools and the “normal” schools. The suggestion of obligatory continuation schools in front of the vocational education was rejected. Instead the vocational schools was integrated in the continuation school in the form of a separate area, organized according to branches of industry or crafts.

The proposal also addressed a growing problem area which worried industrial and crafts associations. In 1909 a number of continuation schools had been opened in several towns. In these day schools or evening courses a constellation of subjects was formed that secured the right to obtain a citizens charter and the tight to trade. This feature provided these schools with more prestige and hence more applications. In practice such schools often evolved into commerce schools, in competition with established vocational school types. The commerce associations reacted sharply to this. The pupils were far too young, and the training was not sufficiently solid, they held. The associations from working life now confronted a situation where the relations between a general but also more “practical and useful” continuation school on the one hand and the VET schools on the other were becoming increasingly complicated. The situation illustrates the problems associated with the realization of the practical continuation schools. Previously it had not been possible reach any form of consensus on the

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integration of VET schools into the practical continuation school. So the consensus obtained is somewhat of a mystery. But employer interest associations were under heavy pressure. They wanted new policies for industry and the abolition of older policies which favoured agriculture. But the state was unwilling. There was no disagreement on the need for the development of a practical education for working class youth. Even obligatory schooling up to 18 years was considered a good idea, if it was possible to catch youths who otherwise would not go to school, that is, those most in need of it. For craft apprentices it was formally obligatory to apply for apprentice school, and master artisans were bound to pay for the schooling. For these groups there was no problem. On the contrary, such an arrangement might contribute to the alleviation of disciplinary problems. Often apprentices did not show up for schooling, and there were no effective sanctions available. The new institutions even had the prospect of cooperation between competing school types. All this were compelling arguments, but not conclusive. The proposal can be regarded as complex compromise. General education was developed in a more “practical” direction, at the cost of loss of formal autonomy in the VET schools within the new practical continuation school.

The background for the proposition can probably also be identified in the weak position of the VET schools for crafts and industry and the strategies of the associations of crafts and Industry. 141 The official 1912 plan for the organization of the technical schools (fagskolevesenet) did not provide any guidelines for the position of the local associations for crafts and industry in curriculum formation and development as far as decision making powers were considered, just that the board of trustees should have to representatives from crafts and industry. In other issues, the local associations in industry and crafts were side-lined. They did not enjoy any guaranteed influence on local VET. The new continuation school also held the key to increased influence for organized actors in crafts and arts. But eventually the consensus broke down. It was not possible to reconcile the diversity of interests.

The solution became problem reduction. The VET schools were taken out of the reform agenda by the great Parliamentarian school commission. 142 VET schools and general education emerged as two distinct problem areas, undergoing distinct modernization scenarios and

141 Circulære nr. 14 (1914) ”Om skoler tilknyttet haandverkuddannelsen fra den norske Fiellesforening for håntverk og industri».
142 Michelsen (1998)
development processes. The contrasts to the Swedish case is illuminating. If we trace the development from the Swedish “Seminarie Commission” from 1906 to the 1918 law, the contours of an emerging consensus similar to that of the Norwegian 1919 committee was formed. The Swedish attempt succeeded, while the Norwegian effort failed.

The selective integration of organized VET interest in the liberal state

Under the old regime the dominant views of practical training for industry and crafts, housekeeping and handicrafts had several things in common. They represented knowledge and skills which could be produced through practices in the home, not in a school. In the second half of the 18 century the different VET fields went through institutional elaboration and differentiation processes, but in different ways and in different directions. A number of new schools type or school-like institutions were formed as well as teacher training institutions and teacher categories. In several fields institutions for interest representation, mediation and interest articulation were formed, with a considerable potential for participation in policy formation and reform implementation in their respective fields. As new teacher categories and institutions were formed, they worked for state intervention, state financing and state regulation. Institution building and professionalization took place through state intervention. Some of them also achieved a monopoly of representation in state regulatory institutions. Two different types of institutions can be identified; that of the state consultant (konsulenten) and the state council (Rådet).

In the first case the profession was represented through a civil servant in the ministry which was required to have a specific educational background. In the second case a separate Council was formed outside the ministry, providing the necessary expertise in a specific field to a law-dominated and rule-oriented ministry. Social actor groups and professions could achieve representation and influence on policy formation, rulemaking, rule interpretation and implementation in this way. Perhaps concept like “representative bureaucracy”, where social groups are represented in the bureaucracy, or “the profession state”, where the professions are analysed as carriers of state sanctioned expertise, could be used to delineate this type of structure.

144 Lindell, Ingrid (1992)
145 Jacobsen, Knut Dahl (not dated) Sentraladministrasjonens historie 1884-1914. Unfinished and unpublished manuscript. Department of administration and organization Theory, University of Bergen
Crafts, industry and the state 148

Since the turn of the 18 century the lack of state intervention in the development of VET had been deplored. There was an obvious need for technical knowledge in a ministry of oriented towards law. I 1900 a position was created in the ministry for the technical education and training, but in 1908 the position was terminated. 149 At first craft and industry associations attempted to build an alliance from below for the development and modernization of VET. 150 A number of reform proposals and suggestions were launched, which all implied the construction of a separate apprentice act, with public registration and control of apprentice contracts. These propositions failed to gain the necessary internal support among industrial employers and master artisans, and were finally voted down in in the Craft and Industry Association in 1920. Both crafts and industry interests opposed state intervention in the field. But tensions between the crafts and industry had been mounting, and in 1920 the association suffered a split. The Norwegian Association of crafts (Norges Håndverksforbund) and the Norwegian Association of industry (Norges Industriforbund) were formed. Industriforbundet organised big industry, that is large industrial firms and their interests in question of industrial policy, regulations as well as taxation, while Håndverkerforbundet organized craft employers.

In 1921 another proposal was worked out, based on the Swedish law on vocational schools of 1918, as previously mentioned. The suggestion implied that the technical evening schools would be organized under the purview of the municipal school boards, and that the time spent in school would be defined as work time. Also this proposal was highly controversial, and failed to make an impression.

But demands for state intervention was also related to demands for participation from organizations and associations in industry and crafts in the administration of VET. 151 In 1914 the Joint Association of Industry and Crafts had proposed the construction of a Separate Council

150 Saksland, Halvorsen and Korsnes (1985)
151 Michelsen (1991)
for vocational schools for industry and crafts. The proposal was taken up by the Ministry of education, but the proposal was voted down in Parliament. Instead, the Associations of Crafts and Industry established a private committee for the promotion of training and education in industry and crafts. All expenses were covered by the associations and their members. A possible institutionalization of apprentice training organized by working life without the state was discussed, but did not produce the necessary support in neither industry nor the crafts associations. Interests faded out as the downward business cycle kicked in. Instead policies gravitated towards the goal of state financing of “the industrial school system” in the form of practical craft and industry schools, as well as pre-apprentice schools for industry and crafts. The committee was designed to function as a pressure group towards the ministry and as a source of technical expertise for VET schools. In practice the latter soon became dominant, in the form of production of books and teaching materials. In spite of the fact that the ministry agreed to be represented in the Committee in 1925, increasing funding for VET schools was not obtained. Neither did the state want to contribute any financing to the Committee. Applications for state funding was routinely sent to the ministry of education and routinely declined. A ministry with a heart for industry and the business community was not to be found. Instead, the focus on cooperation with the VET schools and their representatives was strengthened. In 1931 the number of representatives in the Committee was increased and the committee supplemented with two representatives from the technical schools as well as one representative from the ministry. It was also suggested that the Council was formalized as a public institution, wielding state sanctioned expertise. The technical schools were not regulated by law (like the folk school). These schools were under the purview of the ministry of education, but the ministry did not possess the necessary technical expertise in the field. The ministry advised that such a council should be formed, and asked the Committee to draw up guidelines for the organization of such an institution. Thus it became necessary to extend the composition of the committee in order to accommodate the need for technical expertise in the field of VET schools. Among the possible solutions which were investigated and debated

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154 I 1918 the Joint Association of Crafts and Industry was dissolved. Instead two new associations were formed; The Norwegian Association of Crafts (Norges Håndverkerforbund) and The Norwegian Association of Industry (Norges Industriforbund).
156 Tønnesen, Kåre (1965) «Et departement med det rette hjertelag for næringslivets vel» Historisk Tidsskrift bind 44, hefte 1
157 Innstilling fra lov og yrkesundervisning for håndverk og industri, side 31
were the Danish and the Swedish institutions and practices. The Danish Skoleråd consisted mainly of representatives from the practical world, from working life. In Sweden the Vocational schools had been were organized as the responsibility of the Skolöverstyrelse under the purview of the Ministry of Church Affairs (Eclestiatikdepartementet) in 1918. In that way they were defined as a part of the general educational system. A “Swedish” solution would mean that the vocational schools for industry and crafts were subjected to the Educational Council for general education (Undervisningsrådet for almueskolen). The committee was of the opinion that the Danish solution would be more appropriate for Norwegian conditions. Contacts and relations between the vocational schools and working life were considered essential. On that account the Committee approved the formation of a separate technical educational Council modelled on Denmark, where crafts and industry obtained 50% representation in the new Council, while the state appointed the rest of the representatives.

The solution became drawing stronger demarcations between vocational schools and general education. Vocational schools were drawn out of the general discussion on a compulsory lower secondary general education. Instead vocational schools became a separate domain in the educational system. The short term consequences were disastrous for the technical evening schools, which were not able to hide behind public regulations. Instead these schools went through the heaviest cuts in Norwegian school history. Neither was the state willing to support the Vocational Training Council financially. The solution was the forging of tighter relations and cooperation with the vocational schools and their representatives. The Council was supplemented by two representatives from the vocational schools and in 1933 The Vocational Training Council was formed (Yrkesopplæringsrådet).

One of the tasks of the Council was the provision of technical advice to the ministry of education in matters related to vocational schools for industry and crafts. But the most important task for the council became the preparation of a new law on vocational schools. As previously mentioned this question had been addressed already in 1921 by the Councils predecessor as well as other state Committees. But as the realization of these propositions would imply considerable state financing, they were rejected. In 1920 the issue of a new organization of VET schools for industry and crafts resurfaced on the political agenda by

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means of the socalled “Stavanger plan”. 159 This plan had been developed by a committee appointed by the local chapter of the Norwegian Engineering Association (NIF), which had outlined a plan for the future organization of these schools. The basic principle of the plan was the construction of a separate educational system for VET schools and the liberation of these schools from the grip of the lower and higher upper secondary school. Through the formation of a new positively defined educational ladder where schools and courses at each level were provided with a formal completion certificate as well as access to a higher level in the structure an autonomous technical educational system could be formed. But once again the proposal was rejected, due to the difficult state finances at the time.

After the ascent of the new Labour regime in 1935, the situation once again seemed ripe for a re-evaluation of the vocational training question for industry and crafts. A separate comittee, appointed by the new council, drafted a national law for vocational schools for crafts and industry, based on the principles from the Stavanger plan as well as the School Comission of 1921 for continuation and vocational schools. As previously mentioned, the comission for continuation schools and vocational schools had been heavily influence by the swedish school law of 1918, but now the connection between the practical continuation school and the vocational schools was discontinued. The justification was that the Swedish law had not lived up to prior expectations. Consequently a separate school comission was set up in order to draft a proposal for the new organization of the practical continuation schools (framhaldskolen). Still the first draft of the new law for vocational schools is illustrative of the tensions and contradictions involved. In principle the VET council was fully in favour of the principle a VET educational system based on positive relations between different levels of the system. At the same time the council assumed that only a minority would actually make use of such connections. Instead the need for the vocational schools to produce adequate training for skilled workers was emphasized. The council also opposed the proposal made by the The Youth Organization of the Norwegian Labour Party for one year obligatory day time schooling as a precondition for entering an apprenticeship. The council was of the opinion that one of year technical evening schools would represent a more adequate strengthening of the apprentice system. The proposition was therefore framed according to the principle of voluntary participation.

159 Jensen, Ole (1936) "Yrkesopplæringssaken". Det 20de Aarhundre, page 196-111: Oslo
Handicrafts and house industry

Handicrafts thrived until the 1920s. An encompassing national peak organization was formed; the *Norges Husflidforbund* as well as a number of local associations and organizations. These organizations emanated partly from philanthropy, partly from nationalistic motives. The handicraft policies of the associations adressed two problems; poverty and emigration, and comprised self-subsistence production, the production of handicrafts for sale as well as the development of house industry. Soon the handicraft association also acquires state financial support, and the organization actually grew stronger during the recession in the 1930s. In 1930 the council was awarded the responsibility for the administration of the national schools for working (arbeidssschulen) and the construction of obligatory practical training schemes in these schools. A variety of organizations like the womens organizations, youth associations and farmers associations and social movements were heavily involved in handicrafts and house industry.

The importance of handicraft and house industry was widely acknowledged and supported in Norwegian society. Municipalities governance institutions were often collective members of handicraft societies, and mayors often had lifelong memberships. Relations to the Ministry of agriculture were excellent, and the House Industry Council was consistently consulted in all important issues. Even a permanent inspector’s position for handicraft schools was formed in 1921. The contrast to the situation in the industry and the crafts is noteworthy. In 1930 the state actually intervened in handicraft and house industry area with both finance as well as a legal framework. There was an increasing interest in alternative forms of production and livelihoods, and in 1934 the National Council for house industry, handicrafts and small industry was formed (Landsrådet for husflid, husindustri og småindustrisaker), under the purview of the ministry of agriculture. The state took over the responsibility for all these tasks, and the council lost most of their tasks. A more interventionist state administration was in the making in handicrafts.

The state and domestic sciences

In the period of the liberal state the ministry of agriculture (formed 1900) became the mainstay of the schools in domestic science and homemaking. Schools for future housewives were modernized and regulated, a specialized teacher education for these schools were formed and

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state financing was secured. Up to 75% of expenses incurred could be provided if these schools were operated by the municipality and the school plan was approved by the ministry of agriculture. Financing could also be allocated to private institutions. This structure was reproduced until 1959 when these schools were moved and laid under the jurisdiction of the ministry of education. Allowances to the schools in domestic science increased considerably up to the 1920, but receded under recession and the growth rate of these schools stagnated

The public administration apparatus dedicated to the domestic science policy areas grew fast. A separate domestic science office was formed in the ministry of agriculture, with responsibility for the these schools, teacher training institution for domestic science, guidance and advisory services as well as the conduct of social experiments in the field. Relations between the association of domestic science teachers and the ministry of agriculture were amiable. In 1916 a separate position in the ministry for domestic science was formed and the head of the teacher training school for domestic sciences and initiator of the organization for teachers in this area was selected. Obligatory requirements for the position was related to both gender and education, a female educated as a teacher in domestic science. In this way tight couplings were formed between the ministry, the educational institution and the domestic science teacher organization. She was the steward of these schools in the ministry. Few countries had a better and more thorough system for state support and financing of the home economics school system than the Norwegian, it was argued. School plans were devised by the domestic science teachers associations, approved by the ministry and brought to bear on these schools. Specific requirement were laid down in guidelines for teachers formal qualifications. The state and the teachers’ organizations shared space. In 1936 the position in the ministry had been elevated to the rank of higher civil servant (byråsjef). But the domestic science organizations were not at all happy with the ministry of education. The women’s movement demanded a separate ministry for domestic science affairs. But this was not to be.

For domestic science related subjects in the obligatory common school, a new teacher category was formed. This teacher category developed close relations to a different Ministry; the Ministry of education. In 1916 a permanent inspectors’ position for these subjects was

161 The ministry of education was responsible for school kitchen training in the obligatory school, and the training of school kitchen teachers.
formed. Focus here was on the furthering and effective implementation of the principle of work in the Norwegian folk school and the self-development of pupils in order to create autonomous citizens\textsuperscript{163}.

In both domains relations between teacher categories and the state remained close. The gender relation was central to the definition of the educational problems at hand. But these problems were defined and addressed in different ways. The last category worked for the integration of practical subjects in the teacher training colleges responsible for the common obligatory school. To them domestic science was a general subject, and they succeeded in making domestic science an obligatory subject. While non-obligatory domestic science was embedded in notions of science and technology in modern house-keeping, general home economics were based on the self-activating principles of the practical school (the work school) Home economics also became a method for teaching in other subjects as mathematics and chemistry.

