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STUDY ON

“THE FINANCING OF HIGHER EDUCATION IN EUROPE”

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STUDY ON THE “FINANCING OF HIGHER EDUCATION IN EUROPE”

The importance of education and training in a lifelong learning perspective for the knowledge based society and the achievement of the Lisbon goals increases the overall need for investment in human capital. Investing in human resources is indeed essential to increase employability, economic prosperity and social welfare. The Lisbon Council¹ in March 2000 called for a substantial increase in investment in human resources. However, due to tight public budgets, there is also a clear pressure to ensure a more efficient use of existing resources and a larger appeal to private investment, especially as far as higher education, vocational training and adult education are concerned. This implies the need to make better use of research findings for educative policies.

Introduction

In order to deepen the discussions that started in the Education Councils of Athens and Milan on the use of economic analysis to draw policy recommendations in the field of education and training, the Commission has launched projects in the economics of education. Indeed, to guide their political action, policy-makers need to have reliable elements of analysis which show the contribution of education and training to the economic and social objectives of the Union. This is the objective of the project "Economics of Education". Consequently, in summer 2003 DG EAC launched a call for tender for a study in the field of economics of education on “financing of higher education in Europe”. The study was completed in September 2004 by the company EU-RA (European Research Associates – Luxembourg).

Description of the project

This project is related to the follow up of the Communication on Universities “The role of the universities in the Europe of knowledge”² and the activities of the Working Group responsible for the implementation of Objective 1.5 “Making best use of resources”³ of the Work Programme “Education & Training 2010”⁴. The study aimed at collecting statistical information on the financing of higher education in order to provide a clear picture of the current financial flows in higher education in Europe. The study has furthermore looked at examples of innovative financing mechanisms implemented in the Member States in order to encourage peer learning activities among countries.

¹ http://ue.eu.int/cms3_applications/Applications/newsRoom/loadBook.asp?target=2000&bid=76&lang=1&cmsId=347

² http://europa.eu.int/eur-lex/en/com/cnc/2003/com2003_0058en01.pdf

³ http://europa.eu.int/comm/education/policies/2010/objectives_en.html#making

Results of the study

The study has built a rich statistical data set to carry out its quantitative and qualitative analyses of the situation in each country (for the 25 EU countries, 3 Candidate Countries, 2 EFTA countries and 4 non-European OECD countries) and describe the current situation and trends at a national and EU level (see Volume 1: Quantitative analysis). This has required gathering and presenting information on a national level taking into account the particular national socio-economic background situations, policy initiatives in the field of higher education, legal frameworks of higher education and funding mechanisms available. Based on this evaluation, recent policy initiatives and promising recommendations to **increase and diversify funding, make a more efficient use of resources and provide more student aids schemes** on a national and European level have been clearly identified (see Volume II: Qualitative analysis).

⁴ http://europa.eu.int/comm/education/policies/2010/doc/rep_fut_obj_en.pdf

Executive summary

Executive summary

Introduction

Across the world the emergence of the knowledge society has led to a resurgence of interest in the university in particular, and a rise in demand for higher education in general. The resurgence in interest results from the central role played by the university in expanding the knowledge base of society through research, training and development. Demand is rising not only as more school leavers have earned the right to enter university and decide to pursue higher education, but also because there is more demand for research degrees, continuing education and continuing professional development.

In March 2000, the European Council, set the goal for the EU to become “*the most competitive and dynamic knowledge-based economy in the world, capable of sustaining economic growth with more and better jobs and greater social cohesion*” by 2010. Crucial to achieving this goal are education and training. In recognition of this, the Council called for a “*general reflection on the concrete objectives of education systems*” and for a “*substantial annual increase in per capita investment in human resources*”. For *education and training* to be at such a level capable of effectively contributing to the set goal, the European Union as a whole, and the individual Member States in particular must allocate sufficient resources in this direction. Such resources must be well targeted and managed in the most efficient way.

Higher education has remained in relative terms, progressively under-funded in most parts of the European Union. OECD studies show that European universities are seriously under-funded, while a report by the World Bank indicated that some national higher education frameworks are clearly inadequate in supporting sustainable economic growth, the expansion of knowledge-based professions and social cohesion. As for funding structure and policies, these vary widely among Member States and sometimes, even within the same Member State, from one region to another.

EU policies and instruments

The five key challenges faced by universities, as identified following the broad consultations on “*the role of the universities in the Europe of knowledge*” are, increased demand for higher education, internalisation of education and research, developing effective and close co-operation between universities and industry, proliferation of places where knowledge is produced and the reorganisation of knowledge

The communication from the consultation outlined three objectives that have to be taken onboard in order for universities to play a role in the creation of a Europe of knowledge. These are to ensure that European universities have sufficient and sustainable resources and use them efficiently, to consolidate their excellence in research and in teaching, particularly through networking and to open up universities to a greater extent to the outside and increasing their international attractiveness.

The European Union has a number of instruments and programmes aimed at assisting the development of education and training, and ultimately, for meeting the set objectives of the 2001 Lisbon Council. These include Socrates, Leonardo, Tempus, Erasmus Mundus, Jean Monnet Project of

"European Integration in University Studies", EU/USA cooperation, EU/Canada cooperation and the EU Framework programmes for RTD from which universities receive up to one third of their research funding particularly under the support actions for research training and mobility (Marie Curie actions).

Sources of funding for higher education

All the sources of funding of higher education could be broadly grouped into two: public and private. Public sources come from central, regional and local authorities while private sources are the students (and the households) and non-governmental bodies such as foundations and charities.

The relative importance of each of the sources (public and private) varies from one Member State to another. There is the policy of free education in some Member States (such as Denmark, Finland and Sweden), while in most other Member States, students are charged tuition fees. Historical factors in the development of higher education policies largely account for the current prevailing situation.

For non-EU OECD countries, the funding system seems to be characterized by greater dependence on the private sector than it is the case in the EU. For example, in the USA only half of the total funds for higher education comes from public sources, (though it must be noted that the statistics for the USA cover only public institutions).

Based on a comparison of the resources devoted to higher education in four non-EU OECD countries (Australia, Canada, New Zealand and the United States) with the EU, it was apparent that the non-EU OECD countries have been better able to diversify the sources of funding by spreading the financial burden between the public and private sector. The private sector includes households and private enterprises, organisations etc. Based on evidence in the non-EU OECD countries, tuition fees account for a significant proportion of income of higher education institutions. In some EU Member States which have a policy of free education at all levels (including higher education), this potential source of income cannot be tapped into. Despite the fact that tuition fees are charged to students in the non-EU OECD countries, public support is provided to students in various forms including scholarships, grants and loans in order to offset any negative effects arising from tuition fees. Given that the non-EU OECD countries have spread the financial burden between the public and private sector, it does not necessarily infer that they will devote less public resources to higher education.

The roles that regional authorities play in the financing of education varies from country to country. In Ireland, the Netherlands, Finland, United Kingdom, Estonia, Latvia, Lithuania, Hungary, Malta, Slovak Republic, regional authorities play no role at all. In Denmark, Greece, France, Italy, Austria, Sweden, Czech Republic, and Poland, the regional authorities play some role while in Belgium, Germany, and Spain, they play very major role.

Policy initiatives for financing higher education

A number of initiative have been taken by most Member states particularly in the past fifteen years aimed at restructuring or improving the ways in which higher education is funded. The extent and effect of these initiatives depend largely on the objective originally set.

In general, for the old EU Member States as a whole, there is no overall discernable trend towards diversification of sources of funding except for a few countries such as the UK. Results of the study

indicate that less than 15 percent of innovative mechanisms introduced by the EU Member States are aimed at diversification of funding sources. Also, the study shows that there are hardly any *innovative mechanisms*, which are not already in existence somewhere else. This appears to show that there is a tendency to be cautious in introducing new mechanisms, preferring to opt for those ones which have been tried and tested elsewhere.

Nevertheless, there have been a number of important innovative mechanisms implemented in Member States ranging from increasing efficiency of higher education systems, to various forms of student support. For example, in the Netherlands is the *performance-related loan* by which such loans become a grant in case the student successfully completes their studies. This system maintains the public source of funding whilst increasing efficiency in the education system. In the new EU Member States, which were formerly Soviet bloc countries, the transition to market economies from centrally planned economies also included introducing radical reforms to their higher education systems. For example universities were given institutional autonomy, and in some countries this included a large degree of independence from State administration.

Innovative mechanisms for financing higher education

The five key objectives set as the basis for measuring innovativeness of funding initiatives are:

1. Increasing absolute levels of funding
2. Diversifying sources of income for universities
3. Making best use of resources (increasing efficiency)
4. Providing extra funding for excellence in research and training and for increasing international attractiveness
5. Student aids (allowances, grants, loans)

Objective 4 is by far the most important accounting for twenty nine percent of the whole initiatives while *Objective 2* comes out as the least important, accounting for just thirteen percent.

For each of the five Objectives, we have set out below two innovative mechanisms worth recommending for future consideration.

Two mechanisms aimed at increasing the absolute levels of funding

1: U3M Plan (France)

This combines the funds of the State with those of the territories (or region) and of the European Structural Funds. By so doing, it makes funding more broad-based and increases the number of stakeholders. It aims to ensure that higher education and research can contribute more to the economic development of the country (and the regions). Under the scheme, budgets are allocated to: construct student facilities, enhance the participation of foreign students, invest in university facilities (e.g. research facilities in new universities).

2: Campus Companies mechanism (Ireland)

Private higher education institutions are financed and managed by their own organisations. Universities develop what are known as campus companies which are established by the academic staff with the aim of marketing the results of university research or selling particular university services. Apart from increasing funds for the Universities, campus companies have also enabled the universities to open up links with industry. They have provided some students with opportunities to have practical experience on projects relevant to their studies.

Two mechanisms aimed at diversifying sources of income for universities

3: Higher Education Act (Czech Republic)

Public higher education institutions are allowed to perform supplementary activities for which they can obtain payment. These should be related to their educational, scholarly, research, developmental, artistic or other creative activity or activities that assist in more effective utilisation of human resources as well as material assets.

4: Deferred repayment of tuition fees scheme (UK).

Students are given loans which they would only start paying back after they left university and they started earning over a threshold. The repayments would be linked to earnings - the more earned, the more that would have to be paid. Repayments would be made through the tax system. No real interest would ever be charged on the repayments.

Two mechanisms aimed at making best use of resources (increasing efficiency)

5: Management by objectives scheme (introduced in Finland in 1986)

Gradual introduction of management by objectives into universities, the introduction of an assessment system that would give enough information on the results and costs of teaching and research and to respond to the demand for more efficient undergraduate and postgraduate education.

Using this management by objective (MBO) scheme ensures that funds are properly targeted and that an accountability system is in place which matches result obtained with cost.

6: Student cards scheme (recently introduced in Malta).

The capital part of a grants to students will be paid through the electronic card system while the monthly payments will be done in the usual manner, that is, by cheque or bank transfer. The card should be used mainly for books and also to buy tools such as computers computer programmes, medical equipment in the case of MD studies, drawing board in the case of A&CE students, etc. Expenses not related to the study subject cannot be paid for through the card. The Board may block a card if it finds that it is being misused by the student.

Even though this might sound rather a heavy and burdensome mechanism, yet, if the objective is to ensure better use of available resources (including grants to students), this is a very effective way of controlling how such grant is spent

Two mechanisms aimed at providing extra funding for excellence in research and training and for increasing international attractiveness

7: FIRST schemes for universities (introduced in Belgium in 1989)

The aim of the FIRST schemes is to foster relationships between the research and the business worlds. The principle is that the region takes responsibility for a minimum of two years, for the salary of a researcher, for the conduct of a research project that is likely to deliver the industrial results in the region. An additional subsidy is also granted to the research laboratory. The three versions of the scheme are:

FIRST-Spin-off is more specifically focused on researchers

FIRST-PhD-Enterprise supports researchers engaged in doctoral dissertation

FIRST- Europe targets researchers involved in projects in collaboration with an industrial partner

This scheme takes advantage of European Union Funds as it is financed by Structural Funds. Thus, it is only open to projects with industrial partners located in eligible areas of the region.

8: Competitive allocation of public resources (introduced in Poland in 1991).

KBN which is the authority responsible for the financing of research in higher education in Poland places evaluation at the centre of the resource-allocation process. An objective and critical evaluation of the scientific status of Polish research institutions determines level of their financial support. Competitive reviewing based on purely professional and clearly specified criteria are used to earmark funds for specific research projects.

Two mechanisms aimed at providing student aids (allowances, grants, loans)

9: Performance grants scheme (introduced in the Netherlands in 1996)

Students receive their previous grant-aid as an initial loan. If a student meets study progress requirements, the conditional loan will be converted into a non-repayable grant. The grant portions of succeeding years only become a gift if students complete their degree within the nominal duration of the program plus 2 years (6 or 7 years in total).

10: Golden hellos (introduced in the UK in 2000).

"Golden hellos" is a system of top-up of the basic salaries for those who enter teaching in Mathematics, Sciences, Modern Languages and Technology. The arrangement is for postgraduate secondary teaching trainees from September 2000.

Transferability of innovative funding mechanisms

In principle, most of the *innovative* mechanisms identified are transferable to other Member States. Indeed, some of them are already in existence in some other countries (in most cases, slightly adapted to the local situation). In practice, transferability depends essentially on a number of factors – historical, social, legal, political, and economic. Mechanisms aimed at helping students with loans to pay their tuition fees (such as the *deferred repayment of tuition fees* scheme -UK) would not make sense in countries with free higher education. Thus, *innovative* mechanisms with the objectives of providing student aids tend to be more restricted in their transferability than those aimed at making best use of resources. Mechanism aimed at providing extra funding for excellence in research and training and for increasing international attractiveness are transferable to all Member States. They do indeed merit being considered at EU level, considering the overall objective of the Union to substantially increase resources devoted to research in the EU.

Recommendations on future actions

Future research could be more micro oriented. That means, looking at particular schemes such as the *Performance related loans* (The Netherlands), the *FIRST schemes for universities* (Belgium) and *Golden hellos* (UK) in greater depth to explore how they can be transferred; whether they can be transferred in exactly the same form or need to be customised; and what conditions should prevail in the importing countries to render the transfer successful. It should not be forgotten that any such transfer would involve counterpart training.

The remit of this study did not include detailed impact analysis of the innovative mechanisms. Future action could focus on a few resonant mechanisms and carry out in-depth analysis and scenario building based on this.

Chapter 1

EU policies and instruments on higher education

EU policies and instruments on higher education

Introduction

Higher education in the knowledge society

Across the world the emergence of the knowledge society has led to a resurgence of interest in the university in particular, and a rise in demand for higher education in general. Interest is resurgent because the university is central to expanding the knowledge base of society through research, training and development. Demand is rising not only as more school leavers have earned the right to enter university and decide to pursue higher education, but also because there is more demand for research degrees, continuing education and continuing professional development. Moreover, knowledge professionals in mid-career are expanding, renewing or transforming their knowledge base.

The European Council held in Lisbon in March 2000, marked a decisive moment for the direction of policy and action in the European Union. It set the goal of becoming “*the most competitive and dynamic knowledge-based economy in the world, capable of sustaining economic growth with more and better jobs and greater social cohesion*” by 2010. Education and training are crucial to achieving these goals. In order for this role to be fulfilled, sufficient resources must be invested in Member States’ education and training and these have to be well targeted and managed in the most efficient way. The Council called for a “*general reflection on the concrete objectives of education systems*” and for a “*substantial annual increase in per capita investment in human resources*”. It also pointed out that the future of the European economy (and society) would depend on the skills of its citizens. These skills need continuous updating, which is a characteristic of knowledge societies.

The 2001 Stockholm European Council agreed that efforts should continue to develop a work-programme organised around the quality and effectiveness, the openness to the world of education and training systems. When adopting the Work programme on objectives, the Council (Education) and the Commission underlined that making the European Union the leading knowledge-based economy would only be possible if education and training functioned as factors of economic growth, research and innovation, competitiveness, sustainable employment and social inclusion and active citizenship. It is widely acknowledged that the scale and the quality of human resources are major determinants of both the creation of new knowledge and its dissemination.

The knowledge sector is dependent on the ability of education, in particular, universities, to offer high quality curricula in knowledge-intensive areas and to attract a sufficient number of qualified

persons to science and technology. Innovation is also dependent on the ability of social partners to ensure that a generally well-educated and creative labour force stimulates, uses, and underpins it.

The Commission in its communication on *The role of the universities in the Europe of knowledge* identified five challenges and opportunities for European universities that result from the proliferation of knowledge creation, the reorganisation of knowledge via the simultaneous rise of interdisciplinarity and increased specialisation, the internationalisation of higher education, the rise in demand for human and social capital and the societal shift of expectations towards lifelong learning and open access..

The 2000 Lisbon Council agreed that the EU should aim not only to be a knowledge-based society, but also, to have the most competitive and dynamic knowledge-based economy by 2010. While the knowledge society is marked by the pre-eminence of the cycle of knowledge generation, transmission, dissemination and use, the EU needs to boost its RTD spending by more than fifty percent (from the current level of below two percent of GDP¹ to above three percent) if it is to gain a competitive edge.

The 2002 Barcelona Council set this target and would like to see an increase in the share of RTD funded by business going up to sixty six percent.

There were some three thousand and three hundred higher education establishments in the European Union of pre-May 2004, approximately four thousand in Europe as a whole, including other countries of Western Europe and the Candidate Countries. Universities employ thirty four percent of the total number of researchers in Europe, and they are also responsible for eighty percent of the fundamental research pursued in Europe.

Financing of higher education

As crucial as higher education is to the quest to ensure future economic growth with more and better jobs and greater social cohesion within the European Union, it has remained in relative terms, progressively under-funded in most parts of the Union. OECD studies show that European universities are seriously under-funded. A report by the World Bank on the *Hidden Challenges to Education Systems in Transition Economies* indicated that some national higher education frameworks are clearly inadequate in supporting sustainable economic growth, the expansion of knowledge-based professions and social cohesion.

Yet, everyone accepts that if the European system is to become a ‘world reference’, not only should efforts be made to increase effectiveness and enhance efficiency, the resource base of universities needs to be increased substantially

Funding structure and policies vary widely among Member States and even within the same Member State, from one region to another. Most Member States now realise the need for serious discussions and debates on how best to ensure adequate funding of universities. In some, these discussions have become a vexed subject and in others, highly politicised. Most Member States suffer from an under-investment in the development of human resources, which applies to education and training and to other areas that are important in the knowledge area. Public

¹ European Commission “More Research for Europe: towards 3% of GDP”, COM(2002) 499 of 11.9.2002

authorities have a key responsibility in addressing these funding deficits in order to deliver a substantial increase in total investment.

Everyone accepts that there is a clear need for increased investment in this area, but the recurring question is, *how should such increase be financed?* It leads inevitably to the question of how much of public money should be devoted to higher education bearing in mind the other priorities of the State and the need for fairness to all taxpayers.

Given the inherent constraints on availability of funds, most people agree that there is a need to diversify the sources of funding for universities, but the question of *how* best to do this remains contentious.

Four main sources account for the bulk of funds available to higher education. These are, public funding for research and teaching in general, including research contracts awarded on a competitive basis, private donations, selling of services, contributions from students in the form of fees.

Public sources are traditionally by far, the main source of external funding. Contributions from students as a source of funds are generally limited and, in a number of cases, prohibited in order to allow egalitarian access to higher education

Member States that have pushed for (or permitted) a transformation of the university - including a mission for wealth creation and the further expansion of higher education - have relied on increasing private contributions from students, employers and benefactors.

Community initiatives are available which offer support to universities in the area of research and education. Universities receive some of their funds for research from the EU framework programmes for technological research and development, and the support actions for research training and mobility under Marie Curie. Universities are also involved in certain of the actions pursued by the Community relating to technological innovation, and those of the SOCRATES programme, particularly the ERASMUS. The European Commission supports and helps to foster the Bologna process which is designed to create between now and 2010, a European higher education area which is consistent, compatible and competitive, through reforms which converge around certain defined objectives.

Objectives of the study

A number of issues stem from the above background information.

- The first relates to finding out exactly what the current situation is as regards the structure of higher education and the way in which its funding is ensured in each of the Member States of the European Union.
- The second is to have a comparative analysis of the situation in the EU with some other non-EU OECD countries as a way of assessing how the EU could benefit from experience of such other countries (if and where useful and positive experience do exist).
- The third relates to finding out success stories from the European countries on diversification of funding of higher education, examining initiatives which could be considered as being innovative and which have produced desirable results.
- The fourth is to see which success story (innovative mechanism which have yielded good results) could be transferred to other EU Member States or which could be recommended at the Community level.

In broad terms, the four pillars above sum up the general aim of the study. It is intended to provide an insight into the current situation, recent trends and promising innovations in the financing of higher education in Europe. It intends to make recommendations on how to diversify and increase university income by the European-wide adoption (or at least cross-national transfer) of successful national initiatives and local innovations. These are of particular interest in so far as they have led to increased absolute income, a greater diversity of income sources, increased effectiveness and efficiency of management, extra funding for excellence and international attractiveness, and improvement of student support.

Outline and methodology of the study

The study was conducted in three main stages. The first phase encompassed establishing and elaborating the analytical framework and setting the parameters for the study.

In the second phase, an intensive search for information both qualitative and quantitative was undertaken. The result was the compilation of sets of statistical data, descriptive and sometimes, analytical information covering all aspects of the subject.

In the third stage, all the information collected was carefully considered for relevance and quality. The integral parts of the information were analysed with the view to answering the questions articulated at the onset. Findings for the individual country situations were compiled and country reports prepared. The reports were verified by experts who have local knowledge of the individual countries, to ensure the validity of the findings.

Considering the extensive nature of the issue at the heart of the study, and considering the time-frame within which it had to be conducted, it was necessary that an intensive approach was adopted to ensure its timely completion.

As for input, the study made use of statistical information which currently exist in some databases (both private and public), in supporting the qualitative information acquired. No new surveys were conducted. Inevitably, considering that the basis and methodologies used by these various sources (which included extracts from some websites) often differ, a lot of attention was paid to carefully assessing the quality level, (comparability and compatibility as basis for determining the) appropriateness of each source to the project. Some conversion had to be made in a number of cases while in a few cases, the data obtained was of such doubtful nature that it could not be used. Needless to say that in a few countries, information of relevance to the study either did not exist, or where they did, the national authorities responsible for the databases did not, for one reason or another, provide them to us (through the European Commission) for the study.

Qualitative information was obtained from various sources and each source was checked for reliability and consistency. In addition a number of direct interviews were conducted covering key aspects of the study. Above all, information on each Member State was validated by an expert based within the educational system of the country or with first hand information on such system.

Annex 5 of the report contains full methodological notes to the study.

This report is structured into eight main chapters which are aimed to answer the questions posed at the onset, or to address the specific issues raised.

European Union's instruments and policies

The general principles and frame

The key guiding principles that underlie the European Union policies on higher education were articulated following the broad consultations of the European Commission on *“the role of the universities in the Europe of knowledge”*. The consultations had engaged all the stakeholders in the university community on the key issues of funding, the diversity of institutions in terms of functions and priorities, the setting up of centres of excellence, the attractiveness of careers, and work in networks. The resulting communication outlined a number of challenges that are faced by universities. These include:

1. Increased demand for higher education
2. Internalisation of education and research
3. Develop effective and close co-operation between universities and industry
4. Proliferation of places where knowledge is produced
5. Reorganisation of knowledge

It is clear that universities have to cater for new needs in education and training stemming from the knowledge-based economy and society. The contribution expected of universities to lifelong learning strategies leads them to gradually widen access to this area of tuition, to open up more to industry, improve student services, and diversify their range of training provision in terms of target groups, content and methods.

The resulting communication from the consultation also outlined three objectives that have to be taken onboard in order for universities to play a role in the creation of a Europe of knowledge. These are:

- Ensuring that European universities have **sufficient** and **sustainable resources** and use them **efficiently**
- Consolidating their **excellence in research** and in teaching, particularly through networking
- Opening up universities to a greater extent to the outside and increasing their **international attractiveness**.

Under-funding of European universities damages their capacity to maintain and attract the best talent, and to strengthen the excellence of their research and teaching activities. As rightly noted in the communication on *“Investing efficiently in education and training: an imperative for Europe”*, the main responsibilities of authorities is not only to continue to provide higher education institutions and students with a sufficient level of public funding but also to find ways to add to it by increasing and diversifying private investment in higher education. There is an increasing need to ensure that additional resources produce higher quality and relevance, lower failure and dropout rates, and enhanced social equity in access to higher education and its benefits. The detailed work programme on the objectives of education and training systems calls for investments in certain areas that have been identified as shared priorities of the Member States.

One of the investments it calls for is in the training and retention of education staff. Higher education needs to remain attractive to young researchers and mature talent, which is to be

achieved by building up bridges and mobility between universities, research laboratories and industry. Furthermore, identifying and eliminating inefficiencies in spending, will result in an increase in the return on investment at the Member State level. Sources of inefficiencies include higher than average failure and dropout rates, high graduate unemployment, excessively long degree courses. The recent communication from the European Commission on the Lisbon strategy², noted that there are no signs of any substantial increase in overall investment (be it public or private) in human resources. In particular, the European Union suffers from a level of private sector investment, which is too low in higher education and continuing training. Added to this, there is no evidence of any great headway being made in more effective use of available resources.

European Research Area

The European Council of Barcelona (March 2002) stressed the importance of research and innovation by setting the goal of increasing the level of expenditure in research and development to 3% of GDP by 2010. The co-ordination of European research has been initiated through the European Research Area (ERA) and related policy actions, such as the “benchmarking of national research policies”. The European Research Area is the broad heading for a range of linked policies that attempt to ensure consistency of European Research and facilitate the research policies of individual Member States in order to improve the efficiency of European research capabilities.

ERA was an initiative of the Commission in January 2000. It has since been endorsed by the Heads of State and Government, and is now the major research policy debate in Europe. Realising the ERA is a challenge for the EU, its Member States, and the research community. The main instrument of research for the EU is the Framework Programmes. The latest programme FP6 will channel its budget into actions and projects designed to build the ERA in partnership with Europe’s best researchers. Recently, the European Council of Thessalonki (European Council, 2003) asked the European Commission to launch an initiative in co-operation with the Investment Bank to support growth by increasing overall investment and private sector involvement in infrastructures and in research and development³.

Bologna process

On 19 June 1999, 29 European Ministers in charge of higher education signed in Bologna the Declaration on establishing the European Area of higher education by 2010 and promoting the European System of higher education worldwide. This area should facilitate mobility of people, transparency and recognition of qualification, quality and European dimension in higher education, attractiveness of European institutions for third country students. The Ministers affirmed in the Bologna Declaration their intention to:

- Adopt a system of easily readable and comparable degrees
- Adopt a system with two main cycles (undergraduate/graduate)
- Establish a system of credits (such as ECTS)
- Promote mobility by overcoming obstacles
- Promote European co-operation in quality assurance
- Promote European dimensions in higher education

² The success of the Lisbon strategy hinges on urgent reforms COM(2003) 685 final

³ European Council (2003) p.17

The key European Union instruments

European Union Framework programmes

On the research front, universities receive around one third of the funding under the EU framework programmes for technological research and development, and particularly the support actions for research training and mobility (Marie Curie actions).

Socrates

Socrates is the European programme for education. Its aim is to promote the European dimension and to improve the quality of education by encouraging cooperation between the participating countries. The programme sets out to develop a Europe of knowledge and thus better cater for the major challenges of this new century: to promote lifelong learning, to encourage access by everybody to education, to acquire qualifications and recognised skills. The first phase of the Socrates programme was for five years (1995-1999). The programme has been renewed and the second phase will run for seven years (2000-2006). Socrates has a budget of 1850 € million for the seven-year period. Socrates consists of eight actions, one of which is Erasmus. Erasmus contains a wide range of measures designed to support the European activities of higher education institutions and to promote the mobility and exchange of their teaching staff and students. While the promotion of 'physical mobility', mainly of students, constituted the main thrust of Erasmus Phase I and II, the higher education Chapter of Socrates seeks to integrate such mobility into a wider framework of cooperation activities which aim at developing a "European Dimension" within the entire range of a university's academic programmes. "Bringing students to Europe, bringing Europe to all students" is the new spirit of Erasmus: while student mobility retains a position of central importance within the programme, stronger incentives are now available to encourage universities to add a European perspective to the courses followed by students who do not participate directly in mobility. More emphasis is placed on teaching staff exchanges, transnational curriculum development and pan-European thematic networks. Wider dissemination of and participation in the results of this work are sought through specific support. Erasmus also encourages universities to associate other public and private bodies from their surrounding regions with their transnational cooperation activities, thereby enhancing opportunities for inter-regional cooperation between the participating countries.

Leonardo

The programme promotes transnational projects based on co-operation between the various players in vocational training - training bodies, vocational schools, universities, businesses, chambers of commerce, etc. - in an effort to increase mobility, to foster innovation and to improve the quality of training. The Leonardo da Vinci programme aims at helping people improve their skills throughout their lives.

Tempus

Tempus⁴ is the trans-European programme of cooperation in higher education, established in 1990 to respond to the needs for Higher Education reform in Central and Eastern European countries, following the fall of the Berlin Wall in 1989. Tempus is a Community aid scheme for the restructuring of higher education systems in these countries in order to adapt them to the

⁴ It is part of the programmes providing assistance for economic and social reform in the countries of central and eastern Europe (PHARE) and the republics of the former Soviet Union and Mongolia (TACIS)

requirements of a market economy. The Tempus programme encourages institutions in the EU Member States and the partner countries to engage in structured cooperation through the establishment of "consortia". The "consortia" implement Joint European Projects (JEPs) with a clear set of objectives. Such projects may receive financial aid for two or three years. Tempus also provides Individual Mobility Grants (IMGs) to individuals working in Higher Education institutions to help them work on certain specified activities in other countries. The Tempus Programme may also provide help for certain types of complementary actions. Institutions and organisations which may participate in Tempus range from Higher Education institutions through to non-academic institutions such as non-governmental organisations, business companies, industries and public authorities.

