

UNDER<mark>VIS</mark>NINGS

MINISTERIET

Facts and Figures 2009

Key Figures in Education 2009

The Danish Ministry of Education - Statistical Publication no. 2 - 2010

Facts and Figures 2009

Key Figures in Education 2009

The Danish Ministry of Education – Statistical Publication no. 2 – 2010

Facts and Figures 2009

Key Figures in Education 2009

Author: UNI•C Statistics & Analysis Serial editor and production: Danish Ministry of Education

Translation: Ability

Graphics: Rumfang ApS Cover: Rumfang ApS Photos: Jakob Dall, Poul Rasmussen, Lars Skaaning and Preben Søborg

1st edition, june 2010

ISBN (WWW) 978-87-603-2886-5 Internet: www.uvm.dk/factsandfigures2009

Published by the Danish Ministry of Education, 2010

Facts and Figures 2009 cannot be ordered in a printed edition.

Please adress inquiries to the Danish Ministry of Education, phone no.: +45 33 92 52 23 or e-mail: pub@uvm.dk

or

UNI•C Statistics & Analysis, phone no.: +45 35 87 83 00 or e-mail: uddannelsesstatistik@uni-c.dk

Table of contents

1	Preface	5
1	The education system	6
1.1	The mainline Danish education system	6
1.2	The adult education and continuing training system	17
1.3	Pupils, students and educational institutions in the main education system	20
	System	20
2	The educational level	23
2.1	The highest completed education in the work force	23
	Extrapolation of the educational level of the population	23
2.3	Projected educational level tabulated by gender and ethnicity	27
2.4	Time spent from completing the 9th form until achieving vocational	
	qualifications	30
2.5	International comparison of the level of education	33
3	Finances	35
3.1	Average public expenditure on various educations	35
3.2	Public expenditure on adult education and continuing training	35
3.3	Expenditure on the Danish Education Support	38
3.4	Public expenditure on education as a percentage of total public	
	expenditure in Denmark and selected countries	39
3.5	Total public and private expenditures on educational institutions in	
	Denmark and selected countries	40
3.6	Total public and private expenditures per pupil/student in Denmark	
	and selected countries	42
3.7	Expenditure on financial support of students in higher education in	
	Denmark and selected countries	43
3.8	The teachers' working hours	45

4	Information technology in education	47
4.1	Infrastructure in basic school	47
4.2	Knowledge sharing systems in basic schools	47
4.3	Continuing information technology training in basic schools	48
4.4	EMU – Denmark's education portal	49
4.5	Information technology in school in an international perspective	50
5	Basic school	52
	Number of schools and pupils	52
	Pupils receiving special needs education	57
	Age at school start	59
	The pupils' choice of education after basic school	60
	Number of teachers	62
5.6	Normal class size and pupil-teacher ratio	64
6	Youth education	69
6.1	Number of schools and students	69
6.2	Age at school start	70
	Completion, dropout, and behaviour after dropout	71
6.4	The pupils' choice of education after the youth education	78
6.5	Choice of subjects in upper secondary schools	80
	Training contracts	82
6.7	Education for young people with special needs, young people in basic vocational education and training, and young people in production	
	schools	85
6.8	International mobility	88
7	Higher education	89
	Number of institutions and students	89
	Age at the start of study	90
	Completion, dropout, and behaviour after dropout	90
	Length of study and age at graduation	91
7.5	International mobility in higher educations	92
8	Adult education and continuing training	98
	Number of institutions and number of participants	98
	Age and educational background	101
8.3	Continuing training activity in international perspective	102

Preface

How many municipal primary and lower secondary schools are there in Denmark, and how many private basic schools? What is the number of pupils per class, and how many pupils are there per teacher? What percentage of pupils has an ethnic origin other that Danish? What is the proportion of a youth cohort that completes a vocationally oriented education and training programme, and what is the share that completes a higher education? These are some of the questions that are answered in this publication.

Facts and figures 2009 gives an overview of the structure of the Danish educational system and describes in numbers the development in most of

the various fields of education. The publication presents key figures and graphs that show the direction of the development in recent years and what may be expected in the years ahead. The statistics concern primarily the development in Denmark; however, figures from other selected countries are also provided.

The preparation for publication was completed in January 2010.

Most of the figures in the publication may be viewed on the website of the Danish Ministry of Education, www. uvm.dk. Additional and more detailed information about the individual fields of education may also be found there.

1 The education system

The Danish education system may be divided into groups according to qualification level and field.

Some education programmes give competence to further studies – this is called study competence. Other programmes give labour market qualifications – called vocational qualifications. There are education programmes that provide both forms of qualification. At the same time, there are educations that provide neither study nor vocational qualifications.

The education system is divided into two parallel systems: the mainline education and an adult education and continuing training. The educational level of both systems is directly comparable.

Figure 1.1 and 1.2 show the structures of and the connections between the mainline education system and the adult education and continuing training system.

In the following section, the education system is reviewed together with the framework, the contents, and the aims that apply to its various areas.

1.1 The mainline Danish education system

The basic school (primary and lower secondary school)

There is a ten-year compulsory education in Denmark, but no compulsory schooling. However, only very few children are home taught. The compulsory education begins in August of the calendar year in which the child reaches six years of age.

Almost all children begin their schooling in a one-year pre-school class that in most schools is an integral part of the first years of primary level. From 1 August 2009 the pre-school class is included in the compulsory education.

There are ten years of basic school. The basic school gives admission to the youth education; however, the pupils may choose to continue in a 10th form. A little less than half of the pupils in the 9th form of the basic school elect to continue in the 10th form; however, this proportion has been diminishing in the recent years.

The basic school comprises various types of schools. The municipal basic school including special schools by far covers the teaching of the majority of the pupils. The municipal basic school is a free offer to parents. The private basic schools (private independent schools and private elementary schools) and the continuation schools are alternatives to the municipal basic schools. Continuation schools are private boarding schools that typically offer teaching at the 8th through 10th form level. The private basic schools and the continuation schools are self-governing institutions financed by state subsidies and pupil contributions.

In the year 2008, there were 704,000 pupils in basic school. Of these, 82 % attended a municipal basic school, and 14 % the private basic schools, while 4 % attended a continuation school.

According to the Danish legislation on municipal basic schools, the purpose of the municipal basic schools is to





1. ISCD stands for International Standard Classification of Education. In Denmark the ISCED-level 4 only consists of a small number of preparatory courses for higher education.

2. In Denmark there is a ten-year compulsory education. The 10th form is an offer to pupils who have completed the compulsory education.

3. The broken line indicates that not all professional bachelor education programmes give direct access to the master's programmes (candidatus).

4. An individualised basic vocational education and training programme.

Source: The Danish Ministry of Education

Figure 1.2 The two parallel Danish education systems

The mainline education system

The adult and continuing education system



Source: The Danish Ministry of Education

bring to the pupils, in cooperation with the parents, knowledge and skills that:

"... prepare them for further education and give them the desire to learn more, familiarize themselves with Danish culture and history, provide them with an understanding of other countries and cultures, contribute to their appreciation of the interaction between man and nature, and promote an all-round development of the individual pupil".

Pupils in the municipal basic schools are normally taught in classes that remain together throughout the entire course of the basic school. The teaching is differentiated within the framework of the class so that the teaching is based on the requirements and qualifications of the individual pupil.

The private basic schools offer teaching to children in the age bracket of compulsory education, and it must measure up to what normally is required in the municipal basic schools; however, the framework for planning the teaching is more open. There are a few other forms of school that offer teaching at the basic school level. There are for example special schools for children, special needs day schools, community homes, and parts of the municipal youth school offers.

Some pupils have so great physical and mental difficulties that their education cannot be dealt with in the regular teaching. Therefore, they receive a special needs education. Until the 1st of January 2007, there were two forms of special needs education: the general special needs education, which was the responsibility of the municipalities, and the extensive special needs education, which was the responsibility of the counties. Today, all special needs education is the responsibility of the municipalities, and it is no longer split up in general and extensive special needs education. In the year 2008, almost 50,000 pupils in the municipal basic school attended special needs education in special classes or in their ordinary class.

In the international ISCED97 classification, the pre-school class corresponds to level o, and the basic school corresponds to level 1 (1^{st} through 6^{th} form) and level 2 (7^{th} through 10^{th} form).

Youth education

The youth education builds on the qualifications and the knowledge the students have acquired in basic school. All young people must be offered a youth education.

Youth education includes the upper secondary education and the vocationally oriented education and training programmes.

The youth education may prepare the students for further studies or for a profession or both. In either case, the emphasis is on developing the personal, vocational, and theoretical qualifications of the students.

Most youth education takes approximately three years; however, the duration may be anywhere from one year and a half and up to more than five years.

Through a differentiated offer and planning of the education, the individual skills and wishes of the

66

Through a differentiated offer and planning of the education, the individual skills and wishes of the students may largely be taken into consideration.

students may largely be taken into consideration. The purpose is to secure a high level of motivation so as many young people as possible complete the education.

Nearly 81 % are expected to complete a youth education within 25 years after completing the 9th form. In addition, 4 % of a youth cohort is expected to complete a higher education that is not counted as a youth education. Thus in 2008, a good 84 % in total of a youth cohort is expected to complete at least a youth education. It is the goal of the government that at least 85 % of a youth cohort complete a youth education in the year 2010 and at least 95 % in 2015.

On the 1st August 2007, new legislation took effect to give young people with special needs who cannot complete an ordinary youth education a legal right to a three-year course of education. The purpose of this education is that youths with special needs acquire competences as much as possible to actively participate in adult life and to pursue further education and employment. This way, young people with special needs are given the same opportunity as other young people so that all young people have the opportunity to complete a youth education.

Upper secondary education

The upper secondary education programmes are preparatory to higher education and comprise the upper secondary school leaving examination (stx), including the adult upper secondary level course, the higher preparatory examination (hf), the higher commercial examination (hhx), and the higher technical examination (htx). These education programmes prepare young people who take an interest in knowledge, in-depth studies, perspective, and abstraction for a higher education by allowing them to acquire a general education, knowledge, and competences and by allowing them to develop academic insight and study competence.

All students who have received the relevant instruction and have passed the prescribed tests in the basic school may continue to an upper secondary education, unless the dismissing school appraises that the student has made the choice on an inadequate or unrealistic basis. In such cases, the student is entered for an entrance examination.

Stx, hhx, and htx are three-year education programmes with a common half-year basic course followed by two and half years in a programme chosen by the student. Within certain limits, the schools themselves plan which study programme should be offered to the students. A study programme consists normally of three subjects. In addition to the compulsory subjects and the study programme subjects, the students choose one or more elective subjects.

Hf is offered as a two-year youth education programme as well as an adult programme composed of single subjects. Hf comprises mandatory subjects and optional subjects; this gives to a certain degree the opportunity to put together an individual education programme. Hf is intended as an upper secondary education offer to somewhat older students. It is not possible to go from the basic school 9th form directly to hf. Hf is frequently offered together with stx in upper secondary schools, while hhx and htx are offered in vocational colleges. For many years, vocational colleges have been self-governing institutions financed by the government. With effect from 2007, the upper secondary schools were transferred from the counties into self-governing institutions financed by the government. There are a small number of private upper secondary schools and adult upper secondary level courses where the students pay a part of the tuition costs.

The final examination completing an upper secondary education qualifies to enter higher education and thus gives a general study competence. However, most higher education programmes pose requirements concerning subjects, level and marks obtained.

Vocationally oriented education and training

The vocationally oriented education and training programmes comprise the commercial and technical vocational education and training programmes including the basic social and health care training programmes, and skilled education within the field of agriculture. In addition, the vocationally oriented education and training programmes comprise the basic vocational education and training (egu) within the fields of engine driver, chiropodist, and other education within navigation etc.

These education programmes are intended to give young people and adults strong professional, personal and general qualifications that formally and factually are in demand in the labour market. They qualify directly for employment in certain trades. All vocationally oriented education and training programmes give formal vocational qualifications. The education programmes also give the students study competence for higher education within the vocational academy programmes and certain professional bachelor programmes.

Normally, the only requirement for admission to a vocationally oriented education and training programme is that the applicant has completed the compulsory education in the basic school. Some of the vocational colleges have a relatively high proportion of adult students, especially within the social and health education.

The vocationally oriented education and training programmes (EUD) account for the greater part of vocational youth education and consist of 109 programmes in a wide range of the commercial, the technical, and the social and health care professional fields. The basic courses of the programmes are combined in 12 vocational basic access channels. Each access channel is structured so that the programmes have joint function and competence at the entry. The duration of an education programme is normally 3-4 years, but may vary between 1½ and 5½ years.

The Danish vocationally oriented education and training programmes are alternate programmes. This means that the students alternate between school and practice during the course of the education. The education programmes consist of a basic course and a main course. The basic course normally takes place in a school, but for the individual student, this may



be replaced, partly or in full, by a basic practical training in an enterprise on the basis of a training contract (new apprenticeship). The main course alternates between practical training in an enterprise and education in a school.

There is free access to the basic EUD course, and there is continuous admission. However, there is restricted admission to certain basic courses, in particular the fashion-oriented ones (such as "Body and style") and to educations with limited employment opportunities. Approximately 30-50 % of the time is spent in school and 50-70 % in a practical training company or in school-based practical training organised by the vocational college if the student is not able to obtain a training contract (internship) with an enterprise.

It is the government's goal that at least 95 % of a youth cohort complete a youth education programme in 2015. As pointed out above, the latest statistics show that this figure was 81 % in 2008 (84 % if including persons that do not obtain a youth education

but nevertheless complete a higher education). For this reason, the effort against drop-out in the vocationally oriented education programmes has been strengthened, for example by requiring that the schools prepare plans of action with goals and strategies for an increased rate of completion. Increased emphasis is placed on guidance and mentor and teacher contact arrangements, and the schools offer basic course packages that take into consideration students with weak as well as with strong study qualifications. Improved opportunities have been created for dividing the education into steps and levels and for individual courses of study. Moreover, the effort to gain more practice placements and the quality of school-based practical training have been strengthened.

Students under 25 years of age who have already completed the first step of an education may return after a minimum of half a year of relevant vocational experience to complete the education in a course of study called EUD+. Adults over 25 years of age with vocational experience in the field in question have the opportunity to complete the course of study in a shorter time based on an appraisal of their actual competency and a subsequent crediting of competencies. If the requirement of two years of relevant vocational experience is met, this may take place as a basic adult education (GVU).

The youth education programmes comprise level 3 of the ISCED97 classification.

The basic vocational education and training (egu) is an individually planned offer of education to young people under 30 years of age who do not qualify directly for another youth education leading to formal qualifications.

The course of study is primarily based on practice and alternates between time in school and time in practice. The duration of this education is normally two years; however, in special cases it may be extended by an additional year of practice. In total, the time in school is from 20 to 40 weeks. The schooling elements in an individualised basic vocational education and training plan may be comprised from a series of educational fields including vocational education and training (EUD), adult vocational training (AMU), production schools, folk high schools, full-time studies at youth schools, adult education centres, etc.

The periods of practice take place in one or more enterprises or as workshop practice in a technical school, a production school or similar. A completed egu education provides vocational qualifications and the opportunity to continue in another qualifying education and training programme with credit transfer.

Production schools

The production schools offer education of young people under 25 years of age who have not completed a youth education programme, and who do not directly have the qualifications to enter a youth education programme or who have discontinued a youth education programme. The purpose of this education is to strengthen the students' personal development and to improve their opportunities in the education system and in the general labour market. The offer is planned with the specific aim that young people acquire qualifications that enable them to complete a vocationally qualifying youth education.

The education programme is based on activities in diverse workshops and comprises practical work and performance of tasks in combination with theoretical training in actual production and marketing. Furthermore, the schools offer teaching in general subjects so the students are prepared to start a general youth education. Up to one third of the course of study in a production school may be spent in other educational institutions. For example, these may include studies of general subjects in an adult education centre (VUC) or parts of a basic course of study in a vocational college.

The stay in a production school has no fixed length but may not last more than a year. Students who complete a course of study of more than three months' duration at a production school shall, as a principal rule, participate in a course of study of two to five weeks duration that gives credit, and that is directed towards qualifying education, for instance, a vocationally oriented education and training programme. Furthermore, the students may participate in practice for four weeks each semester.

Higher education

The higher education programmes constitute the educational continuation of youth education and provide the students with final vocational qualifications. They are categorized according to level and duration: *the short-cycle higher education* including, among other things, the vocational academy education, the medium-cycle higher education including the university bachelor programmes, the professional bachelor programmes and other medium duration higher programmes, together with the long-cycle higher education including master's programmes (candidatus) and PhD programmes.

The latest calculations based on the educational behaviour in 2008 show that 47 % of a youth cohort will complete a higher education. It is the goal of the government that at least 50 % of a youth cohort complete a higher education in the year 2015.

As a rule, higher education is free in Denmark. However, the students normally pay for books and other teaching materials. For most higher education, the schools themselves decide how many student seats are established. For some education programmes, however, the number of student seats is decided centrally; by way of example this is the case for the medical, veterinary, dentistry, and nursing schools.

To be admitted to a higher education, the applicant must meet the entry requirements demanded by the school in question. For example, in order to be admitted to a university bachelor programme, the applicant must meet the entry requirement of an upper secondary graduation diploma including certain upper secondary subjects at a specified level. Furthermore, some bachelor programmes require that the upper secondary examination be passed with a certain minimum mark in average or in individual subjects.

A vocational academy education is a shortcycle higher education that as a rule takes two years, including a minimum of 3 months' practice. These education programmes are often directed towards a specific trade or job function, and they combine theory and practice. The requirement for admission to a vocational academy education is an upper secondary education or a vocationally oriented education, possibly complemented by requirements of certain academic levels in mathematics and English.

In the autumn of 2009, there are 25 vocational academy education programmes. The vocational academy education programmes give access to relevant diploma programmes. Most of the vocational academy education programmes are offered at the academies of professional higher education.

A professional bachelor education is a profession-oriented, qualifying medium-cycle higher education. The

programmes for professional bachelor education normally take three to four years including a minimum of half a year of practice. A professional bachelor education combines theory and practice and is most often directed towards a certain trade or job field.

The entry requirements for the professional bachelor programmes are in most cases an upper secondary education; however, certain vocational education and training programmes (EUD) complemented by upper secondary courses also provide admission. Today, there are approximately 40 professional bachelor education programmes within health care, biotechnology, laboratory technology, media and communication, pedagogy, technology, information technology, social sciences, and economics.