1930-994: VET and the social democratic state

After the war the labour party assumed power, and kept it for several decades, only interrupted by a small incident in the 1960s.\textsuperscript{164} It was the area of one-party majority rule. The labour party worked closely with the Norwegian Federation of Labour organizing 85 percent of the labour force, one of the highest rates in industrial democracies besides Sweden. Even when the bourgeois parties briefly assumed power, this particular regime hegemony was not significantly challenged. An alternative government platform was not available. The new labour regime changed parliamentary voting rules in 1952. The old arrangement, which had secured rural areas two thirds representation in parliament, was abandoned in favour of the principle of proportional representation. Still, also the new order secured an over-proportional representation from rural areas, albeit in a milder form.\textsuperscript{165}

The new polices favoured industrial production, employment, redistribution and reform. Important objectives in educational policy was social equality and equity in education and in society as a whole. That is; to overcome differences in social and economic conditions in so

\begin{footnotesize}
\textsuperscript{163} Melby (1995)

\textsuperscript{164} Rokkan, Stein. 1966. ‘Norway: Numerical democracy and corporate pluralism’ in Robert A. Dahl (Ed.) Political Oppositions in Western Democracies New Haven and London: Yale University Press. 70-115

\textsuperscript{165} Ibid.
\end{footnotesize}
far as this was a product of social class or geography. In general, educational policies were considered important by the new regime as a means of altering the distribution of opportunities in society. But how was this to be done? And what was the role of VET in this respect?

The regime change and the ascent of the labour party state provided a new basis for new relations between VET and the state. The central state structure from the earlier liberal regime had provided access for a considerable number for interest groups within different policy areas. The old regime had been the Eldorado of organized minorities. A veritable jungle for interest organizations had been formed, and many of them had been able to exercise considerable influence through various forms of integrated participation in the state. This also included organized actor groups in the various fields of vocational education and training. Now this heterogeneity should be reduced and newer, more efficient, bigger and more encompassing actors were to be formed. The essence of this development could be captured through concepts like corporativization and structural rationalization.

On the basis of the experiences from the crisis in the 1930s and massive unemployment, one central focus for the new regime was economic growth and economic modernization. Adequate access to labour became a vital issue. In the 1950ies there were practically no growth in the labour population. The unemployment problem from the 1930 was turned on its head, and lack of labour emerged as a policy problem. The program of the new labour party regime was heavily oriented towards the modernization of industry in order to sustain a competitive edge. Active labour market policy as well as skill formation and new planning tools emerged as central policy areas.

In 1945 the labour force was roughly divided between the primary secondary and tertiary sectors. But as a consequence of the quicker industrialization pace, employment structures changed, from its prior emphasis on agriculture to industrial production and services. These policies of industrial expansion and the formation of large scale mass production enterprises met resistance in parliament and among small industry interests. But demographic conditions

166 Seip (1963)
169 Sejersted Francis (1978) "Norsk økonomi etter krigen med særlig vekt på strukturendringene i økonomien." manuscript department of history, University of Oslo
soon changed, as the number of child births escalated. Industrialization policies had to be reinforced, as non industrial areas were developed. Export industries were given preferential treatment as well as rationalization policies and product specialization. The development towards an open economy demanded structural changes, but it also contributed towards exposing Norwegian firms to foreign imports and competition. A new consensus in industrial policies emerged during the 50s. The right (Høyre) as well as the Christin Peoples Party (Kristelig Folkeparti) loosened older ties to the agricultural communities. Only the farmers party (Senterpartiet) remained committed to rural and farmer interests. The new consensus comprised central democratic interests, industrial interests as well as that of the economic planners.

Industrial restructuring and increasing foreign competition imposed new rationalization pressures in industrial branches exposed to such competition. In this context the Norwegian enterprise structure was a problem. Norwegian industry consisted mainly of small firms. This structure was the product of long path dependencies. As previously mentioned, the first industrialization phase evolved towards the formation of larger units. But this tendency was halted around 1915, and after 1916 towards the mid 50ties small and medium sized enterprises (>20 employees) increased their share from 14% to 24%. Structural concentration changed this picture somewhat.

A new negotiating system was formed. The LO and NAF remained the central peak organizations in working life. In the 1950s the degree of unionization reached a stable 55%, and the number of employees in enterprises which were organized through the Norwegian Associations of Employers (NAF) rose from 30% after the war to 50% in the 1960ties. But norms as well as regulatory structures changed somewhat in the direction of industrial democracy, codetermination and productivity. Centralization and coordination of the negotiating system became central elements of the new system. Through that process the

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internal structures was rationalized and new more encompassing organizational structures emerged both in the public and the private sectors of working life.

**Intervention, coordination and steering in education**

The ideology of the new regime was state intervention, coordination and steering. But within that conception, a number of different reform projects coexisted which pointed in different directions. On type of modernization was based on the period between the two great wars and the radicalization of the labour movement. The other departed from a more general conception of social mobility and the principle of the unitary school (enhetskolen), emanating from the liberal regime.

Vocational training was a huge priority for the new labour government. The increasing demand for general education and the gymnasium had long produced worries among politicians and labour leaders as well as in industry and crafts. The esteem of VET had to be increased, and its status elevated, similar to that of general education. We have to get rid of the white collar mentality, it was argued. The vocational schools had to be reconstructed into an educational system and parity of esteem had to be achieved. But how this was to be done was unclear. On the one hand strong political actors wanted to develop a “practical” unitary school for the labour class parallel to that of the bookish school or the theoretical school. This notion was based on parity of esteem, institutional differentiation and equity between different types of educational sub-systems. Another competing vision was that of the encompassing unitary school, where the educational system was regarded as a general instrument for social mobility. Within this type of reasoning it was much more important to secure adequate coordination rather than system differentiation. Both these strategies existed side by side, and they were also related to different types of rationalization of production processes in working life and relations between general and vocational education. One departed from the workshop schools a theoretical and practical training before apprenticeship, where all recruitment to the skilled worker category was intended to go that way. At the same time relations between different levels in the education systems were drawn up going all the way up to higher technical

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174 Fredriksen, Peter (1980) *Kunnskap og makt gjennom 100 år. Linjer i arbeiderbevegelsens skolepolitikk fram til 1940.* Hovedoppgave i Historie, Universitetet i Oslo


176 Benum (1985)
education at university level. This also implied that relations between general and vocational education had to be addressed.

**Coordination and institutional integration**

After a brief spell the labour developed policies based on conceptions of an encompassing educational system organized under the purview of one single ministry. 177 Key issues became coordination and institutional integration. The old segmented school structure with separate school types for the different areas like crafts and industry, handicrafts, house economics and commerce which historically had evolved under the liberal state, subordinated to goals tightly related to their respective sectors, actors and educational traditions, were considered outdated. Vocational schools had developed in relation to the various sectors and been subjected to their respective sector organized governance structures and arrangements. A new and encompassing administrative arrangement carried the promise of more unitary forms of regulation. A more integrated educational system was in the making. The rate and pace of change varied somewhat in the various sectors, but gradually the various type of non-compulsory schools were transferred to the ministry of education. The commerce gymnasiums and the commerce vocational schools were transferred from the ministry of trade, the rural handicraft schools were transferred from the ministry of agriculture in 1955 as well as the schools in domestic science and home economics in 1958. 178

In industry and crafts the new labour regime intervened with law and organization. State control and state planning emerged as the road to reforms 179. A new law on vocational schools for industry and crafts represented a considerable extension of the responsibilities of the ministry of church and education.

Also the commerce educations were drawn into the purview of the ministry of education and the emerging systematization processes. Traditionally the labour party and the labour movement harboured a strong scepticism towards the commerce sector and the business elites. But employment in this sector was growing rapidly, and soon the possibilities of integration of the white collar workers within a broadly organized and encompassing Federation of Labour became a hotly discussed topic. Commerce education and training represented the main

178 Grove and Michelsen (2005)
gateway to positions in this sector. Commerce education had to be improved, but this was not to be done by people who ran this kind of training as a business enterprise or a commodity. Education for commerce was a task for public education. New solutions had to be found for old problems.

**Corporatist pluralism in the new education sector**

State intervention in the educational field was supplemented by a movement in the opposite direction: the embedding of expertise in the administration of VET. More and more policy areas were formed with their own separate corporatist institutions as well as representation from organized interests in councils and exam commissions. The net result was the formation of a new pluralist order, organized for the administration of the school system. Most of these corporatist institutions were formed on the basis of earlier structures, but reorganized and specialized through differentiation processes. These institutions were intended to provide expertise and control in the form of state sanctioned expertise in their particular fields.  

They also wielded the authority of the state in issues defined as technical rather than political in the various policy areas and in the administration of schools and school-like institutions in their policy sector.

**Vocational training for commerce redefined**

Within the field of vocational training such a policy could be based on older principles and ambitions of constructing a separate practical educational system equal to that of the bookish school in status and prestige. Such a system could make it possible to achieve higher technical education at the Norwegian technical university where the various schools constituted a progressive ladder, equal to the gymnasium and the upper secondary continuation school.

The formation of the vocational training school act in 1940 was influence by such notions. To some actors the new act of vocational schools promised a vocational school which also was general education. The principle of practical education was interpreted in line with the formative powers of work. Also general education was defined as the ability to orient oneself in society. 181

Within the field of Commerce, similar notions could be identified as well. 182 Before the war a series of commissions had been put forward by the ministry of commerce, which ended up in

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180 Erichsen (1991)
the proposition of a 3 year commerce gymnasium, equal in status and stature to that of the Gymnasium. Economics was eventually considered as a general education subject of similar quality as the general subjects of old. That these subjects also qualified as vocational, all the better. On that basis a separate track in economics was proposed. The new track assimilated important subjects from the traditional Gymnasium as well as examination practices and mixed older general subjects with newer vocational subjects. To the critics the new track amounted to semi-education, it was neither general education nor vocational education. The new track in economics was formed in 1950. The older tracks in commerce was transformed in the direction of general education, while the vocational profile changed from German Wirtschaftslehre to business economics. Within the schools for industry and crafts however, the prospect of a technical gymnasium did not succeed.

The new scope of vocational training for industry and crafts
The new law on vocational schools was passed in 1940, but became effected in 1945. It represented a legislative innovation in school law. Vocational schools for industry and crafts had traditionally been located in the towns. The scope of the new law was both rural and urban areas. Also the need of rural youth had to be taken into account. In the new Vocational School Council interest groups from rural areas had to be represented. The number of representatives was extended in order to reflect the new encompassing and unprecedented jurisdiction. Future policy work for the development of the new vocational system was conducted by the new planning committee of 1945. The committee was dominated by representatives from the technical educational institutions. VET was now not a policy area just for industry and crafts, but encompassed agriculture, timber industry, house industry and commerce as well: Vocational education and training had to be oriented towards all kinds of vocational training, it was stated.

Also the various school types were scrutinized. The primary purpose of the basic one year workshop schools was the production of qualified workers for crafts and industry. But these qualifications also consisted of general and theoretical education. These schools were intended to produce formal qualifications in general and vocational subjects equivalent to that of the apprentice school. The apprentice school was to be reserved for youth who went straight into working life after the completion of obligatory primary education. But it was maintained that the need for this type for school eventually would be reduced. The new one-year workshop schools were preferred. This diagnosis was very controversial. In 1947 the apprentice
schools comprised a total of 95 schools and more than 7000 pupils. In contrast, the basic workshop schools comprised a mere 1700 pupils.\textsuperscript{183} The workshop schools were regarded as superior due to pedagogical reasons. The apprentice schools were in general evening schools with two hours teaching a day, five days a week. Tired and bored pupils did not provide efficient conditions for teaching. It was considered as far more efficient to develop elementary training at workshop schools than part time training at the apprentice schools.\textsuperscript{184}

Also relations to general education were contested. The question of parity of esteem through differentiation and two parallel systems was politically controversial. The position of the planning committee was structural coordination with general education, where the different levels corresponded to established levels in the educational hierarchy. Vocational training was considered as a sort of mirror to general education structures. The elementary technical school was considered on a par with the lower secondary school (Realskolen), and the final year of the technical school was considered on a par with the gymnasium in general education subject areas like Norwegian language, English, mathematics physics, and chemistry. As such, absolvents from the technical schools would be comparable to absolvents from the Gymnasium, it was argued. Such arrangements would provide broader access to the Norwegian University College for engineers (NTH) irrespective of starting point. It would also provide the university College (NTH) and the engineering profession with a new influx of valuable students with a beneficial practical background. Such a proposition would also contribute to the removal of an old inferiority complex among pupils from vocational tracks. But the realization of such an endeavor proved not to be an easy task. Such modernization projects soon met vested interests in the form of the upper secondary teachers, their organization as well as the National Educational Council, where they were duly represented.\textsuperscript{185} Issues of technical gymnasiums qualifying for university entrance encroached on their territory and jurisdiction, and such propositions were fought with a firm hand. The general upper secondary teachers were fully in favor of building capacity in the vocational schools as well as increasing the status of such schools. But access to the university meant meeting specific requirements related to teaching materials, books and curriculum, as well as meeting examination demands. And these questions and demands were under the purview of the Council.

\textsuperscript{183} Michelsen (1991)
\textsuperscript{184} Ibid.
\textsuperscript{185} Ibid.
Eventually the reform initiative fizzled out. But the dream of a technical gymnasium remained an issue which did not go away.

**Vocational schools and/or work-based apprentice training: regulation, sectorization and the construction of legal and institutional boundaries**

The vocational school act, which was heavily influenced by the Swedish model, could be characterized as a compromise which met a number of essential preconditions. By this law the vocational schools were integrated in a nationwide system for vocational training and education. Most schools of this type had been developed in urban areas and in the towns in relation to guilds, employer and employee associations, as well as crafts and industry associations. In rural areas the situation was completely different. This duality between the towns and the rural areas also characterized the corpus of civil law, where the towns and rural areas constituted separate legal entities. This particular act implied a clear break with prior practices in the area of educational law. The law provided legal boundaries between VET on the one hand and general education on the other, standardized the length of a variety of courses and school types and provided a framework for integration of the various schools types. The law was built on prior experiences as well as established school types, and many actors regarded it as a formalization of prior practices and institutions rather than an innovation. But the social policy orientation of the law was clear. It stated that the amount of total working hours for education and work should not exceed 48 hours, that is, 8 hours a day. In comparison, Denmark had established 9 hours a day as a baseline in such cases. Most significantly, the law implied a reduction in total work time for apprentices who visited the technical evening schools after completion of work. Reactions from captains of industry and crafts were strongly negative.

The VET law created a framework for considerable expansion. In 1935 the number of pupils in this sector had been a mere 7172. In 1958 the number of pupils had reached just about 20000. The number of fulltime students in the basic workshop schools had also expanded considerably. In 1936 the number of students at the apprentice schools (technical evening schools) exceeded the number for students at workshop schools four times. In 1958 the situation was reversed.

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188 Michelsen (1991)
The apprenticeship act and regulation of training in the firm

Next step was the regulation of firm-based training and apprenticeship. The crafts were regulated through the crafts act from 1915. Industry had not developed such institutions for the practical training at the workplace. Instead, and most significantly, the regulation of training was structured through the industrial relations system and through wage negotiations between the social partners. As previously mentioned attempts had been made for a more adequate regulation of apprentice training, but to little or no avail. Now the time was ripe. Vocational training had evolved into an issue of considerable societal importance.

The new regime developed new priorities. While the VET council in 1939 wanted to develop VET through the apprentice school, the planning committee of 1945 wanted a systematic buildup of vocational workshop schools. The justification was party practical, partly pedagogical. The new regime was no longer willing to leave this issue to the social partners without a more adequate form of social regulation. There was no faith in the ability of the social partners to do this on their own. The government feared that industry would not be sufficiently engaged in rationalization and modernization processes under the new labour regime. Agreements which had been made in different trades or branches of industry in addition to wage negotiations were regarded as valuable but not sufficient elements in order to secure adequate training quality.

In 1946 a separate apprentice committee was appointed by the Ministry of trade, and their proposal was passed in parliament in 1948. The conclusion was that there was great need for an apprentice act in the crafts and in industry and a binding framework for the organization of apprentice training. Unlike the VET act, which was nationwide in scope, the scope of the apprentice act was restricted to the towns, reproducing the old duality between rural and urban areas. This arrangement was defended mainly by practical considerations. But the proposal also avoided that old cleavages between center and the periphery were activated. All the involved associations in working life agreed that an apprentice law was urgently required. But when the prospect of a common law for industry, crafts and commerce emerged, all the business associations protested.

189 Sakslind Rune, Tor Halvorsen and Olav Korsnes (1985) "Arbeidslivsforskning og de særegne industrielle relasjoner i Norge. Norsk arbeidsliv i komparativt perspektiv." In Politikkens forvaltning Bleiklie et. al. (eds.) Oslo: Universitetsforlaget
190 Bergh, Trond (1987) "Arbeiderpartiets styringsfilosofi etter krigen. Økonomisk styring - et spørsmål om organisasjon." LOS-senter Notat 87/10
191 Rokkan (1966)
The apprenticeship committee did not conform to the conclusions of the previous planning committee, which had suggested a strengthening of the workshop schools. The apprenticeship committee held that this type of arrangement could make coordination between training in the school and in the firm difficult. A build-up of pre-apprenticeship schools would make it difficult to adjust to training processes in the firm.

