# **CHAPTER 2**

# **INITIAL EDUCATION AND ON-THE-JOB TRAINING**

Good-quality initial education is crucial in facilitating the transition from school to work and putting youth on a successful career track. Also, on-the-job training at the beginning of active life allows young people to fill the gaps in school-based education and acquire the skills required by firms.

The Danish public authorities recognise the importance of initial education and its relevance to labour market requirements. It has introduced several measures to enhance the effectiveness of its education system known for being one of the best funded in the world. A number of these measures address the drop-out problem, *i.e.* the relatively low propensity of Danish youth to complete upper secondary education.

This chapter looks at whether the Danish education and training system gives young people a good start in the labour market. Section 1 reviews the institutional arrangements. Section 2 presents different performance indicators on the education system. Section 3 focuses on strategies to improve performance. Section 4 discusses what is available for young people to acquire practical work-based or work-related skills or experience while in school. The final section reviews young adults' participation in onthe-job training.

#### 1. The provision of education services

Denmark has a long tradition of private schooling and local (*i.e.* municipal) control of education, now embedded in a quasi-market that allocates public funds from the central government to various providers, *via* a *taximeter* system. That is the Danish version of the school voucher (see Box 2.1).

## Box 2.1. The taximeter or the Danish version of the voucher system

In Denmark, schools receive public funding according to the number of pupils/students enrolled. The latter are free to choose their school.

This began in about 1990 and has spread to most school levels. The activity-based allocation system – or taximeter – was introduced gradually starting with the Open University in 1990, upper secondary technical colleges and business colleges in 1991, private primary and lower secondary schools in 1992, higher education in 1994, adult vocational training centres in 1995 and folk high schools and production schools in 1996.

Prior to the reforms, traditional and centralised state management of most financial and administrative matters characterised the organisation of educational institutions. Today, funds are allocated as grants by the central government to institutions based on the actual levels of pupil/student activity, objectively measured in full-time semesters or years. All courses are given a politically-determined rate, published annually in the government's finance bill. To ease administration and facilitate transparency, the system only contains a limited number of rate categories. Consequently, institutions have gained significant powers over financial as well as administrative management, including decisions on: *i*) intake of pupils to specific education programmes and/or courses *ii*) planning and organisation of teaching activities; and *iii*) planning and organisation of work.

The taximeter system comprises four elements of grants: *i*) a basic grant; *ii*) a teaching grant; *iii*) an operational grant; and iv) a building grant to cover rent, interest, debt servicing and maintenance. Except for the basic grant (which is a lump-sum grant irrespective of the size of the institution, covering basic operational expenses), all grants are activity-determined. The actual grant depends on student numbers, age distribution of pupils, and the seniority of teachers.

Source: Patrinos (2001).

A child can begin compulsory education at the earliest by the age of five but he/she must begin education at the latest in the calendar year when they reach the age of six. Danish children have today ten years of compulsory education (from six to 16), since pre-school class has recently been made compulsory (Figure 2.1).

Compulsory education can take place through:

- Enrolment in public schools, free of charge;
- Enrolment in private schools with a substantial financial support by the state (typically 80% of total costs);
- Or even teaching at home under the supervision of the local school authorities.<sup>27</sup>

<sup>27.</sup> In Denmark, education but not schooling is mandatory. Parents have long been free to educate their children as they see fit including through home schooling.



Figure 2.1. The Danish education system: an overview

a) International Standard Classification of Education.

Source: Danish Ministry of Education (2008).

Denmark has an educational system that is predominantly general until the end of compulsory education at the age of 16. Pupils follow the same, relatively undifferentiated, curriculum. At age 16, children branch off to a wide number of alternative routes. About half remain for a voluntary tenth year, with the other half going straight to upper secondary education, where schools are either general academic, or vocational preparing students for particular professions. The transition from basic school (primary and lower secondary) to so-called "youth education" (upper secondary), at the end of compulsory education is a crucial moment in a young person's educational career.

Today, any group of parents can claim public funding by declaring themselves a private school if they have at least 28 students.

At the age of 16, vocational options emerge (Figure 2.1). About 48% of young people who stay on in education beyond the age of 16 opted in 2007 in Denmark for VET programmes, a proportion close to the OECD average (Figure 2.2).





*a)* Includes the so-called pre-vocational education.

*b)* Data for New Zealand are not available. Unweighted EU and OECD averages of countries shown. *Source:* OECD (2009a), *Education at a Glance*.

# 2. Performance of the education system

# A. Overall performance

Denmark shows a relatively poor performance in terms of its school drop-out<sup>28</sup> rate. The proportion of its youth population aged 20-24 with no upper secondary education reached 18.6 % in 2008, which is slightly

28. What is actually meant by the term "drop-out"? Educators tend to consider someone as a "drop-out" if s/he interrupts his/her upper secondary education before passing the final exams and obtaining the diploma. The definition used in this report is slightly different. It basically refers to the highest qualification that youth (15-24) or young adults (20-24) eventually obtain. Although the typical upper secondary school student will finish his/her secondary education by the age of 18, some do not, for a variety of reasons. Estimations of drop-out rates based on the attainment of groups that are relatively young might count as a "drop-out" someone taking a temporary break from his/her schooling. However, by the time a person is 20-24, much of the opportunity for completing upper secondary qualifications has gone. As a consequence, the drop-out rate is defined here as the share of 20-24-year-olds who are not attending school and who have not obtained an ISCED 3 qualification.

above the OECD average (Figure 2.3). However, it is well above the proportion of 6-7% recorded in central European countries, namely Poland, the Slovak Republic and the Czech Republic or other Nordic countries like Sweden (9.5%) or Finland (10.2%). The Danish government is committed to reducing drastically the number of school drop-outs in the next years having decided that in 2015, 95% of each youth cohort should attain at least upper secondary education.<sup>29</sup> For the OECD (see OECD, 2009f), this official target may be unrealistic and may need to be revised in order to realistically take account of certain types of vocational education not currently included.

# Figure 2.3. School drop-outs<sup>*a*</sup> among youth aged 20-24, selected OECD countries, <sup>*b*</sup> 2008<sup>*c*</sup>



*a)* No longer in education without ISCED 3.

*Source:* EULFS, and Melbourne Institute Household, Income and Labour Dynamics in Australia (HILDA), Release 6 for Australia.

The share of young adults aged 25-34 with a tertiary education (*i.e.* holding an ISCED 5/6 qualification) at 40% in 2007 is well above the OECD average of 34%. But it is inferior to what is observed in Canada, Korea or Japan

b) Unweighted average of countries shown.

c) 2006 for Australia.

