

# Startdocument

## deel II

### ***Higher education issues and trends from an international perspective***

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# Higher education issues and trends from an international perspective

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## Table of Content

1.	Introduction.....	3
1.1	Massification in higher education .....	3
1.2	The effect of massification on higher education systems .....	4
2.	Supply side issues and trends .....	5
2.1	The World Class universities .....	5
2.2	Universities of Applied Sciences: research and higher degrees.....	6
2.3	Distance learning and Open universities.....	7
2.4	Short cycle programmes.....	8
2.5	Doctoral studies .....	9
3.	Demand side issues and trends .....	10
3.1	Increasing enrolments .....	10
3.2	Widening participation.....	10
3.3	Non-traditional routes to education.....	11
3.4	Part-time and mature students.....	12
3.5	Drop out and time to degree.....	13
4.	System characteristics and higher education performance .....	13
	Appendix 1. Figures .....	16
	Appendix 2. Descriptions of National Systems.....	21
	Germany.....	21
	England .....	22
	Sweden.....	23
	Finland .....	23
	Denmark.....	24
	Austria.....	25
	Belgium (Flanders) .....	26
	Australia .....	26
	United States .....	27

# 1. INTRODUCTION

## 1.1 *Massification in higher education*

The question about the optimal structure of the higher education system is anything but new. For the last 50 years there has been a search for the right mix of the equivalence and diversity in the system. On the one hand, higher education institutions should offer equivalent academic standards; at the same time, there is a need for diversity among higher education institutions due to different expectations of students and other stakeholders, institutional profiles and capacities. What has inspired these discussions is the massification of the higher education. In most Western countries, including the Netherlands, student numbers started to increase rapidly in the end of the 1960s. As a result, higher education systems faced a challenge of how to accommodate the growth in student numbers in an existing higher education system. The change is more substantial than a mere quantitative increase in student numbers. Researchers (Trow 1973, 2000) have identified three phases in the evolution of the higher education: elite system (participation less than 15 % of the age group), mass higher education (participation between 15 - 50%) and universal higher education (participation more than 50%). In the Netherlands, the proportion of highly educated people among the 25-34 year age group is 34%, which is well above the EU and OECD average (OECD *Education at a Glance* 2004, A1.3a)<sup>1</sup>. The number is constantly increasing due to more students enrolling in the higher education and this poses important considerations for the system. The transition from an elite higher education (that was designed only for a few) to a mass higher education (accessible to a substantial part of the age group) to a universal higher education is a qualitative change. It has an effect on almost all aspects of higher education institutions: on financing, governance and administration, on recruitment and selection of students, on curriculum and forms of instruction, and on academic careers.

Mass higher education was primarily driven by changes in economy and by growth in occupations for which secondary school education was no longer enough. There was more demand for highly educated people in order to fill the need of the economy. One of the major changes in higher education therefore is a new view on what is the main purpose of the higher education. The aspirations of the students as well as societal expectations put the professional role of the higher education at the focus. The skills and professional knowledge that enables to do well at the labor market gains in importance. This of course has an implication on the content of the curriculum and the ways of teaching. Secondly, due to massification the group of students that enrolls in higher education is bigger and therefore more heterogeneous. Their level of academic preparation varies more, interests and expectations are more diverse, and they are more different in terms of their background characteristics (e.g. first generation university students, mature students, working students). Transition to universal higher education takes this process even further. The student body is even more heterogeneous in its background, expectations and needs. There is a high proportion of “non-traditional students”, such as students from older age group and students that combine their studies with full time employment, adding the element of life long learning. All this challenges the system in terms of accommodating alternative study needs and providing more flexible teaching modes, such as evening courses and e-learning.

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<sup>1</sup> All figures and tables that are referred to in the text can be found in Appendix 1.

Another implication of massification relates to funding. Covering the expenses of the higher education at the mass level is a serious burden on a public budget. In most countries public funding in the period of massification increased but did not keep up with the increase in student numbers. As a result, funding per student dropped and staff-student ratios declined.

These developments have had a significant effect on the higher education systems and below we will discuss the main issues from an international perspective. First we will discuss the supply side effects – changes in what institutions and a higher education system more broadly offer to students. Secondly we will discuss the demand side - changes in enrolment patterns, student profile and study modes.

## **1.2 The effect of massification on higher education systems**

A main challenge in a mass higher education boils down to the issue of diversity. It became clear that increasing student numbers cannot be accommodated by simply expanding the existing elite higher education system. Different countries dealt with the situation somewhat differently. Many countries established a parallel sector in the higher education and channeled the majority of the growth into the new, cheaper, non-university sector. In the 1960s and 1970s we saw the rise of the binary systems - such as polytechnics in the UK, Fachhochschulen in Germany and Colleges of Advanced Education in Australia. Sometimes the new sector obtained a higher education status only later (such as HBO in the Netherlands). These schools had a distinct characteristic in providing education with a professional orientation and the costs per student were in general lower than in traditional universities. The binary system was popular because it allowed to handle the expansion without much effect on the traditional university sector (Teichler 2009).

The US, on the other hand, accommodated the growth differently. The system remained unitary and the diversity was embraced inside of the unitary system. Unlike in Europe, universities were not assumed to be equivalent in their mission, academic rigor and learning profile. From the legal perspective thus all universities were equivalent, but there were clear differences in the profile of different universities. The two systems thus took a different path how to handle the need for diversity. Many European countries established two legally different sectors and the mission of a higher education institution was determined by belonging to one or the other sector. In the US the mission and standards were not determined by a legal status of the university, but by individual universities themselves and by the constraints of a competitive environment.

Around the 1990s and 2000s we saw another wave of changes in the area of unitary vs binary systems. The UK and Australia abolished the binary divide and switched to a unitary system whereas Switzerland, Austria and Finland moved in the other direction – to the binary system. The rationale for introducing the binary system was linked to the need to provide education that has a direct link to the industry and its needs. According to some the development had also to do with the Europe level developments in late 1980s which encouraged recognizing short-cycle professional degrees and thereby formed a pressure to upgrade the existing tertiary education institutions (Kyvik 2009).

Unification in the UK, on the other hand, was primarily due to the disappearance of the clear differences between the two sectors. Staff in polytechnics was increasingly involved in research and the schools issued also master and doctorate degrees; at the same time universities increasingly offered programs with a vocational nature, blurring the line between the university and polytechnics sector which finally brought down the binary system (Kyvik 2009). It has to be noted that the unified system in the UK does not refer to a system of equally “prestigious”

universities. The development towards a unified system has led to similar institutions in name but a strong persisting difference between “old” and “new” universities with the latter providing more professionally oriented programs and a minor research function while offering degrees that are regarded as somewhat lower quality at the labour market. In Australia the primary force behind the unification was an attempt to make the higher education system more efficient. For this purpose many higher education institutions, both universities and Colleges of Advanced Education, were merged, which brought the total number of higher education institutions significantly down.

More recently the discussion about diversity in a higher education system has brought up two prominent topics: (a) the idea of the World Class universities; and (b) the role of the Universities of Applied Sciences in research and higher degrees.

## **2. SUPPLY SIDE ISSUES AND TRENDS**

### **2.1 *The World Class universities***

Traditionally universities in most European countries are perceived as equal in terms of the qualifications they offer to students and in general performance. This egalitarianism is however put under a pressure recently. Current discussions distinguish between horizontal diversity and vertical diversity. Horizontal diversity means that there are different types of institutions with their own mission and profile, but they are equal on the higher education landscape. Vertical diversity refers to a hierarchy of universities, where diversity is interpreted as one university being better than the other. In simplified terms the distinction is between an egalitarian model of the continental Europe versus hierarchical model of America. Currently there are strong pressures for a vertically differentiated system.

It has become evident that universities in an egalitarian system cannot compete for a top position in international university rankings, which are led by more hierarchical higher education systems (USA and UK). Several countries have now undertaken initiatives to create an “elite” group of universities in their countries that receive more funding and preferential treatment in order to develop a profile of a “World Class” university. The *Excellence Initiative* in Germany distributes 1.6 billion of additional funding for excellence, about half of which goes to selected institutions to build up a top level research profile that could compete at the world level. Similar initiatives are in place in France and Finland, but also outside of Western Europe, such as China and Russia.

The arguments behind the development have to do with competitiveness and critical mass. In order to attract and keep the best talent nationally and globally one needs to have top level internationally renowned universities. It is not sufficient if the capacity is dispersed across the country. Secondly, it has been argued that there is a need of critical mass in order to do world class science. The question, however, is if the talent has to be concentrated in one institution in all disciplines. A parallel model of concentrating talent is *Centers of Excellence* which aim at creating critical mass in a country without concentrating resources and capacity in one institution.

The necessity for having a “World Class” university is not proven in one way or the other. The Netherlands is performing well in global university rankings (such as the *Times Higher*) with 4 universities in the top 100 and almost all the rest in the second hundred. At the same time the Netherlands does not have a university in the top 25 and only barely makes to the top 50. This arises a question of what is more important: a World Class university or a World Class higher

education system? Australia, for example, has taken a strong stand of promoting itself as a World Class higher education system, rather than promoting one or a few top universities. A related question is: can a “World Class” university be built without sacrificing the quality in other institutions? The countries that have top performing universities (US, UK, Australia) have also many more low performing universities than the Netherlands does. Building a World Class university may take resources away from other universities – not only financial resources but first of all the most capable staff and students.

