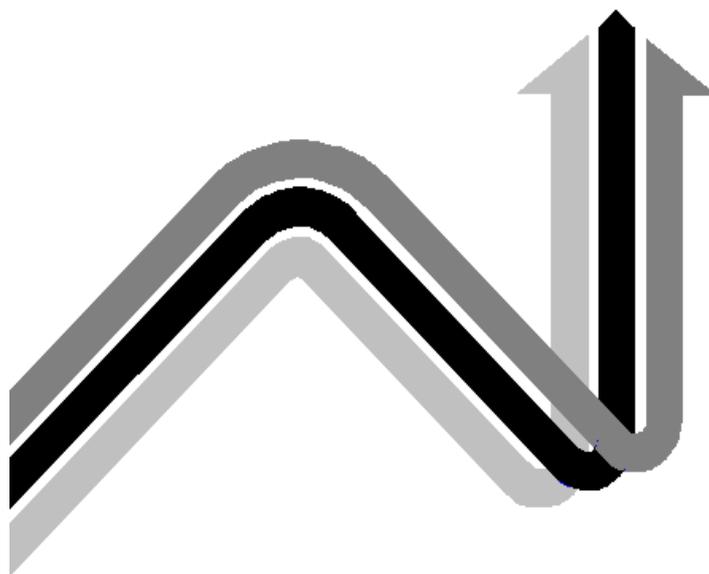


# **THEMATIC REVIEW OF THE TRANSITION FROM INITIAL EDUCATION TO WORKING LIFE**



## **DENMARK**

### **COUNTRY NOTE**

MARCH 1999

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THEMATIC REVIEW OF THE  
TRANSITION FROM INITIAL EDUCATION TO WORKING LIFE

**COUNTRY NOTE: DENMARK**

*Will the best be good enough?*

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## **1. THIS REPORT**

### ***1.1 Purposes of the Thematic Review***

All over the developed world, the attention of policy makers concerned with education, training, the labour market and economic development is focusing on the transition from initial education to full-time employment. It is at this crucial juncture that some people are left at the fringes of society, unable to join the mainstream because they lack the most basic skills required to do so. Others get on the ladder, but lack the knowledge, skills or perhaps the connections needed to go beyond the bottom rungs of that ladder. Some are well trained, but so narrowly that they are easy prey for the increasingly rapid shifts in technology and competitiveness that can easily leave occupations and whole industries high and dry as those occupations and industries leave for other nations. Nations can train too many for occupations that will not exist and too few for occupations critical for economic growth. They can leave many behind, creating heavy drains on the treasury for permanent social support of non-contributing individuals, and producing growing numbers of people who will struggle forever to get by. Or they can find a way to make sure that everyone is earning their way and feeling productive and competent. Nations that succeed in doing so will not only have the satisfaction of knowing that they have contributed greatly to the happiness and satisfaction of their citizens, but will also be in the best possible condition to win in the ceaseless global economic competition that lies ahead. In all these ways, a great deal is at stake for whole nations with respect to the way their education, labour market and social institutions do -- or do not -- work together to prepare young people to enter the work force.

So it should surprise no one that, when the OECD Education Committee created the *Thematic Review of the Transition from Initial Education to Working Life* in November 1996, the review commanded a high priority.

### ***1.2 How the Thematic Review is organised***

In the past, most education country reviews were done for and about a particular country to help guide the development of national education policy. This thematic review has been organised on different principles, however. First, it is directed at more than education and training alone, focusing as well on the labour market system, and, to the extent needed, the way the social services system works to support young people as they make the transition. Thus the object of attention here is not the institution but the individual. Second, the purpose is not simply to assist a nation in improving its policies by providing another perspective on those policies. It is also to draw the attention of the other OECD Members to policies of particular nations that the examiners believed to be interesting, innovative or exemplary. We have written this Country Note with these two purposes in mind. Third, for the same purpose, the review is designed to look across the country reviews to identify common elements that lead to general conclusions as to the most effective policies.

Six countries participated in the first round of the review: Australia, Austria, Canada, the Czech Republic, Norway and Portugal. This report on Denmark was prepared as part of the second round. The other nations participating in this round are Finland, Hungary, Japan, Sweden, Switzerland, the United Kingdom and the United States. When the second round of reviews has been completed, the OECD will produce a document that synthesises the country notes, analyses the separate findings, and, on the basis of that analysis, identifies those policies most likely to produce the best outcomes. That document will be presented to the OECD's Education Committee at its Autumn 1999 meeting. Country Notes are released

on the authority of the participating countries, and are available from the nation involved and from the OECD.

### ***1.3 How this report was prepared***

Prior to the review, the Ministry of Education in Denmark produced an extensive Background Report on Denmark's system for supporting the transition from initial education to working life. This Report was made available to a group of four examiners, appointed by OECD in consultation with the Ministry, along with other materials describing various aspects of the education, training and labour market systems in Denmark. The identity and backgrounds of the examiners are described in Appendix 1 of this Country Note. At the end of August and beginning of September 1998, the examiners spent ten days in Denmark conducting their review. We are deeply indebted to the staff of the Ministry of Education for the high quality of the Background Report, the thinking that went into the design of the agenda for the visit, and the hospitality that marked every stage of the review. In ten days, we saw almost every corner of this sea-bound nation, and visited at least one example of every major institutional and programmatic component of this very complex system. Our hosts kept the talk with policy makers in Copenhagen to a minimum, letting the people at every level of the system in the field speak for themselves.

We met with the Minister of Education, the State Secretary of Education, key civil servants in the Education Ministry, and representatives of the Ministries of Labour and Finance. We visited a wide range of institutions serving young people: a Gymnasium, a technical college, a commercial college, a college for the training of social work and health assistants, an institution designed to counsel youth who have fallen through the cracks and another whose job is to get them back on track when they have been found, and a university. We visited an adult education centre, a counselling and guidance centre and a firm employing apprentices. We talked with the Danish teachers' unions, the staff at Denmark's largest teacher training institution and with national representatives of Denmark's labour organisations and private employers. Perhaps our most rewarding talks were those we had with Danish young people, at almost every turn in our examination. We are indebted to all these people, who were so gracious with their time and so generous in their hospitality.

This report is based on our observations and the conversations we had with people in every walk of Danish life, on the Background Report, and on a range of documents both provided to us in Denmark and available separately to members of the team. What is written here is the responsibility of the examiners alone. While we are very grateful for all the help we have received from all the Danes just mentioned, they cannot be blamed for whatever shortcomings are to be found here.

## **2. DENMARK AND THE DANES**

### ***2.1 Independence and a commitment to one another***

Denmark is open land and the sea. A little over five million people inhabit the Jutland peninsula and 97 out of a total of 483 Danish islands. Beaches enclose low-lying farmland. Danes are fond of saying that all you have to do to see the whole country is get up on a chair.

From their Viking forbears the Danes have inherited a marked independence and preference for a democratic, non-autocratic style of decision-making. From their history as a nation of villages of farmers, they have inherited a preference for making decisions, not by majority vote, but by consensus. It is hard to fight political battles to the death with someone you must interact with every day. Better to compromise and work it out.

The war with Prussia at the end of the 19th century reinforced as well a certain sense of being in the shadow of a much more powerful neighbour. The natural response was to huddle together, each drawing support from the larger community of Danes, in an each-for-all and all-for-each grand joining together of the Danish nation. This further strengthened the tendency to consensus decision-making and the inclination to see the advantage that would accrue if all were to combine their resources to invest in the capacity of each member of the Danish society.

And so it is that one can travel the length and breadth of this country of five million people and find everywhere people who are at one and the same time highly independent and at the same time utterly committed to a larger sense of community, of interdependence. If there is a contradiction here, it sits easily on the Danish people. These deeply Danish characteristics inform the nature of their politics and their governing institutions, the way they look at government, and their attitudes toward education, training and the labour market.

## ***2.2 From the farm to the class room: The Danes use a skills strategy to power their nation to the front rank of economic success***

As matters stand today, the Danes have one of the most successful economies on earth. Few among the OECD nations produce more per capita. To accomplish this, the Danes had to transform themselves from a nation of farmers after World War II into a modern high technology, post-industrial nation today. Until the 1960s, Danish agricultural products accounted for the majority of its exports. Today it is less than 40% (even though agriculture employs less than five percent of the work force). Upwards of 80% of Danish industrial production is now exported. The value of Danish foreign trade is now, on a per capita basis, among the highest in the world. A great deal of this production is high technology goods manufactured to very high quality standards, much of it parts made for final products produced by other nations. But a growing share is also taken by the export of services.

What is perhaps most germane to the topic of this report is the fact that this all points in one direction: the whole Danish people now depend to a large extent on the export of high value added goods and services. These are just the kind of goods and services that can only be produced by a highly educated and trained work force, people who are broadly knowledgeable and deeply skilled, people who can take leadership at every level of the economic system and respond quickly to changing circumstances as they arise.

The Danish economy has been growing strongly since 1995, stimulated by falling long-term interest rates and a lower effective exchange rate. Growth rates over the last five years have outstripped even the widely admired U. S. economy. The inflation rate has been held to below 2.2% for the last four years. Unemployment dropped from 12% in 1994 to 7.7% in 1997 and is projected to fall to 6.0% in 1999, a 50% drop in just six years. Private investment, disposable incomes and consumption have all been growing rapidly in recent years. This is an impressive economic record, and it is important in understanding the background to many of Denmark's approaches to young people's transitions.

Talk to any Dane, from the taxi driver to the cabinet minister and you will hear the same story: "We have nothing -- no ore to mine, no forests to fell, only enough oil to meet our own domestic needs, no waterfalls to send through generators. There is little on the ground or underneath its surface that will sustain us. We have only our people -- their skills, their knowledge, their creativity. That is our national asset and we have no choice but to invest in it." This article of faith is undebated and undebatable in Danish society. So it is hardly surprising that Denmark is among the leaders in the entire community of nations in the OECD in the proportion of Gross Domestic Product that it invests in education. Compared to other OECD countries class sizes are small, support staff are plentiful, and student allowances are generous (Table 1).

**Table 1 Selected indicators of resources used by education, 1996**

	Denmark	OECD Country Average	Denmark as % of OECD Average
<b>As a per cent of GDP<sup>1</sup>:</b>			
. Direct public expenditure for educational institutions	6.5	4.9	133
. Total educational expenditure <sup>2</sup> plus public subsidies to households	8.5	5.9	144
. Financial aid to students <sup>3</sup>	1.39	0.33	421
<b>As a per cent of public expenditure on tertiary education:</b>			
. Direct expenditure on institutions	67	81	83
. Scholarships and grants	28	13	215
. Student loans	5	5	100
<b>As a per cent of the employed population<sup>1</sup>:</b>			
. Teachers	4.3	3.9	110
. Teaching support staff	2.8	1.7	165
<b>Ratio of students to teaching staff:</b>			
. Early childhood	13.1	17.6	74
. Primary	11.2	18.3	61
. Secondary	12.3	14.6	84
. Tertiary	11.2	15.7	71

*Notes:* 1. 1995.  
2. From public, private and international sources  
3. Excluding aid not attributable to household payments to educational institutions for educational services

*Sources:* OECD (1997), *Education at a Glance: OECD Indicators*, Paris and OECD (1998), *Education at a Glance: OECD Indicators*, Paris.

Education seems almost to have attained the status of a national religion in Denmark, and almost all of it is free or nearly so (Table 2 has some relevant data on participation rates). It is easy for young people who have started one route through the education and training system to change their mind and start again or to add another qualification to the ones they already have. This is particularly evident at the upper secondary level, with about one in five of all young people going on from their first upper secondary programme to graduate from a second<sup>1</sup>. In comparison, at the tertiary level limits are placed upon the availability of student grants to make this form of “double dipping” more difficult. Those young Danes who enter tertiary education take longer to get there than is the norm in other OECD countries, and once there they tend to stay until a later age<sup>2</sup>. Danes take full advantage of this wealth of opportunities to add to their knowledge and skill, stopping along the way to take a job or to indulge in the other national pastime -- travel. As a result many Danes worry that young people are taking too long to make the transition from education to work, and that the system for supporting their transition makes this possible because of an over capacity of places<sup>3</sup>.

The Danes practically invented lifelong education when N.F.S. Grundtvig, the great Danish nineteenth century educational theorist, advocated the Folk High School -- what he called a “school for life,” a school

that adults could use to develop every aspect of their social, cultural and cognitive skills. This tradition continues in adult education today, which is designed in such a way that anyone, anywhere, who wants to complete an interrupted education or go on to further education can do so, at no cost or little cost to themselves.

Whether the time and treasure that the Danes devote to education is a problem or an asset is an issue to which we will return later. The point we want to make here is that education is a way of life among the Danes, a rarely questioned, deeply held value.

It is hard to prove that this passion for education and training is intimately connected to the Danes' economic success, though the circumstantial evidence for that proposition is, we think, very strong<sup>4</sup>. But it is clear that the Danes do not invest in education solely, or even primarily, because they believe it will lead to economic success. Nothing so instrumental is at work here. They invest in education in large part because they believe it will liberate the human spirit, because they know that their form of democracy requires it -- and because it will pay off.

Neither these beliefs nor the values on which they are founded are unique to the Danes. The people of this small country share a common heritage with the other Scandinavian countries and some of what we have said by way of describing the attitudes and values of the Danes could be said of nations as far away as Japan. But, as we see it, the particular character of the Danish experience lies in the subtleties of degree, not of kind, and in the way that these characteristics have been combined in a particular culture. Understanding that experience is important, both as a means of explaining how the Danish system came to take the particular shape it now has, and also in order to make an estimate of how well Danish institutions, programmes and policies would "travel" to another country.

### **2.3      *The Danes' secret weapon: Their young people***

All nations talk about their youth as a vital resource. The Danes are among the countries that behave as if they mean it. They leave no stone unturned in the effort to make sure that everyone is integrated into adult society with dignity. But it is not just a matter of making sure that all youth participate successfully at some level in the economy and society as adults. In Denmark, the time between birth and the beginning of full time participation in the labor market seems to be viewed by the society as a time to be fully savored, like sipping a good wine, in no great hurry.

We were fortunate to meet many Danish young people. And we found them very appealing. Independent and self-confident, they were not afraid to tell us what they thought. No one seemed to be waiting to be asked, but no one seemed brash, either. They spoke when they had something to say. It was typically considered, thoughtful and often original. One had the sense that, faced with an unusual situation, the Danish youth would not be flustered, would take charge and figure it out in a rather level headed way. They seemed entirely willing to be held responsible for their own actions, capable of taking initiative, but also comfortable as a member of a team. Perhaps the sample that we met was atypical. But we suspect not.

These are qualities that many employers, particularly those using state of the art methods of work organisation, are increasingly seeking. But, in addition to these "key skills", employers want recruits who are broadly and deeply educated, so that they can learn quickly and bring a lot of knowledge and a wide range of skills to their work. That means getting new employees who have really mastered the core subjects in the curriculum and can apply what they have learned in those subjects to the work at hand. Which seems to describe the Danish students that we met rather well, both those who were headed for tertiary education and future crafts people and clerks and technicians in vocational programmes. We found ourselves talking with young people who, typically, had the above qualities and who in addition had studied Danish, English and one other language, arithmetic, fractions, algebra, differentiation, statistics,

probability, physics, biology and chemistry. All of our conversations with them were in English and very few had any difficulty in making themselves understood in this language. A third of the Danish adult population has no qualification beyond lower secondary school. But today over 80% of the Danish youth cohort either gets a recognised vocational qualification<sup>5</sup> or earns the right to go on to tertiary education.

Put it all together, and it seems that the Danes have in their young people a future work force that is well qualified to meet the challenges ahead. These conclusions might appear impressionistic. But it is clear on a number of objective counts that the transition from education to work is smoother and easier for young Danes than it is for young people in many other OECD Member countries. Consider these indicators:

- In a group of 14 European countries for which data was available in 1995, around half of all unemployed 15-24 year olds were looking for their first job. In Denmark it was less than one in eight, the lowest proportion of the 14 countries. In other words young Danes are far less likely to move directly from education into unemployment than are young people in many other European countries.
- In the same group of countries 40% of those young people who were unemployed had been looking for work for 12 months or more. In Denmark it was under ten per cent, again the lowest proportion of the 14 countries. In other words when young Danes do become unemployed, the experience is normally far briefer than it is in many other European countries<sup>6</sup>.
- In 1996, 74% of Denmark's 20-24 year-olds had a job. This was substantially above the OECD average of 61%, and was the second highest in the OECD, exceeded only by Switzerland<sup>7</sup>.
- For Danes under the age of 20 unemployment has virtually ceased to exist. In January 1996 only two per cent of 15-19 year old Danes were looking for work. Among those under the age of 18 the proportion looking for a job fell significantly below one per cent<sup>8</sup>.

It is also very clear that the ways in which young Danes make the transition from education to work have changed significantly during the 1990s. There are four charts in Appendix 3 that summarise these changes. In brief:

- The age at which young Danes make the transition from education to work has risen. At the end of the 1980s it was 21. By 1996 it had risen to 24<sup>9</sup>.
- More students are now combining work and education. For example, around 70% of 20 year-old students had a job in 1989. By 1996 this had risen to over 80%.
- Youth unemployment has fallen, roughly halving for those under the age of 22 between 1989 and 1996.
- The number of young people who take time out of the system has risen. In 1989 about eight per cent of 20 year olds were not studying, did not have a job, were not looking for one, and were not on pensions or benefits. By 1996 this had risen to 14%.

### **3. HOW YOUNG DANES ARE PREPARED FOR WORK AND CITIZENSHIP**

Here we describe in simplified terms the key institutional arrangements that support young Danes as they move from education to the workforce. The description encompasses the basic structure of the Danish

education and training system and some key features of the Danish labour market. This picture is greatly oversimplified -- for example the part of the Ministry of Education that is responsible for vocational education is responsible by itself for over 200 separate programmes. The Danish education, training and labour market system can appear bewildering in its complexity. As this report unfolds, we will try to give the reader a feel for the complexity of the system. For the moment, it is sufficient to warn the reader that what we have done is try to provide some clarity on the major structural features of the system, at the expense of making it appear much simpler in design than it actually is.

### **3.1 *Reform and change in a culture of consensus***

Understanding the pathways that young Danes take to work requires some understanding of how Danes make education policy. As a result we begin this section by characterising the Danish approach to the improvement of their system, an approach that explains aspects of the system that might otherwise be puzzling and which also explains why certain kinds of reforms fit with the Danish temperament and others do not. The culture of consensus is powerful in the making of Danish education policy and in the Danish approach to innovation and change in education. As a result it is much more likely that an old programme will remain and another will be added than that the new will displace the old. The programmes and institutions that are the living evidence of policies are a bit like the contents of many people's clothes closets. Little is thrown away. The same spirit of consensus militates against policies that depend for their effectiveness upon unbridled competition among institutions for students. It is not the Danish way. The Danish inclination is to give everyone, irrespective of who they are and where they live, equal access to education, to encourage a certain degree of competition, but also to expect institutions to collaborate with one another whenever it makes sense to do so, especially at the regional level. We noted above that the Danes are unusually independent. This stance is grounded in great respect for the individual. So the Danes find it hard to embrace any policy that sharply constrains personal choice. Their impulse, in fact, is always to widen the range of personal choice.

### **3.2 *Compulsory education***

An understanding of the particular nature of compulsory education in Denmark is important in understanding both how young Danes are prepared for work and how Denmark tries to lay the foundations for lifelong learning at an early age. Whilst schooling is not compulsory until the age of seven and kindergarten is not considered to be part of the Danish education system, the participation of three year-olds in early childhood education and care is some 50% higher than the OECD average (Table 2), and nearly all children attend one year of pre-school classes before starting primary school. This reflects the high rates at which Danish women participate in employment, and it influences the wide availability of jobs for young Danes in areas such as child care and early childhood education.

#### *Primary and lower secondary education: The Folkeskole*

Compulsory education in Denmark takes place in the municipal Folkeskole<sup>10</sup> and lasts nine years. Students can choose to stay in the Folkeskole for an optional tenth year before starting upper secondary education, and around 60% of students decide to do just that. Most students attend the same Folkeskole for the whole nine years, staying with the same class of students that they entered the Folkeskole with for all or much of that time. Each class has its own class teacher, who stays with the class for at least six years and often longer. If the period is less than nine years, another class teacher takes over and stays with the class until the end of compulsory education. Classes are mixed ability through the whole Folkeskole experience. It is against the law for the compulsory schools to screen their students for admission or to separate them for

instructional purposes based on their ability. Older students are expected to help younger ones. A strong emphasis is placed upon the development of co-operative behaviour and team skills in the Folkeskole.