<sup>29.</sup> This target was established in the 2006 Danish government's strategy Progress, Innovation and Cohesion. It is based on the so-called "profile model" which estimates the theoretical completion rate 25 years after leaving compulsory education, given behaviour and transition frequencies across the education system and age groups in a given year. Immigrants are only included if having arrived in the country at age 15 or before. The rate achieved in 2006-07 was 83%.

(Figure 2.4). A good point is that graduation rates are on the rise – younger cohorts reach ISCED 5/6 more systematically than older ones – but not as much as in countries like Korea, Japan, France, Ireland or Spain.

# Figure 2.4. Proportion of 25-34-year-olds with tertiary qualification, OECD countries, 2007



Source: OECD Education database.

# B. Achievement at age 15

Poor PISA results given the country generous public funding of education

Test scores from PISA<sup>30</sup> 2003 revealed a mixed average performance for Danish teenagers. And that performance was largely confirmed by the PISA 2006 average test scores (Figure 2.5). A mixed assessment of performance also applies for low and high achievers (*i.e.* 1<sup>st</sup> and 3<sup>rd</sup> quartiles respectively, Figure 2.5). In all three cases, Denmark occupies a position that is very close to the OECD average.

These results need be considered in the light of: *i*) the country relatively high GDP per head; and *ii*) its very generous public funding of education.<sup>31</sup> The latter absorbed 4.4% of GDP in 2006, well above the OECD average of 3.7 % (OECD, 2009a).

<sup>30.</sup> The OECD's Programme for International Student Assessment.

<sup>31.</sup> Primary, secondary and post-secondary non-tertiary education from public and private sources.





A. Mathematics

# PISA scores suggest immigrants' children are lagging behind

It is particularly important to pay attention to what happens within the educational system for the children of immigrants, as a gap at that (early) stage of individuals' career may contribute to labour market integration problems.

Source: OECD PISA 2006 database.

Figure 2.6 displays the relative performance of children of immigrants in PISA 2006 test scores in mathematics.<sup>32</sup> Children of immigrant origin are doing less well at school than natives. The gap in Denmark is lower than in Belgium or France, but much larger than in Australia, Canada, New Zealand, the United States and the United Kingdom.





- *a)* Net of parental education influence.
- b) In PISA native students are those students born in the country of assessment or who had at least one parent born in the country; second-generation students are those born in the country of assessment but whose parents were both born in another country; first-generation students are those students born outside the country of assessment and whose parents were also born in another country.

Source: OECD PISA 2006 database.

A recent OECD report highlights also that children of immigrants in Denmark, and particularly sons of immigrants, have a relatively high dropout rate from secondary schools (Liebig and Widmaier, 2009). A little more than 50% of native-born sons of immigrants aged 20-29 not in education had less than upper secondary education in 2007, compared to 30% of sons of natives. The figures for daughters are 34% and 22%, respectively. These differences are among the highest in OECD countries.

<sup>32.</sup> Theoretically less influenced by background variables than reading scores.

# C. Achievement beyond 16

# Starting and completing tertiary education late

According to statistics from the Danish Ministry of Education, students in Denmark are rather old when they start and complete tertiary education and become fully available for the labour market (Table 2.1).

l able 2.1.	Median age when starting an education and at graduation,
	Denmark, 2000 and 2005

		2000	2005
Short-cycle higher education	Start	23.8	23.4
	Graduation	26.4	25.8
Professional bachelors	Start	23.8	23.7
	Graduation	27.7	27.3
Bachelors at universities	Start	21.8	21.6
	Graduation	25.0	25.2

Source: Danish Ministry of Education (2008), Facts and Figures 2007.

Indicators based on the European Survey on Income and Living Conditions (EUSILC) conveys the same message (Figure 2.7). Below the age of 20, the share of those who are in tertiary education in Denmark is negligible, lower than the European average, and much inferior to that observed in France – a country where most students immediately start tertiary education once upper secondary education is completed. Quite logically the share of tertiary education students older than 23 is higher in Denmark than elsewhere in Europe.

The issue at stake is not that Danes are more or less prone to participate in tertiary education. It is rather that they are older than their European peers when they enter tertiary education. Consequently, they are also older when they graduate. The latter is clearly visible when considering the actual age at which adults aged 30-35 in 2007 declare they graduated from tertiary education (Figure 2.8).





*a)* Frequency distribution by year of age.

Source: European Survey on Income and Living Conditions (EUSILC).





Source: European Survey on Income and Living Conditions (EUSILC).

As seen in Chapter 1, Denmark's large share of old students does not translate into achieving more human capital (Figure 1.7). Finishing studies later reduces lifetime earnings as the person has fewer years to use the acquired skills on the labour market, but much of this loss is supported by public finances (*via* foregone tax revenue), whereas the person gets all the intangible benefits of "student life" which for natural reasons are untaxed. Many argue however that older students in Denmark have accumulated significant labour market experience as many hold student jobs, which may help them have a smoother and faster school-to-work transition.

# Determinants of late completion

There is no doubt that late completion is partially the consequence of late entrance into tertiary education. Most of this delay is due to long waits before beginning to study, as many young people in Denmark take the voluntary 10<sup>th</sup> grade,<sup>33</sup> work in a café, travel abroad or enjoy their time in other ways while considering what to do in life (OECD, 2006b).

Another factor is the allocation mechanism within tertiary education. It seems that most Danes who enter into tertiary education start at university but then – when confronted with difficulties – gradually reorient themselves towards shorter (and presumably less demanding) programmes. Although access to tertiary education is conditional on having good marks at the end of upper secondary education, the existing evidence suggests that accessing university is relatively easy in Denmark. But enrolment does not automatically lead to graduation. About a third of those who start such a programme drop out at some stage (Danish Ministry of Education, 2008), generally to start another programme, with the consequence that those who eventually graduate from short programmes or vocational qualifications in tertiary education are older than those who manage to stay at university (Table 2.1).

The two following results, discontinued tertiary education and programme reorientation, point at poor matching between individuals' selection of studies and their capabilities, as well as at insufficient preparation for further studies for lower levels of education (*i.e.* poor performance at the age of 15 in core topics highlighted by PISA). A more direct selection and assignment mechanism at the entrance of tertiary education would definitely contribute to lowering the age upon graduation.