Erasmus Mundus

The Erasmus Mundus programme is a co-operation and mobility programme in the field of higher education. It aims to enhance quality in European higher education and to promote intercultural understanding through co-operation with third-countries. The Erasmus Mundus programme comprises four concrete actions:

- **Action 1** - Erasmus Mundus Masters Courses: They are high-quality integrated Masters Courses offered by a consortium of at least three universities in at least three different European countries. The courses must be "integrated" to be selected under Erasmus Mundus, which means that they must foresee a study period in at least two of the three universities and that it must lead to the award of a recognised double, multiple or joint diploma.
- **Action 2** - Erasmus Mundus scholarships: in order to give the Erasmus Mundus Masters Courses a strong external projection, a scholarship scheme for third-country graduate students and scholars from the whole world will be linked to them. This scholarship scheme addresses highly qualified individuals.
- **Action 3** - Partnerships: in order to encourage European universities to open themselves up to the world and to reinforce their world-wide presence, Erasmus Mundus Masters Courses will also have the possibility of establishing partnerships with third-country higher education institutions. These partnerships will allow for outgoing mobility for graduate EU students and scholars involved in the Erasmus Mundus Masters Courses.
- **Action 4** - Enhancing attractiveness: Erasmus Mundus will also support measures aimed at enhancing the attractiveness of and the interest in European higher education. It will support activities that will improve the profile, the visibility and the accessibility of European higher education as well as issues crucial to the internationalisation of higher education, such as the mutual recognition of qualifications with third-countries.

Jean Monnet Project "European Integration in University Studies"

The Jean Monnet Project "*European Integration in University Studies*" is a European Commission information project with the aim of facilitating the introduction of European integration studies⁵ in universities through start-up subsidies. The Jean Monnet Project targets disciplines in which Community developments are an increasingly important part of the subject studied, that is:

- Community Law

⁵ The construction of the European Community and its related institutional, legal, political, economic and social developments.

- European Economic Integration
- European Political Integration
- History of the European Construction Process

The Jean Monnet Project awards funds on a co-financing basis for a start-up period of three years, in exchange for a commitment on the part of the university to maintain the teaching activities created by the subsidy for a period of at least four years following the period of Community co-financing, that is a total period of seven years

EU/USA cooperation

An official agreement was reached in October 1995 to set up a cooperation programme between the European Community and the United States of America in the area of higher education and vocational training. This programme was renewed for the period 2001-2005. The programme aims at promoting understanding between the peoples of the European Community and the United States of America and improving the quality of their human resource development the programme supports innovative, multilateral, student-centred projects with the potential to stimulate substantive and long-lasting structural and transatlantic co-operation in higher education and vocational education and training. It may also support international education projects that give rise to new forms of cooperation between the United States and the European Community.

EU/Canada cooperation

An official agreement was signed in December 2000 providing for a cooperation programme between the European Union and Canada in the area of higher education and training. The aim is

- to promote closer understanding between the peoples of the EU and Canada, including broader knowledge of their languages, cultures and institutions.
- to improve the quality of human resource development in both the European Union and Canada, including acquisition of skills required to meet the challenges of the knowledge-based economy.

The programme supports innovative, multilateral, student-centred projects with the potential to stimulate substantive and long-lasting structural and transatlantic co-operation in higher education and vocational training.

The EU Member States' policies and instruments

All the twenty five Member States of the European Union have at one time or the other in the recent past, been faced with having to review their policies towards the issues of higher education, research, development and innovation. Each of them has taken new initiatives, introduced new instruments or revised old ones with the aim of ensuring that higher education is sufficiently funded and that funds are efficiently used.

The initiatives taken by the Member States vary both in their scope and objectives. The need to review (and in some cases to restructure or reform) the financing modalities became more important and pressing with the passage of time.

Chapter 4 of this report presents detailed listing of the policy initiatives taken by the various Member States.

Chapter

2

Trends in funding of higher education in the European Union

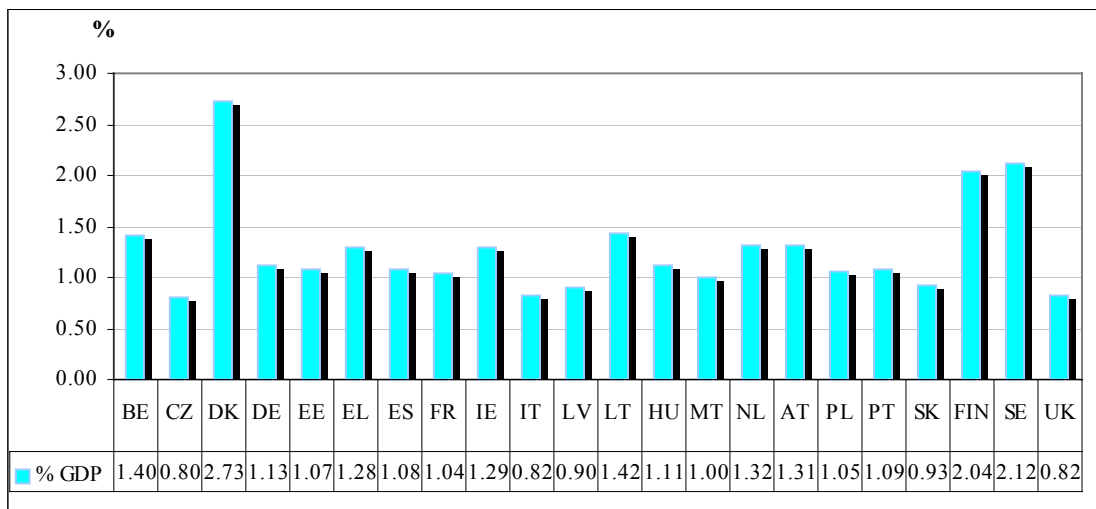
Trends in funding of higher education in the European Union

Introduction

Overview of resources devoted to higher education

Public resources devoted to higher education, as a percentage of GDP in 2001 for the EU-15 was 1%. Taking into account the new Member States, the figure for EU-25 remains the same at 1% of GDP. The public resources devoted to higher education as a percentage of GDP vary considerably between Member States from 0.8% in the Czech Republic to 2.73 % in Denmark. The Scandinavian countries (Denmark, Finland, and Sweden) devote the biggest share of public resources to higher education, compared with the other Member States, with more than 2 % of GDP being devoted to higher education. Figure 1, shows the total public resources devoted to higher education in the EU as a percentage of Gross Domestic Product (GDP). Total public resources devoted to higher education include both governmental transfers to higher education institutions and student supports and loans.

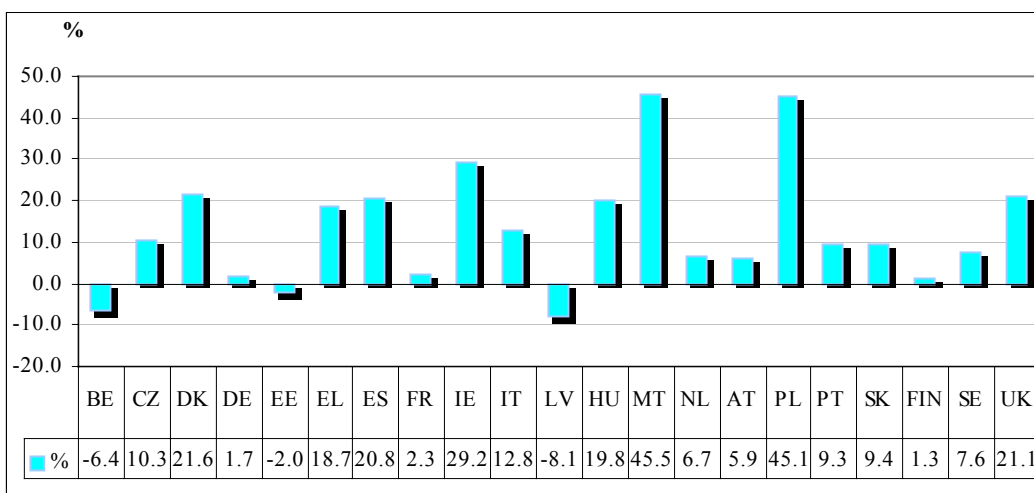
Figure 1: Public expenditure on higher education (ISCED levels 5/6) in 2001 as a % of GDP.



Source: Eurostat UOE data collection

Over the period 1999 to 2001, some Member States witnessed substantial growth rates in the national public resources devoted to higher education institutions. Over the same period, higher education institutions in several Member States (e.g. Belgium, Estonia, and Latvia) saw a reduction in their income from public sources.

Figure 2: Change in national public resources devoted to HEIs from 1999 to 2001 (1995 constant PPS)

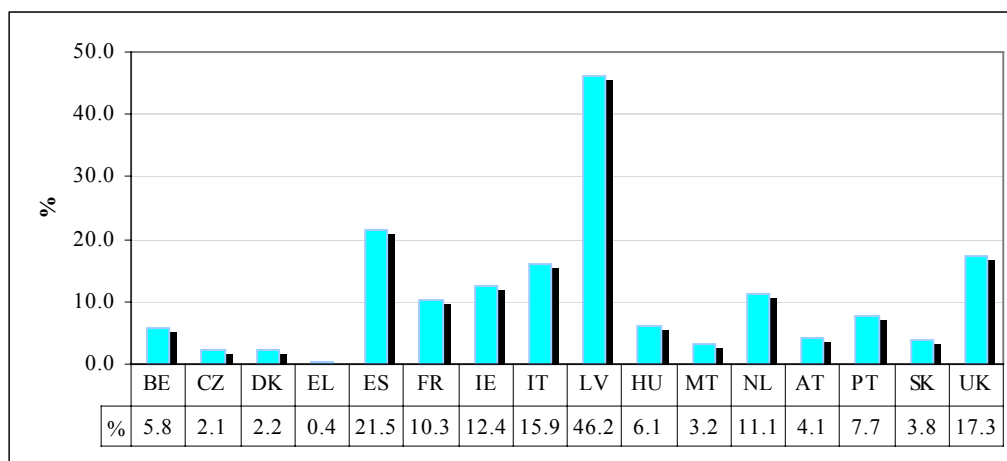


Source: Eurostat UOE data collection

Contributions of households to higher education institutions

Fees paid to HEIs by households consist of tuition fees and other fees charged for educational services (such as registration fees, laboratory fees, and any charges for teaching materials). It also consists of fees paid for lodging, meals, health services and other welfare services provided by HEIs to students. Figure 3 shows the proportion of total income of HEIs that was attributed to income from households.

Figure 3: Payments by households to higher education institutions as a percentage of total income received in 2001



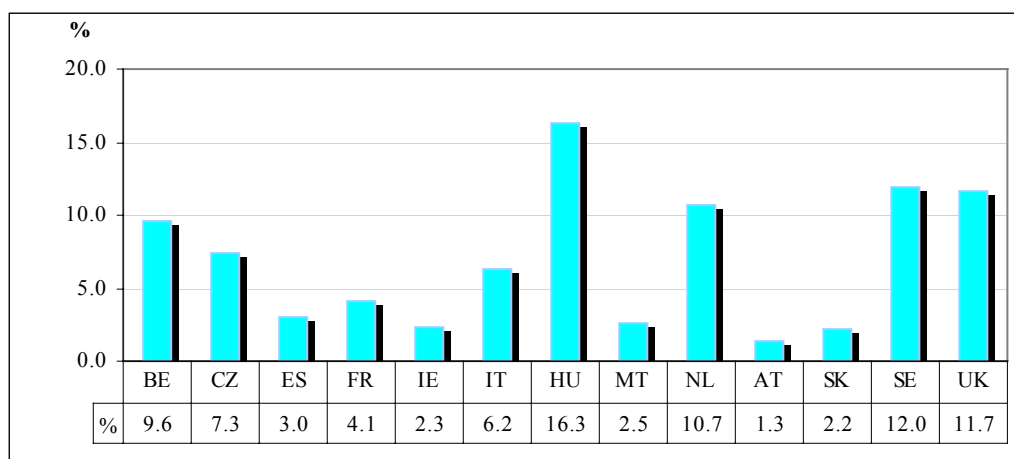
Source: Eurostat UOE data collection

In Latvia, the income derived from household's accounts for 46.2% of total income of higher education institutions. Owing to the scarcity of budget resources and an increasing number of candidates, tuition fees are charged to students who pass entrance examinations but fail to be admitted on state-financed places. The resulting situation is that in public higher educational institutions there are both state-supported and fee-paying students. In Greece, income from households only accounts for 0.4% of the total income of HEIs. In general, income from households is dependent on the higher educational system of a country.

Contributions of the private sector to the higher education institutions

The share of income from private entities as a share of total income of HEIs varied from 1.3% in Austria to 16.3% in Hungary. Income from private entities includes payments by private companies to universities under contract for research, training and other services, grants to educational institutions from non-profit organisations, donations, rents paid by private organisations.

Figure 4: Income from private entities to higher education institutions as a percentage of total income received in 2001



Source: Eurostat UOE data collection

Role of regions and local authorities in the financing of higher education

Based on the analysis of information obtained from the UOE data collection, the twenty five Member States can be grouped into three categories, according to the role regions play in higher education:

- I. Those for which the regions have no role to play
- II. Those for which the regions have a major role
- III. Those for which the regions have a minor role

The table below shows the three groups.

Table 1: Classification of Member States by role the regions play in financing higher education institutions

Category I No role	Category II Major role	Category III Minor role
Ireland	Belgium	Denmark
Netherlands	Germany	Greece
Finland	Spain	France
United Kingdom		Italy
Estonia		Austria
Latvia		Sweden
Lithuania		Czech Republic
Hungary		Poland
Malta		
Slovak Republic		

Table 2, shows the proportion of public expenditure on higher education institutions broken down by central, regional and local government. It is apparent that in a number of Member States, regional government has an important role to play in the financing of higher education institutions.

Local governments appear not to be so important in the financing of higher education institutions as regional governments. This is shown by the fact that the total income derived from local authorities is very small. The exception is Finland, where income from local authorities accounts for 26.8% of total public income. (The share of total resources devoted to higher education institutions from local government varies from 0.1% in Austria to 26.8% in Finland.)

Table 2: Proportion of public expenditure devoted to higher education institutions by central, regional, and local governments in 2001

Member State	Central	Regional	Local
Austria	99.3	0.6	0.1
Belgium	10.4	88.5	1.1
Czech Republic	95.6	1.8	2.5
Germany	9.0	88.9	2.1
Denmark	93.6	2.1	4.4
Estonia	99.3	0.0	0.7
Greece	99.4	0.6	0.0
Spain	8.6	90.0	1.4
Finland	73.2	0.0	26.8
France	90.7	5.5	3.9
Hungary	99.3	0.0	0.7
Ireland	99.7	0.0	0.3
Italy	93.8	5.8	0.4
Latvia	99.4	0.0	0.6
Lithuania	100	0.0	0.0
Malta	100	0.0	0.0
The Netherlands	100	0.0	0.0
Poland	98.3	1.3	0.4
Portugal	100	0.0	0.0
Sweden	93.0	7.0	0.0
Slovak Republic	100	0.0	0.0
United Kingdom	100	0.0	0.0

Source: Eurostat UOE data collection

It is also important to consider what role local authorities play in providing grants and loans to students. Table 3, shows the breakdown of public expenditure on scholarships and grants, by type of source as a proportion of total expenditure on student aids¹. It highlights the diversity in public responsibilities regarding student aids between Member States. For the majority of Member States, local authorities play no role in the provision of scholarships and grants to students. In the UK it is the local authorities that are the major player in the provision of grants to students, and in Ireland 77.9% of all public expenditure on student grants and scholarships comes from local authorities.

¹ excluding loans

Table 3: Breakdown of public expenditure on scholarships and grants as a proportion of total expenditure on student aids in 2001

Member State	Central	Regional	Local
Austria	99.5	0.5	0
Belgium	89.7	10.3	0
Czech Republic	85	0	15
Germany	32.1	58.9	9.0
Denmark	78.6	0.1	21.3
Estonia	100	0	0
Greece	100	0	0
Spain	95.6	4.4	0
Finland	100	0	0
France	100	0	0
Hungary	100	0	0
Ireland	22.1	0	77.9
Italy	64	36	0
Latvia	100	0	0
Lithuania	100	0	0
Malta	100	0	0
The Netherlands	100	0	0
Poland	98.7	0.6	0.7
Portugal	100	0	0
Sweden	100	0	0
Slovak Republic	100	0	0
United Kingdom	0	0	100

Source: Eurostat UOE data collection

It is important to note that even though regional and local authorities may either play no role or a minor in the financing of higher education, they may still extol some important powers on higher education institutions. For example in France, local authorities are represented on university governing boards. They are involved in and consulted on all decisions on setting up and renovating institutions located on their territory, and on the defining of the courses organised in universities pursuant to national policy, designed to adapt studies to jobs and inter-regional balances.

Furthermore, at the regional level in France, the académie, which is directed by the recteur, has many powers, including being represented on the governing boards of higher education institutions, power to ask the administrative courts to cancel decisions taken by the authorities of institutions where these decisions seem to be illegal. In addition, in each académie, the recteur is the chairman and representative of the chancellerie, which is responsible for managing the property with which some institutions entrust it. The recteur is the official in charge of the revenues and expenditure of the Chancellery. University investment projects are examined and assessed by the rectorat and are then subsequently submitted to the Ministry, which takes the final decision.

In Finland, municipalities or federation of municipalities mainly maintain polytechnics. Both the State and local authorities share the costs of funding polytechnics. Of the basic funding, the State's contribution accounts for 57 per cent and that of local authorities for 43 per cent. The funding is based on degree-specific unit prices determined per student. A licence to operate a polytechnic can be granted to a local authority, municipal federation or registered Finnish foundation or

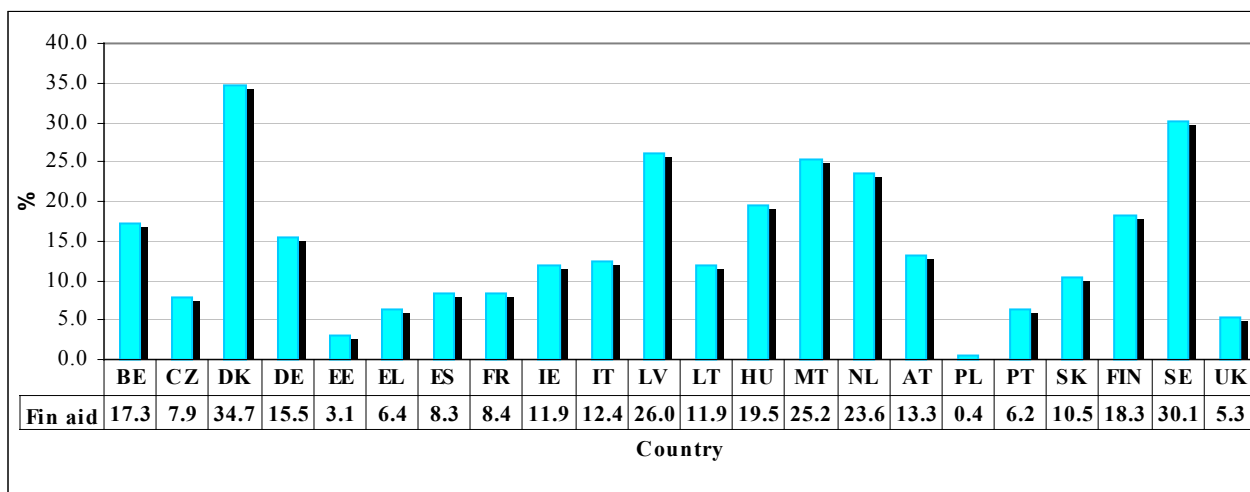
association. Upon entry into force of the new Polytechnics Act on 1 August 1998, polytechnics gained autonomy for their internal affairs. The administration of the maintaining bodies (municipalities, municipal federations, registered Finnish companies or foundations) decides on the central operational and economic issues as well as the strategies. Table 2, gives an overview of the role regions and local authorities play in the financing of higher education.

Financial aid to students

Financial aid to students refers to the transfers paid by the public sector to students in the form of student grants and loans which are both contingent on student status. Public resources devoted to the support of students during the period of their studies varies between countries, and is undoubtedly due to the difference in the higher education systems between the Member State

In 2001, an average of 13.8% of total public expenditure on higher education for the EU-15 was devoted to financial aid for students. When combined with the ten new countries that joined the EU in May 2004, the average drops very slightly to 13.3% for the same year. Denmark devotes a sizeable portion of its higher education resources to providing financial aid to students. National perceptions of the role of the student in financing their own higher education will also have an important bearing on the amount of financial support that they are given. The principle underlying higher education in the Scandinavian countries is that higher education should be free. Whereas, in the UK, reforms in the higher education system since 1998 have moved towards making students contribute to their own education, with the introduction of tuition fees.

Figure 5: Total financial aid to students as a percentage of total public expenditure on higher education in 2001.



Source : Eurostat UOE data collection

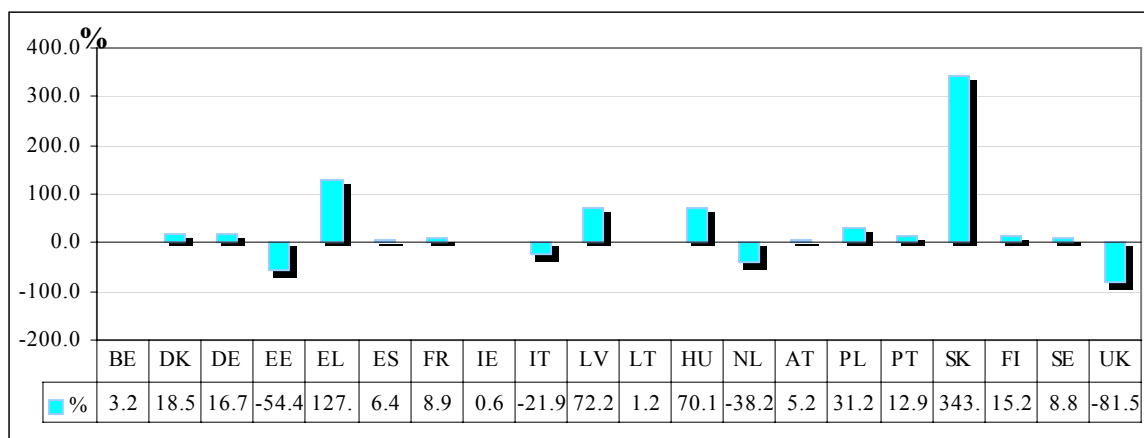
It is important to note that variations between Member States in the administrative structures of student support make it difficult to compare one with another on the basis of the data presented in figure 5. For example, in a number of Member States the burden of providing support to students falls upon regional or local authorities. This is the case in the Belgium, Germany and, Spain. In contrast, in Poland HEIs are responsible for the management of and distribution of grants to students. The Polish state also provides additional support to students in the form of credits and loans.

Explanatory note:

The data given in figure 5, only refer to direct public assistance to students in the form of grants, scholarships etc. It does not take into account other forms of assistance, for example transport subsidies, tax reductions etc.

Expenditure on student loans is reported on a gross basis without subtracting or netting out repayments or interest payments from the borrowers (students or households). In order to assess the net cost of student loans, interest payments and repayments of the principal by the borrowers and the lenders would have to be taken into account. No internationally comparable method is currently available for the calculation of the net costs of student loan programmes.

Figure 6: Percentage change over the period 1999-2001 in the public resources devoted to scholarships and grants for students



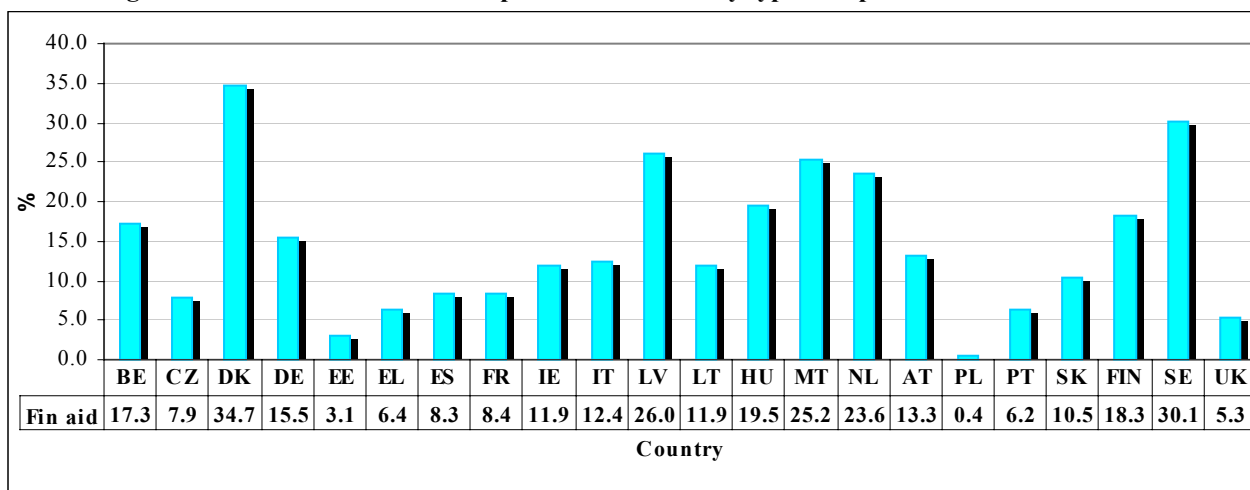
Source: Eurostat UOE data collection

Over the period 1999-2001, a number of countries saw a reduction in the public resources devoted to scholarships and grants to students. The 82% reduction in public resources devoted to financial support for students in the UK can be explained by a number of reforms in the higher education system, including the imposition of tuition fees for students.

Expenditure of higher education institutions

Spending on personnel in higher education institutions accounts for a sizeable proportion of the current expenditure in all Member States. This accounts for, from 56.3% in the Slovak Republic to 82.3% in Latvia of total current expenditure. (By *current expenditure* is meant spending on goods and services consumed within just the current year, i.e., expenditure that needs to be made recurrently in order to sustain the production of educational services.) Figure 7, shows the breakdown of current expenditure into personnel and other costs.

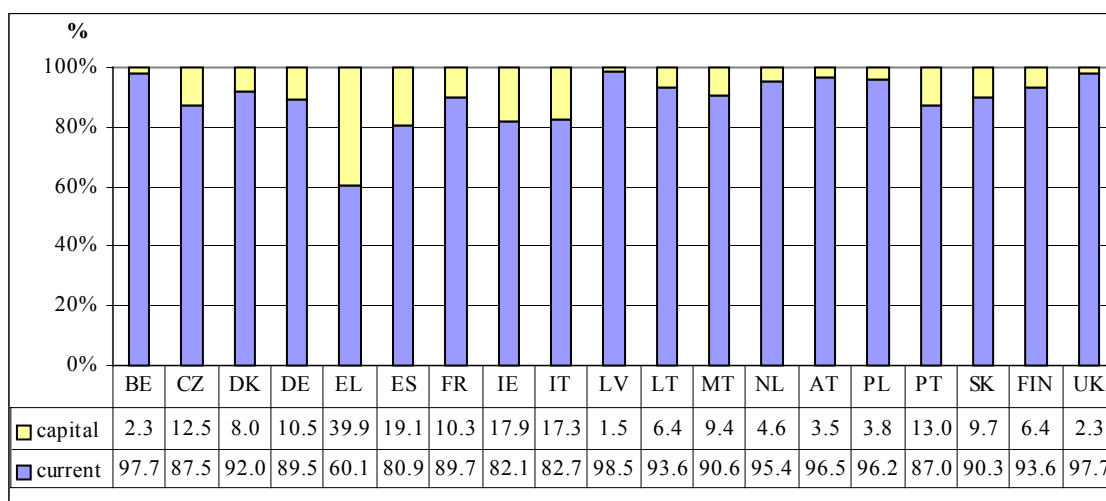
Figure 7: Breakdown of current expenditure in HEIs by type of expenditure in 2001



Source: Eurostat UOE data collection

In most Member States, capital expenditure accounts for a small portion of the total spending on higher education institutions. Nevertheless, in 2001, this accounted for as much as 39% for Greece. (*Capital expenditure* is spending on assets that last longer than one year. This includes spending on construction, renovation and major repair of buildings and expenditure on new or replacement equipment.)

Figure 8: Proportions of current and capital expenditure of the total expenditure of HEIs



Source: Eurostat UOE data collection

Highlights of trends in the EU member states

Overview of the situation in the EU-15

To fully understand the current situation regarding the funding of higher education in any of the pre-may 2004 fifteen Member States of the European union, there is a need to carefully trace back some historical landmarks in education and education policies of each of these countries. It is also important to understand the basic and underlying socio-economic concepts and frames within which *higher education* falls. Without this, it would be difficult to fully appreciate why in some countries, *higher education* is provided for free while in some others, it is treated as a consumer service that has to be paid for by those who benefit from it.

The development of universities and other higher education establishments has followed different patterns in different countries, and has largely responded to the needs as foreseen by the planners (as at the particular point in time). In all the countries, a number of instruments, some of which are common to others, have been used to regulate the issue of higher education. One typical example is the 1992 *Higher Education Act* (in Sweden), which is as far reaching in its effect (but within a different *environment*) as the *General Act of Education 1970* of Spain. The central theme in every single case has been *the need to reform*. Each initiative has started with the recognition of the fact that the status quo could not continue into the future.