The following subjects are compulsory in the Folkeskole: Danish, English, Christian studies, social studies, history, physical education and sport, music, art, textile design, wood/metalwork, home economics, mathematics, science, geography, biology, and physics/chemistry. In addition, all schools must offer German and may offer French. The curriculum, according to regulations issued by the Ministry of Education, must provide not only for the study of the required subjects, but also for student projects, designed to make sure that the students can apply what they know from several disciplines in a coherent way to real-life problems.

**Table 2 Selected indicators of educational participation, 1996**

Age	Sector	Participation Rates		
		Denmark	OECD Country Average	Denmark as % of OECD Average
3	Early childhood education and care <sup>1</sup>	60	40	150
18	Secondary education	74	51	145
	Tertiary education	0	17	-
	Total	74	68	109
22	Secondary education	13	7	186
	Tertiary education	24	22	109
	Total	37	29	128
26	Secondary education	3	3	100
	Tertiary education	17	9	189
	Total	20	12	167
29	Secondary education	2	2	100
	Tertiary education	8	5	160
	Total	10	7	143

*Note:* Concentrated in early childhood care rather than early childhood education

*Source:* OECD education data base

Apart from the national curriculum framework, the primary means of regulating the Folkeskole are national examinations starting in the eighth year, constructed by the Ministry. At the end of the ninth year, the students leaving the Folkeskole may sit for written and oral examinations in Danish, mathematics, English, German (or French) and physics/chemistry (this is the Leaving Examination or LE). At the end of the tenth year they may sit for the Advanced Leaving Examination (ALE) in the same topics or take the LE for a second time, to improve their scores from the previous year. Students are not required to take any examinations, but virtually all do so, because, as one student explained to us: "The employers and later schools all require them, and so you must take them if you expect to amount to anything."

When students leave the Folkeskole they are given a school leaving certificate that contains information about the educational activities they have participated in, the grades received on the leaving exams that were taken and the most recent proficiency marks given in all courses, including those in which the exams were taken.

Every Folkeskole has at least one guidance counsellor, who is also a regular classroom teacher. That person's job is to provide counselling assistance to the students who need it as well as to help the other classroom teachers to develop the specialised skill and knowledge needed to advise their students. One week in the eighth year and another in the ninth are set aside for students to visit workplaces and upper-secondary and vocational institutions in order to decide what education they wish to pursue following the ninth year. Each municipality is free to organise the use of this time in any way they wish. The school is also free to use other time in the school year for this purpose, and to invite representatives of employers and educational institutions to the school to talk with the students.

There has been a virtual explosion of interest in attending the optional tenth year among Danish students recently. Little used when first introduced in the mid 1970s as a boarding school option, it is now highly popular. Some students attend to improve their examination scores, some to take more time to decide what to do next, some because they are aiming at a semi-professional education, which has the ALE exam as an entrance requirement, some because they want to participate in a short form of the general upper secondary school (HF) after leaving the Folkeskole, and an unknown number because they want to stay with their friends, are not in a hurry to go on, and expect to enjoy themselves in their tenth year. Many municipalities were reported to be constructing separate facilities for the tenth year, as a matter of community pride, that specialise in sports or in some other way offer considerable inducements to students to extend their Folkeskole education.

Despite its growing popularity and considerable cost, both in money and in delayed entrance to upper secondary education, evidence that the optional tenth year adds any significant educational value for the students who participate in it is limited. This is an issue which we will return to later.

### **3.3 Youth education**

#### *Youth Education: An Introduction*

Following the Folkeskole, 95% of young Danes go on to what is called "youth education", each of whose constituent programmes lasts for between one and a half and four years but most commonly for three<sup>11</sup>. Youth education consists of a wide variety of courses offered by a variety of institutions, which in turn are controlled by a variety of bodies. All of this adds to the complexity of the Danish education system. Table 3 attempts to provide an overview of the various programmes, institutions and controlling authorities associated with the education and training choices that face young Danes at the end of compulsory schooling. These options can sometimes be described in terms of an examination that is being prepared for. At other times it makes most sense to describe the options in terms of a course or programme that is being taken. And at other time it makes most sense to describe the options in terms of an institution that is being attended. This is an inevitable outcome of the complexity of the Danish system, a complexity that is as evident to Danish young people as it was to the examiners. It is important to point out a key feature of the ways in which youth education programmes and institutions overlap in Denmark: there are few major programme offerings of Danish education or training that are offered by only one kind of institution. This fact is a further major contributor to the cost and complexity of the Danish education system, but also to its flexibility, and is a tribute to the commitment of the Danes to making sure that individuals can always go back to complete an incomplete education, and then go on.

**Table 3 The principal education and training choices that face a young Dane at the end of compulsory education**

<b>Option</b>	<b>Where Offered</b>	<b>Authority Controlling the Offering Institution</b>
<b>PRIMARY AND LOWER SECONDARY EDUCATION</b>		
Optional tenth year	Folkeskole	Municipality
<b>YOUTH EDUCATION</b>		
<b>General Education</b>		
Studentereksamen	Gymnasium	County
HF	Gymnasium <sup>1</sup>	County
HHX	Commercial College	Ministry of Education
HTX	Technical College	Ministry of Education
<b>Vocational Education</b>		
Vocational education <sup>2</sup>	Commercial College; Technical College <sup>3</sup>	Ministry of Education
Agricultural education	Agricultural schools	Ministry of Education
Social and health education	Social and health service schools	County
Home economics education	Home economics schools	Self governing <sup>4</sup>
Maritime education	Maritime schools	Ministry of Industry and Commerce
Postal or railway training	Postal or railway schools	Relevant Ministries
<b>Individual or Alternative Youth Education</b>		
EGU	Various sites	Municipality
FUU	Various sites	Municipality <sup>5</sup>
Production Schools	Production Schools	Ministry of Education <sup>6</sup>

*Notes:*

1. But also in colleges of education, in a small number of independent HF institutions, and in adult education centres (VUC).
2. Contains some 90 separate programmes with enrolments ranging from 1 to over 10,000.
3. But also in the AMU or Labour Market Training Centres, controlled by the Ministry of Labour, for those 20 and older.
4. But financed by the Ministry of Education.
5. But can also be organised by other actors such as Production Schools.
6. The schools are established by the municipalities as self governing foundations with independent boards but are financed by the State.

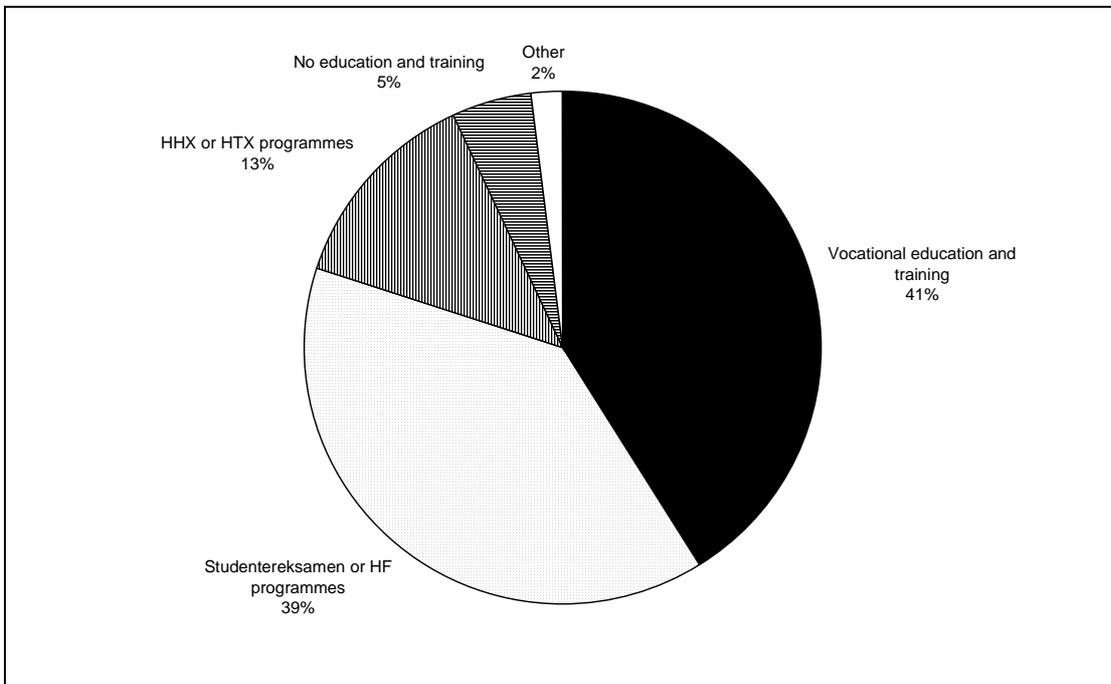
Despite the complexity, the main dimensions of the system are fairly straightforward. Youth education has three principal branches: general upper secondary education; vocational education; and individual programmes.

- *General upper secondary education* is offered either: in the Gymnasium, where it most commonly leads to the Upper Secondary School Leaving Examination or Studentereksamen; in commercial colleges where it leads to the Higher Commercial Examination or HHX; or in technical colleges where it leads to the Higher Technical Examination or HTX. General upper secondary education also includes a programme that leads to the Higher Preparatory Examination or HF, also provided in the regular Gymnasium. The HF programme was originally designed to provide a preparation for tertiary study for adults, but currently both youth and adults enrol in it. The HHX and HTX programmes are “vocationally oriented”, but

do not confer a recognised vocational qualification. The Studentereksamen, the HF, the HHX and the HTX, while set by different people and intended for somewhat different purposes, are all regarded as set to the same standard by Denmark's universities, and all therefore constitute valid pathways to university admission.

- *Vocational education* is mostly offered through a combination of either the commercial or technical colleges on the one hand and employers' work sites on the other. In most cases it takes the form of a dual, sandwich or apprenticeship programme that concentrates upon a particular occupational area.
- *Individual programmes* are offered in a wide variety of institutions and settings, and are designed to provide a flexible range of options to those young people who, for reasons of either motivation, interest or capacity, find it difficult to fit into the principal options provided by the system.

**Figure 1 Student destinations following lower secondary school**



Source: Danish Background Report. Data refers to 1996.

About 60% of the students leaving Folkeskole and entering youth education today choose the general Gymnasium or the commercial or technical college programmes that lead to the HHX and HTX examinations. The great majority of the rest enter the dual system vocational programme. The individual programmes can be entered directly from the Folkeskole, but in many cases are entered only after one of the other available options has been attempted. Thus they serve as a form of educational safety net, preventing young people from having to drop out of the system completely.

### *The Gymnasium*

The Gymnasium has its origins in the cathedral and monastery schools established in the early Middle Ages. In 1871, Denmark's developing technological needs led to the division of the Gymnasium

programme into two lines, the languages line and the mathematics and science line. This division defines the basic nature of the Gymnasium programme to this day. The languages taught by the modern Gymnasium are English, German and French, in addition, of course, to Danish. About 60% of Gymnasium students elect to take the mathematics-science line.

The required courses in the mathematics-science line include religious education, classical civilisation, Danish, English, another language (German, French, Spanish or Russian), history, geography, biology, physics, chemistry, mathematics, music, figurative art, and physical education. Less than 20% of the entire curriculum is set aside for elective courses. Students choosing the languages line must take all of the same subjects, but take more language courses and fewer mathematics and science courses. Students may elect to take many courses at either the advanced or the regular level. The basic legislation establishing the modern Gymnasium makes it clear that the primary mission of the institution is to prepare students for the tertiary education system<sup>12</sup>.

Not all who wish to go to the Gymnasium from Folkeskole can do so. Admission depends on the scores one achieves on one's school leaving examinations and the recommendations of the faculty of the Folkeskole. The programme takes three years to complete and ends with another set of examinations (the Studentereksamen), which serve both as leaving examinations and tertiary level entrance examinations. The students must take at least ten separate examinations in order to pass the Studentereksamen. (A small number of Gymnasium students take a two year programme leading to the HF exam instead of the three year programme).

### *The Commercial Colleges and Technical Colleges*

The commercial colleges and technical colleges span several parts of the system. Taking into account the several programmes that they offer, they account for 60% or more of youth education students. They are large, typically occupying multi-building campuses. In addition to the HHX, HTX and apprenticeship programmes they also offer short cycle courses at the tertiary level. As a consequence novices work alongside master craftsmen, both of them students, in the same workshops. Upper secondary students share facilities with tertiary students. The whole enterprise is tightly linked with industry, with consultative bodies representing the social partners involved in all levels of the operation. This form of organisation results in a vocational education system that is very responsive to and fully supported by industry. It opens possibilities, although often these are not realised, for students to move both horizontally and vertically through the system, and offers the potential for students to develop a wider view of the possible futures among which they can choose.

The commercial and technical colleges are self-governing institutions chartered by and responsible to the Ministry of Education. They are funded on a "taximeter" system, meaning that their funding depends on the numbers of students they can attract to their programmes. Different programmes are funded at different rates, depending on the established average cost of running those programmes.

**Vocational education** for the most part consists of a dual system of course work taken in a commercial college or technical college, and work as an apprentice in a workplace, leading to a journeyman's examination and certificate in one of almost 90 trades and occupations. Typically, young people preparing for the journeyman's exams are expected to get an apprenticeship in a firm, but those who cannot find such a place are offered a "virtual" apprenticeship by the college they attend, so that no one is denied the right to study for the journeyman's exams because they were unable to find an apprenticeship in a firm.

The apprenticeship system has its origins in the medieval guilds, in which experienced craftspeople assumed responsibility for the training of their successors, and where the primary form of training was the practice of the craft under the supervision of experienced craftspeople. The guilds laid down the training

time, apprentices' conditions of work, and the disciplines they were to be taught. The guilds also set and held the examinations for the journeyman's certificate. In the nineteenth century, the technical and commercial colleges began as modest supplements to the apprenticeship system, intended to provide a few courses for the apprentices and improve their general knowledge, and their programmes gradually strengthened. The functions just described continue to this day, organised by representatives of employers and the trade unions in cooperation with the Ministry of Education.

The primary purpose of the technical and commercial colleges within the apprenticeship system is to help prepare students for the journeyman's examinations in their chosen trades and occupations, and to provide industry with a continuous supply of well trained workers. The responsibility for preparing students for these examinations is a shared one, with perhaps more of the responsibility resting with the employer than with the college. This is a key feature of the Danish vocational training system -- the driving force is the employer and the unions, not the college. Fundamentally it is the employers and the unions together who define the boundaries of the occupations for which vocational education and training is required, the content of the education and training and assessment requirements, and the ways in which the labour market will reward successful completion of the qualification arising from the programme.

Admission to the apprenticeship or sandwich programmes of the commercial and technical colleges is open to all who have attended the Folkeskole, whether or not they have passed the leaving examinations. Apprenticeships can last as long as four and a half years and as little as a year and a half. Each of them culminates in a written, oral and practical examination, conducted by a teacher, a representative of labour and an employer representative. These examinations can last for three days. They typically call upon the student to demonstrate a command of the underlying theory and to produce an appropriate product to a set -- and high -- quality standard. The culinary students cooks the specified dishes and the metal worker manufactures a finely machined part. Students can and do fail these examinations. They get up to three chances to pass. If they then fail, they cannot try again, the employer with whom they have been apprenticed is fined and their right to host an apprentice programme is reviewed.

A student who enrolls in one of these programmes can do so by first getting an apprentice contract and then applying to the college for admission, or by first being admitted to the college and then getting a contract with an employer. But no student can continue for very long without both having a contract and being enrolled in the appropriate programme in a college. After a short initial honeymoon period, the student and the employer cannot dissolve their contract. They are stuck with each other. However if a student cannot get an appropriate training place, the college is obliged to provide a simulated training place.

Typically, the first year of the dual programme takes place entirely at the college. It is a time for career exploration and catching up on school work that is needed before the work site part of the programme can begin. After that, the programme alternates between some weeks at school and some weeks at the employer site. The classwork part of the programme is intended to do more than simply support the work site training. The college is obliged to provide an academic programme that constitutes the basis of a well rounded education, and supports the role of the student as a citizen and family member. The technical training is intended not just to prepare the student for his or her first job, but to prepare that student for many of the tasks and responsibilities that will come later.

***In addition*** to the programmes offered in the commercial and technical colleges, vocational education programmes that lead to recognised occupational qualifications are offered through agricultural schools, social and health service schools, home economics schools, maritime schools, and schools for the postal and railway services. The AMU Centres, described below, also offer programmes that lead to journeyman's certificates.

*The HHX and HTX programmes* are considered by Danes to be part of the vocational system from some perspectives, even though their primary objective is preparing students for further study -- not for jobs directly. It seemed to the examiners that from at least some perspectives one could usefully view them in both lights -- as part of general education as well as part of vocational education. However it is important to realise that whilst considered from some perspectives to be part of the vocational system, they do not lead to a formally recognised qualification for an occupation whose boundaries have been defined by the industry partners. Consequently those young people who complete these programmes but do not later gain a tertiary qualification or a recognised vocational qualification are, like similar Gymnasium graduates, regarded as being unqualified, and are treated as such for purposes of access to labour market assistance and unemployment insurance. From an institutional point of view, the rules governing the operation of these programmes have more in common with the rules governing the Gymnasium than with those governing vocational education. As is the case with the Gymnasium, admission to programmes leading to the HHX and HTX examinations is based on scores on the Folkeskole leaving examinations and the recommendations of the Folkeskole staff, the programme is three years long, the students must take a demanding academic programme and there is no workplace-based component. But there are real differences. The programme has a much more applied flavour, and the pedagogy is much more project-based. Students typically spend a lot of their time making things and solving problems related to the disciplines of the colleges. Many if not most of these projects are student initiated. The problems posed by these projects might lead them into academic work not often done by Gymnasium students until they get to university. Students who pass the HHX and HTX exams tend to go disproportionately into business management and technical programmes in the tertiary sector.

Though these programmes are routes into tertiary education, a growing number of students are taking a vocational qualification after they complete them. Around half of all HHX students take that route, and about one in six HTX students. Many of these then go on to tertiary education with the knowledge that they have had an education that is academically sound and which also provides them with a strong vocational qualification. These students are very appealing to employers, and, increasingly, to universities and other providers of tertiary education.

It is technically possible for students from the traditional sandwich vocational system to transfer to the upper secondary programmes that lead to the HHX or HTX examinations, but few do so. This is mainly because their academic qualifications are not as strong when they enter the college, and the gap between their academic qualifications and those of the HHX and HTX students widens swiftly as the years go by.

*Tertiary education* is also offered by the technical and commercial colleges, in the form of short cycle programmes of one to two and a half years duration. The tertiary programmes offered by the technical colleges include construction, production planning, quality control, and production and systems planning, among others. The tertiary programmes offered by the commercial colleges include a two-year programme in sales and marketing, a two-year programme for computer specialists and various special purpose programmes in such areas as tourism, international marketing, retailing, logistics, advertising and communication.

#### *Individual or alternative programmes*

Individual or alternative youth education consist of three principal options: Vocational Basic Training (EGU); Individually Organised Youth Education or Open Youth Education (FUU); and Production Schools. In theory young people can move from any of these options to normal vocational education and training with appropriate credit, but this is not always easy. Young people can also move from one of these programmes to another -- for example some municipalities see Production Schools as a good preparation for starting an EGU programme.

**EGU programmes** last for two years, are mainly practical, with small firms being a major provider, and with the associated theoretical training occurring in a variety of possible educational institutions such as technical colleges or AMU centres. They provide very flexible vocational training in a way that suits the wishes and abilities of individual students, generally the less academically oriented. Most commonly they are directed at those relatively simple labour market occupations that are not covered by apprenticeship and as a result whose training arrangements are not governed by trade committees. Individual EGU programmes are designed at the municipal level jointly by the young person and a counsellor. Employers and trade unions generally support EGU, as it is designed to assist the weakest students in a flexible way. However there is little pressure or support for its expansion, lest it compromise the apprenticeship system by blurring the clear demarcation that exists in Denmark between work that is “skilled” and requires a formal occupational qualification, and work that is “unskilled” and does not. Around a third of all municipalities do not make use of EGU, either because they see it as too resource intensive or because they see other programmes as meeting the need. About 1,000 young people a year enrol in this programme (out of a youth cohort of around 50,000), and two-thirds of them, on completing the programme, continue in education or get a regular job.