Another point is that Denmark offers relatively generous and flexible education grants and loans to all its students aged 18 or more (see Box 2.2

<sup>33.</sup> A voluntary extra year of lower secondary education before the student enters an upper secondary programme. These so-called "bridge-building" programmes are meant to facilitate transition from lower to upper secondary education programme.

for more information on these schemes). Evidence based on EUSILC displayed in Figure 2.9 suggests that this parameter plays a key role in extending the duration of studies. Across Europe, the larger the amount directly<sup>34</sup> transferred to students, the older the age upon graduation.

# Box 2.2. Education grants and loans in Denmark

Every Dane over the age of 18 is entitled to public support for his or her further education (only tested against parental income for youth not attending tertiary education and aged less than 20). Tuition at Danish public and most private educational institutions is free for Danish students and for all EU/EEA students as well as for students participating in an exchange programme. Student support is granted by the state (in the form of state education grants and loans), conditional on students attending institutions and programmes approved by the Ministry of Education.

Support for students' living costs is awarded by the State Education Grant and Loan Scheme), a system managed by the Danish Educational Support Agency in collaboration with educational institutions and under the auspices of the Danish Ministry of Education.

# **Financial characteristics**

The maximum amounts awarded in 2008 for education grants are as follows:

- Students living with their parents: EUR 343 (DKK 2 574) per month.
- Students living on their own: EUR 690 (DKK 5 177) per month.

Both categories of students can obtain state loans worth EUR 340 (DKK 2 562) per month.

Over 300 000 Danes benefit from education grants and state loans every year. The 2008 budget amounts around 0.8% of GDP.

Education grants and loans (and study abroad scholarships) are paid to a NemKonto in monthly instalments. A NemKonto is an ordinary bank account which the student already has and which the public authorities use when they pay out money.

On completion of their studies, students must start paying back the state loans. Repayment must begin one year after the end of the year in which they have completed their studies. The duration of the period of repayment must not exceed 15 years. About half of all students make use of state loans.

During the period of study, state loans will carry a 4% annual interest. On completion of the studies, the annual interest rate is the discount rate of the Danish Central Bank plus an adjustment which can be negative or positive, but at most plus 1 percentage point.

34. Indirect transfers via family credit-taxes or child allowances are left aside. Until students are 20, education grants depend upon parental income. When that exceeds a certain amount the grants are reduced on a sliding scale, ending in a minimum grant. Beyond the age of 20, only the student's own income matters. It should not exceed EUR 10 190 (DKK 76 440) per year (2008 limit). Students who overstep that limit have to repay some of the grants and loans received that year plus 7%. However they have the option of not accepting state support for a period of time thus preserving their rights.

#### Main rules

Altogether the rules make for a flexible system. Students have the option of organising their studies according to their personal preferences and earning possibilities. At the same time, however, they incur a measure of personal accountability for managing their financial situation.

# Youth over 18 attending youth education (i.e. a general or vocational upper secondary education programme)

They must attend classes, sit examinations and in other ways demonstrate that they are active in their educational programmes. No time limits are placed on this type of support. Students are eligible for support for any number of courses, with the exception of certain upper secondary programmes.

#### Students over 18 enrolled in tertiary education

They are entitled to a number of monthly grants corresponding to the prescribed duration of the chosen study, plus 12 months. Inside a maximum of 70 grants students can change from one course to another.

Students in tertiary education (under a time limitation) have the choice of using these grants later, either to prolong their studies (for instance, to prepare for re-examination after a failed exam) or under certain circumstances to obtain double grants for a period of time at the end of their studies.

#### Extra monthly grants

In particular situations – mainly sickness and childbirth – students can apply for extra monthly grants. New mothers are eligible for 12 and new fathers for six extra monthly grants, with certain stipulations.

#### Support for studies abroad

Danes can obtain support for studies abroad. Courses of study have to meet the same conditions for recognition as Danish ones. For studies in the Nordic countries, support is awarded for the prescribed duration of the chosen study, plus 12 months. For studies in other foreign countries, students are supported for four-year courses or for the last four years of longer ones. Danish grants can be used to finance studies abroad when they are accepted as part of a study programme at a Danish institution.

Source: Danish Ministry of Education, www.sustyrelsen.dk/index.html?/in\_english/default.html.

# Figure 2.9. Total transfers to tertiary education students<sup>*a*</sup> as a percentage of the (gross) average monthly wage of unskilled workers<sup>*b*</sup> and age of education completion, <sup>*c*</sup> Denmark and Europe, 2007



- a) Aged 15-29 who declare being primarily students and possess at least an ISCED 3 degree.
- b) Aged 15-29 without ISCED 3.
- c) Age highest degree was obtained among 30-35-year-olds.

Source: European Survey on Income and Living Conditions (EUSILC).

Finally, the (gross) wage premium associated with holding a tertiary degree is one of the lowest in OECD countries (OECD, 2009a). What is more, given Denmark's (high) progressivity of income taxation, this probably means that the net rate of return is one of the lowest in Europe. But contrary to education grants and other monetary transfers, this parameter does not seem to be strongly correlated with the speed at which students pursue their studies (Figure 2.10).





- *a)* Estimated model is a Mincerian equation when the education variable is categorical (ref=ISCED 3 or upper secondary education).
- b) Among adults aged 30-35.

Source: European Survey on Income and Living Conditions (EUSILC).

# 3. Strategies to improve educational attainment

# A. Continuing to develop learning activities in kindergarten

There is a growing recognition that quality pre-school provides young children, particularly those from low-income or other disadvantaged backgrounds, with a good start in life (OECD, 2006a). Participation in pre-school – where children are exposed to an actual educational content – could be particularly good for the latter, as it could reduce the incidence of dropping out from school or act as a long term catalyst of school-to-work transition.

A relatively unknown feature of the PISA 2003 survey is that participants were asked to report their pre-school experience before they started primary schooling. This information can be used to measure the correlation between early education and cognitive achievement at the age of 15 (that, in itself, is a good predictor of future academic and professional success). In Denmark, reported score differences (Figure 2.11) between those who spent two years or more in kindergarten and those who spent no time range from 14 to 16 points on the PISA scale (or 0.14 to 0.16 of a standard deviation).<sup>35</sup> The score gaps in Denmark, for both reading and mathematics, are close to the equivalent OECD average.