Implementation was slow and the different trades were gradually integrated under the scope of the new act one by one. In 1958 a total of 45 craft trades, 10 trades in the iron industry as well as car mechanics, and radio fitters had become formally institutionalized.192 The law provided the social partners and the different trades with a strong position. Each trade was regulated, in accord with the Danish pattern, by a separate national council, consisting of representatives from the social partners which organized this specific area of working life. Each council enjoyed full autonomy as well as official status, controlling the training profile as well as examination practices for each trade. In effect they could veto any change within their purview. At the central level there was agreement between the state and the social partners on the benefits of the law. At the local level conflicts proliferated, especially in the artisan trades, and in some regions and some trades boycott actions were rampant.193

One of the ambitions of the apprentice act was to close a loophole in regulations. According to the letter of the act the apprentices were obliged to follow a parallelly organized apprentice school. But formal coordinating mechanism were not forged between the apprentice school and the firm in order to secure a coordinated and well-functioning training arrangement in school and working life. Results obtained by the apprentice (or lack of results) at the apprentice school had virtually no consequences whatsoever, as it did not represent due cause for a possible denial of taking an apprentice test. And even if the apprentice did not attend school at all, he or she could only be prevented from taking a skilled workers test if the training firm intervened. Although the law provided for such measures, this did not happen very often. In total this suggests that training in the firm had little to do with apprentice schooling. Whether or not such as system qualifies as a “dual system” integrating training in the firm with education in school is of course debatable. But the weak couplings are quite illuminating. Furthermore, training in school and in the firm was formally governed by two separate councils. The apprentice council had no jurisdiction over the theoretical training in

192 Ot.prp. nr. 9 (1965-66)
193 Jahnsen (1979)
school, while the vocational training council had an equivalent lack of jurisdiction over training in the firm.

**Two roads to the skilled worker status**
The new law stated that not only apprentices, but also experienced unskilled workers should have the right to perform a test qualifying for a skilled workers certificate. The experience required was estimated to a period 25 percent longer than ordinary apprenticeships. The local administrators in the system of apprenticeship were even delegated the authority to dispense from the 25 percent-criterion if necessary. In principle these regulations created two distinct pathways to skilled worker certification; the first one through a formal apprenticeship and theoretical schooling, and the other one through prolonged practical experience in the trade. Confirming to traditional legislative divisions between rural and urban areas in Norwegian law, the jurisdiction of apprentice law of 1950 was limited to urban areas. However, the law explicitly opened the opportunity for adult workers in rural areas to document skills by means of a trade certificate if they migrated to urban areas. It is difficult to assess the significance of each pathway to the skilled worker status. But historically oriented case-studies of firms in the shipbuilding industry, a major technological powerhouse in Norwegian, suggest that mobility from unskilled to skilled worker status have been an important source of recruitment of equal importance to apprenticeship. The number of registered apprentices has been small. Apprentice recruitment has been severely exposed under economic recessions, and quality has generally been regarded as poor. Local training communities are generally regarded as fragmented, and relations between firms often structured by the fear of poaching skilled labor. Available studies indicate that a variety of firm-specific practices and solutions to skill problems at the local level were constantly being reproduced. A number of different routes led to the status as a skilled worker and a skilled workers pay in industry. Empirical material from several case studies suggests that neither vocational certificates nor formal theoretical training were imposed as necessary conditions to obtain such a status in a variety of branches in industry. The category of the skilled worker was heterogeneous as far as formal qualifications were concerned. What mattered was wages and practical prowess in production processes.

194 Michelsen and Høst (2001)
**Commerce and economics**

To the new labor regime the commerce educations presented both problems and possibilities. The key problems were the white collar workers or the “functionaries”. Historically the white collar workers represented something distinct from the blue collar workers. But demarcation lines were unclear and unstable. \(^{197}\) White collar workers had been notoriously difficult to organize and their intermediate position in the class structure opened up for different types of collective organization and alliances. The new labor regime wanted to form a broader alliance between the white and the blue collar workers within the Norwegian Federation of Labour. \(^{198}\)

Furthermore it was clear that commerce and office workers would play an increasingly important role in the development of society in the future. In these areas unionization rates were generally low. \(^{199}\) Commerce education represented the main gateway to positions in these areas, but the educations were dominated by private interests and norms. This had to change. \(^{200}\)

A number of new organizations were formed, including that of the Federation of Teachers in commerce schools, which organized teachers from all types of schools in the commerce area, at higher and lower levels. These organizations worked for increased state intervention and financing. Developments were characterized by movements in two different directions. On the one hand towards the prestige and status of the older Gymnasium, where economics was increasingly viewed as general education; on the other hand a move towards the various branches in business and commerce. Viewed from the Norwegian Federation of Labor the present organization of commerce education did not represent a satisfactory solution. Instead public shop-floor schools and a separate apprentice system for white collar workers were suggested. \(^{201}\) The views of the labor federation underlined the continuities in the class structure and the tight relations between blue and white color workers. They shared similar interests. It was considered a great breakthrough when a separate apprenticeship arrangement for white collar workers in commerce was formed. The Norwegian Federation of Labor (LO) nourished great expectations in that respect. \(^{202}\) Through new training and certification arrangements proper shop workers and white collar workers would be formed, enhancing the social


\(^{198}\) Messel 2000: 246.


\(^{201}\) Rasmussen (1958)

\(^{202}\) Grove and Michelsen (2013).
status of lower blue and white collar workers. But the result was disappointing to all parties, and most of all to the Norwegian Federation of Labor. After a short period of explosive growth, demand for apprenticeships dried up completely, and in 1972 the law was revoked.

The attempts of the Norwegian Federation of Labor to construct a bridge towards lower white collar workers and new potential members fell flat. Even though the number of workers affiliated to the Norwegian Federation of Labor tripled up to 1958, most workers in these branches of working life remained unionized or enrolled in other white collar unions organized on middle class foundations.

**From apprenticeship to school-based education in Commerce**

The formation of a separate apprenticeship council for commerce trades represented a vital condition for the vitalization of a viable practical education in the commerce trades and a new institutionalized foundation for building the commerce educations. The Council was operational for 15 years before it was finally dismantled in 1976. During these years the apprenticeship institution in this area was formally developed, applauded and abandoned. In the shadow of a failing apprenticeship template, a new tree year school-based track was developed, which not only provided vocational competence within the field of commerce, but also eventually assimilated upwards qualified for entry into the universities and university colleges. This council was not at all like the council for crafts and industry, which were dominated by manufacturing interests and their organizations. Here the role of the social partners was relatively small and organized interests in the sector were relatively weak, a feature which opened for a stronger influence from the small commerce teachers organization, based on their technical expertise. Relations to the ministry were excellent, as the political leadership was not particularly interested in what actually took place. The locus of political attention was on different issues. This opened up for the reformation of older school-based structures and templates within the field. Only when the Steen committee opened up the lid and looked, did one notice what had actually happened.

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203 Tidsskrift for handelsutdannelse 1964/1
204 NOU 1978:30, page 18.
Baby boom and reorientation of VET capacity planning

The growing size of the youth cohorts presented policy planners with new problems and considerations. While capacity planning in the 50s normally was oriented towards the reproduction of the trades, such an approach was now considered less adequate. If training capacity was not increased, the numerical development in the future labour force would imply an increasing percentage of unskilled and the prospect of a new proletariat of youth out of work. The aim of the Planning Commission of 1958 was that the prospective life chances of acquiring training as a skilled worker should not be reduced as a consequence of demography. Such a perspective vouched for increasing the capacity in school based VET as well as intensification in policies for apprentice training. Youth need for education and training became the important parameter, rather than present needs in working life. The prospect of industrial expansion was also an important consideration. The head of the Vocational training Council administration, Sven Persson, made this highly significant remark:

"with some reservations, one can say that the size of working life has to be adjusted to the size of the population, not the other way around."\(^{205}\)

The VET sector went through considerable expansion during the 1950s. In 1957-58 the number of pupils in day time VET schools had reached 4000, for the most part in industry and crafts. But the number of applicant far exceed 6000. Over 40% of the applicants were rejected, much to the dismay of policy makers.\(^{206}\)

What about the future of the apprentice system? At the time there was no available and valid data on the number of apprenticeships and apprentice contracts in the various trades and branches. The enterprise census from 1953 provided data which indicated that almost 12000 employees held status as apprentices. But the total number of trades under the apprenticeship act was increasing very slowly. Even though there was agreement at the central level on the need for apprentice regulations, locally there was considerable and widespread resistance, even boycott, especially within the crafts.\(^{207}\) Registered apprentice numbers in each new trade were low. Apprenticeship worked well in a small number of branches, but possibilities for expansion seemed low. The explicit goal for the number of apprenticeship was 20 000. The regulators acknowledged on the basis of available documentation that the enterprises would not contribute to the development on such a scale without incentives. The economic incentives for taking in apprentices had to be improved, both for the apprentice as well as for the enterprise.

\(^{205}\) Lecture held at the Association for Social work 1958. Source: Yrke nr. 9-10, 1958, page 4-6
\(^{206}\) Proposal from the Planning Committee of 1958 (personal archive)
\(^{207}\) Jahnsen (1978)
Domestic science

The 50 was the golden age of the housewife. The percentage of housewives had been about 40% up to the second world war. The next decade saw an increase in the percentage of housewives to nearly 60% in 1960. The housewife evolved as the norm for married women, and the family nucleus became a central precondition for policy development in a number of policy fields, educational policies included. Organizational density in the field grew. This type of definition of domestic science made women’s liberation into the liberation of the housewife. A primary target was the professional housewife. Education and training in domestic science would contribute into making better and more adequate homes. Once again the question of obligatory training and education in domestic science at the lower secondary level came up on the political agenda. The time was ripe for providing all girls with an obligatory education in domestic science, it was stated. But the selective definition of domestic science as an education for girls was under pressure. Instead a new and more encompassing definition of the target group was gradually formed, where the need for universal and obligatory training in domestic sciences was emphasized. Women’s organizations now worked for the provision of domestic science for both sexes. The big question now was the proper organizational position of domestic science in the educational and administrative structure. The Norwegian Association of Housewives (now called “Husmorforbundet”) did not approve of an integration into general educational structure as a basis for further education. Domestic science was a goal in itself. But changes were imminent. Relations to paid work and the labor market was increasingly emphasized in government white papers on the issue as well as relations to institutions like the nursing schools as well as teacher training. Reformers claimed that these schools had to be reoriented, reformed and broadened in scope in order to include working life values and expectations. Equality between the sexes was reinterpreted in a new direction, where a common responsibility for boys and girls for homemaking was emphasized.

Gradually the organization of relations between domestic science and the state changed. The fixation of gender and education in home economics as relevant criteria for recruitment to the position as steward in the ministry of agriculture was challenged, and a man trained in law

210 Stortingsmelding nr. 101 (1964/65)
was hired. This was heavily criticized by the teachers association in domestic science. Also the National council of Norwegian Women protested. A substantial minority in parliament supported the protest but to no avail.

Furthermore, the ambitious goals for a separate ministry for domestic science were not achieved. The formation of the ministry for family and consumption in 1958 implied that the family rather than domestic science achieved a dedicated place in the ministerial structure. Older domestic science oriented structures were reorganized and broadened in scope. The redefinition of the policy area to include consumer policies contributed to a reorientation of the traditional focus on healthy home environment as well as securing the need for nourishment and healthy food.

**Industry and Crafts**

Up to the middle of the 30ties a number of reform proposals had emerged and multiplied, but which were not implemented The regime change in 1935 had opened up for the realisation of many of these proposals through public intervention, and training for industry and the crafts were subjected to public policy formation and regulation. In 1940 the law on vocational schools was voted through parliament. By this law vocational schools for industry and crafts was constructed as an independent policy area, and a legal and institutional divide was established between the vocational school and general education, sectors regulated by separate legal and administrative frameworks and regulatory institutions. In 1950 a new apprentice training act was passed for the regulation of training in the firm. The new policy field was thereafter moved from the department of industry to the department of education and church affairs.

At first sight this sectorization process seem surprising. Why was vocational schools and training in the firm separated? The sectorization of the field may be related to other processes of interest articulation as well as administrative policies. In the 1930s the labour movement developed political projects focusing on strengthening the social esteem of vocational training. Parity of esteem was based on a broad coalition of interest which included industry and artisan interests. Industry and artisans organizations had tried to institutionalize industrial training on their own, but to no avail. A broader coalition was therefore forged with

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the vocational schools. The formation of a separate corporatist council for vocational training, Yrkesopplæringsrådet, i 1933 is representative for this strategy, but without any state representation or financing. After the regime change this interest structure was reorganized and re-coupled to the state in a different manner. The first expression of the new situation was the law on vocational schools (Yrkesskoleloven) which may be interpreted as a compromise between the state, the schools and the social partners in working life. Emerging polices for coordination of the educational system pulled the vocational schools towards general education, and attempts were made at the development of a separate hierarchy of schools parallel to general education, but without much success. The formation of apprentice training as a separate an autonomous system can be analysed as a reaction from working life interests and organizations in order to protect their influence. But the subsequent turmoils might also serve as a reminder that the compromise also had some elements of a shotgun wedding.
Educational expansion and the construction of a new educational system school 1960-1994

Re-forming the educational system
During the period of the great educational expansion 1960-1975 educational structure was thoroughly re-formed. The total reform process could be analyzed a stream of decisions which were oriented towards one integrated reform program, structural rationalization. If we want to understand relations between VET and the educational system which was reformed during this period, it is essential to look at de different VET institutions in relation to the total structuring of the system and the formation of new relations between levels.

VET and the new comprehensive upper secondary school. Political reform, institutional reclassification and new relations between educational levels and school types
Towards the beginning of the 1960s an educational system had been formed, which consisted of three levels: The obligatory education, upper secondary education and the post-gymnasium schools. Upper secondary level comprised all school types between the elementary school and the post gymnasium schools. At the intermediate level the situation was characterized by considerable heterogeneity. The organization of boundaries to the post-gymnasium schools was blurred or unclear. Some school types had developed parallel studies with similar goals and similar competencies. Such parallel arrangements existed in the engineering schools (2 year studies based on student classes in tandem with the ordinary three year study based on absolvents from lower levels, the 2-year student classes in teacher training as well as the ordinary four year study, based on similar requirement as the upper secondary general study (gymnasium).

The different school types harboured different aims. The regulations which emanated from the 1950s had dug a deepening trench between general and vocational education. This segmented structure implies that a large number of students were excluded from higher education. At the end of the 60ies demand for education soared, and the baby boomers made capacity precarious. Demand soared, not only for the gymnasium, but also for the vocational schools. From 1955 to 1961 the number of pupils in upper secondary schools was trebled.

212 Michelsen 1991
213 Innstilling I fra Skolekomiteen av 1965.
The main mover for reform was the so-called Steen Committee. The committee characterized the school structure as a heterogeneous fan of school types with very little in common. As previously mentioned, these schools had grown through local initiatives in the first half of the century and before these areas were subjected to regulations. The soaring demand for upper secondary and post-gymnasium education happened for a number of reasons. An increasing share of the youth cohorts demanded more education. Cohorts were also increasing in size. But the growth in the number of students must be seen as an integral part of larger and more complex social processes, where different social groups developed inclinations for more and better education as a well as notions of how this could be achieved.

**New relations between VET and general education?**

The Steen-committee held the firm opinion that there was no clear boundaries between general education and VET. According to the Committee general education was an education with a considerably broader purpose than vocational education in a pure sense. A good general education would serve as a basis for a lot of different types of vocational education and training, and at the same time prepare for tasks in different areas. Still educations which aimed at a specific area or field or specific tasks, would also comprise elements of more general value, providing knowledge, skills and values and attitudes which would prove useful in a broader context. But basically the conclusion was that the educational system was not up to the task. A system based on more equal educations and parity of esteem had to be formed. The solution for the Steen –Committee was increased integration between school types, stronger combinations of general and vocational education and a system based on the free choice of educational tracks.