Two issues which come up in all countries, (albeit, to varying degrees) are autonomy of individual institutions as regards budget management and the autonomy of individuals and market forces to dictate the demand and supply of subject areas of higher education. As regards the first, the degree of the role of the state, the region, local and private authorities in funding higher education tend to influence the level of autonomy granted to the individual institutions to manage their budgets.

As regards the second issue, our findings seem to suggest that in countries where higher education is free, the state has less power in influencing the choice of study subjects made by students. On the contrary, in countries where tuition fees are charged, the state has more leverage in influencing the choice of subjects to a greater degree. This tends to be done by using tools such as bursaries, scholarships, free loans etc. to entice students to study in fields which would otherwise not have been of interest. (One good example is the so-called *Golden-Hellos* in the UK).

Our in-depth review of the different countries reveals that the issue of financing of higher education is a fairly sensitive one especially in those countries where the right to free education at all levels is entrenched in the constitution. Nevertheless, even in these countries, debates on this issue have in the last ten years ceased to be treated as a taboo. Budgetary realities and the evolving needs for rapid development and diversification of skills (necessitated by external factors such as globalisation, the open single EU internal market, the shift towards ICT-literate work-force) have shown that a fundamental rethink is needed in some countries.

Overview of the situation in the new Member States

The fall of the iron curtain in Eastern Europe, which followed the political events at the end of the 1980s, was a significant milestone in relation to reviewing of higher education in the countries of

the former Soviet bloc². These countries undertook radical economic reforms moving away from command to market economies. Education (including higher education) was an important aspect of the socio-economic environment that underwent and in some countries is still undergoing radical reforms.

Like in the case of the EU-15 Member States, (and even more so), to fully understand the current situation regarding the funding of higher education in any of the ten new Member States, there is a need to carefully trace back some historical landmarks in education and education policies of each country. Considering the recent past events in eight of these countries, understanding the current state requires analysing the basic and underlying socio-economic concepts and frames within which *higher education* falls.

Three fairly different periods of development could very easily be identified for the countries. The first is the period up to mid-1940s. During this period, the development of higher education and its related policy-making were no different from those in the western European countries. Autonomy for funding and academic independence existed in a several countries to varying degrees.

The second period was between the mid-1940s and the end of the 1980s. During this time, the shift was towards developing higher education on the principle of a unified state education. In the Slovak Republic for example, the Higher Education Act of 1950 followed the Soviet model of planning and control of higher education institutions. Its aim was to *“educate professionally and politically skilled specialists, loyal to the People’s Democratic Republic and devoted to the idea of socialism.”* The second common characteristic of the system during this period (in addition to control) was that funding was centralised and education was free.

The third period is from the end of the 1980s to date. Some of the higher education reforms that were adopted in these former Soviet bloc countries after 1990 could be likened to a big bang in education, as they were a complete inversion of what had, since 1945 been the status quo. The most striking example of this is that after the fall of the iron curtain, universities were given institutional autonomy, and in some countries this included a large degree of independence from state administration.

Two new Member States – Malta and Cyprus, not having gone through the Soviet era control system have developed their policies on higher education and its financing very much along the same line as countries of the EU-15.

The country reports

This chapter highlights, country by country, the historical development of the issue of higher education, the financing structure, some recent developments and general trends, as well as key characteristics of the funding structure. Some analyses are made based on available quantitative information to underline the trends in key aspects of the system. In a few cases, quantitative information is unavailable or of unreliable quality level to conduct such analysis.

² Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovak Republic.

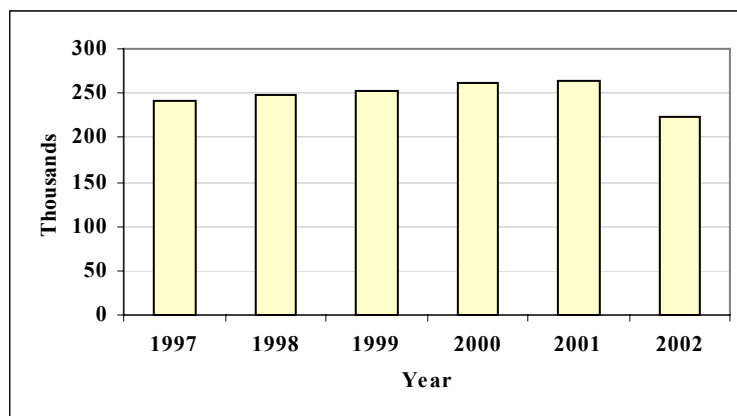
Austria

Historical development of higher education

The University of Vienna was founded in 1365, by Count Rudolf IV of Austria. The Vienna University was able to retain a large degree of autonomy from the reigning princes and the church. Four universities existed in the 17th and 18th centuries and were all subject to the influence of the church. They had no independence in organisation or teaching, and therefore were excluded from the developments of modern-day scientific research. During the reigns of Empress Maria Theresa and her son Joseph II, higher education was reformed. Universities were reorganised and transformed into state institutions. In the early 19th century early forms of the present day Technical Universities in Vienna, Graz and Leoben developed. The revolution of 1848 granted universities a certain degree of self-governance. The second half of the 19th century saw the creation and expansion of specialist and technical universities. In its external structure, the system of higher education, which evolved in the 19th century, has remained largely unchanged up to the present day. After the fall of the monarchy, the Republic ran Austria's universities and higher-education establishments as state institutions. Up to 1955, Austria's universities were governed by a multitude of complex university acts dating from the 19th century. The 1955 University Organisation Act was the first legislative framework to apply to all science universities and institutions of higher education, without introducing any major reforms to the organisational set-up. New universities were set up in the 1960s.

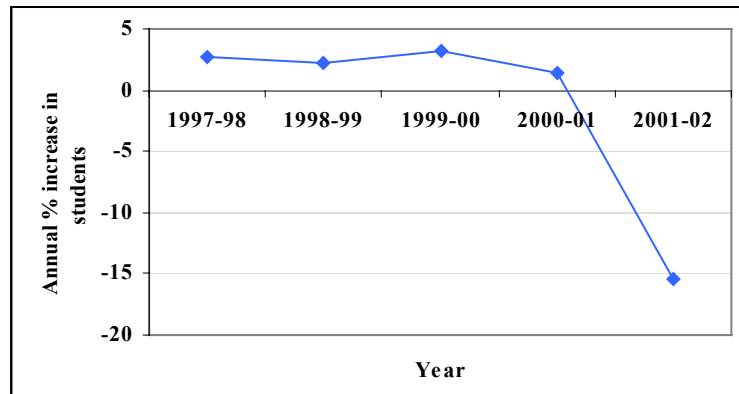
During the period 1997-2001, the number of students increased by 10% (see Figure 9). However, the period 1999-2002 saw a significant decrease of 16% in the number over students in higher education. It should be noted that for during 1997-2001, the annual increases in the number of students was relatively stable, averaging 2.4%. It is probable that the introduction of tuition fees in the autumn of 2001 may have contributed to this reduction in students in 2002. In consequence, over the period 1997-2002, there was a 7% decrease in the number of students in higher education (see Figure 10).

Figure 9: Number of students in higher education (ISCED 5/6)



Source: Eurostat

Figure 10: Annual percentage increase in the number of students (ISCED 5/6)



Source: Eurostat

Education policy

The federal government gave up its teaching monopoly at the tertiary level by the establishment of the *Fachhochschulen* sector. Together with the new University Organisation Act of 1993, including the amendments of 1997 and 2001, the University Study Act of 1997, and the new University act 2002, these are the most important developments in higher education in the past decade in Austria. These developments have had a substantial impact on the division of responsibility over higher education through the transfer of authority to the institutions and intermediary bodies. Since 1 January 2004, Universities are autonomous public institutions. University personnel are no longer employed by the state but are incorporated into an employment agreement with the university. These measures have as an objective to increase the flexibility and mobility and therewith the competitiveness of the university. Recruitment for all posts has to be public and for professors even international. Universities will be allowed to take up loans and establish firms. With the new law, the government wants to strengthen competition between universities, through which the efficiency and quality of the universities has to be enhanced. In terms of financing, the practice of the Federal Ministry of individually allocating resources directly to the applying organisational units of the university has been replaced by a procedure of university budgeting that provides for global budgets. The budget proposal of the university includes a global budget and, in addition, a variable budget depending on changes in the services offered. Major investments are funded separately. The distribution of the actually allocated permanent posts and funds within the university is the responsibility of the rector and within each faculty of the dean.

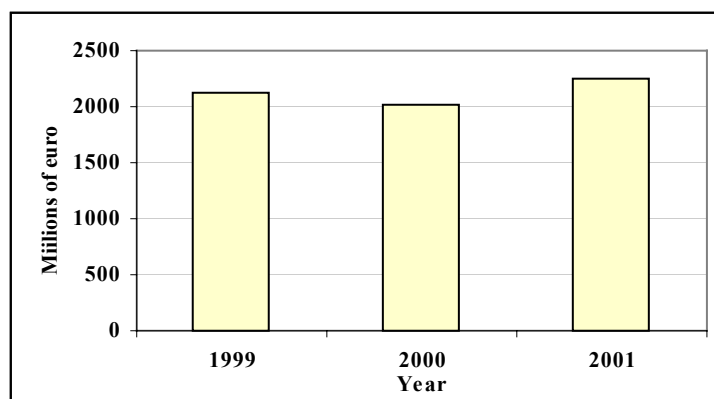
Fachhochschulen are a recent development in the Austrian higher education system. The first programmes in this sector started in 1994. The Fachhochschule policy placed considerable power in the hands of a body and institutions that were not part of the central administration. Furthermore, powers were devolved to accredit courses to an academic, not a governmental, political or politically dominated body. Thus, fachhochschulen broke with the tradition of Parliamentary control for courses and curricula as is the case with universities. Fachhochschulen have more autonomy than universities. They are responsible for their own affairs and finance;

universities, even after recent reforms, do not have such powers. The Fachhochschule sector is primarily financed by public resources, but differs fundamentally from the financing of educational establishments of the federal government. The Development and Financing Plan for the Fachhochschule sector contains the criteria for the allocation and the amount of a federal subsidy and the development of the sector. The federal government grants a subsidy per study place and academic year. Investments have to be borne by the provider. The aim is to stimulate corporations and industry to invest in education, to take advantage of available resources and to increase the involvement of those institutions which have a demand for certain types of programmes and graduates. The criteria for federal subsidies focus on the completion in terms of content and structural adjustments of the post-secondary educational system, a regionally balanced higher education offer and improved access for new until now disadvantaged target groups.

In 1999, foreign universities as well as private Austrian institutions were entitled by law to act as universities and to offer study programmes in Austria. The University Accreditation Act regulated the criteria for educational institutions and the procedure to be accredited as a private university. Students at private universities were incorporated into the system of study grants and transfer payments and into the Austrian National Union of Students. Public financial contributions are only available within the framework of particular governmental teaching and research schemes

From 2004 on, the funding of universities will be based on three-years performance contracts. Each university has to negotiate with the federal government for its budget. Part of the budget may be reduced if the university does not live up to the contract. Public income of higher education increased by 6% from 1999 to 2001 (see Figure 11). However the period 1999-2000 saw a 5% decrease in the income from public sources.

Figure 11: Public income of higher education institutions (1995 constant prices)



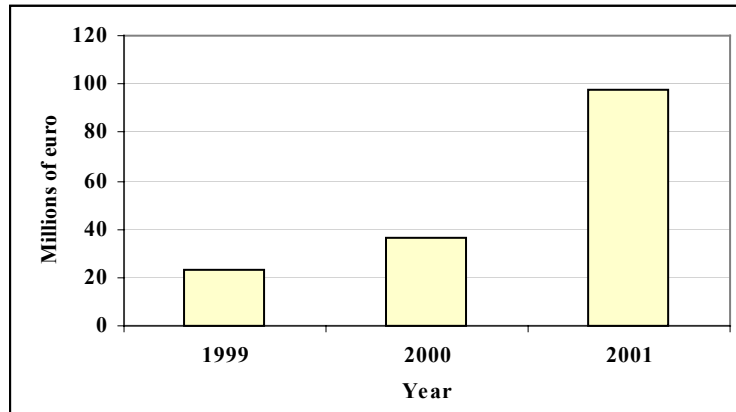
Source: Eurostat UOE data collection

Contributions from students

Before 2000, university students had free access to the universities. As from autumn 2001 students of both universities and *Fachhochschulen* have to pay 363 Euros for every semester. Students from outside the EU, the EEA or Switzerland have to pay 726 Euros per semester. Income of higher education institutions from households increased by 323% from 1999 to 2001 (see Figure 12). In

1999, the share of the total income of higher education institutions coming from households was 1%. However in 2001, the share of total income coming from households rose to 4%.

Figure 12: Income of higher education institutions from households (1995 constant prices)

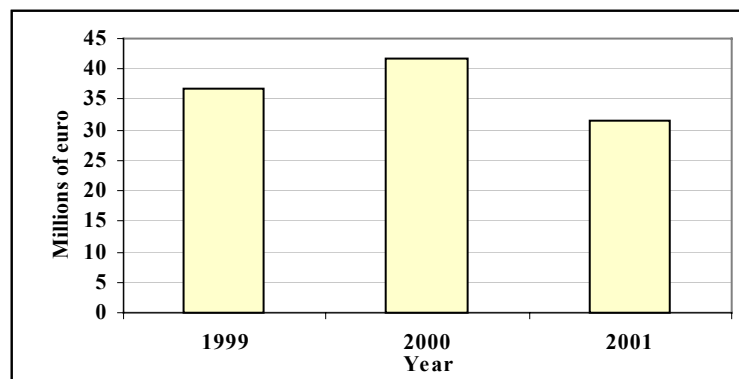


Source: Eurostat UOE data collection

Contributions from the private sector

From 1999 to 2001, income from the private sector, (excluding households) decreased by 14% (see Figure 13).

Figure 13: Income of higher education institutions from other private entities (1995 constant prices)



Source: Eurostat UOE data collection

Student support

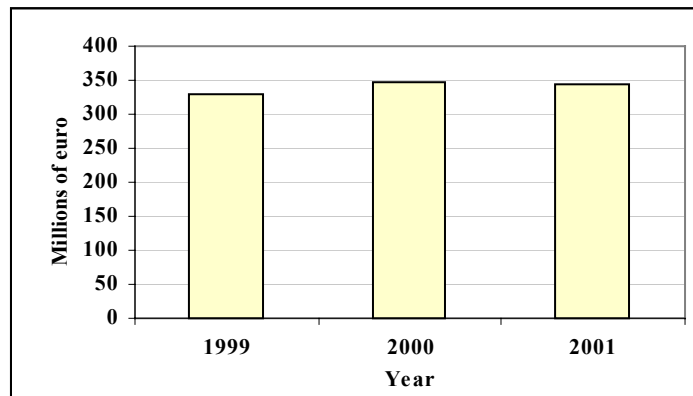
The most important reform measures with regard to study assistance since 1990 are as follows:

- The 1999 amendment to the Study Support Act of 1992 and to the Act to compensate the burden of families. The requirements for the claim of a study grant, family allowance, tax credits and health insurance have been harmonised to an extent. The amount of the study grant is calculated from the family allowance and the tax credits for children. A successful academic record is a condition for receipt of supports. Another prerequisite for study grants is social need.
- The necessity for adjustments in view of a new legal framework mainly resulted from structural changes in the tertiary educational sector, particularly the introduction of Fachhochschule programmes, and from the university studies act of 1997.

- By increasing the maximum study grant, adjustments to the income development and the expansion of the number of recipients of study grants could be achieved.
- Students in special situations of study: The study support system is oriented to "typical" students, but the group of students under atypical conditions is growing: older and working students as well as students with children. The conditions for students with own children have now been improved in several reform steps. A grant for the completion of studies was introduced for working students as of the summer term 1999 to enable students after a longer period of employment to complete their studies without any professional burden.
- Promotion of internationalisation: since 1992 it is possible to receive a study grant during four terms of studies abroad (previously: two terms). In 1999 additional improvements of international studies were made by extending the receipt of a subsidy to study abroad (in addition to the study grant) to a maximum of 20 months and by introducing the traveling allowance and language scholarships.
- Student hostels are operated by supporting organisations. The building activity of student hostels is supported by the Department of Education. Based on demand assessments at the beginning of the 90s the federal government adopted a 10-year programme for the establishment of additional 7.000 places. The number of places in student hostels has actually risen from approx. 18.300 in 1990/91 to approx. 25.000 in the year 1999/2000, in other words the programme can be regarded as fulfilled. Another key area is the refurbishment and quality improvement of existing student hostels.

From 1999 to 2001, public expenditure on scholarships and grants to students increased by 5% (see Figure 14).

Figure 14: Public expenditure on scholarships and grants (1995 constant prices)



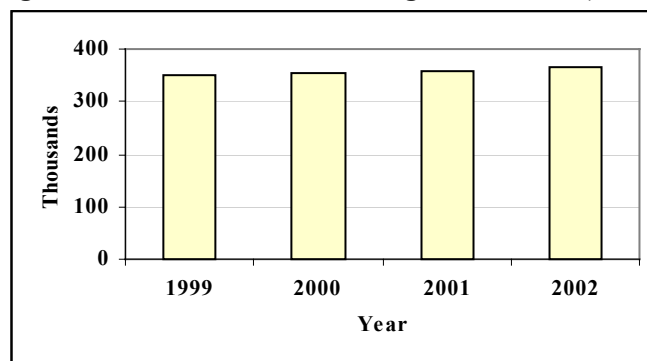
Source: Eurostat UOE data collection

Belgium

Historical development of higher education

When Belgium became independent in 1830, university education was provided in two State universities in Liège and Ghent, and by the Université Catholique de Louvain and the Université Libre de Bruxelles. The Law of 1835 on higher education acknowledged two free universities (Leuven and Brussels) and two state universities (Ghent and Liège). The state university of Leuven was abolished and the Catholic University of Mechelen moved to Leuven to continue the old University of Leuven, which was founded in 1425. All these universities were French-speaking, as was the language of the public to which the universities were aimed: the upper classes and the nobility. Originally, the university prepared students for the professions of engineer, medical doctor, lawyer, and historian, etc. The sciences did not flourish until later. It was not until the 1860s that the first independent research laboratories and departments were created in the four universities. Expansion intensified in the last quarter of the 19th century when the captains of industry in Belgium, which was at the time the world's fourth industrial power needed more high-calibre management staff. Technical tertiary-education colleges emerged in the coal-mining and metal-industry regions. The first tertiary education business schools were created at the turn of the century. In 1930, the University of Ghent became totally Dutch speaking, whilst the universities of Leuven and Brussels provided courses in Dutch later. The unitarian universities of Leuven and Brussels were split into Dutch-speaking and French-speaking autonomous universities in 1968. Figure 15, shows the there was a just over a 4 % increase in the number of students in higher education.

Figure 15: Number of students in higher education (ISCED 5/6)

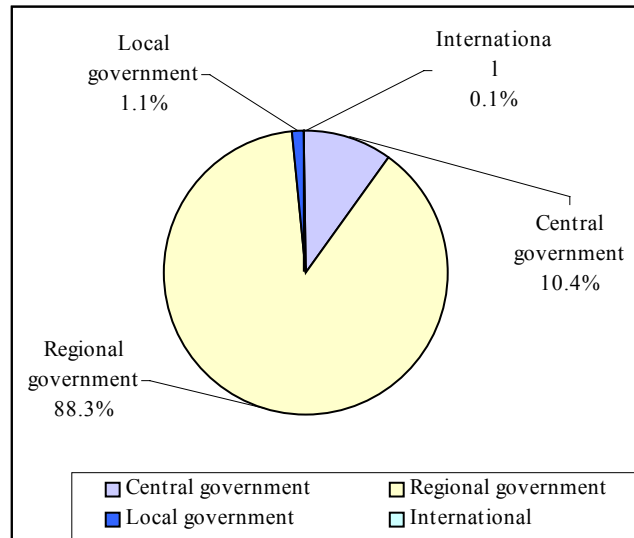


Source: Eurostat

Financing of higher education institutions

By far the most important source of public income in higher education institutions is regional government. In 2001, regional government accounted for 88.3% of the total public income of higher education institutions. The other public sources only account for a small proportion of the total income (see Figure 16).

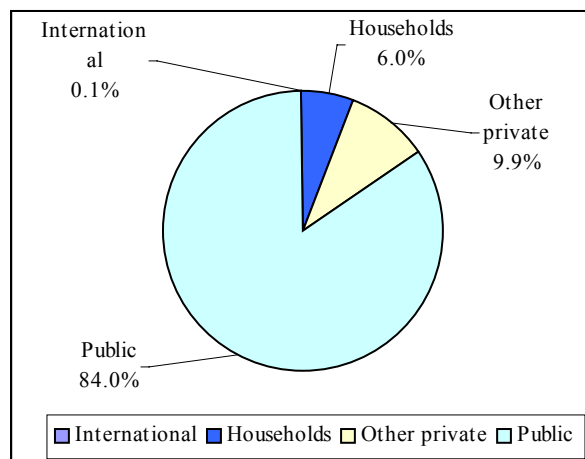
Figure 16: Income of HEIs in 2001, by source of funds as a percentage of total public income



Source: Eurostat UOE data collection

The most important source of financing of higher education institutions is public sources. Income from households only account for 6% of the total income, whilst other private entities account for 9.9% of the total income (see Figure 17).

Figure 17: Income of HEIs in 2001, by source of funds as a percentage of total income

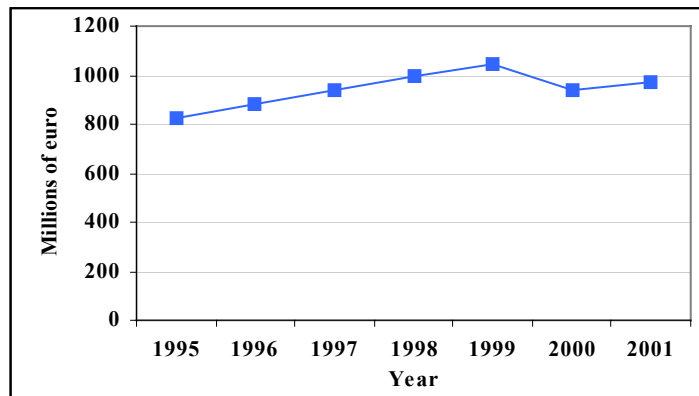


Source: Eurostat UOE data collection

Expenditure of the higher education sector on R&D

Higher education institutions have increased their real expenditure on research and development by just over 17 % from 1995 to 2001. It should be noted that over the period 1995 to 1999, expenditure on R&D increased by 25%, then decreasing by 10%, before increasing again in 2001 (see Figure 18).

Figure 18: Expenditure of the higher education sector on R&D (1995 constant prices)



Source: Eurostat

French Community

Educational policy

An important decree, which reorganised non-university tertiary education into Hautes Écoles programmes, was passed on August 5, 1995. It became effective with the start of the 1996-1997 school year. Among the principle modifications to the structure of non-university tertiary education was a considerable increase in the autonomy of tertiary education schools and the expansion of their function beyond initial training, and implementing a structure to enable students to participate in the administration of Hautes Écoles. The reform was designed to control tertiary education costs and to rationalise the education being offered. The final objective was to improve quality consistent with the movement that was already well under way abroad. Another decree, which became partially effective with the start of the 1995-1996 school year, ordained increased autonomy for universities, in particular, as regards programme organisation and curricula content. It also eliminated the erstwhile distinction between legal and scientific degrees by establishing a single category of academic degrees. Entrance requirements for tertiary education were also reviewed during this period. Students who had experienced successive failures could henceforth no longer be subsidised.

The reforms implemented since 1989 in the French Community were designed to encourage the academic authorities of the university institutions and the organising authorities of other higher education institutions to undertake inter-institutional (and intra-institutional) dialogue and cooperation when defining new course options and/or sections in order to reduce salaries and operating costs. The same applied where the disciplines concerned (for example, geology or

speech therapy) required considerable staffing, and sometimes equipment, for a small number of students. This desire was expressed within the context of interim framework decrees aimed at the entire education sector up to 1994 and then by organic decrees through which the Government and the Council (Parliament) of the French Community, with the full agreement of the academic authorities and the local authorities, defined the new structures, planning standards and funding mechanisms.

The decree of December 1991 granted universities full ownership of their buildings. The decrees of 5 August 1995 and 9 September 1996 gave Hautes écoles autonomy. However, their autonomy is not as extensive as that of universities, since funding is strictly determined by decrees and regulations. In addition, staffing regulations are very specific and restrictive, students numbers are checked individually, and property and management of the buildings are excluded from institutional management responsibilities. A government commissioner checks the regularity and funding of students and as a first priority examines management of budgetary matters.

Financing of higher education institutions

Funding system during the 1980's and 1990's:

- Only regular students eligible for funding are taken into account,
- The table of fixed costs per student is drawn up every year by government order,
- Small institutions are allowed to use a system based on 'fictitious' students, while the system used for full universities sets a ceiling on the funding for the first portion of students and gives reduced funding for the second portion above this ceiling,
- Students who repeat a year are financed up to a level of 80% or 90%,
- The Government Agency for Development Cooperation (Agence gouvernementale de coopération au développement - AGCD) contributes towards the funding of foreign students from the African, Caribbean and Pacific (ACP) countries.

The Decree of September 1996 implemented a very complex funding system based on the distribution of an overall allocation across various budget headings and among the 30 Hautes écoles. The main mechanisms of this system are:

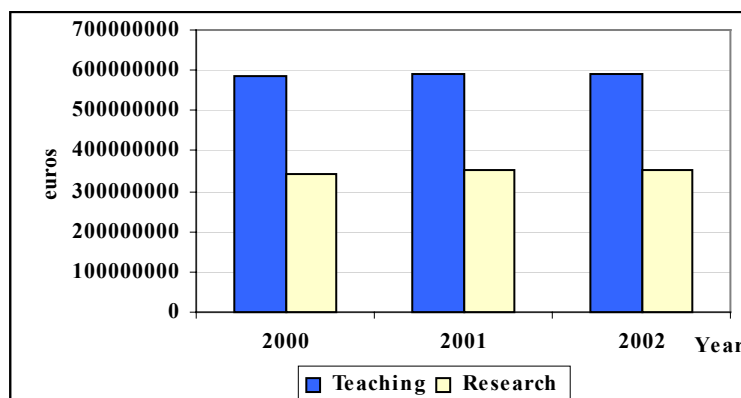
- Anchoring the 'historical' share in 1997 (= 100%);
- A progressively changing mixed mechanism, partly 'historical' and partly 'variable', starting from the calendar year 1998 (variable part 20%), then 1999 (variable part 40%), 2000 (variable part 60%), 2001 (variable part 80%) and 2002 (variable part 95%). The variable part is based on the average number of students in the 3 years prior to the financial year;
- The division of the 8 categories into 7 groups for the setting of the relative weighting coefficients applied to students: A=1, B=1.1, C=1.15, D=1.2, E=1.45, F=1.5, G=1.65;
- The establishment of an additional lump sum part, i.e.: BEF 5 million per Haute école, BEF 2 million per category, BEF 10 million if the Haute école is 'multi-type' and BEF 30 million if the Haute école is the only one in its area and in its network;
- The creation of a guarantee (or compensation) fund of BEF 50 million per network per year.

This system is designed to guarantee a certain stability of funding and to distribute budgetary resources among the 30 Hautes écoles according to a process that takes into account any medium-term changes in the number of students (average of the last 3 years), any changes in the courses

chosen by students, as well as changes in the geographical location of the Hautes écoles and their categories and sections.

During the period 2000 –2002, there was just under a 1% increase in public income for teaching from national sources (see Figure 19). However, there was a 2% decrease in public income for teaching in universities. In 2002, universities accounted for half of the total income of higher education institutions for teaching. Other institutions of higher education experienced a 4% increase in public income for teaching. Other institutions of higher education refer to Hautes Écoles, Instituts supérieur d'architecture and Écoles supérieur artistiques. Public income for research refers only to universities.

Figure 19: Public income of HEIs for teaching and research (1995 constant prices)



Source: Communauté Française de Belgique

During the period 2000-2002, there was a 3% increase in public income for research. Funds from the region are the largest contributor to research in the universities. During the period 2000-2002, there was an 9% increase in income from regional funding for research. In 2002, regional funds (French Community and FNRS) accounted for 82 % of total public income for research (see Table 4). Federal resources and other public funds only accounted for 9% of total public income for research. During the period 2000-2002, there was a 13% decrease in income for research from Federal sources and other public funds, and a 22% decrease in income for research from EU funds and other public international funds.

Table 4: Breakdown of public income for research by type of source as a percentage of total income for research

Year	National	International	Regional
2000	10.0	11.9	78.1
2001	8.9	10.9	80.2
2002	8.5	9.1	82.4

Source: Communauté Française de Belgique

Income from the private sector

During the period 2000-2002, there was a 1.4% decrease in income from registration fees of students in higher education institutions. In the university sector there was a 2.4% decrease in this income whilst in the other institutions of higher education, there was a 2% increase in income from registration fees.

There was a 15% increase in income from the private sector during the same period. Income from the private sector includes national and foreign enterprises and other income.

Total income of higher education institutions

Table 5 illustrates that the biggest contributor to the financing of higher education institutions in the French Community of Belgium is the public sector. The private sector (includes enterprises) and households contribute only a small proportion of the resources needed to maintain higher education institutions.

Table 5: Income of higher education institutions by type of source as a percentage of the total income

Year	Public	Private	Households	Other
2000	89.4	5.5	3.9	1.2
2001	89.9	5.0	3.8	1.3
2002	88.6	6.2	3.8	1.5

Source: Communauté Française de Belgique

Expenditure of higher education institutions

During the period 2000-2002, there was a 3% increase in the total expenditure of higher education institutions. Between 2000-2002, expenditure on personnel increased by just under 2%. Expenditure on personnel dealing with teaching duties accounts for just under two thirds of the total expenditure outlays on personnel. It is interesting to note that between 2000-2002, there was a 0.3% decrease in expenditure on teaching staff. However, there was a 5% increase in expenditure on personnel dealing with research.