# Figure 2.11. Kindergarten non-attendance and score gap<sup>a</sup> at the age of 15, OECD countries,<sup>b</sup> 2003



No attendance versus two or more years of attendance<sup>c</sup>

- *a)* Ordinary least squares (OLS) coefficients not statistically significant at the 5% level are set to zero. The regression includes the following control variables: mother education, father education, immigration status, index of socio-economic and cultural status.
- b) Unweighted average for OECD countries.
- *c)* Reference group.

Source: OECD PISA 2003 database.

Those who legitimately fear that these results remain potentially spurious should consider that they accord with the evidence published in the research literature<sup>36</sup> that aims at measuring the causal benefits of early education.

36. Carneiro and Heckman (2003) review several evaluation studies of the long-term benefits of pre-school programmes on children from low-income families. Reviewed studies find evidence of sizeable long-term effects on school achievement and grade repeating, particularly when efforts are sustained beyond

<sup>35.</sup> The reported coefficients are *net* of what should logically be attributed to background variables that are beyond the control of education and social policy. These variables include the level of education of parents (both mother and father), the immigration status, as well as the socio-economic and cultural status of the parents.

International data (Figure 2.12) show that childcare attendance among children aged 3-5 is higher in Denmark (91.3%) than in many OECD countries.<sup>37</sup> But pre-school should not be amalgamated with childcare services. Childcare refers to arrangements made for the care of children when parents are not available. Traditionally, childcare has been viewed as a tool to foster (mainly female) employment and support families, rather than being part of the education system. Pre-schools, by contrast, are supposed to offer a range of educational and developmental programmes to children, delivered by staff with teaching qualifications. As mentioned earlier, there is abundant evidence, from the evaluation literature concerning the long-term benefits of pre-school (*i.e.* school-like learning approaches). The evaluation of the outcomes of child-care programmes are much more contrasted, and sometimes negative (Lefèbvre *et al.*, 2006).

# Figure 2.12. Pre-school attendance rates among 3-5-year-olds in OECD countries, 2007



*a)* Unweighted average of countries shown. Source: OECD Education database.

the pre-school period. Positive effects of pre-school education on being on grade and school completion have been found in France, where pre-school is almost universal among 3-5-year-olds (Caille and Rosenwald, 2006). Boocock (1995) reviews childcare in Sweden and concludes that participation in pre-school has benefits in terms of cognitive development and school success, and that these are more positive for children of low-income families.

37. The latest figures provided by the Ministry of Interior and Social Affairs, point at an even higher attendance rate of 96.6 % for the 3-5-year-olds in 2008.

In Denmark, services for children aged 0-6 have traditionally been considered as an integral part of the social welfare system (OECD, 2006a) and not of the education system. As a consequence, kindergarten and preschool class have been more focused on psycho-social development more than learning. The Ministry of Interior and Social Affairs has the primary responsibility for national early childhood policy, although many policy and operational matters have for long been decentralised to local authorities. Indeed, the close monitoring of kindergartens takes place at municipal level, where teams of pedagogical advisors monitor font-line services and provide support to improve the quality of services.

The traditional division between childcare/kindergarten and primary education is currently reconsidered in Denmark following the 2007 legislative initiatives of the Danish Act of Day Care.<sup>38</sup> In particular, in the day-care facility or elsewhere in each locality, offering a language assessment test is mandatory for all children aged three. The local council is also responsible for ensuring that all children aged 3 in the local authority are offered language stimulating activities and other assistance as required, such as counselling parents for supporting their children's language development.

Qualified staff is key in the 2007 Act of Day Care. Most kindergarten facilities have a manager and deputy-manager, both of whom are qualified pedagogues. Up to 60% of staff members are certified pedagogues. And the minimum qualification for pedagogues requires 3.5 years at tertiary level in centres of further education.

# B. Improving the level of attainment in compulsory education

In light of the disappointing results on educational attainment, a number of measures have been taken in recent years to strengthen the education content of the earliest years in the formal school system. In particular, the introductory year for 6-year-olds has been made compulsory. The still unsatisfactory 2006 PISA results should convince the Danish authorities of

<sup>38.</sup> The general purpose of early childhood education and care as specified by the 2007 Act of Day Care is to further the well-being, development and independence of children in consultation with their parents, while also functioning for educational, social and care purposes. All day care facilities have to make a learning plan, which describe how the day care works with six themes: personal and social competences, language, motor development, culture and nature. Each year, the work with the learning plan has to be evaluated and sent to the local authority for further discussion and action if necessary.

the necessity of continuing to strengthen the curriculum in primary and lower secondary schools. Extensive reforms are being implemented in the primary and lower secondary schools with the aim of improving the level of attainment in particular in core topics. The government has established in 2006 a new national agency for quality assurance and evaluation in compulsory education.

In April 2006, the Danish Parliament decided to make national tests a compulsory pedagogic tool in compulsory education. As part of the process of evaluating the students' learning outcomes, a range of obligatory national tests have been introduced. The tests<sup>39</sup> are designed by the Agency for quality assurance and evaluation of primary and lower secondary education. They are used to follow the individual student's acquisition of knowledge and skills so that the education process can be planned to a greater extent according to the individual student's strengths, weaknesses and potential.

The main purpose of the testing system is to provide teachers with a pedagogical tool to help them analyse the proficiency level of their pupils and the level of their class (Wandall, 2009). In order to reduce the incentive to "teaching to the test" and as precautionary measures against ranking of teachers, schools or local communities, it is forbidden by law to publish the items and the test results. Any test result obtained by a pupil, and even an average by a group of pupils, classes, schools or municipalities are strictly confidential.

Only those, who for professional reasons need information about the results, are allowed to see them. The teacher, for instance, has access to detailed reports with information about the individual pupils' result as well as test results on class level. The headmaster is allowed to see the pupil's overall results, the class results and the results for the school. The local government/municipalities have access to aggregate results of the individual schools. But the general public and the parents are not informed.

Developing standardised tests a as tool that professionals can use to gauge the results of their action is certainly a step in the right direction. It creates an environment in which school, teachers and municipalities supposedly pay more attention to the determinants of children's attainment. There are also good reasons for preventing individual raw scores to be disseminated. One of them is simply that gaps between raw scores are unlikely to reflect teaching quality differentials exclusively, as it is well established that final scores are also driven by non-uniformly distributed

<sup>39.</sup> Danish students must complete the following ten tests: Danish, with a focus on reading in grades 2, 4, 6 and 8; English in grade 7; Mathematics in grades 3 and 6; Geography in grade 8; Biology in grade 8; and Physics/chemistry in grade 8.

socioeconomic background factors. But is it so clear that Denmark's very restrictive approach to results dissemination represents the best possible option? As mentioned earlier, any form of ranking based on test scores is in principle banned from the Danish scheme. What is more, it contains no element of school accountability as there are no consequences, such as monetary awards or takeover threats, attached to school performance. Continued efforts are needed to build a culture of evaluation. Ensuring contestability in carrying out the performance of teaching and schools might yield quality gains, according to OECD (2009f).