**FUU programmes** allow those who are not attracted to one of the formal types of youth education to compose individual programmes from a variety of existing courses. They are available both for the talented and those who are not academically oriented. They can include exchanges, study visits abroad and municipal projects. Some students choose FUU because they want to improve their skills in particular areas -- for example their creative skills. Others choose them simply because they want an option that lets them sample a little of everything so that they can clarify their decisions about the future. And others end up in FUU because they haven't succeeded in another youth education course. They are more controversial than the EGU courses. Whilst designed for the weaker students, their purpose is felt by some to be now less clear, and to be simply a way in which the length of the transition period is extended and clear decisions about the future are delayed. Apparently many fewer graduates of this programme than of the EGU go on to pursue some form of qualification or get a regular job.

**Production Schools** target those young people who have left school without a recognised educational or occupational qualification and who are without work. Intended to rapidly reinsert such young people into mainstream education and employment, they are characterised by their distinctive educational philosophy, stemming from the Danish tradition of liberal adult education originated by N.F.S. Grundtvig, rather than by any particular programme or course that they offer. Unlike EGU and FUU they do not lead to a formal qualification. They are described in more detail in Section 5 of this report.

### 3.4 *Tertiary Education*

Tertiary education in Denmark is divided into three categories:

- **Short cycle courses** generally last from one to two and a half years, and typically are offered within the commercial and technical colleges for those who have completed a vocational education programme
- **Medium-term programmes** last between three and four years, and are generally offered at universities or at specialised institutions in fields such as education, design, social work, engineering and journalism.
- **Long cycle courses** normally take between five and eight years, lead to the Kandidat degree, roughly the equivalent of a US Masters degree, and are offered in universities.

Denmark's universities include five with multiple faculties, an engineering university, a veterinary and agricultural university, a school of pharmacy, two business schools, and one school of educational studies.

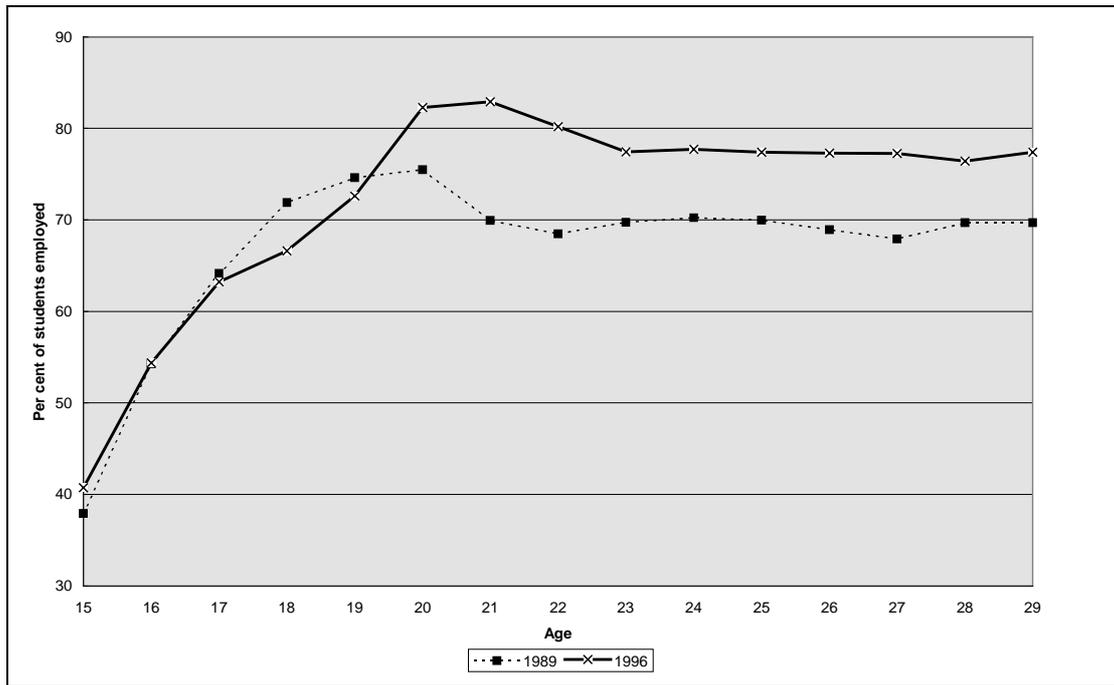
The Danish tertiary education system at present shows an ambivalence between the European system of academic qualifications and the American system. In some parts of the system, the Kandidat degree still prevails. In 1992, however, a modification of the American system was introduced, calling for a three-year Bachelors degree, followed by a two-year Masters degree. The new structure has been introduced in the social sciences, humanities, law and the natural sciences and will be introduced in medical sciences in 1999. The old structure still prevails in areas such as medicine and architecture. One of the reasons for introducing the new system was to reduce the time spent in higher education, since the practice in America is to accept the Bachelors degree as the terminal degree for a great many occupations. But the old way appears to have absorbed the new, in that most students continue directly from their Bachelors programme into a Masters programme and employers continued to expect them to do so. This is one factor adding to the length of the transition from education to work for young Danes.

It is important to appreciate that higher education, like vocational education programmes such as those provided through apprenticeships, is one of the ways in which young Danes can acquire a formal or recognised occupational qualification. In the context of the occupationally organised Danish labour market this carries particular implications in terms of access to labour market assistance including unemployment insurance.

### **3.5      *Income support***

Income support for Danish students is widely available and generous. Compared to many other countries it is more likely to be offered as a grant than as a loan, although there is a significant loan component to the assistance. As suggested by the data in Table 1, it is one of the factors that accounts for the relatively high cost of the Danish education system. All young Danes over the age of 18, regardless of their parents' means, are entitled to a basic financial assistance grant, although for those under the age of 20 whose parents' annual income is less than DKK 203,638<sup>13</sup> the grant component is larger and the loan component smaller. The level of grants and loans for those who are over the age of 20 is independent of parental income. Those who live with their parents receive around two thirds of the amount received by those who live on their own. Students who are in youth education programmes must demonstrate that they are actively involved in their education (attending classes, sitting examinations etc), but to all intents and purposes the amount of education that they can consume whilst receiving financial grants is not limited. Tertiary students, on the other hand, are limited to financial assistance for the period that corresponds to the course that they are enrolled in, plus 12 months.

**Figure 2 Per cent of Danish students employed, 1989 and 1996**



Source: Statistics Denmark

To put the levels of income support into perspective, 18 year olds from low income families who are living with their parents can receive roughly 23% of the wage of a final year apprentice<sup>14</sup> from the basic grant, and close to half if this is supplemented by a loan. A 20 year old living on their own can receive roughly 46% of a final year apprentice's wage from the basic grant, and close to 70% if this is supplemented by a loan.

The income that students may earn from employment without penalty is capped, but the limit is relatively generous in comparison to the levels of financial assistance that are available. For example in the case of the 18 year olds described in the previous paragraph, students may earn three times the basic grant and 25% over the maximum grant plus loan amount before being required to repay excess earnings to the State. In the case of the 20 year olds described above, maximum earnings from part-time work can reach 129% of the basic grant and 85% of the maximum grant plus loan amount before penalty. This means that in total the combined grants, loans, and employment income of students can exceed the average wage of a skilled worker. It is common for students to have a spouse and children before graduating, and thus to have an added incentive to combine their studies with work. What can commence as a full-time study programme combined with part-time work can merge into what is in effect a full-time job combined with part-time study.

The interaction of student assistance levels and part-time earnings is even more important in light of the rates at which Danish students have part-time jobs. If few students worked it would have little impact. But most students do work in Denmark, and as a result part-time work forms a very important part of student's income. Working whilst a student is also a very important feature of the way that young Danes make the transition from education to work. Young Danes start working at an early age. They start to learn what employers expect from their employees at an early age, and they start contributing to the national tax base at an early age. Information provided by the national authorities shows that 59% of all 15-19 year-old Danish students have a job, perhaps the highest proportion in the OECD<sup>15</sup>. Among Danish students who

are over the age of 19, some 80% combine their studies with a job, and this proportion has grown during the 1990s (Figure 2).

### **3.6      *Guidance***

One of the distinctive features of the Danish education system is the prominent role that guidance plays at all levels and in all sectors. In part this arises from the complexity of parts of the system, but it also reflects the importance that Danes attach to individual choice and opportunity. A lot of effort is put into ensuring that all young people move through the system with appropriate advice and information on the choices that face them, and with access to advice and guidance if they experience problems and difficulties, whether educational, personal or career connected. This guidance is provided both by special personnel and by regular teachers, in the latter cases at times inseparably from the normal teaching function, so that students are often not aware that they have been receiving guidance, seeing it just as a normal part of the teacher's job.

The arrangements for guidance, and the qualifications and training of those who provide it, are different in each part of the system. At the compulsory level, there is one guidance counsellor available in each school. This counsellor also serves as a teacher, albeit with a reduced teaching load. These teacher-counsellors receive about 200 hours of training over two years to prepare them for their role as counsellors. Much the same system is in place at the upper secondary schools. In the vocational education system, would-be counsellors must take ten one-week modules of training and pass an examination. Counsellors for the compulsory, upper secondary and vocational systems are trained under the auspices of the Ministry of Education. Counsellors who serve in the employment service system are trained under the auspices of the Ministry of Labour. In fact there are around 25 different guidance service providers in Denmark, all with different approaches and different ways of recruiting and training staff.

The Danish government established the National Council for Educational and Vocational Guidance (RUE) in 1981, under the Ministry of Labour but with a requirement to consult with the Ministry of Education, and thus in practice with at least a degree of independence from both. RUE's task is to contribute to the development and co-ordination of guidance systems located in the compulsory schools, upper secondary schools, vocational schools, the tertiary system, the adult education system, and the employment service. These services are still responsible for training their own counsellors and delivering their own guidance services, but RUE does provide the framework in which the counsellors are trained and the services are delivered.

RUE publishes an encyclopaedia of all Danish occupations and training opportunities, available on CD-ROM, a directory of international training opportunities, and a wide variety of printed material. Among the most important of these publications is a 183 page book, "My Way", a handsomely produced volume given to every lower secondary student, which describes the whole range of career opportunities and the preparation required for each. A similar publication is available describing the options available in tertiary education. We return to the issue of guidance later in this report.

### **3.7      *The adult education and job training system***

The transition from education to work is a long one for Denmark's youth, compared to many other countries. And the education and training system that supports this transition is very flexible. As a result many "adults" can be found in "youth education" programmes, and many young people under the age of 30 find themselves in either the adult education system or the adult job training system. The boundary between a young person and an adult is by no means clear, even though some programmes have formal, although often overlapping, age requirements. So we cannot understand how young Danes make the

transition from education to work without understanding the principal features of education and training systems that have been designed for adults.

***The adult education school or VUC*** falls under the control of the Ministry of Education, and is open to all Danes who are 18 or older. In modern Denmark, the State feels an obligation to make sure that every adult has an opportunity to go back and start their general education again, if need be, or to pick up what they lack in order to move ahead. And so the VUCs, which can be found all over Denmark, offer all the examinable courses needed to complete a modern Folkeskole education and to take the Folkeskole school leaving exams at the advanced level. They also offer all the examinable courses needed to take the HF form of the Gymnasium school-leaving examinations. The programmes at the VUC are designed to offer the student one-course-at-a-time, course after course if need be. In this way, students can start when they like and end when they like, and proceed at their own pace. Most are interested simply in picking up the few courses that they lack for the purposes they have in mind, but others will take all the courses needed to make it possible for them to sit for the exams just mentioned. Every course ends in an exam, written or oral or both. The charges for the courses are nominal.

The pedagogical environment in the VUCs is often very different from that in the Folkeskoler or the upper secondary system. Students can take a course as an independent student, using self-study methods, supplemented by a student counsellor. They have access to all the equipment necessary for self-study as well as qualified teachers in all subjects. Or they can join a study circle in which the teaching is organised in seminar fashion, with study circles in between seminars. There is a special -- and new -- programme for employed people who have not completed the modern Folkeskole programme. The programme takes 16 weeks full time or up to two years part time. The Danish government pays full unemployment benefits to the person's employer and the employer pays the person's regular salary to the individual. This programme is growing very quickly.

Though VUCs typically have large staffs of their own, the enormous range of the problems faced by the people that come to them and the equally large range of the services they need (from Danish language training for new immigrants to a short course in database applications for someone who needs computer skills to a full blown Folkeskole programme) means that the VUC typically has close working relationships with the whole range of education, training and labour market institutions around them and they make full use of those relationships to arrange for each client the educational and social service supports that they need.

***The labour market training centre, or AMU***, is under the control of the Ministry of Labour, although with a strong employer and trade union advisory role both nationally and for each Centre, having been founded in the 1960s by the social partners rather than by the State, and is open to those who are 20 or older. An AMU has something of the same feeling to it that the VUC has, but its programme is very different. There are 24 of these Centres in Denmark. Ninety percent of their funding comes from the national labour market authority, with the rest scattered among the regional labour market committees, the Municipalities, training committees and enterprises. Whereas general education lies at the core of the VUC, vocational training is the mission of the AMU.

Whereas the technical and commercial colleges are charged with preparing people to enter the skilled trades and occupations, the AMUs have in the past been charged with preparing people to enter the unskilled and semi-skilled occupations in the economy<sup>16</sup>. This distinction, however, is now less accurate than it once was, inasmuch as the Danish government has moved to permit the AMUs to offer many of the programmes offered in the technical and commercial colleges and vice versa. So just as "young" people doing general education programmes can be found either in a Gymnasium or in a VUC, so those working towards an apprenticeship qualification who are in their 20s may be found either in a commercial or technical college or in an AMU Centre.

Unlike the technical and commercial colleges, the curriculum in an AMU is organised into modules, each of which can be completed in days or weeks. A qualification is earned by completing the necessary modules. In those cases in which the AMU and the technical and commercial colleges offer programmes leading to the same qualification, the programme at the AMU is typically of much shorter duration. This is partly because the AMU concentrates upon skills training directed solely at enabling the student to get the qualification, and has fewer extra curricular activities. It is also because the student comes with years of relevant experience and the form of the instruction is designed to capitalise on that experience. No AMU course can be created to meet needs that are specific to only a single employer, for the skills that re taught must be transferable.

Not all students come to the AMU for a qualification. Most come to take one or a few modules of instruction, to qualify for a particular job at their workplace or in the hopes of broadening their skills for some future purpose. In most cases, the training is provided to people who are employed. The government will pay a subsidy that is equal to the maximum unemployment insurance amount to the employing firm if the firm will continue to pay the salary or wage of that employee while in training. If the cost of the salary or wage exceeds the amount of the unemployment insurance, the employer will usually pay the difference for the employee.

### **3.8 *Some key features of the Danish labour market and its institutions***

How young Danes move from education to work is inextricably linked to the particular nature of the Danish labour market. Central to the Danish labour market is the notion that a job is either “skilled”, and therefore requires the person to obtain a recognised vocational or tertiary qualification in order to be able to undertake it, or that it is “unskilled” and does not, and hence that people are either “qualified” or “unqualified”.

On the one hand the central role played by qualifications can be seen as a rigidity in the Danish labour market, as it erects the qualification as a barrier to performing very many forms of work. But on the other hand it provides young people with a very strong incentive not to drop out before they have obtained a qualification, and it is a way to ensure that a high proportion of the workforce is skilled and qualified. And because the employers and trade unions jointly negotiate on the content of the training required for occupations that need a qualification, it means that the skills base for most jobs is wide rather than narrow. Another consequence, reinforced by the fact that Denmark is a small country, is that all qualifications are designed to be national in scope. This supports flexibility and portability of qualifications from one part of Denmark to another, at the same time as it makes it very difficult for basic qualifications to be tailored to the needs of particular firms or regions. While the Danes place great value on occupational qualifications, they are reluctant to allow wages to differentiate greatly between people as a function of the levels of qualifications that they hold. Minimum wages are high, and there is little variation between the pay rates of high- and low-paid workers<sup>17</sup>.

Central, national, bargaining between employers and trade unions plays a very important role in the Danish labour market, helping to set not only the content of training and assessment requirements for qualifications, but also laying down the basic frameworks for working conditions and wages. The power of central bargaining arrangements was able to moderate wage increases during the mid to late 1990s, and this has been a significant factor in the fall in unemployment levels experienced since 1994. Trade union membership is high, with the occupationally based trade unions being the principal administrators of the national unemployment insurance system. The Danish labour market is a very “youth friendly”<sup>18</sup> one. The apprenticeship system creates substantial numbers of training places within firms<sup>19</sup>, and very high proportions of students are able to gain part-time jobs while they are studying. In overall terms employment protection in Denmark is the least strict of the four principal Nordic countries, and falls towards the more permissive end of the OECD as a whole<sup>20</sup>. This relatively weak protection against

dismissals is mirrored by a relatively generous unemployment benefit system. In a similar manner, a labour market that is dominated by small and medium sized firms is mirrored by a well developed public system for labour market training and adult education. The combined effect has been an employment system which has a high degree of flexibility (measured by job mobility and average tenure) but at the same time a high degree of social and economic protection.

Those who have passed an appropriate vocational or tertiary examination and obtained a qualification are able to belong to the appropriate union controlled unemployment insurance fund immediately. If they become unemployed and need access to labour market programme assistance such as a retraining scheme they do so through their local Labour Office. Unemployed people who are not “skilled” or “qualified”, including Gymnasium, HHX and HTX graduates, must seek assistance from the social security system that is administered by the Municipalities, working under the aegis of the Danish Ministry of Social Affairs, where benefit levels are only some 60% of those available through the unemployment insurance system, and where a separate set of labour market assistance programmes is available.

The Ministry of Labour operates attractive walk-in local Labour Offices all over Denmark that provide detailed information on available jobs and on education and training, much of it computerised, on-line career decision making packages, job search assistance, and access to counsellors who can help you find your way through the various options that are available. This form of assistance is available to anybody. But if you are unemployed and need income support and access to a labour market programme, the level of financial assistance that you can get and in practice the types of programmes that you will be referred to will depend upon whether you are qualified, as defined above, or not. Thus local Labour Offices might be less likely to refer you to a Production School, an EGU programme or an FUU programme if you need education and training, as these are seen as belonging to the Municipalities. You will be far more likely to end up in a programme available in an AMU Centre, a VUC, a commercial or technical college, or a Folk High School. So the type of education and training assistance that a young unemployed person ends up in is not always a function of need, but will stem in part from which sector and level of government they must deal with.

Those who are unemployed and less than 25 years of age are required to be “activated” -- report to a counsellor, and receive and accept offers of education, training or a job -- before the end of an unemployment period of six months duration. The primary aim of the activation for this age group is to ensure access to education and training, but adults may be activated into education, training or a job creation programme. By the end of the year 2000 all unemployed people will be required to be activated before the end of 12 months of unemployment, and by the same time the unemployed will only be able to remain on benefits for a maximum of five years.

#### **4. DO YOUNG DANES TAKE TOO LONG TO MAKE THE TRANSITION FROM EDUCATION TO WORK?**

The average length of the transition from initial education to work is certainly longer in Denmark than in many other countries. As part of the Thematic Review the OECD has estimated the length of the transition in 15 countries, using 1994 data. On average it started at the age of 17 and ended six years later at the age of 23. In Denmark the process started earlier -- at the age of 16 -- and finished later -- at the age of 24. So it seems to be about a third longer than average in Denmark<sup>21</sup>. And the length of the transition grew by two years in Denmark between 1984 and 1994, compared to an average growth of slightly less than a year in the 15 countries concerned. More recent 1996 data supplied by the Danish authorities for this review indicates that the transition is now starting even earlier and ending even later. At the age of 15 four in ten of all young Danes are both studying and working (see Figure 2 and Chart 1 in Appendix 3), and in 1996 it was not until the age of 25 that half of the population were employed but not studying (Table 4).