## **2.2 Universities of Applied Sciences: research and higher degrees**

In the binary system, Universities of Applied Sciences (HBO-equivalent institutions) have had a clear role to train first degree professionals. Currently the role of the UAS is under a discussion. Should UAS be more involved in applied research? Should they be able to offer degree programmes at a higher level than the Bachelor? The issue is primarily driven by the discussion about the needs of a knowledge economy with respect to highly qualified professionals and applied research. The UAS sector is very diverse and research capacity varies considerably across countries. In the Netherlands, the HBO sector is exceptionally large. More students are enrolled in the HBO sector than in universities. HBO staff in the Netherlands has low research qualifications compare to other countries. Only 4% of the HBO academic staff has a PhD degree, compare to 90% in Germany and 34% in Switzerland (Weert and Soo 2009, Tbl 8.1).

There is a general tendency to increase the research output in the sector. A recent study indicated several challenges to developing UAS research (Weert and Soo 2009). Research funding in the sector is often dependent on ad hoc contracts and lacks any core funding from public budgets. This puts research in the sector into a very vulnerable situation. It does not allow long-term planning in building up research capacity and research infrastructure. The UAS experiences demonstrate that systematic funding is necessary for developing a research culture and building up research capacity in the sector. Secondly, ad hoc contracts diffuse the research capacity. A current trend in the sector is towards specifying research priorities and creating interdisciplinary themes for a critical mass.

A parallel development in the UAS sector has to do with developing higher level degrees. This is driven by a perceived labour market demand for highly educated professionals. On the other hand this is directly linked with the research development in the sector. When research in the UAS becomes more prevalent, there is a need for researchers in the sector. These researchers must have a rooting in professional practice and therefore they cannot be “imported” from a traditional academic sector. The Netherlands started to open up the sector for Master degrees in the beginning of the 2000s and currently a very limited number of Master programs are offered, all without government funding. The discussion to what extent HBO masters are needed and how it should be organized is still ongoing.

Several countries are currently developing their Master portfolio. Finland has established a professional master degree structure that requires that students work 3 years before they can enrol in the programme. Switzerland offers a limited number of degrees with government accreditation. In Austria, higher degrees are issued in an association with the university. In Ireland, as an exception, UAS provides also PhD level training. In Germany, on the contrary, a Master degree is a standard for UAS graduates. The majority of the programmes in the sector used to take 4 or 5 years and in the Bologna process the programmes were separated into a Bachelor and Master phase. However, the system currently struggles with defining the degrees independently from each other. Offering higher degrees in the UAS sector arises several questions, most importantly:

(a) are the professional masters really needed at the labour market, and (b) is the UAS sector qualified to offer higher degrees.

### **2.3 Distance learning and Open universities**

Distance learning becomes more popular and many initiatives are being developed, either by offering distance education facilities by regular institutions, such as in Canada, Estonia and Iceland. Other countries set up a whole new e-University, like in Estonia and Switzerland. In Iceland about 17% of the students are in distance education. Also the Swiss Virtual Campus has developed rapidly in which many regular universities and UAS participate. In the US we can see a considerable increase in the popularity of online learning, both in traditional universities as well in new types of institutions (e.g. University of Phoenix).

In a number of countries Open Universities play a role of accommodating the demand for higher education in a relatively flexible and open way. Most Open Universities predominantly offer distance education. Many of them as an alternative for regular higher education, like the Open University UK, the German FernUniversität Haagen, or the Turkish one with 1.4 million students. Also Spain has a major Open University.

Most students at the British Open University follow bachelor level programmes.<sup>2</sup> The number of students increased substantially since 2004. In 2008 there were almost 170,000 bachelor students enrolled at the Open University. The number of master students was only 17,000 (only 10% of the total number of students). Most of OU-UK students are between 25 and 54 years old. The Open University expanded in the last five years its number of foundation degrees which are comparable to the recently started Associate degrees in the Netherlands. The OU also increased its offerings in smaller qualifications and modules in close cooperation with the professional fields for upgrading their staff. These qualifications are very popular among students.

The German FernUniversität in Hagen particularly offers higher education programmes in the framework of lifelong learning. Student can choose between fulltime and parttime study and can choose the whole range from following only one course, a module leading to a certificate, specific target group courses, or full degree study. In addition one can follow professionally oriented programmes. The FernUniversität mostly uses a method of blended learning in which face-to-face instruction is combined with distance learning. The educational programmes are basically offered at three levels: bachelor, master and further educations (Weiterbildungsmaster) that can be regarded as a professional master.

The Dutch OU plays a minor role and suffers from decreasing interest. But it recently launched HBO-type bachelor programmes. An interesting area for revival will be its modular approach where students can take only a few courses to upgrade particular skills or competencies. Its open access for students with almost all pre-qualifications makes the Dutch OU almost unique.

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<sup>2</sup> Op bachelor niveau kunnen studenten instromen met of zonder voorbereidend diploma. Bijna 10% van alle ingeschreven studenten op bachelorniveau volgt een zogenaamd 'Access' programma, waarbij studenten kunnen instromen zonder diploma dat toegang geeft tot het reguliere bacheloronderwijs.

## 2.4 Short cycle programmes

One of the potential strategies to better address increasing access and diversity of students is to offer shorter programmes. The shorter Associate Degree (AD) programmes have been recently introduced in the Netherlands and still raise quite some debate.

From an international perspective we can see a number of practices and organizational models for short cycle programmes. For example, the French Colleges offer four year programmes that prepare students for a vocational *Baccalauréat (brevet de technicien: BT)*. This is an integrated model in the vocational colleges. Afterwards, students may continue at a Lycee, mainly in departments for higher technicians (STS), or in a IUT, a short cycle educational institution related to a university. The STS offer two-year programmes leading to the higher technical diploma or BTS. In some STS, students may continue their study in a one-year programme leading to the national diploma in specialised technology (DNST), created in 1994. The two-year courses at the IUT lead to the university diploma of technology (DUT). Furthermore, IUTs offer DUT-holders 1-year courses leading to the national diploma in specialised technology (DNST). The holder of a DUT may enter the professional live or may continue his study at a university or another school.

University students may also choose to study for a diploma of scientific and technical university studies (*Diplôme d'études universitaires en sciences et techniques, DEUST*), which is a two year course leading directly to professional life.

In Denmark Higher education comprises a university sector and a college sector, e.g. the professionally oriented higher education sector. There are four types of institutions offering higher education programmes: (1) Academies of professional higher education (offering short-cycle programmes); (2) University Colleges (offering medium-cycle programmes); (3) Universities (offering long-cycle programmes) and (4) Institutions for arts education. Short-cycle higher education (non-university level) includes programmes mainly in the commercial and technical fields. Diplomas in short-cycle programmes are awarded after typically 2-year vocational academy programme building upon either relevant vocational education and training (plus adequate general upper secondary courses) or general upper secondary education/commercial and technical upper secondary education. Apart from theoretical subjects, programmes are usually completed with a three-month project. The fields of study are for example: Agriculture, textile and design, food industry, construction, hotel and tourism, computer science, industrial production, laboratory technician, IT and communication and international marketing. Students may, on certain conditions, be awarded credits when they continue in a medium- or long-cycle higher education programme. It is the aim of the programmes to qualify students for the performance of practical, vocational tasks on an analytical basis.

In the UK there are several types of short-cycle higher education:

*Certificates of Higher Education:* Higher Education Certificates are aimed at those who wish to study part-time at a Higher Education level without the long term commitment to a part-time Degree. They are offered at Level 1 (equivalent to the first year of undergraduate study) and there are no entry requirements - all are welcome to apply. To gain a Certificate, students need 120 credits taken in subjects determined by the universities.

*Higher National Diplomas:* Higher National Diplomas (HNDs) provide an alternative route for students wishing to enter higher education, without studying for a Bachelors degree. HNDs usually last two years, and tend to have a more explicitly vocational focus. Successful completion of an HND can lead to second year entry to a related degree. For some subjects, it's possible to do a one-year top up for an ordinary degree, and further part-time study to convert that to an honours degree.



*Diplomas of Higher Education:* A Diploma of Higher Education (DipHe) is similar to an HND, but stands as an accredited professional qualification, providing access into professions such as nursing and social work (HERO 2007). The Diploma in Higher Education was created in 1972 as a two-year course at universities, polytechnics and colleges the DipHE at equal intellectual level as the first two years of a degree course.

#### *Foundation degrees*

Foundation degrees were introduced in September 2001. The foundation degrees are in a sense not unlike the diplomas in higher education. The courses aim to fill an alleged gap in provision as to meet the shortage of people with technician-level qualifications and to develop "the right blend" of skills that employers need. Foundation degrees are intended to be completed in two years or an equivalent period part-time, and are designed to offer opportunities to progress to a first degree.

A more recent UK initiative, the new DIUS – New University Challenge – will foster the development of university centres together with 20 towns and cities in remote regions of the UK.

As a strategy to broaden access, Portugal diversified its programme offerings by introducing short-cycle Technological Specialisation Courses (CET) within universities, polytechnics and colleges. In 2007/08 such courses already enrolled 4,000 students. Another interesting Portuguese initiative is the admission of students over 23 years old without a formal secondary education entrance qualification on the basis of entrance exams. This made the number of adult learners grow from 900 in 2005/06 to 11,000 in 2006/07.