The increasing demand for education created new pressures on the whole educational system as a whole and the need for developing new linkages between educational levels and school types. Analytically speaking the essence of this change can be captured through the change from the negative to the positive principle of hierarchical structures. Every pupil should be given the possibility to access higher education if the preceding level had been completed with a satisfactory result. In the Norwegian context this argument was constructed as the principle of the unitary school and equal rights to higher education. School authorities wanted to create a more unitary school system which complied with this principle, through a combination of reforms:

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214 (Archer 1979)
1. The integration of the lower secondary general education and the practical continuation school

2. The integration of the vocational programs and general education in a new comprehensive upper secondary school.\textsuperscript{215}

The corporatist system in the school sector had been based on similar principles. In this system the role of the interest organizations in this field and the state had shared space and the role of the interest organizations had been transformed to social sanctioned expertise. The councils provided the Ministry of education with technical expertise in the various school types and their specificities. The main focus was on standardization, rulemaking and guidelines. Regional and local peculiarities should now be avoided. This was a development which organized interests worked for. But the conception of the new encompassing upper secondary school also had considerable implications for the corporatist arrangements in the form of increasing coordination and rationalization within a new encompassing council, housing all the different school types as well as coordinating of guidelines and regulations.\textsuperscript{216}

\textsuperscript{215} Norang 1985, Sæther 1981.
\textsuperscript{216} Telhaug, Alfred Oftedal (1979) \textit{Vår nye videregående skole. Oversikt over og kommentarer til reformarbeidet}. 3. utgave. Didakta Norsk Forlag. Oslo
Table 1: The number of pupils in secondary non-obligatory schools 1935-1966

<table>
<thead>
<tr>
<th>School types/Year</th>
<th>1935-36</th>
<th>1955-56</th>
<th>1960-61</th>
<th>1965-66</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gymnasium (including commerce)</td>
<td>8718</td>
<td>16795</td>
<td>28563</td>
<td>44121</td>
</tr>
<tr>
<td>Folk high schools</td>
<td>5813</td>
<td>4020</td>
<td>4980</td>
<td>5946</td>
</tr>
<tr>
<td>Agricultural VET schools</td>
<td>2625</td>
<td>2490</td>
<td>2845</td>
<td>2995</td>
</tr>
<tr>
<td>VET workshop schools</td>
<td>7798</td>
<td>5439</td>
<td>7892</td>
<td>16983</td>
</tr>
<tr>
<td>Apprentice schools</td>
<td>6458</td>
<td>5745</td>
<td>3266</td>
<td></td>
</tr>
<tr>
<td>Home Industry</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>And handicraft schools</td>
<td>1579</td>
<td>1272</td>
<td>1518</td>
<td>1470</td>
</tr>
<tr>
<td>Craft, art and Industry schools</td>
<td>1562</td>
<td>620</td>
<td>628</td>
<td>591</td>
</tr>
<tr>
<td>Technical schools</td>
<td>348</td>
<td>1157</td>
<td>1361</td>
<td>4386</td>
</tr>
<tr>
<td>Technical VET schools</td>
<td>292</td>
<td>496</td>
<td>433</td>
<td>472</td>
</tr>
<tr>
<td>Elementary technical schools</td>
<td>202</td>
<td>224</td>
<td>261</td>
<td>733</td>
</tr>
<tr>
<td>Other VET schools for Crafts and industry</td>
<td>95</td>
<td>-</td>
<td>17</td>
<td>488</td>
</tr>
<tr>
<td>Maritime schools</td>
<td>1218</td>
<td>3894</td>
<td>4489</td>
<td>4485</td>
</tr>
<tr>
<td>Schools for commerce</td>
<td>6404</td>
<td>9951</td>
<td>13254</td>
<td>15596</td>
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<tr>
<td>Public VET schools</td>
<td>508</td>
<td>1310</td>
<td>1290</td>
<td>826</td>
</tr>
<tr>
<td>Nursing schools</td>
<td>2936</td>
<td>3426</td>
<td>4099</td>
<td></td>
</tr>
<tr>
<td>Teacher training schools (4-years)</td>
<td>368</td>
<td>937</td>
<td>1661</td>
<td>2685</td>
</tr>
<tr>
<td>Other VET schools</td>
<td>2981</td>
<td>5816</td>
<td>7481</td>
<td>10224</td>
</tr>
<tr>
<td>Total:</td>
<td>40538</td>
<td>64174</td>
<td>86007</td>
<td>119671</td>
</tr>
</tbody>
</table>

This table provides an overview of the heterogeneity of the various schooltypes which held a status as secondary non-obligatory schools. But in this picture some contours can be identifies as three type of schools were dominant; the gymnasium, the VET schools and schools for commerce and trade (handelsskoler). In 1965 the number of pupils in these schools comprised about 70% of the total number of pupils in secondary non-obligatory education.

Political radicalism and the weakening of apprenticeship

The work of the Steen-committee contributed to the ideological polarization of the time around issues of VET in general and the apprentice system in particular. At the vanguard was the Youth organization in the Labour party. Their representatives proposed a radical solution

in the form of the abolition of the apprentice contract system and the integration of all VET in the comprehensive school. In their view it was now equally important to abolish the apprentice system as it had been to form the system during the 30ies. 218 From a radical political perspective of equality and equity the apprentice system had several important flaws. First, economic conditions for apprentices were generally bad, and wages were low. Second, apprentice contracts were legally binding, both for the enterprise and the apprentice. The apprentice contract tied the apprentice both to the trade and to the training enterprise. Termination of the apprentice contract from the apprentice was in principle illegal and opened up for legal action and demands for economic compensation of behalf of the training firm. If the apprentice wanted the contract terminated, he could wind up in a very difficult economic situation. Furthermore, the clear unambiguous commitment to the firm and the trade was considered unfortunate, premature and untimely. If the possibility of changing education on the way was a democratic right, apprentices were deprived of such a right, it was argued. Compared to the comprehensive school system, the contract institution seemed both undemocratic and discriminatory. The strong bind of the apprentice system to the capitalistic enterprise was also considered a problem. Pupils in the public school system could be reasonably assured that the educational institutions they studied at would not be closed. But for the apprentice closure or bankruptcy was a real possibility. Apprentice law did not secure the right of the apprentice to complete the training.219 Apprentices had to make larger commitments and take more risk than the ordinary pupil at a vocational school. Neither did they enjoy the social benefits which had been developed in order to broaden access to more education. Apprentices were not entitled to loans from the state educational bank like ordinary students. They were not a part of a local student welfare organization, and had hence no claim as far as student housing arrangements were concerned. A reorganization of VET in the direction of a more school-based system could therefore be framed as a question of reduction of social inequality and more equality between pupils and apprentices.

And the politicians had become increasingly frustrated with the apprentice institution. In 1966 it was considered a huge disappointment across all party lines. 220 It was generally accepted that the apprentice act had not fulfilled its purpose. The frustration was clearly visible, and the lack of adequate policy instruments was generally deplored. Possibilities for a

219 Michelsen (1993)
220 Ibid.
rearrangement of VET in the direction of a comprehensive upper secondary school for all pupils were discussed. But huge resource requirements made this option less palatable for the politicians. The result was that apprenticeship was neither abandoned nor revoked. Instead parliament advised that apprenticeship had to be integrated into the educational system in a more systematic way, and a number of social policy oriented initiatives were taken in order to improve the social and economic conditions of the apprentices. These initiatives came both from the political right as well as the left in parliament. During the 70s the apprentice system and policies for apprenticeship gradually faded from the light of political attention. Instead it became a recurring object for social policy rhetoric and compensatory symbol policies for the improvement of conditions for problem youth.

But the unexpected vitalisation of the apprentice system under the auspices of the social partners as an important arena for skill formation in the 1970s triggered a revision of policies, and incremental but important measures were taken. Comprehensive system formation and institutional integration process took place in two steps. In 1975 school-based VET was integrated with general education in a more comprehensive upper-secondary education system. But apprenticeship was kept outside as an autonomous policy area. In 1980 a separate law for apprenticeship was passed by parliament.

**Girl education: From domestics science to auxiliary nursing and care worker education**

The 70s represented a difficult time for domestic sciences for girls and the focus and relevance of this type for education. The old structures and practices had accommodated the requirements of the time for formal training in homemaking. But serious doubts about its present relevance were creeping in. Questions were being asked. Did these schools and this type of education have a mission for today’s young girls? The domestic science schools for young girls had two tasks of general and vocational character, to provide training for home

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221 Ibid.
222 Ibid.
224 ”Er dagens unge kvinner tjent med fagskolene i husstell?” I Yrke 1-74.
making as well as that of a preparatory form of vocational training. But now a more radical conception was in the making, which did not accept the traditional division of labour between the sexes. Domestic science supported old and outdated views on the family and the home as a woman’s responsibility.\textsuperscript{225} In the new upper secondary school domestic science was reorganized into a separate track focused on working life. In short there was an increasing discrepancy between the old feminist project and newer conception of an adequate education for girls which was not confined to the home sphere. The mono gender orientation towards the administration of domestic science, and the weak relations to the educational system became liabilities in the new structure and the emerging changes in the labour market.

The integration of domestic science in the new unitary upper secondary school implied in principle encompassing coordination as well as rationalization and abolition of a number of school types. The aims of the reform were a new and more timely type of vocational training from which pupils could benefit both in working life and in terms of further education and training. On this basis the Steen committee recommended a broad introductory foundation course for the whole field. But the first introductory years did not succeed in aligning opposing and contradictory interests. Working life values confronted classical domestic science ideas and conceptions.\textsuperscript{226} White paper no. 15 (1984-85) strengthened the focus on vocationalization of domestic science as a VET track for both sexes. But the traditional course and profile of domestic science was also carried on through the formation of a separate foundation course in domestic science in tandem with a new broader course. However, soon another course gained much more attention, that for the foundation course in health and social work in general and the auxiliary nurse education on the other. The school authorities wanted to divert attention away from domestic science and towards something else.\textsuperscript{227} But numbers continued to increase. In 1983, 8500 pupils were registered in this track, but female numbers could easily have been much larger as demand significantly exceeded supply of study places.\textsuperscript{228}

In the 1960s the labour market situation for women had started to change significantly. The political response to labour market shortages had been the mobilization of women, which in turn fuelled demands for expansion of public services. This in turn drew even more women into the labour market. The result was that available public sector jobs were growing. In the

\textsuperscript{225} Ibid.
\textsuperscript{227} "Tanker om en studieretnings framtid" Yrke 3-81.
\textsuperscript{228} "Hvordan er husstellærernes stilling i dagens situasjon?" Yrke 4-79
1960s and 1970s an increasing part of the female adult population entered the labour marked. Quite often it was the local hospital, the old age home, nursing homes or the expanding home help and home care services that could offer an appropriate job. The provision of auxiliary nurse education, established in 1963, represented an attractive opportunity for women. The usual biographical pattern among the lower personnel in the care and nursing sector was starting work as an unskilled assistant before entering auxiliary nurse training after several years of practice. These young women fitted in very nicely. Their experiences from paid and unpaid care work had provided them with cultural capacities like dexterity, patience and tolerance for care work. Secondly, selection for this education was severe. Auxiliary nurse training was widely recognised as providing good prospects for an attractive and respectable position in the labour market. Auxiliary nurse and the parallel child nurse education succeeded home economics as being choice number one for girls wanting a short and practical education. These educations attracted thousands and thousands of women who either had taken or were about to take the step from being mothers and housewives to a paid job. The number of applicants grossly exceeded the available number of school places. Figures from 1973 indicate that only 18 percent of the applicants for the auxiliary nurse and 10 percent for the child nurse education did obtain a school place. 229

Reforms in the Norwegian system of education aiming at democratisation and rationalisation through the integration of vocational educations into a unified educational system in the 1970s and 1980s did not change this pattern. Although the auxiliary nurse education was significantly prolonged from one till two years, the result was to a large extent a continuation in curriculum, didactics and teaching practices. Similar to vocational training for artisan and industrial trades, auxiliary nurse training remained insulated from general education and its possibilities for vertical mobility in the educational system. In spite of this deficiency, auxiliary nurse training remained extremely popular among adult females. The criteria for selection contributed to the reproduction of this pattern. Competition for school places was not based on school merits alone. Extra points were awarded for age and experience from care work at home and in working life. Consequently, the process of entering auxiliary nursing was not limited to a short period in adolescence, but presented opportunities for training and certification during broad spans of the life course. The age distribution among students was not clear-

229 Eeg-Henriksen and Baadshaug (1976)
This configuration had a potential for expanding at least up to the turn of the century. Among age cohorts born between 1945 and 1960, more than 10 percent of the females had completed an auxiliary nurse training and certification.

Towards a new school-based track in commerce education and training

In spite of political demands for a reform of commerce education in the direction of a more public system, privately run commerce schools comprised more than 80% of these schools, and they produced about 80% of credentials. These schools were run on a private economic basis, with no co-financing or subsidies from the state. The state had taken a passive role in this policy area. The basic curriculum was founded on rules and regulations provided by the ministry for the citizens’ letter, qualifying for setting up a business. Two main templates existed; that of the one year course and the ½ year course. These schools also provide teaching in elective courses like business correspondence and languages, typing and stenography.

Most pupils aged between 15 and 20. The original aim had been to educate young people for commerce and trades, but these schools quickly developed and fed into a much broader segment of working life. Work prospects after completion of these educations were excellent during the 60s. Available data suggests that only 22 percent went into the old core areas of working life. 18 percent were recruited to the state administration, and a similar percentage to industry. In other words, this particular school type had evolved into a kind of general continuation school which qualified for a number of different positions in private businesses and in public administration.

Up to 1975 the commerce schools evolved from a two-tier structure of small privately owned commerce schools supplemented by two year gymnasiuims into a solid three year upper secondary track in the comprehensive upper secondary schools. The motor in this development was the Apprentice Council for Commerce trades, which was formed in 1961, as previously indicated. The council had provided a series of plans and experiments for the development of school-based upper secondary education in the field. A sketch for a three year track was also developed, and during the 70s a distinct three year track in commerce education was formed. Even though the plan for an apprenticeship institutions in this field did not succeed, the formation of an institution like the council was of paramount importance, as it provided the basis

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for public acceptance of commerce education.  

Focus shifted, and gradually it became an institution providing “double qualifications”, both vocational and general.

Schooling for industry and crafts and apprenticeship, new ambiguities and competing interests

The strong build-up in the school-based vocational training in Norway during the 60s and 70s happened partly independent of and partly as a substitution for the demise of the organised apprenticeship arrangement in the firm. Available evidence seems to suggest that the initial courses in vocational training generally functioned as a general transition between school and work, in spite of their trade oriented and specialised features, and qualified as merits for entering a substantial number of occupations and jobs. The initial course in iron and metal work quickly acquired such a status, and was as early as the mid 1950ies decoupled from the favoured educational planning tool of the time, estimates for the manpower needs in this particular field, and built up according to the social demand for such education. The size of the apprentice system did not constitute any significant parameter for the planning of the desired number of classes in the iron and metalworking courses.

Still capacity building in the tracks for industry and crafts were grinding to a halt. In spite of policies for parity of esteem, general education was outpacing VET tracks. Also quality problems were emerging as budgets were only nominally increased, the organization of VET teachers complained.  

They held that school-based VET was in danger of becoming obsolete and out-dated. Also structural elaboration was halted, as development and capacity building primarily took place in the foundation courses. The lack of continuation courses was clear. In spate of high aspirations and formal reclassification of VET tracks as an integral part of the new comprehensive school, nothing significant had changed. VET remained basically the same. Parity of esteem required that VET tracks were fully developed into three year tracks, the teachers’ organization argued. They also feared a increasing theoretization of the practical contents in school-based VET tracks, making these types of education cheaper.

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232 Grove and Michelsen 2005
233 Kilde: ”Yrkesfag må ha utstyr i tråd med virkeligheten” av hovedlærer Ernst W. Hertaas. In Yrke 10-81
The vocational school kept the old tradition for recruiting pupils somewhat below average as far as grading were concerned. The metal crafts constituted traditionally the segment in the upper secondary educational system where the standard of entry measured by marks has been the lowest. Probable reasons were both the early expansion of the basic course in mechanical subjects or welding/metalwork as a transition link as well as the low social status of this track. Grades were obviously not particularly important for entry. But when pupils entered the vocational track, this transition seems to structure their future orientations and coping strategies.

In 1980 the jurisdiction of the apprentice law was extended to the whole country. Adult skilled worker certification lost its original justification related to flexibility in geographical space, but took on a new one instead, related to the new adult education law of 1976. This change is illustrated by the change in the title of the law. The apprentice law became VET law, explicitly including adult access to training and certification.

**Consolidation of corporatist structures in apprentice administration**

The reforms carried out in the 70ies and the beginning of the 1980ies undergirded the slow but steady growth in the apprentice system. The social partners (The Norwegian Federation of Labour (LO) and the Employer Organization (NHO) kept their traditional autonomy as governors of the apprentice system. Under this structure of self-government a peculiar recruitment practice to the central and regional apprentice training administration a practice had been established, where union-related as well as work-related expertise was rewarded. Training experience, contact networks and experience with the workings of the negotiation system at different levels were defined as prime requirements for the administration of apprentice training. It was a form of recruitment, which departed sharply from the classical Weberian bureaucracy of civil servants. Rather than formal education, familiarity with the problems and psychology of apprentice training in the different trades was regarded as an essential qualification. In other words, strong socialization processes preceded entering positions in the public administration of apprentice training. Staff work was usually specialized by trade or families of related trades. This type of knowledge satisfied the need for information about the institutions and actors in working life, and was produced among the ranks and file in the organisa-

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236 Ot.prpr. nr 6 (1979-80), Innstilling O. Nr. 37 (1979-80).
tions of the social partners in industry and crafts. This kind of supervision and cooperative control approach also provided leniency in the enforcement of training regulations, resources in the mobilization of new training sites as well as legitimacy, and the necessary qualifications could also be reproduced and sustained within the boundaries of this particular field.