A professional bachelor education provides admission to relevant master's programmes (candidatus) and master's programmes (part-time). Beginning 2009, professional bachelor programmes are offered as individual advanced level full-time study programmes of at least 1½ years' duration. In most cases, a relevant professional academy education is prerequisite.

The greater part of the professional bachelor education takes place at university colleges – (UC).

Among other medium-cycle education programmes, there are for example: fine arts education, maritime/navigation education, sign language interpreter, and armed forces education. The duration of these programmes varies.

At the same level as the professional bachelor education programme, there is the three-year *bachelor education programme* in the universities. The bachelor education is a complete education giving vocational qualifications as well as access to a two-year *master's education programme* (*candidatus*).

The current structure of the university education was established in 1993 when it was decided to divide the long-cycle university education programmes leading to a master's degree (candidatus) into two shorter courses of study: a bachelor course of study and a master's (candidatus) course of study. Formerly, there had been only the complete course of study leading to the master's degree (candidatus) as the first academic degree. Today, all longcycle higher education programmes in university consist of a three-year bachelor programme followed by a two-year master's programme (candidatus). Henceforth, the education may be extended further by a three-year PhD programme (the so-called 3+2+3 model).

As a rule, the entry requirement for the bachelor programmes in university is an upper secondary education plus possibly meeting specific requirements for course subjects and level. Admission to the master's programmes (candidatus) presupposes a relevant bachelor degree or another relevant Danish or foreign education at the same level.

As a superstructure to the master's programmes (candidatus), there is a research education leading to a *PhD degree*. This education is normalized to three year of full-time studies. The programme includes, among others, that the student completes an independent

research project and prepares a written thesis based on the PhD project, completes research courses corresponding to approximately 30 ECTS points, participates in active research environments through residences in other, primarily foreign, research institutions, as well as acquires experience in teaching or another form of knowledge dissemination.

The entry requirement to a PhD programme is normally a master's degree (candidatus), although it is possible to be admitted before the master's programme (candidatus) has been completed. It must be ensured, however, that the combined course of study has the same magnitude and is at the same level as if the PhD programme was started after the completion of the master's degree (candidatus).

The higher education programmes comprise level 5 of the ISCED97 classification. The PhD education is considered level 6 in the ISCED97 classification.



Educational and vocational counselling

Counselling regarding choice of education and vocation are combined in a coherent system that is independent of the individual education programs, institutions, and sectors. Among other things, the counselling shall be conducive to a choice of education and career that is of the greatest possible benefit to the individual and to the society. Furthermore, the counselling shall in particular target young people with a special need for counselling and contribute to limit dropouts and change of study as much as possible.

The responsibility for youth education and vocational counselling is organised in youth guidance centres at municipal level (UU). Today, there are 45 UUs countrywide – some of them being shared between several municipalities. The UUs guide pupils in the municipal primary and lower secondary schools in their choice of youth education and vocation. Additionally, the UUs shall reach out for young people under 25 years of age who have not completed or are currently undertaking a study. Beyond this, young people may themselves approach a UU for counselling.

The responsibility for counselling regarding choice of higher education and career is organised in seven regional guidance centres called "Studievalg". The centres shall guide all young people in a youth education in their schools and everybody else who want counselling regarding choice of higher education and vocation.

Furthermore, the Danish Ministry of Education has established an Internet guidance portal, 'UddannelsesGuiden', (www.ug.dk). The portal addresses a wide target group and contains for instance information about education programmes and jobs, about current and expected employment opportunities, about education programmes offered in English, and links to educational institutions etc. Additionally, the website www.optagelse. dk facilitates electronic applications to youth education programmes and higher education programmes.

Besides the transitional guidance described above, guidance is given at

the individual educational institutions regarding completion of the education in question.

1.2 The adult education and continuing training system

Adult education and continuing training (VEU) may be divided into vocationally oriented, general, and liberal adult education.

Most of the vocationally oriented and general adult education and continuing training are formally qualifying to another study or to the labour market. Liberal adult education at folk high schools, in evening schools etc., and private courses are normally not qualifying.

The amount of the teaching within the various types of adult education and continuing training ranges from a few hours to a full-time course of study of several years' duration. Depending on the field of study, the teaching is given as full-time, part-time, day, evening and/or distance teaching, and at the workplace.

Adult education and continuing training may be publicly and/or privately funded. In some of the publicly funded education programmes, partial user payment has been introduced as a principle. In some programmes, the State furthermore gives grants to family support.

The general adult education programmes comprise:

- Preparatory adult education (FVU) which gives adults the opportunity to complement their basic skills in reading, spelling and written presentation (FVU reading) as well as number skills, arithmetic and basic mathematical concepts (FVU arithmetic). Both subjects are divided into steps, and it is possible to submit to a test after each step. FVU aims at further education.
- General adult education (avu) which is an offer to adults over 18 years of age to improve their knowledge in a series of general subjects, for example Danish, mathematics and social studies. Avu may be concluded with tests corresponding to the 9th

and 10th form in the basic school. The teaching is organised as single subject courses, and it is possible to take several subjects at a time.

 Higher preparatory single subject course (single subject hf) which is meant to give adult participants a general education, knowledge, and qualifications forming the basis for further education or increasing their opportunities in the labour market. Single-subject hf may be concluded with tests corresponding to the upper secondary levels. It is possible to take several subjects at a time and piece them together into a full higher preparatory (hf) examination.

The general adult and continuing training programmes, which are completed with a full qualification, cover level 2-3 in the ISCED97 classification.

The vocational adult education and continuing training programmes comprise:

• Adult vocational training (AMU), which make up a wide, coordinated offer of

vocationally oriented adult education and continuing training. There are approximately 3000 different adult vocational training programmes and selected single subject courses in the vocational education programmes that target unskilled and skilled workers in public or private employment. It is possible to take several continuing vocational educations consecutively within the same subject field. A diploma from the adult vocational training programmes gives an independent competence to carry out unskilled and skilled job functions in Denmark. Approximately 150 education programmes are completed with a test, and the participants receive a certificate. The certificate gives a formal competence to perform a job to which the authorities require an authorisation, for instance crane operator.

 Basic adult education (GVU), takes its starting point in the former experiences and qualifications of the individual participant. The participant undergoes a competence evaluation on the background of which an individual education plan is set up. The participant may receive credit for previous education and relevant professional experience and shall then complement these with relevant elements from the vocational education programme, the continuing vocational training programme, etc. This way, the participant will attain the same goal and the same professional level and will take the same final test as students who complete a corresponding youth education.

- Higher adult education programmes that build on a youth education. The participants must have several years of professional experience within the subject fields in question. The programmes are offered as open education and correspond to one year of full-time studies. These education programmes are at the same level as the vocational academy programmes.
- Diploma programmes that may be used as continuing and further education and training or advanced level education. The education programmes are based on a vocational academy

programme, a further education for adults programme or a professional bachelor programme. The participants should have several years of relevant professional experience. The programmes are offered as open education and correspond to one year of full-time studies. The programmes are at the level of professional bachelor and university bachelor programmes.

- Master's education programmes that may be used as continuing and further education or advanced level education. The study programmes may build on a university bachelor programme, a professional bachelor programme, a diploma programme or a master's programme (candidatus). The participants should have several years of relevant professional experience. The master's programmes are offered as open education and correspond to 1-11/2 years of full-time studies. The education programmes are at the level of a long-cycle higher education.
- Open education programmes at the vocational and the higher education level

furthermore comprise a wide range of single subject and subject-specific courses.

The vocationally oriented adult and continuing training programmes, which lead to a full qualification, cover level 3-5 in the ISCED97 classification.

Other education programmes and offers for adults:

- Liberal adult education offers that are education programmes and courses offered by folk high schools, evening schools, adult education associations, etc. The teaching is broad and of a general character.
- Special needs education for adults which are offers to persons with physical or mental handicaps. The offer, which includes training and special needs assistance, has as its purpose to remedy and limit the effect of a handicap and to give the participants the opportunity of a more active life.
- Assessments of prior learning give adults the opportunity to obtain an assessment and accreditation of all

those of their abilities that are not documented regardless of where they have obtained them. The assessment takes place at the educational institution and in relation to the education that the person wishes to start studying or to have cut short or to have accredited. The arrangement applies to all adult and further education programmes up to and including diploma level.

1.3 Pupils, students and educational institutions in the main education system

In 2008, there were 1.17 million pupils and students in the ordinary education system in Denmark spread out on 3,300 educational institutions (table 1.1 and 1.2). Three in five pupils and students were in the basic school while one in five was in a youth education programme, and slightly less than one in five was pursuing a higher education.

Table 1.1 Number of pupils/students in 2008. Cohort, intake and graduated pupils and students in the educations

	Cohort		Intake	Graduated
	Number	%	Number	Number
Main figures	1,171,194	100.0		
Basic school	719,161	61.4		
Basic school, compulsory part	682,110	58.2	63,085	69,509
Basic school, 10th form	37,051	3.2	37,354	31,470
Non-qualifying education ¹	3,039	0.3	7,657	8,721
Youth education, total	242,735	20.7	102,592	62,834
Upper secondary education	118,666	10.1	45,875	33,374
Vocationally oriented education and training	124,069	10.6	56,717	29,460
Higher education, total	206,259	17.6	59,977	45,935
Short-cycle higher education	18,950	1.6	9,404	5,908
Medium-cycle higher education	127,186	10.9	33,771	26,411
Professional bachelor education	62,460	5.3	16,555	13,706
Other medicum-cycle higher education	2,138	0.2	1,146	552
University bachelor education	62,588	5.3	17,527	12,153
Long-cycle higher education ²	60,123	5.1	16,802	13,616
Unity master's programmes (candidatus)	4,026	0.3	78	2,080
Two-step master's programmes (candidatus)	49,303	4.2	14,768	10,423
PhD etc	6,794	0.6	1,956	1,113

Note 1: Preliminary figures

Note 2: Unity 5-year master's programmes (candidatus) are being phased out and replaced by two-step programmes (3-year university bachelor program + 2-year master's programme). Source: UNI•C Statistics & Analysis (the data bank).

Table 1.2 Number of educational institutions

	2009
Educational institutions, total	3,291
Basic schools ¹	2,306
Other basic school education ²	336
Other institutions within basic schools ³	94
Adult education institutions	194
Upper secondary education	149
Vocational colleges etc	109
Academies of professional higher education	104
University colleges, engineering colleges etc	12
Universities	8
Other institutions with higher education	73

Remark: The table shows legal entities – i.e. main institutions and independent institutions. Main institutions are administrative units. Each main institution has one or more departments. Note 1: Comprises municipal and private basic schools and continuation schools (cf. table 5.1). Note 2: Comprises municipal youth schools and youth boarding schools and special schools for children. Furthermore, there are special needs day schools and community homes. Note 3: Comprises home economics and needlecraft schools as well as production schools. Note 4: Includes North Jutland Academy of Professional Higher Education which was merged with University College North Jutland on 1 January 2009. Source: UNI•C Statistics & Analysis.



2 The educational level

There are several ways of looking at the educational level of the population. Two ways are presented here:

- 1. By means of tabulations of the achieved level of education of the population.
- 2. By means of extrapolations of the present behaviour to future populations.

These two methods are used for different purposes. Tabulations of the achieved level of education may be used for comparison and status of the present situation. However, when viewing the present populations, often many changes have taken place since they started in the education system. Extrapolations are most suitable if one desires to learn about the significance of present behaviour for the future. Here, we get a picture of how the future will be if the behaviour that we know today continues.

In this chapter, the education level of the population is illustrated both by looking at the highest education held by persons in the work force and by comparing the education level of the population in Denmark with that of other OECD countries. In addition, an extrapolation is made of the education level that the current youth cohorts are expected to have in 25 years assuming they educate themselves according to the study behaviour in 2008.

2.1 The highest completed education in the work force

The work force is comprised of persons in the 15-64 age group who are either working or jobless.

In 2008, the work force numbered 2.82 million persons, corresponding to 78 % of the total population in the 15-64 age group. During the period 2005-2008, there was a decrease of just under 59,000 in availability in the Danish labour market (table 2.1).

For one in four in the work force, corresponding to 754,000 individuals, basic school is the highest completed education. 35 %, corresponding to 984,000 individuals, have completed a vocationally oriented education and training, and a proportion of 29 % of the work force, corresponding to 825,000 individuals, have a higher education (figure 2.1).

In general, the work force has gradually achieved a higher education level. This change is primarily owed to generation differences. The younger youth cohorts in the labour market have a higher education than the youth cohorts who are retiring in these years.

Since 2005, the proportion with basic school as the highest completed education has been steady at just under 27 %, and the proportion with an upper secondary education has been steady at a good 9 %. During the same period, the total share with a higher education has increased slightly, while the share with a vocationally oriented education has decreased.

2.2 Extrapolation of the educational level of the population

It is the goal of the government that in 2015, 95 % of a youth cohort achieve a youth education, and that 50 % achieve

Table 2.1 Work force (15-64 years old) by highest completed education

	2000	2005	2006	2007	2008
			Number		
All education	2,793,840	2,762,614	2,775,467	2,810,332	2,821,502
Bsic school	848,106	739,323	734,521	746,993	754,116
Upper secondary education	254,765	245,458	250,456	255,554	257,560
Vocationally oriented education					
and training	1,020,484	1,009,822	1,001,655	996,794	984,357
Higher education	670,485	768,011	788,835	810,991	825,469
Short-cycle higher education	135,560	153,199	155,304	157,970	159,575
Professional bachelor education	298,284	328,486	335,227	342,000	344,688
University bachelor education	36,360	47,975	50,859	53,373	55,057
Other medium-cycle					
higher education	46,494	50,650	51,106	51,559	51,259
Long-cycle higher education	153,787	187,701	196,339	206,089	214,890

Source: UNI•C Statistics & Analysis



Source: UNI•C Statistics & Analysis

a higher education. In order to keep track of these goals, it is calculated each year which course of study future youth cohorts will take over the next 25 years after completing the 9th form (the so-called profile model). When doing the calculation, it is assumed that the educational behaviour of a cohort throughout the period corresponds to the behaviour in the educational system during the year when the cohort in question completed the 9th form.

Figure 2.2 shows the result of the extrapolation of which course of study a youth cohort will take over the next 25 years after completing the 9th form. The figure shows the expected course of a youth cohort through the education system based on a known behaviour in 2008.

Nearly 60 % of the students leaving basic school in 2008 are expected to start in upper secondary school, a little over 37 % to start a vocationally oriented education and training programme, and a little over 3 % will never start an education. That is to say, 97 % are expected to continue in a youth education programme. Figure 2.2 Educational profile 2008. A youth cohort's expected paths through the educational system in the 25 years following the completion of 9th form in 2008



Source: UNI•C Statistics & Analysis

Slightly less than 81 % are expected to complete a youth education over the next 25 years after completing the 9th form. In addition, 4 % of a youth cohort in 2008 is expected to complete a higher education without youth education. Thus, a good 84 % in total of the youth cohort that completed 9th form in 2008 is expected to complete at least a youth education. Of the total year cohort, about 56 % will receive an upper secondary education and nearly 35 % a vocational education. In both categories, almost 10 % take both educations.

The figures of the profile model also show that only 2 % are expected not to have commenced an education within five years of completing 9th form. So practically everybody continues after 9th form (table 2.2).

Three in four (76 %) end up with a vocationally qualifying education over 25 years after completing the 9th form. That is to say, a vocationally oriented education or a higher education as the highest completed education (figure 2.2 and table 2.4). 30 % are expected to

Table 2.2 Proportion of a youth cohort that is expected to continue an education within5 years of completing the 9th form

	2005	2006	2007	2008
		9	6	
10 th form	54.5	51.7	49.5	49.4
Vocationally oriented education and training	15.2	16.2	16.6	16.3
Upper secondary education	28.3	29.9	31.7	32.5
Not in education	2.0	2.3	2.2	1.9

Source: UNI•C Statistics & Analysis. Profile model 2008

receive a vocationally oriented education. This proportion is split in 9 % in commercial, 15 % in technical, and 6 % in another vocationally oriented education (mainly social and health care). Almost 47 % end up with a higher education - of these 7 % with a shortcycle higher education (KVU), 21 % with a medium-cycle higher education (MVU), and 19 % with a long-cycle higher education (LVU).

The 25-year extrapolation of the youth cohorts in the period 2000-2008 shows that the proportion that will attain an upper secondary education has increased since 2000, whereas the proportion that will attain a vocation-ally oriented education has dropped markedly (table 2.3).

Regarding the qualifications 25 years after the completion of 9th form, the extrapolations show that the proportion of the youth cohorts that will complete an education giving professional competence has dropped during the 2000-2008 period (table 2.4).

If instead of considering the qualifications 25 years after 9th form, one

Table 2.3 Proportion of a youth cohort that is expected to attain at least a youth education during the 25 years following the completion of 9th form

	2000	2005	2006	2007	2008
			%		
Youth education	83.3	81.9	81.5	80.6	80.7
Of this:					
 upper secondary education 	52.2	55.O	54.6	54.0	55.5
- vocationally oriented education					
and training	42.9	38.5	37.8	36.8	34.7
- both upper secondary education					
and vocationally oriented educat	ion				
and training	11.8	11.5	11.0	10.2	9.5
Proportion with higher education					
without youth education	4.0	4.4	4.3	4.1	3.7
At least a youth education	87.3	86.3	85.8	84.7	84.4

Source: UNI•C Statistics & Analysis. Profile model 2008

looks at qualifications 5 years after the completion of 9th form, the extrapolations show that the proportion of youth cohorts that is expected to attain a youth education has increased in the 2005-2008 period (table 2.5). Whereas 62 % of a youth cohort in 2005 was expected to attain a youth education 5 years after completing 9th form, it was 64 % in 2008. This corresponds to an Increase of a good 3 %.