Financial aid to students

Students pay tuition and registration fees for each year of study. For universities and Hautes écoles, the social services can contribute towards the costs of students through social grants paid to each institution. These grants are used under the supervision of the social councils and also cover the management of student residences, restaurants and secretariats connected with student services. A grant or loan is awarded to all students from 17 to 35 years of age provided their income or their family's income does not exceed an amount set by the Government of the French Community. The student's grant is withdrawn if they repeat a year, but reinstated the following year if they pass. Eligibility for a grant is lost permanently where the student fails 3 times in a row.

Flemish Community

Financing of higher education institutions

Following the Parliament of Flanders Decrees on universities (1991) and on hogescholen (1994) in the Flemish Community, institutions obtained autonomy in institutional governance and a new financing system. With respect to institutional governance and the new funding system (block grants), all universities and hogescholen have obtained autonomy, although they can still be held responsible by the Government for the outcome of their financial management and quality control after self-evaluation of their own study programmes.

Public funding covers about 80% of the costs of universities. Universities receive public funds to cover four types of expenditure:

- Operating costs - the amount is based on past experience and on the number of students, graduate degrees and doctoral degrees. Unit costs depend on the type of educational programme, whether human and social sciences, natural sciences, medical sciences or technical sciences,
- Investment costs,
- The cost of social facilities for students (housing, restaurants, cultural activities, counselling, etc.),
- The cost of academic research: the amount is based on recurrent funding and on the number of graduate degrees and doctoral degrees.

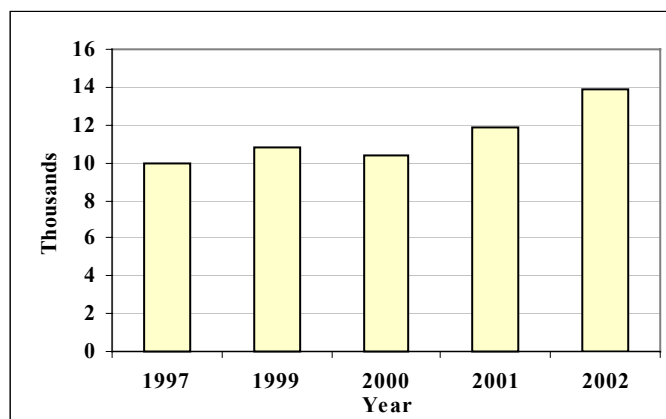
Since federalisation, nothing has changed in relation to student registration and tuition fees or financial aid for students in the Flemish Community of Belgium. This is partly because consequent differences between the different Belgian Communities in relation to students' rights could become a matter of constitutional conflict and partly because it would not be opportune for the Flemish Government to consider adopting the more expensive Dutch model at a time when the latter is planning budget cuts in relation to student financial support.

Cyprus

Historical development of higher education

Higher or Tertiary Education in Cyprus began with the establishment of the Pedagogical Academy of Cyprus in 1959. This functioned as a teacher training college for primary education. P.A.K. ceased to operate in 1993, and it was replaced by the Department of Education of the newly established University of Cyprus. Cyprus Forestry College has been offering programmes in forestry at non-university level since 1951. Higher education in Cyprus developed in the years after the country became independent in 1960. Most public institutions of higher education started as a joint project between the Government of Cyprus, the United Nations Development Programme (UNDP) and the International Labour Organisation (ILO), but gradually the government became responsible for them. Their aim is to train professionals such as teachers, technical engineers, nurses, foresters, tourist guides, police officers, and health inspectors as well as managers and other personnel in order to cater to the needs of local industry. During the last two decades private institutions of higher education were founded, offering a wide variety of courses at the sub-degree level. The University of Cyprus was founded in 1989 and started offering programmes during the academic year 1992-93. During the period 1995-2002, higher education institutions saw a 39% increase in the number of students (see Figure 20).

Figure 20: Number of students in higher education (ISCED 5/6)



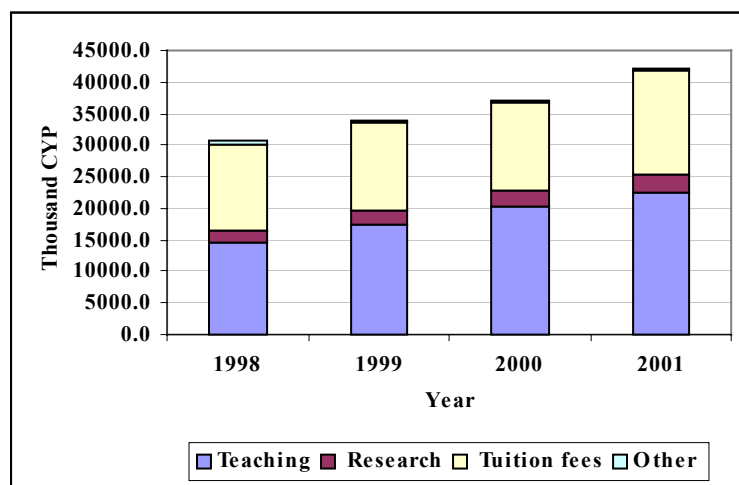
Source: Eurostat

Income of higher education institutions

During the period 1998-2001, higher education institutions saw a 37.6% increase in their income (see Figure 21). Public income for teaching represents the biggest share of total income of higher education institutions. National government income for teaching as a share of total income of higher education institutions increased from 47.6% in 1998 to 53.6% in 2001. The university's share of total national government income for teaching of higher education institutions increased from 65.1% in 1995 to 78.6% in 2002. Income from tuition fees as a share of total income of higher education institutions decreased from 45% in 1998 to 39% (see Table 6). Tuition fees refer to the tuition fees from private higher educational institutions, since for public higher educational institutions there are no tuition fees, except for postgraduate degrees of the University of Cyprus where data are not available. Other income of higher education institutions refers to revenues from

letting buildings, interests and other unspecified source of the University of Cyprus only. During the period 1995-2002, income from other sources increased by 212%, despite seeing the share of total income of higher education institutions decrease from 1.1% in 1998 to 0.6% in 2001. Thus, it can be deduced that the University of Cyprus has significantly grown in importance over the period 1995-2002, benefiting from increased national income both in teaching and research. During the period 1995 to 2002 public income for teaching for the University of Cyprus increased by 181%. Figure 22 shows the annual percentage increases in income for both the whole of the higher education sector and universities separately. Positive annual increases in public income for teaching were prevalent for most of the period, apart from 1996-1997, when universities saw a 0.9% decrease in their income.

Figure 21: Total income of higher education institutions, broken down by income source (1995 constant prices)



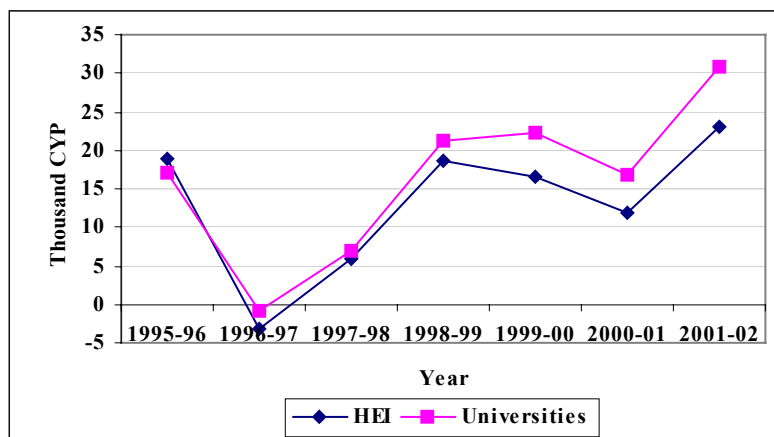
Source: Ministry of Education

Table 6: Breakdown of income of higher education institution by source of funds as a proportion of total income.

Year	Teaching	Research	Tuition fees	Other
1998	47.6	6.7	44.6	1.1
1999	51.2	6.7	:	1.0
2000	54.3	6.8	38.2	0.7
2001	53.6	6.4	39.4	0.6

Source: Ministry of Education

Figure 22: Annual percentage increases in national income for teaching for higher education institutions and universities separately.

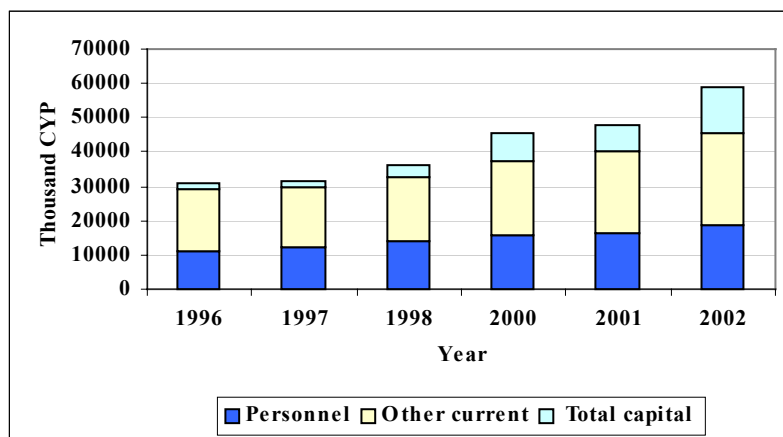


Source: Ministry of Education

Expenditure of higher education institutions

During the period 1996-2002, the total expenditure of higher education institutions increased by 90%. Universities accounted for on average during this period 44 % of the total expenditure of higher education institutions.

Figure 23: Total expenditure of higher education institutions (1995 constant prices)



Source: Ministry of Education

The largest expenditure outlay is on current expenditure other than personnel. In 1996, other current expenditure as a share of total expenditure of higher education institutions was 57.5%, however its share of total expenditure decreased to 44.8% in 2002 (see Table 7). The reduction of the other current expenditure share of total expenditure was due to increased expenditure on capital. Over the period 1996-2002, higher education institutions expenditure on personnel increased by 69.5%, other current expenditure increased by 48.1%, and capital expenditure increased by 589%.

Table 7: Breakdown of expenditure of higher education institutions by purpose as a percentage of total expenditure.

Year	Personnel	Other current	Total capital
1996	36.2	57.5	6.3
1997	38.7	55.7	5.6
1998	38.3	52.8	8.9
2000	34.4	48.2	17.3
2001	34.6	48.8	16.6
2002	32.2	44.8	23.0

Source: Ministry of Education

One of the reasons for the big increase in capital expenditure of higher education institutions is The University of Cyprus. In 2002, universities accounted for 79.5% of the total capital expenditure of higher education institutions. During the period 1995-2002, capital expenditure of universities increased by 563%. Table 8 shows the annual percentage increases in capital expenditure of the University of Cyprus, broken down by purpose. In the recent years the university was being built and a part of it is still under construction. This is the reason for the large amounts that appear in this category, especially from 1999 onwards.

Table 8: Annual percentage increases of capital expenditure of universities, broken down by purpose.

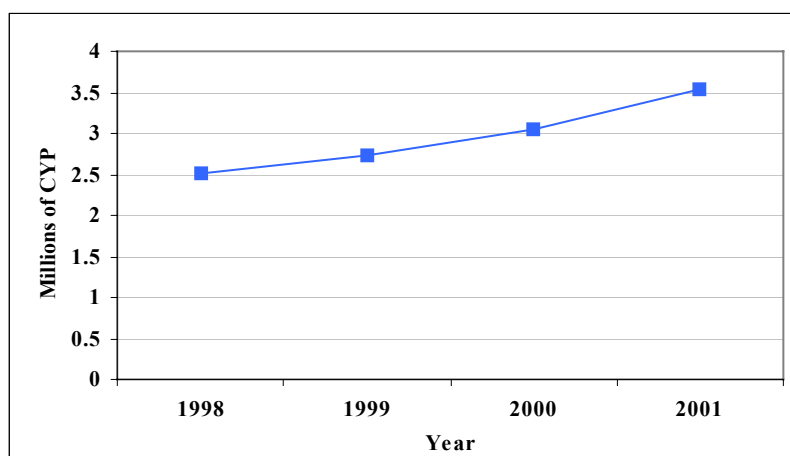
Year	Land, buildings	Other
1995-96	-67.6	32.4
1996-97	-14.8	-22.5
1997-98	-94.7	120.4
1998-99	11967.2	28.1
1999-00	102.9	-5.9
2000-01	31.7	15.5
2001-02	52.8	79.7

Source: Ministry of Education

Expenditure of the higher education sector on R&D

During the period 1998-2001, the higher education sectors expenditure on R&D increased by 40.8% (see Figure 24). The government sector is the most important source of funds in the higher education sector for R&D (see Table 9). In 1998, the share of total expenditure on R&D that came from the business sector funds was 2.6%. However in 2001, this share reduced to 1.6%. During the period 1998-2001, higher education sector expenditure on R&D coming from the government sector increased by 32.1%. Expenditure on R&D from the direct government sector increased by 179%. Expenditure on R&D from the fund, which the higher education sector itself produces increased by 474%. In contrast, expenditure on R&D, which came from the business sector decreased by 13.6%, and from the private non-private sector it decreased by 82.6%.

Figure 24: Expenditure of the higher education sector on R&D (1995 constant prices)



Source: Ministry of Education

Table 9: Breakdown of higher education sector expenditure on R&D by source of funds as a percentage of total expenditure on R&D.

Year	Business	Government	Government -	Government -	Higher education	Private non-profit sector	Abroad
			General university funds	Direct government			
1998	2.6	81.7	76.7	5.1	2.8	2.3	10.5
1999	2.2	82.7	74.0	8.7	7.6	0.7	6.7
2000	1.6	83.0	74.4	8.6	7.6	0.2	7.6
2001	1.6	76.7	67.0	9.8	11.4	0.3	10.0

Source: Ministry of Education

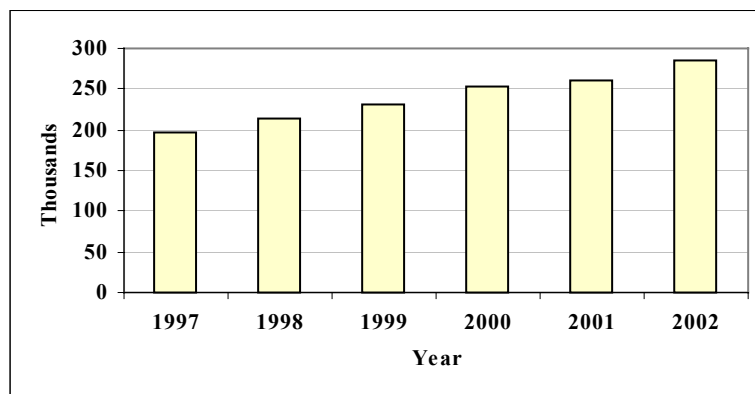
Czech Republic

Historical development of higher education

In 1348 the emperor Charles IV founded in Prague a university, which is now called Charles University. The beginnings of higher technical education date back to 1717, when the Czech Technical University was set up in Prague. In 1918 the Czechoslovak Republic was established. In the course of the Republic's twenty-year existence, the network of vysoké školy was significantly enlarged and diversified. Independent arts, business, agriculture and veterinary institutions were set up. Higher education institutions were established by the state (and funded by the state) and the law guaranteed them autonomy and traditional academic freedoms. Access to higher education was free and equal for every maturitní zkouška certificate holder regardless of his/her religious convictions, nationality, mother tongue, sex etc. During the Second World War, higher education institutions were closed down in the aftermath of the German occupation of the country. In 1948, academic freedoms and all forms of self-government were gradually eliminated and replaced by centralist governance and state planning. Access to higher education was subject to ideological bias. Government ideology had an impact on study programmes as well as on the choice and professional career of higher education teachers.

The Higher Education Act of 1st July 1990 gave back to higher education institutions their autonomy, self-government and academic rights and freedoms. By enlarging the network of higher education institutions access to higher education was increased. Internal matters of the institutions were placed within their own powers and are governed by their statutes. A Higher Education Council was set up as a self-governing body, which represents higher education institutions primarily in relation to the Ministry of Education, Youth and Sports. An Accreditation Commission was established as an advisory body to the government with the purpose of evaluating higher education institutions and the quality of education they provide. The Ministry of Education was given the power to allocate state funds and to check upon their use. Between 1997-2002, there was a 45% increase in the number of students in higher education. Figure 25 shows the development in the number of students in higher education since 1997.

Figure 25: Number of students in higher education (ISCED 5/6)



Source: Eurostat

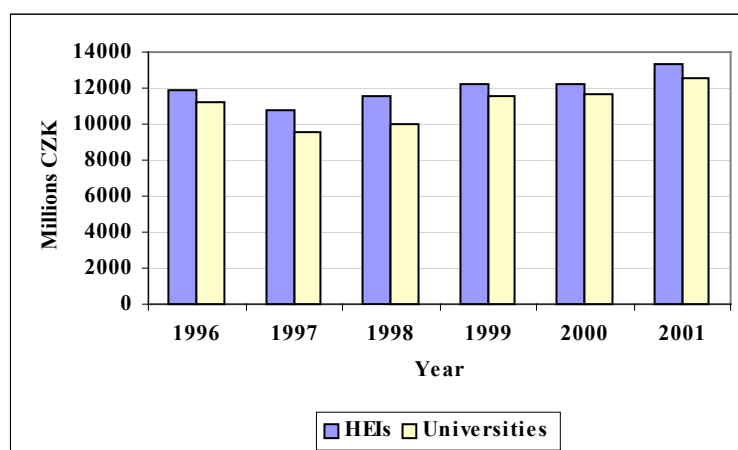
Financing of higher education institutions

The 1998 Higher Education Act, which came into effect on 1 January 1999, makes legislative changes concerning the management of state assets. Higher education institutions (with the exception of military and police institutions which remain state institutions) became public institutions. State assets which higher education institutions are entitled to manage were transferred into their ownership. State higher education institutions lost their status of legal entity and became parts of the ministries establishing them. The Act also made it possible to establish private higher education institutions. The Higher Education Act was amended in 2001. The amendment specified responsibilities of higher education institutions regarding the treatment of assets with the aim to facilitate multi-source funding. Public higher education institutions draw up their budgets as balanced. Financial audit is carried out at the end of a calendar year and the results are submitted to the Ministry of Education. The revenue side of the budget consists of:

- Subsidies from the state budget,
- Fees associated with studies,
- Yields of property (consisting of physical things, residential and non-residential space, rights and other asset values)
- Other revenues from state resources, state funds and municipal budgets,
- Yields of auxiliary activities (revenues from activities the public higher education institution carries out for a payment)
- Gifts and inheritance,
- Subsidies from the state budget.

Over the period 1996-2001, there was a 12.4% increase in income of higher education institutions from public sources. In 2001, 98% of total public income of higher education institutions came from national government, 2 % from international sources, 0.04% from regional government and 0.05% came from local government. In 2001, 99.9% of total income of public universities came from national government. It is important to note when interpreting Czech data that following a balance of payments crisis, the Czech Republic experienced a recession between 1997-1999.

Figure 26: Public income of HEIs and of public universities in 1996 constant prices



Source: Institute for Information on Education

State subsidies are granted to public higher education institutions providing accredited study programmes and programmes within the lifelong education scheme, for scientific and research,

developmental, artistic or other creative activities associated with the programmes and for the higher education institution's development. Subsidies may also be provided for accommodation and meals for students. The amount of a subsidy depends on the long-term plan of the higher education institution; a long-term policy for the development of higher education formulated by the Ministry of Education; the type and financial demands of accredited study programmes and life-long education programmes; the number of students and educational, scientific and other creative achievements. Higher education institutions can obtain other subsidies for their further development, which are awarded in competitive evaluation of development programmes. Subsidies are also provided for special programmes for HEI properties (i.e. for the construction and reconstruction of buildings, renewal of machinery and equipment). Resources arising from the institution's financial management are used to set up special funds:

- A reserve fund - aims to cover losses in future accounting periods
- A fund for reproduction of capital assets - consists of depreciation of movable and immovable assets
- A scholarship fund – is created from fees associated with studies and state subsidies
- A remuneration fund.

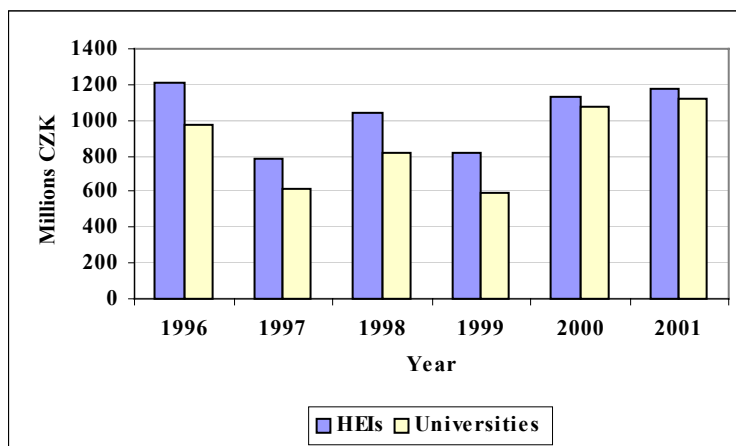
A public higher education institution may also use a whole range of non-budgetary, purpose-linked resources acquired by means of competitions organised by various domestic as well as foreign grant agencies and funds.

Contributions from students

The basis for setting up study fees is 5 % of the average non-capital expenditure given by the Ministry of Education from the state budget to public higher education institutions in a calendar year. The Ministry of Education declares the basis at the beginning of each calendar year. It is calculated from the data of the previous calendar year and is valid for the academic year starting in that calendar year. Over the period 1995-2001, there was a 2.4% decrease in income from students in the whole of the higher education sector. During the same period there was a 15.3% increase in public university income from students. Figure 27, shows the income from students of the whole of the higher education sector and for public universities separately.

If a student exceeds the standard length of Bachelor's or Master's study programmes by more than one year; they must pay for every month of a study, at least a quarter of the basis. If a graduate of a Bachelor's or Master's study programme does a further Bachelor's or Master's study programme, the public higher education institution sets a fee that is equal to maximum of the basis for one year. It doesn't apply where the graduate of a Bachelor's study programme studies in a follow-up Master's study programme or if there is a parallelism of regular study programmes that doesn't exceed the standard length of one year programme. If the total length of further study exceeds the standard length of a study, the study fees are at least one quarter of the basis for every month of the study. It is in the responsibility of a higher education institution to determine the amount of the fee.

Figure 27: Income of higher education institutions and public universities from students in 1996 constant prices

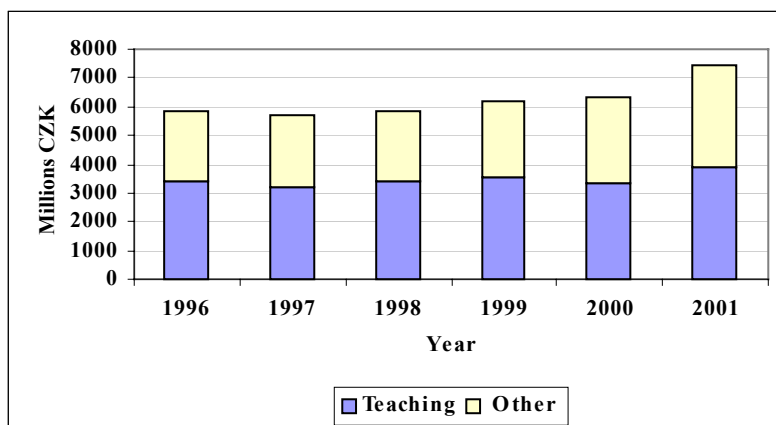


Source: Institute for Information on Education

Expenditure of higher education institutions

Expenditure on teaching personnel accounted for 53% of total expenditure on personnel. Overall, between 1996-2001, there was a 16% increase in expenditure on teaching personnel, and a 44% increase in expenditure on other personnel. Figure 28 shows how higher education institutions expenditure on personnel has changed over the period 1996-2001.

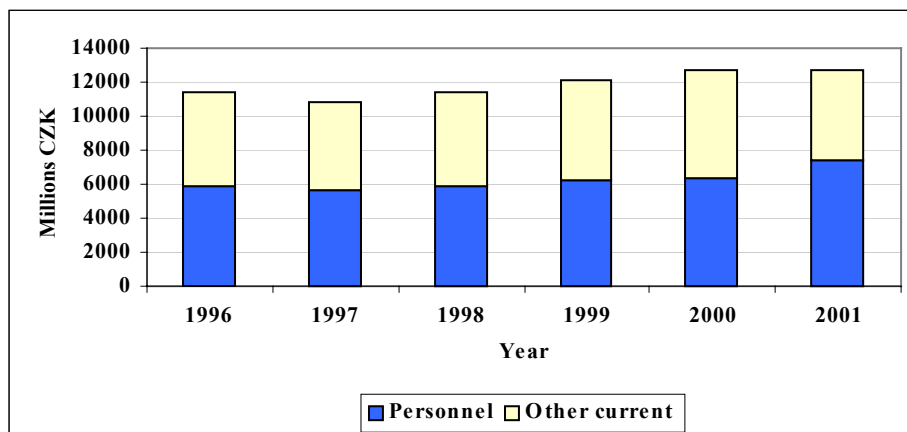
Figure 28: Current expenditure of HEIs for personnel broken down by type of personnel (1996 constant prices).



Source: Institute for Information on Education

There was an 11 % increase in the total current expenditure of higher education institutions from 1995-2001. During the same period, there was a 28% increase in personnel expenditure, and a 6 % decrease in other current expenditure. Figure 29, shows the current expenditure of higher education institutions during 1996-2001.

Figure 29: Current expenditure of higher education institutions broken down by purpose (1996 constant prices)



Source: Institute for Information on Education

Expenditure of higher education institutions on R&D

Funds for scientific, research, development, artistic or other creative activity connected with educational activity can be obtained partly on an institutional basis (the number of students in doctoral programmes, the objectives of the research, etc. are taken into consideration), and partly for a certain purpose, for example approved projects. There was a 135% increase in total income of higher education institutions for research and development from 1996 to 2001. Total income for expenditure on R&D includes income from the government, business enterprise sector, the higher education sector, the private non-profit sector, and the abroad sector. Figure 30 shows the expenditure of the higher education sector for research and development. In 2001, higher education expenditure for R&D from the government sector accounted for 94.3% of total R& D expenditure. The other sectors only generate a small proportion of total expenditure for R& D in the higher education sector. (see Table 10). It is also worthwhile mentioning that over the period 1996-2001, expenditure on R&D, which came from the government sector increased by 289%. During the same period, expenditure on R&D, which came from the business sector increased by 281%, and by 70% from the private non-profit sector, and by 47% from the abroad sector. Nevertheless, expenditure on R&D, which the higher education sector itself generates the income for decreased by 87%.

Figure 30: Income of the Higher education sector for research and development (1996 constant prices)

Source: Eurostat

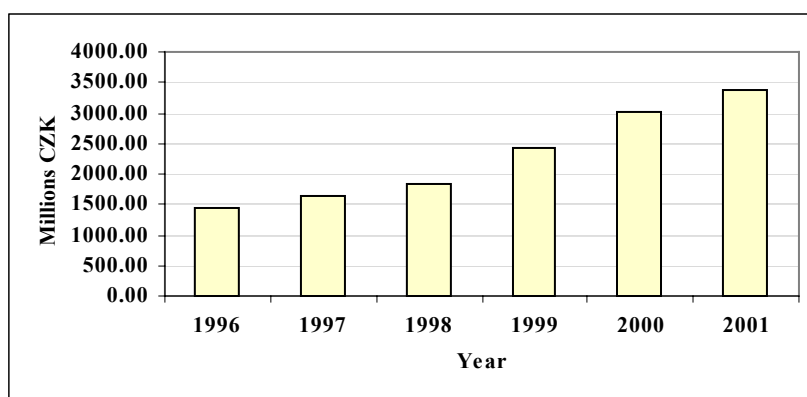


Table 10: Expenditure of the higher education sector on R&D by source of funds as a percentage of total expenditure

Year	Business	Government	Higher education	Private non-profit sector	Abroad
1996	0.4	57.0	38.1	0.06	4.4
1997	1.5	29.6	62.5	0.11	6.3
1998	2.0	89.1	2.9	0.08	5.8
1999	1.3	92.8	2.2	0.24	3.4
2000	1.1	93.9	1.5	0.01	3.5
2001	0.7	94.3	2.2	0.05	2.8

Source: Eurostat

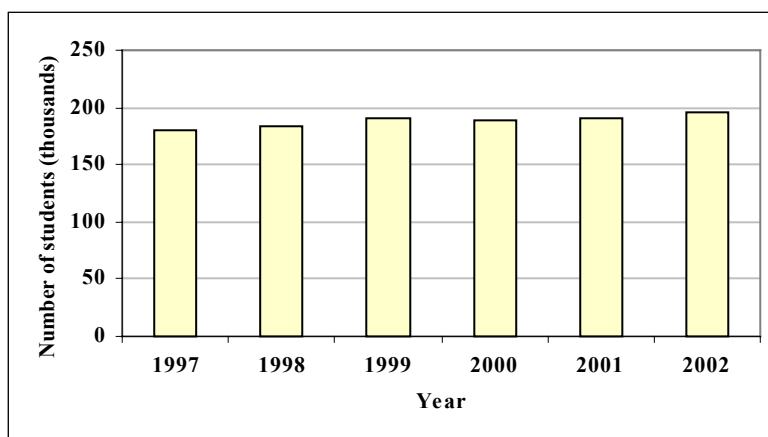
Denmark

Historical development of higher education

In 1479, King Christian I received the Pope's permission to establish the University of Copenhagen. During the 19th century a number of specialised institutions were established, including the Technical University of Denmark, the Royal Veterinary and Agricultural University, the Royal Dental College and the Royal Danish School of Pharmacy. Remaining higher education institutions in the university sector originated in the 20th century. Higher education comprises a university sector and a college sector. The university sector includes 11 universities, 5 of which are multi-faculty universities. The college sector comprises more than 150 specialised institutions of higher education offering professionally oriented programmes. Colleges offering medium-cycle higher education have started merging into more comprehensive Centres for Higher Education.