# C. Combating late tertiary study start and completion

Previous sections of this report contain abundant evidence that young Danes are already quite old when they undertake tertiary education (Table 2.1). Most of this delay is due to long waits between lower secondary (making the end of compulsory attendance) and upper secondary education. Incidentally, it is worth stressing that these waits probably increase the risk of dropping out from studies.

For instance, public spending on the voluntary 10<sup>th</sup> grade could be better employed elsewhere in the education system to speed up entry into further studies. As many as 30% of the students attending the 10<sup>th</sup> grade are thought to be already academically ready for further education and many more would have been with further guidance during secondary school. Recent reforms of the 10<sup>th</sup> grade (for 16-year-olds) have strengthened its educational content and provided opportunities for students to try out vocational education pathways to help them make better career and study choices. The Labour Market Commission's final report, released in August 2009, recommends that the 10<sup>th</sup> grade should be targeted more carefully at students who are not capable of completing further study without extra help (Labour Market Commission, 2009).<sup>40</sup>

A similar phenomenon is observed at the articulation between upper secondary education and tertiary education. What is more, within tertiary education, Danish students frequently change study course, with the mechanical implication that they tend to be older when they properly start the programme they will eventually graduate from.

Addressing this problem is a challenging endeavour as there is not simple answer to a phenomenon so evidently deeply rooted in the Danish

<sup>40.</sup> The Labour Market Commission was established in 2007 to provide recommendations on how to achieve the employment goals required by the government's 2015 Plan for fiscal policy.

culture. Possible options include: *i*) a better command of core skills at the end of compulsory education in order to increase the level of "study readiness" of teenagers; *ii*) improved guidance within schools; and probably also *iii*) financial incentives to start the next level of education earlier.

Regarding financial incentives, it is hard to say exactly how much these matter for educational choices. However, there is evidence (Figure 2.9) that across Europe the generosity of student financial assistance is correlated with the duration of studies.

The Danish government proposed in 2006 a set of adjustments of the public education grants with the explicit aim of enticing youth to start and complete tertiary education earlier. The proposals comprised : *i*) a EUR 130 (DKK 1 000) cut of the monthly education grant for living costs for those starting more than two years after completing secondary education;<sup>41</sup> *ii*) for all students, EUR 130 (DKK 1 000) of the monthly education grant retained and paid out as a bonus at the end of each semester conditional on sufficient progress; *iii*) abolition of the right to 12 months of extra education grants in excess of the stipulated programme duration; and *iv*) removal of the possibility to "save" education grant payments for use after the stipulated programme duration.

However, the final decision was much more limited in scope. In the 2006 Welfare Agreement, the single most important change for a student was an easier access to tertiary education if he/she enters tertiary education within two years of completing secondary school. Starting from the 2009 enrolment, students entering tertiary education will have their grade average multiplied by a factor of 1.08 and thereby will have easier access to studies where the number of study places is limited by a numerus clausus. But this is unlikely to fundamentally affect students. In Denmark, open access exists to most university (ISCED 5A) programmes, except in certain specialised are mainly intended for professional bachelors<sup>42</sup> ones which (Eurydice, 2007). In addition, reflecting lower demographics, the number of available places in these areas now seems to exceed the number of applicants (OECD, 2005b).

The Labour Market Commission again proposed to introduce financial incentives to encourage earlier completion of education. It recommends paying a tax-free bonus of DKK 10 000 to students who complete their first

<sup>41.</sup> And the right to larger student loans in exchange.

<sup>42.</sup> Graduates in teacher training for primary and lower secondary education, and in other fields of study such as social services, business and administration, and engineering.

year of tertiary vocational study within three years after completing upper secondary education. It also recommends terminating the current practice of giving education grants for one year longer than the specified duration of a course, for students starting tertiary education two years after finishing upper secondary school.

Measures aimed at changing the attitude of providers *(i.e.* tertiary education institutions) were also announced in the 2006 Welfare Agreement. New financing structures will bring actual study times better in line with scheduled study times. The intention is also that part of the public financing will be paid out when students complete exams (Danish Ministry of Finance, 2006). From 2009, the bonus that universities receive when students complete a bachelor programme is conditional on the duration of the study. The universities will receive a bachelor bonus when students complete a bachelor programme within the prescribed study period plus one year and master's bonus when students complete a master's programme within the prescribed study period.

These are steps in the right direction. But other decisions could prove counterproductive. For instance, the 2007 decision to rise earnings ceilings under the very generous public grants for student's living cost allow students to earn more while still receiving full education grants and may indeed delay study completion. Research finds that the higher the individual's own earnings while studying, the longer it takes to complete studies (Gupta and An, 2005).

# 4. Between school and work

# A. Orientation, guidance and placement

Good career education and guidance, prior to young people's entry into the labour market, is widely recognised in the literature as being one of the elements fostering a smooth school-to-work transition (Ryan, 1999; OECD, 2004a). In the Danish context, study guidance also appears as a potential catalyst of the speed of transition between the different levels of education and an element that could reduce initial education's duration and school drop-outs.

There are also reasons to believe that study and career counselling provided by schools is particularly important in the vocational stream for pupils who do not learn from their families or other well-connected social networks, when they have to opt for a particular VET programme, as is the case for many in Denmark. Finally, the changing nature of labour market needs also matter and justify paying intention to guidance.

# *Guidance after school-leaving*<sup>43</sup>

Youth guidance centres have a mandate to reach out to drop-outs aged less than 25. Their main role is to help these get back into the educational system. The youth guidance centres must offer guidance and assistance to any youth who "has completed compulsory education, is less than 25-year-olds, has not completed an upper secondary education or a higher education or is not currently studying one of these".

# Guidance within schools

On August 1<sup>st</sup> 2004, a simpler and more transparent guidance system was enacted. Whereas the former system was based on guidance services provided by teachers working part-time as guidance counsellors, guidance is now delivered by the staff of the youth guidance centres.

It starts in grade 6 and continues until grade 10 (end of lower secondary education). From grade 9, career guidance also consists of bridge-building schemes that offer students the possibility to familiarise themselves with the demands of upper secondary education programmes. A personal education portfolio follows each student into upper secondary education and serves as basis for talks about future career planning.