Table 2.4 Youth cohorts tabulated according to expected educational qualifications 25 years after completing 9th form

	2000	2005	2006	2007	2008
			%		
With vocational qualifications	79.8	78.5	77.9	77.1	76.2
Vocationally oriented education and training	33-9	30.6	30.4	30.6	29.6
Commercial education	9.7	8.1	7.9	8.4	9.1
Technical education	18.2	16.0	16.2	16.4	15.0
Social and health education etc	6.0	6.6	6.3	5.8	5.5
Higher education	45.9	47-9	47.4	46.5	46.6
Short-cycle higher education	9.1	7.1	7.1	6.6	6.6
Medium-cycle higher education	23.0	24.7	23.6	21.7	21.0
Long-cycle higher education	13.8	16.1	16.8	18.2	19.0
Without vocational qualifications	20.2	21.5	22.1	22.9	23.8
Only study qualifications (upper					
secondary education)	7.4	7.8	7.9	7.6	8.2
Directly from basic school	3.3	3.1	3.2	3.3	2.8
After discontinued education	9.4	10.6	11.0	12.0	12.8

Source: UNI+C Statistics & Analysis. Profile model 2008

Table 2.5 Proportion of a youth cohort that is expected to attain at least a youth education during the 5 years following the completion of 9th form

	2000	2005	2006	2007	2008
			%		
Ungdomsuddannelse	62,6	62,0	62,3	63,3	64,0
Youth education	62.6	62.0	62.3	63.3	64.0
Of this:					
 upper secondary education 	47.0	49.1	49.1	49.6	51.5
- vocationally oriented education and training	16.2	13.6	13.9	14.4	13.2
- both upper secondary education and vocatior	1-				
ally oriented education and training	0.7	0.7	0.7	0.7	0.6
Proportion with higher education					
without youth education	0.4	0.5	0.6	0.4	0.4
At least a youth education	63.0	62.5	62.9	63.7	64.4

Source: UNI•C Statistics & Analysis. Profile model 2008

2.3 Projected educational level tabulated by gender and ethnicity

There is a difference in how boys and girls with Danish, respectively another ethnic origin, manage in the educational system. Around 84 % of the girls of Danish origin will achieve a youth education, whereas this is only the case for 79 % of the boys (figure 2.3).

The proportion of pupils of ethnic origin other than Danish who achieve a youth education is generally less than the proportion of pupils of Danish origin. Nearly 77 % of the girls of ethnic origin other than Danish achieve a youth education in contrast to 66 % of the boys (figure 2.3).

It is noteworthy that there are more pupils of an ethnic origin other than Danish who do not take a youth education but nonetheless qualify for, and subsequently complete, a higher education through professional qualifications and higher preparatory single subject courses.





It is projected that 25 years after completion of the 9th form, 81 % of the girls will have completed an education leading to a vocationally oriented education and training or a higher education. It is projected that nearly 72 % of the boys will have completed an education leading to a vocational qualification (figure 2.4).

It is projected that regardless of ethnic origin, a larger proportion of the girls will attain an education leading to a vocational qualification. Nearly 82 % of the girls of Danish origin and nearly 74 % of the girls with another ethnic origin are expected to attain an education leading to a vocational qualification in contrast to respectively 73 % and 58 % of the boys (figure 2.4).

If, instead of considering the qualifications 25 years after completion of the 9th form, one looks at qualifications 5 years after the completion of the 9th form, the extrapolations show that the proportion of pupils of ethnic origin other than Danish that are expected to attain a youth education has increased markedly from 2005 to 2008 (table 2.6). In 2005, the share of pupils of ethnic

Figure 2.4 Educational qualifications of the youth cohort in 2008, 25 years after completing 9th form, tabulated by gender and ethnicity



Source: UNI•C Statistics & Analysis. Profile model 2008



Table 2.6 Proportion of pupils of ethnic origin other than Danish that is expected to attain at least a youth education during the course of 5 years after completing 9th form

	2000	2005	2006	2007	2008
			%		
Youth education	45.2	44.8	47-5	50.6	53.5
Of this:					
 upper secondary education 	35-4	36.6	39.0	41.4	44.2
- vocationally oriented education and training	10.1	8.5	8.8	9.7	9.7
 both upper secondary education and 					
vocationally oriented education and training	0.3	0.3	0.3	0.5	0.4
Proportion with higher education without					
youth education	0.2	0.3	0.5	0.3	0.4
At least a youth education	45-4	45.1	48.O	50.9	53-9

Source: UNI•C Statistics & Analysis. Profile model 2008

Table 2.7 Expected time spent from completing the 9th form until achieving vocational qualifications

or edu	onally iented cation and aining	Short- cycle higher educa- tion	Profes- sional bachelor educa- tion	Univer- sity bachelor educa- tion	Master's program- mes (can- didatus)	Total for all indivi- duals
	Year					
Time spent on obtaining						
vocationally qualifying education	7.6	8.7	10.2	9.4	12.3	9.3
Total prescribed period of study	3.7	5.1	6.4	6.0	8.0	5.4
Additional time used	3.8	3.6	3.7	3.4	4.3	3.9
Change of study	0.3	0.4	0.4	0.4	0.4	0.3
Double youth education	0.5	0.1	0.1	0.1	0.0	0.2
Education break	2.6	2.4	2.4	2.0	1.9	2.4
10th form	0.5	0.5	0.5	0.4	0.4	0.5
Other time	0.0	0.2	0.4	0.6	1.6	0.5
				%		
Proportion of the 2008-cohort						
expected to obtain the education	30	7	16	5	19	76

Remark: The calculations simulate the course of study of a youth cohort based on the education behaviour in 2008.

Source: UNI•C Statistics & Analysis. Profile model 2008

origin other than Danish that was expected to achieve a youth education 5 years after completing 9th form was nearly 45 %, and in 2008, it was nearly 54 %. This corresponds to an increase of slightly more than 19 %. In comparison, the increase during the same period for the total pupil group (i.e. pupils of Danish origin as well as pupils of another origin) was 3 %.

As is the case with the 25 year profile model, a five year extrapolation shows that a larger proportion of girls than of boys among pupils of Danish origin as well as among pupils with another ethnic origin are expected to attain a youth education.

2.4 Time spent from completing the 9th form until achieving vocational qualifications

Frequently, more time is used on obtaining a vocationally-qualifying education than is stipulated for the particular course of study. This is because the students can change their choice of study, that they can take breaks from the studies, and that some



Figure 2.5 Additional time spent by students to achieve vocational qualifications

choose to take more than one youth education.

The profile model extrapolations in table 2.7 show the combined time the students are expected to use to attain a vocationally qualifying education.

The total prescribed period of study corresponds to the straight course from 9th form graduation to the completion of a vocationally-qualifying education. The prescribed period of study for a primary and lower secondary school teacher is three years in upper secondary school and four years in a teacher's training college, a total of seven years¹. This is not the only road to a primary and lower secondary school teacher's education, but it is the fastest.

Furthermore, the table shows the additional time used by the students after completing the 9th form. The additional time comprises: 1) change of studies, referring to the time used on a study programme not completed,

2) double youth education, meaning the time used on another youth education after having completed one youth education, 3) an education break, referring to the time not used for education, for instance for work, military service, travelling etc, 4) 10th form since the 10th form is optional, and 5) other time, mainly covering an extended time to complete the study programme.

In average, a student uses 9.3 years after the 9th form to obtain an education. Of these, 5.4 years are used on the prescribed period of study and 3.9 years on additional time. The largest part of the additional time is used on an education break of 2.4 years. In average, 10th form and other time each constitute 0.5 years, whereas change of studies and a double youth education in average constitute 0.3 years and 0.2 years respectively. The average time used on change of study and on 10th form are practically independent of which education is taken, while other types of time used vary depending on education programme.

The longest education break is found in vocationally oriented education and training programmes, short-cycle higher education, and professional

¹ In practice a little less than seven years because most education programmes start in August/September and end in Juni.

	25-54	25-34	35-44	45-44	55-64
	years old				
			%		
Australia	68	81	70	64	54
Belgium	68	82	75	63	50
Canada	87	91	90	86	78
Denmark	75	85	80	71	66
Finland	81	90	87	81	65
France	69	83	74	63	53
Greece	60	75	67	53	37
The Netherlands	73	83	77	71	61
Ireland	68	83	72	60	42
Iceland	65	69	70	62	54
Italy	52	68	56	48	34
New Zealand	72	80	74	70	60
Norway	79	83	80	77	76
Poland	86	92	90	86	74
Portugal	27	44	27	20	13
Switzerland	86	90	87	85	81
Slovakia	87	94	92	86	71
Spain	51	65	56	44	28
Great Britain	68	75	69	66	61
Sweden	85	91	90	83	74
The Czech Republic	91	94	94	89	85
Turkey	29	38	26	22	16
Germany	84	85	86	85	81
Hungary	79	85	83	79	68
USA	88	87	88	89	87
Austria	80	87	84	78	70
OECD average	70	79	74	67	57

Table 2.8 Proportion that has attained at least an upper secondary education, in Denmark and selected OECD-countries, 2007

bachelor education, while the university students take the shortest breaks. In the vocationally oriented education and training programmes, an average of 3.7 years is used on prescribed period of study. An additional 3.8 years are used on completing the education. A double youth education is naturally most common in the vocational education and training programmes because many choose to take an upper secondary education as well as a vocationally oriented education.

With 3.4 years, the university bachelors have the least extra use of time. Here, the remnant time, which primarily covers a delay in the duration of study, is also the shortest. Note that only students who do not continue in a master's programme (candidatus) are counted here. The majority by far continue in a master's programme (candidatus), and they are therefore counted in that category.

With 4.3 years, the master's students (candidatus) have the highest use of extra time. Their break in education is less than average; but especially the

Note: Because of different estimation methods, the figures in this table may not be compared directly with the figures in section 2.1 and 2.2. Source: Education at a Glance, 2009

	Basic school	You educati		Higher education	
		%			
Australia	32	33	34		
Belgium	32	36	33		
Canada	13	38	49		
Denmark	25	43	33		
Finland	20	44	36		
France	31	42	27		
Greece	40	37	22		
The Netherlands	27	42	31		
Ireland	32	36	32		
Iceland	36	34	30		
Italy	48	38	14		
New Zealand	29	30	41		
Norway	21	44	34		
Poland	14	68	19		
Portugal	72	14	14		
Switzerland	12	55	32		
Slovakia	13	73	14		
Spain	49	22	29		
Great Britain	32	37	32		
Sweden	16	53	32		
The Czech Republic	9	76	14		
Turkey	71	18	11		
Germany	16	60	24		
Hungary	20	61	17		
USA	12	48	40		
Austria	19	62	17		
OECD average	30	44	27		

Table 2.9 The distribution of the population with respect to highest level of completed education, in Denmark and selected OECD countries, 2007

Note: Because of different estimation methods, the figures in this table may not be compared directly with the figures in section 2.1 and 2.2.

Source: Education at a Glance, 2009

other time of 1.6 years is much higher than in other education programmes.

2.5 International comparison of the level of education

OECD sums up the proportion of different age groups that have at least a youth education. It holds good for all age groups that Denmark lies above the OECD average as regards the share of the population of working age (25-64 years) that has at least a youth education (table 2.8).

The table shows that a greater proportion of the youngest age group has as a minimum a youth education than that of the older age groups. This holds true for Denmark as well as for the other OECD countries. Generally, the difference in level of education between the 25-34 years old and the 55-64 years old is slightly less in the countries where the most 25-34 years old have at least a youth education.

Table 2.9 shows the highest level of completed education in the population (25-64 years old). The table compares

various OECD countries with respect to the percentage that has a basic school education, a youth education, or a higher education as the highest level of completed education.

In Denmark, 33 % of the 25-64 years old have a higher education. This is six percentage points over the OECD average. The proportion with a higher education is largely the same in Denmark as in the other Nordic countries. In Iceland, Sweden, Norway, and Finland it is respectively 30, 32, 34, and 36 % that have a higher education.

3 Finances

3.1 Average public expenditure on various educations

Table 3.1 sums up the average grants to operating costs from the State and the municipalities per field of education. In the table, the education programmes are subdivided in five categories: basic school, boarding schools, youth educations, higher education, and adult education and continuing training.

The average operating grant covers all the expenses of the State and the municipalities to education programmes that are disbursed to the institutions excluding user payments/fees. As a rule, there are user payment/tuition fees in the private basic schools, the private boarding schools, private upper secondary schools, and in adult education and continuing training except at the vocational training school courses (TAMU).

The education programmes do not have the same grant principles. Some institutions receive grants if the pupils participate in the education, whereas other only receive the grant when the pupils have passed in their subject. Some own their buildings while other rent their buildings and so on. Comparing the educational fields across is therefore encumbered with methodology problems and subsequently a certain uncertainty.

The table gives an overview of public education expenses in the various educational fields corresponding to the education on one pupil during one year. As shown by the table, there is a wide variation because of the different lengths, contents, and organisation of the education programmes.

The education programmes where fellowship and residence is an integral part of the school form, for instance the private boarding schools, receive a higher average grant than the other education areas. This is so because these education programmes have additional expenses in connection with operating boarding facilities, and therefore, the unity grant cannot be compared directly with other educational areas.

Finally, it should be emphasised that an operating grant average does not make it possible to compare across areas how much it costs to educate one pupil/student. For instance, the different lengths and organisation of the education programmes imply that while the unit grant in the upper secondary education programmes largely correspond to the grant for the education of one pupil in one year, the unit grants in the vocationally oriented education programmes correspond to two to three years education per pupil because the pupils also have periods of practice during the course of their education

3.2 Public expenditure on adult education and continuing training

Adult education and continuing training (VEU) is divided in three different types of educational levels:

- The general VEU
- The vocationally oriented VEU
- The higher VEU
Table 3.1 Average operating grant per educational area financed by the State or a municipality in 2008

	Average grant	Stated per unit
	DKK mi	llion in 2009-prices
Basic schools		
Private basic schools	46,000	full time equivalent pupil
Municipal basic school	63,400	pupil
Private independent schools		
8 th - 9 th form continuation schools	110,000	full time equivalent student
10 th form continuation schools	103,000	full time equivalent student
Folk high schools	112,000	full time equivalent student
Home economics and needlework schools	134,000	full time equivalent student
Youth educations		
Production schools	95,000	full time equivalent student
Technical vocational education and training	111,000	full time equivalent student
Commercial vocational education and training	70,000	full time equivalent student
Public upper secondary schools ²	83,000	full time equivalent student
Private upper secondary schools	78,000	full time equivalent student
Hhx	62,000	full time equivalent student
Htx	83,000	full time equivalent student
Higher education		
Vocational academy education	87,000	student full time equivalent
Professional bachelor educations	73,000	student full time equivalent
Long-cycle higher education (universities)	68,400	student full time equivalent
Adult education and continuing training		
Vocational training schools (TAMU)	125,000	full time equivalent student
Continuing vocational training (AMU)	132,000	full time equivalent student
General adult education (VUC) ²	102,000	full time equivalent student
Open education and part-time education at vocational education and training level	39,000	full time equivalent student
Open education at higher education level	24,000	full time equivalent student

Note 1: Incl. special needs education.

Note 2: Among other things, the average grant per full time equivalent student / student full time equivalent depends on whether the institutions own their buildings or not and receive building taximeter grant. To enhance comparability, a hypothetical grant has been added for the buildings of the public upper secondary schools and general adult education schools (VUC) corresponding to the grant they would have received if they themselves, like other institutions under the Danish Ministry of Education, had had to defray all expenses in connection with the ownership of buildings. Source: The Danish Ministry of Education, 2009

Table 3.2 Public operational expenditure grant per type of VEU

	2005	2006	2007	2008
		DKK million i	n 2009-prices	5
Operational expenditure grant, total	2,904		2,751	2,978
General educations	1,330		1,303	1,274
Vocational education and training programmes	1,173	1,184	1,145	1,358
Higher education	401	338	330	387

Remark: The table does not include expenditure on popular enlightenment (folk high schools, evening courses and day folk high schools), special needs education for adults or expenditure on Danish courses for foreigners. The education in question only addresses persons who work. Source: The public accounts and Finance Acts

Table 3.3 Restitution expenses

	2005	2006	2007	2008
		DKK millio	n in 2009-pri	ces
Restitution expenses, total	1,744	1,633	1,506	1,651
VEU-allowance	1,274	1,168	1,111	1,289
SVU-general	125	107	70	72
SVU-advanced	345	359	325	290

Remark: The table does not include expenditure on popular enlightenment (folk high schools, evening courses and day folk high schools), special needs education for adults or expenditure on Danish courses for foreigners.

Source: The public accounts and Finance Acts

The general VEU encompasses preparatory adult education (FVU), general adult education (avu), and the upper secondary educations (single subject courses within hf, hhx, htx, and stx). The vocationally oriented VEU is concerned with adult vocational training (AMU) and the pedagogical basic education (vocational basic education, EUD, as single subject courses) etc. Higher VEU comprises various single subject courses in short-, medium-, and long-cycle higher education programmes. Furthermore, there is a series of short- and medium-cycle higher education programmes under open education such as the accelerated primary and lower secondary teacher training programme with award of credit for prior learning, meritlæreruddannelse. Besides, there are study activities relating to diploma and master's programmes.

In 2008, the public operating grants for all three VEU types amounted to almost DKK 3 billion at 2009 prices (table 3.2).

There are various options for compensation of loss of income during adult education and continuing training (table 3.3). Approximately DKK 1.7 billion has been disbursed as compensation for loss of salary in connection with adult education and continuing training activities in 2008. This expense is on top of the operating grant to adult education and continuing training. The compensation for loss of salary is paid either as VEU allowance or as state educational support for adults (SVU).

The expense to VEU allowance, which in 2008 amounted to approximately DKK 1.3 billion (2009 prices), is aimed at persons who participate in adult education and continuing training at an educational level up to and including the vocational education and training (including AMU).

Table 3.4 Expenditure on the Danish Education Support and number of recipients of loans and grants

	2000	2005	2006	2007	2008
			Number		
Recipients, total	295,100	314,300	315,800	314,800	315,100
Youth education	117,400	129,900	130,800	129,600	132,500
Higher education	177,700	184,400	185,000	185,200	182,600
Loan recipients, total	108,000	109,400	103,100	94,000	89,100
Youth education	18,700	24,000	22,400	19,100	17,800
Higher education	89,300	85,400	80,700	74,900	71,300

The state educational support for adults (SVU) is divided in:

- General SVU that addresses adult education and continuing training at secondary school level.
- Higher SVU that is awarded to persons who participate in adult education and continuing training within the higher education programmes.

The expense to general SVU and higher SVU constituted 4 %, respectively 18 % of the total compensation of lost salary in 2008.

Of the total student paid tuition of DKK 1.1 billion in 2008, the students in higher VEU paid DKK 854 million corresponding to 77 % of the total student paid tuition, while the students in vocational-oriented VEU paid DKK 263 million (21 %), and the students in the general VEU programme paid DKK 27 million (2 %).

3.3 Expenditure on the Danish Education Support

The Danish Education Support is administered on a monthly basis.