Figure 31 shows the evolution of the number of students during the period 1997-2002. There was an 9% increase in the number of students in higher education in Denmark from 1997 to 2002. The increase in the number of students enrolled at higher education institutions has been nearly continuous since 1997 apart from 2000, when there was a 0.4% decrease in the student population.

Figure 31: Number of students in higher education (ISCED level 5/6)



Source: Eurostat

The Ministry of Science, Technology and Innovation is responsible for university education except for certain higher education programmes, which come under the Ministry of Cultural Affairs. The Ministry of Education is responsible for short- and medium-cycle education. The legislation covers the aims and framework of education, funding and in some cases curricula, examinations and staffing. Higher education institutions are publicly financed and State-regulated. The quality of higher education is ensured by ministerial approval of new programmes and institutions, external examiners and an evaluation system. Although they have institutional autonomy, institutions must follow general regulations concerning teacher qualifications, award structures, study programmes and quality assurance. While private institutions can operate without any approval, they must abide by an accreditation procedure to make their students eligible for state study grants.

Educational Policy

The most important elements of the Universities Act of 1993, and of the new Universities Act which enters into force in 2005, are a variety of measures intended to strengthen the University's leadership at all levels (rector, deans and heads of institute and supervisors). The boards of studies remained largely unchanged, with the amendment that the chairman is now a specially appointed supervisor. This act is envisaged to strengthen Denmark's international position as a knowledge economy, to increase openness within Danish society and cater for a whole new and increasing generation that requires research-based university level education. The ideas are based on the reforms put in motion by a government manifesto of November 2001. The major areas of reform in the drafted university act are the following:

- It is envisaged to reduce drop-out, to ensure a high degree of student mobility within the Danish higher education system and abroad, to finalise the introduction of a 3+2 bachelor-master structure, to safeguard entrance into master programs for those holding a bachelors degree through the development of a co-ordinated intra-university enrolment scheme (IU-KoT), to intensify student counselling, and to enhance the electronic self-service systems of universities.
- On the issue of quality development, it is the ambition to strengthen evaluation processes to improve the ability of Danish universities to compete internationally. To this end, an independent external organisation has to be set up to conduct the quality evaluations using internationally recognised principles, methods and procedures.
- A new university bill has to guard the freedom of research as a solid basis for strategic partnerships between Danish universities and other (foreign) universities, research institutions, business, etc.
- An important proposal of the new university act is to establish institutional self-government for universities. Universities will become special administrative entities pertaining to public law with a much higher degree of independence and governed by less clearly defined principles. As a result, universities will gain freedom to generate additional resources and to decide how to spend their resources. Increased autonomy will not yet cover the issue of ownership over university buildings.
- Finally, the new law is envisaged to reduce and simplify the rules that govern the state-institution relationship.

The domain of research policy has been under the authority of different ministries in the past decade. The government has been encouraging the private sector to increase its investment in research and since the 1980's has been active in formulating a national strategy for research investment. In the late 1990 it has been discussed to develop a system of performance contracts or development contracts in which institutions would be funded on the basis of their achievements in relation to a number of targets. These targets would include co-operation with other universities, research institutes and business, the relative success of research, dropout rates and actual duration of courses. The first round of these contracts with individual universities has been worked out in a very loose way. It is aimed to set the targets more specific in a second round of development contracts.

In May 2000, a political agreement was reached on the principles leading a renewed research infrastructure in Denmark. Detailed regulation in the financing of research should be eliminated

and there should be a reduction in the number of different funding pools and programs. Three areas received particular emphasis:

- Recruitment: funds for new doctoral programmes and research schools have been set aside and new positions for young researchers are to be created.
- Innovation: cutting-edge research is to be stimulated through co-operation across institutions, disciplines and industrial sectors. New financial incentive structures (management and development pools for universities) are to promote this. Large interdisciplinary research groups are to be established.
- Continuity: in order to ensure the permanent integration of programme-financed research, an ‘embedment pool’ will be established.

The Ministry of Science, Technology and Innovation (STI) established a special commission (the Danish Research Commission) in order to examine these ideas. The commission submitted a proposal on some vital conditions for the Danish research system. For example they stated the case for uniform conditions for the placing of research projects and doctoral training; establishing a single cross-section pool of employment for researchers; and a model for the distribution of research appropriations between research institutions and research councils. The Ministry of Science, Technology and Innovation developed these ideas further. A 2002 report by the STI announced a reform of the Danish system of research councils in order to distribute all public foundation grants in open competition and to promote innovative and interdisciplinary research.

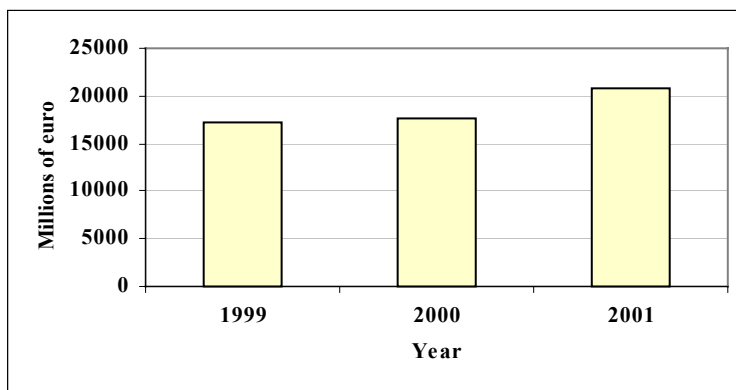
Financing of higher education institutions

The 1993 Act authorised universities to receive lump sum grants, which they are free to administer, on condition that they abide by the terms of the appropriation and the rules of administration and carry out the activities for which the funds have been appropriated. The state appropriates funds for the universities’ teaching, research activities and other activities, including administration and buildings. The intention of the decentralisation was to promote economic responsibility and to optimise the use of the resources. The intra-university distribution of resources is to an increasing degree characterised by the principles of activity steering. In particular the introduction of the taximeter principle in 1980, which acquired its present form in 1994, increased the share of the university income that varies with activities and student performance. As a result, the educational appropriations (taximeter grant) are directly dependent on the number of full-time equivalent students passing their exams at the individual universities multiplied by the rates provided for in the Supplementary Appropriation Act by the end of the year.

The taximeter system is the funding model used for teaching activities. At universities, this makes up about one-third of total income. Within the taximeter system, public funds are allocated on the basis of actual levels of student activity (active students). This means that a higher education institution receives a certain amount of money for each student that passes an exam. It was decided in 2002/2003 that in 2004 the funding mechanism should be enriched with a “bachelor” bonus in the taximeter system. Under the new model, the taximeter will also include a tariff for each bachelor degree universities confer. It is envisaged to use two tariffs. The tariff for scientific, technical and medical programs will be about twice as much as the tariff for social science,

humanities and art programs. Over the period 1999-2001, there was a 22% increase in income of higher education institutions from public sources (see Figure 32). The financing of higher education establishments is almost totally dependent on the central government. In 2001, income of higher education institutions from the local authorities was more than double the amount of income from regional government.

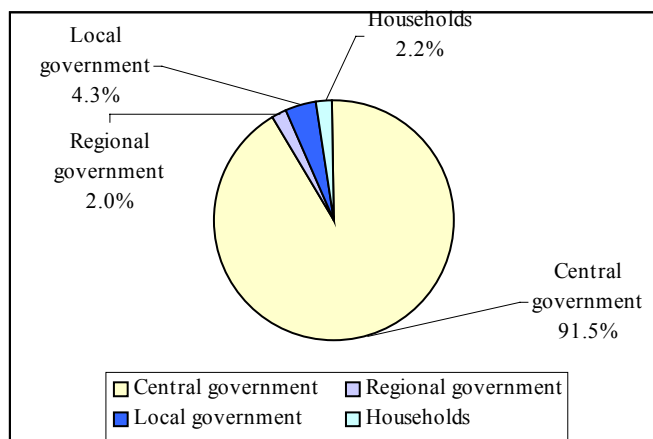
Figure 32: Total public income of higher education institutions (1995 constant prices)



Source: Eurostat UOE data collection

In 2001, the contribution of households was slightly more important than that of the regional government and about half the contribution of the local government. Income from households represents 2% of the total income of higher education institutions. Figure 33 shows the total income of higher education institutions, broken down by type of source.

Figure 33: Breakdown of total income in higher education establishments by type of source in 2001 as a percentage of total income



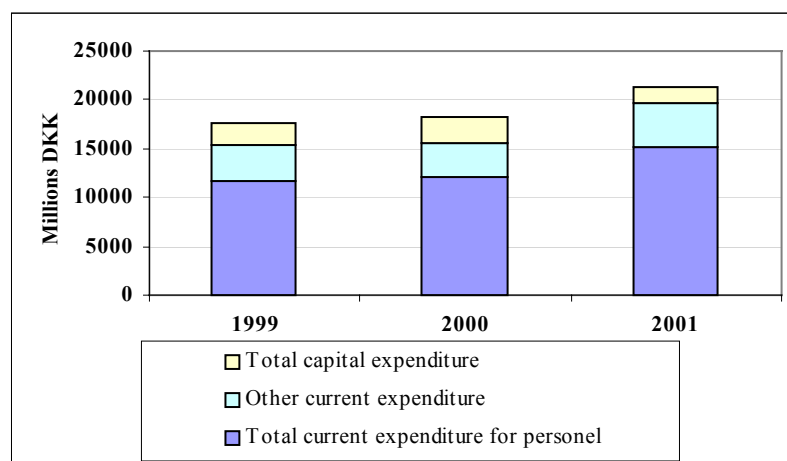
Source: Eurostat UOE data collection

Expenditure of higher education institutions

Total current expenditure of higher education institutions increased by 28% over the period 1999-2001. In 2001, expenditure on personnel accounted for 78% of total current expenditure. Between 1999 and 2001, total current expenditure per student increased by 27%. Over the period 1999-2001, capital expenditure of higher education institutions decreased by 24%. In 2001, capital

expenditure represented 8% of total expenditure of higher education institutions. This was in contrast to 1999, where capital expenditure represented 13% of total expenditure of higher education institutions. In 2001, capital expenditure was decentralised in order to stimulate some sort of a market situation for the use of (university) buildings. Since then, universities receive a bigger capital grant in the form of a lump sum.

Figure 34: Current expenditure and capital expenditure of higher education institutions (1995 constant prices)

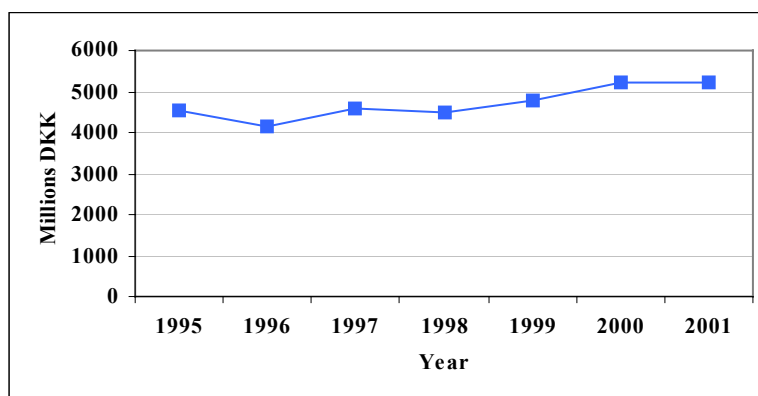


Source: Eurostat UOE data collection

Expenditure of the higher education sector on R&D

Higher education institutions have increased their real expenditure on research and development by 15% between 1995 and 2001. Figure 35 shows the total expenditure of the higher education sector on research and development.

Figure 35: Total expenditure of the higher education sector on research and development (millions euro, 1995 constant prices)



Source: Eurostat

Student support

There have been a number of changes to the system of student support since it was introduced in the 1950s. Between the mid-1960s, and 1988, the support system included state-guaranteed bank loans. Bank loans were abolished in 1988 when the system was re-organised. At the same time, the state grants and loans were increased considerably. Before 1993, students under the age of 19 were not automatically eligible for study grants and loans (eligibility depended on the income level of their parents). In 1993 the age was lowered to 18, so that all students over the age of 18 became eligible for state funding. The number of vouchers between 1988 and 1996, which could be received corresponded to the length of the course in which students were registered. Students could essentially only use the vouchers to support one higher education programme. If a student registered in a second higher education course, the monthly grants, which were received during the previous course, were deducted from the total number of vouchers allowed in the second course. In 1996 the system was changed into the current system, where students can receive vouchers for a total of six years, including any changes of subjects.

Table 11: Financial support to students by type of source as a percentage of total aid (millions DKK, 1995 constant prices)

Year	Total aid	Scholarship and other grants				Student loans	
		Total	Central	Regional	Local	Total	Central
1999	9328.0	86.2%	64.2%	0.1%	21.9%	13.8%	13.8%
2000	11272.6	87.3%	68.7%	0.1%	18.4%	12.7%	12.7%
2001	11074.9	86.0%	67.6%	0.1%	18.4%	14.0%	14.0%

Source: Eurostat UOE data collection

The absolute level of public resources devoted to student support decreased in real terms in 2001, although the number of students rose by 1%. Consequently, the total aid per student also dropped in 2001. About two thirds of the total financial support to students is provided by the central government in the form of scholarships and grants. The central government is the main actor in the financing of students. The local government also contributes a significant amount (18.4% in 2001, out of total public expenditure) to scholarships and other grants (see Table 11).

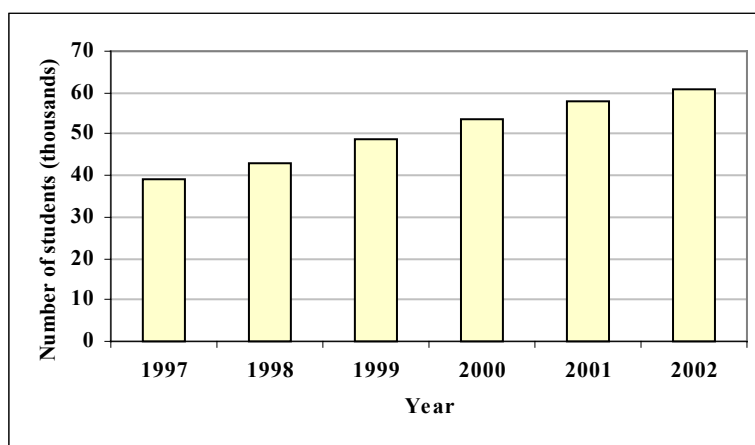
Estonia

Historical development of higher education

In the second half of the 16th century, a Jesuit College (1583) and an Interpreter Seminary (1585) were established. Under the Swedish reign, a gymnasium school was opened in Tartu in 1630, which was then reorganised into a university in 1632 (Academia Gustaviana, Academia Dorpatensis, later Academia Gustava Carolina). In 1710, the university was closed due to the plague. The university was reopened on 21 April 1802 when the German-language Landesuniversität was designated an Imperial University, since it was financed and managed by the Russian empire. In the period of Russification in the Baltic provinces (since the 1880s), the autonomy of the University of Tartu was radically curbed and the official language of instruction was restricted to Russian only.

The Estonian national university was opened on 1 December 1919. Several other higher education institutions were opened in Tartu and in Tallinn, mostly in the field of arts and music. Tallinn Technical University was opened in 1936. Figure 36, shows that the number of students in higher education institutions has increased by 55% during the period 1997-2002. However, the growth rate of the number of students is decreasing since 1999; in 1999 the number of students enrolled at higher education institutions grew by 13% whilst in 2002, the number of students went up by 5%.

Figure 36: Number of students in higher education (ISCED level 5/6)



Source: Eurostat UOE data collection

The Estonian higher education system is binary and consists of universities (ülikool) and applied higher education institutions (rakenduskõrgkool). Since 1999 some post-secondary vocational schools have a right to offer vocational higher education. There are six public universities, twelve private universities, seven state institutions of applied higher education, six private applied higher education institutions, nine state vocational education institutions and eight private vocational education institutions offering vocational higher education.

Educational Policy

Higher education institutions are regulated by the Law on Universities (January 1995), the Law on Private Schools (June 1998), the Law on Applied Higher education Institutions (June 1998), the Law on Vocational Education Institutions (July 1998), the Law on the University of Tartu (January 1995), the Standard of Higher Education (June 2000) and the Law on the Organisation of Research and Developmental Activity (April 1997, 2001). The administration of higher education institutions or their study programmes is the responsibility of the Ministry of Education. Private higher education institutions or their study programmes are officially recognized after accreditation.

The general principles of legislation are determined in the Universities Act and in the Applied Higher Education Institutions Act. The Vocational Education Institutions Act, the Private Schools Act and the Adult Education Act also regulate some aspects of higher education. The Education Act determines higher education as third level education and determines the types of higher education institutions. The conditions and procedures for student loans are also included. The Universities Act determines the procedures for opening, merging, splitting and closing a university; the principles of operation; the limits of autonomy; the principles of management; the forms and conditions of acquisition of higher education; the legal status of university property; the principles of financing; the basic rights of staff and students, and the procedures for state supervision. The law also defines the main terms related to higher education. The Applied Higher Education Institutions Act determines the procedures for opening, merging, splitting and closing an applied higher education establishment, including applied higher education establishments for internal or national defence, the principles of operation, the limits of autonomy, the principles of management, the conditions of acquisition of higher education and basis of organisation of educational activities, the budget and principles of financing, the basic rights of staff and students, and the procedures for state supervision.

Financing of higher education institutions

The costs of student places of a university are covered from the state budget in so far as state commissioned education. The Ministry of Education and Research finances study places according to the number of graduates with a master's degree established by the State commission contract. Financing is carried out within the limits of the calculated cost of a master's study place from the beginning of bachelor studies until the end of the nominal duration of master's studies but no longer than 5 years. Based on the state commission, a university establishes minimum of 1.5 student places of bachelor study per one student place of master's study for its calculated cost. The Ministry of Education may, cover the study place costs according to the number of graduates of either the bachelor or master's level. In such cases, the financing is based on the calculated cost of a student place during the nominal duration of study. The same principles of financing within the limits of calculated cost are applied in fulfilling the State commission of student places in the integrated curriculum of bachelor and master study places until the end of their nominal duration. If after the end of the nominal duration of studies the number of university graduates is smaller than the number of the admitted students, determined in the state commission, then the Ministry of Education and Research, when presenting the next state commission, has the right to reduce the financing of the state commission by discounting the costs incurred to the state budget for the state

commission not fulfilled. A balanced budget must be compiled for all the incomes and expenditures of a university, including the costs for activities of the student council.

The study activities of an applied higher education institution (*rakendusõrgkoolare*) are financed from the state budget to the extent of the state commissioned student places. An applied higher education institution has the right to offer paid services related to its basic activities (in-service training and external studies, contracted developmental activities, professional counselling etc) to the extent and according to the procedures established in the statutes of the applied higher education institution. The Ministry of Education and Research finances student places corresponding to the number of graduates from applied higher education determined by the state commission. Financing is realised in relation to the amount of calculated cost of a student place during the nominal duration of applied higher education study. In the case of an applied higher education study curriculum where a person's former study results and work experience in the study field are considered, the duration of financing may be shorter than the nominal study period if a respective agreement is validated by the state commission decree.

A university has the right to demand tuition fees in compliance with the rules established by the university council from students not studying on state-commissioned student places, from state-commissioned students studying a year longer than the established nominal duration of study and from students who have not fulfilled the requirements determined in the curriculum and who have been transferred to partial capacity study. The university council establishes the amount of fees annually. The university council may raise the rate of payment by up to 10 per cent between study years. The property of a university is provided by the state, as well as from bequests, or its own activities. A university only has the right to own property, which is necessary for it to achieve its goals. Since public universities have been permitted to enrol fee-paying students, academic staff have gradually given up teaching extra hours in other private universities. The main social effects of expansion of university places have been reflected in the situation of the fee-paying students. These students and others, who, owing to their economic circumstances, must provide for their subsistence costs themselves while studying, are forced to work part- or even full-time. This need has put heavy pressure on them to combine learning and employment. It has brought about longer study periods as well as an increased failure rate.

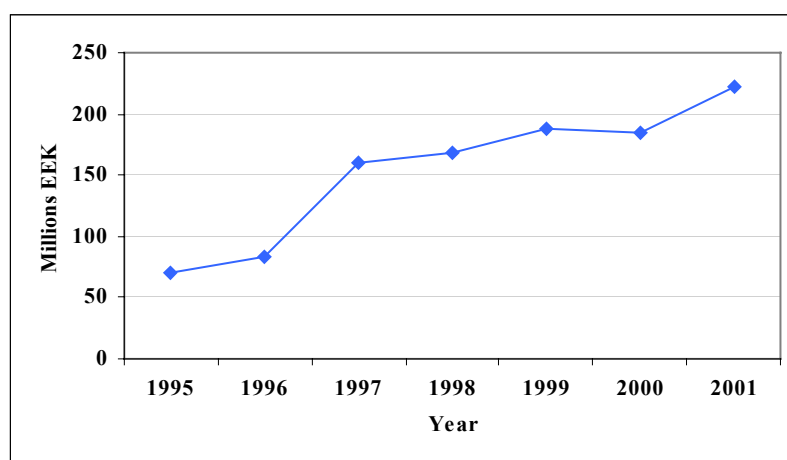
In 1989, the University had an itemized budget determined by the Ministry of Education. Most of the research funding came from the Academy of Sciences. Now, the teaching grant in the form of a lump sum is provided by the Ministry of Education to cover the tuition fees of those students funded by the state. A special body of the Ministry of Education to cover the costs of different research programmes allocates funds for research. These funds are allocated directly to the given research unit. A special grant to maintain the infrastructure accompanies this funding to cover the costs of the central services and the infrastructure. In addition, an application-based grant system provides for about 30 percent of the research funding coming from the state budget. Special formula-based funding is provided for student scholarships and other student services. All this funding is provided through the Ministry of Education. Once the University budget has been determined by the University Council, the departments are free to use their allocated resources according to established rules.

In Estonia, the financing of higher education establishments is almost totally dependent on the central government. The transfer of funds to higher education establishments from the local authorities is less than 1%. In 2001 universities' public income represented more than three quarters of all higher education institutions' public income.

Expenditure of higher education institutions on R&D

Higher education institutions have seen their real expenditure on research and development increase more than three-fold between 1995 and 2001. In 2000, real expenditure on R&D decreased by 2%, but then in 2001 it grew by 20%. Figure 37 shows the total expenditure of the higher education sector on research and development during the period 1995-2002.

Figure 37: Total expenditure of the higher education sector on research and development (1995 constant prices)



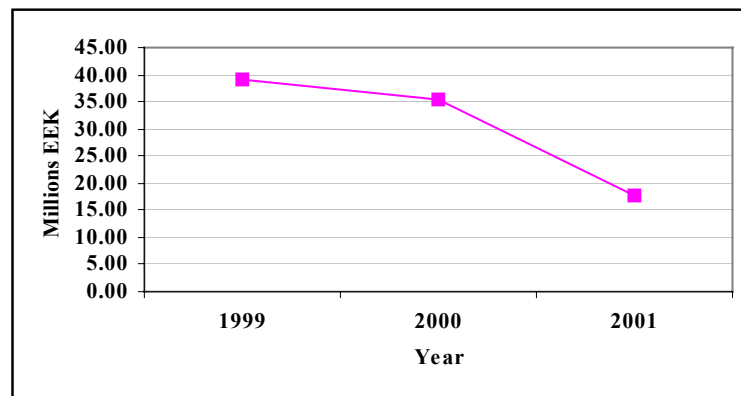
Source: Eurostat

Student support

State-commissioned students studying a year longer than the established nominal duration of study and students who have not fulfilled the requirements determined in the curriculum and who have been transferred to partial capacity study can be freed of the payment obligation if he or she continues studies according to the same curriculum or if he or she is a person with a medium, severe or deep impairment, if he or she is a parent or a guardian of a child aged less than seven years or if he or she studies in a study branch or curriculum according to which student places have been established for fulfilment of the state commission by the university as part-time study.

In Estonia, student support consists of grants and scholarships. The amount of public resources devoted to student support have decreased by 54.4% during 1999-2001 (see Figure 38).

Figure 38: Total financial aid to students in higher education (1995 constant prices)



Source: Eurostat

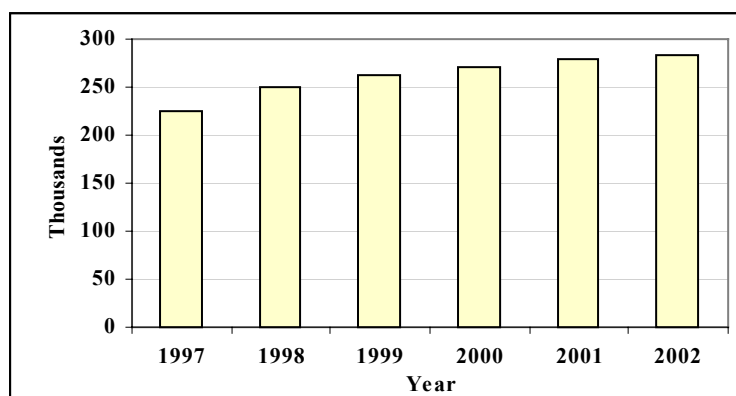
Finland

Historical development of higher education

Finland's first university was founded in Turku in 1640. It remained Finland's only institution of higher education until 1908, when the present Helsinki University of Technology was founded. The 1950's and 1960s saw the creation of institutions specialising in the fields of economics and technology. The 1960s and 1970s witnessed rapid growth and regional expansion of the higher education system. The pressure to expand educational opportunities was fuelled by rapid economic growth, an increase in the number of people with general upper secondary education, high demand for academically educated labour in working life as well as demand for educational equality.

The concept of higher education was defined in very narrow terms in Finland until the 1990s. The university system based on a combination of science and instruction was synonymous with the higher education system. In the 1990s, the starting point for developing the university system was to improve the quality of all activities. The early 1990s saw the development of a professionally oriented higher education sector into the Finnish education system. The goals included raising the level of education and upgrading vocational post-secondary education into higher education degrees. In 1992, the first 22 temporary polytechnics (institutions of vocational higher education) were established by combining 85 educational institutions, which had previously provided vocational post-secondary education, and upgrading their education to meet the standards of higher education. In 1995, the system was made permanent and the Government granted a permanent operating licence to the first nine polytechnics. Since 1 August 2000, all polytechnics have operated on a permanent basis. Figure 39, shows the increase in the number of students in higher education since 1997.

Figure 39 : Number of students in higher education (ISCED level 5/6)



Source: Eurostat

Educational Policy

The first Higher Education Development Act was passed in 1966 for the years 1966 to 1981. It was later extended to 1986. The purpose of the act was to expand university education; to balance the regional distribution of higher education; to shift the sectoral distribution of student places towards technology and the natural sciences; and to promote research at universities. The Act was based on a proposal of a working group appointed by the President of the Republic.

The period of rapid expansion of the system during the 1960s and 1970s was not altogether favourable. The increase in student numbers mainly took place in the humanities and social sciences, which were less resource demanding than technology or natural sciences, and this led to disparities between the provision of graduates and the actual demands of the world of work. The Act therefore sought to ensure sufficient growth in university resources and better coordination between the provision of education and the world of work. Partly due to the fairly favourable social and economic development occurring in the 1970s and 1980s in Finland, the goals set in the Act were largely achieved by the year 1986. However, some problems still continued to exist and new ones had arisen. A new Higher Education Development Act (1052/1986) was passed in 1986. The objective of the new Act was to guarantee stable resource development for universities until the mid-1990s and to prepare the ground for internal reform. The Government added a resolution as an adjunct to the act, which marked a totally new thinking in Finnish higher education policy. The main goals in the Government's resolution were the gradual introduction of management by objectives into universities, the introduction of an assessment system that would give enough information on the results and costs of teaching and research, as well as to respond to the demand for more efficient undergraduate and postgraduate education. The new act and the Government's resolution were successfully implemented, and the universities enjoyed a remarkable increase in their resources.

Financing of higher education institutions

All Finnish universities are primarily financed from public funds. The operating expenditure agreed upon as a result of negotiations between the Ministry and the universities comprises basic funding (85 - 90 per cent), earmarked funding for national responsibilities and programmes, project funding and performance-based funding. Performance-based funding is used to reward universities for high-quality education and research. A major change in the funding system of the universities was introduced in 1996 when a form of budgeting was adopted in which the basic funding of a university was linked to an agreed target number for Master's degrees and doctorates weighed by field of study. Lagging behind the targets is also taken into account in the formula. This formula-based funding system has been gradually implemented since 1997 and it will be fully operational in 2003.