Part of the reason for the transition being so long in Denmark is that young Danes spend, on average, a fairly long time in the education system. They progress from one level of education to another, but they also take frequent detours and turns within any one level of education. These detours can take the form of swapping from one course to another before the first has been completed. But probably of even greater importance is their habit of doing more than one course at the same level of education: the optional tenth year of the Folkeskole; a vocational education course after the Gymnasium or HHX/HTX; a one year post-Gymnasium course leading to the HHX examination; a Masters course after finishing a Bachelors degree.

But the extended transition is also because young Danes start working, in combination with their studies, at an early age, and then take a long time to settle into work once they finish their education. This long period to settle into work is not because jobs are hard to find, for, as we have seen, once they actually enter the labour market after leaving the education system, young Danes are far less likely to become unemployed or to experience long spells of unemployment than are young people in many other countries. The delay in settling into work appears to be because many young Danes “drop out” from both the Danish education system and the Danish labour market for a period, most commonly after completing a course of study<sup>22</sup>. At the age of 20 nearly one in seven young Danes are missing from most official statistics. They are not in education, not in the labour market, and are not on pensions or other social security benefits. By the age of 29 one in ten young Danes are still not accounted for by the principal education, labour market or social security options (Table 4)<sup>23</sup>. In the early 1990s the average gap between completing general upper secondary education and starting tertiary education was two and a half years, and this had grown significantly in the previous decade.

Putting the high proportions of students who work together with the proportions who drop out of both education and the labour market for a period, we see a pattern of young Danes balancing their early engagement with work in one phase of their lives (while students) with a later engagement with work in another phase (after they have left initial education). Their lifetime quantum of work is spread over the life span in a different way than in other countries. It is almost as if they have taken notions of lifelong learning that are currently being discussed in Denmark, turned them on their head, and applied them to employment.

**Table 4 Activity status by single years of age, 1996 (Per cent)**

Age	<u>In Education</u>		<u>Not in Education</u>			<u>Total</u>
	<u>Not Employed</u>	<u>Employed</u>	<u>Employed</u>	<u>Unemployed</u>	<u>Pensions etc</u>	
15	59	41	0	0	0	100
16	44	52	1	0	0	100
17	34	58	4	0	0	100
18	26	53	10	3	0	100
19	19	50	17	4	0	100
20	9	43	28	6	0	100
21	7	34	37	7	1	100
22	8	31	41	8	1	100
23	8	27	45	9	1	100
24	7	24	49	9	1	100
25	6	21	53	9	1	100
26	5	17	57	9	1	100
27	4	14	62	9	1	100
28	3	10	67	9	1	100
29	2	8	70	8	1	100

Source: Statistics Denmark

Whether Danish young people's passion for travel should be viewed with concern or as a national asset is a question that we will return to later. But it is certainly true that the length of the transition to work interacts with a number of other issues that worry many of the thoughtful Danes that we encountered during our visit. In brief they worry that a combination of demographic trends, labour force participation trends and the career and lifestyle choices being made by young Danes might in concert be threatening the capacity of the Danish economy to deal with future competitive forces. The arguments go something like this.

- Between the late 1980s and the mid 1990s growth in the population of working age was accompanied by a fall in the size of the labour force. Some 80% of this fall in the participation rate was due to earlier retirements and easier “sabbatical leave” arrangements<sup>24</sup>, introduced by the government in the early 1990s in order to assist the fight against unemployment.
- In addition to delaying labour force entry by periods taken out to travel, young Danes are delaying the age at which they become qualified workers by an increasing “double dipping” within the education system. This can be seen in a number of indicators:
  - ⇒ Some 60% of students now take the optional tenth year after the end of compulsory school.
  - ⇒ After completing a general upper secondary education (Gymnasium or HF) 12% of students continue to an HHX or HTX course and another nine per cent continue to a vocational education and training course<sup>25</sup>, and those who continue to these courses delay for at least a year, on average, before starting them.
  - ⇒ The average starting age for vocational education rose by almost two years between 1993 and 1997, from a little over 20 to a little less than 22<sup>26</sup>.

- Moves to reduce the length of tertiary study through the introduction of three year Bachelors degrees in place of five year Kandidat degrees have had little success. The average age of leaving university remains high, at around 28.
- The number of youth education students enrolled in vocational education and training courses fell from 35% of the total to 32% between 1990-91 and 1995-96. Over the same period the number of new entrants to higher education rose by 13%.
- There is a significant block of skilled workers in their fifties who will soon be retiring, perhaps at an even more rapid rate than in the past due to policies that have encouraged early retirement.
- Statistics Denmark forecasts that immigrants will make up an increasing proportion of the population until 2010. But immigrants participate in the labour force at a lower rate than native Danes.

Taking all of these together, many thoughtful Danes are worrying about two possible developments. The first is that a proportionally smaller work force will, early in the next century, have to generate the wealth needed to support a growing number of retirees and young people in education. The second is that the workforce may be less appropriately qualified to do the work, as a result of falling enrolments in vocational courses and of highly skilled graduates delaying their active working lives. But at the same time as they worry about these trends, the Danes have set themselves two ambitious goals: (1) to raise the proportion of Danes who receive either an educational qualification to go on to tertiary education or a vocational qualification from close to 80% to 95%, and (2) to raise the proportion of those who complete tertiary education from 39% to 50 per cent.

We encountered discussion of a range of policy responses to these challenges. These included:

- Attempting to reverse the fall in the effective retirement age;
- Attempting to get the unemployed back to work earlier by extending the early activation requirement introduced for young people in 1996 to all unemployed, so that the time spent collecting unemployment insurance without either being in school or taking an offered job falls;
- Reforming the vocational education system to increase the supply of people with vocational qualifications; and
- Trying to reduce the time between the point at which young people leave compulsory education and the time that they finish their initial education and fully join the workforce.

In assessing these options, it is important to emphasise a point made previously: the greatest cause of the decline in the size of the work force observed during the 1990s has not been falling youth participation as the result of rising educational participation or longer transitions to work by young people. It has been the reduced participation of older workers, largely as a result of government policies designed to achieve precisely this outcome. And so it will be important for Denmark to achieve an appropriate and comparable balance in its policy response to the several challenges outlined above. Policies which seek to achieve solutions through largely focusing upon youth, rather than fundamentally addressing the primary causes of the problem, could well prove to be counter productive. In this context it should be pointed out that the Danish parliament adopted proposals for the reform of retirement rules late in Autumn 1998 aiming at making early retirement less attractive.

It will be important, in considering the above set of issues, to be aware of possible unintended consequences. Take for example the suggestion that was put to us that young people should be encouraged to undertake periods of travel *during* their studies rather than *at the end* of a stage of their studies, whether youth education or tertiary education. Experience shows that those students who take time off from study before commencing tertiary education are highly likely to change their career plans during their period away from study. This probably results in course choices that are more mature and considered. But if students were encouraged to interrupt their studies to travel, many would change their career goals as a result of the experience, change from an incomplete course to a new programme of study, and as a result increase both overall tertiary education costs and the average duration of the transition through tertiary education to work.

It is also important for policy responses to these issues not to be seen only as a government responsibility. For example the attempt to reduce the length of tertiary study through the introduction of three year Bachelors degrees has been less successful than it might largely because employer recruitment practices have not changed in face of the new qualification arrangements. Given the concern that the Danish Employers' Confederation has expressed about the long term consequences of delayed work force entry by the highly educated, there is an active role to be played by employer representatives both in encouraging their members to recognise the new qualifications when recruiting graduates, and in actively campaigning for new salary arrangements that could tilt the balance of incentives in favour of those with the shorter Bachelors qualifications. The government should engage the employers and relevant trade unions in discussions aimed at achieving these outcomes. A related move would be for the universities to shift the tuition for Masters programmes that follow Bachelors courses from a full-time to a part-time basis, and for employers to encourage Masters programmes to be taken through part-time study. Changed student incentives -- for example through more favourable loan repayment conditions for those taking the faster track -- are also worth considering.

Some of the arguments put to us about delayed transitions were not as well thought out as they could have been. Take, for example, the concern that tertiary students are delaying their entry to the work force for too long. This is very much based upon a "front end" model of work force participation, a model which, to draw an analogy with education, lifelong learning approaches are attempting to question. A front end model of work force participation assumes that young people do not start contributing to the national tax base or to national skill needs until they leave education. But it is clear that young Danes begin to participate in the labour force at a far earlier age than young people in other countries. From the age of 20, 70% or more of young people are working, and three quarters or more are in the labour market. Because of their early involvement with work as students, young Danes contribute far earlier to the national tax base than do young people in many other countries. Simply in financial terms the contribution of their labour has, we believe, been under estimated. Perhaps it has not, in fact, been estimated at all.

We believe that the real contribution of the skills of these young Danes to the functioning of the economy is very poorly understood, and should be far more thoroughly investigated<sup>27</sup>. In the case of many older tertiary students we suspect that their jobs are not the simplest form of semi-skilled labour demanded by some part-time jobs in the service sector. We suspect that many of them are in fact working quite long hours, that they could better be described as part-time students than as part-time workers, and that their jobs in many cases require substantial skill and involve real responsibility. In the burgeoning service sector that is important to Denmark's export earnings through tourism and hospitality, it is common, in other countries, for new career paths to be emerging, such that the relatively menial jobs performed by 16 and 17 year olds are an essential first step to supervisory and managerial positions. In these same industries flexible approaches to the organisation of work mean that these supervisory and managerial jobs can often be performed effectively on a part-time basis, and thus by older students with relevant experience, who in turn manage teams of younger part-time workers.

We were repeatedly told of the concerns of policy makers, both inside government and outside of it, that too few young people are choosing vocational education and training courses. On a number of grounds we were quite sceptical about these concerns. In the first place, the real decline is quite small. The total number of vocational education students fell by less than two per cent between 1990-91 and 1995-96. This is far less than the decline in enrolments in some vocational pathways observed in other countries taking part in the Thematic Review. And the fall does not appear to have been accompanied by any of the standard indicators of skill shortages on any large scale, even though we were told of some shortages in particular regions. What is more, the decline, small though it is, has been occurring at a time when the occupational and industry composition of the labour force has been changing, and at a time when, as a consequence, the nature of the skills demanded by the labour force has been changing. In a knowledge based economy in which the service sector accounts for the greatest proportion of jobs, it is normal to see a rising demand for higher and deeper skill levels as well as for those with tertiary qualifications. More fundamentally, these economies demand workers with effective combinations of general, interpersonal and vocational skills, workers who have at the one time sound conceptual skills, a broad general education, and the specific skills demanded by a particular job at a particular time.

Many of the participation trends that we observe in Denmark can be seen less as worrying trends likely to result in skill shortages, than as rational responses by young people who are effectively reading the signals about new skill requirements being given by a changing labour market. The trends can be regarded as creative solutions by young people to changing demands for skill mixes which the existing structure of the education and training system is finding it hard to provide. It seemed to us that the Danish education and training system has not been flexible enough to create combinations of general and vocational education within a single qualification that can be taken within a relatively shorter period. And so young people have been forced to add one qualification on to another. Much of the “double dipping” that occurs within youth education -- for example young people taking a vocational education course after the Gymnasium or HHX/HTX -- can be seen in this light. Such combinations mean that young people exit from the education system with precisely the combinations of general and vocational education that employers are increasingly demanding. (The reader will recall that whilst the HHX and HTX courses are considered by the Danes to be part of vocational upper secondary education rather than general education, it seemed to us that from at least some perspectives one could usefully view them in both lights. We find it not surprising, from this perspective, that a relatively small two per cent decline in enrolments in vocational education programmes has been accompanied by a 45 per cent growth in HHX and HTX enrolments over the same period. Indeed the absolute growth in HHX and HTX enrolments between 1990-91 and 1995-96 of around 34,000 has occurred in the face of a decline not only in vocational course enrolments, but also in the face of a decline in other general education programme enrolments. It is also highly significant that the proportion of the youth cohort emerging from upper secondary education qualified both for a job and for tertiary study almost doubled between the early 1980s and the mid 1990s -- from eight per cent of the total to 15 per cent.)

In other countries taking part in the review -- Austria is a key example -- young people have been able since 1947 to take single programmes that qualify them both for work and for tertiary study. Although one year longer than the standard upper secondary courses that prepare for tertiary education, these are nevertheless significantly shorter than the sum of a Gymnasium programme and a standard vocational programme such as an apprenticeship, and they have proven to be highly popular with young people. Creating such “double qualifying” pathways is as an important challenge for Danish education, both to reduce the length and cost of the transition period, and to meet both student demand and the future needs of Denmark’s economy.

Much of the discussion on the length of the transition process that we encountered in Denmark concentrated upon tertiary education. It seemed to us that reducing the period between the end of compulsory education and the beginning of tertiary study should be at least as much of a focus when considering how to reduce the length and cost of the transition period. The creation of single qualifications

that combine general and vocational education, and so reduce the incidence of “double dipping”, is one way in which the length and cost of Denmark’s transition arrangements could be reduced. So too are steps to reduce the proportion of young people who take the optional tenth year in the Folkeskole without evident educational value. We address what some of these options might be in Section 6, including notions of an entitlement to post compulsory education similar to that which Norway has recently introduced, and related limitations on the duration of student support to parallel those already existing in tertiary education in Denmark.

One way to put into perspective various options for reducing the length of the transition is to look at how much existing patterns of young Danes’ choices add to the average duration of the transition from education to work:

- The fact that 60 per cent of young Danes take the optional tenth year in the Folkeskole adds 7.2 months to the average length of the transition.
- Another 7.6 months is added to the average duration of the transition by 21 per cent of youth education students doing a second upper secondary course (assuming that all do a second course of three years duration).
- The 13 per cent of 20-24 year olds who have dropped out of both education and the labour market adds 7.8 months to the duration of the transition.
- A third of tertiary students taking a two year Masters programme after a three year Bachelors course, rather than exiting from education after the Bachelors degree, adds roughly 2.5 months to the average duration of the transition.

So tackling different parts of the system will have different effects upon the amount of time that young Danes take, on average, to move from education to work. The length of this period is due to a lot of factors, including:

- Young peoples’ attitudes and values;
- The strength of the Danish economy and the skill demands that arise from an increasingly knowledge-based economy;
- The wide options that the Danish education system provides young people with;
- Policies that encourage extended educational participation;
- Employer recruitment patterns; and
- Incentives linked to student income support arrangements.

However it is not always clear which of these also add value to the young person and the economy, or which simply add to costs without adding value. It will be important, as Danish debate on these issues develops, to ensure that reducing the length of the transition period, or reducing its cost, do not become goals whose pursuit occurs at the expense of the value that longer transitions add to young Danes and to the national economy. We return to these issues in Section 5.

## **5. WHAT OTHER OECD COUNTRIES CAN LEARN FROM THE DANES: SOME ISSUES AND SOME ANSWERS**

### ***5.1 How the right kind of involvement of the social partners in the qualification system and the institutional structure can produce a very high quality vocational education system***

Perhaps it is the happy result of certain accidents of history, but the Danes appear to have evolved a structure for vocational and technical education that has much to recommend. In part, this is a story about a particular way to involve the social partners, in part about the way their qualifications system works and in part a story about institutional design.

We will start by reminding the reader that the Denmark's apprenticeship system for educating and training skilled workers evolved not from their schools and colleges but from the artisans' guilds. That was a system owned not by government or educators, but rather by independent business people who were also skilled workers. In effect, the secret of success of the Danish apprenticeship system rests on the fact that, despite all the changes that have taken place since the middle ages, it is still in the hands of the business people and the skilled workers. Here is how it works.

It begins with the setting of standards for some 90 occupations and groups of occupations. For a long time, the number was about 300, but, a few years ago, at the behest of government it was cut back by about 75%. Not all the former occupations disappeared; some are listed now as specialities clustered behind one of the 90.

Training regulations are developed for each of the 90 occupations or groups of occupations by a committee composed equally of representatives of management and labour, under the general supervision of the Ministry of Education. These regulations are fairly brief, but they describe what the people who do this sort of work must know and be able to do, how long the preparation period must be, the programme of study that must be offered to prepare such a person, and the things that the examiner must examine and the criteria the examiners must use when determining whether the person who has completed the programme of study meets the standard required to be called a journeyman.

To enrol in a programme designed to prepare a young person for these examinations, as we said before, a young person must either get a contract with an employer and then sign up with a business or technical college or sign up with the college and then get an employer.

The college board of directors must by law consist of a majority made up of representatives of management and labour from local enterprises. Each apprenticeship programme offered by the college must have what amounts to a policy committee, a majority of whom are also representatives of management and labour. That group is empowered to decide on the shape of the programme and the nature of the training. It will also take responsibility for producing enough training places for the students who enrol in that programme.

The local training committee for the programme, also made up of the relevant representatives of management and labour, takes responsibility for reviewing the applications of firms to offer apprenticeship training, to see whether that firm is capable of offering a programme to the student that will enable the student to reach all of the standards in the training regulation. They will either deny the authority to the firm to offer a programme if they find deficiencies, or require the employer to make arrangements with another employer to offer those parts of the required programme that they cannot themselves offer. As we have seen above, the local training committee can also terminate the authority of

a firm to offer an apprenticeship programme if it believes that the firm can no longer offer a programme that will get its apprentices to the standards.

When the student has completed the programme, he or she is examined by a team typically consisting of a teacher, one representative of management, and one representative of labour. All of the reviewers are expected to be experts in their field and to use the regulations as the basis of their assessments of the candidate's competence.

Local training boards and their representatives on the occupational programme committees are given quite a lot of latitude in interpreting the national skill standards, as described in the regulations. Nevertheless, it not infrequently happens that a local committee will find that the regulations have not kept up with changes in the state of the art. Because competitiveness increasingly depends on operating right on the cutting edge of such changes, Danish law provides that the local committee can go the rector of the local college with a request for exemption from the training regulations or a request that the national boards change the regulations. The rector must forward such requests to the government and the government must act on them promptly.

This design has some notable features. First, and most important, because the social partners develop the standards, govern the institutions offering the programmes as well as the programmes themselves, determine what firms are allowed to offer training places and, finally, determine who is allowed to become a journeyman, they feel that they own the whole programme. Which they do. And because they do, they continue to offer training places, when other nations are struggling to do so<sup>28</sup>. They use the skill standards because they wrote them. They hire the products of the system -- the new journeymen and women -- because they have examined them themselves against the standards they wrote and they have found out for themselves that these young people met those standards. Because they are not advisors to the colleges but actually have direct responsibility for governing them and their programmes, senior people put in the time needed to make sure that the programmes are relevant and meet their needs, and owners of enterprises actually endow many of them with resources over and above what the government provides. In this way, they are able to get the expensive, up to date equipment that they need and to attract the staff that keeps them on the cutting edge.

What it comes down to is that employers and labour are not window dressing advisors to this system. They run it in all of its important aspects, and, because they do, they are heavily invested in its success. Any country that is looking for ways to get enterprises more effectively involved in vocational education would do well to consider some variant of the Danish system.

There is a corollary point that has to do with the way the occupational skills standards system is run. The reason that a nation ought to want an occupational qualifications systems is the efficiency with which it can send the right signals to all the relevant actors as to what skills and knowledge are demanded by the labour market and whether an individual actually possesses those skills and that knowledge. The danger in any formal qualifications system is its inherent conservatism. The path of least resistance for any national standard setting body is to freeze in place the way most enterprises currently organise work and define jobs. The reason that is dangerous is that it will make it harder for competitive and forward-looking enterprises to organise work in ways likely to take advantage of the latest technologies and the most advanced forms of work organisation.

The second respect in which formal qualifications systems turn out to be inherently conservative is that it typically takes many years to change national standards once they are set. Thus they are almost always behind the curve of best practice, slowing down the enterprises on which a national economy most relies for national competitiveness.

Denmark appears to have solved both of these problems. We will take them in reverse order. Rather than waiting for years to review qualifications that have appeared as training orders from the Ministry, the Danes have encouraged the local training committees to go to the rector of the business or technical college when they believe that the pertinent regulation is unduly constraining, because it does not take account of some advance in the state of the art. The committee can request permission to conduct an experiment in which it proceeds in a way not authorised by the training order, or it may suggest that the relevant national committee review the situation and actually change the training order. The rector must forward this recommendation or request to the ministry, which is required to act on it, one way or another, in a timely way. In this way, the Danes keep authorising experiments and changing their regulations continuously, in response to changing conditions in the field, rather than freezing their standards in concrete for years at a time.