	DKK million in 2009-prices						
Grants, total	9,832	10,826	10,903	10,847	11,197		
Youth education	2,611	2,963	2,915	2,880	2,974		
Higher education	7,221	7,863	7,987	7,967	8,221		
Loan, total	2,343	2,444	2,577	2,131	2,087		
Youth education	343	448	434	376	362		
Higher education	1,999	2,027	2,143	1,756	1,725		

	DKK in 2009-prices						
Grant – average per recipient	33,319	34,446	35,261	34,457	35,534		
Youth education	22,242	22,813	23,083	22,223	22,449		
Higher education	40,637	42,641	43,671	43,017	45,023		
Loan – average per recipient	21,691	22,338	22,724	22,671	23,420		
Youth education	18,318	18,685	18,305	19,689	20,330		
Higher education	22,384	23,731	23,892	23,445	24,192		

Source: Finance Acts and the website of the Danish Education Support

There are different rates of grants for students living at home and students living away from home, whereas the loan rate is the same. Loans are only allotted in connection with a grant. The students are allowed to have a certain monthly income, fribeløbet, in the form of salary in addition to the grant. In 2008, the total allocation of grants and loans from the Danish Education Support amounted to DKK 13.3 billion (2009 prices). Of these, nearly DKK 11.2 billion were allotted as grants, while the rest was allotted as loans (table 3.4).

From year 2005 through 2008, the expenditure on grants from the Danish Education Support rose by 3 % from

Table 3.5 Public expenditure on education as a percentage of total public expenditure in Denmark and selected OECD-countries, 2006

	Basic school and youth education	Higher educations ¹	All educations ²
		%	
Australia	10.3	3.4	13.9
Belgium	8.2	2.7	12.4
Canada	7.7	4.1	11.8
Denmark	9.4	4.4	15.6
Finland	7.9	4.0	12.6
France	7.1	2.3	10.6
The Netherlands	7.8	3.3	12.0
Ireland	11.0	3.4	14.4
Iceland	12.4	3.3	18.1
Italy	6.9	1.6	9.5
Japan	7.0	1.7	9.5
New Zealand	12.7	5.1	18.9
Norway	9.8	5.1	16.2
Poland	8.6	2.2	12.0
Portugal	8.0	2.2	11.3
Switzerland	8.7	3.4	12.8
Slovakia	12.5	4.6	19.5
Spain	7.2	2.5	11.1
Great Britain	8.7	2.4	11.9
Sweden	8.1	3.4	12.6
The Czech Republic	6.5	2.3	10.1
Germany	6.3	2.5	9.7
Hungary	6.5	2.0	10.4
USA	10.0	3.9	14.8
Austria	7.2	3.0	11.0
OECD-average	9.0	3.1	13.3

DKK 10.8 billion to DKK 11.2 billion (2009 prices).

During the same period, the number of grant recipients was stable at 315,000, whereas the number of loan recipients fell from 109,000 to 89,000, corresponding to a decrease of nearly 19 %.

It emerges from the table that the total expense to the Danish Education Support at constant prices has been relatively stable at DKK 13 billion in recent years. Furthermore, it is noted that most is spent on higher education – both for loans and grants. The proportion spent on loans to students in youth education is relatively modest.

3.4 Public expenditure on education as a percentage of total public expenditure in Denmark and selected countries

In 2006, Denmark used 15.6 % of the total public expenditure on education (table 3.5). This puts Denmark slightly over the OECD average of 13.3 %, but be-

Remark: The expenditures in these statistics comprise all public expenditure on education including student grants etc.

Note 1: The expenses on higher educational institutions include teaching, services, and research. Note 2: The sum of the education levels shown do not correspond in all cases to the number for "All education" because not all expenditure is included in the two preceding columns.

Source: Education at a Glance, 2009

	Pre-school ۱	Basic school	Youth education	Higher educations ²	All educations ³
			% of GDP		
Australia	0.1	3.0	0.9	1.6	5.7
Belgium	0.6	1.5	2.6	1.3	6.1
Denmark	0.7	3.1	1.4	1.7	7-3
Finland	0.4	2.4	1.4	1.7	5.8
France	0.7	2.5	1.4	1.3	5.9
The Netherlands	0.4	2.6	1.2	1.5	5.6
Iceland	0.9	3.8	1.5	1.1	8.0
Italy	0.5	2.1	1.4	0.9	4.9
Japan	0.2	2.0	0.9	1.5	5.0
New Zealand	0.3	2.8	1.4	1.5	6.3
Norway ⁴	0.3	2.5	1.2	1.2	5.4
Poland	0.6	2.6	1.1	1.3	5.7
Portugal	0.4	2.6	1.0	1.4	5.6
Switzerland	0.2	2.6	1.6	1.4	5.9
Slovakia	0.5	1.7	1.0	1.0	4.3
Great Britain 5	0.3	2.8	1.5	1.3	5.9
Sweden	0.6	2.8	1.3	1.6	6.3
The Czech Republic	0.5	1.8	1.1	1.2	4.8
Germany	0.5	1.9	1.0	1.1	4.8
Hungary	0.8	2.2	1.1	1.1	5.6
USA	0.4	3.0	1.0	2.9	7.4
Austria	0.5	2.4	1.3	1.3	5.5
OECD-average	0.5	2.5	1.2	1.4	5.7

Table 3.6 Total public and private expenditure on educational institutions as a percentage of GDP in Denmark and selected OECD-countries, 2006

low the share of Iceland, New Zealand, Norway, and Slovakia.

The expenditures in these statistics comprise all public expenditure on education including student grants etc. The elevated expenses to higher education in Denmark may in part be ascribed to the relatively high expenses to financial grants to the students.

3.5 Total public and private expenditures on educational institutions in Denmark and selected countries

Compared to other countries, Denmark uses relatively many resources on education at all levels. In the year 2006, the total expenditure (public and private) on educational institutions in Denmark amounted to 7.3 % of the gross domestic product. In Denmark, the private expenditure on education is far less than the public expenditure on education. On the other hand, in USA, the difference between private and public expenditure is not as pronounced.

Note 1: Pre-school comprises pre-school class and kindergarten for 3-6 years old.

Note 2: Expenditure on higher educational institutions comprises teaching as well as services and research.

Note 3: The sums for the education levels shown do not correspond to the number for "All education" in all cases because not all expenditure is included in the preceding columns.

Note 4: Comprises only public expenditure.

Note 5: Column 2 refers to 1st-6th form, and column 3 refers to 7th-10th form and youth education. Source: Education at a Glance, 2009



Table 3.7	Total public and private expenditure per pupil/student per year in Denmark and
	selected OECD-countries – converted using PPP ¹ in USD, 2006

	1st-6th form	7 th -10 th form	Youth education	Higher education
			D PPP	education
Australia	(15 016
	6,311	8,319	9,315	15,016
Denmark	8,798	8,909	10,400	15,391
Finland	5,899	9,241	6,585	12,845
France	5,482	8,265	10,655	11,568
The Netherlands	6,425	9,149	9,918	15,196
Ireland	6,337	8,964	9,024	11,832
Iceland	9,299	8,910	8,196	8,579
Italy ²	7,716	8,527	8,474	8,725
Japan	6,989	8,004	8,589	13,418
New Zealand	4,952	5,347	6,838	9,288
Norway	9,486	10,075	12,559	16,235
Poland ²	3,770	3,315	3,498	5,224
Portugal ²	5,138	6,677	7,052	9,724
Schwitzerland ²	8,793	10,121	16,540	22,230
Slovakia	3,221	2,841	3,081	6,056
Great Britain	7,732	8,868	8,693	15,447
Sweden	7,699	8,365	8,610	16,991
The Czech Republic	3,217	5,399	5,217	7,989
Germany	5,362	6,632	9,163	13,016
Hungary²	4,599	4,161	3,793	6,367
USA	9,709	10,369	11,334	25,109
Austria	8,516	10,011	11,205	15,148
OECD-average	6,437	7,544	8,486	12,336

Note 1: Converted to USD by using PPP (Purchasing Power Parity), meaning that the conversion rate has been adjusted to take the real purchasing power in the country into consideration.

Note 2: Includes only public institutions.

Source: Education at a Glance, 2009

The statistic in table 3.6 only covers expenditure on educational institutions, so disbursements for public transfer income such as Danish Education Support are not included.

The majority of the OECD-countries spend the most money on basic school. However, the distribution of expenditure between the various education levels depends on the demography of each country.

In particular, when compared to other countries, the expenditure on preschool (kindergarten and pre-school class) and basic school is high in Denmark.

3.6 Total public and private expenditures per pupil/student in Denmark and selected countries

Compared to other OECD-countries, Denmark spends relatively many resources per pupil/student whether in basic school, youth education or higher education (table 3.7).



Figure 3.1 Percentage of total public expenditure on higher education used for loans, grants and other transfer income in Denmark and selected OECD countries, 2006

The expenditures in these statistics only comprise expenditure on educational institutions; thus, disbursements for public transfer income such as Danish Education Support are not included.

In 2006, the expenditure per pupil in the 7th through 10th form of basic school was the equivalent of USD 8,909 per year. Thus, Denmark's expenditure per pupil was considerably above the OECD average (USD 7,544). For the 1st through 6th form, the expenditure was USD 8,798 per year, only surpassed by Norway, Iceland, and USA.

3.7 Expenditure on financial support of students in higher education in Denmark and selected countries

There is a wide difference in how much the different OECD countries spend on grants and loans to students. Denmark is the country that spends the most on grants and other transfer payments to students (figure 3.1). In 2006, the OECD countries spent on the average 10 % of the total public higher education expenditure on grants and other transfer payments to students, whereas Denmark spent nearly 25 %.

While expenditure on grants and other transfer income is sizeable in Denmark, relatively little is spent on loans to students when comparing with other OECD-countries. In 2006 in Denmark, just short of 5 % of the total public expenditure on higher education went to loans. The OECD average was just short of 9 % ².

² Please note that the financial support figures shown include not only State Educational Support (SU) but all forms of transfer income related to higher education, e.g. state educational support for adults (SVU), adult and continuing education allowance (VEU), public cash benefits, and rehabilitation benefits.

Table 3.8 Utilisation of the teachers' working hours per purpose

		Ec	lucational/		Corrections				Vacation,
			admini-		and evalua-				holidays,
		Pre-	strative		tion of as-	Examina-	Other	Reduction	and public
	Education	paration	tasks	Breaks	signments	tion	tasks	due to age	hollidays
				% of the to	tal working h	ours			
Vocational colleges									
EUD	27.9	23.8	-	5.7	2.6	2.2	23.8	0.8	13.2
Hhx	21.7	25.3	-	4.1	10.7	5.3	19.7	0.8	12.4
Htx	21.2	25.3	-	4.1	11.3	3.5	21.1	0.3	13.2
KVU	17.2	25.1	-	3.1	6.9	6.9	26.8	0.9	13.0
AMU	36.5	17.6	-	7.0	0.1	0.2	23.7	0.4	14.5
MVU	4								
National institute for social ed	lucators								
and teacher training colleges	20.4	32.1	_	-	0.4	5.7	27.1	0.6	14.1
Basic Health care college	16.3	27.0	_	-	0.9	9.0	32.0	0.1	14.8
Engineer	18.1	37.4	_	-	0.0	6.4	20.7	0.0	17.4
VUC									
AVU	22.2	25.8	_	6.4	6.8	4.2	18.1	2.2	14.2
Hf	18.5	24.3	1.8	4.0	10.3	7.2	19.0	1.2	13.8
sosu									
	21.5	23.4	_	4.8	2.4	2.9	30.3	0.0	14.6

Remark: The proportions of the teachers' hours are based on a full-time equivalent of 1924 hours.

Note 1: The difference in time used on vacation, holiday, and public holidays is owed to a difference in the extent to which the 6th holiday week is spent and in the extent of the total hours contributed.

Source: Utilisation of the teachers working hours, Rambøll Management/Danish Ministry of Education, 2008

In Sweden and Norway, the students borrow an amount that constitutes respectively 17 % and 28 % of the total expenses on higher education. Generally, the students in other OECD countries borrow considerably more than the Danish students who on the other hand receive large grants and other transfer income.

3.8 The teachers' working hours

Table 3.8 shows a mapping of the teachers' working hours at the general upper secondary schools, institutions for vocationally oriented education, institutions for professional bachelor education, adult education centres (VUC), and basic health care colleges (SOSU).

The table shows how the teachers' work tasks are distributed on specific work tasks such as teaching, preparation, breaks, etc. It is noted that there is a significant difference in the proportion of the working hours spent on teaching at the different teaching institutions.

Table 3.9 The average number of hours spent by a teacher per year on teaching in Denmarkand in selected OECD countries in 2007

	ıst-6th form	7th-10th form	General upper secondary school			
		Number of lessons				
Denmark ¹	648	648	364			
Finland	677	692	550			
France	914	632	618			
Germany	806	758	714			
Iceland	671	671	560			
Ireland	946	735	735			
Italy	735	601	601			
Norway	741	654	523			
OECD- average	798	709	653			

Note 1: Regarding basic school in Denmark, the numbers refer to the classical concept of teaching. Source: Education at a Glance, 2009

Table 3.9 is an account of the average number of hours that teachers in different OECD countries spend on teaching on a yearly basis. The information on the teachers working hours is not complete from all of the countries. Despite this uncertainty, it emerges from table 3.9 that upper secondary teachers in Denmark teach markedly less that their colleagues in the other OECD countries.



4 Information technology in education

Information technology in the education programmes is a question of available hardware, infrastructure, deployment and application of knowledge sharing systems, and of the teachers' competence in integrating information technology in the teaching. This chapter provides a view into some of these aspects, primarily regarding the basic school.

4.1 Infrastructure in basic school

The number of pupils per teaching computer of a recent date in the municipal primary and lower secondary schools has dropped in recent years from more than six to less than four pupils per computer (figure 4.1). During the same time, the number of teaching computers that were acquired less than four years ago has increased from 71,600 to 128,000, equivalent to an increase of nearly 79 % (figure 4.2).

4.2 Knowledge sharing systems in basic schools

The schools may choose different systems of knowledge sharing. The

systems may for instance be used for distribution of materials to teachers and pupils, for virtual group rooms, interactive tests, and for handing in papers.

Figure 4.1 Number of pupils per teaching computer of a recent date¹ in municipal primary and lower secondary schools



Remark: The numbers are summed up as per 1 January of the year. Note 1: For this purpose, a teaching computer of a recent date is defined as one that is no more than five years old. Source: UNI•C Statistics & Analysis



Figure 4.2 Number of teaching computers in municipal primary and lower secondary schools per year of acquisition

systems such as SkoleIntra, MinSkole, Skolenetværket, and Fronter. SkoleIntra is the product used by most of the basic schools. It is a comprehensive intranet solution that gives the opportunity of information dissemination, knowledge sharing, and coordination and integration of information technology in the teaching. Figure 4.3 shows the proportion of basic schools with a SkoleIntra subscription.

The basic schools have a choice of

Since 2002, an increasing part of the basic schools have used SkoleIntra. In 2008, 83 % of the municipal and private basic schools subscribed to SkoleIntra as well as 50 % of other basic schools (figure 4.3).

4.3 Continuing information technology training in basic schools

The pedagogic IT driver's license is a key element in the continuing information technology training of basic school teachers. The driver's license is an offer to teachers and teacher students who do not yet have the basic Remark: The numbers are summed up as per 1 January of the year. Source: UNI•C Statistics & Analysis



Note 1: Other basic schools include continuation schools, municipal youth schools, special schools for children, special needs day schools, and community homes. Remark: The numbers are summed up as per 1 January of the year. Source: UNI•C Statistics & Analysis



Figure 4.4 Proportion of basic school teachers with a pedagogic IT driver's license

skills in integrating information technology and media as a natural element of teaching school subjects and matters. It should be noted that teachers may acquire equivalent competence in other ways.

After August 2009, it is no longer possible to split up the pedagogic IT driver's license by school type because a joint pedagogic IT driver's license tailored to the needs of the course participant is introduced. In the basic school field, the Danish Ministry of Education is the central supplier of the pedagogic IT driver's license through UNI•C, but generally speaking, this offer is complemented by a number of private suppliers. Over time, there has been a marked increase in the proportion of basic school teachers who have taken a pedagogic IT driver's license (see figure 4.4).

4.4 EMU - Denmark's education portal

EMU is Denmark's education portal which has as its main purpose to develop and improve the education by Remark: The graph shows the proportion of basic school teachers who have acquired the Danish Ministry of Education's pedagogic IT driver's license. Source: UNI+C Statistics & Analysis



Remark: The EMU top list covers all the services that are on the web page http://www.emu.dk/tjenester.html and all the fields of education on EMU. Source: UNI•C Statistics & Analysi

Figure 4.6 Number of teaching computers with Internet access per 100 students in basic school 1st - 6th form in Denmark and selected EU countries in 2006



Remark: Survey data were gathered via telephone interviews of teachers and school management. Data were gathered from February to May 2006, and the teachers were asked to answer for the last 12 months. The statistic comprises 1st – 6th form except for Denmark where the numbers comprise all of primary and lower secondary school.

Source: Empirica: LearnInd 2006 (HTS)

giving the schools a common entry point to the most important resources on the Internet. EMU consists of eight so-called universes for the different fields of education and additionally approximately 70 websites.

The average number of unique users on the EMU top list has increased from 238,000 in the first half of 2003 to 555,000 in the first half of 2009, equivalent to an increase of 133 % (figure 5.4).

4.5 Information technology in school in an international perspective

In an international perspective, Denmark is placed in the top compared to other EU countries when it comes to the use of IT in the school. This holds true for both the basic school and the upper secondary education programmes.

A survey of the EU countries' use of IT in basic school³ initiated by the EU Commission shows that Denmark had 18 computers with Internet access per 100 pupils in basic school 1st - 6th form in 2006. This is the second highest

³ Data from this survey is not comparable with the Danish figures for the municipal basic schools.



Figure 4.7 Number of teaching computers with Internet access per 100 students in upper secondary schools in Denmark and selected EU countries in 2006

Remark: Survey data were gathered via telephone interviews of teachers and school management. Data were gathered from February to May 2006, and the teachers were asked to answer for the last 12 months. Source: Empirica: LearnInd 2006 (HTS)

number in EU (figure 4.6). In upper level secondary schools, there were 37 computers with Internet access per 100 pupils in 2006 – a number surpassed only by Norway who had 40 computers with Internet access per 100 students (figure 4.7).

5 Basic school

5.1 Number of schools and pupils

In the autumn 2009, there were a total of 2,306 basic schools comprised of 1,529 municipal basic schools, 513 private basic schools, and 264 continuation schools. Over the period, there have become fewer municipal schools, whereas the number of private basic schools and continuation schools has increased (table 5.1).4

Additionally, there were about 340 municipal youth schools, youth boarding schools, and special schools where teaching at the basic school level took place as well as 180 special needs day schools and community homes offering education.