Every four years, the government of Finland prepares a Development Plan for Education and University Research. The Plan outlines general policy guidelines for the development of the whole education sector. The Development Plan drawn up in 1991 also set the goals for higher education:

- High quality of education and research
- Internationalisation
- Increased efficiency
- Further delegation of decision-making powers from the Government to the institutions themselves

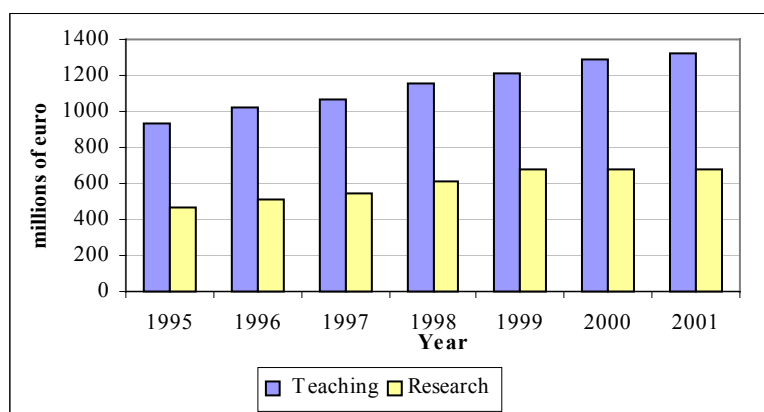
The rapidly deteriorating state of the Finnish national economy forced austerity measures on higher education in the first years of the 1990s. In 1993, the Government revised the Development Plan of 1991 to provide guidelines for development in the changed operating environment. The Revised Development Plan called for measures from the higher education system to alleviate the

dramatically changed unemployment situation by reforming the degree structures and content to better meet the new demands of the world of work. Research and development was expected to contribute more directly to the strengthening of the national innovation structure. Again much emphasis was placed on international cooperation.

Polytechnics are mainly maintained by municipalities or federation of municipalities. The polytechnics are primarily funded from public funds. Both the State and the local authorities share the costs. Of the basic funding, the State's contribution accounts for 57 per cent and that of local authorities for 43 per cent. The funding is based on degree-specific unit prices determined per student. A calculatory unit price is determined for each polytechnic, depending on the fields in which the polytechnic provides education.

The Ministry of Education grants project funding to polytechnics for major development targets. In recent years, project funding has particularly been channelled into the promotion of teachers' level of education; internationalisation; development of library and information services; development of information technology; and careers and recruitment services. Some of the additional funding granted by the Ministry of Education is awarded on the basis of performance, i.e. educational outcomes. The amount of funding to be granted on the basis of performance will be increased in the coming years. Figures 40 and 41 show the income for teaching and research of higher education institutions and universities respectively. Over the period 1995-2001, income for teaching and research in the whole of the higher education sector increased by 42 and 47% respectively. In the university sector, public income for teaching and research increased by 16.4% and 50%.

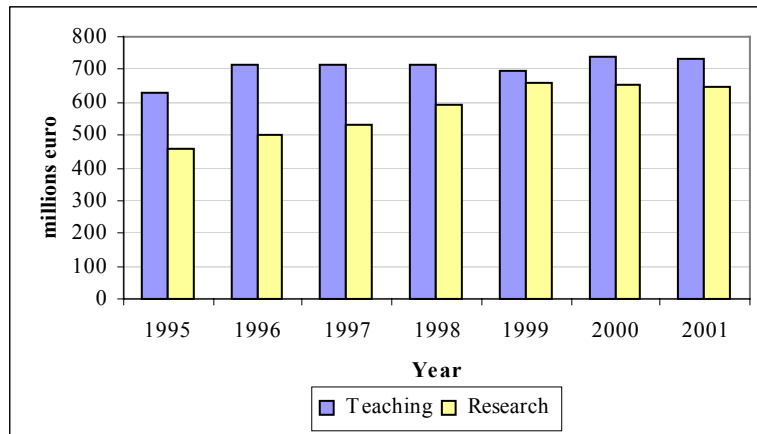
Figure 40: Public income of HEIs for teaching and research in 1995 constant prices



Source: Statistics Finland

Notes: Income for teaching includes national, international, local and other public sources, whereas income for research includes national, local, international, and other public sources.

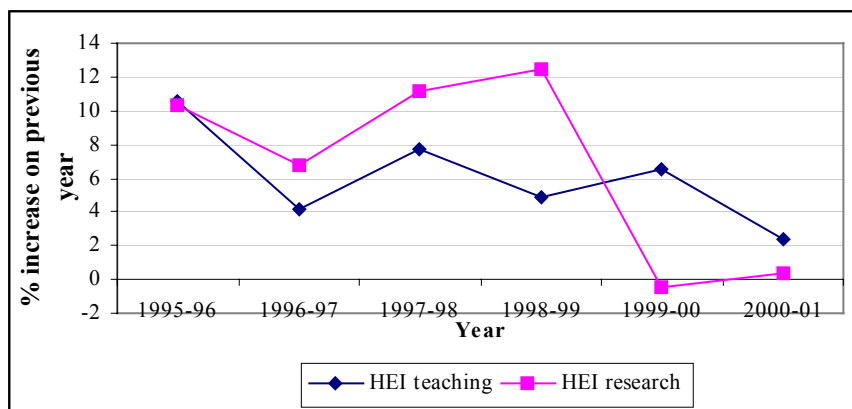
Figure 41: Public income for universities for teaching and research in 1995 constant prices



Source: Statistics Finland

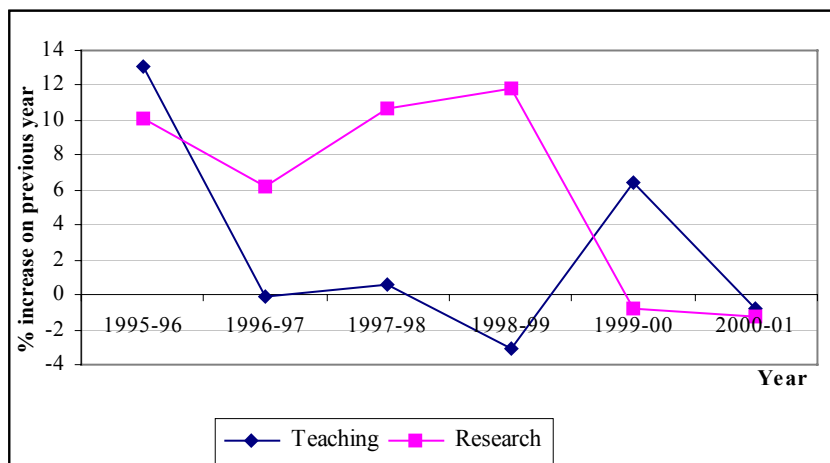
Figures 42 and 43 show annual increases in income for teaching and research for the whole of the higher education sector, as well as for universities separately. Both figures show that the annual increases in income for research are nearly the same for the whole of the higher education sector, compared to universities. The reason for this is that on average universities account for 97% of the total public income for research in the higher education sector. Public income for teaching for the whole of the higher education sector during the period 1995-2001 exhibited positive annual increases in income of varying degrees. However, the same cannot be said of teaching income for universities. The decline in funding for teaching in universities during the period 1996-1999 coincided with the emergence of polytechnics. Universities saw a sharp decline of 3% in public income for teaching during the period 1998-1999, however this period coincided with a 4 % reduction in graduates.

Figure 42: Annual increase in public income for teaching and research for the whole of the higher education sector.



Source: Statistics Finland

Figure 43: Annual increases in income for teaching and research in universities



Source: Statistics Finland

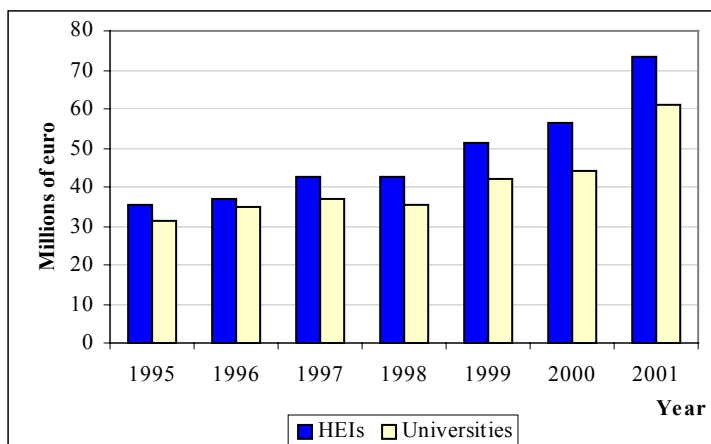
Over the period 1999-2001, national income for teaching in the whole of the higher education sector increased by 6 %, whereas, national income for research decreased by 2%. During the same period, national income for teaching in universities increased by 6%, whereas for research it decreased by 3%. Income from national sources for teaching in the whole of the higher education sector averaged 62% of total public income for teaching during 1999-2001. During the same period national income for research averaged 90% of total public income for research.

During the period 1999-2001, income from municipalities for teaching increased by 14%, and for research it increased by 42%. Income from local authorities (municipalities) for research is solely directed towards universities. Income from municipalities for research accounts on average for 0.9% of total public income for research, whereas for teaching it accounts for 38% of total public income. On average, income from international sources for research in the whole higher education sector accounted for 7% of total public income. Income from other public sources during the period 1999-2001 averaged 2% of total public income for research. Other public income refers to other public sources and from institutions own assets.

Income by selling services from private sector

Over the period 1995 –2001, there was a 108% increase in income from selling services to the private sector in higher education institutions. In the same period, universities witnessed a 95% increase in income from selling services to the private sector. Figure 44 shows how total income from selling services to the private sector has increased over the period 1995-2001 for the entire higher education sector and for universities.

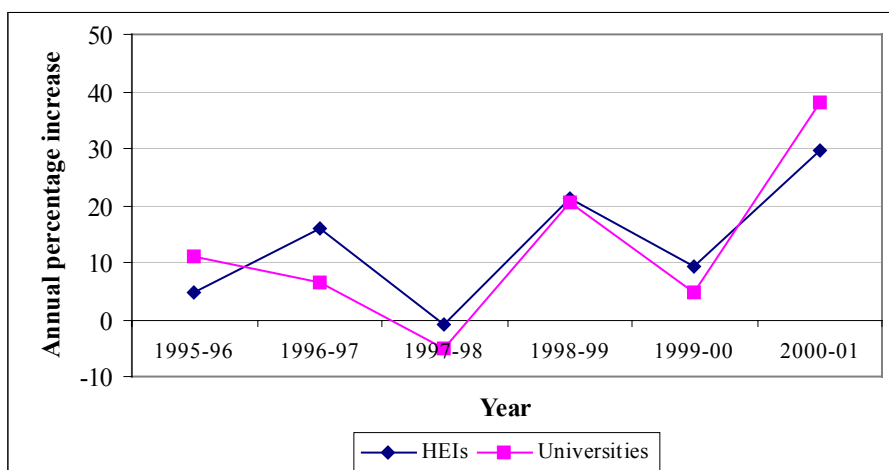
Figure 44: Total income from selling services to the private sector for the whole higher education sector and for universities (1995 constant prices)



Source: Statistics Finland

Figure 45 illustrates the annual increases in total income of the whole of the higher education sector and universities separately. The annual percentage increases for universities tend to follow more or less the same pattern as of the whole of higher education sector. On average during the period 1999-2001, universities accounted for 82% of the total income of the higher education sector from selling services to the private sector.

Figure 45: Annual percentage increases in total income of higher education institutions and universities from selling services to industry



Source: Statistics Finland

Over the period 1999-2001, higher education institutions' income from selling teaching services to the private sector has averaged 11% of the total income from selling services to the private sector. Income from selling teaching services referred to income from polytechnics. During the period 1999-2001, there was a 29% increase in income from selling these types of services in the whole of the higher education sector.

On average, over the period 1999-2001, 89% of the whole of the higher education sector's income from the private sector came from research contracts. During the same period, 92% of income

from research contracts came from universities, and over the period 1999-2001 income from research contracts increased by 45%. For the whole of the higher education sector, during the period 1999-2001, the whole of the higher education sector saw their income from research contracts increase by 44%.

Expenditure of higher education institutions

During the period 1999-2001, expenditure on research personnel averaged one third of the total expenditure on personnel in the whole higher education sector. In the university sector the expenditure on research personnel during this period was 46%. Expenditure on personnel accounted for on average 38% of total current expenditure during 1999-2001.

Student support

The national student financial aid system underwent several changes during the 1980s and 1990s. The basic idea of the amendments in the 1980s was to increase the proportion of the grant compared to the proportion of the loan. Changes were made to the student financial aid system by amending legislation, which dated back to 1972, until a totally new Act and Decree on Student Financial Aid came into force on 1 May 1994. The financial aid scheme had two elements:

- i. The grant
- ii. The repayable loan

In 1992, a profound reform was introduced to the financial aid system. Until then, banks had applied centrally controlled basic interest rates when granting state-guaranteed student loans. Due to the radically changed economic situation of the country, market interest rates started to be applied to student loans.

The new Act on Student Financial Aid of 1994, restricted the maximum time that a student can get financial aid to 55 months for a higher academic (second-cycle) degree. This period can be lengthened in cases of illness etc. In addition, the Ministry of Education made a decision by which students of certain disciplines are automatically granted a longer period because of the extent of the first degree or an unusually demanding syllabus (e.g. medicine, some languages not taught at secondary schools).

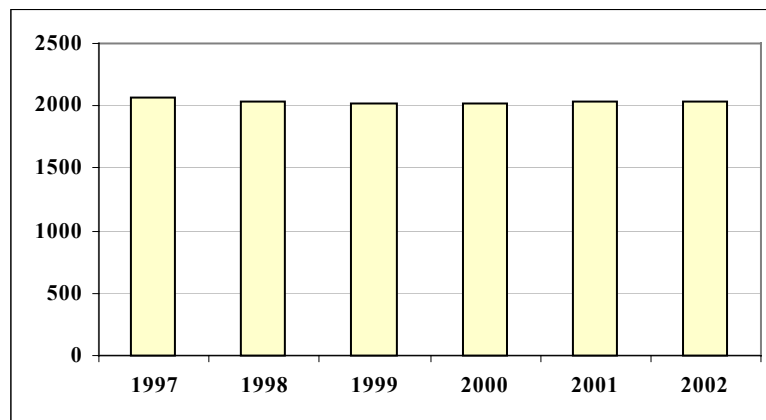
France

Historical development of higher education

In the nineteenth century institutions and schools emerged or were reformed. These institutions were in complete contradiction to similar institutions dating from the middle ages and the time of absolute monarchy. They were emancipated from the Church and the political power. The University of France was established by Imperial decree, in 1808. It was only from 1885 that universities were created as places for giving specific teaching to students. Classes were defined according to what teaching diplomas were taught. Special schools and Grandes Ecoles were being created throughout the nineteenth century, constituting both teaching institutions and research institutions characterised by their competitive entrance examinations.

The post war period was marked by a considerable increase in the numbers of students, mostly in the literary subjects, while the scarcity of scientific diplomas required some modernisation. The Grandes Ecoles, with less cumbersome administration, reformed more swiftly, while new ones were also created, especially in the corporate management field. In an attempt to copy this model, the science and law universities developed national institutions for applied science and corporate administration. In all other fields the universities formed a disparate, fragmented mass, both as regards subjects, which were compartmentalised or split up (as is the case in sociology which has no study structure as such) and as regards their demands, which are split between research and corporatism. The need to reform the higher educational system was re-formulated by the student movement of 1968 and resulted in Edgar Faure's framework law of November 12 1968, which allowed new principles to be laid down for higher education and changed university organisation.

Figure 46: Number of students in higher education (ISCED 5/6)



Source: Eurostat

Education policy

In 1998 the Minister of Education and Research launched a plan to reform the French research infrastructure. The goal of the plan was to improve the efficiency of the research policy; to stimulate research at universities and research organisations; and to make the economy more

productive. In the 2001 budget for civil research and technological development, four main priorities were identified:

- i. An increase of the human capacity in research by creating new positions for researchers and support staff and making scientific careers more attractive.
- ii. An increase in the resources for laboratories
- iii. Continuation of the policy regarding priority disciplines. Additional funds are provided to research in three disciplines through the Fonds National de la Science (FNS) and through the Fonds de la Recherche et de la Technologie (FRT).
- iv. Further development of innovation and R&D in industry. It is felt that the part of R&D in industry is too small, compared to other countries.

The strong growth of enrolment in higher education in the late 1980s and early 1990s was the main reason for the Minister of Education to launch the plan U2000 in 1990. The goal of this plan was to invest in the higher education infrastructure to accommodate the wave of new students. A crucial element in this was co-operation between the central government and local authorities. Through such partnerships the central government was able to add to the financial contributions of the local authorities. The plan has led to a geographical coverage in terms of higher education institutions that was considered to be complete by 1999. The context for the new plan, the Université du 3ème millénaire (U3M), is completely different from U2000. The main difference is the decline in enrolment in higher education. U3M has to ensure that higher education and research can contribute more to the economic development of the country (and the regions). Therefore, close relations between teaching, research and industry are considered to be essential. U3M has a double focus. On the one hand, it is a prospective reflection on the organisation of the education and research system and on the other hand, it focuses on the organisation of higher education (especially research) within the framework of the Contrat de Plan État-Région 2000-2006. Funds are allocated to:

- Construct student facilities (like restaurants, libraries, and sports facilities). Around one quarter of the budget of U3M is allocated to these activities.
- Enhance the participation of foreign students.
- Invest in university facilities (especially in Paris and research facilities at new universities),
- Regionally balance the resources and facilities for research. Research should be more responsive to the needs of the local and regional economy.

The regional participation in U3M will be determined in a process of negotiations between the central and regional governments within the framework of the Contrat de Plan État-Région 2000-2006. The U3M plan is a joint effort of the state and the territorial authorities. The U3M plan also receives support from the European structural funds.

Contractual policy started in 1989. However in 1998, the concept was relaunched. The aim of contractual policy is to give new autonomy to universities and to allow the State to exercise fully its responsibility to boost and co-ordinate activity in higher education. Each establishment draws up a four-year development plan corresponding both to national objectives and to local training needs. The plan covers all the activities (teaching, research, internationalisation, management, etc.), regarding all actors (students, staff, public authorities, and external parties). The plan is addressed to the appropriate department of the Ministry, and then negotiated with it. Finally, a four-year contract is signed. The contract is not a legal contract but has to be seen as a set of

mutual, explicit and formalised engagements. However, this is not considered to be a problem since it serves other purposes as well:

- The contract is a factor in the overall development policy, common to all the players in the institution
- The contract provides a unique opportunity for dialogue between the State and institutions
- The contract is a management tool enabling projected means to be allocated (particularly operating funds)

In 1985 (Decree of 22 January 1985 on the budget and financial system of the EPSCP, or *Établissements publics à caractère scientifique, culturel et professionnel* (Public Scientific, Cultural and Professional Institutions)), the management and accounting rules for public bodies were adapted to the specific problems of universities and to the new structures and tasks laid down in the Savary Act. The development of relations with the regions, the contractual policy and decentralisation, gradually modified the universities' practices and requirements in terms of management. A new financial decree was drawn up in the early 1990s, at the same time as universities were setting up a new system of financing and accounting management (NaBuCo). It was published in 1994 (Decree of 14 January 1994 on the Budget and Financial System of the EPSCP) and came into operation in 1997 following a transition period. This new decree allowed the universities to base their budget no longer on administrative considerations but on the major policy choices that they were offered ('management budgeting'). It strengthened management controls, whilst at the same time increasing the possibilities for decentralised decision-making within educational institutions.

Financing of higher education institutions

The State has remained responsible for investment in higher education, and is in principle the only decision-maker as regards building. However, since 1968, when institutions were granted autonomy, they have been able to put forward proposals regarding building and equipment corresponding to their needs, both for teaching and for research and libraries. University investment projects are examined and assessed by the rectorat in the light of the académie policy in higher education, and are then submitted to the Ministry, which will take the final decision. The State finances the building, the extensions and the equipment of universities. However, since 1989, it has shared financing with the territorial authorities. The projects U2000 and U3M have been and are important frameworks for these shared responsibilities.

The main sources of funds for research and development (R&D) activities are public authorities, enterprises, and sources from abroad. Public funding for research at university-based laboratories or research groups is provided by:

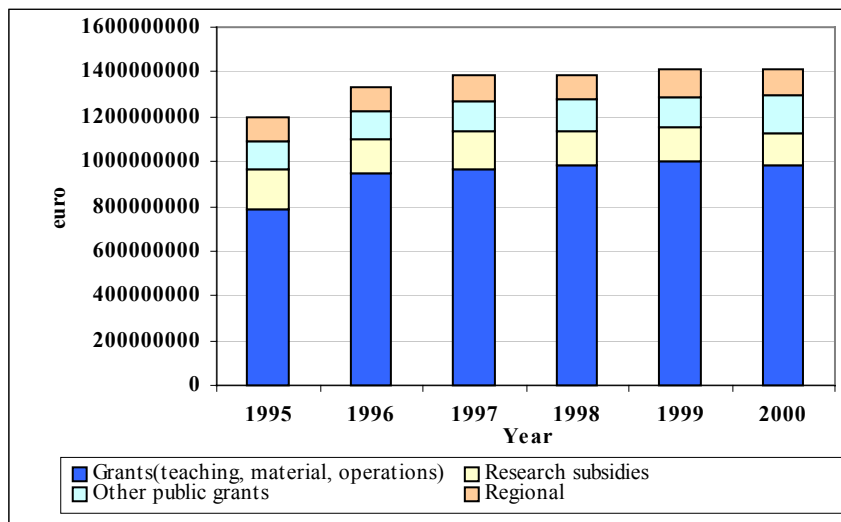
- The higher education part of research budget
- The CNRS budget
- Other national research councils

Public research funding is based on recurrent assessment and output-based criteria.

During the period 1995-2000, total public expenditure on universities increased by 18% (see Figure 47). During 1995-2000, public grants for teaching materials, and operations increased by a 25%, but grants for research decreased by 20%. From 1995 to 2000, income from other public

grants increased by 42%, whilst income from regional bodies increased by only 3%. Other public grants consist of other ministries and other public bodies.

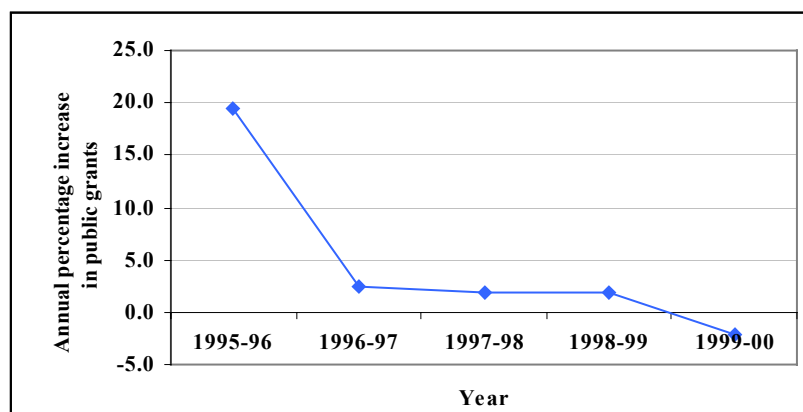
Figure 47: Total public income of universities broken down by purpose (1995 constant prices)



Source: Ministère éducation nationale enseignement supérieur recherche

It is worth noting that the most distinct annual increase in income of universities from public funds for operational purposes was during the period 1995-1996, when there was an increase of 20% in income (see Figure 48). This can be partly explained by the high number of students enrolled in universities. The annual increases in income from public grants for operational purposes were relatively stable during the period 1996 to 1999, averaging 2%. However, the period 1999-2000 was marked by a 2% decrease in income from public grants for operational purposes.

Figure 48: Annual percentage increase in income from public grants for teaching, material and operations.

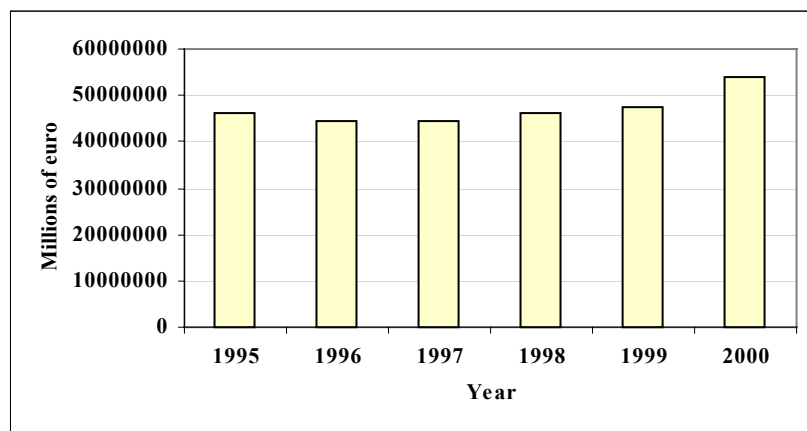


Source: Ministère éducation nationale enseignement supérieur recherche

Apprenticeship tax

Companies are obliged to pay part of their wage costs (around 0.5%) as apprenticeship tax. However if they participate in an apprenticeship scheme with a higher education institution, they may use that money in that scheme. During the period 1995-2000, there was a 17% increase in income from the apprenticeship scheme in universities. The period 1999-2000 saw a particularly sharp increase of 14% in the income from the apprenticeship scheme. On average over the period 1995-2000, income from the apprenticeship scheme only accounted for 2% of the total income of universities.

Figure 49: Income from the apprenticeship tax (1995 constant prices)



Source: Ministère éducation nationale enseignement supérieur recherche

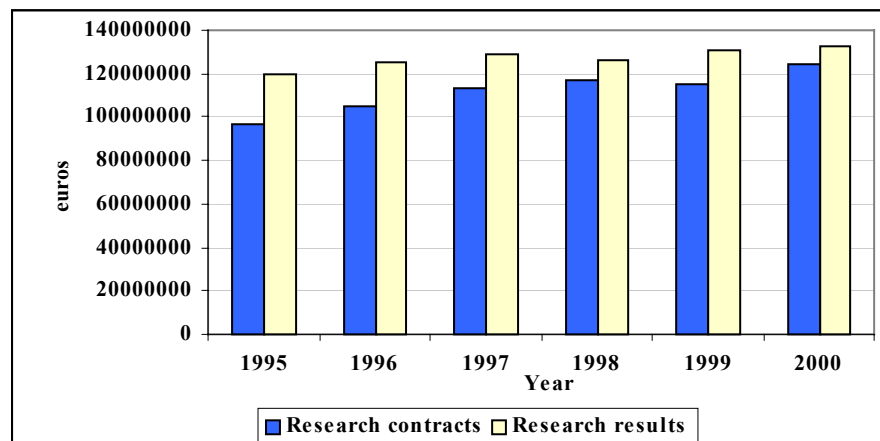
Contributions of students

In France, all students in first, second, third cycle programmes, except those receiving a study grant, have to pay small registration fees. The amount to pay depends on the type of programme and the type of institution. The Ministry of Education decides the level of the fees charged at public higher education institutions. At private higher education institutions, the institutions set tuition fees. For other post-initial programmes at public higher education institutions and at private higher education institutions, the institutions themselves set the prices. During the period 1995-2000, there was a 10% increase in the income from registration fees. On average over the period 1995-2000, income from registration fees accounted for 10% of the total income of universities.

Research contracts and income from research results

During the period 1995-2000, there was a 28 % increase in income from research contracts and a 10.8% increase in income from research results. On average over the period 1995-2000, income from research contracts and research results accounted for 5% and 6% of the total income of universities.

Figure 50: Income of universities from research contracts and the sale of research results (1995 constant prices)

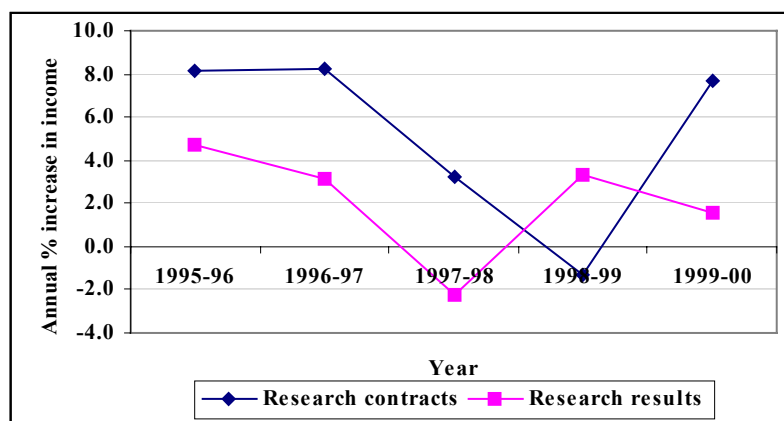


Source: Ministère éducation nationale enseignement supérieur recherche

Upon a closer examination of the annual percentage increases in income of universities (see Figure 51) from research contracts and research results, two observations can be made:

- A correlation between the income from research contracts and from research results, with a lag of one period for research contracts. For example, in the period 1997-1998, the income of research results decreased by 1.1%, whereas income from research contracts decreased by 1.3% in 1998-1999.
- Positive increases in income from research contracts tend to be higher than in income from research results.

Figure 51: Annual percentage increase in income from research contracts and research results

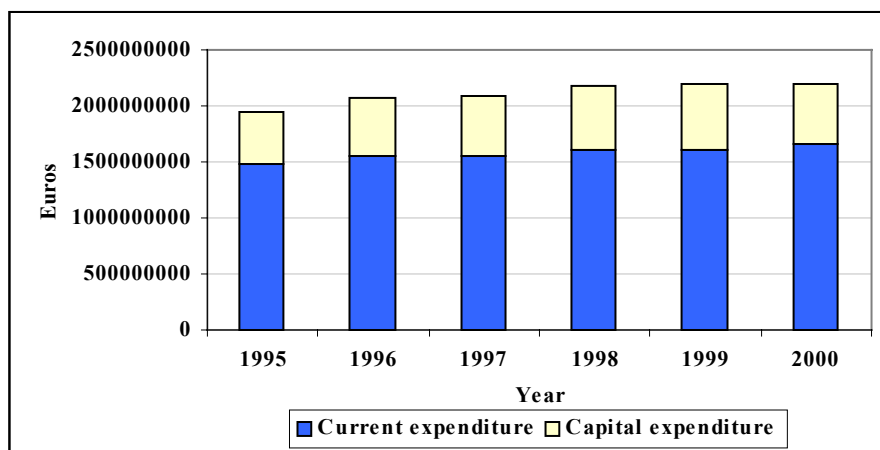


Source: Ministère éducation nationale enseignement supérieur recherche

Expenditure of universities

During the period 1995-2000 the total expenditure of universities increased by 13% (see Figure 52). During the same period, current expenditure increased by 12%, whilst capital expenditure increased by 14%. In contrast to other countries, expenditure on personnel does not represent the biggest expenditure outlay of universities. Expenditure on personnel only accounted for just over a third of the total current expenditure of universities in 2000. Over the period 1995-2002, expenditure on personnel increased by 9%.