The Ministry of Education and the Ministry of Employment have decided in November 2009 to focus on targeted measures for the 15-17-year-olds. All primary school pupils will prepare an education plan in collaboration with their parents, the school and the youth guidance centre The plan should lead to further education or should describe what the young person will otherwise doing. The education plan may include activities such as education, employment, internship, stay abroad or volunteer work. If pupils do not follow their education plan, their parents will risk losing child benefits.

Additional resources have also been provided for increased co-operation between youth guidance centres, educational institutions and the Public Employment Service (PES). The Ministry of Education and the Ministry of Employment will co-operate to develop a database, which will ensure a full overview of the education and training of each young individual. This will enable a quick identification of vulnerable young people and provide the information needed to offer a targeted effort.

<sup>43.</sup> See also Box 4.4.

# B. Vocational education and training (VET) system

# Organisation

The VET system encompasses programmes of durations ranging from 18 months to 5.5 years that are divided into two parts: a "basic course", which is broad in its scope and a "main course", in which the trainee specialises within a craft or a trade and signs an apprenticeship contract with a firm. The basic course consists of both compulsory and optional subjects. The optional subjects provide the individual trainee with the possibility of acquiring additional qualifications in regard to either the main course or to gain access to further or higher education. The length of the basic course in the technical training programmes will vary from programme to programme, and from one trainee to the next.

Approximately one-third of a youth cohort enrols in a VET programme after completing lower secondary education. There is a long-term decrease in the number of young people who enter a VET programme as the trend over the past decades has been to opt for the more academically-oriented upper secondary education programmes (*Dansk Arbejdsgiverforening*, 2009).

However, access to this system intervenes often after the traditional gap years that young Danes grant themselves before undertaking an upper secondary qualification. The latter explains why in 2005 students were almost 21 years of age when starting VET (Danish Ministry of Education, 2008).

In Denmark, VET is thus organised in a sequential way: students first spend some time (ranging from 10 to 60 weeks) attending a class-based curriculum on a full-time basis (the so-called "basic course"), and then move on to (full-time) apprenticeships in firms for another two to three years (the so-called "main course"). In traditional dual systems – such as in Austria, Germany or Switzerland – school-based and work-based training are provided in parallel and involve an employment contract plus formal schooling – normally one and a half to two days per week.

A limited number (about 5%) of students choose an "apprenticeship-only" pathway into VET. The apprenticeship pathway constitutes an alternative, especially for practically-oriented trainees who are tired of school. In the apprenticeship pathway, the entire basic course is acquired by means of in-company training.

Denmark has also developed pre-vocational production schools.<sup>44</sup> Since 1978, these schools offer youth aged 16+ and who are not ready for the normal VET programme a practical or "production-related" learning environment. Students are offered the opportunity to participate in practical work in different areas ranging from metal, carpentry and textiles to media, theatre and music. Part of the basic course of the VET programme can be attended in production schools. There are also financial incentives to foster closer co-operation between VET and production schools.

Apprentice wages have a special regime. Within each sector, a minimum wage for apprentices is negotiated every third year in collective labour agreements. Additionally, the apprentice – as in an ordinary employment contract– has the opportunity to negotiate a higher salary. Firms receive important subsidies to hire and train apprentices. As a result, the average cost for an apprentice is half the cost for an ordinary employee. The wage received by an apprentice is however attractive for a young person, being 60% higher than the state education grant.

# The VET system performs well for those who complete it

The VET system in Denmark has a strong "dual" component, synonymous with: *i*) systematic involvement of firms and social partners; and *ii*) (partially as a result of that) a high job-readiness for those who complete it (see Box 2.3 for a presentation of the principles on which it is based).

Most trainees enter VET *via* the basic course and then apply for an apprenticeship and to the main-course part. In fact, everybody who has completed lower secondary education can be admitted to the basic course but a contract with an enterprise is required in order to continue on the main course. The internal drop-out rate is, however, high. Only around 70% of new students complete the basic course and 80% the main course. Many of the trainees who drop out continue in other VET programmes or in the general upper secondary education programmes. Nonetheless, 40% of all drop-outs are estimated not to continue any education or training programme within the next ten years. The drop-out rate is higher among men than women and higher among immigrants than among those with Danish origin (National Education Authority, 2008). Reducing the number of trainees dropping out is an important political priority.

<sup>44.</sup> The *Korsor* production school was presented as a good practice in 1999 by the OECD (OECD, 1999).

# Box 2.3. The VET system in Denmark

The VET system includes four types of programmes: agricultural, commercial, social and health care, and technical. The system is part of the Danish youth education system, and as such, is primarily targeted at teenagers (16+). However, the average age of trainees in VET is 22, and the VET system also offers a wide range of possibilities for young adults (25+). Furthermore, the trend is towards an integration of initial VET and continuing VET in one system (see Box 2.5).

The VET system is based on three main principles:

# The dual training principle

Periods in school alternating with periods of training in an enterprise. This principle ensures that the trainees acquire theoretical, practical, general and personal skills which are in demand by the labour market.

#### Social partner involvement

Social partners take part directly in the overall decision- making and daily running of the VET system.

#### Lifelong learning opportunities

The system is highly flexible, offering learners the possibility of taking part in a course now and returning to the VET system at a later point in time to add to their VET qualifications in order to access further and higher education. Furthermore, VET and continuing VET are integrated in order to ensure coherence between different qualifications and competence levels.

Source: National Education Authority (2008).

Another element is that the Danish VET system is relatively demanding. It takes on average four years to obtain a VET degree. It is also almost entirely up to the students to find a firm willing to take them as apprentices. Research also suggests that a good level of mathematics is the best passport to success in some VET programmes (National Education Authority, 2008).

Policy makers rightly concerned by the overall incidence of drop-outs are trying to improve the quality of VET. All VET schools in Denmark must now develop action plans aimed at increasing retention and all VET students must now have a "contact teacher" acting as a personal mentor/tutor. They also reformed VET in order to accommodate the needs of those forming the lower end of the skill distribution (*e.g.* more *flexication*,<sup>45</sup> shorter programmes lasting only 18 months and leading to "partial qualifications", less school-based education implying less time in the basic course before starting apprenticeship main course). The challenge, however, is to raise VET attendance and completion rates without compromising quality, in particular the willingness of firms to recruit, train and pay apprentices.