While the basic schools have become fewer, the number of pupils has also been fewer. From the school year 2005 to 2008, the number of pupils in basic school decreased by 1 % (table 5.2).

Table 5.1 Basic schools per type of school

	Municipal basic schools	Private basic schools	Continuation schools	Total
			Number	
2000	1,673	460	234	2,367
2005	1,607	502	251	2,360
2006	1,600	498	258	2,356
2007	1,586	498	260	2,344
2008	1,540	508	263	2,311
2009	1,529	513	264	2,306

Source: UNI•C Statistics & Analysis

Figure 5.1 shows the number of pupils in basic school per type of school in 2000, 2005, and in 2008. From 2005 through 2008, the number of pupils in the municipal basic schools has decreased by nearly 3 %, corresponding to 16,000 pupils. During the same period, the continuation schools and the private basic schools have experienced an increase of 18 % and 6 % respectively, corresponding to nearly 4,300 and 5,300 pupils.

Figures 5.2 shows that the average number of pupils in the basic schools has increased. The largest numeric growth during the period 2005 to 2008 has taken place in the continuation schools with an average increase of 12 pupils per school, corresponding to

⁴ Please note that the years shown in the chapter refer to school year, i.e. 2009 means the school year 2009/10.



an increase of 13 %. The private basic schools have experienced an average increase of 8 pupils per school (4 %), while the municipal basic schools have had an increase of 5 pupils per school (1 %).

The anticipated development in number of pupils until 2019 is shown in the extrapolation in figure 5.3. It is seen that during the entire period the number of pupils will decrease steadily by an average of 4,500 pupils per year.

In 2008, a good 10 % of the pupils in basic school (excluding continuation schools) were of ethnic origin other than Danish. Before the school year 2007, the number of pupils was counted according to the definition of bilingual pupils⁵ in the Danish legislation on municipal basic schools, but subsequently, the figures were tallied according to Statistics Denmark's definition of ethnic origin including

Table 5.2 Number of pupils in basic school per form level

	2000 ¹	2005	2006	2007	2008
		Nur	nber		
Basic school, total	658,824	710,835	709,936	704,974	703,623
Pre-school class	-	67,362	67,635	65,413	64,822
1 st form	-	67,031	67,153	66,700	65,988
2 nd form	-	68,123	66,663	66,216	66,759
3 rd form	-	67,861	68,022	66,033	66,404
4 th form	-	70,312	67,585	67,504	66,097
5 th form	-	69,563	70,023	67,005	67,762
6 th form	-	68,704	69,660	69,772	67,427
7 th form	-	68,186	68,427	69,169	69,518
8 th form	-	65,374	67,692	67,237	68,271
9 th form	-	64,180	64,157	67,248	67,669
10 th form	-	33,421	32,108	32,667	32,906

Remark: Includes figures for municipal and private basic schools and continuation schools. Note 1: Figures per form level are not available for 2000.

Note 2: For the years 2005 and 2006, the number of pupils per class level do not add up to the basic school total because the total includes pupils for which the class level was not given. Source: UNI•C Statistics & Analysis

⁵ Bilingual pupils are defined as children who have a matemal tongue other than Danish and who do not learn Danish until they come in contact with the surrounding society, e.g. through school education.

Figure 5.1 Number of pupils per type of school, 2000, 2005 and 2008



Source: UNI•C Statistics & Analysis



Source: UNI • C Statistics & Analysis

immigrants and descendants. This gives a break in the data between 2006 and 2007 which should be noted when analysing the data over time.

However, the number of pupils with an ethnic origin other than Danish in municipal and private basic schools has been stable and around 10 % during the period from 2005 to 2008 (table 5.3). This is the case whether the statistic is calculated according to the definition of bilingual pupils defined in the Danish legislation on municipal basic schools or Statistics Denmark's definition of ethnic origin other than Danish.

In the basic schools, over 60 % of the pupils of ethnic origin other than Danish have a family background from Turkey, Iraq, Lebanon, Somalia, Pakistan, Afghanistan, Bosnia-Herzegovina, Yugoslavia, Vietnam, or Sri Lanka.

When dividing pupils of ethnic origin other than Danish in Western and Non-western origin, it is found that there are approximately 90 % pupils of Non-western origin.

Table 5.3 Distribution of pupils of ethnic origin other than Danish in municipal and private basic schools	istribution of pupils of ethnic origin other than Danish in municipal and private basic scl	hools
--	---	-------

	2000	2005	2006	2007	2008
			Number		
Number of pupils of ethnic origin other than Danish, total	53,850	69,417	69,243	68,520	69,207
Municipal basic schools1	46,140	60,037	59,758	59,575	59,549
Private basic schools	7,710	9,380	9,485	8,945	9,658
			%		
Proportion of pupils of ethnic origin other than Danish, total	8.4	10.1	10.1	10.1	10.2
Municipal basic schools ¹	8.2	10.1	10.0	10.2	10.3
Private basic schools	9.9	10.3	10.3	9.8	10.1
			%		
Distribution of pupils of ethnic origin other than Danish ²					
Total	-	-	-	100	100
Turkey	-	-	-	16.4	15.5
Iraq	-	-	-	8.9	8.9
Lebanon	-	-	-	9.4	9.0
Somalia	-	-	-	5.9	6.0
Pakistan	-	-	-	4.6	4.4
Afghanistan	-	-	-	4.5	4.2
Bosnia-Herzegovina	-	-	-	4.2	4.0
Yugoslavia	-	-	-	3.8	3.5
Vietnam	-	-	-	3.5	3.4
Sri Lanka	-	-	-	3.2	3.2
Other countries	_	_	-	35.7	37.9
			%		
Total	-	-	-	100	100
Non-western origin	-	-	-	90.3	89.6
Western origin	-	-	-	9.7	10.4

Remark: In 2000-2006, the number of bilingual pupils has been counted as defined in the Danish legislation on municipal basic schools. In 2007 and 2008, the number has been counted as defined by Statistics Denmark's whereby ethnic origin other than Danish covers immigrants and descendants. Note 1: Includes the figures for a few special schools and community homes until 2004.

Note 2: The list is sorted according to number of pupils of ethnic origin other than Danish.

Source: UNI•C Statistics & Analysis



The majority by far (75 %) of the municipal basic schools have less than 10 % pupils of ethnic origin other than Danish. In comparison, 82 % of the private basic schools have less than 10 % pupils of ethnic origin other than Danish (figure 5.4).

In 97 % of the municipal basic schools, less than half of the pupils are of ethnic origin other than Danish, and the same is the case for 94 % of the private basic schools.

In 3 % of the municipal and in 6 % of the private basic schools, between half and 99 % of the pupils are of ethnic origin other than Danish.

5.2 Pupils receiving special needs education

Special needs education is the education given in accordance with the Danish legislation on municipal basic schools to children and young people whose development poses a requirement for special consideration or support that cannot be given within the framework of the normal educaFigure 5.4 The proportion of the municipal and private basic schools distributed after the number of pupils of ethnic origin other than Danish, 2008, percentage





Table 5.4 Pupils in special needs education in municipal basic schools, 2008

Pupils in special ne	eds education	Pupils, total	Proportion of pupils in special needs education
	Nun	nber	%
Total	49,441 ²	591,418	8.4
Regular classes	18,940	560,917	3.4
Special classes 1	27,496	27,496	100.0
Special needs day schools and community homes	3,005	3,005	100.0

Note 1: Special classes in municipal basic schools and in special schools for children.

Note 2: Number of pupils receiving special training includes pupils enrolled in regular classes and assigned to special training lessons. Source: UNI•C Statistics & Analysis

tion. Special needs instruction is given partly in special needs classes in the ordinary schools and in special needs schools, partly in regular classes in the ordinary schools.

In connection with the local government reform of 1 January 2007, the Danish legislation on municipal basic schools was changed, and total responsibility for special needs instruction was placed in the municipalities. Consequently, extensive special needs training does no longer exist. For this reason, figures predating 2007 cannot be compared with figures from 2007 and forward.

In 2008, a good 49,000 of the 591,000 pupils in municipal basic schools received special needs instruction in special needs classes or in their regular classes. Approximately 30,000 of the pupils received special needs teaching in a special needs class (table 5.4). It should be noted that the special needs training in regular classes in most cases is less intensive than that which takes place in special needs classes.

Pupils in special needs classes were often referred because of general learning difficulties; in 2008 this was the case for 37 % of the referred pupils. This category covers widely and includes persons who are mentally handicapped, retarded, etc. Almost one fifth of the pupils were referred because of reading and writing difficulties, speech and language difficulties, social and environmental difficulties. development difficulties, hearing impairments, physically disablements, vision impairment, and mental difficulties. One third of the pupils were referred for other reasons including children with brain damage or various other forms of functional failing (figure 5.5).

Boys are clearly overrepresented in special classes in municipal basic schools and constituted in 2008 72 % of the pupils or 19,700 of a total of 27,000 pupils (figure 5.6).

5.3 Age at school start

According to the Danish legislation on municipal basic schools, children shall start in the 1st form the year they reach seven years of age. From 2009, it is statutory to start in pre-school class.

The pupils in municipal, respectively in private basic schools do not have the same age when they start in the 1st form. A somewhat larger proportion of the pupils in the municipal schools than in the private schools starts in due time in 1st form, whereas the proportion of children who start early is larger in the private schools than in the municipal schools. The proportion of pupils in 1st form who start late is largely the same for the two types of schools (figure 5.6).⁶

Figure 5.5 Reasons for referral to special needs education among pupils in special classes in municipal basic schools, 2008, percent



General learning disabilities

- Development impairments
- Social and environment difficulties
- Reading and writing difficultie
- Speech and language difficulties
- Hearing impairments
- Vision impairments
- Physically disablements
- Mental difficultie
- Other
- Unknown

Source: UNI•C Statistics & Analysis



There is clearly a connection between the children's gender and when they start in the 1st form. In 2008, a considerably larger proportion of the boys started later than the girls in the 1st form. Correspondingly, a smaller proportion of the boys than of the girls started in due time or early (figure 5.8). Over the time, there has been a general tendency to more children, boys as well as girls, starting in due time or early in the 1st form (figure 5.9).

5.4 The pupils' choice of education after basic school

The majority by far of the pupils continue in a youth education within a period of 3 months after having

⁶ Start in due time is construed as the children starting in 1st form the year they reach seven years of age. Children who start in 1st form before the year they reach sven years of age are said to have started early, and children who start after the year they reach seven years of age are said to have started late.





completed basic school. In 2008 83 % of the pupils in 9th and 10th form started a youth education within 3 months after having completed basic school (table 5.5).

There is a distinct difference in boys' and girls' choice of education. In 2008 a considerable larger proportion of the girls than of the boys chose a general upper secondary education programme, whereas a clearly larger proportion of the boys than of the girls chose a vocational upper secondary education. Also the vocationally oriented education and training were primarily chosen by the boys (figure 5.10).

Figure 5.11 shows the distribution by gender of pupils of ethnic origin other than Danish who continue in education after the 9th or 10th form. The tendency for this group is the same as well: The girls choose primarily a general upper secondary school, whereas the boys primarily choose a vocational upper secondary or a vocational education. However, a higher percentage by far of the pupils of ethnic origin other than Danish do not continue educa-



Remark: Only pupils in municipal schools are included in the figure for the 2002 school year. Source: UNI•C Statistics & Analysis

Table 5.5 Behaviour 3 months after basic school

	2005	2006	2007	2008
			%	
Total	100	100	100	100
Continue in an education programme	83.1	82.0	83.3	83.1
General upper secondary education	38.6	38.6	39.5	38.8
Vocational upper secondary education	16.1	15.6	15.9	17.0
Vocationally oriented education and training	26.1	25.7	25.9	24.8
Other education ¹	2.2	2.2	2.1	1.4
Do not continue education	16.9	18.0	16.7	16.9

Note 1: Other education comprises higher education and non-qualifying education. Source: UNI•C Statistics & Analysis

tion. While 17 % of the boys in the total group do not continue in education, this is the case for 22 % of the boys of ethnic origin other than Danish. For the girls, 17 % of the total group do not continue in education, whereas it is the case for 23 % of the girls of ethnic origin other than Danish.

5.5 Number of teachers

In the year 2008 there were 62,000 teachers in the basic schools. 50,000 of these were employed by municipal basic schools, 8,000 by private basic schools, and 4,000 were employed by continuation schools (table 5.6).

From the year 2005 through 2008, the number of teachers in municipal basic schools decreased, while the number in the private basic schools and in the continuation schools increased. Thus, in the basic schools as a whole, the number of teachers is largely unchanged.

When considering the age distribution of the teachers in basic school (excluding continuation schools), it



Note 1: Other education comprises higher education and non-qualifying education. Source: UNI•C Statistics & Analysis



Figure 5.11 Behaviour of pupils of ethnic origin other than Danish, 3 months after basic school, by gender, 2008

General upper secondary education
 Vocational upper secondary education
 Vocationally oriented education and training
 Other education¹
 Do not continue education
 Note 1: Other education comprises higher education and non-qualifying education.
 Source: UNI•C Statistics & Analysis

is seen that in particular the group of 45 to 54 years old has diminished in recent years. Thus, in 2003, the group of 45 to 54 years old made up 32 % as compared to 23 % in 2008. During the same period, the group of teachers over 55 years old has increased by two percentage points, whereas teachers in the age group 35 to 44 years old has increased by nearly six percentage points. During the same period, the proportion of teachers 34 years of age or less has been stable at 25 % (figure 5.12).

In general, the teachers in the private basic schools with 43.1 years of age in average are slightly younger that those in the municipal basic schools who are 44.4 years old in average.

The gender distribution among teachers and school managers is skewed. Two out of three teachers are women. On the other hand, two out of three school managers are men (does not emerge from the figure). The gender skew is strongest among teachers in the youngest age group (figure 5.13).

Table 5.6 Number of teachers in the basic schools

	2005	2006	2007	2008
		Num	ber	
Basic school, total	62,089	62,671	61,552	61,992
Municipal basic schools	50,933	51,418	50,218	50,341
Private basic schools	7,548	7,537	7,653	7,828
Continuation schools	3,608	3,716	3,681	3,823

Remark: Includes both part-time and full-time teachers.

Source: UNI•C Statistics & Analysis and the association of continuation schools



Source: UNI•C Statistics & Analysis

5.6 Normal class size and pupil-teacher ratio

The pupil-teacher ratio describes the ratio between the number of pupils and the number of teachers, that is to say the average of number of pupils per teacher.

In 2008, the pupil-teacher ratio was 11.1 in the municipal basic schools, whereas it was 12.4 in the private basic schools. Thus, there are slightly more pupils per teacher in the private basic schools (figure 5.14). These numbers have not changed notably in recent years.

The normal class size expresses the average number of pupils in a class. Dedicated special classes are not counted in the normal class size calculation.

Combined for the municipal and the private basic schools, the standard number of pupils per class was 19.6 in 2008. However, the standard number of pupils per class covers for major variations in class size, generally as well as between the two types of schools,



Figure 5.13 Age distribution of teachers by gender, 2008



the municipal basic schools having an average of 20.2 pupils per class and the private basic schools having 16.7 (figure 5.15).

At first it seems odd that the municipal schools at the same time have a relatively high number of students per class (20.2) and a low student/ teacher ratio (11.1). Conversely, the private basic schools have a relatively low number of students per class while they have a high pupil/teacher ratio (12.4).

The reason why the municipal schools have a lower pupil/teacher ratio is that the municipal schools spend relatively more teacher fulltime equivalents on challenged pupils (for instance special needs pupils) than the private basic schools. Since there are more special needs pupils, the average pupil draws on more teacher resources in the municipal schools than in the private schools. This way, the pupil/teacher ratio ends up lower in municipal schools than in private schools.

The higher resource requirements compound the reason for a higher number Remark: Not including continuation schools Source: UNI•C Statistics & Analysis



Remark: The pupil-teacher ratio has been calculated based on the total time used by teachers minus the time used in special classroom teaching plus the teaching time of the school management. The time used is divided with a standard man-year (1,924 hours). All the pupils are included except pupils in special classes. Municipal special schools and community homes are not considered.

Source: UNI•C Statistics & Analysis



Remark: The normal class size is calculated as number of pupils divided by number of classes (excluding special classes). Source: UNI•C Statistics & Analysis



Source: UNI•C Statistics & Analysis

Figure 5.16 Class size in the municipal basic schools and the private basic schools, pre-school class up to 9th form, 2008

of students per class in the municipal schools as compared with the private schools. The smaller number of pupils per class in the private schools may also be explained by the teachers' teaching during a larger part of their total working hours than is the case for the teachers in municipal schools.

During 2003 to 2008, there has been a slight increase of 0.4 in the standard number of pupils per class in the municipal basic schools. The private schools, on the other hand, have experienced a drop in the standard number of students of more than 1 during the same period.

Figure 5.16 shows that there are wide variations in the number of pupils per class, and also that the number of pupils per class in municipal and private schools respectively differ particularly in the outer categories, which have the smallest or the largest classes. In the municipal basic schools, only one in 40 classes has a maximum of 10 pupils. In the private basic schools, one in six classes has such a size. Conversely, the largest classes are found in the municipal schools.



6 Youth education

6.1 Number of schools and students

The youth education programmes comprise the higher education preparatory general upper secondary studies and the vocational education and training programmes that target the labour market, but which may also give admission to higher education.

In the autumn of 2009, there were a total of 149 general upper secondary educational institutions and 109 vocational colleges (table 6.1).

In 2008, 241,000 students were enrolled in a youth education. Of these, just under half (49 %), were enrolled in an upper secondary education programme, and slightly more than half (51 %), were enrolled in a vocationally oriented education and training programme.

In 2008, there were a good 82,000 students in the general upper secondary education programmes comprised of the upper secondary school leaving examination (stx) and the higher preparatory exams (hf). The majority by far (87 %) of these took stx, while 13 % studied for hf.

The vocational upper secondary education programmes, consisting of the higher commercial examination (hhx) and the higher technical examination (htx), accounted for nearly 35,000 students in 2008. The greater part (70 %) took hhx, while every third studied for htx.

In the general upper secondary schools, there are markedly more women than men, whereas in the vocational secondary schools, and particularly in the vocationally oriented education and training programmes, there is a predominance of men.