The unexpected revitalisation and subsequent political rehabilitation of the apprentice system as an important arena for the development of qualifications rather than a social policy arena, did not make the situation better for the VET teachers and school-based VET. The structural background for the increasing attraction of the dual system to Norwegian youth is complicated, and must probably be explained by a number of different factors. One important factor was the contraction of available youth jobs outside the educational system. During the economic downturn in the 80ies, several cohorts of elder youth returned to the educational system for further qualification in the employment race, intensifying competition for vocational training. A second factor was the risk and the debts which for most youth were the inevitable result of entering and completing a higher education, and the attractiveness of receiving wages in the training period. Thirdly, capacity problems in school-based VET could also be mentioned. Apprenticeship and school based VET emerged as competing rather than complementary alternatives. To the proponents of school-based VET, investments in apprenticeship were futile, and an excuse not to do anything substantial about VET. Apprenticeship was nonsense. The horror example often used by the Norwegian Association of VET teachers was Denmark and Danish apprenticeship, where VET quality was regarded as poor and where Danish apprentices suffered from bad conditions. In their opinion, conditions were much better in Sweden, where training was school-based.

**VET in the NPM state**

The 1990 market a change in Norwegian society. According to historian Berge Furre the age of the market had come, and the social democratic fabric was under pressure. The formation of the new regime cannot be precisely identified by specific significant events, like the formation of the liberal state and the social democratic state. But a variety of elements

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237 “Danske lærlinger for lut og kaldt vann”. Yrke 5-87
238 “Skolen taper i kampen om 16-åringene”. Yrke 5-88
signaled a new direction. The proliferation of minority governments and an increasing number of political parties warned that a new direction was at hand. Measured by the Lijphart index Norway’s position changed during the 1990ies. In 2010 Baldersheim and Rose (2010) categorised Norway as a majoritarian country rather than a consensualist country. Still it could be argued that the Lijphart index overestimates the majoritarian impact in this case.

The social democratic state had secured political stability, consensual policy making and bargaining for more than two decades. The new liberalism could be related to the political wave towards the right which took place in Europe, where policies reoriented towards the market, public sector restructuring and privatization. A central category was New Public Management (NPM). In this perspective public agencies were induced to change their modus operandi from bureaucratic to entrepreneurial and start operating as business enterprises in the market as producers of services rather than rule following bureaucratic entities. Keys elements were increased use of new organisational forms like the enterprise, construction of proxy markets and modernisation of public sector by providing public institutions with formal autonomy from the state. In all Scandinavian countries NPM principles and instruments have enjoyed considerable popularity, albeit in different shapes and sizes. Traditional input based forms of governance has been substituted by output oriented instruments. Institutions providing services for the education and training of youth have been increasingly regulated according to the principles of market regulation.

A critique of professional and corporatist integration in the state was an important element for the new liberalism. Integrated participation was no longer seen as central elements in governance structures, but rather as governance problems. New and clear boundaries between the state and society had to be drawn.

The role of unions in the NPM literature is less clear. Some older contributions emphasise that the NPM doctrine represents an unprecedented break with older corporatist structures in state

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Scandinavian contributions on the other hand emphasise that NMP also can create possibilities for new forms of integration between then unions and the state. The neo-liberal focus on the new public enterprise, leadership and devolution of autonomy has created a pendant in the form of review of the central negotiating framework. The turn of events has to be understood on the background of established practices and norms embedded in the Norwegian model for institutionalised labour relations. This model has formed and been formed by the tripartite relations between the employer- and employee organisations and the state. Its most important characteristics were the combination and tensions between a strongly centralised system with strong organisations and strong state involvement embedded in a network of institutionalised patterns of relations between employer and employee organisations at several levels. The configuration had provided the basis for an extended ‘peace treaty’ between the labour movement, organised capital and the political leadership. The model has been modernised by extending rights to participation and codetermination, based on a common understanding of the need for collaboration on productivity and democracy. The evolving policy solution of the 90-ties integrated the new NPM oriented administrative reform policy and ‘older’ policies for codetermination.

But the hegemony within the Federation of labour was changing. In numerical terms industry was increasingly drawing the short straw in relation to the new services and public agencies. The voices of the Labour associations organizing these groups was making their presence felt. Between the mid 70ies and the 1990ies more than 90% of employment growth took place in public organizations in general, mostly in the social and health sector. This also changed the power relations between the male and the female dominated sectors somewhat. Al this led to considerable changes within the Norwegian federation of labour. The percentage of women member increased from 24% in the 1970s to 44% in 1996. But even though the number of women members increased, the federation was in decline measured by relative numbers. In

the 1970s about 75% of the labour population was organized in the LO. In 1990 the percentage was reduced to approximately 60%. Other associations which organized on the basis of education or political affiliation grew. But in spite of the reduction in numerical terms the LO has managed to keep much of its influence through social pacts and tripartite relations.

**The peculiarities of education and training**

In the educational sector this development had had its own logic which to some extent conformed to the general change, to some extent not. There was a loss of confidence in the blessing of the unitary school (enhetsskolen). School research had emphasized that the school system did not produced a more egalitarian society, but rather reproduced social inequality. The change from the planning regime of the labour market state towards marketization and a less state centred and more decentralized regime was also emphasized by some educational researchers. 247 The council arrangement which had accommodated the various teacher groups was dismantled. Others have emphasized the special position of school policies in this period 248

According to Rune Slagstad school policies were not at all changed in the direction of decentralization and autonomy, but were minutely regulated by the state under minister of education Gudmund Hernes. Telhaug and Mediås (2003) emphasize Norwegian exceptionalism in educational policy making. In their interpretation the period in the aftermath of the labour party state was ambiguous. On the one hand a new opening for new types of governance mechanisms was emphasized. But in spite of changes in governance structures, the legal basis for the sector was neither significantly challenged nor changed radically. 249

**A new modernization offensive - Reform94**

Complaints about the structure and organization of Norwegian VET had started to escalate in the 1980s. Some referred to shortages of financial resources made available for upper secondary education. Others pointed out the inadequacy of the old track structure in upper secondary education. Policies aimed at “parity of esteem” between general and vocational edu-

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249 White paper no. 31 (2007-2008)
cation was failing. The formal reclassification of vocational schools as an equivalent branch of the upper secondary comprehensive school had failed to make an impression. The combined effects of large birth cohorts, unemployment and relatively prolonged recession problems made capacity planning as well as transitions from school to work more difficult. These problems were sought ameliorated by an additional but inadequate increase in the educational capacity at the secondary level. The old fine-grained practically oriented course structure in VET organized according to the principle of a one-to one relation between trades and course structure was costly to maintain, and courses were often technologically outdated. The anticipated and eagerly awaited structural build-up of continuation courses in the different VET areas was grinding to a halt due to tight budgets, queues were multiplying and youth unemployment rising. The structural congestion also generated horizontal transfers between different vocational tracks. Such transfers increased capacity problems and caused a further extension of the transitions from school to work. The risks, which confronted Norwegian pupils at the time, were mainly due to the mismatch between the number of pupil places in upper secondary education, the contraction of the youth labour market and the mismatch between basic vocational training places in school and apprenticeships in a number of trades and crafts. This structural mismatch contributed to the proliferation of apparently haphazard horizontal and even downward educational careers in the vocational track. Established entrance criteria for upper secondary education rewarding factors like age and experience propelled these horizontal mobility processes.

In short, the distance between ambitious political goals for system performance in VET was growing, as the political problem debate of the day illuminated an increasingly un-sufficient past. As general education mobility patterns were being elevated to a universal norm, the emerging political conclusion was at Norwegian VET students did not receive the training they were entitled to. Immersed in the generalized norm of educational efficiency and democracy taking precedence in the intertwined educational spaces of upper secondary education, the VET system was written off as structurally inefficient, generating inadequate and excessively prolonged transitions to working life. A major overhaul of the entire upper secondary level system was required.

The first step in the emerging reform trajectory was Reform94. At first sight, the reform launched in 1994 conformed to the narrative of a more democratic and more inclusive upper secondary comprehensive school. Law conquered new and fertile ground as all 16-19 year
olds were awarded a statutory right to three years of upper secondary education. The juridification of individual access for 16-19 year olds implied a redistribution of resources between age groups. 19 year olds or older youth had occupied more than 40% of the total capacity in upper secondary education. The new system institutionalized upper secondary as a cohort-specific space for younger youth. The new unprecedented youth inclusion policies could be interpreted as a maximalist policy for the abolition of youth unemployment for these age cohorts as well as the provision of universal opportunity to an education leading up to formal qualifications.

Secondly, the reform aimed at the construction of a keystone between the two classical traditions of learning, the guild tradition and the academic tradition, integrating general education and vocational training in a new comprehensive institutional framework. Apprenticeship and the skilled worker certificate were defined as the main templates and outlets for VET learning and certification. A new amalgamated space for upper secondary education was being formed, this time apprenticeship included.

Still the integrated space was partitioned in a new way by systematization and rationalization processes. Whereas old policies had alternated between developing school-based practical training and apprenticeship and generated loose couplings between them, the new architecture recombined school-based and firm-based training in a new way. As tighter linkages between school-based and firm-based VET were formed, the new tracks combined school-based and apprentice training in the firm in a fixed, statutory sequence consisting of two years of education in school followed by two years of training in the firm as an apprentice, often called the 2+2 model.

The relations between school-based and firm-based VET were reorganized. A heavy increase in the number and weight of theoretical subjects was considered necessary elements in VET tracks and combined with career guidance and counselling. Theoretical knowledge and familiarization with as a broad spectre of different trades would be imminently useful for youth making important decisions about their future trade. This policy fuelled a heavy rationalization of the old course structure, initially slimming the number of foundation courses from 101 to 12 broader and theoretically oriented initial courses, structuring the choice of several related trades in each of the vocational tracks. The old commerce track was
discontinued, as the citizens letter had been abandoned as a requirement for setting up a business.

Also mobility patterns allowed were significantly restructured and reduced. The state assumed responsibility for honoring the choice of one out of three tracks preferred by the individual. However, once made, the preferred choice of track had binding implications for future specialization and choice of trade, as horizontal transfers between tracks were blocked. Important objectives were to increase transparency and efficiency, and to reduce the extent of horizontal transfers as much as possible.

It is essential to note the critical interdependencies of such a system. The tight, sequential coupling of the 2+2 system, where education at school and training in the firm work in series, is significantly different from the normal parallel structure of dual systems. Awarding individuals who had completed primary and lower upper secondary education a right to three years of upper secondary education “solved” the problem of individual access to two years of school-based VET. The big problem which remained was how to achieve the necessary provision of apprenticeships. The reformers put considerable emphasis upon the new character of the apprenticeship system as an educational scheme for youth. This representation made the enterprise into a place of learning equivalent to school, and eventually provided space for a new conception of upper secondary education, homogenizing schools and enterprises as places of learning, of equal worth and stature. A new space of equivalence was formed. As policy perceptions and horizons of apprenticeship were redefined and extended, the central VET policy questions moved from its prior focus on manpower training into a more multidimensional problem of how to shape apprenticeship into serving a broad spectre of educational and economic purposes. These considerations led to a series of adjustments in the legal regulations and institutional setup of governance institutions. Old organizational and legal boundaries partitioning apprenticeship and comprehensive upper secondary education as distinct institutional systems were torn down and a new more comprehensive upper secondary structure was forged, including apprenticeship.

Still, no compulsory solutions in the spirit of German style apprentice corporatism were fashioned for training firms. The tradition of voluntarism persevered. A declaration of intent was signed between the social partners and the state, pledging support for the extension and stabilisation of the apprentice system as a stable and trustworthy educational track.
apprenticeship contract evolved from a dyadic labour contract form into a triadic agreement signed by the apprentice, the enterprise and the county municipality.

The older apprentice regulations had delved a sharp differentiation between areas of working life structured by apprenticeship, as hiring youth under 20 years of age as workers in work areas structured by apprentice law was explicitly forbidden. Of course this formal differentiation in law masked considerable heterogeneities in skill formation in Norwegian working life, both inside and outside the apprentice system, but it allowed relatively homogenous representations of apprenticeship. The new system did away with the old corporate regulations, created a new encompassing space for apprenticeship as a form of recruitment and skill formation, but also instituted contractual liberty in hiring youth. Enterprise leaders now faced a different choice. A company that wanted to train could do so, either by the apprentice system (if such a profile was available), or though the employment contract, where the training could be taylormade to specific company requirements.

A whole repertoire of instruments was carefully considered in order to combat the anticipated problem of shortages in the supply of available apprenticeships. A number of policy measures were initiated and subsequently implemented. These included the development of new and more favourable financing systems for firms that took on apprentices with two years of upper secondary education, the formation of new quality control schemes, as well as heavy public subsidies investing in local training agencies coordinating and monitoring workplace training. Also incentives privileging the target group, students directly out of school, were implemented, doubling the specified amount compared to recruiting older applicants. All these measures were intended to motivate firms for admission of apprentices.

However, there is a far cry between marked clearance in aggregate terms and at the individual level. At several transition points in the new system safeguards, safety-valves and monitoring instruments were developed and introduced. Lack of binding legal regulations structuring individual access to apprenticeship places made contingency planning necessary, and auxiliary solutions to work-based training had to be provided. If a student was not able to find an apprenticeship after completion of 2-year of training, a safety valve in the form of a third year of practical training in school was offered. Both work-placed and school-based tracks would lead to the same vocational qualification in a formal sense.
A second safety valve was constructed at the intersection between general and vocational education. While access to higher education remained blocked for apprentices completing an skilled workers qualification, the increased theoretical content in all VET tracks allowed VET students to transfer to general education tracks before entering an apprenticeship without loss of time if they so desired. Such an arrangement made the choice of a VET track less risky. It reduced risk as transfers to general education could be accomplished after the completion of both the first the initial and the continuation year. On the other hand this arrangement allowed a possible drain in the supply of potential apprentices. An equivalent safety valve structuring possibilities for switching to VET studies from general education was not instituted.

The second step was initiated through the so-called knowledge promotion reform. Basically the reform endorsed the principles which emanated from Reform 94. In structural terms the 2+2 model was consolidated in all areas. Structural rationalization processes at the next level continued, triggered by rationalization processes at initial level, reduced the number of continuation courses to 56 courses. Developing solid and consolidated educational tracks was regarded as the key to better to seamless and more efficient transitions from VET to working life. In traditional areas as well as new areas of VET such measures were considered as further incentives towards making the choice of VET tracks and the skilled worker certificate more attractive options. Still, the VET way towards higher education remained more time-consuming and structurally inferior compared to general education tracks.

At present the debate on the future organization of VET is moving towards its third phase, as indicated by the content of White paper nr. 2 (2012-2013) «På rett vei. Kvalitet og mangfold i fellesskolen». Although the patterns in the debate are still following the basic trajectory established through Reform94, there is a new and more differentiated focus. A diversity of issues are being addressed, focusing on juridification, the formation of new and more efficient pathways towards higher education and study competence, but also on the future supply of skilled workers and journeymen, increasing structural scarcity of skilled workers, market failure and imbalance between supply and demand, as well as the provision of more suitable learning arrangements for pupils in danger of dropping out. The 2+2 model is deplored for its lack of flexibility, and alternative combinations of school-based and work-based skill formation is back on the table.
**The health and social work sector**

By now home economics education had definitely lost its old grip on girl education. Instead health and social work emerged as more important. But the question of gender and equality still posed considerable challenges. The Norwegian labour marked has evolved into one of the most gender segregated in Europe. Apprenticeship regulations and certificates have historically, with a few notable exceptions, been reserved for male jobs. The feminist movement has recently interpreted this situation as a segregation of certification possibilities, and concluded that this could explain the lower status and conditions of female dominated occupations. Hence, increased female participation in vocational apprenticeship programs and in the skilled trades has primarily been seen as a question of equal rights and access to the apprenticeship system. It was argued that defining new trades within the apprentice system would make it possible to sidestep the strong medical hierarchy and the strong professional groups, and establish a new occupational group with the strengths associated with traditional, male dominated areas. The auxiliary nurses’ union, however, wanted to keep their established school-based education, which was the largest in the field, and saw new, apprenticeship based trades as a threat. Fierce resistance from the auxiliary nurses had little effect, and the initiative to establish new trades received broad support. \(^{250}\) Even if the new trades in health and social work sector have not been very successful, it lead to a change on the employee side in the Norwegian labour market. The large and autonomous auxiliary nurses’ organization gave up their resistance and became part of the central trade union (LO). In spite of these large changes in formal systems, it seems that apprenticeships in the health and social care sector differ remarkably from apprenticeships in the tradition sectors in the industrial and artisan sectors. \(^{251}\)

**Relations to the labour market in manufacturing and crafts**

In the industrial sectors, adult skilled worker certification has for decades represented an important supplement to the apprentice system in the formation of certified skilled labour. Inadequate supply of skilled workers and apprentices was the normal manpower situation in industry during the 1960’ies and parts of the 1970’ies. The tight labour market forced the employers to recruit and train unskilled labour on the job. Processes of rationalisation and specialisation in the division of labour made it possible to assimilate a huge number of unskilled work-

\(^{250}\) (Høst 1997)

\(^{251}\) Høst, H., A. Skålholt, R. Borgan og C. Gjerustad (2014): *Hvorfor blir lærlingordningen i kommunesektoren annenledes enn i privat sektor?* Oslo. NIFU
ers at the time, and active labour marked policies and financial support measures by the state contributed significantly to a reduction in training costs. An egalitarian wage system made work in industry attractive to unskilled workers migrating from rural districts. Neither was the skilled workers certificate a compulsory claim for obtaining a status as a skilled worker. As late as in the 1980’ies employees were often rated as skilled workers in the wage negotiation system without passing any formal test or being certified by any public authority.