Finland has no direct form of short-cycle education, but it has a large vocational education and training sector (VET) with the vocational qualifications qualifying for polytechnic and university studies. In addition, Finnish adult education is a rather rich educational offering provided at all levels of education. Adults can study for a general education certificate or for a vocational qualification, or modules included in them, take other courses developing citizenship and work skills, or pursue recreational studies.

## **2.5 Doctoral studies**

In several countries doctoral education is currently under revision. The main challenges in the area are to make doctoral education more efficient and effective, more responsive to labour market needs, and/or better in academic quality. A crucial goal is to provide PhD graduates with a broader professional training and soft skills (e.g. communication, team-work, etc), which would better prepare them for a career not only in academia but also in the industrial sector. These goals lead to two issues: Graduate schools and structured doctoral programmes.

Several countries in Europe are creating some form of Graduate or Doctoral schools. These are taking two forms. One type of graduate schools is an institutional Graduate school, similar to well-established tradition in the US. Doctoral schools in France (est. in 1998), for example, are built up in these lines. They organize professional training for PhD students, especially related to labour market needs; they allocate scholarships and facilitate learning environment. Graduate schools may have a role in quality assurance but actual teaching and supervision is a responsibility of the specific department. Another model is a disciplinary graduate school that crosses university borders. Since 2001 Sweden has National Graduate Schools that are specific to a discipline and integrate programmes in several (or all) universities. The main goal of Swedish Graduate schools is to create "critical mass" in the field, thereby to improve academic quality of

doctoral education in the field, and to increase efficiency. The UK graduate schools have elements of both. The Netherlands has the latter type of institutions – Research Schools that bring together doctoral students from different institutions. Several institutions are currently exploring whether establishing an institutional Graduate school would be needed for international visibility or academic quality.

Secondly, traditionally PhD training has been based on independent research supervised by a professor. Currently many European countries increasingly introduce course work next to the dissertation writing, assuming that a more structured learning environment is more effective for an academic and professional development.

### **3. DEMAND SIDE ISSUES AND TRENDS**

#### ***3.1 Increasing enrolments***

Several countries have set a target on higher education enrolment. For example in Australia the target is set at 40% (Bradley Review - Birrell and Edwards 2009), in the UK (and several continental European countries) at 50%. In some countries the higher education has expanded rapidly without explicitly set targets and widening policies. For example in Norway the enrolment rate has increased rapidly without an active policy but due to student demand that has been facilitated by a simple and generous student loan and grant system. Increasing participation brings up two subsequent issues: (a) can a system maintain the quality of higher education standards under such pressure, and (b) how to attract students from disadvantaged socio-economic groups, geographically remote (or not central) regions, and non-traditional (e.g. mature) student groups.

#### ***3.2 Widening participation***

It is realized (e.g. in Australia and UK) that to achieve those higher participation rates prescribed by government policies, the expansion has to take place among these underrepresented student groups. The past expansion has made higher education more accessible for every social group in absolute terms but proportionally students from lower income families are still underrepresented. Furthermore, the expansion has taken place primarily in the more vocationally oriented sector and students from the lower income families are channelled more towards this sector, restricting the equal access. An experience from vertically diversified systems (US, Australia and the UK) shows that white (upper) middle class students are strongly overrepresenting in the elite institutions (Shavit et al 2007; Leathwood 2004).

As every country, the Netherlands has also some problems with equity in higher education. Students from a higher socio-economic group are overrepresented in universities: 70% from the highly educated families compared to 30% from the lower educated families enter higher education (Bologna key statistics, fig A5.b). The data shows a better situation in Scandinavian countries, but in most other countries the situation is worse. The data also shows that the gap in the Netherlands has been shrinking over time as more students from lower socio-economic groups enter higher education. Although the gap between different socio-economic groups is significant, the Netherlands is a top performer with respect to the participation rate of students from a lower socio-economic group. Misrepresentation of certain groups seems to be not heavily related to traditional entrance barriers, such as financial constraints or entrance requirements, but by aspirations that are formed in the secondary school. We can see that aspirations for tertiary

education differ quite significantly among the 15 year olds in the 1<sup>st</sup> income quartile compared to 4<sup>th</sup> quartile (see OECD, 2008, fig. 6.4).

Most countries have some initiatives in place to promote equity in student enrolment. The UK has allocated £392m over the five year period to widen participation. The allocation of the funds is based on the number of students a university recruits from under-represented groups, leaving the use of the money up to the universities. The funding is seen as “removing disincentive” to widen participation. There is no single government widening participation strategy in the UK. Each university has its own strategy and there are national programs (e.g. Aimhigher and “Gifted and Talented” programme) and guidance for possible solutions (House of Commons 2009).

Australia has had a policy in place for widening access among underrepresented student groups quite a while. Universities receive extra funding for enrolling students from lower socio-economic groups and remote areas as well as extra funding to pay as study grants for these students. In addition, the performance monitoring by the Commonwealth government takes into account the proportion of the students from disadvantaged background.

Many governments already for quite some time try to stimulate equity of access through low or no tuition fees, student grants, scholarships and (subsidized) student loans. Other policy measures are to increase the number of publicly funded student places, provide more flexible and innovative teaching programs, allowing students to work besides study and to offer more part-time higher education, for example in the form of Open Universities and distance education programs. Also offering shorter study programs is recently regarded as an interesting alternative to attract new student groups or to have potential drop-outs leaving the system with some kind of a degree.

Another important aspect of widening participation concerns ethnic minorities. Since the situation with ethnic minorities is highly country specific, it is difficult to compare how the Netherlands does relative to others. According to the Eurydice Key Data 2009, in the Netherlands just above 10% of students have an immigrant background (parents born abroad). In Belgium, Germany, Estonia, France, the Netherlands, Austria, Slovenia and Sweden the proportion of pupils aged 15 with an immigrant background was between 10 % and 20 % of the school population of this age. The proportion of pupils with an immigrant background rises to more than a third of the total 15-year-old school population in Luxembourg and Liechtenstein. These participation rates are consistent with demographic data showing the proportion of young foreigners in the total population (Eurydice Key Data, 2009, fig C4) and reflect historic trends in immigration

Some countries address the equity issues based on nationality very seriously. Norway recently developed an interesting diversity policy, including various incentives to widen participation among minority groups, like offering special grants and scholarships, offering targeted information and re-opening remote higher education institutions/branches. In the US the minority issue concerns the racial background. Many American universities have some affirmative action policies in place.

### **3.3 Non-traditional routes to education**

Another interesting perspective is to look at the participation of students who follow non-traditional routes into higher education, which means not entering on the basis of a general upper secondary education qualification, like coming in after a period of working, non-direct educational routes, colloquium doctum and the recognition of other competencies. This is

presented in the Eurostudent project. The respective figure shows that the Netherlands takes some kind of a middle position on this indicator. Sweden, Spain, Scotland and England & Wales are substantially further developed in admitting students through non-traditional routes (Eurostudent III, fig.A.2.,). We can also see that in the Netherlands virtually all qualified secondary school graduates enter the higher education (Bologna key statistics, fig A2.a). Further growth in higher education enrolment rate can take place either amongst students who enter through non-traditional routes or through the expansion of the upper layers of the secondary education.

Some countries put a lot of emphasis on alternative routes to higher education. In Sweden, for example, widening access through alternative routes to higher education is one strategy to broaden access. Universities now offer preparatory courses, i.e. courses for candidates whose qualifications are otherwise not sufficient for university entrance. Universities have an opportunity to offer a “college programme”, accessible to students who do not pass university entrance requirements and these students may later continue in the higher education if they wish.

### **3.4 Part-time and mature students**

Part-time studying opportunities have become particularly important in the context of universal higher education and life long learning. To achieve higher enrolment rates it is important to reach out to non-traditional students, particularly to mature students and other working students. Since these students have constraints in terms of time and place, the trend is linked not only to part-time studying but also to distance learning, and online programs.

Compare to other countries, the Netherlands has a below average proportion of part-time students, at about 17% of students compare to the EU average of 20% (Bologna Key Statistics, fig A4.a). Among the mature student group (above 30 years) part-time studying is very common – close to 80% of this group studies part time. Among young students, however, part-time studying is well below 10 %. The proportion of part-time students is much higher, for example, in the UK, US, Australia, and Finland.

When we look at the age distribution of Dutch students, then the proportion of older students is quite low. According to the Eurydice data, the average age of the oldest 15% in the higher education is only 25 years. In countries like Norway, Iceland, Denmark this is well over 30 years. On the other hand, also the lowest 15% is several years older in these countries. If we look at the big picture, the age distribution at the entrance in the Netherlands does not differ from the EU average much (Bologna key statistics, fig A1.a). However, in the context of Life Long Learning the ability to attract mature students is nevertheless important.

Several questions arise from these data on mature students and part-time studies that wait for an answer. Why the Dutch higher education is not able to attract mature students? Is it related to limited opportunities for part time studying? Or perhaps the Life Long Learning needs are filled by other institutions, either other educational institutions or private training companies? Would more part-time study opportunities among the young age group attract more students from disadvantaged families? It should be noted that part-time studying among traditional students cannot be a goal of itself. A high proportion of part-timers may reflect a weak financial aid system or uncertainty about the benefits of the education.