Since 2005, the proportion of students of ethnic origin other than Danish in the youth education programmes has increased by 14 %, and in 2008, these students accounted for nearly one in ten students in youth education. In total, there were 23,100 students of ethnic origin other than Danish, and of these, 10,400 were in upper secondary schools where they constituted 9 % of the students and 12,700 were in vocationally oriented education and training programmes where they made up 10 % of the students (table 6.3).

There is a more balanced gender distribution in the youth educations among students of an ethnic origin other than Danish than there is among ethnically Danish students. In 2008 in the upper secondary education programmes, women made up 53 % of the students of ethnic origin other than Danish, and in the vocationally oriented education and training programmes, they made up 52 %.

In upper secondary schools, women of ethnic origin other that Danish primarily choose the general upper secondary education; the men choose the vocational upper secondary education to a larger extent. In the vocationally oriented education and training programmes, the men choose a technical education; women choose especially social and health care training programmes (does not emerge from the table).

Table 6.1 Number of educational institutions with youth education programmes

	2000	2005	2006	2007	2008	2009
			Num	ber		
Upper secondary schools and higher						
preparatory courses (hf)	124	125	126	126	127	128
Private upper secondary schools and hf-courses	16	17	17	17	17	17
Adult upper secondary level course	5	4	4	4	4	4
Vocational colleges etc	119	115	113	113	114	109

Source: UNI•C Statistics & Analysis

In 2008, most of the upper secondary students were enrolled in stx (61 %). Hhx followed with 21 % of the students. Htx and the two-year hf had each a share of 9 % of the students (figure 6.1).

In 2008, 123,000 students studied in a vocationally oriented education and training programme. In particular popular are the programmes within the commercial field, building and construction, and health, care and pedagogy (figure 6.2).

6.2 Age at school start

In average, the students in upper secondary schools (stx) and higher technical schools (htx) are respectively 16.6 and 16.8 years old when they start; in higher commercial schools, they are 17 years old. At the upper secondary school leaving examination, the students in stx have an average age of 19.5 years, in htx 19.7 years, and in hhx 20 years. The students are of the same age in stx, hhx, and htx, whereas there is a wider spread in the age of the students in the two-year

Table 6.2 Number of students in youth education by gender

	2000	2005	2006	2007	2008
			Number		
Youth education students, total	217,114	226,248	233,092	236,293	240,993
Men	107,800	112,659	117,029	119,308	122,586
Women	109,314	113,589	116,063	116,985	118,407
Upper secondary education, total	93,081	104,442	108,230	111,430	116,931
Men	40,514	45,869	47,882	49,551	52,319
Women	52,567	58,573	60,348	61,879	64,612
Stx (incl. adult upper secondary level course)	53,061	61,961	65,454	68,058	71,748
Men	20,448	24,033	25,457	26,362	27,769
Women	32,613	37,928	39,997	41,696	43,979
Hf	11,021	10,119	9,655	9,823	10,417
Men	3,707	3,678	3,524	3,536	3,817
Women	7,314	6,441	6,131	6,287	6,600
Hhx	21,754	23,924	24,304	24,051	24,234
Men	10,329	11,290	11,819	12,155	12,577
Women	11,425	12,634	12,485	11,896	11,657
Htx	7,245	8,438	8,817	9,498	10,532
Men	6,030	6,868	7,082	7,498	8,156
Women	1,215	1,570	1,735	2,000	2,376
Vocationally oriented education and training,					
total	124,033	121,806	124,862	124,863	124,062
Men	67,286	66,790	69,147	69,757	70,267
Women	56,747	55,016	55,715	55,106	53,795

Source: UNI•C Statistics & Analysis

Table 6.3 Number of students in youth education by ethnicity

	2000	2005	2006	2007	2008
			Number		
Youth education, total	216,756	225,606	232,299	235,449	239,700
Danish origin	201,837	205,366	210,815	212,835	216,578
Ethnic origin other than Danish	14,919	20,240	21,484	22,614	23,122
Upper secondary education, total	93,038	104,384	108,121	111,291	116,604
Danish origin	87,237	96,043	99,200	101,718	106,23
Ethnic origin other than Danish	5,801	8,341	8,921	9,573	10,373
Stx (incl. adult upper secondary level co	ourse) 53,032	61,928	65,397	67,967	71,512
Danish origin	49,861	57,106	60,254	62,432	65,568
Ethnic origin other than Danish	3,171	4,822	5,143	5,535	5,944
Hf	11,017	10,110	9,636	9,791	10,37
Danish origin	10,245	9,119	8,597	8,698	9,090
Ethnic origin other than Danish	772	991	1,039	1,093	1,27
Hhx	21,745	23,910	24,273	24,040	24,207
Danish origin	20,266	21,989	22,206	21,883	21,969
Ethnic origin other than Danish	1,479	1,921	2,067	2,157	2,23
Htx	7,244	8,436	8,815	9,493	10,514
Danish origin	6,865	7,829	8,143	8,705	9,598
Ethnic origin other than Danish	379	607	672	788	910
Vocationally oriented education and					
training, total	123,718	121,222	124,178	124,158	123,096
Danish origin	114,600	109,323	111,615	111,117	110,34
Ethnic origin other than Danish	9,118	11,899	12,563	13,041	12,749

Source: UNI • C Statistics & Analysis

6.3 Completion, dropout, and behaviour after dropout

The completion percentage is a measure of the proportion of students who have started an education programme the year in question, and who finish that programme. The actual completion percentage of a cohort cannot be established until a certain number of years after the official length of the programme. Therefore, the completion percentages in this chapter have been calculated by model.

Eight of ten students are expected to complete their education in the upper secondary programmes. There is, however, a large variation. With 84 %, stx has the highest completion rate. Then hhx follows with 79 %, htx with 75 %, and hf with 72 % (table 6.4 and figure 6.3).

higher preparatory school (hf), which also addresses adults. The students have an average age of 18.8 years when they start in hf, and they are 20.6 when they graduate.

In the vocational education programmes, the students have an average age of 21 years when they start the basic course, and they are nearly 26 years old when they start the main course. This is owed to not all coming directly from a basic course. The students have an average age of 28 years when they complete their education. The majority is under 25 years old when they complete their vocational education, but there is a very wide spread in age.

The average age at completion of the education is over 30 years in the fields of health and social care and pedagogy, building and user service, and transportation and logistics. Conversely, the average age is under 25 years in the fields of automobiles, aircrafts and other means of transportation; building and construction; body and style; and electricity, automation, and IT.


Figure 6.1 Students in upper secondary youth education per education programme, 2008

The vocationally oriented education and training programmes typically starts with a basic course of study of 20 to 60 weeks duration. Approximately two thirds of the students complete the basic course of study that they started. Unless they already have one, the students then need a training contract (internship) with an enterprise so they can continue with the main course of study and complete the education. If the students do not succeed in obtaining a training contract, they may in some of the programmes continue in school-based practical training. The main course of study takes approximately three years and 77 % complete their main course (see also section 6.6).

Only just under half, that is 48 % of those who started a vocationally oriented education and training programme in 2008 are expected to complete it. This is owed to circumstances such as not all students obtaining a training contract, some students changing to another education en route, and still others dropping out. Figure 6.2 Students in vocationally oriented youth education and training by main course, 2008



Table 6.4 Completion rates¹

	2000	2005	2006	2007	2008
			%		
General upper secondary education	80	81	82	82	82
Hf	69	72	71	72	73
Stx (incl. adult upper secondary level course)	83	83	84	84	84
Vocational upper secondary education	77	76	75	76	78
Hhx	80	77	77	78	80
Htx	70	72	72	74	75
Vocationally oriented education and training	59	53	52	50	48

During the period from 2000 to 2005, the number of students completing a vocational education and training programme dropped from nearly 39,000 to 30,000. This was caused by a decreasing number of students in the youth cohorts, a higher dropout rate, and more students choosing an upper secondary programme. After 2005, the number has been largely stable, however with a minor decrease in 2008 (table 6.5).

As mentioned in section 6.1, the compositions of the student groups in upper secondary and vocationally oriented education and training programmes are different, which should be taken into consideration when comparing the completion rates.

Between 62 % (in hf) and 75 % (in stx) of the students of ethnic origin other than Danish who start an upper secondary education are expected to complete the education (table 6.6).

Only 38 % of the students of ethnic origin other than Danish who start a vocationally oriented education and Remark 1: The figures for 2000 are the actual completion percentages, and the figures for 2005-2008 represent the proportion of students expected to complete the education. The expected completion percentages are a combination of actual numbers and model calculations. Source: UNI•C Statistics & Analysis

Table 6.5 Number of students who complete an education, and number of students whodrop out on the way

2000	2005	2006	2007	2008	
		Number			
Completing					
General upper secondary education	20,853	20,753	22,324	22,609	23,319
Hf	3,965	3,815	4,279	3,847	3,942
Stx (incl. adult upper secondary level course)	16,888	16,938	18,045	18,762	19,377
Vocational upper secondary education	8,734	8,457	8,837	9,381	9,295
Hhx	6,860	6,322	6,589	7,141	6,870
Htx	1,874	2,135	2,248	2,240	2,425
Vocationally oriented education and training	38,920	30,350	30,605	30,863	29,460
Discontinued					
General upper secondary education	4,960	5,701	5,624	5,889	5,293
Hf	1,746	2,095	1,599	1,564	1,428
Stx (incl.adult upper secondary level course)	3,214	3,606	4,025	4,325	3,865
Vocational upper secondary education	2,484	2,774	3,199	3,126	3,081
Hhx	1,700	1,884	2,172	2,104	2,072
Htx	784	890	1,027	1,022	1,009
Vocatioanally oriented education and training	22,431	26,777	28,043	28,293	31,881

Source: UNI•C Statistics & Analysis



Figure 6.3 Completion rates ¹ in youth education programmes

Note 1: The proportions in 2000-2004 are the actual completion percentages, and the figures for 2005-2008 represent the proportion of students expected to complete the education. The expected completion percentages are a combination of actual numbers and model calculations. Source: UNI•C Statistics & Analysis

Table 6.6 Completion rates 1 for students of ethnic origin other than Danish

20	00	2005	2006	2007	2008
			%		
Stx (incl. adult upper secondary level course)	70	71	75	74	75
Hf	48	66	64	64	62
Htx	67	69	68	69	70
Vocationally oriented education and training	68	66	67	67	68
– of this basic course	41	41	41	38	38
– of this main course	70	71	75	74	75

Note 1: The figures for 2000 are the actual completion percentages, and the figures for 2005-2008 represent the proportion of students expected to complete the education. The expected completion percentages are a combination of actual numbers and model calculations. Source: UNI•C Statistics & Analysis

training programme are expected to complete the education.

When comparing the completion rates for ethnic Danes with the completion rates for students of ethnic origin other than Danish in the upper secondary education programmes, the ethnic Danes in general, have a higher completion rate (figure 6.4). In hf 70 % of the men of ethnic Danish origin are expected to complete the upper secondary education programmes in contrast to 58 % of the men among the students of ethnic origin other than Danish.

The same pattern is observed in the vocationally oriented education and training programmes as in upper secondary education (figure 6.5). In general, students of ethnic Danish origin have a higher completion rate than students of ethnic origin other than Danish. Besides, women in general being better at completing, the very large difference may also be a consequence of the women primarily choosing the significantly shorter social and health care education programmes.



Figure 6.4 Expected completion rates1 in upper secondary education by ethnicity and gender, 2008

Note 1: The completion percentages have been calculated by modelling. Source: UNI•C Statistics & Analysis



Figure 6.5 Expected completion rates: in vocationally oriented education and training by ethnicity and gender, 2008

Note 1: The completion percentages have been calculated by modelling. Source: UNI•C Statistics & Analysis



Figure 6.6 Behaviour after discontinued youth education – proportion expected to start another education within 27 months

The major part of the students dropping out of a three-year upper secondary education start a new education within 27 months. The major part (60-61 %) of those dropping out of stx and hhx start another education. The same is the case as regards 72 % of those dropping out of htx. Of those dropping out of hf, only 42% are expected to start another education. In the vocational education and training programmes, the corresponding share is only 31 % (figure 6.6).

Since 2003, the tendency to continue the education has been decreasing slightly in stx, hf, and hhx. In htx, the tendency has been a decrease up until 2005 after which there has been an increase. In the vocationally oriented education and training programmes, the tendency has likewise been a decrease since 2003.

About 40 % of the students who drop out of a vocational upper secondary education start a vocationally oriented education and training programme within 27 months, while 30 % of the students who drop out of stx start another upper secondary education

Figure 6.7 Behaviour after discontinued youth education 2006 – proportion who started another education within 27 months



Non-qualifying education¹ Upper secondary education

■ Vocationally oriented education and training ■ Higher education² ■ Do not continue education

Note 1: Non-qualifying education and training programmes includes primarily production schools. Note 2: Students who have discontinued the education and who start a higher education may be admitted by exemption or may have complemented with hf single subject courses. Source: UNI•C Statistics & Analysis



Table 6.7 Behaviour after completing upper secondary education - proportion that has started a new education within 27 months

2002 2003 2004 2005 2006¹ % Stx (incl. adult upper secondary level course) 100.0 100.0 100.0 100.0 100.0 Continue in an education programme 74.7 75.6 77.0 77.7 78.1 Non-qualifying education 0.2 0.1 0.1 0.1 0.0 Upper secondary education 2.8 4.2 2.3 0.2 0.2 5.8 Vocationally oriented education and training 6.5 6.5 6.4 6.6 Short-cycle higher education 4.6 4.8 5.6 4.1 5.3 Professional bachelor and other medium-cycle higher education 19.8 19.1 19.0 20.4 20.6 University bachelor and master's programmes (candidatus) 40.6 42.6 43.6 45.8 45.2 Do not continue education ² 25.3 24.4 23.0 22.3 21.9 Hf 100.0 100.0 100.0 100.0 100.0 Continue in an education programme 66.8 67.4 66.9 67.O 61.2 Non-qualifying education 0.4 0.1 0.4 0.1 0.3 Upper secondary education 7.O 3.3 2.6 0.7 0.5 Vocationally oriented education and training 15.O 15.2 13.9 14.4 13.7 Short-cycle higher education 6.3 5.1 5.5 6.1 7.O Professional bachelor and other medium-cycle higher education 29.1 29.0 30.0 31.2 27.7 University bachelor and master's programmes (candidatus) 11.9 13.2 13.3 14.4 12.2 Do not continue education ² 38.8 32.6 33.2 33.1 33.0

Note 1: Preliminary figures.

Note 2: The category 'Do not continue education' includes basic school.

Source: UNI•C Statistics & Analysis

program, primarily hf. 58 % of those dropping out of hf do not start a new education (figure 6.7).

6.4 The pupils' choice of education after the youth education

An upper secondary education prepares for an academy preparatory education, whereas a vocationally oriented education and training is vocationally oriented. Thus, it is to be expected that the majority of the students who complete a higher secondary education continue their education within 27 months, corresponding to two years plus a summer holiday. More than 75 % of the graduates from stx, hhx and htx, and 61 % of those who complete hf, continue their education, whereas this is only the case for 14 % of those who complete a vocationally oriented education and training programme (table 6.7 and 6.8).

Although upper secondary education primarily prepares for an academy preparatory education, and consequently is aimed at higher education, 32 % of the graduates from hhx continue in a Tabel 6.7...

2002	2003		2004	20	05 _	20061
			%			
Hhx		100.0	100.0	100.0	100.0	100.0
Continue in an education programme		73-3	73.7	74.7	76.2	74.5
Non-qualifying education		0.2	0.1	0.1	0.1	0.0
Upper secondary education		0.2	0.3	0.1	0.1	0.2
Vocationally oriented education and training		35.0	34.1	33.1	33.4	32.2
Short-cycle higher education		10.4	10.8	12.2	12.8	13.2
Professional bachelor and other medium-cycle h	igher					
education		8.9	9.4	10.3	9.9	9.4
University bachelor and master's programmes (c	andidatus)	18.7	18.9	18.9	19.8	19.5
Do not continue education ²		26.7	26.3	25.3	23.8	25.5
Htx		100.0	100.0	100.0	100.0	100.0
Continue in an education programme		78.4	79.1	81.5	80.4	81.C
Non-qualifying education		0.5	1.2	1.2	1.1	0.9
Upper secondary education		3.6	2.1	2.6	0.1	0.3
Vocationally oriented education and training		13.3	14.2	14.8	13.9	12.7
Short-cycle higher education		11.7	10.9	9.7	9.6	10.6
Professional bachelor and other medium-cycle h	igher		-		-	
education	-	23.9	24.5	25.0	24.3	23.6
University bachelor and master's programmes (c	andidatus)	25.3	26.2	28.2	31.3	32.8
Do not continue education ²		21.6	20.9	18.5	19.6	19.0

vocationally oriented education and training programme. This is also the case for 12-13 % of the graduates from hf and htx (table 6.7).

In stx, primarily university bachelor programmes are popular. 45 % of the stx and 32 % of the htx graduates from 2006 started a university education. 27 % of the hf graduates in 2006 entered a professional bachelor education or a medium-cycle higher education programme.

A wide majority (86 %) of those who choose a vocationally oriented education and training programme leave the educational system and become available to the labour market. Nearly 14 % continue their education within 27 months. In total,7% start a new vocationally oriented education and training programme, and a good 4 % start a higher education (table 6.7).

Figure 6.8 shows the education which students who graduate from the upper secondary schools and the vocationally oriented education and training

Table 6.8 Behaviour after completing a vocational education and training programme – proportion that has started a new education within 27 months

	2002	2003	2004	2005	2006 ¹
		%			
Vocational education and training programmes	00.0	100.0	100.0	100.0	100.0
Continue in an education programme	11.3	11.5	12.5	12.5	13.9
Non-qualifying education	0.1	0.1	0.2	0.2	0.1
Upper secondary education	0.5	0.5	0.6	0.5	0.5
Vocationally oriented education and training	4.5	4.6	5.8	6.1	7.4
Short-cycle higher education	2.4	2.5	2.1	2.1	2.3
Professional bachelor and other medium-cycle higher education	1 <u>3.7</u>	3.7	3.7	3.6	3.6
University bachelor and master's programmes (candidatus)	0.1	0.1	0.1	0.1	0.1
Do not continue education	88.7	88.5	87.5	87.5	86.1

Note 1: Preliminary figures. Source: UNI•C Statistics & Analysis

programmes have started within 27 months.

Table 6.9 shows how many are in the course of another education programme 15 months after having graduated from an upper secondary school. More that half of the graduates are under way again after 15 months, corresponding to one year plus a summer holiday.

Young people in vocational upper secondary education are the fastest to start a new education. After 15 months, more than 60 % had started a new education in 2007.