But what about the problem of average practice driving out the best practice, when the standards are framed? At the national level, the standards typically do reflect the needs of firms of all sizes and types, and therefore average practice. But, at the local level, the boards tend to be dominated by the largest and most advanced firms. The result is that the programmes at the colleges tend to reflect, on balance, the needs of the firms using the most state of the art technology and work organisation. It is the programmes, of course, that determine the training actually received by the students in the classwork part of the apprenticeship programme. Thus the conservative element in the standards is roughly balanced by the content of the training. This would not work if the standards embodied in the training orders was highly detailed and the enforcement of them rigid. But, in typically Danish style, neither of these things is true. The training orders are mercifully brief and general and a lot of latitude is given the local level in their interpretation.

Put it all together and the system is very sensitive to advancing technology and work organisation, flexible in its administration, succeeds in fully engaging the resources and attention of all kinds of enterprises and results in a highly trained and very competitive group of skilled workers.

If there is a downside to this system, it is its complexity and the amount of effort that goes in to its maintenance. The Danes have clearly concluded that it is worth it, and we are inclined to agree.

We have one modest suggestion for improvement in this system. When “adults” take part in programmes offered by the AMUs, the standards are set by the social partners under the aegis of the Ministry of Labour. When “youth” (bearing in mind that the distinction in Denmark is not always as obvious as it seems) take part in programmes offered in the technical and commercial colleges that are preparing them for the same occupations, the standards are set by the social partners under the aegis of the Ministry of Education. Perhaps it would make sense for the two Ministries to collaborate on the setting of all the standards. The trade committees are directed at the same occupations, and often the same people from labour and the employers are involved in setting standards for the same or similar trades or occupations at different levels. We believe that considerable efficiencies could be achieved in this way and smoother integration between the activities of the two Ministries might also result, as well as clearer, more cumulative learning and qualification pathways.

As the process of collaboration proceeds, we also wonder whether it might make sense to consider adapting the modular structure of the AMU system for use in the vocational education system. This might make it easier for students in youth education to combine programmes and for everyone to take only the modules they need to reach their objective. We understand the danger in modularising to the point that the resulting qualifications might not mean very much, but we assume that the social partners will be vigilant about this, and, in any case, it is the trade committees that would be in charge of the process and set the rules about how modules must be put together in order for a qualification to be granted. The fact that these same trade committees have produced the modular system for the AMUs suggests that they would be

amenable to doing the same for the youth education system. We can envisage a gradual merging of the two systems into one continuum.

## **5.2 *Tackling the problem of parity of esteem: Some big steps in the right direction***

In virtually all industrial nations, an academic education leading to a university degree carries more prestige than any form of vocational education that does not carry a university degree. As more and more people in the society get the equivalent of a first university or college degree, the prestige of the vocational option declines ever further and the children of the new and expanding middle class shun any form of vocational education. This process can produce a surplus of people with Bachelor's degrees or their equivalent, and a corresponding shortage of people with the qualifications needed to fill a very wide range of skilled and semiskilled jobs requiring various degrees of technical skill and knowledge. governments almost everywhere are increasingly concerned about this. They wonder how they can somehow produce parity of esteem for those who hold vocational qualifications, that is, how they can get the society to hold those graduates in the same esteem as they hold those with academic qualifications.

Try as one might, it cannot be done by fiat, except to the extent that tertiary\_institutions are forced by law to admit students with vocational qualifications to programmes that the tertiary institutions have long closed to such people.

One way that the Danes have approached this problem, although some might be surprised to see it described as such, is to create the HTX and HHX programmes, each leading to an examination which is accepted by the universities in Denmark and the other tertiary institutions as being the full equivalent of the traditional Studentereksamen usually earned after three years in the traditional Gymnasium. These examinations, however, are taken not after study in a traditional Gymnasium, but in the vocational colleges. All the usual subjects are taught in these programmes, as we have explained, but with a pedagogy that is highly applied, project-based and experiential, using the workshops in the vocational college.

Looked at one way, the technical and business colleges are part of the upper secondary system of preparation for tertiary education. Looked at from another vantage point, they are an integral part of the vocational education system. This ambiguity obviously has its uses. Not the least of these is the observation that it has provided Denmark a way to at least partly avoid a problem plaguing many other countries -- the low status of vocational education in relation to the academic education given to students bound for tertiary education. That is accomplished by providing an education that has some of the features of the best vocational education, in a vocational institution, but set to an examination used to determine admission to the universities and other tertiary institutions, and regarded by those institutions as every bit the equivalent in academic rigor. No fiat has been used to accomplish this.

But the Danes, however far ahead they may be on this point, may not be quite there yet. While the HTX and the HHX certainly do open a pathway to the university and other tertiary programmes, they do not lead to a recognised occupational qualification, in contrast to the Austrian "double qualifying pathways" which confer both the academic qualification and the occupational qualification. Nor are they the same as the Norwegian vocational programmes, which confer eligibility for tertiary entry after six months of general education taken after a vocational qualification has been met. We do not know the extent to which this is a real problem. It may be that employers are offering direct employment to those who have taken the HTX and HHX in large numbers, despite their lack of any formal vocational qualification. If that is so, the ambiguity of the status of the people who go through these programmes and take these exams will be nearly perfect in its accomplishments. If that is not the case, the Danes may want to consider borrowing some of the features of the Austrian or Norwegian systems just described. In any case, they have created a form of education which, in its relation to the examination system and to tertiary education, appears to

embrace a form of vocational education that has earned true parity of esteem. At the same time, the Danes appear to have developed a kind of general upper secondary education of a more practical and problem-oriented character than the traditional Gymnasium.

### ***5.3 Investing in young people for the new economy : A look at future trade-offs in the advanced industrial nations***

We reported earlier that government, and others, are concerned about the time that young people, particularly the more highly educated, take before they go to work in earnest. We also reported that more and more people are retiring early, with the result that there will be more people earning retirement benefits and fewer people in the workforce to pay for them, that there are worries about a projected shortage of skilled labour, and about a growing proportion of immigrants in the population with lower labour force participation rates than native Danes. It all seems, to some, to add up to a compelling need to shorten up the transition between initial education and work life as much as possible.

Well, maybe. We were not, in fact, convinced, in part because students who do not enter tertiary education go into the regular labour force long before the late 20s that is more typical of graduates (who are, after all, only a minority of the population), and many who are in tertiary education appear to have jobs in which their contribution to the economy is substantial. In the next section of this report, where we are talking to the Danes about our suggestions for improvements that might be made to their system, we do suggest a couple of ways to tighten up the transition time in ways that will have, we think, more advantages than disadvantages.

But here, in this section, we want to use the Danish example to raise some issues triggered by this debate in Denmark, because we think that the implications go way beyond Denmark.

At the beginning of this report, we painted a picture of the Danish young people we met, and explained why we thought that their independence, willingness to take responsibility for themselves and others, broad fund of knowledge, self assurance and ability to take on new problems and challenges made them an invaluable asset to themselves and to their country at a time when these are the very skills and habits that employers the world over are most looking for.

The question is, how did these young Danes acquire these characteristics? No doubt, part of the answer lies in the schools they went to and the courses they took. But that is not the whole answer.

Consider travel. From Nepal to Nairobi to Sydney Harbour, tap a young traveller with a rucksack on his or her back and it is more likely than not that a Dane will turn around to greet you. "Why do you travel so much?" we asked. "Because," they said, "to travel is to live." They said that was their motto. Now consider what it means to spend a year or so going from one youth hostel to another in the (mostly) poor countries of the world, far from home, the family dentist and doctor, the local bank and all the familiar ways of getting even the most humble tasks accomplished. A bit like setting out in a small sailing vessel with only shaky compass and a rather undependable chart four hundred years ago. You are very much on your own. Whatever goes wrong you must fix yourself. The rules are always changing and you must abide by their rules and not your own. The unfamiliar is the only constant.

Is there a better school than that to build self-reliance, facility with foreign languages, an enterprising spirit, the willingness to take responsibility for one's own actions, the habit of resourcefulness, or the ability and confidence to face the unforeseen? We have not heard of it.

Denmark, as we have said, must sell to other nations to survive. It is likely to be easier to succeed at that if you have the habit of relating to people who come from different cultures than your own and who do not

necessarily share your values. You can learn about these things from books, but it is far, far better, in this case as in many others, to learn how to do this by doing it, getting into the habit of it, and enjoying it. Those young Danes who have travelled abroad can talk to you about other people and cultures from personal experience. They understand them in a way that cannot simply be done by reading alone. How much is this worth to a country that relies on exports for a growing share of its gross national product<sup>29</sup>?

Foreign travel is not the only issue here. Some people in government in Denmark wonder whether the government should be paying for young people to get “double” qualifications. An example of a double qualification is a student who, after taking the Studentereksamen, goes on to get a vocational qualification. Or the student who begins with a vocational qualification and then goes on to take the HHX course. These are both regarded as lateral moves in the Danish educational system, rather than straight ahead moves.

But as we suggested in Section 4, consider what they do for the Danish economy. Students end up with a broad academic foundation and a solid grounding in a trade or craft. The reality of the Danish economy is that individuals will find themselves more immediately employable with a recognised vocational qualification, and will have better long term prospects with a broad education. It is almost certainly the case that much the same is true for the economy as a whole. The economy and the people who depend on it are better off to the degree that it possesses a work force that has the flexibility that a broad education and training provides, as well as the specific kinds of high competence that strong technical skills in particular occupations or groups of occupations provide.

In part, the issue, of course, is how the costs of gaining these advantages compare to the costs of gaining other, competing advantages.

And here is where the conversation begins to get interesting. The Danes are in a bind partly because older people want to retire earlier, and want to do so knowing that they will be entitled to a generous retirement package. Who has the higher claim to the available resources -- the student who wants to take a double qualification and do some travelling before really joining the workforce, or the older person who would like to retire? We cannot answer this question, but we would like to point out that the benefits of investing in the young people do not accrue to them alone. To the extent that they use the extra time to produce skills, knowledge and attitudes that will make them more effective when they do join the labour force, the benefits accrue to everyone in Danish society.

Some government officials in Denmark suggested that a trade might be worked out, to the effect that the government would change the incentives so as to get young people into the labour market earlier, in exchange for making it easier and cheaper for adult workers to go back and get more education later on. Another option could be to trade travel before starting tertiary study for travel during it or after it. Perhaps these could work, but we think that each could also involve a price to be paid. We hinted at one of these in Section 4 -- young people who take time off during their studies are far more likely to change courses mid stream than are those who get the travel bug out of their systems before they start tertiary study. And as young people get married and have families, and as their careers start to develop, they would inevitably be less willing or able to take a year off to travel about the globe. If we are right, and these preferences of young people turn out to be among the secret weapons of the Danish economy, then more might have been lost than gained by putting them to work earlier.

To some extent, these choices may be unnecessary. We pointed out earlier that the Danes force those young people who want both an academic and a vocational qualification to get both in sequence, whereas other nations have developed pathways that enable their young people to combine these programmes in much more efficient ways. Surely, as we suggested in Section 4, the Danes should consider designing such pathways before they join the battle of the old versus the young for the nation's resources.

These are issues for all advanced societies, not just Denmark. Many nations have actually formally set as a goal for themselves the internationalisation of their curricula. Many of those same governments have set for themselves the goal of developing in their students the kind of “thinking out of the box” and creativity skills that the processes that we have just been describing seem to produce. Governments in the developed nations will have to weigh the claims of these expenditures against the claims of the growing number of older people in their societies. We think that the Danish experience illuminates both the costs and the benefits of those choices. The Danish experience is also interesting in the context of debates on lifelong learning. Should lifelong learning imply that learning is spread over the life span in different ways under different financing arrangements? If it does, it implies something about the ways that work, also, is spread over the life span, and here young Danes seem to be experimenting with new ways of combining work and learning, at least in the earlier parts of their lives, during the transition years. Or should lifelong learning imply not only different arrangements of working and learning throughout the life span but also a wider access to extended learning by a growing proportion of the population? If it does, then it will inevitably involve more extended periods of education for all.

#### **5.4      *The safety net and the problem of the last 15 per cent***

The Danes go to great lengths to make sure that no one is left behind. As many other OECD countries also focus on the problem of the last 15% -- those young people who exit from the education system without having obtained a recognised qualification -- we thought it would be important to share the way the Danes attend to this problem.

First, we should be clear who it is we are speaking of here. It is not the physically handicapped or those with severely mental incapacities. Denmark has programmes for such people that are much like the programmes of other nations and take care of about the same proportion of people in this category as many other OECD countries do.

The young people we are speaking of here are people who may or may not be dyslexic, who may have the comparable sort of problem in mathematics, who simply cannot abide the social organisation of the regular school, who want to work with their hands and will not or cannot learn from books. They may be bright but are more likely to be slow. They are almost certainly bored or frustrated to tears by the usual schools organised in the usual way. Many live in family circumstances that have caused great stress. Quite a few of these young people have given up on themselves and grown dispirited and resentful. Some are just confused. Still others just wish the world would let them alone while they play their guitar and jam with their friends. They are almost always those who have left school without having obtained a qualification either for work or for tertiary study. Given the emphasis which the Danish labour market places upon everyone having an occupational qualification, this places them at a severe disadvantage in competing for quality jobs, and as a result many of them end up as unemployed. Very few are making a very smooth transition from initial education to working life.

In one sense the Danish approach to the problems of these young people can be described quite simply: they work very hard to make sure that no one drops out of education; and if young people do drop out, the Danes search aggressively for those who have fallen through the cracks and attempt to reinsert them into learning as soon as possible.

To keep the number of drop outs to a minimum, the Danes have provided a myriad of alternatives for young people who do not seem to fit into the regular system. These alternatives are provided both within compulsory schooling and within youth education. They combine different sorts of programmes and different sorts of institutions. The system tries to attract and retain all young people, no matter what their interests, motivation and talents. And personal, educational and career guidance are widely available at all points within the system, to try to make sure that young people do not drop out without their problems

being detected and addressed in a way suited to their particular circumstances. All of this can increase the cost and complexity of the system of course, but this is a choice that Denmark makes in weighing up the benefits.

For students of compulsory school age, there are two alternatives. The first are the continuation schools, boarding schools mainly for youth who are in difficulty with their families, who want some speciality offered by the continuation school that is not offered in the Folkeskole, or who want a particular religious, political or special education programme not offered by the public schools. The continuation schools are privately governed, and subsidised by the State.

The second alternative is the Municipal Youth School. The municipalities are required by law to operate schools for 14 to 18 year old youth that both supplement and serve as an alternative to the regular school programme. These schools, operated in the afternoon and evening, offer both leisure time courses (eg, in photography, ceramics, electronics) and courses intended to help students who are falling behind in their required Folkeskole courses. They also offer language programmes in Danish for young immigrants. Young people who do not fit in at the Folkeskole can get a complete Folkeskole education at the Municipal Youth School. While these students are held to the same final standards, they are free from many of the regulations determining the specific shape and organisation of the regular Folkeskole programme. Around 60 per cent of 14-18 year-old Danes attend Youth School activities each year.

For students who are between 16 and 25 years old and who have slipped outside the regular upper secondary education and vocational education programmes, there are many other possibilities. The principal ones are the Vocational Basic Training Programme (EGU) which was introduced in 1993, Open Youth Education (FUU), which was introduced in 1995, and Production Schools, which have been part of Denmark's education system since the late 1970s. These three options were described in Section 3.3 above, and we will discuss Production Schools in more detail below. A further option is available to unemployed 18-25 year-olds through the AMU Centres, which offer flexibly constructed 18 month courses which include training periods in an enterprise to help individuals to improve their chances of entering employment or further study as well as to improve their personal competencies.

It is important to bear in mind that these safety net programmes do not confer a recognised vocational qualification. Because most of the good jobs in the Danish economy are reserved for people who do have a vocational qualification or have completed some form of tertiary education, the significance of these programmes is mainly that most are a means of giving young people the basic skills and confidence in themselves needed to pursue more education and training, and to get them back into the mainstream of learning.

In addition to trying to keep the number of who leave youth education before they obtain a qualification to a minimum, every effort is made to reach those who have fallen through the cracks and to give them another chance to obtain a qualification either for work or for tertiary study. They are actively encouraged to return to education through a combination of carrots and sticks. The system works something like this. Each municipality is legally obliged to follow up all young people under the age of 20 (and in some areas this is voluntarily extended to those under the age of 25) who drop out of education without obtaining a qualification. The municipal follow up or youth guidance service knows who to contact as schools are legally obliged to notify them of such drop outs. If, on being contacted, the young person is found not to be in education, and to be unemployed or not in secure work<sup>30</sup> they are called in for a personal interview and, in association with an adviser or mentor from the guidance service, they are required to develop a personal action plan that involves work, education and training, and whose goal is to reinsert them into mainstream education as soon as possible so that they can gain a qualification. They must have at least two interviews a year to check their progress in achieving the plan. Young people who are under the age of 18 are not entitled to any form of income support unless they are involved in education and training, and those aged 18 and over will only receive income support if they are actively engaged in attempting to

fulfil the plans developed in cooperation with the youth guidance service. If young people refuse the assistance of the youth guidance service, they are reported to the municipality (which also administers the social security system) and their eligibility for income support will be affected.

The youth guidance service can offer the young person a wide range of education and training programmes to choose from, depending upon their circumstances, interests and talents. These could include regular schooling on a part-time basis in association with part-time work, basic education programmes offered by the VUC, EGU or FUU courses, or participation in a Production School for a period. If the young person is under the age of 18, the local labour office does not become involved at all, as the sole aim is to reinsert the young person into education.

And finally, as outlined above, for those under the age of 25 who do become unemployed, the period for which they can receive unemployment assistance without being required to be interviewed by a counsellor and accept offers of education, training or employment is considerably briefer than for unemployed adults.

Our point in this subsection is not to endorse any particular programme or programmes (in fact, we found some of the alternatives just described a little confusing and wondered whether they might be consolidated in some useful way), but rather to point to the effort the Danes have gone to on behalf of young people who, in many other countries, would simply disappear from sight, only to reappear on the welfare roles or the police blotters.

The time from 14 to 25 is particularly vulnerable. The idea that the municipalities are required by law to determine the status of people under the age of 20 who have dropped out of education without a qualification and to go and find those who are neither employed nor in education or training, and that in some cases this system is voluntarily extended to those under the age of 25, is impressive. The range of placements for such young people in the regular and the alternative systems of provision is also impressive. Over the last few years, the proportion of young Danes in youth education and entering tertiary education has been steadily rising, and the measures we just described certainly deserve some of the credit for that.

Perhaps one of the reasons for their success is that in Denmark, unlike many other countries, the programmes are heavily resourced and many are used by students who are not failing, but who find in them an attractive alternative to the conventional system. The fact that they are for everyone, rather than only the failures, may create the circumstances that make them successful for those who would otherwise fail.

The Danish safety net measures are associated with some impressive outcomes:

- Educational participation is high among those who do not have to be in education;
- Unemployment has virtually ceased to exist for those under the age of 18;
- Very few young Danes move directly from school to unemployment; and
- Those young Danes who do become unemployed do not stay unemployed for long.

These impressive achievements clearly come at a price. Giving a lot of attention to those young people who have the greatest difficulty in the transition to work is not cheap. One-to-one attention, small case loads and low student teacher ratios are expensive. The number of options that face a young person at the end of compulsory schooling can seem complex and confusing. Different authorities have jurisdiction over the programmes and over the institutions that provide them: the State, the Counties, the Municipalities; education authorities, the social security system and labour market authorities. At times it

appears to be the authority that controls an institution or a programme that determines where the young person ends up (for example a Production School or an EGU programme rather than an AMU centre), rather than necessarily the young person's needs, and this seems to apply somewhat more in the case of 20-24 year-olds than in the case of those under the age of 20. However to the extent that it does work, it is because the Danes are willing not only to pay the price required to provide individualised attention to those most in need of help, but also to leave many decisions to those at the local level who have the best knowledge of local circumstances and needs. The effectiveness of these local arrangements is greatly assisted by the fact that the one level of government -- the municipalities-- plays a key role both in the social security and welfare system and in the education system, and that it is the most decentralised level of government.