# C. Student work

In Denmark, the first work experience occurs well before students complete their initial education. This is due to a high incidence of student jobs, as highlighted in Chapter 1 (Figure 1.6).

Most economists would support the prediction that limited exposure to the labour market (*i.e.* less than 20 hours/week) during study years should be conducive to quicker and smoother school-to-work transition. The inherent search process involved in finding jobs while studying should help young people decide what they intend to do later (*i.e.* reduce search and matching costs). Moreover, some of the skills acquired on the job are likely to be transferable across employers and lift wages at a later stage. On the other hand, most of these jobs are potentially relatively poor in skill contents.

Whether student jobs are beneficial or not has been extensively researched in the United States. While some of the earlier studies (*e.g.* Greenberger and Steinberg 1986) tend to find negative impacts, others by Eckstein and Wolpin (1999), Oettinger (1999), and Ruhm (1997) show that far from being the case that all student work is detrimental, modest involvement in work activities while studying actually leads to positive outcomes. In particular, Ruhm (1997) finds strong evidence that early work experience leads to higher future wages and better fringe benefits. Additionally, he finds that students working ten hours per week during upper secondary schooling have a higher graduation probability than those who do not work at all, although heavier work (>20 hours/week) commitment is associated with a lower probability of graduation.

Another issue, particularly relevant in the Danish context, concerns the relationship between student worker and the overall duration of studies (see Section 2). Internationally, the topic has received little attention. What can be said for Denmark is that some researchers (Gupta and An, 2005) found evidence that the higher the individual's own earnings (*via* students jobs) while studying, the longer it takes to complete studies.

<sup>45. &</sup>quot;Flexication" is a key word in the Danish educational policy. It means that VET – and other forms of education – must be designed according to the needs of the user, to maximise his/her chance of success.

# **D.** Apprenticeships and training places in the current crisis

From 2003 to 2008, the number of apprenticeships increased by 39%, but fell between mid-2008 and mid-2009 due to the financial crisis. Subsequently, enrolment in school-based practical training programmes has increased substantially. A number of measures have been taken to support apprenticeships, including improving financial incentives for employers and training colleges' capacity to find internships and training places.

Many higher education courses require students to complete a compulsory work placement and it is feared that if students do not secure one, they will drop out of their studies. As a response to the current downturn, the government has announced in September 2009 that it will invest EUR 180 million (DKK 1.35 billion) in securing 5 000 internship places next year for students to prevent them joining the unemployment queue (Box 2.4).

# Box 2.4. 5 000 additional apprenticeships and training places in 2010

*1 650 places in private companies.* These internships are subsidised by the state through a cash bonus to the companies of EUR 800 (DKK 6 000) per month; this is 67% of the intern salary in the training period. After four and seven months the company will receive an additional bonus of EUR 2 150 (DKK 16 000).

1 500 places in schools in the following occupations: data and communications, electricians, mechanics, carpentry, technical designer and construction.

1 650 *places in regions and municipalities*. The government, the regions and the municipalities will propose a plan for internships before end of 2009.

200 places in the state, funded through an increase in Employment Minister allocated quotas.

There is no age restriction on the access to the 5 000 new places. However, persons over 25 years receive an adult trainee salary and have the possibility of receiving an additional employment subsidy.

# 5. Continuing education

The international evidence about the incidence of continuing education and training among young adults (16-34) is limited.<sup>46</sup> Table 2.2 shows how Danes fare relative to other Europeans in terms of participation in any kind of

<sup>46.</sup> For Europe, one source is the EULFS *ad hoc* module on lifelong learning carried out in 2003. It contains information for the whole population of working age (15-64), with a breakdown by age group. Unfortunately, it only informs about the age group 25-34.

learning within the last 12 months: formal (being taught in the formal educational system), non-formal (being taught outside the educational system) and informal (self-learning). The participation rate in any kind of training over the 12 months preceding the survey was 82% in 2003, well above the European average of 57%.

# Table 2.2.Participation rate in any kind of learning<sup>a</sup> by age, Denmark and Europe, 2003

35-44 45-54 25-34 55-64 Total Austria Luxemboura Finland Denmark Sweden Slovak Republic France Italv Portugal Belgium Ireland Netherlands Germany Unite Kingdom<sup>b</sup> Poland Czech Republic Spain Hungary EU average 

Percentages of the age group

*a)* Learning activities, within the last 12 months that are not part of a formal educational programme, and are taught outside the regular educational system of schools, universities or colleges.

b) Informal training is not included.

Source: European Union Labour Force Survey (EULFS), ad hoc module on Lifelong Learning, 2003.

The problem is that this very encompassing definition of continuing education may include respondents that are still engaged in courses leading to an initial education qualification (known for being particularly common in Denmark). A better way of gauging participation to continuing education might be to focus on the non-formal form of training covered by the EULFS *ad hoc* survey (Table 2.3). The latter captures the learning activities that are not part of a formal educational programme, and are taught outside the regular educational system of schools, universities or colleges (but excludes

self-learning via books, computers or TV programmes). This indicator confirms the previous one, as it turns out that more than 66% of young adults in Denmark were engaged in continuing education in 2003, which is more than the EU average of 49%.

# Table 2.3. Participation rate in non-formal learning<sup>a</sup> by age, Denmark and Europe, 2003

	25-34	35-44	45-54	55-64	Total
Luxembourg	85	83	78	75	81
Austria	85	84	84	91	86
Finland	76	74	68	60	70
Denmark	66	69	67	61	66
Slovak Republic	60	59	58	48	57
Sweden	57	54	53	46	53
France	54	49	46	31	46
Italy	54	50	45	35	47
Portugal	50	45	38	32	42
Ireland	46	48	44	40	45
Germany	42	40	37	30	37
Belgium	38	34	32	23	32
Netherlands	35	34	32	26	32
Poland	35	29	23	16	27
Czech Republic	24	24	21	16	21
Spain	21	17	14	9	16
Hungary	8	7	5	4	6
FU average	49	47	44	38	45

Percentages of the age group

*a)* Other learning activities within the last 12 months.

Source: European Union Labour Force Survey (EULFS), ad hoc module on Lifelong Learning, 2003.