Acquiring the status of a skilled worker was in many firms a question of seniority rather than a certificate. The skilled workers test was rather more a formalisation of this status, or a necessity if a workers competence was questioned.

In the artisan sector adult training and certification have traditionally played a minor role. Apprenticeship has been the prime recruitment device. There are, however, reasons to believe that we now will find similar mechanisms in some of the artisan trades as in industry, practices like recruiting unskilled adults in times of shortage of skilled workers and apprentices, in order to certify these as skilled workers when possible. In 1999 apprentices did not comprise more than 50 percent of the total number of candidates for a journeyman’s certificate in several important artisan trades.

One explanation is that formal education from the school sector plays a minor role in the firms. Factors like personal conduct and irregular leave are considered more important factors than marks in the selection of apprentices. The achievement of skills and competence is basically understood as a process of work, and the value of practical achievement at work is high. There are few signs of any kind of systematic formalisation and documentation of such records of practical achievement. Knowledge about the individual workers is normally something that has been kept in the head of the foreman, and formed the bases of the daily division of work. If such documentation is made, however, it is usually in order to comply with exter-

\[\text{References:}\]

253 Arbeidsmarkedsetaten and Distriktenes Utbyggingsfond.
255 NNU 1978:30
256 Michelsen and Høst 2001
257 (Korsnes 1996: 518)
nal regulations. These kinds of practices did create great individual flexibility in the production space, as well as space for individual learning throughout the life course. However, the processes of learning are limited by the specific production structure of one particular firm, and as such create inflexibility in the trade or the branch as a whole. The adding of general subjects seemed to make little difference in this context.

New sectors of working life
The Norwegian apprenticeship system has during the 1990′ies expanded into sectors like health care and social work, cleaning services, commercial- and office work. This expansion also included several types of communication services, large areas of working life where employees previously were defined as public servants, but which are engaged in a process of liberalisation or privatisation, e.g. post, telecommunication and railways. Most of the new trades have been built by training and certification of experienced unskilled workers. The development of apprenticeship recruitment has been difficult, and so far the established pattern of recruitment through adult unskilled workers have being reproduced. It is still unclear if the apprenticeship form of recruitment will manage to establish and reproduce itself in the new sectors, or if the skilled trades will be sustained through adults recruitment and learning on the job. One illustrative example is the new care worker, which in a very few years managed to develop into one of the biggest trades in the country. Both adults and youth found the new trade attractive in its initial period, and to a certain extent it replaced traditional school-based educations in the field. However, youth demand has been significantly reduced the last couple of years and apprentice interest is and has remained scarce.

The rights of adults
The right for unskilled adults to document and assess skills was retained in the new law of 1994. The government first granted adult candidates a period of exemption before integra-

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260 Michelsen and Høst 2002.
tion of the compulsory general subjects was to take place. But at this point the existing modernisation coalition between the government and the social partners crumbled. Strong resistance from the social partners contributed to Parliament making the exemption permanent. Norwegian VET regulations still contain two distinct pathways to the skilled worker certificate; one through apprenticeship including additional general subjects and one for unskilled adults that does not contain such subjects.

Upper secondary educational structure

At the upper secondary level the Norwegian educational system is separated in two types of programmes. There are (since 2006)

- 3 programmes defined as general studies, providing access to higher education
- 9 VET programmes, providing routes to trade certificates or journeyman’s certificates
- The content in VET programmes have since 2006 been divided into Common Core (588 hours) (math, language, etc), the Common Programme Subjects (954 hours) (theory and practice) and the In-depth Study Project (421 hours) (preferably in firms).
- After one year at school, students choose their specialisation among programme areas at Vg2. After two years (Vg3/school or apprenticeship) the curricula are organized around the respective trades.

The next table provides an overview of the number of VG2 specializations and the number of trades in each specialization area.

Table 2: The number of VG2 specializations and the number of trades in each specialization area

<table>
<thead>
<tr>
<th>Vg2 specialisations</th>
<th>Trades</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical and industrial production</td>
<td>16</td>
</tr>
<tr>
<td>Building and construction</td>
<td>9</td>
</tr>
<tr>
<td>Electricity and electronics</td>
<td>5</td>
</tr>
<tr>
<td>Restaurant and food</td>
<td>2</td>
</tr>
<tr>
<td>Service and transport</td>
<td>4</td>
</tr>
<tr>
<td>Design, arts and craft</td>
<td>15</td>
</tr>
<tr>
<td>Health and social care</td>
<td>6</td>
</tr>
<tr>
<td>Agriculture, fishery and forestry</td>
<td>7</td>
</tr>
<tr>
<td>Media and communication</td>
<td>1</td>
</tr>
</tbody>
</table>
Differences between VET programmes

The various VET programmes display considerable variation, measured by the number of continuation courses and the number of trades they contain. Some programmes are more crowded than others, and some programmes are dominated by a few strong trades where the smaller ones have a hard time. The programmes still seem to bear the mark of their inception. As previously mentioned the heritage of Norwegian VET goes back to several distinct traditions. One distinction goes between the school tradition and dual type apprenticeship tradition. The school-based educations in handicraft, food, nutrition and home economics, health- and child care, business and administration, with programmes on the one hand and the industrial trades and crafts on the other display different development trajectories, although the boundaries between these types in some cases have been unclear.

- The Programme for Media and Communication and the Programme for Agriculture, Fishing and Forestry for instance have evolved into a hybrid track which neither looks like apprenticeship nor general education. These programmes have integrated options for graduation within Programme for general studies, which most students starting on these programmes have in mind already from the start of the study.

- Also in the Programme for Health and Social Care many students transfer to general studies. Still this programme represents one of the “new” programmes with significant contribution to the growth of apprenticeship.

- In the Programme for Service and Transport, on the other hand, there is still a long way to go in the formation of a sustainable apprenticeship system of importance for this sector.

- The strongholds for apprenticeships and the main model remain craft, industry and construction, inclusive programmes for electricians.

New governance structures

In tandem with changes in VET structures, governance structures have been reformed and aligned. The apprentice act from 1950 and the vocational school act of 1940 made separate provisions for the governance of VET. Confirming to traditional legislative divisions between rural and urban areas in Norwegian law, the jurisdiction of apprentice law of 1950 was limited
to urban areas.\textsuperscript{261} As late as 1980 the jurisdiction of the apprentice law was extended to the whole country.\textsuperscript{262} The regulations delved a clear distinction between the vocational schools on the one hand and the apprentice system on the other. The apprentice act provided the social partners with considerable autonomy. A separate council was erected for each and every trade, and each council was awarded the power to decide on any alteration in curriculum, training regulations as well as examination practices. Coordination powers awarded to the central Council were negligible. The main elements of this basic structure were reproduced as the local level. Also here the local committees in the various trades enjoyed considerable autonomy. Basically this structure has obvious parallels in the Danish and Austrian apprentice systems.\textsuperscript{263}

The law from 1980 reduced the powers of the individual councils for each trade in favour of a more coordinated approach where such powers were invested in the central councils the trades were represented. At the local level a system of local VET councils and a dedicated administrative apparatus was build up and allocated to the 20 newly formed county municipalities.

After Reform94 and the knowledge promotion reform the National VET Council was reorganized. Its man mandate was redefined. The power to supervise the quality of vocational education and training, approve new curricula and trades, or abolish of existing ones was withdrawn, and reconstructed into an advisory position for the Ministry of Education.\textsuperscript{264} The council also lost control of its administrative resources, which were placed in the ministry of education, and eventually transferred to the Directorate of education. Traditional patterns of representation and interest mediation were modified, and established associational monopolies were watered down. The Norwegian Federation of Labour (LO) and the Employer Organization (NHO) increasingly lost their monopoly as governors of the system of skill formation, and rival employer- and employee organizations were awarded rights of representation.

The old institutional framework consisting of numerous trade-specific councils were tidied up and rationalized through several politically induced reorganization processes and had their functions and jurisdictions gradually redefined, more aligned to and coterminous with the

\textsuperscript{261} Aubert (1990), Michelsen (1991).
\textsuperscript{262} Ot.prpr. nr 6 (1979-80), Innstilling O. Nr. 37 (1979-80).
new, rationalized VET track structure. One of the new reorganized councils incorporate more than 20 different but “related” trades. The result was a new structure strongly shaped to the pressures of administration and efficiency, but clearly at the expense of closeness to the problems and identities of the individual trades.

Also the layering of apprenticeship administration changed. At the regional level, previously mandatory organizational boundaries protecting apprentice training and the social partners from local government intervention were transformed. Legal and organizational strongholds previously protecting interest mediation and representation were dismantled in favor of a new concept of local government; a “thinner” and hierarchical municipal structure more in line with new public management ideas.  

The social partners lost their old control over the regional apprentice councils and their resources in the form of earmarked budgets, formal agenda-setting capabilities as well as dedicated administrative apparatus. The result was the development of a sharp learning curve among the social partners and the apprentice administration in most counties, closing in on the preferred direction of the municipal executive. New management techniques were implemented, new values and attitudes emerged, as well as new patterns of communication. Increased financial dependence on county municipal priorities forced the apprentice councils to lobby for resources and made “heavy” political representation in the councils more important as well. Also the definition of relevant representation criteria from the organisations of working life changed significantly. Higher echelons from employer/employee organisations were increasingly mobilized, and the value of technical knowledge and specialist training experience was downgraded. Council agendas contracted, policy instruments and techniques were adjusted to keep policy and practices in line with the new “educational” definition of apprentice training, and decisions requiring technical expertise were increasingly delegated to apprentice training administration.

Lobbying county politicians and the county executive rather than supplying technical decision-making expertise in training has become the most important mode of operation for the regional apprentice councils. Conditions for hands-on VET administration, peer control and

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close contacts with training firms have gradually eroded and been supplemented by increasing formalization and quality control schemes working at a distance. The apprentice training administrators have been drawn out of their old normative structures and conventions structured by technical knowledge and their social identification with vocational self-governance and exposed to new expectations and new formal structures. The new situation has been characterized by divergent views on the type of competence and knowledge which is required and acknowledged as necessary and sufficient; formal bureaucratic knowledge or substantial “expert” knowledge related to apprentice training. It was no longer possible for vocational training councilors to defend traditional training norms and values in working life, without taking into account the cost benefit calculus of the county municipality and political priorities.

**The new policies and instruments of VET quality**

Also the new policies of quality has contributed to the changing of Vet governance structures. In 2003 the Norwegian parliament passed law on the introduction of a national QA system for basic education, included VET. It was characterized as a comprehensive system change and as a watershed in education. The basic principles stated were clear and transparent goals, knowledge about results in a wide sense, clear responsibilities, considerable local autonomy and a well-developed system for guidance. In conjunction with the introduction of the national QA system, work on the clarification of learning outcomes for upper secondary education as a whole started, including VET programs. Within the confines of specified and binding learning outcomes, the school owners (the municipalities) and the schools were provided with the necessary autonomy to develop local approaches for evaluation and assessment. On the other hand, regulations also opened for making greater demands on the schools owners and schools to monitor the quality of the training. They were also being subjected to county governor audits.

Such a quality assessment system may be seen as a specific type of administrative policy, in line with more general developments in public administration embedded in new governance technics like management by objectives and results, governing at a distance, quality management and quality assurance (QA) systems, as well as audits. One common aspect which characterizes such policies is the quantification of the various activities involved in public

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266 St. meld nr. 30 (2003-2004)
administration to the greatest possible extent. Documented results should be compiled, compared and evaluated ex post in relation to established targets.  

In the QA system, VET will have its own sub system, but it will have to conform to established paths, structures and instruments for basic education as a whole. The interesting question is what that means. Basically there has been no discussion on central characteristics of the Norwegian VET system and the complementarity or compatibility between the institutional set-up of the VET system and the quality assessment system policies. The QA system did not touch upon issues of training profiles and regulations, but centred on the issue of monitoring and reporting. What it did address was the question of who would carry out the supervision of training activities. Most significantly, at this point the Norwegian social partners recommended county governor audits of training firms, an unprecedented infringement on the jurisdiction of the county municipality and the turf of the local VET councils. This particular feature conformed to NPM prescriptions, splitting up tasks through structural devolution, in this case horizontal specialization, where the county governor is allocated the task of supervision while the county municipality are in charge of control, which established symmetry in regulations and practices as far as quality policing (audits) in schools and in training firms are concerned. A new external “quality police” was granted jurisdiction in apprentice training.

The local VET councils have been ascribed an important role in quality work and quality steering. However, available empirical material seems rather ambiguous at this point. Rather than becoming captains of quality work, the local VET councils seem to have assumed the role of passengers.

Obviously the definition of the VET policy area presented problems in a hybrid system like the Norwegian, where VET has been reorganized as an integral but separate part of a comprehensive system for basic and upper secondary education. The prevailing climate of cooperation between the education authorities and the social partners’ representatives in the National VET Council seems to be quite amiable. The national VET Council leaders consider their new mandate and position as a revitalisation of the cooperation between the stakeholders.

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267 Christensen, Tom and Lægreid, Per (2011) “Beyond NPM? Some development Features”. In Christensen and Lægreid (eds.) *The Ashgate companion to New public management*. Ashgate: Surrey

268 Michelsen and Høst 2013

269 (NOU 2008:18).
(Ibid.), where the Directorate of Education and Training carries out system development in cooperation with the social partners.

**Parity of esteem between vocational and general education**

Norwegian authorities have carried out a major reform reconstructing upper secondary education, changing important properties of the institutional organisation of the transition system from school to work. One of the intentions has been parity of esteem between vocational and general education. Criteria for assessing parity of esteem vary. One central indicator is the number for applications to the different types of study program whether they are recognized as vocational or general. Application patterns can in turn be assessed from the various individual level choice situations provided by the educational structure.

For the individual the transition structure takes the form of a sequence of choices which have to be made at specific branching points. The first choice confronting a Norwegian youth entering upper secondary education after the completion of obligatory education is the option between study programmes defined as general or VET. Access to the different tracks is regulated by school qualifications, but contained by statutory right to enter one out of three choices preferred by the individual. Available numbers show that more than half of each cohort has applied for a study programme defined as vocational (NOU 2003: 13). Although diachronic comparisons of VET status are inherently complicated, the popularity of choosing VET tracks seem to be relatively constant in aggregate terms.

**The development in the number of apprenticeships**

While in 1973, less than 3000 new apprenticeship contracts were signed, in 2011 almost 18,000 were signed. After the Reform 94 it has been relatively stable, however fluctuating with economical up and downturns.
The number of apprenticeship contracts that are entered every year has been growing from the beginning of the 1970s. While in 1973, less than 3000 new apprenticeship contracts were signed, in 2008 more than 18,000. This is remarkable, measured by most standards. At any rate it is difficult to interpret it as a reduction of the status of apprenticeship.

The internal development of the apprentice system can be grasped through focusing on three different factors:

1. The establishment of new trades
2. The development within individual trades
3. The expansion of geographic working area

The apprenticeship system has grown in size, primarily due to the fact that established areas for vocational education have generated more contracts, but it has also expanded significantly through the establishment of new trades. We have distinguished between what we call vocational education’s core areas within trades and industry on the one hand, and new trades on the other. The apprenticeship laws became operative in 1952, but from the start only pertained

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270 This part relies heavily on Michelsen, Høst and Gitlesen (1998) as well as Høst and Michelsen (2009)
to six smaller crafts. Thereafter, the system grew steadily and evenly, until it in 1966 comprised 50 crafts or craft-related trades, 12 trades within the metal industry, 12 industry-related trades, and in addition trades for car mechanics, electricians, as well as shops, warehouses, and offices.