Figure 52: Expenditure of universities broken down by type of expenditure (1995 constant prices)

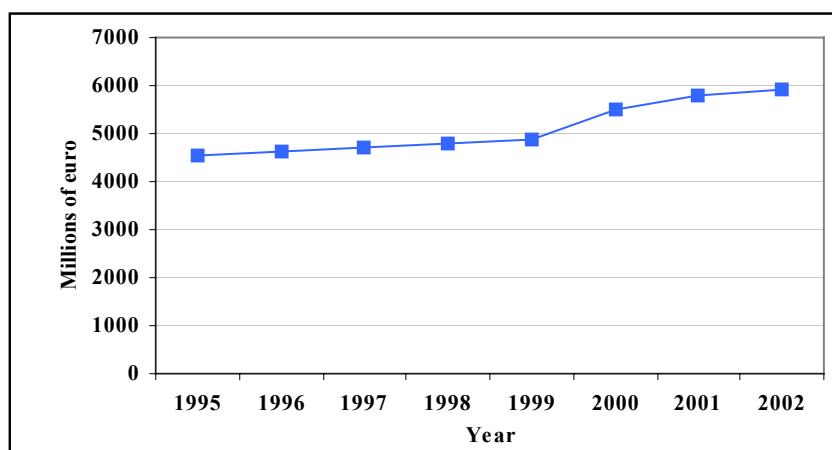


Source: Ministère éducation nationale enseignement supérieur recherche

Expenditure of the higher education sector on R&D

During the period 1995-2002, the higher education sectors expenditure on R&D increased by 30%. The period 1999-2000, showed the most prominent annual increase of 13% in expenditure on R&D.

Figure 53: Expenditure of the higher education sector on R&D (1995 constant prices)



Source: Eurostat

Student support

Students at public higher education institutions and private state recognised higher education institutions are eligible for student support. The system of direct financial student support mainly consists of grants. There are two types of grants:

- Those awarded on social criteria
The grants on social criteria are awarded to students on economic grounds, including the student's own income, that of his or her parents, and their family expenditure. The amount of income taken into consideration is announced each year by ministerial circular, and may vary from one year to the next. Only French students aged 26 and under, preparing a national diploma or recognised university diploma, showing due proof of eligibility and studying full-time, may apply for a grant. The recteur of the académie is responsible for award procedures (management and examination of applications).
- Those awarded on university criteria.
Grants on university criteria are not granted according to economic criteria but according to merit. Grounds for award include assessment of work accomplished, and school results. They are awarded to students already in possession of a postgraduate degree (Baccalauréat + 5 years), or to students studying for competitive examinations of high standard such as the CAPES or agrégation.

Students not eligible for a grant may receive an interest free loan (prêts d'honneur), which is an income contingent loan and is allocated by a committee of the education institution (Académie). French families with studying children benefit from child allowances and tax deductions. Parents are financially responsible for their children until the age of 18. In addition, parents can benefit from child allowances and tax reductions if their children are under the age of 26 and are following (higher) education. The amounts of these benefits depend on the number of children in the family.

There is a national social plan for students (Plan social étudiant), effective since 1998. This four-year plan has three major components:

- Financial aid: the plan is to increase the number of students receiving aid by 30% and to increase the average level of the financial aid by 15%. In 1999, four new measures were introduced:
 - i. Bourse de cycle: a grant for students in the first cycle who have failed their first year or wish to re-orient themselves (in 1999, 13,621 students received such a grant);
 - ii. Bourse à taux zéro: students from lower income families are exempted from the payment of all registration fees and contributions to social services.
 - iii. Special grants (5368 in 1999);
 - iv. Merit-based grants for school-leavers with excellent grades (193 in 1999).
 - v. In 2000 a grant was created for students in the second cycle (bourse de second cycle) who failed their first year or wish to re-orient themselves (7,750 students in 2000)
- A charter in which the role of students in the regional and national organisations on student facilities (CROUS and CNOUS) is described.
- Facilitating visiting foreign students: by streamlining procedures and by offering short programmes (1-3 months) geared to the needs of foreign students

Within the region Ile de France, the ministry subsidises public transport for students.

Germany

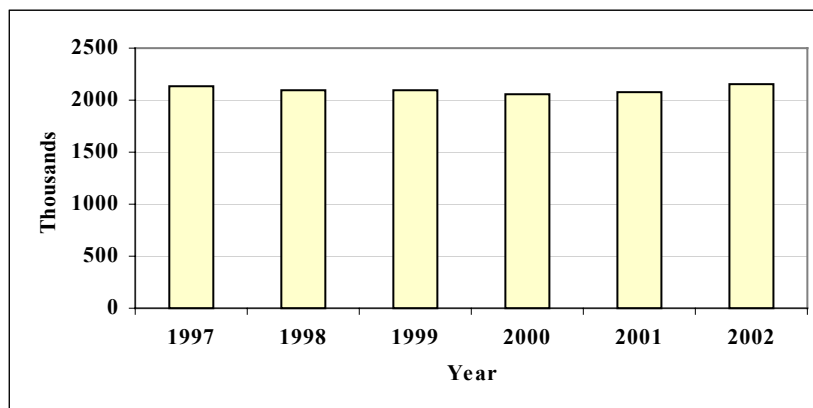
Historical development of higher education

The tradition of higher education in Germany is marked by a number of basic principles that date back to the university reform of the early 19th century, particularly to the efforts of Wilhelm von Humboldt. These principles include the internal autonomy of institutions of higher education despite their being maintained by the state, freedom of teaching and research, and the unity of teaching and research. According to the principle of cultural sovereignty (Kulturhoheit), the reconstruction of the higher education system was a matter for the Länder. Policy on higher education was coordinated by the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany. The Federal Government initially exerted no influence on the development. The establishment of Fachhochschulen from 1970 onwards as a separate type of institution of higher education, represented a major development in higher education. Other new types of higher education institutions (Gesamthochschulen, the correspondence university, higher education institutions of the Federal Armed Forces), in contrast, remain insignificant. In 1969 the Basic Law (Grundgesetz) of the Federal Republic of Germany was amended placing the expansion and construction of higher education institutions³, educational planning and the promotion of research activities under the joint responsibility of the Federal Government and Länder. The Federal Government was empowered to enact framework legislation concerning the general principles of higher education. The first Berufsakademien was founded in 1974 in Baden-Württemberg. These professional academies have taken the principle of the dual system of vocational training, the combination of practical and theoretical training, and applied it to the tertiary sector.

Higher education in the former GDR was based on the Soviet planned economy model. In 1989, following the revolution in the GDR, a number of reforms in higher education were launched before its unification with West Germany. The reforms included placing higher education within the remit of the newly established Länder, the autonomy of institutions of higher education was restored along with freedom of research and teaching, ideologically encumbered faculties were overhauled, and wider access to institutions of higher education was introduced. There was a 1.3% increase in the number of students in higher education in Germany from 1997 to 2002. Nevertheless, starting from 1998 there was a decline in the number of students, reaching a nadir in 2000. Over the period 1997-2000, there was a 4% decrease in the number of students in higher education. In 2001, student numbers started to rise again (see Figure 54).

³ Including university clinics

Figure 54: Number of students in higher education (ISCED 5/6)



Source: Eurostat

Education policy

Since the early 1990s, the state and the Länder have intensified their efforts to introduce higher education reforms throughout Germany as a result of financial constraints, staffing levels and the need to strengthen the management of higher education. The aim of reforming the German system of higher education is to create scope for competition and differentiation, as well as to safeguard the international competitiveness of German institutions of higher education by means of deregulation, a performance-oriented approach and the creation of performance incentives. The recent changes in the Hochschulrahmengesetz (HRG) imply a new salary system for staff at higher education institutions. The two key elements of the new system are the liberation of salaries at universities and Fachhochschulen and performance-related pay.

Since 1992, the “Applied Research and Development at Fachhochschulen” programme of the BMBF plays an important role. This programme is designed to improve the capability of third party funding for applied research and development projects. A third task for Fachhochschulen concerns a regional role in technology and knowledge transfer. Since the reunification in 1990, progress has been made in building up the R&D capacity in the new Länder of Germany. The BMBF has reserved an annual amount of 3 million DM for rebuilding the research system in the new Länder, which goes towards research in all three sectors: higher education, non-higher education and business enterprise. The current industrial R&D capacity in the new Länder is very low. There are therefore fewer regional industrial partners with which the government-funded institutions can co-operate. The BMBF is continuing to encourage private investment in this part of the country.

In January 2004, a €1.9 billion program over the next 5 year to create Germany's version of the Ivy league elite colleges was announced. The aim is to spur academic competition and to counter the "brain drain" of scientists from Germany, especially to the USA by singling out 10 universities that will each receive €25 million a year. A parallel program will also reward individual departments with strong academic records and leading research groups. A jury of German research and science experts is to establish criteria for selecting the best universities. Internationally renowned research results and an emphasis on promoting students are said to be among them. Labour regulations are

to be softened in order to enable universities to base scientists' and lecturers' pay on performance. However, the plan has been delayed because of objections over funding. State politicians from the conservative Christian Democratic Union (CDU) party claim the federal government has no business regulating the funding of higher-education institutions. The Constitution stipulates that such funding is a Länder (states) responsibility. The CDU also fears that financing would draw funds from other programs rather than being in addition to normal funding. A final decision on the plan has been shelved until the next conference of federal and state officials in November.

A €18 million publicity campaign to market German universities overseas has been rewarded by recent statistics that show a record number of overseas students attended German universities in 2003. Figures compiled by the German Academic Exchange Service (DAAD) show that nearly 230,000 international students studied in Germany last year. Of those, more than 163,000 attended universities, a 63 percent increase over the past six years. The latest figures place Germany in third place behind the United States and United Kingdom in terms of countries favoured by international students. Foreign students now comprise 12 percent of Germany's total student body. China is the single biggest supplier of students to the country, with 20,000, while Germany's neighbour, Poland, constitutes the second biggest market, with 10,000 students.

Financing of higher education institutions

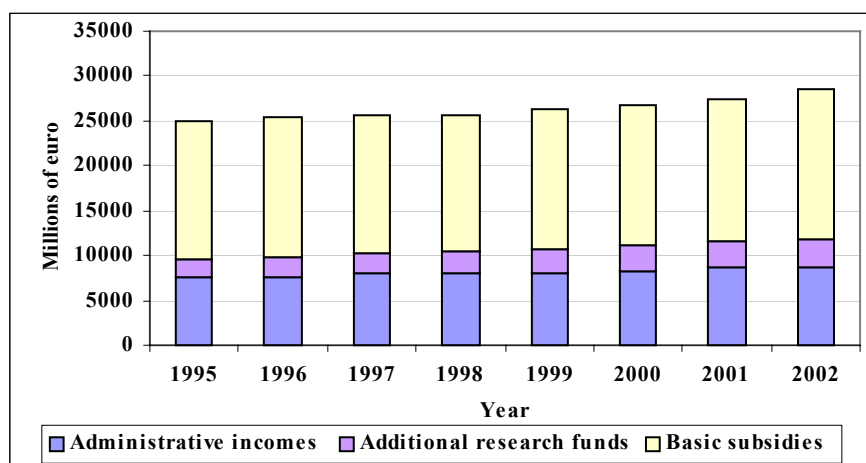
The annual budget, in which the state subsidies for the individual institution are presented, is included in the state law. The budget is subdivided into expenditure categories (line items) and positions (for personnel, described in the Stellenplan). Since teaching and research are not funded separately, the budget is an integrated budget for education and research. Usually the budget is already subdivided according to the institutional structure, and the positions are already assigned to the departments and institutes. Since German higher education is publicly funded, institutions have to follow the budgeting and accounting laws of German public administration. These laws, although set by the individual states, are more or less similar across the country. During the past few years some Länder enable their institutions to spend across line items, and some have even created real lump sum budgets. The basic funding of higher education institutions is not the result of using a formula for calculating budget components. The funding is based on institutional budget requests, each approved in a process of budget negotiations by the authorities on the basis of institutional assessments. The starting point is the Stellenplan of the last year. In some Länder, formula funding has been introduced for increasing parts of the available budget.

In many Länder, pilot projects have been carried out with block grant funding (Globalhaushalt) as a replacement for the traditional allocation mechanisms. In 2001, eleven Länder introduced block grant funding in all higher education institutions. There are differences between the Länder regarding the way the mechanisms are implemented, the degree of actual spending freedom, and the way in which the block grant system is connected to other steering instruments, such as covenants and quality assurance mechanisms. The covenants (Zielvereinbarungen) play an important role in the so-called Stadtstaaten (e.g. Bremen). The fact that the Stadtstaaten only have one or two universities makes it more efficient for them to introduce contract management than to develop a sophisticated formula. Some Stadtstaaten, e.g. Hamburg, have combined contract management with formula funding. Sometimes, the award of block grants is part of an ongoing state (Kameralistisch) budgeting approach and introduces a range of special provisions. In the pilot

project conducted in another Land, public companies of the Land using double-entry bookkeeping were established which draw up their own economic plans on the basis of a cost framework developed by themselves outside the Land budget. According to the Standing Conference of Ministers of Education and Cultural Affairs, the degree of flexibility that can be achieved using either of these methods is so high that such budgets can also be deemed to be ‘block grants’.

During the period 1995-2002, the total public income of higher education institutions increased by 15% (see Figure 55). Basic subsidies (grundmittel) are the most important source of income of higher education institutions. Over the period 1995-2002, higher education institutions have seen their share of total income from basic subsidies decrease from 61.4% in 1995 to 58.5% in 2002 (see Table 12). However, the share of total income of higher education institutions that came from additional research funds (drittmittel) increased from 8.4% in 1995 to 10.9% in 2002. Administrative incomes (verwaltungseinnahmen) represent the second most important source of income of higher education institutions. In 2002, the share of total income of higher education institutions that came from administrative incomes was 31%.

Figure 55: Income of higher education institutions from national government sources, broken down by purpose (1995 constant prices)



Source: Finanzen der Hochschulen

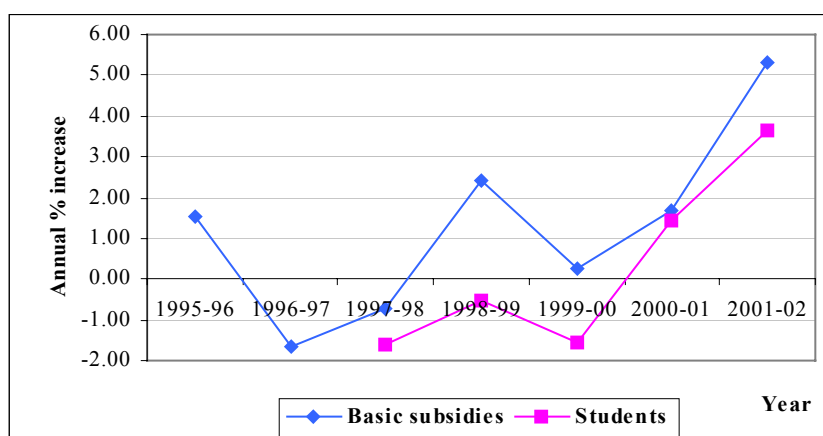
During the period 1995-2002, higher education institutions saw their income from basic subsidies increase by 9.1%; from additional research funds increase by 48.8% and from administrative incomes increased by 16.2%. Figure 56 shows the annual percentage increases in income from the basic subsidies and the annual percentage increases in the number of students. Despite the fact that the budget of a university or a fachhochschule is not the result of using a formula, it can be inferred that income from basic subsidies are correlated to the number of students in higher education.

Table 12: Income of higher education institutions broken down by purpose as a percentage of total income.

Year	Administrative incomes	Additional research funds	Basic subsidies
1995	30.2	8.4	61.4
1996	29.9	8.9	61.2
1997	30.9	9.2	59.9
1998	31.3	9.4	59.4
1999	31.0	9.6	59.5
2000	31.2	10.3	58.6
2001	31.3	10.7	57.9
2002	30.7	10.9	58.5

Source: Finanzen der Hochschulen

Figure 56: Annual percentage increases in income from basic subsidies (grundmittel) and the number of students

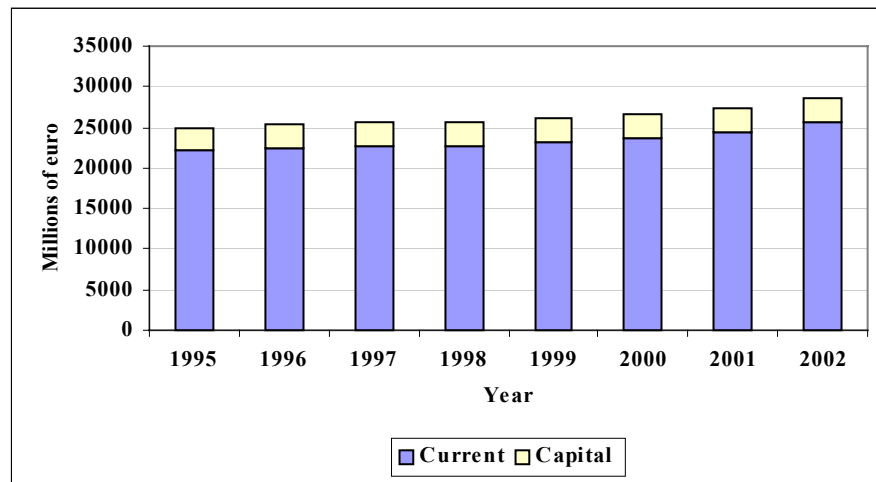


Source: Finanzen der Hochschulen

Expenditure of higher education institutions

During the period 1995-2002 there was a 14.6% increase in the total expenditure of higher education institutions. Current expenditure increased by 15.8%, whilst capital expenditure increased by 5% during 1995-2002.

Figure 57: Total expenditure of higher education institutions broken down by type (1995 constant prices)

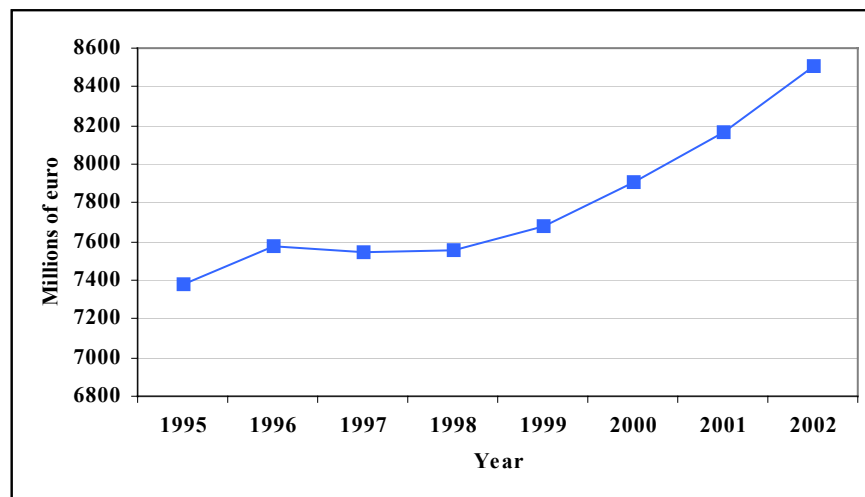


Source: Finanzen der Hochschulen

Expenditure of higher education institutions on R&D

Over the period 1995-2002, there was a 15% increase in expenditure by the higher education sector on R&D.

Figure 58: Expenditure of the higher education sector on R&D (1995 constant prices)



Source : Eurostat

Student support

Students in higher education who have no other means of maintenance can receive financial assistance (Bafög). In 1998, the reform of the Bafög was announced. The objectives were to enhance social justice, to remove existing differences between the old and new Länder, to adjust the system to internationalisation and, to make the system more transparent and to shorten the time to degree and reduce dropout. In 2001, the system was implemented. The main features of the system are:

- Maximum amounts of support for students living on their own (466 Euro) or with their parents (377 Euro), this maximum can be higher dependent on eligibility for e.g. health insurance and accommodation subsidies;
- The level of support is dependent on the income of the student, her/his partner and/or parents;
- The length of the support coincides with the nominal length of study; eligibility for support after the fifth semester is dependent on the performances of the student;
- The grant is interest-free and should be repaid from five after graduation on; the amount will be 105 Euro per month given the graduate has a certain level of income. The maximum number of years of repayment is 20 years; the maximum amount is 10,000 Euro.
- Students are eligible for the grant system if they take up courses in other higher education systems, dependent on the length of the stay, the country involved and whether the foreign courses are related to the study in Germany. They are only entitled to do so if they commence their studies in Germany.

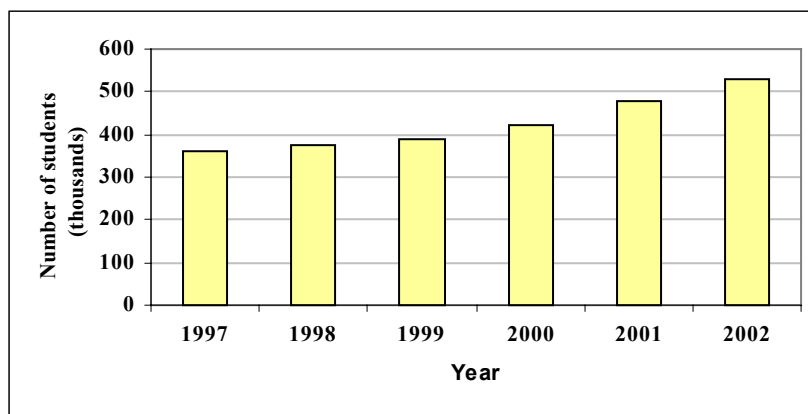
Although the reform was announced to be a major one, only minor improvements have been reached as compared to the previous system. In the former and present system, tax deduction mechanisms are as important as the grant scheme (e.g. about 15% of the students made use of the old Bafög system).

Greece

Historical development of higher education

The first Hellenic University, the Hellenic University of Otto was founded in Athens in 1837. In 1873, the National Technical University was established. In the 20th century, other universities were established. The organisation and operation of the Universities were governed for a long time by a law, which was not amended until 1978. In 1982 an effort was made to bring University education up to date with the passage in Parliament of a new law, which laid down a completely new framework of operation for the Universities. Figure 59 shows the evolution of the number of students in higher education during the period 1997-2002. During the period 1997-2002, there was a 45.8% increase in the number of students.

Figure 59: Number of students in higher education (ISCED level 5/6)



Source: Eurostat

The term ‘University’ signifies Institutions of the University Sector of Higher Education, namely, University, Technical University and Higher School of Fine Arts.

Educational Policy

It was only during the 1980s that the 8 regional universities genuinely began to develop. Around the same time, there was a radical change in the institutional and organisational framework of the university institutions, whereas up to that time it was still based on Act 5343 of 1931. The framework acts of 1982 on the structure and functioning of higher educational institutes (*AEIs*) made significant changes to the operational framework. The laws 1268/82 and 1566/85 brought a radical reform to the Greek educational system. The institutional framework introduced by the framework act 1268/82 removed the considerable power of the professorial chair, consolidated university asylum, the autonomy and self-governance of universities and legislated on second-level (postgraduate) studies and research.

Research and training together with teaching constitute the basic targets of the Higher Educational Institutions as they are described in 1st article of the 1268/82 law. According to article 3 of law 1268/82, Universities are legal entities whose operation is subject to public law. Regarding their administration they are autonomous. The general framework within which universities operate was

established by law, whilst the universities are responsible for staffing and operational matters. The Minister of Education and Religion exercises the external supervision on behalf of the State. Financially, the Universities are subsidised by the State apart from the fact that they have their own assets, which can take any form (from money to immovable property), which they exploit.

The recent education reform of 1997, together with the New Higher Education Act completed the modernisation drive that began in the 1980s with framework act 1268/82. This reform consolidates the concept of equal access to education, reinforces the concept of free education, promotes further the adaptation of the human and exact sciences to current new international conditions and requirements and, more generally, helps foster the cultural and personal development as well as the abilities of young people in order to facilitate their integration into the fast-evolving international environment.

Financing of higher education institutions

The budget and the public investment programme fund higher education institutions. The specific needs of each university (in particular, the current development phase and the extent to which its development constitutes a national objective) are taken into consideration when negotiating the amount of funding to be provided.

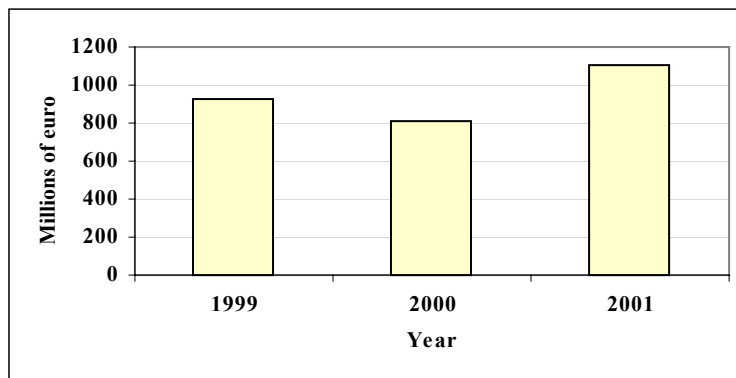
The dramatic improvement observed in recent years in the quality of research work carried out in Greek AEIs and TEIs is due not only to the modernising of the institutional structure and operating conditions, etc., but also to the return to Greece of internationally renowned scientists, which has led to the release of additional finance to institutions from the funds of the two EU-related Delors Packages as well as from private funds. It should be noted that, for such awards, research programmes are subject to the submission of research proposals which are assessed according to the conditions of the free market and competition.

Upgrading and strengthening the role of higher education institutions on the way towards the establishment of the European Higher Education Area is one of the major concerns of the Greek Government. According to the Greek Constitution, Universities and TEIs are autonomous institutions within a system of “input-based” state funding. The Greek Government intends to launch a dialogue with the higher education institutions in the academic year 2003/2004, aiming at the establishment of a system of state funding “by objectives”, which will consequently result in increased autonomy and freedom of institutions.

This new system will be based, as in many European countries, on a consultation procedure between the Government and each institution, which will result in a four-year agreement comprising mutual commitments. The Government’s commitment will refer mainly to resources, while the institution’s commitment will refer to the achievements of the agreed objectives. This development, in combination with the establishment of the national quality assurance and assessment system, is expected to improve the overall accountability of the Greek higher education institutions as well.

During the period 1999-2001, the income of higher education institutions increased by 18.8%. The financing of higher education establishments is almost totally dependent on the central government. Figure 60 shows the total public income of higher education institutions during the period 1999-2001. The transfer of funds to higher education establishments from the local authorities is negligible.

Figure 60: Total public income of higher education institutions (1995 constant prices)

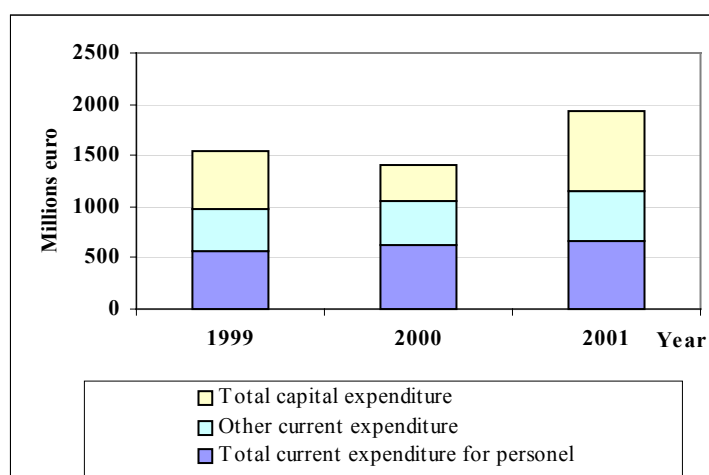


Source: Eurostat UOE data collection

Expenditure of higher education institutions

Over the period 1999-2001, total current expenditure of higher education institutions increased by 18.6%. During the same period, expenditure on personnel grew by 15.6% whereas other current expenditure rose by 22.7%. Total capital expenditure increased by 33.7% during the period 1999-2001.

Figure 61: Total expenditure of higher education institutions, broken down by type of expenditure (1995 constant prices)



Source: Eurostat UOE data collection

The current expenditure per student diminished from EUR 2514 in 1999 to EUR 2418 in 2001, in 1995 constant prices. Hence, total current expenditure per student, in 1995 constant prices, decreased by 3.8% between 1999 and 2001.

Student support

According to the Greek Constitution, higher education is provided free of charge. In consequence there are no tuition fees in Greece, with the only exception of a small number of postgraduate programmes, mainly leading to second cycle degrees equivalent to MBAs.