In policy terms, the high incidence of continuing education in Denmark probably reflects its long tradition of investment in lifelong learning. For example, since the 19<sup>th</sup> century, Folk High Schools have been providing non-formal education, mostly in boarding schools where traditional Nordic life skills are taught.<sup>47</sup>

Today, there are 78 folk high schools located all around the country. The minimum age is 17<sup>1</sup>/<sub>2</sub>. Three folk high schools are only for young people between the ages of 16<sup>1</sup>/<sub>2</sub> and 19. The courses vary in length from four days to 36 weeks. Short courses are most frequently held during the summer with participants of all

The current Danish government's objective is that everyone shall engage in lifelong learning. The Danish adult education and continuing training system indeed offers a broad variety of vocational training programmes for younger people and people with longer job experience as well as for employed and unemployed people. The year 2001 marked the introduction of a more coherent, transparent and simple structure, with education and training levels comparable to those in use in the mainstream initial education system (see Box 2.5 for more details on the range of programmes).

# Box 2.5. Training Danish workers

The adult vocational training system serves a triple purpose:

- To contribute to maintaining and improving the vocational skills and competences of the participants in accordance with the needs on the labour market and to furthering competence development of the participants.
- To contribute to solving labour market restructuring and adaptation problems in accordance with the needs on the labour market in a short and a long term perspective.
- To give adults the possibility of upgrading competencies for the labour market as well as personal competencies through possibilities to obtain formal competencies in vocational education and training.

It comprises:

# Adult vocational training programmes

This programme is largely accessible. The only entrance requirement is being resident or holding a job in Denmark. If offers mainly short vocational programmes (up to 3 000 in 2008) delivering: *i*) specific job/sector related skills and competences; *ii*) general skills and competences; and *iii*) labour management skills and competences. It also includes: *i*) special programmes for recognition of prior learning (IKV); and *ii*) specific programmes for immigrants and refugees not having adequate Danish language skills to join the ordinary adult vocational training programmes.

ages. The longer courses are held during the winter and the participants are normally in their early 20s. The folk high schools have a high degree of freedom to choose the subjects, content and methods of their teaching, which means that there are great differences between the schools in this respect. The subjects must be of a broad, general nature for half of the time, but the rest of the time can be spent on going into depth with special subjects and skills. General discussions about important topics are common to all the teaching.

#### **Basic adult education programmes**

The programme offers more flexible opportunities to adults who lack basic skills to attend adult vocational training courses. These comprise non-formal learning, notably work experience. The final certificate corresponds to a certificate from vocational education and training in the mainstream system at upper secondary education level.

Participants in the adult vocational training courses and/or in the basic adult education may also join or supplement the vocational training by participating in the Preparatory Adult Education, which offers courses in Danish language and mathematics for adult with low basic skills and competences.

#### Adult further education programmes

This consists of short-cycle tertiary education programmes for people on the labour market having a relevant educational background and at least two years of work experience.

#### Diploma level programmes (professional bachelor)

These are medium-cycle tertiary education programmes for people on the labour market having relevant educational background and at least two years of work experience.

#### Master level programmes

These are long-cycle tertiary education programmes for people on the labour market having relevant educational background and at least two years of work experience.

The study load of these last three programmes is equivalent to one year of fill-time study, but it is spread over two years so that participants may study part-time and keep their job and preserve their level of income.

*Source*: Information provided directly by the Danish Ministry of Employment; and Danish Ministry of Education website: *www.eng.uvm.dk/*.

The social partners play a major role in the management of this system. A National Council for Adult Vocational Education and Training advises the Minister of Education and eleven continuing training and education committees, each responsible for a specific sector of the labour market. These committees have to continuously analyse the labour market needs for new competences and develop relevant competence profiles as well as corresponding curricula. At the local level, the social partners systematically sit on the board of institutions providing adult vocational training programmes.

Adult vocational training programmes in Denmark are publicly financed to a large extent. The providers operate within a fixed financial framework largely based on the voucher principle (*i.e.* the taximeter, see Box 2.1).

There are about 120 schools licensed by the Ministry of Education to provide adult vocational training programmes all over the country. The providers are adult vocational training centres, vocational technical colleges, commercial colleges, agricultural colleges and social and health service schools. Most of the schools provide programmes for adult alongside initial education programmes attended by youth. The schools are mainly state schools, but also include a number of private schools.

There are user fees ranging from EUR 65 (DKK 500) to EUR 100 (DKK 750) per week in 2008, and representing about 15% of the operating costs. But unemployed benefit recipients usually attend for free, particularly if attendance is a requirement of an active labour market programme. Their training costs are covered by the PES (see Chapter 4 for more details). For workers, fees are usually paid by employers. What is more, workers are entitled to an allowance equivalent to the (maximum) unemployment benefit and financed by the State Grant System for Adult Training. Companies that keep paying their employees during periods of training are entitled to receiving this allowance.

# 6. Key points

Test scores from PISA 2003 and 2006 reveal a mixed average performance for Danish teenagers. These results should be considered in light of the country's very generous public funding of education. It amounted to 4.4% of the GDP in 2006, significantly more than the OECD average of 3.7 %. Denmark also has a relatively high drop-out rate (15-16% of its young adults do not attain upper secondary qualifications), and seems to be partially related to the failure of schools to equip disadvantaged youth with core literacy and numeracy skills.

By contrast, Denmark has a good vocational education and training (VET) system for those older than 16. VET in Denmark has a strong "dual" component, synonymous with: *i*) systematic involvement of firms and social partners and, partially as a result of that; *ii*) a high degree of job-readiness for those who complete it.

More on the negative side, Denmark has among the oldest students and graduates in OECD countries. Unless Danes effectively retire later,<sup>48</sup> this means less active years spent in the labour market by educated individuals. In the Welfare Agreement approved in 2006, a number of measures were

<sup>48</sup> The employment rate of workers aged 55-64 in 2008 was well above the corresponding rate in OECD and in the European Union (respectively, 58%, 54% and 47%).

announced to cope with this problem. The single most important change for a student will consist of making access to tertiary education easier if less than two years have elapsed between schooling completion and tertiary education enrolment. As to the providers, new "financing structures will bring actual study times better in line with scheduled study times".

Finally, it is worth stressing the country's high incidence of continuing/lifelong education. Denmark offers a broad variety of training programmes as well as much financial support to its citizens (unemployed or not) and its firms are willing to invest in lifelong learning.



# From: Jobs for Youth/Des emplois pour les jeunes: Denmark 2010

Access the complete publication at: https://doi.org/10.1787/9789264075160-en

# Please cite this chapter as:

OECD (2010), "Initial education and on-the-job training", in *Jobs for Youth/Des emplois pour les jeunes: Denmark 2010*, OECD Publishing, Paris.

DOI: https://doi.org/10.1787/9789264075160-6-en

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