As a matter of development over time, especially those who start in higher

education programmes get started faster. In 2007, 50 % of the stx students had started a higher education after 15 months as compared with barely 40 % in 2000.

6.5 Choice of subjects in upper secondary schools

During the latest years the upper secondary education has undergone a major reform that has influenced the structure and contents of the education programmes. The three upper secondary education programmes: Upper secondary school leaving examination (stx), higher commercial examination (hhx), and higher technical examination (htx) have been given a common structure with an introductory basic course of study with a duration of half a year and a subsequent major study programme with a duration of two and a half years.

Each education programme has major subjects, mandatory subjects and elective subjects. In upper secondary schools, the subjects may be taken at A, B, or C level respectively, A being the highest level.

The first cohort in the new reform began their education in 2005, and completed it in 2008.

The reform has strengthened the number of students with natural sciences among the future graduates. Furthermore, the future graduates will have fewer foreign languages, but the ones they do have will be completed at a higher level.

In stx, the proportion of students with three foreign languages was 40% before the reform. In 2008, the first cohort after the reform, the proportion was 4% (figure 6.9).

Table 6.9 Behaviour after completing upper secondary education leaving examination – proportion that has started further education within 15 months

	2002	2003	2004	2005	2006	2007 ¹		
	%							
Stx (incl. adult upper secondary level course), total	49.9	51.9	52.6	52.3	55.6	53.6		
Of this vocationally oriented education and training	3.9	3.9	4.3	4.7	4.5	3.3		
Of this higher education	39.9	41.1	43.5	47.4	50.8	50.0		
Hf, total	51.0	49.6	49.9	49.0	48.4	46.2		
Of this vocationally oriented education and training	9.6	9.8	10.8	11.2	10.3	9.4		
Of this higher education	32.3	32.1	34.7	36.4	37-4	35.6		
Hhx, total	60.2	60.1	60.6	62.9	62.6	61.4		
Of this vocationally oriented education and training	29.1	28.8	27.8	28.8	28.6	25.4		
Of this higher education	30.8	30.8	32.4	33.9	33.7	35.7		
Htx, total	63.6	63.0	68.3	66.9	68.5	65.7		
Of this vocationally oriented education and training	9.3	8.7	11.4	10.4	10.5	8.1		
Of this higher education	48.9	48.2	51.3	54.9	56.3	56.4		

Note 1: Preliminary figures.

Source: UNI•C Statistics & Analysis



Figure 6.8 Behaviour after completing youth education 2006 – proportion that

Upper secondary education Non-qualifying education

Note 1: The category 'Do not continue education' also includes those who continue in basic school. Source: UNI•C Statistics & Analysis The proportion of students in hhx who had at least three foreign languages before the reform was 21% in 2007. In 2008, after the reform, this proportion was 5%.

Since htx is a technical upper secondary education, no students in this programme take three foreign languages neither before nor after the reform. An important goal of the reform was to increase the proportion of graduates who meet the requirements for admission to an education programme within natural sciences, technology, and health. This requires that the students have taken mathematics at level A, and physics and chemistry at least at level B. Only graduates from stx and



Figure 6.9 Proportion of students in 2006-2008 and anticipated proportion of

students in 2009 with at least three foreign languages in stx and hhx

Note: Foreign languages are here defined as English, French, German, Italian, Spanish, Russian, Greek, Chinese, and Japanese. Source: UNI•C Statistics & Analysis

Figure 6.10 Number of students in 2006-2008 and anticipated number of students in 2009 who take mathematics A and physics and chemistry at minimum level B in stx and htx



htx will have the opportunity to meet these requirements.

In 2007, the proportion of graduates with mathematics A and physics and chemistry at least at level B was 13 % for stx, while the corresponding proportion after the reform in 2008 was 21 % (figure 6.10).

In the htx programme in 2007, just under half of the graduates had taken mathematics at level A and physics and chemistry at least at level B. After the reform in 2008, 77 % of the htx graduates had taken these subjects and levels.

6.6 Training contracts

The vocational education and training programmes (EUD) are alternating programmes where parts of the training takes place in a school, while other parts take place in practice. Therefore, the students should apply for entering a training contract about a practice placement (internship) with an enterprise. Students who cannot find

Table 6.10 Practice placement applicants and training contracts

	2003	2004	2005	2006	2007	2008	2009	
	Number							
Ongoing contracts	55,038	54,200	57,070	62,362	66,360	66,002	62,587	
Contracts entered	26,170	28,493	31,445	36,046	36,894	33,637	28,735 1	
Practice placement applicants	11,370	10,655	6,586	4,707	3,206	3,897	6,379	
Students in school-based practical								
training	7,562	6,936	4,315	2,540	1,622	1,583	2,391	

Remark: In 2003-2008, the figures are as of end December, in 2009 as of end June. Note 1: Number of contracts entered in the period 1 July 2008 - 30 June 2009. Source: UNI•C Statistics & Analysis



a practice placement themselves may take their practice in school.

The number of training contracts entered has varied greatly during the period 2005-2009 (table 6.10). From 2005 to 2007, the number of training contracts entered increased thus by 17 %, but dropped again by 9 % from 2007 to 2008, mainly in the second half of 2008. The drop has continued by an additional 15 % in the first half of 2009. The wide variation in number of training contracts entered has had an influence on the number of ongoing training contracts, practice placement applicants, and students in schoolbased practical training.

Contracts entered refer to the number of students who have contracted a practice placement during the latest 12 months. Ongoing contracts refer to the number of students who are in practical training with a contract at the end of the months. Students in school-based practical training means the number of students who are in school-based practical training at the end of December (in 2009 at the end of June). Total number of practice place-



ment applicants includes students without an ongoing or planned contract who have qualified for the desired main course of study, and who have confirmed their application. Students in school-based practical training do not have a contract, and therefore they count as practice placement applicants.

From 2005 to 2007 the number of ongoing training contracts increased by 16 %, upon which it decreased by 1% till the end of 2008. The decrease in training contracts continued in the first half of 2009.

The number of practice placement applicants dropped from nearly 6,600 by the end of 2005 to 3,200 in 2007 after which the number increased again. The drop from 2005 to 2007 may partly be ascribed to changed requirements of the application status of the students, although better opportunities for obtaining a training contract have also had a significant influence.

There was a significant drop in the number of students in school-based practical training from almost 4,300 at the end of 2005 to slightly less than 1,600 at the end of 2008. The decrease was owed to improved opportunities to obtain training contracts as well as the introduction of restricted admission to school-based practical training in eight of the education programmes. These eight programmes are: information technology and communication, office with special subject, technical designer, mechanic, electronics and low power, electrician, carpentry, and cabinet making. The restriction of admission to school-based practical training for some of the education programmes was due to the fact that the school-based practical training was used inappropriately. In other cases, a low employment rate for skilled persons in school-based practical training was a decisive factor.

From 2008 to 2009, the decrease in number of training contracts lead to a renewed increase in the number of students in school practice from nearly 1,600 to 2,400. The increased difficulty of finding training places has lead to an easement in the admission restrictions of school practice for the big education programmes, office education with specialisation, woodwork building education, and mechanic education in 2009.

Figure 6.11 shows the development in number of practice placement applicants and training contracts as of June and December for the period 2003 to 2009.

Table 6.11 Referral causes for students in education programmes for young people with special needs, February 2009

	2009	
	%	
General learning disabilities	65.1	
Development impairments	19.1	
Social and environmental difficulties	2.0	
Physically disablements	1.8	
Mental difficulties	0.9	
Hearing impairments	0.2	
Vision impairments	0.1	
Reading and writing difficulties	0.1	
A combination of reasons	9.0	
Other	1.7	
Total	100.0	
Number of students, total	1,965	

Figure 6.12 shows ongoing contracts and students in school-based practical training by ethnicity. In 2008, a significantly larger number of ethnic Danes as well as students of ethnic origin other than Danish had an ongoing contract as compared to 2005. Especially students of ethnic origin other than Danish have benefited from the higher number of contracts in the intervening period. The proportion of ethnic Danes with a contract has increased by 14 %, whereas the proportion of students of ethnic origin other than Danish has increased by 36 %.

In 2008, fewer students were undertaking school-based practical training compared to 2005. For the group of ethnic Danish origin, the number of students in school-based practical training has decreased by 65 %, while the decrease is 57 % for students of ethnic origin other than Danish.

Students of ethnic origin other than Danish constituted a larger proportion of both students with an ongoing training contract and students in school practice in 2008 than in 2005; this reflects, among other things, the Source: UNI•C Statistics & Analysis

demographic development. Students of ethnic origin other than Danish had 7 % of the ongoing contracts in 2008 and 5 % in 2005. 26 % of all students in school practice were of an ethnic origin other than Danish in 2008 and 22 % in 2005.

6.7 Education for young people with special needs, young people in basic vocational education and training, and young people in production schools

Education for young people with special needs

Since 1 August 2007, young mental retarded people and other young people with special needs, in other words, young people who cannot complete an ordinary youth education, have a legal right to a three-year course of education in a youth education programme. At the end of the compulsory education, young people with special needs shall be offered such a course of education.

Typically, the education takes place in municipal educational institutions, which receive approximately 70 % of the students, and the rest is distributed among private boarding schools, production schools, vocational colleges, day folk high schools, workshops, and other institutions.

In February 2009, nearly 2,000 young people had started in an education programme for young people with
 Table 6.12
 Number of production schools and students who have completed a production school course of study 2005-2008

	2005	2006	2007	2008
Number of production schools ¹	99	96	84	78
Number of students who completed a production s	chool			
course of study ²	12,182	10,441	8,851	9,520

Note 1: The number of production schools is as per calendar year end.

Note 2: The figures shown are per calendar year. Some of the production school students may have been counted more than once if they have been in more than one production school course in the same calendar year. Only students who have completed a production school course of study in the designated year are counted. Students in an egu programme arranged by a production school (ps-egu) are not counted.

Source: Reports from the production schools to UNI•C Statistics & Analysis

special needs. Four out of five in the programme were between 18 and 24 years old, and one of five was less than 18 years old.

Two thirds of the students were referred to the programme because of general learning disabilities (table 6.11).

The education of young people with special needs is not eligible for a state education grant. During the spring 2009, nearly 30 % of the students received early retirement pension, and a good 20 % received public support in connection with rehabilitation.

Basic vocational education and training (egu)

The basic vocational education and training (egu) is an individualised programme for young people less than 30 years of age who are unable to complete an ordinary qualifying youth education. The education normally takes two years. It consists of periods in school and periods in practice. The educational elements of egu normally consists of parts from other education programmes, for instance vocational education programmes, adult vocational training, production schools, folk high schools, full-time education in youth schools, adult education centres, etc.

From 2007 to 2008, there has been an appreciable increase of new students in egu. The enrolment in egu was around 950 students in 2008 as compared to 790 in 2007 and 770 in 2006.

In 2008, 38 % of the new students came from production schools, and 28 % were referred from youth guidance centres (UU-centres). 8 % came directly from basic school and 5 % from an interrupted vocational education programme. 6 % of the new students received public cash benefits. Considerably more than half of the new enrolments in egu were less than 18 years old at the start of study.

Production schools

The production schools offer education of young people under 25 years of age who have not completed a qualifying youth education programme, and who do not directly have the qualifications to enter or complete a youth education programme, or who have interrupted a youth education. The programme, which consists of both school and

Table 6.13 Behaviour among students after completion of a production school course of study 2008

	2008
	%
Regular education	31.1
Other education	4.9
Regular employment	20.2
Employment with activation subsidy	2.2
Liberal adult education etc.	1.6
Unemployment	17.7
Dropout/other	22.3
Total	100.0
Total number of students	9,520

Remark: The figures shown are per calendar year. Source: UNI•C Statistics & Analysis

Table 6.14 Students in vocationally oriented education and training programmes who complete a practice placement abroad

	2003	2004	2005	2006	2007
	2005		Number	2000	2007
Students in practice placement abroad	1,220	1,585	1,844	1,695	1,851
			%		
Proportion of all students in vocationally					
oriented education and training programmes	1.0	1.1	1.4	1.3	1.5

Remark: The mobility figures have been gathered from the programmes PIU, Leonardo, Copernicus, DK-USA, and Nordplus. Population figures for the students have been fetched from the dynamic databases and the Databank of the Danish Ministry of Education and from UNI•C. Source: UNI•C Statistics & Analysis

practice, builds upon activities in various workshops with a view to production and marketing. In addition, the schools offer teaching of general subjects. The programme is organised as full-time teaching. However, there are no examinations and no tests.

The number of production schools has fallen steadily from 2005 to 2008. Also the number of students who have completed a production school course of study has dropped appreciably (27 %) from 2005 to 2007. From 2007 to 2008 however, there has been an increase of 8 % (table 6.12).

The majority (56 %) of the students who completed a production school course of study in 2008 have either continued in a qualifying education programme (36 %) or found ordinary employment in the labour market (20 %). An additional 2 % are employed with an activation subsidy, and 18 % are unemployed (table 6.13).

6.8 International mobility

Supported by either the Danish practice scheme, Practice Abroad (PIU), EU's Life Long Learning Programmes (Leonardo da Vinci, Comenius), the DK-USA programme, or the Nordic Nordplus programme, students in the vocationally oriented education and training programmes may complete a part of their education at schools or in practice abroad. Typically, the exchange programmes last from one to nine months and grant credit. That is to say that the time abroad is credited in the Danish vocational education and training programme.

The number of Danish students in the vocationally oriented education and training programmes who completed a practice placement abroad has in the later years been between 1,700 and 1,800 (table 6.14). The majority of the students come from education programmes within commerce and office, the hotel and restaurant trade, the service trade, and from social and health care education programmes.

The students in the vocationally oriented education and training programmes are especially attracted to Norway, Great Britain, Germany, and Sweden.

7 Higher education

7.1 Number of institutions and students

In the autumn of 2009 there were 103 institutions offering higher education. They vary greatly in size – from big universities with thousands of students to small institutions with but a few (table 7.1).

In 2007, several universities have been merged and amalgamated with sector research institutions, after which there are a total of eight universities. Furthermore, in 2008 the major part of medium-cycle higher education is consolidated in eight professional higher schools and two engineering colleges, while the greater part of the short-cycle higher education programmes are combined in ten vocational academies.

In 2008, just under 200,000 students studied in a higher education programme. Of these, 58 % studied in a university programme, 31 % in a professional bachelor programme, and 10 % in a short-cycle programme (table 7.2).

During the period 2005-2008, the number of students in the university

Table 7.1 Number of educational institutions with higher education

	2009	
Educational institutions, total	103	
Academies of professional higher education	10 ¹	
University colleges and engineering colleges etc ²	12	
Maritime colleges	14	
Police and defence colleges etc	19	
Artistic and cultural colleges	32	
Other institutions with medium-cycle higher education	8	
Universities	8	

Note 1: Includes North Jutland Academy of Professional Higher Education which was merged with the University College North Jutland on 1 January 2009.

Note 2: Besides university colleges and engineering colleges, this includes the private teachers training college and Danish school of media and journalism.

Source: UNI•C Statistics & Analysis

bachelor programmes increased by 14%. The professional bachelor programmes have experienced a decrease of 6%, whereas short-cycle higher education in the same period experienced an increase of 11%.

The increase in university bachelor programmes has its background in the

structural change that has taken place in the universities since 1993 when the long university programmes to a master's degree (candidatus) were divided in a three-year bachelor programme and a two-year master's programme (candidatus). This means that the previously unity master's programmes (candidatus) have been replaced by two

Table 7.2 Number of students per higher education programme

	2000	2005	2006	2007	2008
			Number		
Higher education, total	189,661	196,473	198,320	199,528	199,465
Short-cycle higher education	19,606	17,033	17,441	17,661	18,950
Medium-cycle higher education	114,088	123,483	126,429	128,324	127,186
Professional bachelor programmes	65,229	66,789	65,946	64,576	62,460
Other medium-cycle higher education	1,862	1,693	1,640	1,694	2,138
University bachelor programmes	46,997	55,001	58,843	62,054	62,588
Long-cycle higher education	55,967	55,957	54,450	53,543	53,329
Unity master's programmes (candidatus)	23,562	11,776	8,790	6,287	4,026
Two-step master's programmes (candidatus)	32,405	44,181	45,660	47,256	49,303

Source: UNI•C Statistics & Analysis

Table 7.3 Average age of students when starting their studies

	2000	2005	2006	2007	2008
			Year		
Short-cycle higher education	26.4	26.1	26.1	25.8	25.7
Professional bachelor programmes	27.8	27.9	27.7	27.4	27.3
University bachelor programmes	25.5	25.3	25.2	25.0	24.9

Source: UNI•C Statistics & Analysis

tion percentage for a cohort cannot be measured until all students who started the programme the year in question have either completed or abandoned their education. Therefore, the completion percentages in this statistic for the recent years have been computed by modelling. Please note that the later years' completion percentages are more uncertain because a greater proportion of the students are still studying.

In the short-cycle higher education programmes, 72 % of the students who started the programme are expected to complete. In the professional bachelor programmes, the proportion is 73 %, in

shorter programmes where the students first must complete a university bachelor programme before they can be admitted to a master's programme (candidatus).

7.2 Age at the start of study

In general, the students are now younger when they start their studies. And since 2005, the average age at the start of a higher education has been decreasing (table 7.3).

Although the greater part of the students in short- and medium-cycle higher education are in the beginning of the twenties at the start of study, a relatively large part of the students are considerably older when they start their study (figure 7.1).

7.3 Completion, dropout, and behaviour after dropout

The completion percentage is the proportion of students who have started an education programme and who complete it. The real comple-



the university bachelor programmes 74 %, and in the master's programmes (candidatus) 84 % (table 7.4).

37 % of the students who discontinued a short-cycle higher education in 2005 started another education within 27 months (table 7.6). The discontinuing students switch primarily to the vocationally oriented and mediumcycle higher education programmes (figure 7.2).

Nearly four out of ten students who discontinued their professional bachelor study started another education programme within 27 months. Also among students of this group, the vocationally oriented and mediumcycle higher education programmes are popular.

Every second student who discontinued a university bachelor programme started another education within 27 months. In this group, somewhat more than half of the students started a medium-cycle higher education including in particular a professional bachelor programme. Only 11 % of those who discontinued a master's programme (candidatus) started another education within 27 months. The larger part of this group is evenly distributed over the mediumcycle higher education programmes and the master's programmes (candidatus).