After a period of stagnation and partial decline in the 1960ies – for example, commerce and office trades were shut down - 19 new industry-related trades were registered during the 1970ies. This included the flight trades, as well as building- and construction trades. During the 1980ies, a wave of 35 new trades appeared. A number of craft-oriented trades like chef, server, florist, and landscaper were now formed and covered under the law, and a new generation of industrial trades appeared, which included chemical processing, lumber manufacturing, food produce, among others. The main focus here was upgrading work in these branches from semi-skilled to skilled work through the formation of trades.

The 1990ies were characterized by new areas and sectors being integrated into the apprentice training framework. This pertains to industrial trades such as forestry, hunting and fishing, maritime trades like sailing and mechanical engineering; transport and service trades such as professional driver, terminal worker, material administration, and laboratory trades. In addition, commerce and office trades have reappeared in the form of shop trades, office trades, and reception trades. Perhaps the most important expansion, at least in a quantitative sense, took place in the health and social sector with the formation of the social worker, youth and child worker trades, occupational therapy and emergency medical technician trades. Altogether, 61 new trades were established from 1990 until 1996. Most of them were launched through the implementation of Reform 94. During the period from 1994 to 1996 alone, 36 new trades were started up. The ministry postponed approval of these trades until the reform was effected. Reform 94 opened the door for flood of new trades. Afterwards, very few new trades have been formed.

Geographic expansion constitutes another important explanation. As previously mentioned, the apprenticeship system was historically linked to the towns. When the apprenticeship system at the beginning of the 1980s was reorganized and the working area expanded to include the entire country, some counties started out nearly destitute. Other counties, with the capital Oslo at the forefront, had long traditions in apprenticeship. From 1983, the total number of apprentice contracts quadrupled on a country-wide basis. In that process a leveling out of the
The number of apprenticeships has taken place, measured by the relevant youth cohort in different counties. Growth has been much stronger in those counties that were underdeveloped in 1983 than in the counties that had a well-developed apprenticeship system prior to 1983. The correlation between apprenticeships and the number of youth in the counties rose from 0.74 in 1983 to 0.90 in 1995. However, a considerable part of this growth could be attributed to reclassification of rural handicrafts into apprentice trades.

The trades categorized as crafts and industry are the more important measured by numbers. Among the craft trades, two trades represented most of the growth during the last years, carpentry and hairstyling. However, other construction trades also contribute strongly. The traditional, smaller craft trades have declined. Among the industrial trades, the electrician trade is clearly the largest, but the metal industry and automobile trades are also important. The new trades that emerged in the service sector in the 1990s increased rapidly and reached a plateau of about 4000 apprentice contracts. Here, the health and social trades have been the most important, followed by the shipping trades, shop, office, ICT, and driving trades.

The percentage of 18 year-olds, who apply for an apprenticeship, has been relatively stable in the reform period, approximately 17 - 19 per cent. The validity of this indicator is however far from great, as publicly organized transitions based on information of individual applications and enterprise needs in many instances are ignored, replaced or supplemented by the enterprise and by the individual youth applicant. Especially somewhat older youths have approached enterprises in the traditional way, using local networks and displaying initiative, all classical hallmarks of apprentice virtue and indicators of future performance. Conforming to established corporative practices in facilitating contracts, these applicants are often preferred. Even if the indicator significantly underestimates youth demand, the numbers still suggest that apprenticeship enjoys a fairly stable status among youth.

\footnote{Michelsen, Høst and Gitlesen (1998)}
Table 3 Number of apprenticeship applicants among 18 year olds (1996-2007)

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicants 18 year olds</td>
<td>9567</td>
<td>9583</td>
<td>10488</td>
<td>10572</td>
<td>10659</td>
<td>10503</td>
</tr>
<tr>
<td>Total cohort of 18-year-olds</td>
<td>52724</td>
<td>53349</td>
<td>54293</td>
<td>55704</td>
<td>57236</td>
<td>60587</td>
</tr>
<tr>
<td>Percentage of cohort applying for apprenticeship</td>
<td>18,3 %</td>
<td>18 %</td>
<td>19,3 %</td>
<td>19 %</td>
<td>18,6 %</td>
<td>17,3 %</td>
</tr>
</tbody>
</table>

Source: Høst (2008)

Adults and skilled worker certification

As previously mentioned, Norwegian apprenticeship practices have developed a significant growing momentum for the last 30 years, measured by the number of new apprenticeships (figure 1). Equivalent data on the number of adult certification is not available. However, we can still make a crude assessment by looking at the difference between the number of new apprentices and the number of new skilled workers certificates in the period 1970-1999.

Figure 2 the development in the number of apprenticeships and the number of trade certificates 1970-1999

Source: Michelsen and Høst (2001)

The long-term parallel development of the two indicators is clear. One reasonable interpretation is that the number of adult skilled workers certificates, which roughly corresponds to the difference between the two indicators, represents a relatively stable share of 45 percent of the
The total number of candidates throughout these years. The increase has not been a continuous process. Economic downturns have stalled the development, followed by periods of rapid expansion. However, the abrupt increase in certificates at the end of the 1990-ies is remarkable. The increase in numbers these years can probably to some extent be interpreted by the combination of an upmarket situation and the favourable development in new trades in the female dominated sectors of health care and social work. But this is not the whole story. An additional, and probably very significant factor contributing to the huge increase in adult participation was the anticipated and subsequently announced change in state training regulations enforcing general subjects to the list of testable items. To avoid these new regulations a lot of potential adult candidates suddenly got in a hurry.

Figure 3: the number of apprentice certificates and the number of apprenticeships 2000-2006

From 2000 and onwards the share of adult certificates seems to have stabilized around third, hence, we can conclude that adult certification represent a permanent feature of Norwegian qualification space in working life. Entry into the skilled worker category is not exclusively circumscribed with standardised events in the life course in the form of a well-defined transition from school to work through apprenticeship. Instead the institutional arrangement has contributed to the reproduction of considerable heterogeneity in the time of entry into the skilled worker group. This pattern provides the firm with substantial flexibility, and at the

272 Linda fagopplæring 1999.
same creates possibilities for certifiable learning at work over extended periods of the life course. There are few signs of different career prospects for the two groups. One explanation is that formal education from the school sector plays a minor role in the firms. Factors like personal conduct and irregular leave are considered more important factors than marks in the selection of apprentices. The achievement of skills and competence is basically understood as a process of work, and the value of practical achievement at work is high. 274

The status of the school-based third year
The status of a school-based third year qualifying for a skilled workers certificate was at first a fiercely debated issue between the state and the National Union of Upper Secondary Teachers. 275 For the teachers union its auxiliary character signalled the end of an old dream; a fully developed school-based VET system. As youth voted for apprenticeships with their feet, much to the chagrin of the Teachers Association, the issue gradually eroded from the political arena. In general terms, the status of the school-based third year is regarded as inferior compared to training in the firm

The drop-out problem
Instead the drop-out has ascended to the status of high political attention. The drop-out is a relatively new classification, a category that was inconceivable before the educational expansion. As the policies of inclusion and education for all 16-19 year olds have become an important policy objective, drop-out rates has evolved into strategic indicators on the success of this policy, an indicator which a number of actors actively are exploiting. Drop-out is a continuous phenomenon, but empirically it can be identified and measured at all the branching points of upper secondary education, the largest proportion dropping out in the passage between school and apprenticeship. Those who neither obtain an apprenticeship, nor transfer to supplementary courses in general education, are considered dropouts.

Also recruitment to the different programmes vary. The next table provides an overview of Where the students in the different programmes are the third year of their education and training.

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274 Korsnes (1996; 518)
275 Grove and Michelsen (2005)
Table 4: The 9 study program structure in VET distributed according to apprenticeship, school-based Vet and transfer to higher education ratios in the third year.

<table>
<thead>
<tr>
<th>Study Program</th>
<th>Apprenticeship</th>
<th>Schoolbased VET</th>
<th>Transfer track to general education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical and industrial production</td>
<td>54</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>Building and construction</td>
<td>52</td>
<td>0</td>
<td>18</td>
</tr>
<tr>
<td>Electricity and electronics</td>
<td>41</td>
<td>25</td>
<td>16</td>
</tr>
<tr>
<td>Restaurant and food</td>
<td>44</td>
<td>0</td>
<td>19</td>
</tr>
<tr>
<td>Service and transport</td>
<td>29</td>
<td>0</td>
<td>43</td>
</tr>
<tr>
<td>Design, arts and craft</td>
<td>28</td>
<td>12</td>
<td>33</td>
</tr>
<tr>
<td>Health and social care</td>
<td>26</td>
<td>10</td>
<td>45</td>
</tr>
<tr>
<td>Agriculture, fishery and forestry</td>
<td>17</td>
<td>48</td>
<td>15</td>
</tr>
<tr>
<td>Media and communication</td>
<td>1</td>
<td>74</td>
<td>18</td>
</tr>
</tbody>
</table>

**Transfer tracks to general education from VET**

The number of transfers from VET tracks to general education has however grown considerably. Originally conceived as a safety valve, transfers from VET to general education tracks have developed into a major pipeline, fuelling almost 15% of the 18 year cohort from VET tracks into the supplementary course in general education. The background for these mobility processes is complex and varied. Strongly simplified, at least two subgroups can be identified. One group apply for general supplementary education as their preferred choice of track had not met prior expectations. Thus, returning to general education by means of a supplementary course present an attractive option. Doing better in general/theoretical than in vocational subjects could represent adequate support to such a redirection. It involves the admittance of a prior wrong choice, and a relocation of the individual to a superior track more suited to his or hers individual abilities without wasting time. This group has a strong element of bright young girls, often departing from the track in health and social work, aiming for higher education.
Another group could be negatively defined and wind up transferring. Basically, it consists of youth who have experienced problems in their track, who have had problems in passing examinations or not managed to acquire an apprenticeship place. The severity of the experienced problems could vary substantially. But what they have in common is a policy of a second chance in the general education supplement. Although highly simplified, this sketch illustrates the heterogeneous composition of students applying for supplementary courses in general education. The observed transfers comprise a mix of high-achieving pupils not satisfied with their original choice and lower achieving pupils who have not been able to secure an apprenticeship. Still it is worth mentioning that vocational students succeeding in obtaining qualifications for higher education constituted almost every eighth student (12 per cent) of the entire 2003 cohort.

**Governance dilemmas**

Creating new connections between the apprentice system and the higher education has been a challenge. Creating tighter linkages between the educational system and the apprentice system. In this context integrating apprenticeship in a comprehensive upper secondary basically means that apprenticeship is increasingly understood and defined as an educational scheme equivalent to other types of upper secondary education for youth. The scale and scope of apprenticeship can thus be understood as a separate task for the educational system, based on the individual and society’s demand for education. Focus is on a democratic process of inclusion opening up new possibilities for VET students as well as broadening the spectre of choice for the entire youth cohort. New overarching structures mediating between VET and general education tracks have been constructed. Still unfinished business remain. Too many drop out. It has not been possible to open the paths to higher education based on the skilled workers certificate. In spite of the recommendations of two government commissions, the relation between VET tracks and higher education remains negatively defined. Transfers to higher education require extra effort and time as before. Popular as well as university opinion is and has been that a skilled workers certificate simply is not enough.

Also access to apprenticeships remains restricted. Although growing in scale and scope, the recruitment of apprentices follows the business cycle as before. This is demonstrated in the following figure:
Figure 4 The development in the number of apprenticeship contracts in industry/crafts and unemployment 1973-2007

Source: Høst and Michelsen (2009)

In the figure, both the number of new apprenticeship contracts and the unemployment rate are drawn in. Unemployment numbers and the number of apprenticeship contracts are evolving in counter phase around a growing trend: Periods with more new apprenticeship contracts than the trend would suggest, are characterized by a tight labour market. This is clearly visible during the recession period at the end of the 1980s, where we find far fewer apprenticeship contracts than the trend would suggest.

In order to deconstruct the variation in the number of new apprenticeship contracts, a regression model was estimated. The model estimated a growth of 313 new apprenticeship

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

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

Where \( t = \) index point in time
\( Y_t = \) number of new apprenticeship contracts in industry and craft trades, year \( t \).
\( \Delta L_t = \) shift in the percent of unemployment year \( t \).
\( \Delta L_{t-1} = \) shift in the percent of unemployment year \( t-1 \).
\( R = \) a variable with the value 0 for all the years in the interval 1973-1995. As of 1996 \( R \) was given the value 1.

The variable for Reform 94 (R) is not significantly different from 0 and estimated with negative sign.
contracts per year. An increase in unemployment by 1 percent (unchanged from the year before) will entail an expected reduction of 471 apprenticeship contracts. The model also allows investigating if reform policies has had any effect in terms of counteracting the dependency of apprenticeship access on the economy. The first candidates who were taken in after Reform 94 entered into an apprenticeship contract in 1996. Any effect of the reform should be recognizable by the observed pattern after the implementation of the reform, that is, from 1996 to 2007, producing a different pattern than in the period before the reform, that is from 1973 to 1995. But the model estimation does not indicate any change after the reform in 1994. If the relationship between the business cycle and the number of new apprenticeship contracts per year has changed from 1996, it is in a negative sense - that is, dependency on business cycle is actually marginally strengthened in the traditional areas of the apprenticeship institution.278

Rather than radical change, the development is more characterized by long term incremental growth in the number of apprenticeships as well as expansion in the number of trades registered. In this process the apprenticeship system has become more important for Norwegian youth. But the empirical material also documents continual cyclical variations in apprenticeships within industry and crafts.

There is much to suggest that the apprentice system has not been put to the test, yet. The extraordinary position of the Norwegian economy is a point in mind. But measured by social policy point of view enterprise control of recruitment processes and access to apprenticeship inhibit effective allocation of apprenticeships. A number of applicants have not managed to secure an apprenticeship place. Many have been forced to choose a more or less ill-founded course into general education while others have simply dropped out. Most of these find a job after some time.

But these results have exposed the present structure to the combined critiques of lack of efficiency as well as lack of inclusion. From this point of view state control of upper secondary education is still restricted and incomplete, and further reforms are long overdue. Dropout “research” has emphasized the significance of such marginalization processes and the possible negative consequences for society and the individual and indicated the need for reforms. The solution preferred by the political left as well as the National union of Norwegian Pupils has

The numbers in the parentheses indicates the parameter estimates’ T-values. The explanatory power of the model is good, with a $R^2=0.868$. Durbin-Watsons test observations for autocorrelation was 0.919.

278 The change is however not statistically significant.
been a further juridification process securing youth a statutory right to apprenticeship. This would mean an unprecedented public intervention in internal enterprise processes.

From dual system perspective on the other hand, things look differently. Measured by its scale and scope, apprenticeship is growing. But considered as a relatively autonomous vocational system with its own governance structures and training regulations quite opposite conclusions could be drawn. While the new definition of apprenticeship as education was developing, the old autonomy of the apprentice system and the role of the social partners has been challenged by the emergence of actors both able and willing to influence governance structures and policies. The new broad definition of apprentice training as education have made the concept of regulated self-regulation more difficult to defend, and traditional patterns of representation and interest mediation in governing institutions at the central and regional levels have been substantially modified. The social partners; the Norwegian Federation of Labour (LO) and the Employer Organization (NHO) have not managed to keep their monopoly as governors of the system of apprentice training, and rival employer- and employee organizations have been awarded rights of representation.

These developments invite questions about the traditional self-regulatory institutional setup of apprenticeship. One interpretation is that the institutional transformations of apprenticeship has re-embedded the social partners into a new order characterized by increasing formalization and homogenization processes, as apprenticeship is developing into an extended common educational space. In this structure the social partners are being reduced to two stakeholders among many others. The hollowing out of apprenticeship certainly takes place if one considers the increasing influence of the state and its capacity to define the content of the relationships and responsibilities in the new system alone.\(^\text{279}\) The imposition of bureaucratic order through structural rationalization and administrative rationality might impair the substantive rationality of apprenticeship and the potential for mobilization, and inhibit the need for more comprehensive representative arrangements. The point is: There are limits to rationalization strategies if the sense of ownership and established identities are to be preserved.