### **3.5 Drop out and time to degree**

Improving the efficiency of higher education is regarded as a way to cope with increasing demand for higher education. If a larger proportion of the students would graduate and/or in a shorter period of time we could host more students in the system. Therefore study progress, graduation rates and study success have become more important issues in higher education policies. More governments include performances such as the number of graduates or the number of earned credits in their funding formula. Other governments make study grants dependent on the progress students make or whether or not they get a degree (Norway, Netherlands). Other countries provide grants only when the students stay within certain limits of being a “nominal student” like in Denmark and Finland.

In Germany, tuition revenues have to be partly used for facilities for students, quality of teaching and policies to shorten study time. Also British universities have to use part of their revenues for widening participation: giving scholarships to poor and underserved student groups. Whether such institutional policies really attract more lower socio-economic students to higher education or increases teaching quality, one can question. What is clear is that institutional differences become larger and that student support regimes become less transparent. In Finland there is a focus is on student counseling. In France, reduction of drop out in the first cycle is on the agenda for years already. New policies were announced, focusing on innovation of the curricula, tutoring, and the involvement of the short technological programmes/institutes.

Another line of policies focuses on the transitions between institutions and between first and second cycle programmes (enhancing the flexibility of the system). In Austria, one of the proposals to adjust the new University law is to develop new regulations regarding admission to university, especially for master and PhD programmes. Finland is looking into the options for making the system more flexible (adapt the credit transfer procedures). A French commission that has to make recommendations regarding transfers between CPGE and universities and between Grandes Écoles and doctorate schools, has started its work in June 2008.

Other policies to address issues like dropout and time to degree are the offer modularized education, short courses and associate degrees. In this range one could also think of programmes that include a dual learning-working structure like apprenticeship programs. Also including a stronger professional orientation and labor market relevance could be a viable alternative. In flexibilising higher education and offering programs to a wider non-traditional target audience one can think of a new role for open universities, which may also get a role in the so-called pre-master programs for students who wish to switch subjects or institutions in the transition from e.g. bachelor to master.

## **4. SYSTEM CHARACTERISTICS AND HIGHER EDUCATION PERFORMANCE**

Above we discussed various issues related to the supply and demand side of the higher education and brought some evidence how the Dutch system compares to some other systems. In this section we will identify some questions about the link between various system characteristics and performance characteristics. It should be noted that the causal relationship between higher education system characteristics and performance is almost impossible to draw. From the data discussed above we can see that enrolment rates are not linked to labor market outputs, average academic progress, or socio-economic representation. There is also no evidence that either unitary

or binary system is more effective in providing high quality education, responding to student needs, or offering labour market relevant education. Below we raise some issues for further consideration in the Netherlands.

- **High enrolment rates and system characteristics?**

High enrolment rates seem to be associated with active policies in this area, such as a generous financial aid policy, part time studying opportunities, and alternative routes to higher education, and countries with high participation rates seem to have more mature students. Not everything has to be present at the same time. Scandinavian countries, for example, have a generous financial aid system and opportunities for alternative entrance routes. The US, on the other hand, seems to gain from a highly heterogeneous system that is able to accommodate students with very different needs and capabilities.

- **Egalitarian university system and competitiveness**

It seems that an egalitarian system cannot provide a top performing research university, for which resources need to be pulled from the entire sector. There is no evidence that this concentration is needed for research quality as such. The research record in terms of publications and citations per academic staff in the Netherlands is strong, regardless of the egalitarian university system. Also our scores in the various global rankings are not bad at all. Are “World Class” universities indeed necessary for competitiveness? Anyhow they appear to be costly, particularly in relation to the added value of excellence.

- **Diversified higher education system and student needs**

One argument for a (vertically) diversified higher education system is that it may respond better to student needs. It is hard to bring evidence to support the claim. The diversifications in countries like the US, Australia, and the UK is in the line of research. Due to the selection mechanism, strong research universities are able to pick out the strongest students. Due to differences in student capabilities and profiles universities may differ in their teaching orientation and profile, but this is rather a reaction to the demand than primary purpose of the diversification. Nevertheless the Anglo Saxon countries offer a relatively wide range of programmes, with sub-degree level programmes and certificates, honours programmes and various types of masters. In most countries the sub-degree level programmes have strongly professional links, but can oft give access to bachelor programmes. France, Denmark, Portugal and the UK are interesting examples. Looking at the labor market data, Dutch students perform very well in terms of finding a job, finding a job that corresponds to their skills level, and the rate of return of their studies (Bologna key statistics). In this respect the Netherlands outperforms the diversified systems. The data, of course, only shows the averages and there is no information if particular student groups (e.g. the “top” group) would gain from a different system.

- **HBO sector**

HBO sector is very large in the Netherlands compared to other countries and they nevertheless are not yet so much involved in offering sub-degree and short cycle programmes. With the introduction of the Associate Degrees that situation could change. In most other countries, these short cycle programmes have a strong relationship to professions. At the other end, universities as well as UAS are expanding in the area of professional masters or further education masters. This is an interesting area where Dutch HBO’s as well as universities could build on the recently started initiatives. The qualifications of the academic staff are however quite low compared to others. The question is whether further expansion in higher education should take place in the HBO or traditional university sector.



# APPENDIX 1. FIGURES

## 1.1. Massification

Table A1.3a. Population that has attained tertiary education (2005)  
Percentage of the population that has attained tertiary-type B education or tertiary-type A and advanced research programmes, by age group

	Tertiary-type B education					Tertiary-type A and Advanced research programmes					Total Tertiary				
	25-64 (1)	25-34 (2)	35-44 (3)	45-54 (4)	55-64 (5)	25-64 (6)	25-34 (7)	35-44 (8)	45-54 (9)	55-64 (10)	25-64 (11)	25-34 (12)	35-44 (13)	45-54 (14)	55-64 (15)
Australia	9	9	9	9	8	23	29	23	21	16	32	38	32	31	24
Austria	9	8	9	10	8	9	12	10	8	6	18	20	19	17	14
Belgium	17	21	19	15	13	14	19	14	12	9	31	41	33	27	22
Canada	23	26	25	22	18	23	28	25	21	19	46	54	50	43	36
Czech Republic	x(11)	x(12)	x(13)	x(14)	x(15)	13	14	14	13	11	13	14	14	13	11
Denmark	8	9	8	6	7	26	31	27	26	21	34	40	35	32	27
Finland	17	11	22	19	14	18	27	19	15	13	35	38	41	34	27
France	10	17	10	7	5	15	22	14	11	11	25	39	25	18	16
Germany	10	7	11	10	10	15	15	16	15	13	25	22	26	26	23
Greece	7	8	8	6	3	15	17	17	14	8	21	25	26	19	12
Hungary	0	1	0	0	0	17	19	17	16	15	17	20	17	16	15
Iceland	5	3	5	6	3	26	33	29	22	17	31	36	34	29	21
Ireland	11	14	11	8	6	18	26	19	14	11	29	41	30	22	17
Italy	1	1	1	0	0	12	15	12	11	8	12	16	13	11	8
Japan	18	25	21	15	8	22	28	25	23	13	40	53	47	38	22
Korea	9	19	8	3	1	23	32	27	15	9	32	51	36	18	10
Luxembourg	10	13	10	7	8	17	24	17	15	11	27	37	27	22	19
Mexico	1	1	1	1	1	14	17	14	13	7	15	18	16	14	8
Netherlands	2	2	2	2	2	28	34	28	28	23	30	35	30	30	24
New Zealand	7	5	6	10	10	20	26	22	17	11	27	31	28	27	21
Norway	2	2	2	3	2	30	39	33	26	22	33	41	35	30	24
Poland	x(11)	x(12)	x(13)	x(14)	x(15)	17	26	16	12	13	17	26	16	12	13
Portugal	x(11)	x(12)	x(13)	x(14)	x(15)	13	19	13	10	7	13	19	13	10	7
Slovak Republic	1	1	1	1	1	13	15	12	13	10	14	16	13	14	11
Spain	8	13	10	5	3	20	27	20	17	11	28	40	30	22	14
Sweden	9	9	8	11	8	21	28	20	18	17	30	37	28	28	25
Switzerland	10	9	12	10	8	19	22	20	19	14	29	31	32	29	22
Turkey	x(11)	x(12)	x(13)	x(14)	x(15)	10	12	8	9	7	10	12	8	9	7
United Kingdom	9	8	10	9	7	21	27	20	19	16	30	35	30	28	24
United States	9	9	10	10	8	30	30	30	30	28	39	39	40	39	37
<b>OECD average</b>	<b>8</b>	<b>10</b>	<b>9</b>	<b>8</b>	<b>6</b>	<b>19</b>	<b>24</b>	<b>19</b>	<b>17</b>	<b>13</b>	<b>26</b>	<b>32</b>	<b>27</b>	<b>24</b>	<b>19</b>
<b>EU19 average</b>	<b>8</b>	<b>9</b>	<b>9</b>	<b>7</b>	<b>6</b>	<b>17</b>	<b>22</b>	<b>17</b>	<b>15</b>	<b>12</b>	<b>24</b>	<b>30</b>	<b>25</b>	<b>21</b>	<b>17</b>
Brazil <sup>1</sup>	x(11)	x(12)	x(13)	x(14)	x(15)	x(11)	x(12)	x(13)	x(14)	x(15)	8	8	9	9	4
Chile <sup>1</sup>	3	4	3	2	1	10	14	9	9	8	13	18	13	11	9
Estonia	11	9	12	13	10	22	24	23	22	19	33	33	36	35	29
Israel	16	15	16	17	16	30	35	28	27	26	46	50	44	44	43
Russian Federation <sup>2</sup>	34	35	37	34	26	21	22	22	20	19	55	56	59	55	45
Slovenia	10	9	10	9	10	11	15	11	8	7	20	25	21	17	16

1. Year of reference 2004.  
2. Year of reference 2003.  
Source: OECD. See Annex 3 for notes ([www.oecd.org/edu/eaag2007](http://www.oecd.org/edu/eaag2007)).  
Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

Source: OECD Education at a Glance, 2007.