7.4 Length of study and age at graduation

In both the short-cycle higher education programmes as well as the professional bachelor programmes and the university bachelor programmes, the average length of study has been practically constant since 2005 (table 7.7). On the other hand, in the master's programmes (candidatus) there has been a distinct drop in the average completion time. Since the postgraduate programmes take two years, the biggest delays in relation to the standard length of study is still found here.

Traditionally, Danish students have had a high age when they complete their study. In 2008, the students who completed a short-cycle higher education had an average age of 27.1 years (figure 7.3).

The students who completed a professional bachelor education in 2008 had an average age of 29.3 years which is a drop compared to 2006 when the average was 30 years. There has also

Table 7.4 Completion rates. Number of students who are expected to complete the education

	2000	2005	2006	2007	2008
			%		
Completion rate					
Short-cycle higher education	72 ¹	70	70	71	72
Professional bachelor programmes	79	73	71	72	73
University bachelor programmes	67	72	72	73	74
Master's programmes (candidatus)	81	84	84	83	84

been a drop in the average age of the graduates in university bachelor programmes, from 26.4 in 2006 to 25.9 in 2008. At completion, the graduates had an average age of 29.5 years in 2008 which is largely the same as in 2006. However, the graduates were somewhat younger than in 2005 when the average was 30 years.

7.5 International mobility in higher educations

The Danish students have the opportunity to complete an education abroad, either through a study period or a practice placement abroad as a part of a Danish education programme or through students taking a full education abroad. Likewise, foreign students have the option to come to Denmark for a study period or a practice placement, or they may take a full Danish education.

Normally, the exchange periods for students in higher education programmes last three to twelve months, and they grant credit. That is to say, the subjects that are completed abroad Remark: The completion percentages are a combination of actual numbers and model calculations.

Note 1: Actual completion percentage.

Source: UNI•C Statistics & Analysis

Table 7.5 Number of students who have completed and number of students who dropped out on the way

	2000	2005	2006	2007	2008	
	Number					
Completed						
Short-cycle higher education	6,615	5,906	5,604	6,097	5,908	
Professional bachelor programmes	14,525	15,368	14,792	14,239	13,706	
University bachelor programmes	8,441	10,612	10,666	11,820	12,153	
Master's programmes (candidatus)	8,796	12,371	12,573	13,518	12,503	
Discontinued						
Short-cycle higher education	2,703	2,317	2,700	2,559	2,241	
Professional bachelor programmes	3,540	4,694	4,755	5,347	5,155	
University bachelor programmes	4,387	4,907	4,392	4,771	4,986	
Master's programmes (candidatus)	3,238	3,531	2,434	2,216	2,594	

Source: UNI•C Statistics & Analysis

Table 7.6 Behaviour after discontinued education - proportion who have started another education within 27 months, percentage

	2002	2003	2004	2005		
		%				
Short-cycle higher education	100.0	100.0	100.0	100.0		
Continue in an education programme	37.9	37.2	37.4	36.9		
Do not continue education	62.1	62.8	62.6	63.1		
Professional bachelor programmes	100.0	100.0	100.0	100.0		
Continue in an education programme	40.5	41.7	39.7%	37.8		
Do not continue education	59.5	58.3	60.3%	62.2		
University bachelor programmes	100.0	100.0	100.0	100.0		
Continue in an education programme	51.1	54.3	49.1	49.9		
Do not continue education	48.9	45.7	50.9	50.1		
Master's programmes (candidatus)	100.0	100.0	100.0	100.0		
Continue in an education programme	14.1	15.5	13.9	11.2		
Do not continue education	85.9	84.5	86.1	88.8		

Source: UNI • C Statistics & Analysis

Table 7.7 Average time to graduate in number of years

2000	2005	2006	2007	2008
		Year		
1.9	2.0	2.1	2.1	2.1
3.6	3.7	3.6	3.7	3.7
3.5	3.5	3.5	3.4	3.4
3.3	3.4	3.3	3.2	3.1
	1.9 3.6 3.5	1.9 2.0 3.6 3.7 3.5 3.5	Year 1.9 2.0 2.1 3.6 3.7 3.6 3.5 3.5 3.5	Year 1.9 2.0 2.1 2.1 3.6 3.7 3.6 3.7 3.5 3.5 3.5 3.4

Source: UNI•C Statistics & Analysis

7 The years indicated mean academic year, i.e. 2007 means the academic year 2007/08.

grant credit in the Danish education so that the stay abroad does not prolong the study.

Several students in higher education go on an exchange programme supported by an international education programme such as Erasmus or Nordplus. Others go with support from their own educational institution, from private foundations, or financed by themselves. Beginning July 2008, it has become easier for the students themselves to arrange an exchange study in a foreign educational institution. It is now possible to have all or parts of the tuition financed by the foreign grant scheme.

I 20077, 5,100 Danish students joined an exchange programme abroad, whereas 7,200 foreign students completed an exchange programme in Denmark. In both cases, 70-80 % of the exchange students were university bachelor or master's (candidates) students, and 15-20 % were professional



Figure 7.2 Behaviour after discontinued education in 2005 – proportion who has

Note 1: Other includes upper secondary education and non-qualifying education. Source: UNI•C Statistics & Analysis



bachelor students, whereas only four percent were students in short-cycle higher education (table 7.8).

The number of Danish exchange students is again slightly increasing after a period of stagnation. From 2005 to 2007. the number increased almost 8% (figure 7.4). Among other things, the increase is owed to the opportunity to study abroad with a grant from Erasmus, which was introduced in 2007.

It has generally been the universities that send out the most exchange students. The five countries that received the most Danish university students in 2007 were USA, which received 14 % of the total number of exchange students, Great Britain (10 %), Germany (9%), Australia (9%), and Spain (7%),

The number of international exchange students in Denmark has nearly doubled since 2000, and from 2005 to 2007, the number rose by 11 %.

In 2007, in the university domain, where the majority of the international exchange students are received, the most students came from Germany

started another education within 27 months



Table 7.8. Number of students in an exchange programme 2007

	Danish students abroad	International students in Denmark
		Number
Exchange students, total	5,123	7,202
Short-cycle higher education	185	307
Professional bachelor programmes	999	1,718
University bachelor programmes and master's programme	mes	
(candidatus)	3,939	5,177

Remark: Comprises students in all education programmes who receive internationalisation taximeter funding and students in studies under the responsibility of the Danish Ministry of Cultural Affairs. Includes only students in programmes granting credit and of at least three months duration. Source: CIRIUS

Table 7.9 Danish students taking a complete study abroad

	2000	2004	2005	2006	2007		
		Number					
Total	4,245	3,935	3,618	3,271	3,167		
Europe	3,396	3,228	2,956	2,639	2,573		
Other countries	849	707	662	632	594		
			%				
Total	100.0	100.0	100.0	100.0	100.0		
Europe	80.0	82.0	81.7	80.7	81.2		
Other countries	20.0	18.0	18.3	19.3	18.8		

Remark: Comprises educations approved for Danish Education Support. Students who in the same year receive education support for studies in two different countries are counted as recipients in both countries from 2004/05 by the Danish Educational Support Agency. The number figures in the table are therefore somewhat higher than the real number of students studying abroad. Source: CIRIUS

(12%), France (11%), Spain (9%), USA (8%), and Poland (7%).

The figure also shows that since 2002, more international exchange students have come to Denmark than Danish exchange students have gone abroad.

While some students choose to take a part of their education abroad, others choose to take the entire education abroad.

The number of Danish students who were undertaking a complete higher education abroad with Danish Education Support (SU) has been decreasing since 2000, and up to and including 2007, there has been a total drop of 25 % (table 7.9).

Great Britain was the preferred country for full foreign studies, and as many as 43 % of the Danish students chose to go here. 12 % went to Sweden, 9 % to USA, 7 % to Norway, and 5 % to Germany.

At the same time as the number of Danish students taking a full education abroad has fallen, there has been a continuous increase in the number



Figure 7.4 Number of Danish students in exchange programmes abroad and number of international students in exchange programmes in Denmark

there was, however, a minor decrease of about 2%. This is the first drop in a number of years. The drop should be viewed in relation to the introduction of tuition for students from countries outside of EU/EEA who were enrolled after 31 July 2006. Since 2007, full tuition stipends have been given to highly qualified international students from countries outside of EU/EEA in a number of higher education pro-

With the exception of students from the Nordic countries, the majority of the international students follow education programmes that are offered in English.

grammes.

of international students taking a full education in Denmark. In 2007.

In 2007, around 2.5 international students came to Denmark for each Danish student who went abroad to complete a full education programme.

The most international students came from Norway (16 %), China (12 %), Sweden (11 %), Iceland (9 %), and Germany (6 %). Remark: Comprises students in all education programmes who receive internationalisation taximeter funding and students in studies under the responsibility of the Danish Ministry of Cultural Affairs. Includes only students in programmes granting credit and of at least three months duration. Short-cycle higher education has not been included before 2005. Source: CIRIUS





8 Adult education and continuing training

8.1 Number of institutions and number of participants

In 2007⁸, there were approximately 280 institutions that offered adult education and continuing training in one form or the other (table 8.1). In addition to offering one or more types of adult education and continuing training, most of these institutions offer various ordinary education programmes.

In addition to the general upper secondary education (stx) and the two-year higher preparatory education (hf), upper secondary and higher preparatory schools offer single subject courses and supplementary examination courses at upper secondary level (GSK). Adult education centres offer preparatory adult education (FVU), general adult education (avu), and single subject courses (hf). In addition to vocationally oriented education and training and short-cycle higher education programmes, the vocational Table 8.1 Number of education institutions with adult education and continuing training

	2007	
Total	9	
	278	
General adult education and continuing training	90	
Adult education centres	40	
Upper secondary schools, hf-courses and adult upper secondary courses	50	
Vocational and higher adult education and continuing training	119	
Vocational colleges ¹	104	
Home economics and needlework schools	1	
University colleges	6	
Universities	8	
Other institutions with adult education and continuing training	69	
Special schools for adults	13	
Language centres	26	
Folk high schools	5	
Day folk high schools	25	

Remark: The table comprises institutions that have had an adult education and continuing training activity during the academic year 2007/08.

Note 1: Including private organisations offering AMU.

Source: UNI•C Statistics & Analysis

⁸ The years shown indicate an academis year. Thus, 2007 means the academic year 2007/08.



Table 8.2 Persons in public adult education and continuing training per education programme

	2003	2004	2005	2006	2007	
	Number					
Total	346,535	439,569	445,537	442,686	436,934	
General level	83,893	83,586	80,309	74,889	75,489	
Preparatory adult education (FVU)	9,203	11,364	11,423	11,513	11,628	
General adult education (avu)	40,349	37,959	36,888	32,940	34,261	
Higher preparatory single subject course (hf)	34,341	34,263	31,998	30,436	29,840	
Vocationally oriented level	240,792	306,786	317,290	326,906	351,482	
Adult vocational training (AMU)	206,252	278,126	296,505	305,226	331,166	
Open education etc	34,540	28,660	20,785	21,680	20,316	
Higher level	21,850	49,197	47,938	40,891	9,963 ¹	
Bachelor	3,473	11,311	13,800	13,258	455	
Master	2,267	3,188	3,366	3,024	2,026	
Open education etc	16,110	34,698	30,802	24,609	7,482	

Remark: Exclusive of persons in another adult education and continuing training: Danish for adults, training of dyslexics, teaching in folk high schools etc. Includes education programmes under ministries other than the Danish Ministry of Education.

Note 1: The figures for the higher level in 2007 have only been updated in part. Source: UNI•C Statistics & Analysis

ing activity. The share of participants at a general level dropped, whereas there was an increase in the share of participants at a vocationally oriented level in particular, but also at the higher level.

Many adult education and continuing training programmes have a short duration. Converted to a full-time student in a year, the participation in adult education and continuing training in 2007 corresponds to nearly 40,000 full time equivalent students (table 8.4).

The adult education and continuing training system gives adults who have left the regular, public educational system the opportunity to attain a formally qualifying education. The number of qualifying education programmes completed as adult education and continuing training has been around 8,000 in recent years (table 8.5). The largest proportion

schools offer continuing vocational training and open education programmes. Besides short-cycle higher education and professional bachelor programmes, academies of professional higher education offer higher adult education (VVU). University colleges offer, besides the ordinary professional education programmes, also diploma degrees and open education, while the universities offer master's programmes (candidatus) and short courses and open education in addition to the regular bachelor and master's programmes (candidatus).

Nearly 440,000 persons participated in one form or the other of adult education and continuing training in 2007 (table 8.2).

Some participate in more than one education programme in the course of a year. If a person is counted for each programme or course they participated in during the course of the year, there were well over 900,000 participants in 2007 (table 8.3). The development in number of participants from 2004 to 2007 showed a largely unchanged total adult education and continuing train-

Table 8.3 Participants in public adult education and continuing training per education programme

	2003	2004	2005	2006	2007
			Number		
Total		o96 9=>			<i>-</i> (
Iotal	720,550	986,853	959,793	914,505	915,246
General level	193,780	202,690	203,060	182,958	189,010
Preparatory adult education (FVU)	20,376	22,292	25,239	26,087	23,959
General adult education (avu)	90,219	90,947	90,715	78,500	88,733
Higher preparatory single subject course (hf)	83,185	89,451	87,106	78,371	76,318
Vocationally oriented level	480,477	678,366	662,656	659,445	710,390
Adult vocational training (AMU)	432,409	619,472	619,732	612,382	674,454
Open education etc	48,068	58,894	42,924	47,063	35,936
Higher level	46,293	105,797	94,077	72,102	15,846 ¹
Bachelor	6,426	21,054	24,057	21,895	532
Master	4,345	6,961	7,041	7,204	3,177
Open education etc	35,522	77,782	62,979	43,003	12,137

Remark: Exclusive of participants in another adult education and continuing training: Danish for adults, training of dyslexic, teaching in folk high schools etc. Includes education programmes under ministries other than the Danish Ministry of Education.

Note 1: The figures for the higher level in 2007 have only been updated in part. Source: UNI•C Statistics & Analysis

Table 8.4 Full time equivalent students in public adult education and continuing training per education programme

	2003	2004	2005	2006	2007		
		Number					
Total	56,194	65,423	62,262	49,982	38,452		
General level	33,521	31,238	29,174	23,764	20,511		
Vocationally oriented level	11,052	12,136	11,679	10,664	11,279		
Higher level	11,621	22,049	21,409	15,554	6,662¹		

Note 1: The figures for the higher level in 2007 have only been updated in part. Source: UNI•C Statistics & Analysis

completed of the qualifying education programmes has been at the higher level, especially at medium-cycle higher level. The vocationally oriented education and training programmes are primarily basic adult education programmes (GVU).

8.2 Age and educational background

The variation in age among the participants in adult education and continuing training is considerable. Shortly after leaving basic or upper secondary school, many young people choose to complement their education by a general adult education and continuing training as an avu subject, an hf single subject course, or a supplementary examination course at upper secondary level in order to meet the entrance requirement of a given higher education. Others enrol after many years in the labour market. This may be caused by a perceived requirement for development of qualifications in line with changed and often higher requirements within their trade or

Table 8.5 Number of formally qualifying examinations implemented as adult education and continuing training

	2002	2003	2004	2005	2006			
		Number						
Total	4,912	8,005	5,997	7,924	7,984			
Upper secondary	1,073	1,214	1,163	1,264	1,556			
Vocational		181	155	288	261			
Short-cycle higher	1,540	3,546	829	1,957	1,670			
Medium-cycle higher	1,939	2,175	2,867	3,463	2,022			
Long-cycle higher	360	889	983	952	890			

based on a personal wish to acquire new skills.

The participants in vocationally oriented adult education and continuing training are relatively the oldest, while the participants in general/academic preparatory education are the youngest (figure 8.1).

Four out of five of the total number of persons of around 450,000 who participated in adult education and continuing training in 2007 had either a general education (basic school, general upper secondary school) or a vocationally oriented education as their highest level education, and one in five had a higher education (table 8.6). Among the participants with a higher education, there were relatively more with a medium-cycle higher education.

8.3 Continuing training activity in international perspective

In 2008, nearly one in three of the population in the age bracket 25-64 years participated in an educational



Remark: Based on calendar year.

Source: UNI•C Statistics & Analysis



Table 8.6 Persons in adult education and continuing training per highest completed

education

	2003	2004	2005	2006	2007			
		Number						
Total	333,332	417,443	457,989	461,536	450,847			
General level	130,002	155,862	167,239	166,437	173,220			
Vocationally oriented level	143,927	176,311	192,376	194,149	186,969			
Higher level	59,403	85,270	98,374	100,950	90,658 ¹			

Remark: The data is per calendar year.

Note 1: The figures for the higher level in 2007 have only been updated in part. Source: UNI•C Statistics and Analysis on data from Statistics Denmark

Table 8.7 Proportion of the population in age bracket 25-64 years that has participated in educational activities during the last four weeks

	2004	2005	2006	2007	2008
			%		
Denmark	25.6	27.4	29.2	29.2	30.2
Iceand	24.2	25.7	27.9	27.0	25.1
Finland	22.8	22.5	23.1	23.4	23.1
Great Britain	29.0	27.6	26.7	20.0	19.9
Norway	17.4	17.8	18.7	18.0	19.3
The Netherlands	16.4	15.9	15.6	16.6	17.0
Spain	4.7	10.5	10.4	10.4	10.4
EU (27 countries)	9.3	9.8	9.7	9.5	9.6
Germany	7.4	7.7	7.5	7.8	7.9
France	7.1	7.1	7.6	7.4	7.2
Poland	5.0	4.9	4.7	5.1	4.7
Sweden	32.1	33.4	32.0	32.4	

Remark: The proportion of 25-64 years old in the population who said that in the last four weeks before the time of the survey, they had participated in an educational activity including full-time education and adult education and continuing training. The educational activity may be in connection with the job or simply as a leisure-time activity.

Source: Eurostat Labour Force Survey

activity counting both publicly funded and workplace internal and private education programmes and courses in connection with the job or in some form of leisure-time education.

The participation has been continually increasing in recent years. Compared to a series of European countries, Denmark is in top. Also in other Nordic countries (Finland, Iceland, and Sweden), the proportion of the population who participate in adult education and continuing training is appreciably higher than in other EU countries (table 8.7).

Facts and Figures 2009 Key Figures in Education 2009

Facts and Figures 2009 is an outline of the Danish education system with a quantitative description of trends and developments in various fields of education.

The education system is changing continuously keeping up with new generations and new requirements from the labour market. This publication presents a series of key figures in tables and graphs showing the directions of the development. Primarily, the publication illustrates the development by Danish figures complemented by equivalent figures form selected countries.

The Danish Ministry of Education