### **5.5      *The Production School***

Denmark's 109 Production Schools were briefly described in Section 3.3. Starting as an experimental programme funded as an EC initiative in the late 1970s, they are now a permanent part of the youth education system, with their own legislation as the result of a 1984 White Paper which defined their specific profile<sup>31</sup>. Because of their success in Denmark they have been imitated in a number of other European countries. Box 1 describes a Production School visited by the review team -- the most exciting institution that we saw in Denmark.

Production Schools are flexible open-entry, open-exit institutions for those under the age of 25 who do not have formal qualifications, whether or not they are unemployed<sup>32</sup>, and they have an annual turnover of around 12,000 students who spend an average of four months each at a school. Most of those who attend do so after trying some other youth education programme first, but some move directly to the Production School from the Folkeskole. The schools are open for 48 weeks of the year, employ staff from a wide range of backgrounds, including many who are not qualified as teachers but all of whom are on a common salary scale, and organise students' learning individually rather than requiring them to fit into a standard timetable. They are established as private foundations with an independent board. Their student-teacher ratio is low -- around five to one. Their organisation and administration thus differs sharply from that of a standard school.

Production Schools see themselves as half way houses, there to remotivate young people whose experience has been of failure rather than success, and to get them to return to mainstream education to obtain a qualification. Their purposes are as much social and cultural as educational and employment related.

All of students' learning takes place through projects that are worked out individually between the student and a counsellor. Learning is customised to the students' needs. Guidance and counselling are integral parts of the learning and personal development process. Students can work on projects individually, but mostly they work in teams. The projects are always practical, designed to do something that matters, either by contributing to the community that the school is in, or by contributing to the running of the school itself. Learning is by doing. Theory is taught in association with practice, on demand. General education is combined with social and cultural activities. The schools' legislation requires them to use the production of real goods and services as their teaching method, but to do so in a way that avoids unfair competition with businesses in the community. Communities are heavily involved in the schools. Employers, trade unions, the municipality and community members are on school boards, and community groups make a lot of use of the schools' facilities. The staff of the schools maintain close individual relationships with local businesses and community groups.

On a recent national estimate<sup>33</sup>, of those who attend a Production School:

- 60 per cent continue on to further education or to a job;
- 10 per cent continue on to other projects such as labour market programmes;

### **Box 1 Korsør Production School**

Even though Production Schools are at the bottom of Denmark's educational status ladder -- few parents actually want their children to attend one -- Korsør Production School doesn't feel like the schools for this client group that are often found in other countries. Instead of an under funded institution with peeling paint, discouraged staff and students reluctant to look us in the eye, we found bright and cheery rooms and workshops, full of well designed furniture and fittings, painted and decorated in very good taste. Almost all of the refurbishing work that had created the school's physical infrastructure from buildings recycled from other purposes had been done by the students.

All of the students' work was of an impressively high standard. Rather than students making tacky lamps out wood that would wind up immediately in the attic, some awkward object made of bent sheet metal, and students sitting at terminals filling in data tables from some forms that someone else had created, in the wood shop we found that students had rebuilt, made seaworthy and were sailing a hundred year old 75 foot sloop. In the metal shop students had built to precise standards a stainless steel frame for a portable church that had been ordered by the local Catholic Diocese, from a design created by a well known Danish architect. It had been completed in time for a very public opening ceremony by the Diocese's bishop. In the computer lab we found a couple of young men writing C++ computer programmes and a young woman, only two weeks at the school, designing a Web site for a local community organisation. Each of these pieces of work was for a purpose, for an organisation outside of the school, and tendered for at commercial rates. It had to be at market rates, because local entrepreneurs complain about being undercut if it is not.

The stairwell of one of the school's buildings was being repainted when we visited. The colour scheme had been designed and the work costed, planned and carried out under the direction of one of the students. Lunch was prepared and served by the students to restaurant standards. It was accompanied by music performed by students in the contemporary music programme who we had earlier heard rehearsing for a public performance. The words of the song were projected onto the walls of the lunch room on overhead transparencies in English prepared by students. New students were introduced by the Principal. Those leaving were farewelled. (Because one can begin at almost any time and complete a programme at almost any time, people are arriving and leaving constantly). The mood was upbeat and positive, the atmosphere family. The youngsters were proud of what they were accomplishing, of the skills they had mastered, of the contribution they were making to their community and their school. They know that the products and services will really be used and that someone out there expects value for money.

We saw a lot of academic education at Korsør, but few classes. The mathematics, English, and Danish are worked into the students' projects. All of the learning is in projects. All of the projects are ones that students have decided they want to do. They are worked out between the student and a counsellor on arrival. These individual learning plans are treated very seriously and are regularly reviewed and changed if need be. All of the adults who work at the school teach. Even the person who looks after the school's office supervises students. If you ring the school the odds are that it will be a student who answers the phone.

Students are treated as if they are responsible, and are expected to be. The conversations we had with these young people made it clear that most of them, for a variety of reasons, had given up on themselves before they arrived. Some had been referred by the municipality or their parents. Others had referred themselves. Most did not expect to find anything there. They did, though. All but one that we talked to had found hope. Most had discovered that they could do something that was not easy, something that would earn the respect of others and their own self-respect, something that people would pay good money for, or, for the musicians, something that people would travel to come and hear. They found a place where they were genuinely valued for themselves. And it worked.

About five per cent of the Korsør Municipality's 16-25 year-olds attend the school each year.

- 15 per cent move on to other types of activities such as military service, travel abroad or child rearing; and
- 15 per cent remain unemployed.

The low student-teacher ratio makes Production Schools appear expensive. But the costs need to be seen in relation to the outcomes. And they save in other ways, for example by not having the specialist administrative and counselling staff that standard vocational schools have. It is also not clear how far the principles that define them can be transferred into standard educational institutions. They appear to be free of many rules and regulations that apply to most of the other institutions we visited, and that freedom is essential to their success.

It is unlikely that the various interest groups involved would encourage or permit this freedom in mainstream institutions. The lack of a formal timetable; a curriculum or teaching programme that is largely student initiated and highly responsive to the local community and labour market; teachers who do not necessarily have teaching qualifications -- all of these are possible because of the special circumstances that the Production Schools operate under. They are possible because of the very flexibility of the Danish education system that does not seek universal solutions, intended to apply to all young people no matter what their personal circumstances and needs. They can work in Production Schools precisely because they are a staging post back into the mainstream, rather than a competing alternative to the mainstream.

## **5.6 Curriculum and pedagogy for the post-industrial age**

Almost every where we went in Denmark, we heard from the professional education and training community a common refrain: What we are trying to do is move from a system dominated by teaching to a system characterised by learning, from a system in which the teacher is taking the main responsibility for getting the student educated to one in which the student is assuming primary responsibility for his or her own learning, from a pedagogy grounded first and foremost in the structure of the discipline to one that starts with a real-world problem or project with real substance that is of interest to the student and then works back to the discipline. Add to this a commitment to blend what some countries call core skills, key qualifications or key competencies into the curriculum and you have a profound shift in the centre of gravity of curriculum and pedagogy.

There are code words and phrases for these ideas now, around the world -- active learning, student-as-worker, constructivism, project-based curriculum, key skills and so on. These ideas are hardly unique to Denmark. But it is rare to see such widespread agreement on their primacy or such interest in their implementation at every level of the system. It is also rare to find impressive examples, such as that given in Box 2, of moves towards this new pedagogy in such diverse types of institutions: those for the students with the greatest difficulties as well as in vocational schools and universities. The Folkeskole require project work to be integrated into the last years, and students' final examination assessment includes a project component.

## Box 2 Aalborg University<sup>1</sup>

Aalborg University, with around 11,000 students, was established in 1974 from the merger of a number of institutions providing medium cycle education. Its three faculties span the humanities, social sciences, public and business administration, social work, natural sciences and engineering. Since it was founded it has used project based and problem centred learning -- for all students and at all levels -- as the heart of its education. At the beginning of their courses all students enroll in one of three quite broadly defined knowledge areas -- for example all natural science and engineering students are in a common course and only specialise later. This allows plenty of scope for them to develop their interests and change their minds. From the very start of each course students are formed into teams, which they remain in for the semester. Each semester they do one project, chosen jointly by the students and their supervisor.

Projects are either used to develop knowledge and skills within a discipline, or are problem-oriented, and designed to teach students to ask questions such as “Why is it so...?”, “How come...?” and “What is the meaning of...?”. Examples include designing a low weight but sturdy bicycle frame, or modelling the ways in which blood pressure varies during pregnancy. Most projects are carried out in association with industry or community bodies. Firms often benefit from these projects, so the university has had to grapple with issues of commercial confidentiality and intellectual property as part of its teaching, not just its research, from an early stage. One spin-off has been the development of very close relationships between the university and the surrounding community and industry. The ready access to the latest knowledge and research has been important in attracting high-tech firms to invest in the Aalborg area, creating high skilled employment for the community.

About a quarter of students' time at Aalborg is spent in lectures on foundation subjects, and this is examined in the normal way. The other 75 per cent is centred on their projects, mostly through group work, but also lectures. All of this work is examined through their projects: by a written report, a group presentation, and perhaps a poster. Normally external examiners are involved, representing the professional world or industry, as well as other academic institutions. The assessment emphasises the value to and use of the project by industry or the community.

In the early stages of their course students work on problems that have known solutions. As they progress they move to problems for which solutions are not apparent. But in all cases the goal is student learning, not finding solutions to problems. The learning is multidisciplinary, and by doing. Students are helped to move from understanding common knowledge to generating new knowledge, from describing and analysing to synthesising and assessing. They are developed as lifelong learners, not just degree holders.

All of this makes the teaching very demanding for the staff. They can't keep using the same material year after year. They have to learn alongside their students -- constantly. They have to know how to guide students as they explore problems, not present them with set solutions. They have to learn when and how to bring in someone else who has specialised skills or knowledge that students need. Research and teaching become much more closely linked. Joint student-staff publications are common.

While the Aalborg way is demanding on both staff and students, student satisfaction is very high. The real test comes when they join the work force after they graduate. Compared to graduates from conventional universities, final examiners judge them to have better communication and problem solving skills as well as better general technical knowledge, even if their specialist knowledge is judged not as strong. They find themselves well prepared for their professions, and report that their project work is the major source of the knowledge and experience that they actually use in their work. And Aalborg students have lower drop out rates and graduate about a year sooner than students from conventional universities.

1. Further details may be found in Kjersdam, F. and Enemark, S. (1994) *The Aalborg Experiment: Project Innovation in University Education*, Aalborg, Aalborg University Press.

There are good reasons for educators, trainers and policy makers from OECD countries to be interested in these ideas. Properly implemented, they have, as we have just seen in the case of the Production Schools, the potential to get many people who never thought they wanted to have anything to do with education highly motivated to get as much as they can of it. They can help many people who simply could not learn with more

conventional methods learn a great deal more quickly. They are ideally suited for developing many of the qualities that we noted in Danish youth generally that are in such demand now around the world -- being a self-starter, taking responsibility for one's work, managing one's own time and work effectively, knowing what to do when faced with the unfamiliar, and so on. And they lead naturally to a taste and facility for life-long learning, an explicit goal of many nations these days.

But we should also note that, while we were impressed with the variety of good examples of this pedagogical approach we encountered, there is in many cases a great distance between good examples and system-wide practice. At the upper secondary level, for example, the structure of teachers' contracts appears to be a serious impediment to widespread implementation of school organisational schemes based on the new pedagogy. At the tertiary level, while two universities have embraced this approach, it is not clear that the others are particularly interested in building on what they have learned.

A greater flexibility in the way that teachers can organise their work -- for example through greater variability in class sizes, and more flexible mixes of teaching time and preparation time -- will be essential if Denmark is to be able to move beyond impressive pilots to a more systemic adoption of the new pedagogy within areas of youth education that extend beyond the Production Schools. We believe that these are issues that should be at the forefront in discussions between the government, teacher employers and teacher unions. We were impressed by the willingness which we detected among all of these parties to take the issues seriously.

### **5.7 *The next round of vocational education reform in Denmark***

The steps that the Danes are considering taking to improve their initial education to work life system address a number of issues that are at the moment of great concern in many OECD nations.

By way of background, young people coming into the vocational education system have almost 90 options to choose among. One can choose from among such well known occupations as automobile mechanic and banking, insurance and baker, but one can also choose cap making, moped mechanic, manual bookbinder (as opposed to industrial bookbinder), farrier, neurophysiology assistant, or overglaze painter. How can one make decisions between so many options? Many young people seem to respond by postponing them as long as possible. When they do choose, many later decide that they chose in error and begin again, and sometimes again. And then there is the choice between these vocational possibilities and the HTX and HHX programmes!

All too often a student will choose a particular vocational programme and then find out that he or she does not really have the academic qualifications to proceed to the next step in that programme. Or finds out that he or she could have stepped up from a vocational programme to a programme leading to university, but lacks the academic courses needed to do so.

The essence of current proposals to address these problems is as follows. All students coming up from the Folkeskole or across from another part of the upper secondary system into the vocational sandwich programme would begin with a 10 to 60 week "front-end" programme in the commercial or technical college, rather than attend the optional tenth year of the Folkeskole, before beginning the current dual system programme leading to a journeyman's certificate. At the beginning of this front end programme, the student would sit down with a guidance counsellor who would complete an inventory of the student's accomplishments and talk with the student about his or her goals.

On the basis of that process the two together would decide on a plan unique to that student. Many considerations would be taken in to account. Does the student know exactly what he or she wants to do or is a period of exploration in order? Has the student met the academic requirements for beginning the

programme of his or her choice, or do some courses need to be taken first? Is the student quick at academic studies and therefore ready to begin a tough programme right away, or does he or she need a very hands-on environment first, to build both skills and confidence? Maybe the student wants to get a strong vocational qualification, but also wants to be in a position to qualify to go into a tertiary education either immediately after the vocational programme or soon thereafter. Perhaps a programme can be planned that will include all the academic courses needed to get the HTX or HHX in a combined, streamlined programme that also leads to the vocational qualification.

To make students' choices easier at this stage, the nearly 90 vocational options would be condensed into a handful of groups of options covering very broad occupational or industry families. This is very much the sort of approach that Sweden and Norway have taken to their vocational programmes during the 1990s, although in the case of Denmark the number of options being proposed at the entry level to the system is somewhat smaller -- perhaps six or seven rather than 11 to 14. A student who wanted to do some career exploration before settling on a particular trade or occupation would spend some time exploring the whole group of occupations of which that particular occupation is a part. Some students that know just what they want to do might want to do this first step anyway, so that they are more broadly prepared and can move more easily among occupations in the group. Doing that might take a little longer, but it might make the student who had done it more attractive to an employer, as well giving the student more options later.

There is another interesting feature of the plan under consideration at the time of our visit. It has to do with the remarks we made above about the Danes' interest in a project-based, hands-on pedagogy, a move, as they put it, from teaching to learning. Part of the initial 20 to 60 week period might be used to introduce students to this kind of pedagogy, helping them to gain the personal skills needed to participate in this kind of educational experience without missing a beat.

The government has several goals in mind to which this design is a response. One is to reduce significantly the "churning" among Danish youth in these years that we have already described, the tendency to start a programme, finish it or not finish, and then begin another, and then, once again, terminate it only to start another. To the extent that this new plan features intensive guidance up front, with defined paths for career exploration for those students who want to go that way, it is a very promising way to make the system much more efficient for both the students and the institutions.

But, conversely, because the proposed system is inherently highly individualised, the student who knows exactly what he or she wants to do next does not have to participate in a five months to a year long career exploration programme that is simply not needed, as at present. That, too, will make the system more efficient.

The new transition reform is intended to do something else that the examiners were in agreement badly needed doing, which is building tighter links between the HHX and HTX programmes, on the one hand, and the sandwich vocational programmes on the other hand. It also has the potential for building tighter links between the safety net programmes and the vocational programmes. These links will make it possible to get more students who now exist on the periphery of the system into a programme leading to a vocational qualification. It will make it possible for more students who are in a programme leading to a vocational qualification to qualify for tertiary education, and this will be very important given the limited opportunities that currently exist for young people to build a pathway between vocational education and tertiary study in Denmark. Taken together, even if these numbers turn out to be relatively small, over time they could lead to substantial increases in the overall education and training attainment of the Danish population and a general reduction in the benefit burden.

Lastly, the proposed reform has the additional attraction of creating a vastly simplified front end for the vocational educational system. As matters stand today, a student not headed for the upper secondary schools faces a choice among nearly 90 different programmes after Folkeskole. With this redesign, the

student will face essentially two choices: (1) completion of the Gymnasium programme, either by going to Folkeskole for 9 years and enrolling in the regular Gymnasium programme leading to the Studentereksamen, or completing the tenth year and enrolling in the HF programme, or (2) leaving the Folkeskole and enrolling in the vocational programme. Period. Once in the new front end for the vocational programme, the student can then choose among the 6 or 7 alternatives, then explore within them and then chose among the occupations within the cluster that was initially chosen, or the HTX or HHX programmes.

We should note in passing that it is not clear to us whether a true “double qualifying” route will be put together (which would require changing the rules governing the award of the various qualifications), and, if so, whether the redesigned programmes would be quicker and more efficient from the student’s point of view. If this is not the case, an important opportunity may have been missed.

In a similar vein, while we can see great advantages to Danish youth if this reformed “front end” for the vocational programme replaced the tenth year Folkeskole programme for most students who now take that programme, its attractiveness would be significantly diminished if this programme was simply added to all the programmes now in place, as has so often happened in the past. It is time for the choices facing young people after the end of compulsory education to be simplified, not amplified.

In any case, this design is intended to resolve problems that are not unique to Denmark, having to do with parity of esteem among vocational and academic programmes, disparities of preparation among students for any given programme, the uncertainty among young people about their career and life decisions, the lack of academic qualifications among many young people for vocational programmes leading to rewarding careers, and lack of easy pathways from safety net programmes to mainstream education and training programmes. All these issues bear directly on the efficiency and effectiveness of government policies affecting the transition from initial education to working life. While the proposed Danish vocational education reform can not provide definitive answers to all these issues, its answers are both provocative and potentially effective. They are certainly worth looking at.

### **5.8      *The Danish model: To be emulated or avoided?***

We mentioned above that the Danes are among the highest spenders in the OECD on education and training. This is part of a pattern of generally high social expenditures.

Among the reasons for this high level of spending are:

- The incentives for Danes to extend the time of the transition from initial education to working life by taking many forms of education and training, including taking multiple qualifications and exploring many occupational training routes before finally settling on one;
- The generous allowances for tuition support which are available at the basic level without regard to parental income and which allow fairly generous additional earnings from part-time work; and
- The use of very intensive education and training methods that often involve one-to-one assistance or very small class sizes.

Is it worth it? Or is this simply a set of costs that represent a drag on the economy, funds that, if they stayed in taxpayers' pockets, could generate higher levels of investment and consumption and therefore a higher standard of living for all Danes?

Data and the analysis of data bear on this question, but are not likely to settle it. The Danish case is especially intriguing. This is not an economy that is stagnating or simply performing poorly. To the contrary, as we pointed out at the beginning of this report, the Danish economy is among the best performing economies in the world. It is as plausible to think that its investments in its people account for its economic success as it is to think that it is its economic success that allows it to make these investments in its people. No amount of analysis of the data is likely to determine the direction of causation here.

So, in the end, it may come down to a question of values. The Danes place a high value on education, on the youth in their society, on the need to provide each individual with many choices and the opportunity to chart their own course through those pathways, even those choices that do not seem to make the most efficient use of public funds. But they have little patience with people who choose to do nothing. If you want the generous benefits this society has to offer, you must work or study; you cannot sit on your duff. These are some of the values that Danish policy reflects. To the extent that other nations share these values, they will want to look closely at the Danish experience. To the extent that other nations, whether or not they share these values, want to share the economic achievements of the Danes, they, too, may want to look closely at Danish policies. But they should be aware, when they do, of the values that support the policies, because those values may explain as much of the achievements as do the policies.

## **6. SOME POLICY SUGGESTIONS FOR THE DANES**

### ***6.1 Increasing the efficiency of the system for the transition from initial education to working life***

Perhaps the most insistent request for our views had to do with the widespread perception among Danish policy makers and their advisors that young Danes take too long to make the transition from initial education to working life. We examined this in detail in Section 4, and the reader will recall that the examiners did not accept all of the arguments put to us on this issue, for several reasons.