## 2.2. Universities of Applied Sciences: research and higher degrees

Table 8.1 Educational level of UAS academic staff (in percentages)

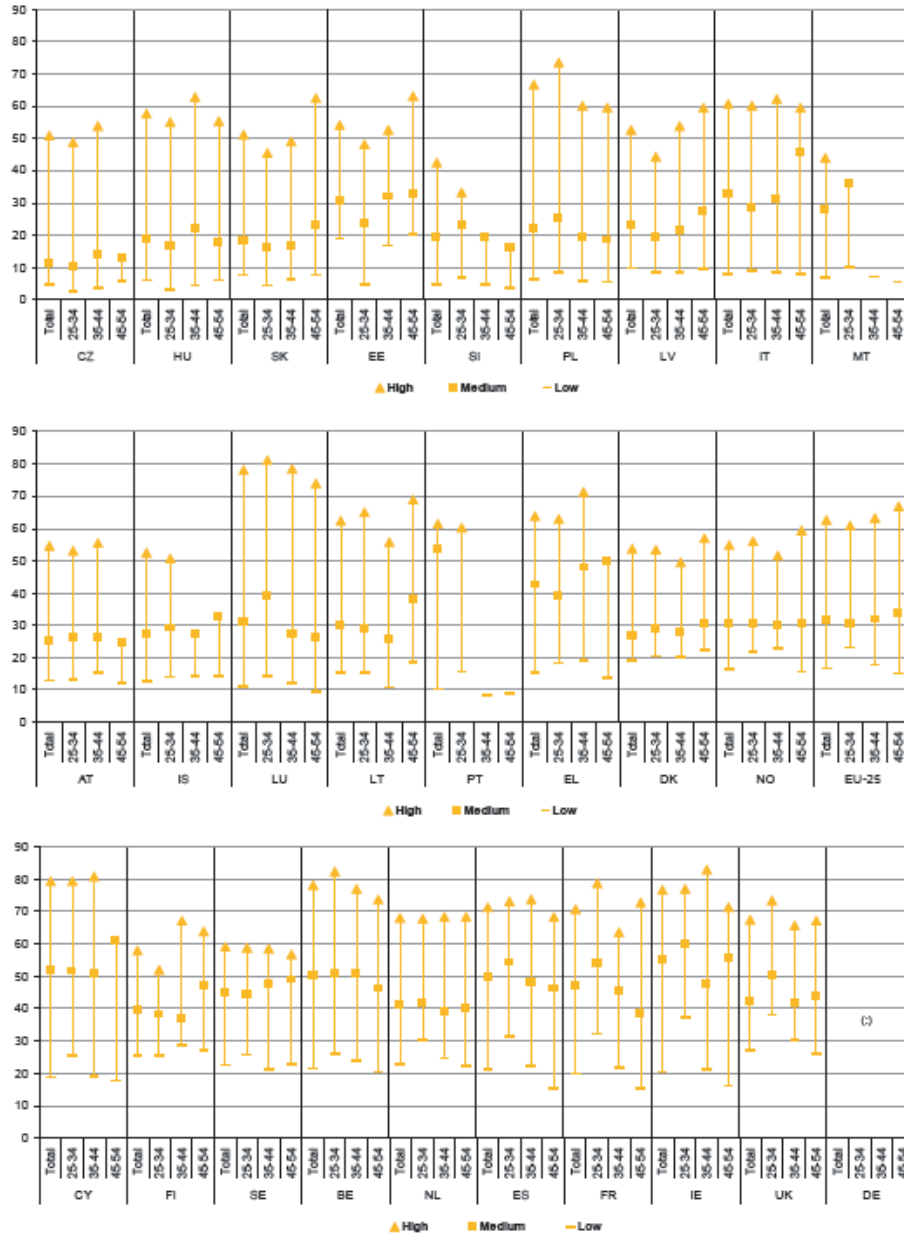
	PhD	Masters	BA-university	BA-UAS	Other
Austria	31	54**	1,6	0.1	13
Denmark	3	80	2	15	
Estonia*	1-2	75-80	10	10	
Finland	7	68 + 11 (licentiate)	3	3	7
France	57	43			
Germany	90	10			
Ireland*					
Lithuania	15	85			
Netherlands	4	46	7	39	4
Portugal*	15	35	12	30	8
Switzerland	34	42	0	8	15

Source: Weert and Soo (2009)



### 3.2. Widening participation

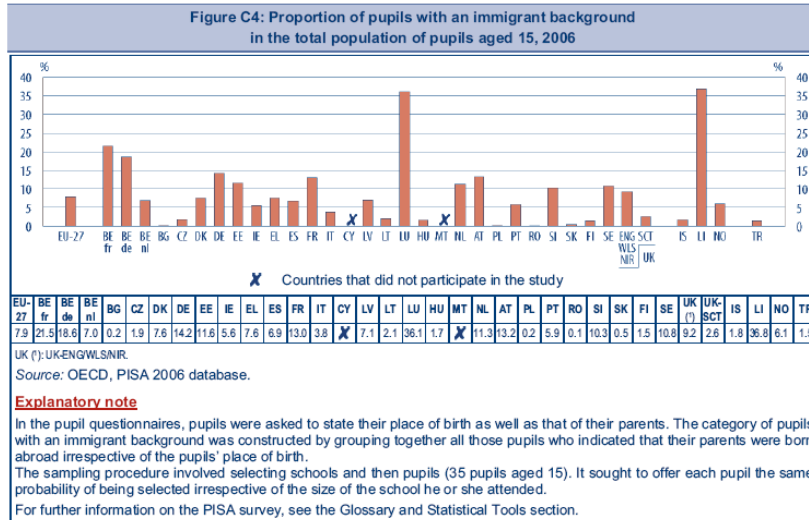
**Figure A.5b:** Percentage of individuals (aged 25–34, 35–44, 45–54) having completed tertiary education (ISCED 5-6), according to the educational background of their parents (low, medium, high) — 2005



Note: Data sorted in ascending order, by Low, 25-34.

Source: Eurostat, EU-SILC.

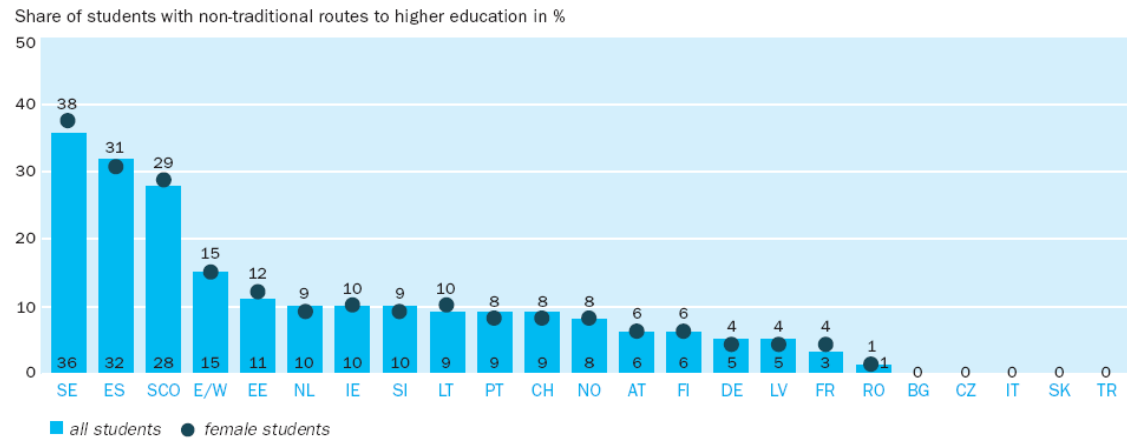
Source: Bologna Key Statistics, 2009



### 3.3. Non-traditional route to education

Fig. 2.1

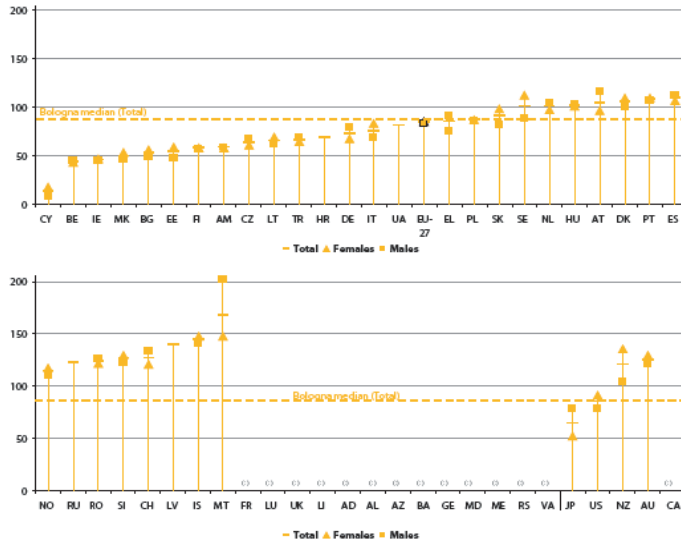
Share of all students with non-traditional routes to higher education (in %) – National definitions