Another interpretation would note the persistent ambiguities of the new system as a point of departure. Rather than quietly succumbing to the bureaucratic influence of the educational

\(^{279}\) (Olsen 2008).
sector, apprenticeship is also influenced by the ongoing processes of modernization in the industrial relations system and in the apprentice system itself. This notion situates the reform of apprenticeship in a broader institutional context where the position of the employer organizations, the unions, collective bargaining institutions as well as the relation between industrial and artisan interest remain important elements. Firstly, the basis for such an evaluation could be related to changes in internal structures and processes of power within the apprentice system. The political and societal conditions that supported the old apprentice system have changed visibly since the time of its inception. As apprenticeship reached only a small proportion of the workforce, and practical experience and prowess were highly regarded, the category of the skilled worker emerged as heterogeneous as far as formal qualifications were concerned, and primarily embedded in the wage negotiation system. Neither vocational certificates nor formal theoretical training were imposed as necessary conditions to obtain the status of a skilled worker/journeyman in industry and in the crafts, and relations between the social partners were more British style and primarily focused on wages than German style and qualification oriented. Subsequent reforms strengthened the qualification dimension of the skilled worker, and extended the apprentice institution into new areas of working life. Even if the policies for the extension and adaptation of apprentice style training have had limited success in some areas, the number of trades has increased as well as the areas covered. In that process the old artisan control over the system has gradually been weakened. The concept of apprenticeship as education implied an amalgamation of two institutions that traditionally have been considered as opposites, education and apprenticeship. While building heavily on the artisan apprenticeship tradition, the emerging policies subsequently produced policy solutions that increasingly marginalized artisan interests, as the state was able to construct a new reform coalition aligned to this type of policy solution. The character of artisan recruitment practices and preaching could testify to such an understanding. Arts and craft interests have remained loudly discontent with the new track structure and the growing lack of trade specific training in school. For many artisans, the course structure which emanated through Reform94 have been interpreted as increasing bastardization, unable to secure the continued reproduction of guild interests and artisan skills. Captains of industry have been able to live more comfortably with broader courses. Indeed, industry had increasingly adopted to the 2+2 model even before the reform, while the arts and crafts still preferred the classical 0-4 dual system model, recruiting older, more seasoned and strongly motivated applicants, often through local family- and guild related networks. The visibility and position of the old trades and crafts has receded, while the apprentice tradition as such has been strengthened and rearranged.
Second, there is the issue of the growth of the new trades in the service sector. The service sector has grown significantly since world war II. The rate and nature of this expansion has also been significant, as well as the decline of more traditional sectors of working life. The growth of the welfare state has been one important factor, producing demand for labour in welfare state services. The net result has been an increasing level of female employment as well as unionization rates. This development has had significant political and economic implications, for party political interests, for the organization of employer and employee interest as well as the governance of apprenticeship. The present encompassing structure of VET encompassed a variety of different trades and training traditions. Some of these emanates from the crafts, while others have historically been based on the recruitment of labour through vocational education in school combined with enterprise-based practice and on-the-job training. The political change that took full effect in the 1990ies sought to adapt these different educational traditions to a comprehensive, nationwide, restructured system of vocational education. The vision was an integrated and uniform education system capable of including all 16-19 year olds, either preparing them for higher education, or providing them with vocational certification in the form of a certificate of completed apprenticeship. All sectors of work life could in principle base their recruitment practices on youth with a vocational certification. In some areas this was a success, and the normal route into the vocational field has become upper secondary school followed by apprenticeship. This especially pertains to the large craft and industrial trades, and it is also here the majority of apprenticeships can be found. In some of the new areas, for example the health and social trades, the apprenticeship system has managed to establish itself, but it is not even close to becoming the main route for entering these occupations. Within other areas in the service sector like banking, an apprentice system has not been considered an alternative in Norway comparable to e.g. Germany. In retailing the recruitment of apprentices has been relatively insignificant compared to recruitment of youth and adults with other backgrounds, who are subsequently trained according to the internal OJT systems of the company.

Older patterns of representation and interest mediation in governing institutions at the central and regional levels have been substantially modified. As previously mentioned the social partners; the Norwegian Federation of Labour (LO) and the Employer Organization (NHO) have not managed to keep their monopoly as governors of the system of apprentice training, and rival employer- and employee organizations have been awarded rights of representation
as well as increased influence. The new broader interest coalition in VET has engaged in social pacts with the state in order to further apprenticeship, but these organized interests harbour quite different notions of skill formation and how training practices are and should be organized. In some sectors branches apprenticeship is the dominant form of skill formation. In other sectors apprenticeship represent a small or insignificant component in a conglomerate of different qualifications stiles and recruitment practices. Other branches display characteristics which could be described as hybrids between apprentice structures and other forms of recruitment and training.

But state incursions into apprentice institutions have not generated resentment and opposition. The prevailing climate of cooperation between the education authorities and the social partners’ representatives in the National VET Council seems to be quite amiable, measured by social partner opinion. In fact, the VET Council leaders actually consider their new mandate and position as a revitalisation of the cooperation between the stakeholders. They argue that they have gained a better general overview, and that they to a lesser degree than previously identify only with the interests of their own organization.

Thirdly, the new character of apprentice governance structures could also be related to the interaction between apprentice reform and ongoing reforms in the industrial relations system. Unlike the German system, where tripartite bargaining of any type is rare, the Norwegian model is known by the tripartite relations between the employer- and employee organizations and the state over a broad spectre of issues. Its most important characteristics are the combination and tensions between a strongly centralized system with strong organizations and strong state involvement embedded in a network of institutionalized patterns of relations between employer and employee organizations at several levels. In this period the model has been modernized by extending rights to participation and codetermination. Several of the signs that were initially interpreted as hollowing out processes might be interpreted differently, where apprentice system reconstruction can go along with processes of institutional change and social partner repositioning, where new identities in VET can be created and maintained. A shift from regulated self-governance to codetermination could be interpreted as reduced autonomy, but at the central level, the social partners in general express their content with the new order. In the development of new processes of negotiating, the VET council representatives can draw on images and practices developed though tripartite relations and negotiations.

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280 NOU 2008:18.
281 (Ibid.).
The tradition for codetermination and tripartite relations has probably contributed to the easy acceptance of the increasingly loss of self-regulation, a feature which was fashioned by the state in the first place, and possibly provided the basis for a new form of coherence between apprenticeship governance, the dynamics of the educational system and the workings of the industrial relations system. The social partners still tend to regard apprentice training as their own, tightly connected to the labour market and the parties of the labour relation. This homogenization process based on the logic of codetermination rather than self-governance might however have a profound effect on the workings of the apprentice system, and constitute the basis for a new common understanding of apprenticeship governance and the appropriate constellation of roles. But this remains to be seen.

**Conclusion: VET – the Norwegian way**

This working paper has focused been on the origins of Norwegian VET as a part of a family of VET systems; that of the Nordic countries. Systematic comparative studies of the historical formation of VET institutions and policies in the Nordic countries have not yet been carried out. The project asks: What is the character of these VET systems? How have they been formed? Such questions warrant a solid basis in the form of historical research on the formation of these systems.

In most typologies of VET, where different nation states are associated with a different VET models, the Nordic countries are viewed as quite different. Such models can both refer to specific patterns or to specific routes in skill formation. Once established, patterns of skill formation will exercise considerable influence on later developments. Prior choices will restrict alternatives and influence reform alternatives which are considered appropriate or suitable. In such a perspective the Nordic countries often serve as carriers of the different models. While the Danish system emphasized the autonomy of the dual system in relation to the state, Swedish VET is exclusively the responsibility of the state. Norwegian VET represents a somewhat more ambiguous case.

Norwegian VET has evolved through heavy interdependencies to Denmark and Sweden. These interdependencies have in turn fuelled domestic debate on possible and appropriate avenues of reform of VET, where different solutions have been preferred by actors. The formation of Norwegian VET has gravitated on the one hand towards Swedish solutions and
Danish solutions. This brings about a picture of Norwegian VET policies and VET system as a melting pot, where policies have oscillated in both directions.

The working paper traces the development of this vocational modernization process, the training institutions and school types that were formed, emerging relations between school types providing general as well as vocational training and political compromises structuring relations between them in the period 1860-2008. Focus is also on the relations of VET to the labour market. Central is the identification of drivers, key stakeholders and evolving interest coalitions and political regimes behind the development of VET and how they have evolved in three different periods:

1. The liberal state 1850-1930
2. The social democratic state 1930-1994
3. The NPM state 1994-

The historical formation of the four different areas of VET has been studied;

- Industry and crafts
- Handicrafts
- Commerce
- Domestic science/home economics

These areas have formed central elements in the formation of Norwegian VET, but have evolved along different paths. Still they have been linked to each other through competition for resources. This has played out differently under different regimes.

**VET and the emergence of the liberal state**
The timing and sequencing of the Norwegian trajectory has some interesting features. Crudely speaking, unlike Sweden, democratization preceded industrialization. For a long time Norway remained an agrarian country with strong agrarian features. Thus Norwegian big business community became more dependent on the state than the Swedish. There is much to suggest that this had implications for modernization of VET, and the formation of VET policy and institutions for industry and crafts. Institutionalization of vocational training happened relatively late, compared to Sweden and Denmark. A separate law on vocational schools for industry and crafts was passed during the social democratic regime (1945) and an apprentice
law as late as 1950. In contrast, other types of vocational education and training like domestic science and handicrafts received political attention much earlier, and educational institutions and governance structures were formed. These policy areas were also strongly embedded in different parts of the state bureaucracy through councils and stewards. The liberal regime opened up the state bureaucracy to a variety of interest groups, where some were able to wield state sanctioned expertise in their particular field. The importance of handicraft/house industry and domestic science was widely acknowledged and supported in Norwegian society. The development and build-up of schools and courses in these areas were linked to a variety of modernization processes and projects. Other important which could be mentioned element is the early development and the strength of the unitary school ideal (enhetsskolen). The unitary school signaled democracy, nation building and the formation of a school for all, independent of class and geography. Measured by general European standards, the reforms in general and basic education during the liberal regime has been considered as exceptional or even extreme.

The formation of new policy areas in vocational education and training can be viewed as a product of the development of several social movements and interest coalitions which were formed during the second half of the 18th century. The emerging policies for these different areas came to evolve as internal systematization processes within the sectors and school types. But during this period the various school types were challenged by competing school types and reform projects aiming at inclusion of new groups in the educational system and different systematization of relations between the various school types and both on the vertical and the horizontal dimension of the educational system. The growth of the unitary school and the formation of the practical continuation school represented such alternatives. The idea of the practical continuation school was based on the notion of a school type with combined the practical and general education. However, a Swedish solution equivalent to that of the 1918 reform, which was based on an encompassing coalition for the integration of VET and general education, was not on. Instead the Norwegian VET schools were taken out of the unitary school reform agenda, and VET schools and post-obligatory general education re-emerged as two distinct problem areas, undergoing distinct modernization scenarios and development processes. Within the field of VET for industry and crafts employer interests were neither able to achieve a VET reform on the basis of apprenticeship nor a solution based on the formation of “pre-apprentice” VET schools. The field remained in search of a proper legal
basis. As a result the “unprotected” VET schools went through unprecedented budget reductions during the recession in the 1930ies.

Compared to school types developed in crafts and industry, commerce education evolved into a quite different trajectory. As in crafts and industry, such schools were formed through local initiatives, but they did not manage to acquire public economic support. The growth of these schools and the need for regulations were recognized by the state, but a regulatory framework for this type of schools did not materialize either. Basic commerce education remained a private enterprise, and attempts at achieving state financing and regulation did not success. But the commerce gymnasiums managed to obtain access to a university education as early as 1910.

**The labour party state**

The emergence of labour party state or the social democratic order signaled both continuity and change. After a brief spell where older class based policies and notions of parallel educational hierarchies coincided with more broader notions of social mobility, the labour party state developed policies based on conceptions of an encompassing educational system organized under the purview of one single ministry. The old segmented school structure with separate school types for the different areas like crafts and industry, handicrafts, house economics and commerce, subordinated to goals tightly related to their respective sectors, actors and educational traditions, was gradually considered outdated. A new and encompassing administrative arrangement carried the promise of more unitary forms of regulation and a more egalitarian educational system. A more integrated educational system was in the making.

In industry and crafts the new labour regime intervened with law and organization. State control and state planning emerged as the road to reform. Policy makers and actors looked once again towards Sweden and Denmark. The vocational school act was heavily influenced by Swedish mode, while the apprenticeship act of 195 referred to Danish structures and practices. The result was a “double” institutionalization, combining elements from both systems. Relations between the two elements were loosely coupled, and gravitated in different directions.

Also the commerce educations were drawn into the purview of the ministry of education and the emerging systematization processes. Traditionally the labour party and the labour movement harboured a strong scepticism towards the commerce sector and the business elites.
But employment in this sector was growing rapidly, and soon the possibilities of integration of the white collar workers within a broadly organized and encompassing Federation of Labour became a hotly discussed topic. As a result public shop-floor schools and a separate apprentice system for white collar trades with a dedicated apprentice Council was formed. But the results were disappointing. After a short period of explosive growth, demand for apprenticeships dried up completely, and in 1972 the law was revoked. But in the shadow of the destitute structure, apprenticeship was abandoned in favour of a new three year school-based track, which not only provided vocational competence within the field of commerce, but also eventually assimilated upwards qualified for entry into university.

The 1960ties and 70ies marked new steps in the growth of the comprehensive unitary school. The policy conclusion was that the educational system still was not up to the task. A system based on more equal educations and parity of esteem had to be formed. The solution was increased integration between school types, stronger combinations of general and vocational education and a system based on the free choice of educational tracks. New linkages had to be formed between levels and school types. Every pupil should be given the possibility to access higher education if the preceding level had been completed with a satisfactory result. In the Norwegian context this argument was constructed as the principle of the unitary school and equal rights to higher education. School authorities wanted to create a more unitary school system which complied with this principle, through a combination of the integration of the lower secondary general education and the practical continuation school with the integration of the vocational programs and general education in a new comprehensive upper secondary school. Older institutional divides were dismantled. In the new upper secondary school domestic science was reorganized into a separate track focused on working life. The old mono gender orientation became a liability. But soon another course gained much more attention, that of the course in health and social work in general and the auxiliary nurse education on the other. The commerce schools also gradually re-emerged in the form of a three year track providing both vocational and general education qualifications. At its most it contained almost a third of the relevant age cohorts. During the 1960ies the politicians had become increasingly frustrated with the apprentice institution. It was considered a huge disappointment across all party lines, and policies for apprenticeship gradually faded from the light of political attention. Instead it became a recurring object for social policy rhetoric and compensatory symbol policies for the improvement of conditions for problem youth.
Comprehensive system formation and institutional integration process took place in two steps. In 1975 school-based VET was integrated with general education in a more comprehensive upper-secondary education system. The old pluralist corporatist structure in education was reformed and rationalized into a unitary Council where all the teacher organizations were represented. Apprenticeship was kept outside as an autonomous policy area. In 1980 a separate law for apprenticeship was passed by parliament, and the jurisdiction of the apprentice law was extended to the whole country. The apprentice law became VET law, explicitly including adult access to training and certification.

**VET and NPM**

During the NPM period market solutions gained ground, while corporatist solutions lost legitimacy. The upper secondary education council was abolished, and the teachers organizations lost their integrated participation stronghold. Only the apprentice council survived, but was reorganized, lost its old autonomy, and was adjusted to a new position as an advisory body. The old institutional framework consisting of numerous trade-specific councils were rationalized and had their functions and jurisdictions gradually redefined, more aligned to the new, rationalized VET track structure. Also the layering of apprenticeship administration changed. At the regional level, previously mandatory organizational boundaries protecting the social partners from local government intervention were dismantled in favor of a new concept of local government; a “thinner” and hierarchical municipal structure more in line with new public management ideas. The social partners have lost their old control over the regional apprentice councils and their resources in the form of earmarked budgets, formal agenda-setting capabilities as well as dedicated administrative apparatus.

Obviously the definition of the VET policy area presented problems in a hybrid system like the Norwegian, where VET has been reorganized as an integral but separate part of a comprehensive system for basic and upper secondary education. A number of political measures have been implemented in order to establish a new basis for the integration of the apprenticeship system as an integral part of the upper secondary education system in Norway.

Norwegian enterprises have responded to this policy through a significant expansion of the range of apprenticeship system. A main feature of this growth is an increase in the number of trades and the introduction of the apprenticeship system in new sectors of working life like services. There is also a clear tendency toward regional levelling out. In this way the appren-
The apprenticeship system’s ability to adapt in relation to societal, economic, and social conditions is illustrated. From being understood as a channel for the recruitment and qualification of the labour, the apprenticeship system has increasingly been understood as being an integrated part of the educational system. In return Norwegian employers have managed to extract unprecedented public subsidies for each apprentice.

The study documents continual cyclical variations in access to apprentice spots within industry and craft. These reveal a systematic correlation with the economic cycles. It seems as if unemployment and the number of new apprenticeship contracts move in counterphase around a growing trend: In periods of decreasing unemployment, there is a strong growth in the number of new apprenticeship contracts, while during periods that have an increase in unemployment, there is a decrease in the number of apprenticeship contracts.

To what degree has the attempt to stabilize access to apprenticeship spots succeeded after Reform 94? The study demonstrates that despite different political measures for stabilizing access to school, no development in the direction toward increased resistance to economic cycles among the industry and craft trades can be demonstrated during the period after 1995. The model calculations suggest that if the correlation between the economic cycles and access to new apprenticeship contracts have changed after Reform 94, then this has been in a negative sense. Economic cycles are thus at least as strong as they were previously. In this way, the apprenticeship system still appears as an arena linked to recruitment of labour and dependent upon the economic cycles of working life.