We noted for example that only the graduates from the tertiary system enter the full time paid workforce in their late 20s and that in fact young Danes enter the work force remarkably early; and that even those in the tertiary system could well be holding jobs in which they make a real contribution to the Danish economy. Second, we were not persuaded that the projected shortage of skilled workers is as serious as some maintained. Though enrolments in vocational education have been decreasing, the decrease is small. And they have coincided with a shift in the composition of employment in Denmark. Enrolments in the HTX and HHX programmes, which provide the type of breadth and flexibility that many employers are looking for in a knowledge based and service based economy, even if they do not provide a recognised vocational qualification, are rising and the new vocational education reform plan is likely to increase the attractiveness of vocational education programmes.

These considerations aside, however, the Danish government has a legitimate interest in making sure that its education and training system is as efficient as possible, keeping in mind all its goals for the students. From that point of view there are aspects of the system where it is difficult to see that sufficient value is added to the skills and knowledge that a young person brings to the labour market to justify the increased time out of the labour market and the money spent on the additional skill and knowledge acquired

#### *Year 10*

Nothing that we read or heard persuaded us that on balance good use was being made by the majority of students who elect to take the optional Year 10 programme in the Folkeskole. It appears to have many of the characteristics of an enjoyable break between bouts of serious study in which many students

participate because of peer pressure, simply because their friends do. Few students told us that they made good use of the tenth year to figure out what they really wanted to do next. Virtually none could tell us explicitly what they did in the tenth year that enabled them to make a better career choice.

The data show that academically stronger and academically weaker youngsters tend to skip the Year 10 programme, while the middle ability group tend to take it. Research by the Institute of Local Government Studies shows that those academically weak students who do take the tenth year do not get much benefit from it, and would be better off starting a vocational programme after Year 9. The guidance in the 9th grade is mainly pointed to the general upper secondary programme, rather than vocational education and training. It is not unreasonable to conclude that, if the students who go into the Year 10 programme had a way to enter the vocational track directly after Year 9 that involved an opportunity to make an intelligent selection among the vocational options, they would be much better off doing so. That is just what the new vocational education reform is intended to do.

The proposed youth education reform is structured to accomplish all of the stated purposes of the tenth year programme, and, as far as we could see, would do so in a far more efficient manner. With respect to all programmes save the Studentereksamen and the HF, there would be highly structured opportunities for students to explore various career possibilities, to identify academic shortcomings and to correct them by taking the courses that they need and did not get, and to receive guidance and counselling along the way. It would be a far more focused and targeted way for young people to make better educational and career decisions than the present tenth year. Furthermore there are better ways, which we suggest below, to use the time available during Years 8 and 9 in the Folkeskole to provide opportunities for students to decide on a vocational education or the alternatives.

We find it hard to make a case for the Year 10 programme at all. However the danger is that, rather than replacing it, the proposed reforms to the entry point of the vocational programmes would be added on to it, thus further extending the transition period. A strategy thus needs to be found not only for creating a more effective alternative to the tenth year -- which we believe that the proposed youth education reforms should do -- but at the same time for putting in place positive disincentives to participation in it. Given the nature of Danish education, it seems unlikely that the municipalities would abandon the tenth year of their own volition.

A number of options could be considered by the government. These include:

- Sponsoring an extended public discussion of the merits of the tenth year and its alternatives. This should include a clear presentation of the ways in which various groups and institutions could stand to lose or gain from the different approaches;
- Imposing a limit on the number of years of student assistance that young people are entitled to between the end of compulsory schooling and the beginning of tertiary education;
- As in recent Norwegian reforms, introducing a funding-linked entitlement to a maximum of four years of upper secondary education. This would not prevent students from taking the optional tenth year, but it would considerably add to the risks compared to proceeding directly from Year 9 to a youth education programme. It would help to create an incentive for the student to choose the most productive uses of the State's funds.
- Requiring the curriculum of the tenth year more closely to match the goals of the proposed youth education reforms.

### *Double qualifications, changes of mind and interrupted study*

In Section 5, we expressed our view that it may be in the interest of the Danish people to continue to make at least some forms of delayed entry into the labour market possible. Double qualifications are not duplicate qualifications, and having one set of qualifications does not mean that another set is redundant or unuseful. To the contrary, we saw many examples of people with double qualifications that seemed to greatly enhance the ability of the individual to contribute to the Danish economy. Similarly, it seemed to us at least plausible that the taxpayer saves money in the long run by allowing an individual to change courses in midstream, if in fact the individual is making the better choice the second time around. And we argued that the travelling that Danish young people do around the world is an enormous asset in a country that depends to the degree that Denmark does on international trade.

Looked at one way, the HTX and HHX programmes are part of the upper secondary general education programme. Looked at the other way, they can be seen as part of the vocational education programme. This ambiguity, we think, has served Denmark well. But we also think that much could be achieved by linking these programmes a little more tightly to the vocational programme. And we also think it might be worthwhile to make an effort to share the pedagogy of these programmes more fully with the Gymnasiums.

One the first point, there is much to be gained by making it easier for students to combine study toward a vocational qualification with study toward the HHX or HTX. More students will be qualified to continue on to tertiary education, and more HHX and HTX students will have a strong vocational qualification, which will ease their transition into the labour market. It is also the case that many students who now reject the vocational programme because they see it as an educational dead end would be more inclined to select it if they knew that they could easily bridge to the HTX and HHX programmes.

But significant efficiencies could be gained if both programmes were redesigned so that some courses would count for both purposes, thus making the combined programme shorter than the two taken separately. The opportunity to do this presents itself in the context of the proposed vocational education reform. In short, we think the Danes should consider redesigning the HTX and HHX programmes so that they are able to confer a true vocational qualification as well as qualifying young people for tertiary entry.

### *Extended Tertiary Study*

While matters such as course changing and drop out rates are not to be dismissed as factors contributing to the length of tertiary study in Denmark, here the central issue appears to be a structural one, with part of the system using the older Kandidat degree and part of it the newer form of the three year Bachelors degree followed by a Masters degree. The goals underneath the introduction of the newer forms of qualification -- increasing participation in tertiary education and reducing its costs -- are being frustrated by the fact that many if not most students are virtually automatically going on to the Masters programme after the receiving the Bachelors degree.

Some suggestions for addressing this issue were raised in Section 4. They include:

- Engaging employers and the relevant trade unions in talks about how the labour market might be induced to recognize the BA degree, including through publicity campaigns and revised salary structures for new graduates;
- Incentives for individuals to move into work directly from the Bachelors degree, for example through more favourable loan repayment conditions;

- Encouraging the universities to shift the tuition for Masters programmes that follow Bachelors courses from a full-time to a part-time basis, and at the same time to encourage employers to require Masters programmes to be taken through part-time study.

## 6.2 *The problem of guidance in the Danish system*

One consequence of the serious attention that is paid to guidance in Denmark is that it receives a lot of public and political scrutiny, at a level that would seem surprising in other countries, and it is often blamed in public debates for problems whose origins are elsewhere. Many people we talked to were critical of Denmark's system of student guidance. We were not always sure that this criticism was fully justified, in that the complexity of the Danish system of education and training greatly exacerbates the basic problem of student choice that the guidance system has to deal with. To the extent that the complexity is caused by the very large number of options in vocational education, the proposed reforms described above should greatly ameliorate the practical consequences of that complexity. To the extent that the complexity is caused by the desire to offer optional paths through the system and optional programmes to get to the same end, for people who learn in different ways or want to get different forms of education at different time in their lives, complexity seems to be both justified and worthwhile. But some of the complexity is caused by the desire to throw nothing away, but only to add and adapt over time, a common Danish approach to problems in the education system.

But the Danish guidance system is also open to some legitimate criticism. It often starts too late, and has not paid enough attention to the most vulnerable groups. For example only one third of those young people who don't continue on to youth education after the Folkeskole report that they have received educational or career guidance<sup>34</sup>. Maybe they have, but if so it has not made much of an impact upon them. And it was striking to us how much of the material that we saw that is provided to students concentrates upon the educational choices that they face, and how little of it deals with the sort of work that they might end up doing. As such it is far better tailored to the needs of the academic students than it is to those who enter vocational education and training.

Part of the problem lies in the ways that guidance is organised locally. But part of the problem is strategic. We look first at the local problems.

### *Improving guidance for the transition to youth education*

Under the proposed reforms of vocational education that were being discussed at the time of the team's visit, it would be plausible to structure matters so that a young person in Folkeskole will be faced with only two principal choices: entering the Gymnasium to study for the Studentereksamen, or entering the vocational education system to prepare for the HTX, the HHX or one of the more almost 90 journeyman's examinations. Or, at the most, one can think about making an initial choice among three options: the Gymnasium, the business college or the technical college. Once in the business college or the technical college, guidance will be available to the student for exploring and choosing among the many options available inside those institutions, but much of the exploration will be done not so much through the guidance system, but by testing options out through experience.

There is already a week set aside during the 8th year and another in the 9th year for Folkeskole students to explore what they will do next. The students with whom we spoke were unanimous in their view that giving the Folkeskoler the choice of how they wanted to use this time was not working for them -- the students -- because they virtually never got a chance to see all of the institutions from among which they were supposed to make a choice. And when they did they often did not get enough time to have the sorts of informal conversations with students that would really give them a feel for the institution. Some of the

students also said this lack of opportunity to see the range of alternatives was one of the reason students frequently gave for electing to take the tenth year of Folkeskole. So imposing tighter central requirements on what number and types of institutions students see during this period could help to make students' choices easier. So could improving the print, video and computer-based materials that describe the HTX, HHX and vocational education programmes and the institutions in which they are provided.

One of the complaints that we heard from students and others had to do with the fact that the guidance system in the Folkeskoler currently relies heavily on teacher-counsellors. Those who complained felt that, because the teachers themselves came up through the Gymnasiums and frequently had little experience of work in places other than schools, they had a natural bias toward the Gymnasium/university route for the best students. We do not know if this is true, and we can see the advantages in having counsellors who are close to the Folkeskole students and know them well. After all issues of career and future educational choice are not the only issues on which they help students. But we can see a considerable advantage in promoting the availability to the students of counsellors in other institutions, particularly the local labour offices, where professional, trained counsellors are available who value people who have not gone to university and the work they do and are highly competent to provide a "second opinion" to students who would like to get another point of view on the options they have and which of those options they could sensibly pursue. The availability to students of several sources where they can seek advice, not all of them tied to the school, is one of the strengths of the guidance system provided in Austria.

#### *Improving the strategic approach to guidance*

The National Council for Educational and Vocational Guidance (RUE) operates under an Act of Parliament that gives it a very wide charter. Its roles include advice, co-ordination, helping to strengthen the training of guidance personnel, materials development, developing pilot projects, research and disseminating national and international experience. Even though it is not responsible for formulating overall policy in the field of guidance, it is ideally placed, and indeed far better placed than other organisations, to take a key strategic leadership role in addressing key issues in the Danish guidance system. Certainly the breadth of its charter gives it potentially a far more strategic role in innovation and change than the rather narrowly technical one involving collection and development of training materials and acting as a clearinghouse that it appears to have chosen to focus upon. A key issue is the relatively poorer service which the most vulnerable and those who enter vocational education and training appear to get, compared to those who enter general upper secondary education. But we saw little evidence at the time of our visit that either analysis of this issue or strategic responses to it have been major concerns of RUE.

RUE produces an annual encyclopaedia on jobs and courses, which also comes out as a CD-ROM. But each entry in it is very brief, and it is hard to get a comprehensive picture of what an occupation really involves from it. RUE has little in the way of more detailed leaflets, videos or tapes to which young people who want to explore an occupation in more detail can be referred. Labour market information seems to be another gap. There is little information available for schools on the balance between supply and demand in particular occupations (despite the fact that we were regularly told about shortages in some of the trades).

Little real effort seems to be made by RUE to put in place widespread strategies to make sure that counsellors get out of their schools so that they can get some first hand experience with the options that their students will be facing. We were given a few isolated examples that were being implemented by regional guidance co-ordination committees, but nothing in the way of a well thought out and properly costed national strategy involving the Ministry of Education, the Ministry of Labour, and employers and the trade unions -- all of whom sit on RUE's board. Even though we heard much criticism of the fact that many guidance staff were too narrowly from an educational background, we could not see any evidence of

a strategy being developed for stronger employer and community input into the guidance programmes of individual schools<sup>35</sup>.

RUE is also weak in its information base. We had considerable difficulty as we tried to resolve the various views we were getting on the efficacy of counselling and guidance, because we had very little hard data on who got counselled, in what ways, how often, and with what result -- or accurate information about how students from different backgrounds and with different goals felt about the quality of the guidance they had received. Research is well within RUE's mission to evaluate and monitor, and so as a matter of course it should commission or conduct regular surveys on these issues at the school level.

We believe that the development by RUE of advice on the development of a strategic national approach to the key problems in Denmark's guidance system through planning, research, evaluation and monitoring, and through the dissemination of good practice, is essential. This should focus upon ways to make guidance for educational and career choice more useful both to those who struggle the most and to those who enter vocational education and training, upon ways to involve employers and the community more closely in schools' guidance programmes, and upon ways to improve the quality and depth of the information that is provided to young people about working life.

### **6.3 *Cooperation and competition in the Danish system***

The Danes both encourage a certain degree of competition between institutions through the taximeter system applying both to the commercial and technical colleges and the AMU centres, and expect cooperation between institutions at the local and regional levels, especially with respect to the cost-effective use of buildings and resources and guidance initiatives. While the machinery for setting training requirements differs between the AMU Centres and the technical and commercial colleges, good coordination appears to exist between the two, certainly at the national level. Nevertheless, we believe that opportunities do exist for what could be healthier competition among AMU Centres and the technical and commercial colleges, but that this is limited by the fact that the Ministry of Labour closely controls in association with the social partners the design of the courses offered by the AMUs and sets the prices for them. If these controls were loosened, the Danes might get the benefit of both the cooperation and the competition that might flourish in this specialised marketplace, much as it has in Sweden in recent years.

On a related point, we noted that, although the Folkeskoler are run by the Municipalities, the Gymnasiums by the counties, the vocational colleges and the Production Schools financed by the Ministry of Education and the labour market boards and the AMUs by the Ministry of Labour -- labour markets are in their nature regional. We would not advocate creating a new layer of government or changing the current governance assignments, but it might be worthwhile to think about promoting, as has occurred in Denmark since 1994 with respect to labour market policy formulation and implementation, some means for improving communication at the regional level among the parties just mentioned, because labour market needs certainly vary by region and conversations among the education and job training institutions about regional needs could therefore prove very beneficial<sup>36</sup>.

### **6.4 *Is 95 per cent achievable? What about the 50 per cent goal?***

As we indicated in Section 4, Denmark has set itself two ambitious goals:

- To raise the proportion of Danes who receive either an educational qualification to go on to tertiary education or a vocational qualification from close to 80 per cent to 95%; and
- To raise the proportion of those who complete tertiary education from 39% to 50 per cent.

In achieving these goals it has two basic choices. On the one hand it could take an option that other countries have experimented with. It could rapidly expand the programmes that are less demanding, which do not result in qualifications that are the equivalent of a full journeyman's certificate or higher. In practical terms this would mean a large expansion in the FUU and EGU programme, together with negotiations with employers and the trade unions on the ways in which the labour market might recognise these programmes more effectively. On the other hand Denmark can aim for a large expansion in the number of young people who achieve a full journeyman's certificate or higher. This will mean substantially lifting the achievement levels of the weakest students.

Almost universally those that we put these options to supported the second. In a sense this is not at all surprising, given the respect that the Danes have for broad knowledge and qualifications, and given the key role that skilled workers' qualifications play in the way that the labour market works. Any rapid expansion of programmes such as the EGU could risk the labour market being flooded with young people having only partial skills and qualifications, and not having the basis for longer term careers. There would be similar consequences if there was a substantial rise in the number of young people leaving the general education track without qualifying to enter tertiary education.

Denmark is happy to see programmes such as EGU meet the needs of small numbers of young people who do not fit easily into the principal youth education options. But if they were expanded greatly there would be significant unwelcome implications for other parts of the education-qualifications interface. It would also, as the experience of other countries has suggested, risk compromising the respect in which educational institutions are held in Denmark. So too would a rise in the number of general education graduates who do not qualify for tertiary education, an outcome that could occur if attempts to reach the tertiary qualifications target are not accompanied by serious efforts to motivate and raise the standards of students who at the moment do not move from youth education to tertiary study.

The way that the targets are phrased implies that much of the growth in those with qualifications will occur as the result of an expansion in the numbers with tertiary qualifications. This seemed a little odd to us in light of the frequent concerns that were put to us about decline in vocational enrolments at the expense of rising tertiary participation, and about present and future shortages of workers with vocational qualifications and the importance of expanding participation in vocational education and training.

If vocational education and training on the one hand and tertiary education on the other are not to be seen to be competing for the same pool of students as Denmark raises its qualifications base, it will be important to raise the flexibility of the pathways through the system. This will mean building the wider bridge between the sandwich programmes and the HHX and HTX programmes which we advocate, so that young people are provided with the types of double qualifications that allow them to move from youth education either directly into skilled employment or into tertiary study. It will also mean much stronger links being built between upper secondary education and short cycle tertiary education.

The goals that Denmark has set itself are very ambitious, and without substantial efforts may not be achievable. If the benchmark is not to be lowered to meet the current levels of the weakest and least motivated, then major changes in the way that the education system deals with such students will be needed. The types of inspiring pedagogy that we saw in the Production Schools and at Aalborg University will have to become the norm throughout most of the youth education system. Our judgement is that this will not happen without a major staff development strategy being put in place for the existing teachers in Denmark's Gymnasiums and technical and commercial colleges, and without substantial changes to initial teacher education. And it will not happen without the types of serious negotiations between Denmark's teacher unions and teacher employers on the organisation of teachers' work that we called for in Section 5.6.

The irony, of course, is that achieving the qualifications goals that the Danes have set themselves might, without major efforts to reduce the incidence of educational double dipping, inevitably have as one its consequences a further lengthening of the period of transition.

## **7. CONCLUSION**

Despite the problems we have just discussed, the Danes appear to have developed a highly successful economy and an education and training system that others can learn much from: the extensive choice that it offers means that people can rejoin education in many ways if they have fallen out of it temporarily; social assistance benefits are used as a lever to ensure that people finish their education; and the combination of study with employment gives youth extensive work experience before education has finished. Other nations can profit from a close study of the Danish system, but need to recognize that the system is grounded in a set of values that are not universal. It is very complex and expensive to operate. This partly reflects the costs of any system designed to be highly inclusive, but it also reflects the Danish commitment to providing a wide variety of choices for everyone, following compulsory education, as well as a commitment to small class sizes and a very generous student grant system.

Important reforms are now under consideration that appealed to the examiners, incorporating features that appear to point the way to the vocational education system of the future -- broader entry ports into the occupational education and training system, greater emphasis on project-based pedagogy, and a clearer path from vocational studies to tertiary education. These reforms should increase the appeal of vocational education and improve the flexibility with which its graduates can respond to the ever-faster changes in technology and customer tastes.

We hope that we have provided some assistance to the other OECD countries in understanding a little better the contribution made to all of us by this small sea-bound nation at the nexus of the Baltic and the North Sea. There is a lot to learn here.

## **APPENDIX 1: OECD REVIEW TEAM**

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## **APPENDIX 2: MEMBERS OF THE DANISH STEERING COMMITTEE**

### **Ministry of Education**

Mr Erik Nexelmann, Head of Division

Ms Merete Pedersen, Chief Advisor

Mr Roland Østerlund, Director of Vocational Education and Training

Mr Peter Føge Jensen, Educational Adviser

Mr Niels Glahn, Educational Adviser

Ms Solveig Boesen, Head of Section

### **Ministry of Labour**

Mr Henning Eriksen, Head of Section

### **APPENDIX 3: SOME INDICATORS OF WAYS IN WHICH THE TRANSITION HAS CHANGED DURING THE 1990S**

Four charts follow that have been constructed from single year of age data on education and labour force participation by 15-29 year olds for 1989 and 1996 that has been supplied for the transition review by Statistics Denmark. Together they illustrate some important changes that have occurred during the 1990s in the ways in which young Danes make the transition from education to work.