Source: EUROSTUDENT III, Subtopic 7  
 EUROSTUDENT Questions: 2.1 "What was your route to higher education entry?", 1.2 "Gender"

Source: Eurstudent III

**Figure A.2a:** Entrants at ISCED 5A as a percentage of qualifying graduates of secondary schooling (ISCED 3A and 4A) the year before — 2006

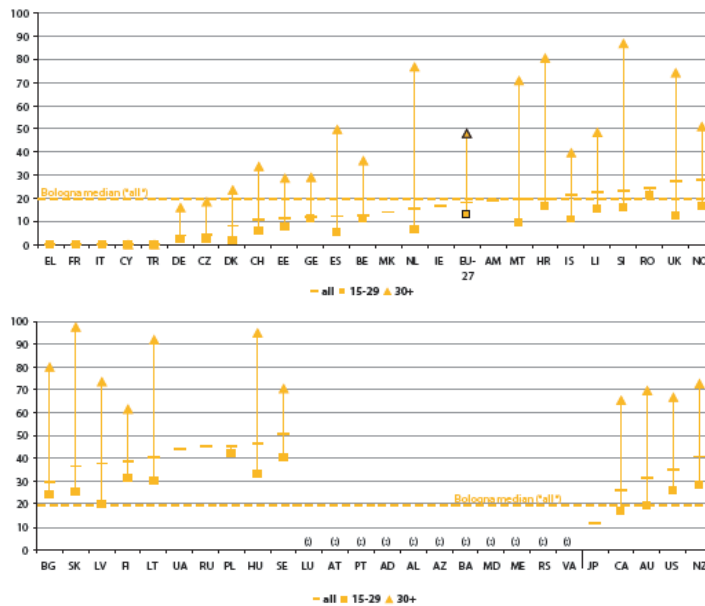


Note: NZ 2003 data; US 2004 data.  
Source: Eurostat, UOE.

Source: Bologna Key Statistics, 2009

### 3.4. Part-time and mature students

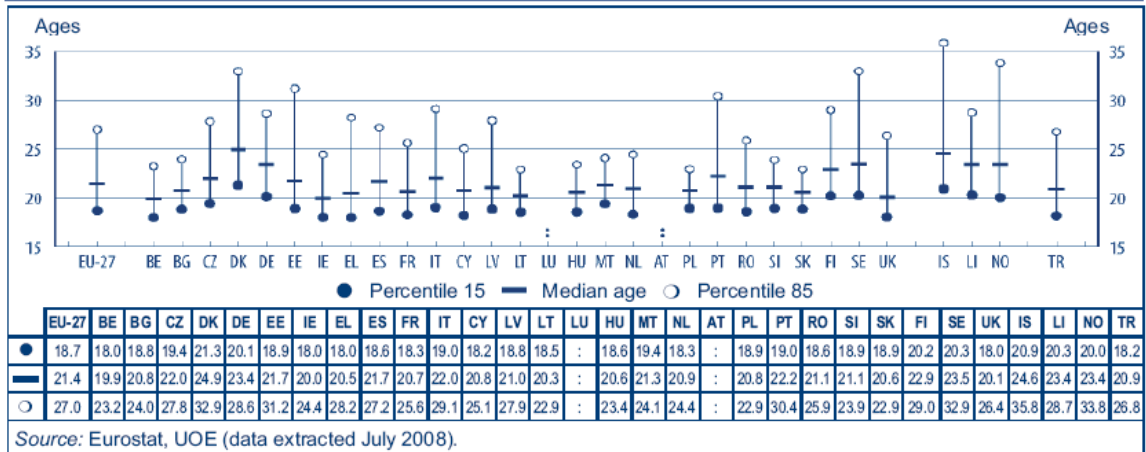
**Figure A.4a:** Percentage of students studying part-time, by age group (15–29, 30+, all), ISCED 5A — 2006



Note: data sorted in ascending order, by 'all'.  
Source: Eurostat, UOE.

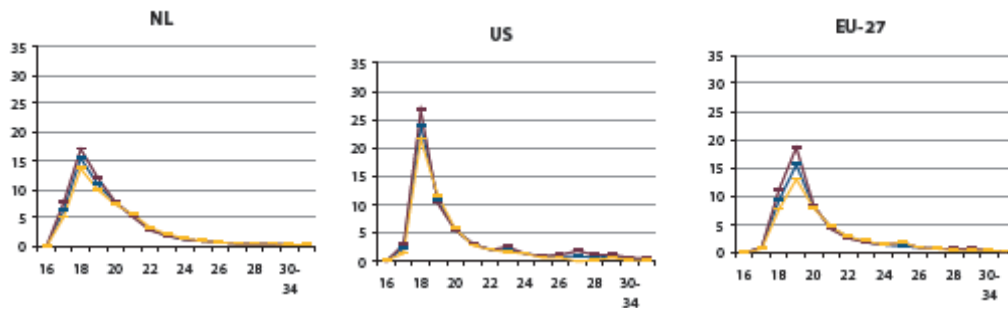
Source: Bologna Key Statistics

**Figure C17: Distribution by age of full-time students in tertiary education (ISCED 5 and 6), 2006**



Source: Eurydice Key Data, 2009

**Figure A.1a: Net entry rate by age (%), ISCED 5A — 2006**



Source: Bologna key statistics, 2009 (excerpt)

## APPENDIX 2. DESCRIPTIONS OF NATIONAL SYSTEMS

### Germany

As of April 2009 there are 349 higher education institutions of which there are 104 universities, 189 universities of applied sciences (*Fachhochschulen*), 30 universities of applied sciences for public administration, and 71 specialized colleges. The private HE sector is very small, serving less than 2% of all students in about 60 institutions, mostly linked to the armed forces and the churches.

Germany has a well established Universities of Applied Sciences (UAS) sector. Compared to other countries, the personnel in the sector is highly qualified (about 60% of PhD degree holders). About 30% of all German students are enrolled in UAS and the sector offers both Bachelor and Master degrees. In the past decades there has been an alignment between universities and UAS. This has been facilitated by Bologna process due to which Germany is reforming its study programmes and switching to the Ba-Ma structure. Moreover, there are attempts to upgrade and advance research in the sector. There is however no political will to unify the binary system for good.

The German higher education system is facing a major increase in student numbers in the coming 3 to 10 years after which a sharp decline is being expected. The temporary increase is related to demographic developments as well as a change in the secondary education structure which makes pupils coming one year earlier to higher education.

The university sector in Germany is considered egalitarian, but recent steps aim to introduce some vertical diversity in the system. The *Excellence Initiative*, which distributes additional funding to selected universities, aims to concentrate more resources in a few universities in order to build up internationally competitive and visible research centers.

Germany has a relatively low participation rate in HE – about 34% of the cohort in Type A institutions and 13% in Type B institutions (OECD, EaaG, 2009). This is due to a range of factors. Most importantly, there is an effective system of *Berufsausbildung* that does not belong to the tertiary education sector but satisfies a substantial part of the labour market needs. It is an apprenticeship model by which students spend a part of their time (3-4 days a week) in a company and the rest of the time at school.

In principle, there is no selection and all qualified candidates can enter a university. In practice this situation has however changed. If student demand exceeds the supply of study places in a specific field of study then students will be selected based on their academic achievement, waiting time, and universities' own selection criteria. In areas like medicine, pharmacy, biology, dentistry and psychology there are national entrance quota, Next to that there can be local limitations, which vary per semester based on changes in student demand. All in all around 01-% - 15% of the students is confronted with selection.

In the near future, an enormous growth in student numbers is foreseen. The projections show an increasing demand for higher education by secondary school graduates. Therefore an agreement at the government level in 2006 specifies an increase in study places by 90,000 by 2010. The

situation is further complicated by the fact that Germany is restructuring their secondary education system and in 2013 two cohorts of secondary school students graduate in one year, putting an enormous burden on the higher education system in that year. Current policy debates address the major challenges to the system, though no clear solutions are yet given. One policy initiative in this direction is the Higher Education Pact, which is a programme to ensure that HEIS receive additional funds to host additional student numbers. It started in 2007 and the agreements for the second phase of this project (2011-2015) have been signed in June 2009.

Germany has quite a well-established framework for long-distance education. In addition to the comprehensive long-distance university in Hagen (*Fernuniversität – Gesamthochschule*) there are private *Fachhochschulen* that offer long-distance course and public universities and *Fachhochschulen* increasingly offer distance education.

Finally, partially due to its performance agreements and performance steering it has achieved a slight increase in graduation rates, with about 5% over the past decade.

## **England**

England, and the UK as a whole, has a unitary higher education system, following the merger of the polytechnic sector with the “autonomous” university sector in 1992. The number of universities has subsequently grown. The former divide is clearly visible in the system. The “new” universities provide more professionally oriented programs, the degrees are less prestigious at the labor market, and the schools are also less involved in research. As a result, England has a unified, but a stratified university system. The research funding system in England also feeds the stratification. Only the top performing universities received research funding through the Research Assessment Exercise scheme, concentrating major research activities in some universities and forming others into teaching institutions.