In brief:

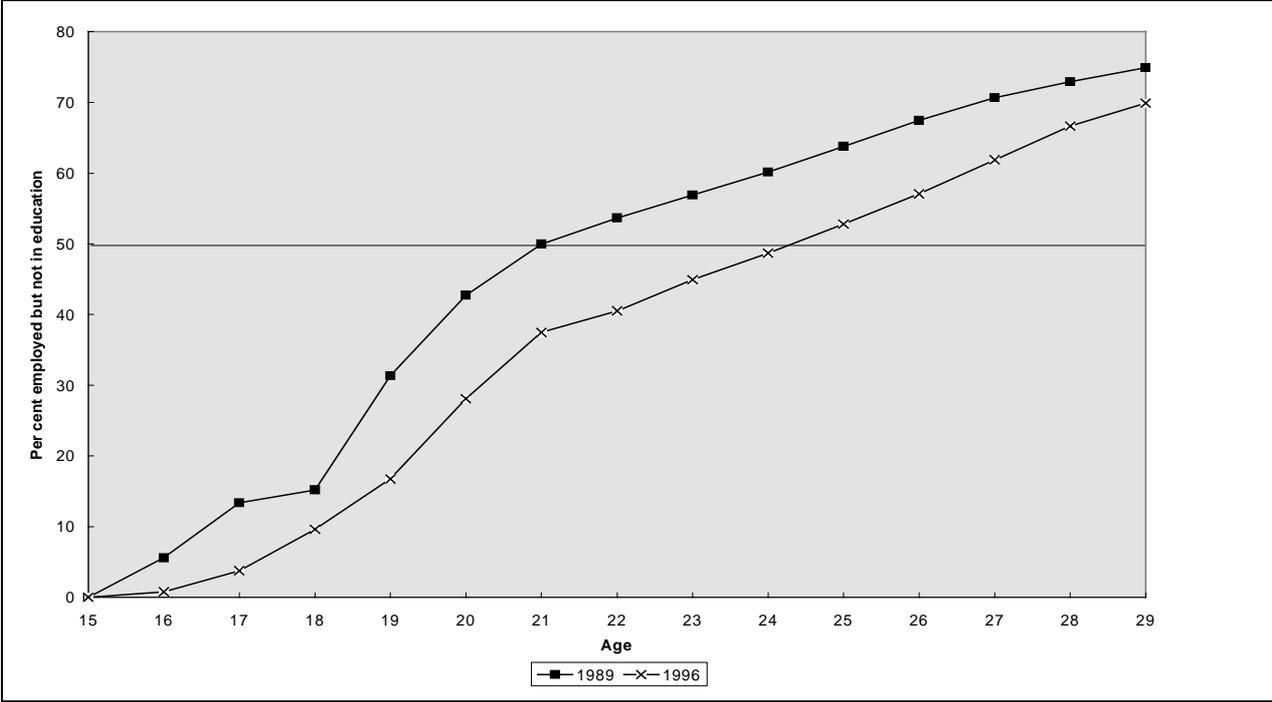
**Chart 1:** The age at which young people make the transition from education to the work force is rising. At every year of age the proportion of young Danes who were employed but not in education fell during the 1990s. The point at which 50 per cent of an age group were employed but not in education -- the working definition of the transition adopted for the Thematic Review -- rose by three years from 21 to 24 between 1989 and 1996.

**Chart 2:** More students over the age of 19 are working. Between 1989 and 1996 the proportion of students with a job rose by between five and seven per cent. By 1996 close to 80 per cent of all students aged 20 or more had a job.

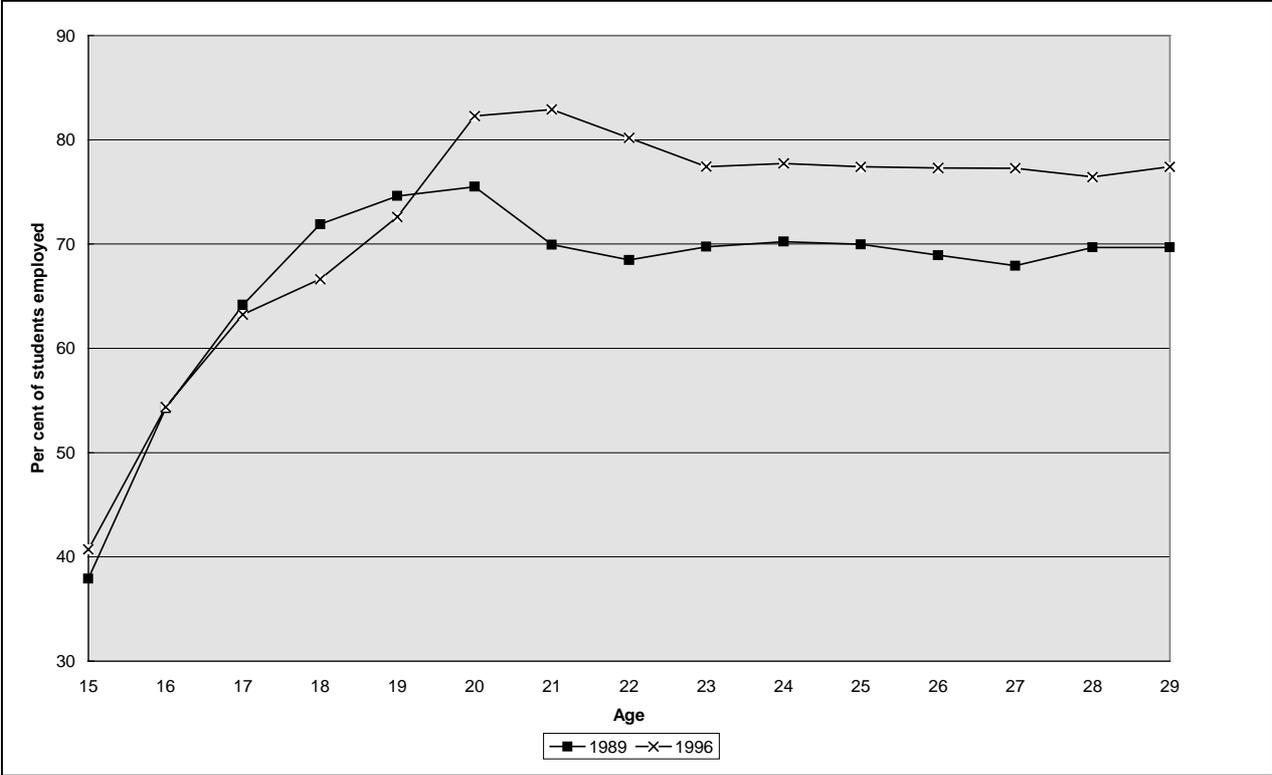
**Chart 3:** Unemployment has fallen and now scarcely exists among younger teenagers. Since 1989 unemployment has roughly halved for those under the age of 22, and has fallen noticeably for all under the age of 30. Less than one per cent of those under the age of 18 are unemployed.

**Chart 4:** The number of young people who are taking time out of the system -- not in education, not in the labour market, and not dependent upon welfare payments -- has risen notably, particularly among those aged over the age of 19. The proportion of those aged 20 and over who seem to be taking time out of the system has risen by about 50 per cent during the 1990s -- from around eight per cent of each age to about 12 per cent.

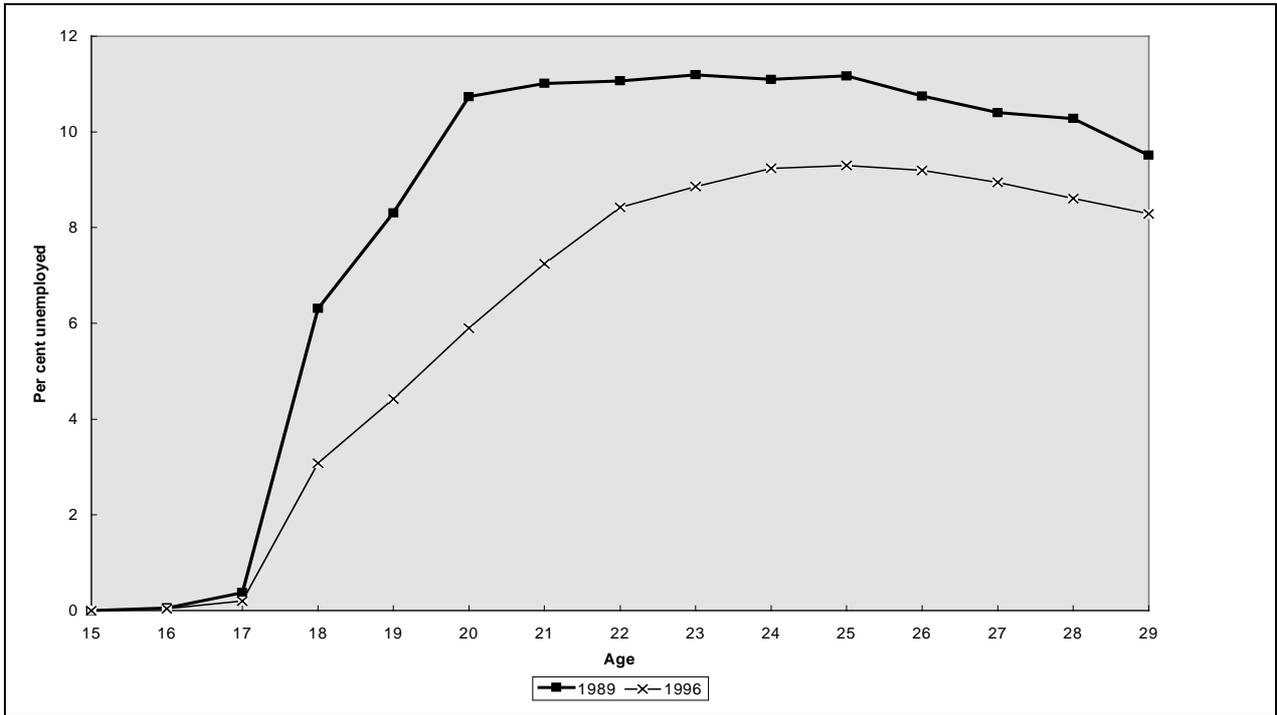
**Chart 1: Per Cent Employed But Not In Education, 1989 and 1996**



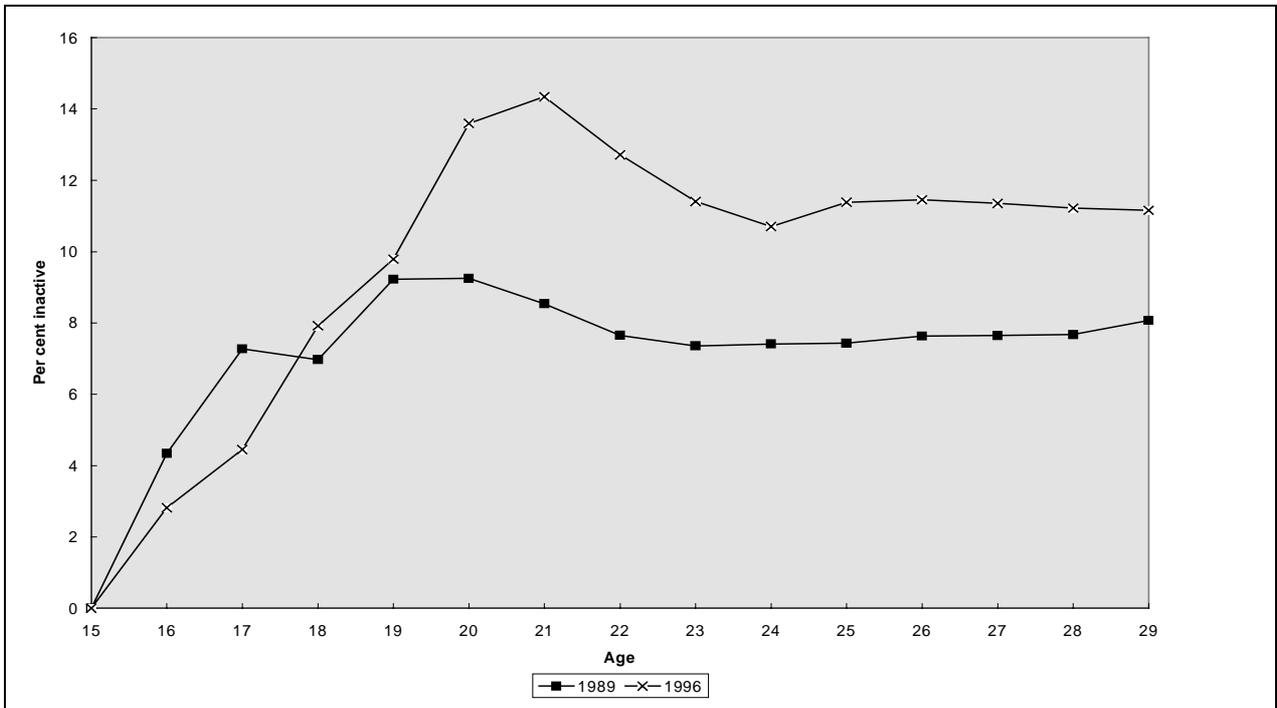
**Chart 2: Per Cent of Students Employed, 1989 and 1996**



**Chart 3: Per Cent of Population Unemployed, 1989 and 1996**



**Chart 4: Per Cent Not In Education, Not In The Labour Market and Not Dependent Upon Pensions and Benefits, 1989 and 1996**



## Endnotes

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<sup>1</sup> OECD (1998) *Education at a Glance: OECD Indicators*, Paris.

<sup>2</sup> The proportion of Danish 20 year olds who are still enrolled in secondary education is twice the OECD average (31 per cent compared to 15 per cent in 1996), and the proportion of Danes aged between 26 and 29 who are enrolled in tertiary education is nearly twice the OECD average (12.1 per cent compared to 6.8 per cent in 1996).

<sup>3</sup> The 240,000 persons enrolled in an upper secondary programme in 1995-96 corresponded approximately to four youth cohorts, although the standard length of most youth education programmes is only three years.

<sup>4</sup> In the 1998 issue of *The World Competitiveness Yearbook* Denmark is ranked second among 46 countries on "People" as a factor in sustaining the competitiveness of enterprises. This factor combines 44 criteria relating to the availability and qualifications of human resources.

<sup>5</sup> Having a vocational qualification means that they have demonstrated through an examination, whose content has been agreed jointly by employers and trade unions, that they have the specific skills and knowledge demanded by Danish employers for a particular occupation or group of occupations.

<sup>6</sup> OECD (1998), Supporting youth pathways. *Education Policy Analysis*, Paris.

<sup>7</sup> Source: OECD labour force data base.

<sup>8</sup> Source: Single year of age data supplied by the Danish authorities.

<sup>9</sup> Using the definition which has been adopted for the Thematic Review of the first year of age at which 50 per cent of the population are in work but not in education.

<sup>10</sup> About 15 per cent of students attend private compulsory schools, 80 per cent of whose recurrent expenses are met by the State.

<sup>11</sup> The term youth education is, however, somewhat misleading, as the flexibility of the Danish system results in many adults also taking part in the same or very similar courses, as well as in many "young" people taking part in programmes originally designed for adults.

<sup>12</sup> However around one in eight of those who complete the Gymnasium or HF programmes continue to the HHX programme, around one in ten continue to a vocational education and training programme, and about one in 14 does not continue in any form of education. In total, therefore, around 30 per cent do not continue on to tertiary study.

<sup>13</sup> Roughly 165,000 French francs or 32,000 US dollars.

<sup>14</sup> In turn roughly 70 per cent of the wages of a skilled worker.

<sup>15</sup> This exceeded the 53 per cent of British students who hold jobs, the highest among 15 countries for whom relevant data was available in 1996. (Source: OECD (1998), *Thematic Review of the Transition from Initial Education to Working Life. Interim Comparative Report*, DEELSA/ED(98)11.)

<sup>16</sup> In the sense of those not requiring a recognised journeyman's certificate.

<sup>17</sup> Danish Employers' Confederation (1998), *Current Challenges in the Danish Labour Market*, Copenhagen.

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- <sup>18</sup> The Interim Report of the Thematic Review suggests that “youth friendly” labour markets are one of the key features of successful transition systems (OECD (1998), *Thematic Review of the Transition from Initial Education to Working Life. Interim Comparative Report*, DEELSA/ED(98)11).
- <sup>19</sup> Although a fall in the number of apprenticeship places within firms was a major issue in the early part of the 1990s, its significance had greatly fallen by the time of the review team’s visit due to an expansion in the number of offers.
- <sup>20</sup> OECD (1999), Employment protection and labour market performance. *Employment Outlook*, Paris (draft).
- <sup>21</sup> OECD (1996), Transition from school to work. *Education at a Glance: Analysis*, Paris. That publication defines the transition as starting in the first year in which fewer than 75 per cent of the population are in education but not working, and ending in the first year of age in which 50 per cent of the population are in work but not in education.
- <sup>22</sup> Roughly three per cent of Denmark’s tertiary students were studying abroad in 1995. In addition it is reported to be extremely common for young Danes to intersperse periods of foreign travel with their studies and with employment in their early to mid 20s. Some males are required to meet military service obligations, although these were reported to be declining.
- <sup>23</sup> It should be noted that roughly three-quarters of all 20-24 year old Danes who were neither in education nor in the labour market (i.e. inactive) in 1996 were young women, a pattern that is common in other OECD countries. It is also important to stress that the proportion of Danes of this age who are inactive is not excessively high by OECD standards, even if the proportion of the cohort that is inactive is relatively high in relation to the proportion that is unemployed. See OECD (1999) Background Paper: Preparing Youth for the 21st Century: The Policy Lessons from the Past Two Decades. Conference organised jointly by the OECD and the U.S. Departments of Labor and Education, Washington, D.C., DEELSA/ELSA/ED/CERI/CD(99)1, Chart 4.
- <sup>24</sup> Danish Employers’ Confederation (DA) (1998), *Current Challenges in the Danish Labour Market (Arbejds markedes Rapport 1998)*, Copenhagen.
- <sup>25</sup> Ministry of Education (1996) *Facts and Figures 1996*, Copenhagen. Note that the figures refer to 1992-93.
- <sup>26</sup> DA (1998) *op. cit.*
- <sup>27</sup> It is certainly the case that the estimated returns to *individuals* from education will vary substantially depending upon whether the “starting point” of a career is treated as age 16, the first exit from school, the last observed exit from school, or the first “permanent” entry into the labour market. So it seems reasonable to assume that the estimated benefits to the economy as a whole will vary similarly. See Light, A. (1998), Estimating returns to schooling: when does the career begin. *Economics of Education Review*, Vol. 17 (1), 31-45.
- <sup>28</sup> Whilst the supply of training places was a major issue in Denmark in the early 1990s, and lead to the “virtual apprenticeships” organised by the colleges that we referred to earlier, it had virtually disappeared as a matter of concern at the time of the team’s visit to Denmark.
- <sup>29</sup> Evaluation of the impact of the ERASMUS programme upon the transition to work certainly points to favourable academic and employment outcomes from periods of study abroad. See Teichler, U. And Maiworm, F. (1994) *Transition to Work. The Experience of Former ERASMUS Students*, London, Jessica Kingsley.
- <sup>30</sup> This includes those young people who are in jobs such as petrol station attendant that do not require a recognised vocational qualification, those who are in part-time work, and those who are in jobs that they expect to be temporary.

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<sup>31</sup> Ljung, V. (1997) *Danish Production Schools: An Overview*, Association of Production Schools, Vejle.

<sup>32</sup> Although the one that we visited accepted some students under the age of 18.

<sup>33</sup> Ljung, *op. cit.*, p. 32.

<sup>34</sup> Andreasen, , L. et. al. (1997), *Young People Without an Education*, Copenhagen, Institute of Local Government Studies.

<sup>35</sup> Examples of what such a strategy might include can be found in Dusseldorp Skills Forum and Career Education Association of Victoria (1997) *Career Education and Guidance for the Next Millennium*, Sydney.

<sup>36</sup> In this context it is worth mentioning that Denmark's public employment service vests major powers in regional labour market boards, including the purchase of training from AMUs and other providers. See OECD (1996), *The Public Employment Service: Denmark, Finland, Italy*, Paris and Madsen, P. K. (1999) *Country Employment Policy Review: Denmark*. Prepared for an ILO Symposium on Social Dialogue and Employment Success, Geneva.