The British HE has expanded rapidly, from around 15% in the mid-1980s to just under 40% now. The target of the UK is a 50% enrolment rate. Rising numbers of 18-year olds, improving school examination results, and more girls entering higher education has made expansion easier to achieve. One significant factor behind increasing enrolment is the “professionalisation” of occupations such as nursing, with a degree-level qualification now being regarded as the norm. At the same time, the “new” universities took the lead in developing new curriculum offers in areas such as media studies and sports science, which became popular student choices in the expanding system. Some of these developments have been criticised, variously, as not being appropriate topics for university study (golf management), or for misleading students as to the degree’s value in gaining a job in the field in question (fashion design).

It is also realized that further growth cannot be achieved without *widening* participation, i.e. reaching underrepresented groups. To achieve the goal, the UK government links part of the funding to universities with the number of students from underrepresented groups. There are benchmarks for each universities and data on universities’ success in attracting students from underrepresented groups is publicly available. The main activities that universities do is reaching out to potential students and raising their aspirations. Students from lower socio-economic group receive financial aid. Compare to other countries, England performs well in terms of attracting students from lower socio-economic groups and has been able to improve the situation consistently (see *Bologna key statistics*). The country does well also in terms of access to higher education among ethnic minority (immigrant) population (House of Commons 2009).

Universities are also providing higher education in more diverse ways to appeal to non-traditional students. Foundations degree, for example, tend to appeal to more mature students because they allow part-time studying, locally and through work-based delivery (House of Commons 2009). It is considered that such part-time students are a high-risk group in terms of drop-out, study delays etc because they have other concerns besides studying, like families and jobs.

## **Sweden**

The Swedish higher education system currently consists of more than 50 higher education institutions; 36 of them are government-funded institutions. Of the public institutions, there are 14 universities, 15 university colleges and 7 independent colleges of fine, applied or performing arts. There are three private universities or colleges (Chalmers University of Technology, Stockholm School of Economics and University College of Jönköping) and several smaller private higher education institutions entitled to award specific first level degrees.

The higher education system is unitary, and includes academic, professional and vocational programs in all types of universities. In terms of age, size, programs offered and research intensity the institutions of higher education are very varied. The ten largest higher education institutions enroll more than 75% of the total student population.

Participation in higher education has increased dramatically over the last 60 years. Sweden has set a target to achieve the entry rate of 50% of the cohort and the enrolment rates are currently over 40% of the age cohort. The number of available study places was reduced between 2003 and 2005 because of budget constraints, which slowed down the enrolment growth.

Strong points of the Swedish higher education system are its high access and graduation rates. Increased graduation stems from increased participation and relatively many students obtaining more than one degree. The government has taken active steps to make higher education more accessible. Universities now offer preparatory courses, i.e. courses for candidates whose qualifications are otherwise not sufficient for university entrance. Universities have an opportunity to offer a “college program”, accessible to students who does not pass university entrance requirements and these students may continue in the higher education. Increased access also has improved graduation numbers and rates. These also improved by the implementation of the Bologna process when most studies got more coherent and stronger linked to the labour market instead of being rather loose courses. In addition, over the past years institutional leadership has been strengthened and some universities took measures to have their students help making the universities “look better” in overall statistics. Students were also less long entitles to student support.

## **Finland**

The Finnish higher education system comprises of two parallel sectors – 20 universities and 26 polytechnics. The two tertiary sectors are clearly different. The mission of universities is academic with theoretical and research orientation and polytechnics prepare students for practical work. Polytechnics were established in 1991 out of trades and vocational colleges. Based on the 2003 Polytechnics Act polytechnics are non-research institutions offering four or five year degree courses that are to serve regional development. Only recently the polytechnics sector started offering professional master degrees.

Finland has had a very high expansion of higher education and it has set a 50% target for higher education enrolment. It has set a targets for new entries, specific to disciplines. It has particularly increased the targets for entry in Open University and Open Polytechnic. Finland has a high proportion of students (in below 29 years age group) studying part-time (*Bologna key statistics*). In recent years Finland has concentrated on making higher education studies more efficient – to shorten study time, speeding up entrance to job market, encouraging secondary schools to enter university without delay, improving graduation rates. A better student selection program and revised entrance system facilitates the progress. Also attention to student counseling and quality in university contribute to efficiency.

One major area of discussion now concerns mergers of universities and alliances between universities and polytechnics in order to consolidate the Finnish higher education system. As a result of the mergers the current number of institutions of twenty universities and twenty-six polytechnics will be reduced to fifteen universities and eighteen polytechnics. It is also a goal to establish four alliances between universities and polytechnics by 2020. The network of universities and polytechnics has to be developed in such a way that overlaps in programs are reduced and that administrative and support services will be more integrated. This means more intensified cooperation in teaching, research and shared equipment. The Ministry of Education will come wit a detailed action plan in 2010. HEIs will have to get clearer profiles reflecting local and regional needs.

Nevertheless, the distinction of objectives of both the universities and polytechnics has created a balancing effect between the supply and demand for professionals in the labour market. It has ensured that the specific needs of the nation in research and regional needs of experts are met through horizontal differentiation of the higher education institutes.

Access and lifelong learning improvements recently do not come from mature enrolments which remained stable in the past decade.

## **Denmark**

Denmark has a diverse and complicated higher education system comprising a university sector and a college sector (professionally oriented higher education sector). Since the merger operation of 2007/8 there are four main types of higher education institutions, within the responsibility of three different Ministries, including:

- 8 universities which conduct research and offer research-based undergraduate and postgraduate programmes (Bachelor, Master and PhD)
- the University College sector consists of 8 university colleges (centres for higher education) offering undergraduate programmes (Professional Bachelor and Diploma programmes). In 2012, there will be only 7 University Colleges.
- 10 Academies of Professional Higher Education (*erhvervsakademier*) offering professional programs usually of 2 years duration.
- 20 other institutions like the Royal Academy of Fine Arts, the Music Academies, and the Schools of Architecture and Librarianship.

The university sector is the larger sector of higher education. In 2006 there were about 114.000 students at the bachelor and master level. The number of students has increased with 18% between 1999 and 2006. The 2007/8 merger operation created a higher education landscape with particularly large multi-campus universities in which colleges and universities and research



institutes cooperate closely. Though the institutions were merged into much larger institutions, there is a strong regionally based HE offer. The merger operation is currently under evaluation.

The merger operation makes part of a comprehensive globalization strategy Denmark adopted in 2007. This was to develop a world class educational system, strong, innovative and entrepreneurial research for a high national level of change and innovation. The strategy also included more basic funds to be allocated through competitive and performance based mechanisms. By a simplification of the taximeter funding system it strengthened the incentive to reduce drop-out rates and to shorten completion times. The globalization strategy is said to be successful as it also included an increase in funds available to HE.

Another interesting aspect of Danish higher education is the relative high participation of older and mature students. Denmark traditionally has a strong offer in adult education. Students are relatively old, with one of the reasons that many students take “a year off” after secondary education. Access has improved over the years. Stakeholders argue that the longstanding policy attention for access is due to that. In addition, the more diversified and more regional educational offer are said to be important.

## **Austria**

The Austrian HE system underwent radical and unprecedented changes, which made the system much more diversified. Currently it consists of four types of HEI: 22 public universities, 20 *Fachhochschulen* as well as 11 private universities and 17 teacher training colleges (*Pädagogische Hochschulen*).

In Austria the UAS sector started only in 1994, driven by the need to offer greater variety of study programmes. The *Fachhochschulen* provide programmes closely linked to private business demands. The sector offers diploma, Bachelor and Master degrees. The research role is still small compared to the university sector, but the trend is towards increasing this role. *Fachhochschulen* and private universities are under strict accreditation regulations. But in contrast with the universities that resisted managerial change from the 90s onwards, the *Fachhochschulen* developed as modern semi-private self governing institutions run under private law..

From 2007 onwards, Austrian universities receive a large share of their funding through 3-annual performance contracts with performance areas like HR development, research, study programs, continuing education, social goals, internationalisation, inter-university cooperation and specific fields. In an intellectual capital report universities report on their achievements.

Most growth in the Austrian higher education system in terms of student numbers took place in the *Fachhochschulen* sector: from 4,217 students in 2000 to 11,674 in 2008. The FH's are able to select students and to restrict access. In the university sector there is a policy of open access and the universities currently plead for the right to restrict access in order to ensure the quality of HE study programmes.

The European Court of Justice forced universities to also have open access policies for foreign students since 2005 which leads to high pressures on popular programs (medicine, psychology, etc.). But in June 2009 universities have the opportunities to **restrict access to Master and PhD programs** with qualitative quota. Also the bachelor studies have introduced a **starter program** of 1 or 2 semesters. Only a successful score in the final exam of this starter program allows

students to continue studying at the university. This may also help universities to improve their performance in success rates, at least among students who get through the started programs.

### **Belgium (Flanders)**

The Flemish higher education system is a binary system with 6 universities and 22 university colleges (*hogescholen*). In addition there are 2 theological institutions, 4 postgraduate training institutions, 5 non-statutory registered institutions, and 1 transnational university. The non-university sector can award both academic university-level degrees and vocational degrees. The academic degrees (academic Bachelor and Master) are issued through a formal association with a university. Since 2004 there are Associations of universities and university colleges that entail structural co-operations between one university and several colleges. One of the goals is to 'upgrade' the academic degrees of the non-university sector and 2012 these degrees will be turned into university degrees by 2012. Currently there are many tensions about how these cooperations should work, showing interesting dynamics when one tries to change the status of one group of institutions.

Similarly to the Netherlands, the *hogescholen* sector is relatively large. Universities enrol about 38% of bachelor and master students, university colleges 62%. High accessibility is one of the key features of Flemish HE with 60% of the 18-year olds attending HE. Anyone who has completed higher secondary education is allowed to choose any institution and almost any course; entry restrictions are limited. Tuition fees are low and account for about 7% of the block grant allocated to university colleges and 4% in the case of universities. "Free access" is seen as one of the reasons why graduation rates are low. Since the academic year 2008-09 higher education institutions can refuse to take students that have not shown significant study progress.

### **Australia**

Since 1992 Australia has a unified higher education system, consisting in 37 public and a number of recognized private universities whose students qualify for student support. The universities however are highly diverse and differ greatly in terms of their mission, student profile and research productivity. The former status can be seen also in the current profile of the university. An informal categorization includes 4 types of universities: research intensive "Sandstone" universities, technical universities, universities established in 1960s, and regional and newer universities. The government has been clear in its policies that it is not going to fund 37 research intensive universities. Universities are encouraged to concentrate on selected fields and thereby develop their competitive advantage. At the same time, Australia is not going to focus on creating a few "World Class Universities" but rather focus on building up a World Class System of higher education institutions.

The academic degrees offered by universities are listed in the Australian Qualifications Framework (AQF) The AQF distinguishes the following qualification levels, sorted here by level from the highest downwards:

- Doctoral degree; Masters degree; Graduate diploma; Graduate certificate; Bachelor honours; Bachelor degree; Associate degree; Advanced Diploma; Diploma

Next to this diversity of programmes there are relatively flexible transitions and modes of study. For example, the *Master Degree* as a *postgraduate* qualification may involve the enhancement of

specific professional or vocational skills through directed coursework and/or research. Alternatively, a Master Degree may indicate the acquisition of in-depth understanding in a specific area of knowledge through research. A master's degree typically requires two years but only one year for those with a Bachelor Honours degree or a four year (or longer) Bachelor degree. A Master degree may be undertaken by coursework, project work and research in varying combinations.

Australia has relatively low enrolment rates and it has set its target at 40%. Australia has a restricted access to higher education and demand for study places constantly exceeds the supply (by ca 8%). To widen the participation, Australia has identified under-represented groups and channels more funds to the opportunities of this group.

Australia has a long tradition of part-time studying which enables students with employment to upgrade their qualifications. Recently long-distance education has made a rapid progress.

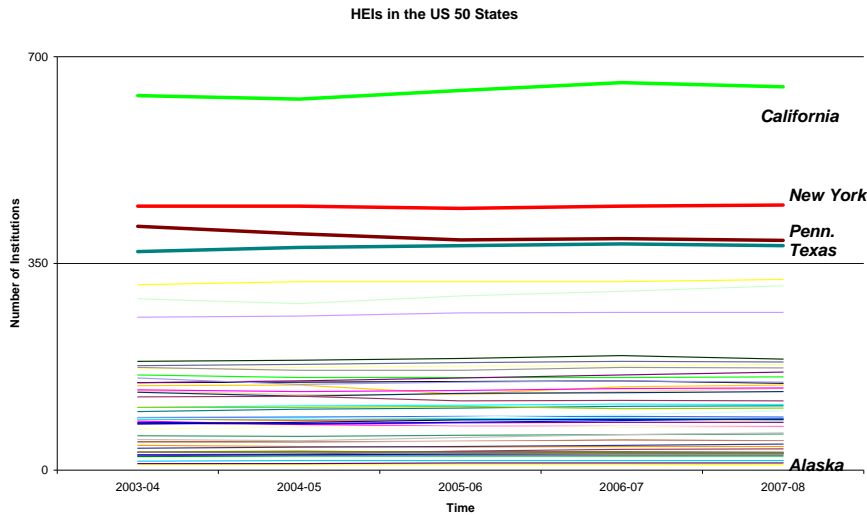
### ***United States***

The United States has a unified higher education system. There is however a great variety of institutions and the level of programmes in the system. There is no legal distinction between "university level" and "non-university level" higher education. The level of studies is defined by the level of qualification offered in a specific programme rather than by type of institution offering it. From the 6,479 postsecondary institutions, 4,182 are non-degree institutions. Of the degree-granting higher education institutions, some 1,732 award only the associate degree plus sub-bachelor's certificates and diplomas; 702 award only the bachelor's degree; 1,094 award degrees and certificates beyond the bachelor's degree but not the research doctorate; and 654 institutions award the research doctorate.

The US has high enrolment numbers. Over 60% of the age group enters the university sector. At the same time, the US has quite a high drop-out rate. When we look at the graduates of tertiary education employed in skilled jobs, then the US is among the worst performers with 63% (OECD 2009, A1.4.).

The interesting aspect of the US higher education system is its enormous diversity: everyone interested in postsecondary studies can find his or her place, either in highly selective prestigious institutions or in non-selective community colleges.

Chart 2 below shows that California, with almost 650, has more institutions of higher learning than any other state. New York follows with almost 450. Alaska has least.



**Chart 2: Number of Higher Education Institutions in the United States, by State, 2003-2008,**  
Source: NCES, 2008

NCES data show that with its 416 degree-granting institutions in 2007-2008 California tops the list also for purely degree-granting institutions. New York remains second (307) and Alaska remains the state with least degree-granting institutions (7). To get an impression of the diversity of the system and the relative sizes of various parts, the following table shows some enrollment figures for California in respective types of institutions. It immediately becomes clear that the community colleges – offering lower degree programs – by far enroll most students.

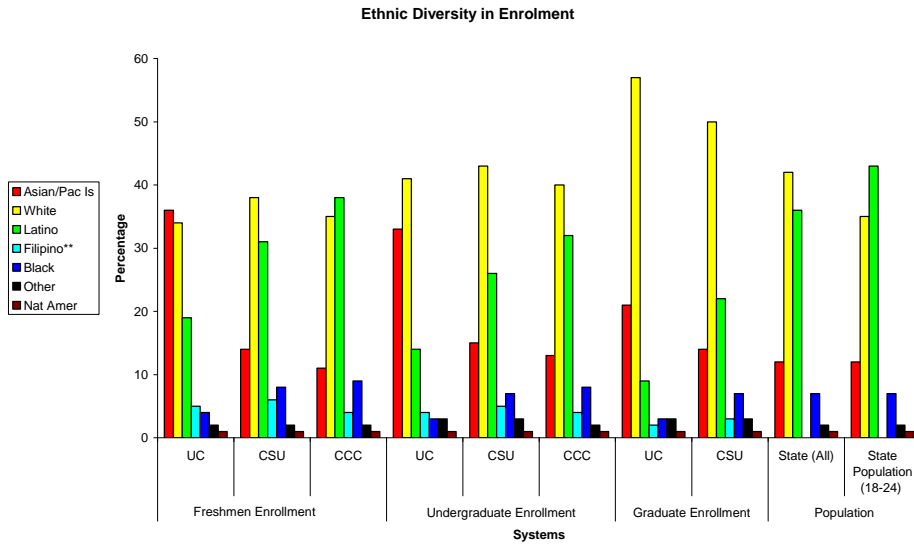
**Table : Enrolments by System (California)**

System	2004	2005	2006	2007	2008
University of California	207,909	209,08	214,298	220,034	226,040
California State University	395,825	405,282	417,156	433,017	437,008
California Community Colleges	1,516,039	1,514,823	1,547,742	1,628,380	1,694,924
CCC District Office	68,131	92,035	90,025	94,845	96,129
Other Public Colleges and Universities	1,269	3,571	3,899	3,831	NA
WASC-Accredited Non-public 4-Year Institutions*	259,786	264,213	261,711	264,681	NA
WASC-Accredited Non-public 2-Year Institutions*	16,636	17,068	17,678	17,458	NA
State-Approved Institutions	49,271	73,36	69,926	65,445	NA
Institutions Exempt from State Approval	4,098	4,171	4,193	4,224	NA
Closed and Other Institutions	6,884	6,631	6,632	6,791	NA

Source: CPEC, 2009a

Note: \* WASC is the Western Association of Schools and Colleges

The student population in the US is diverse. In California, two characteristics should be noted: the Caucasian population still represents the majority of the student population across the board (with the exception of freshmen enrolments at UC) and other ethnic groups (in particular Hispanic-Americans) are more successful at the Community College level. Chart 6 shows the proportion of different ethnic groups according to (a) freshmen enrolment (b) total undergraduate enrolments (c) total graduate enrolments and (d) the ethnic composition of the population (all and 18-24 year olds), over the period 2006-2008 (average) (CPEC, 2009).



**Chart 6: Ethnic Diversity in Enrolments, by System (Over the period 2006-2008; freshmen, Undergraduate total enrolments, Graduate enrolments). Source: CPEC, 2009b**

Another interesting aspect is that at community colleges students often study in part-time (about 2/3 of all students in CCC).

California is not representative for all the US. In New York the system is more selective and has way fewer students.