Apart from access, studying and living conditions are provided for those already studying in higher education, so that they can finalise successfully their studies in time without being prevented by obstacles related to their social and economic background. The Greek Government has developed a concrete policy for student support directed to all students, but primarily to those with a weaker social and economic background, making thus a further contribution to reducing the social gap. The main characteristics of this policy are as follows:

- Provision of a system of grants that is performance based.
- A system of loans exists currently only for the second cycle studies. Its extension to the first cycle studies is under consideration by the Greek Government.
- Provision of health insurance and free medical care for all students.
- Provision for lower transportation fares in all means of public transportation except airplanes (all students).
- Provision for lower entrance fees for cinemas, theatres, cultural events and institutions (all students).
- Provision of free board in student canteens and restaurants. This measure covers almost 50% of the student population.
- Provision of free lodging in student dormitories and in rooms rented by the higher education institutions. This measure covers about 6% - 7% of the student population. At the same time, there is provision for subsidies to students renting rooms themselves, which further covers about 5% - 6% of the student population.
- Every student is supplied free of charge with two textbooks for each course of the study programme that he or she has registered in.

Greek students do not pay enrolment fees. Healthcare and textbooks are provided free of charge to students in AEIs and TEIs, and they have a 25-50% reduction on public transport. In addition, free meals and housing are provided for students from low-income families. There is also a programme whereby grants are awarded to a certain number of students admitted with good grades to an AEI or a TEI or who obtain excellent results every year. In the academic year 1996/97, a total of 5,405 students received a grant.

Act 2413/96 did not provide for student loans. Accordingly, the system of student loans set in place in 1991 was discontinued from 1995/96. The funds awarded as loans were incorporated into the grants awarded to students. A reconsideration of the existing policy for student support is among the short to medium-term plans of the Greek Government. The reconsideration will be directed at two major aims:

- i. Establishment of a generalised and efficient policy for student loans
- ii. Raise the percentage of students offered lodging either completely free of charge or at a very low price.

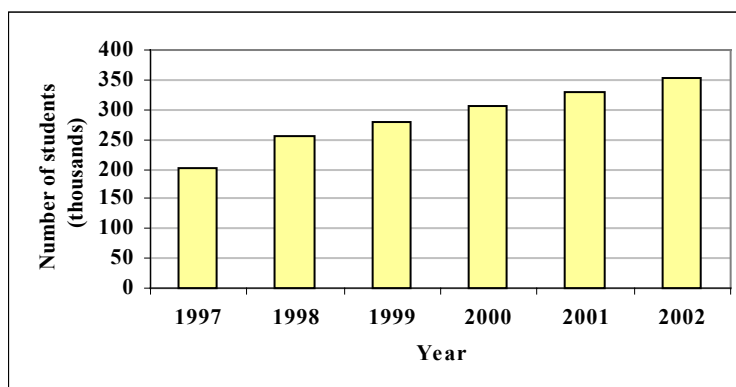
Over the period 1999-2001, there was a 127.3% increase in central government expenditure on student grants and scholarships (source: Eurostat UOE data collection).

Hungary

Background and historical development of higher education

The first university in Hungary was founded in Pécs in 1367. Other universities were established in Buda in 1395 and in Pozsony (Pressburg, now Bratislava, Slovakia) in 1467. A peculiar feature of the early Hungarian higher education landscape was that the longevity of these early universities was short. Thus no permanent universities existed in the Middle Ages. The oldest Hungarian university, which is still in operation, is the Eötvös Loránd University. It is the legal successor of the one founded in Nagyszombat (today Trnava, Slovakia) in 1635. In the second half of the 19th century, higher education expanded until World War I. In the process of this expansion the structure of higher education was centralised. After World War II, faculties were set up within the universities often with institutions one hundred kilometres away being linked within a faculty. As a consequence, several independent small universities operated alongside one another within the same city in addition to the 4 major universities. After 1945, the structure of higher education had changed in order to satisfy the demands of socialist planned economy. A number of changes were enacted in higher education after the Revolution of 1956 that was sparked by the marches of the university youth of Budapest. Between 1997-2002, there was a 74.6% increase in the number of students in higher education (see Figure 62).

Figure 62: Number of students in higher education (ISCED level 5/6)



Source: Eurostat

Hungarian higher education has a dual system with colleges and universities. Some colleges are associated with universities and operate as college faculties of the universities. A university can also offer college level courses.

Educational Policy

Following the fall of communism, political and ideological barriers of higher education development were abolished. The reforms led to the Act on Higher Education passed in 1993 established the autonomy of Hungarian higher education institutions and served as the basis for further reforms. The establishment and recognition of non-state higher education institutions was authorised. Churches had a theological academy and two other theological institutes were

recognised as universities, and incorporated a number of new church-affiliated colleges. Four private and foundation colleges began to operate. In 1992, the Catholic Church established the Pázmány Péter Catholic University with two secular faculties. In 1995, a parliamentary resolution was adopted on the fundamental principles of higher education development.

The Act LXXX of 1993 on Higher Education established two institutions to provide professional advice on the development and control of higher education:

- The Hungarian Accreditation Committee (HAC)
- The Higher Education and Scientific Council (HESC).

On 1 June 1999, Parliament passed Act LII of 1999 on restructuring the Institutions of Higher Education and amended Act LXXX of 1993 on Higher Education. As a result the number of state run universities and colleges decreased significantly. The number of higher education institutions was 89 (55 run by the State, 28 by Churches and 6 by foundations). Today, higher education institutions consist of 17 state universities, 1 non-state university, 13 colleges, 26 Church universities and colleges and 9 colleges run by foundations.

Financing of higher education institutions

The 1993 Law laid the basis for a new funding system for higher education. Higher education institutions can obtain their income from six sources:

- (i) The state budget;
- (ii) Other sub-systems of the public finance system;
- (iii) Tuition fees and other charges to students;
- (iv) Basic as well as entrepreneurial activities;
- (v) Donations;
- (vi) State wealth or their own wealth acquired on the basis of contracts or donations.

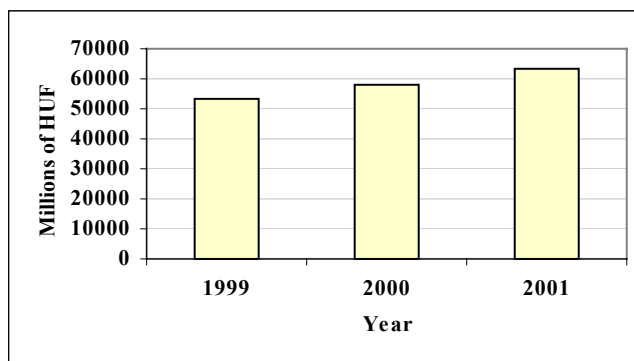
According to the 1993 law students had to pay tuition and other fees if they wish to participate in higher education. The size of the fees was to be determined by a Government Decree in the case of state higher education institutions and by the Regulation for Higher Education Institutions in the case of non-state institutions. This decree, however, did not come into effect until 1995. It set a low figure for the state tuition fee, and permitted higher education institutions to charge fees, other than tuition fees, only for services not related to programme requirements and to the fulfillment of academic requirements. The 1993 law also called for the introduction of a state guaranteed student loan system and for personal income tax exemptions for a set amount of tuition fees.

The newly elected Government in 1998 abolished the tuition fees that had been introduced earlier and developed a new student loan model very similar to that of the Australian system. The pilot phase for the new loan system began in September 2000. Tuition fees were abolished only in the case of normal full-time study leading to a first cycle qualification. In the case of professional further training, adult education, and open and distance learning, institutions could charge students fees.

There is not much of a tradition of private fundraising in Hungary, thus actions taken so far in this direction have only given rise to a small percentage of the needed amounts. In the early 1990s, aids obtained from World Bank grants and loans and from European Union funds through competitive applications resulted in substantial changes in Hungarian higher education.

There was a 19.8% increase in income of higher education institutions from public sources from 1999 to 2001 (see Figure 63).

Figure 63: Income of higher education institutions from public sources (1995 constant prices)

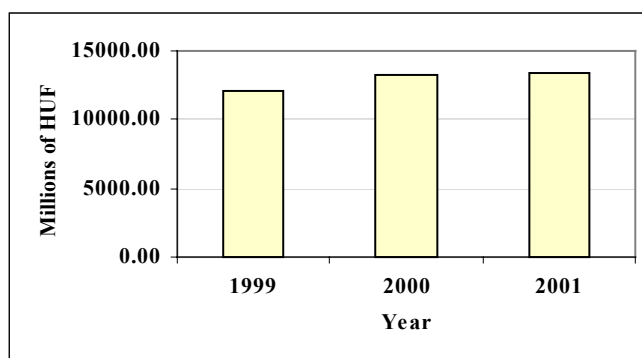


Source: Eurostat UOE data collection

Income from the private sector

Income from the private sector accounted for 16.3% of the total income of higher education institutions in 2001. The private sector relates to private businesses and non-profit organisations, charitable organisations, and business and labour associations. Between 1999-2001, there was a 10.4% increase in income from the private sector (see Figure 64).

Figure 64 : Income of higher education institutions from the private sector (1995 constant prices)



Source: Eurostat UOE data collection

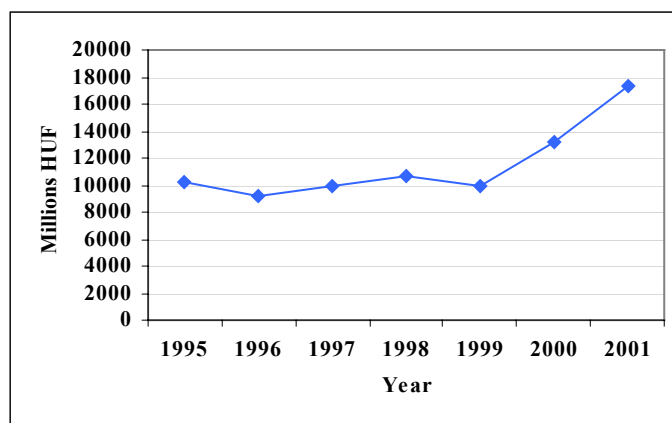
Expenditure of higher education institutions

During the period 1999 to 2000, there was a 6% increase in the total expenditure of higher education institutions. There was a 42% increase in capital expenditure of higher education institutions during the same period.

Expenditure of higher education institutions on R&D

Figure 65 shows the total expenditure of the higher education sector on research and development. Higher education institutions increased their expenditure on research and development by 70% between 1995 and 2001.

Figure 65: Total expenditure of the higher education sector on research and development (1995 constant prices)



Source: Eurostat

The government is the largest source of funds for R&D in the higher education sector (see Table 13), accounting for 88.7% of total R&D expenditure in 2001. The higher education sector has seen the share of total expenditure on R&D that came from the business sector increase from 2.1% in 1995 to 4.4% in 2001. Between 1995-2001, higher education sector expenditure on R&D that came from the business sector increased by 254%. During the period 1995-2001, expenditure of the higher education sector on R&D from government funds increased by 67.5%, whilst expenditure from the abroad sector increased by 76.4%. The non-profit sector only accounted for 1.1% of the total income of the higher education sector on R&D in 2001.

Table 13: Expenditure of the higher education sector on R&D by type of source as a percentage of the total expenditure

Year	Business	Government	Private non-profit sector	Abroad
1995	2.1	89.8	:	3.8
1996	2.9	85.0	1.9	4.8
1997	1.9	86.1	1.9	4.8
1998	5.4	84.4	1.3	5.7
1999	6.1	83.5	0.8	6.1
2000	5.5	85.8	1.0	5.4
2001	4.4	88.7	1.1	4.0

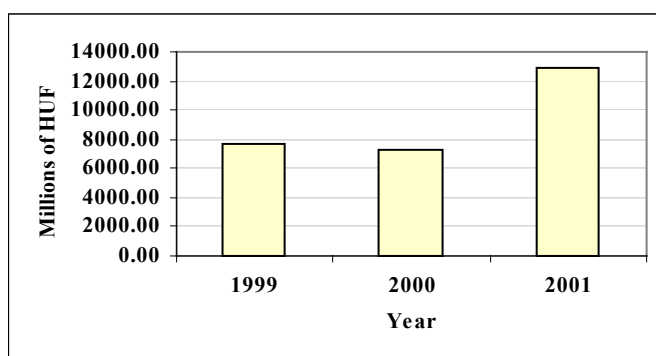
Source: Eurostat

Student support

In 1999, the Ministry of Education elaborated the concept of a higher education student loan system. The loan scheme enables students to start repaying the loan with preferential interest rates only after finding employment. The amount of instalments including interest may not exceed 6% of the monthly income of graduate students.

Between 1999-2001, there was a 70% increase in the total resources devoted to students in the form of scholarships and grants (see Figure 66).

Figure 66: Total resources devoted to scholarships and grants by the central government (1995 constant prices)



Source: Eurostat UOE data collection

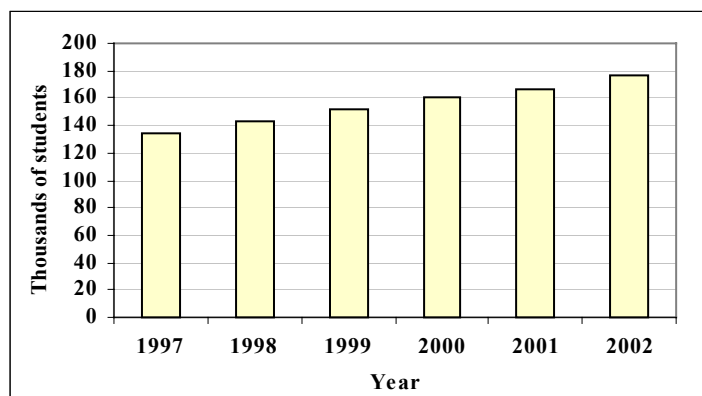
Ireland

Historical development of higher education

In 1592, the first university, University of Dublin was established. A large time gap intervened before the state established the second university, the Royal University in 1849, with its three constituent colleges at Cork, Galway and Belfast. As the University of Dublin was associated with the ethos of the Established Church, and the Royal University was non-denominational, the Catholic hierarchy was unhappy with these institutions and established the Catholic university in 1854. The Irish Universities Act of 1908 established the new National University of Ireland as a federal university with three constituent colleges – University College Dublin, University College Cork and University College Galway. Queen’s College Belfast was raised to the status of an independent university, and the University of Dublin remained the same. Following the partition settlement of 1922, this university framework remained intact. However, Queen’s University Belfast was now under the aegis of the Northern Ireland state. Higher education was not an issue of major public or political attention during the first four decades following political independence.

Over the last forty years this has greatly altered and there has been a transformation with regard to higher education’s role, structure, content, and place in the socio-economic affairs of the nation. Among key features of the changed configuration of higher education were the establishment of a strong binary system. While the universities were to be greatly expanded, the second prong to policy was the building up of a strong non-university sector with a scheme of new regional technical colleges, the development of the Dublin Institute of Technology and the setting up of National Institutes of Technology in Limerick and in Dublin. It was intended to be more technical and applied than the university sector and to come more directly under state control. The Higher Education Authority was established in 1968 as a key intermediary agency between the state and the university with important planning and budgetary responsibilities for the university sector. In 1971 the National Council for Education Awards was set up with academic responsibilities for the non-university sector. During the period 1997-2001, there was a 30.6% increase in the number of students in higher education (see Figure 67).

Figure 67: Number of students in higher education (ISCED 5/6)



Source: Eurostat

Financing of higher education institutions

The Higher Education Authority (HEA) funds the universities and a number of other institutions, and the Department of Education and Science directly funds the institutes of technology and some other institutions. However in line with a recent policy decision that the Department of Education and Science should withdraw from day to day operational management issues and should focus on more strategic and policy matters, it has been decided that from 2004 funding for the Institutes of Technology should also be transferred to the HEA.

Since 1996 the tuition fees, which had previously been paid by students have been paid by the State on the student's behalf. Before 1996, a means tested Higher Education Grants scheme was in operation and provided grants to eligible qualified students in respect of either tuition or tuition and maintenance. Approximately 37% of third level students were in receipt of Higher Education Maintenance grants in the year 2000/01. Since the introduction of the state-paid or 'free fees' scheme, the Higher Education Grants scheme continues to operate and to award maintenance grants to eligible undergraduate students and tuition and maintenance grants to postgraduate students. At present part-time students are not eligible either for free fees or for Higher Education Grants. When income from free tuition fees is taken together with state recurrent grants, state funding as a percentage of total recurrent funding (excluding project research) accounts for approximately 80% for the universities and approximately.

The HEA is currently undertaking a major review of its funding mechanism, which has been in operation since 1993. The aim is to put a framework in place, which will enable the institutions to meet the challenges currently facing higher education while at the same time providing accountability to the various users and stakeholders and which will support the reconciliation of institutional and national educational objectives. The HEA has provided support and guidance to Universities for the achievement of best practice in areas such as financial governance and accounting procedures. Institutes of Technology are subject to Public Sector and requirements on governance, strategic management and procurement. Universities are also required to follow Government guidelines on procurement.

The Scientific and Technological Education (Investment) Fund was set up to develop technology education at all levels ranging from primary schools to advanced research. The Fund involves a direct state investment of €356 million and this investment in education is assisting the country to meet the challenges that are features of a growing knowledge-based economy. The Fund has contributed significantly to the development of third level campuses over the last six years. The Fund was set up by the Scientific and Technological Education (Investment) Fund Act 1997 and the Scientific and Technological Education (Investment) Fund (Amendment) Act 1998. This support from the Fund is continuing into 2004 and beyond with a number of projects either at architectural planning or at construction. The Fund comprises an account with the Paymaster General and an account called the Private Donations Investment Account. The day-to-day management of the resources of the Fund rests with the National Treasury Management Agency.

The Expert Group on Future Skills Needs (EGFSN) in its report published in July 2001, noted the establishment of the new sources of research funding and recommended that national research policy should:

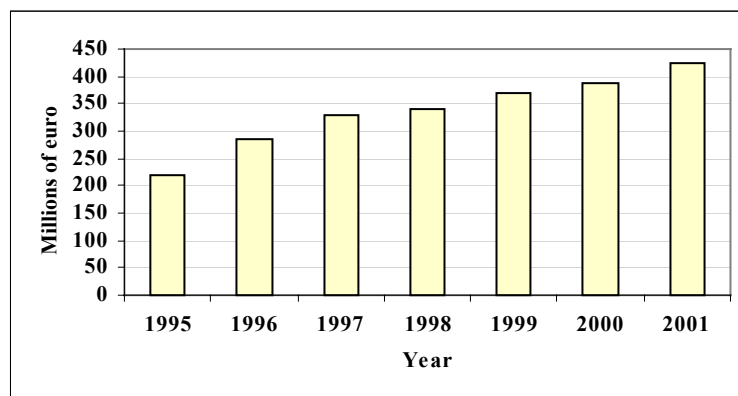
- Aim to achieve a substantial increase in the output of doctorates, particularly in science, engineering and technology, and
- Facilitate under-graduate students to progress into post-graduate research and also international researchers moving to Ireland.

In response to the recommendations of the Expert Group, an Inter-Agency Group on attracting and retaining researchers was established by the Higher Education Authority (HEA) in February 2002. The Inter-Agency examined the issues involved in the transfer of international researchers into Ireland, and a survey of final year undergraduate and research students' perceptions of undertaking post-graduate research and their reasons for such perceptions. A report is expected shortly on this issue.

The recurrent funding of institutions by the State is driven mainly by student numbers, cost and policy requirements. Institutions carry out evaluation of performance and quality, in order to ensure continuing high standards, but these measures are not used as a basis for award of funding. Whilst the Universities Act, 1997 and the Qualifications (Education and Training) Act, 1999 address the issue of quality for both Universities and Institutes of Technology, no relationship between quality and funding has yet been established.

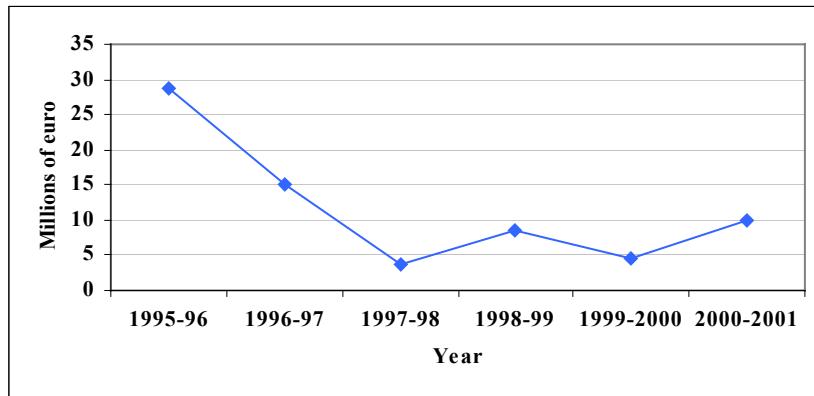
Between 1995-2001, there was a 92% increase in income of higher education institutions from recurrent grants awarded by the HEA (see Figure 68). In addition to meeting the running expenses of the institutions recurrent grants may also be used for certain purposes including the purchase of furniture, replacement of equipment or carrying out capital projects. Figure 69 shows the annual percentage increases in income of higher education institutions from recurrent grants. The period 1995 to 1996 experienced a particularly high increase in income from recurrent grants of 29%.

Figure 68: Total income of HEIs from recurrent grants (1995 constant prices)



Source: Higher Education Authority

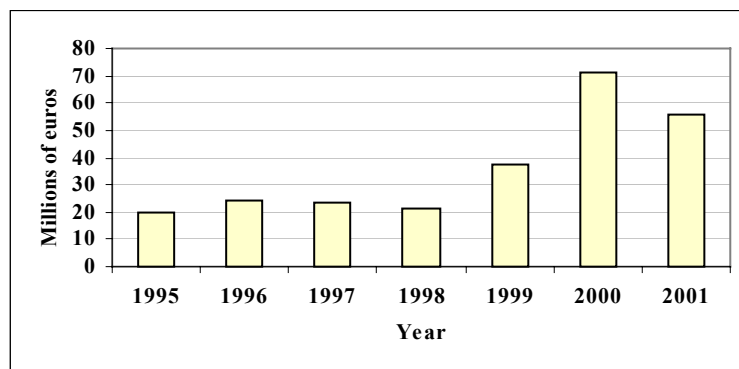
Figure 69: Annual percentage increases in recurrent income of higher education institutions



Source: Higher Education Authority

During the period 1995-2001, there was a 72% increase in income of higher education institutions from capital grants (see Figure 70). There were particularly steep increases in income from capital grants during the periods 1998-1999 of 75.5%, and 1999-2000 of 91.8%.

Figure 70: Income of higher education institutions from capital grants (1995 constant prices)

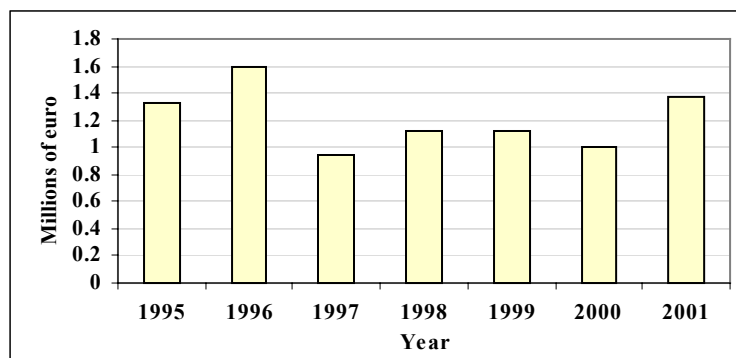


Source: Higher Education Authority

Income from European Sources

During the mid-1980s, with rapidly rising unemployment levels, support from EU Structural Funds increased dramatically. EU investment has played a critical role in meeting the rapidly increasing demand for third-level places. Between 1995-2001, there was a 4% increase in income of higher education institutions from Erasmus grants (see Figure 71).

Figure 71: Income of HEIs from Erasmus grants (1995 constant prices)



Source: Higher Education Authority

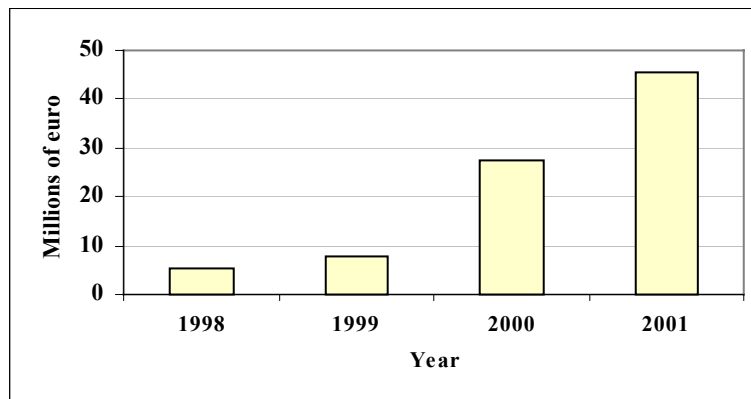
Research initiative grants

Between 1998-2001, there was a 729% increase in income from research initiative grants (see Figure 72). These grants comprise

- Funding of Institutions under the Programme for Research in Third Level Institutions 1999-2000 (PRTLTI).
- Payments under the Government of Ireland Research Scholarships in the Humanities and Social Sciences Programme (HSS)
- Payments on behalf of Enterprise Ireland under a basic Research Scheme.
- Payments since 1 October 1999 on behalf of the Department of Education and Science under a postdoctoral fellowship scheme.

The PRTLTI and targeted funding initiatives represent the first movement towards award of funding on a competitive basis, based on quality and merit. In July 1999, the Government announced details of an unprecedented IR£162/€206 million research package, the outcome of the first Cycle of the Programme for Research in Third-Level Institutions (PRTLTI). The PRTLTI enables a strategic and planned approach by third-level institutions to the long-term development of their research capabilities, consistent with their existing and developing research strengths and capabilities. Eleven higher education institutions will share just over IR£162/€206 million in the period 1999-2001 which will go towards providing new laboratories, research centres, scientific equipment, extra staff and support for researchers.

Figure 72: Income of HEIs from research initiative grants (1995 constant prices)

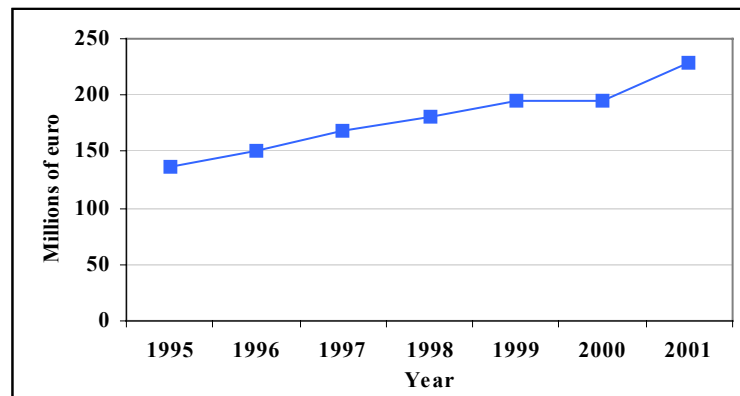


Source: Higher Education Authority

Expenditure of the higher education sector on R&D

Between 1995-2001, the higher education sector increased its expenditure on R&D by 67%. The period 2000-2001 saw the biggest increase of 17.6% on R&D expenditure (see Figure 73).

Figure 73: Expenditure of the higher education sector on R&D (1995 constant prices)



Source: Eurostat

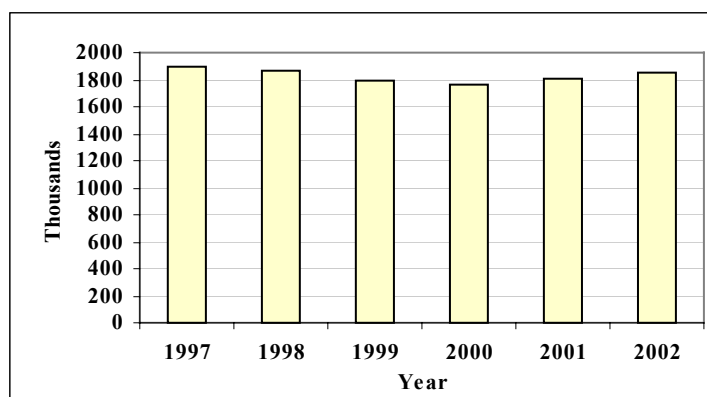
Italy

Historical development of higher education

The origins of some of the most ancient Italian universities go back to the days of the communes, when various categories of citizens organised themselves into corporations or "universitates", on the basis of their economic or professional activity. The first universities emerged as corporations of scholars, "universitates doctorum", this is how the University of Bologna started. Other universities were founded by popes or emperors in various cities. Despite the emergence of universities as free institutions, they progressively fell under the control of the State and eventually almost all of them became state institutions. This happened with the Casati Law of 1859 that incorporated the universities into the state-managed organisation, thus becoming institutes of state administration. The Gentile reform (1923) was conceived in order to reform the whole school system, also involved universities. The laws of 1923 gave to universities a certain autonomy concerning administrative management, teaching and the research. The Gentile Reform recognised a scientific character to university studies and regulated them, whilst maintaining autonomy. According to the definition of the Consolidated Act of Laws on higher education (Royal Decree no. 1592 of 1933), The universities aim is "promoting scientific progress and providing for scientific culture necessary to practise professions and exercise offices". As regards non-university higher education, every type of institution has its own "history" that in general goes back to the first twenty years of the century. For example, as long ago as 1912 there was higher education in the field of the visual arts, offered by the "Institutes of Fine Arts" and in the "theoretical-practical establishments of fine arts".

During the period 1997-2002, there has been a 2.0% reduction in the number of students in higher education. Periods after 1997 until 2000, saw drops in the number of students. The largest decrease in the number of students in higher education was observed during the period 1998-1999. Despite the student population picking up in 2001 and 2002, the number of students is still below the 1997 level.

Figure 74: Number of students in higher education (ISCED 5/6)



Source: Eurostat

The Constitution of the Republic of Italy in 1947 established the principle that "art and science are free and the teaching of them is free"; in defence of academic liberty, the Constitution also declares that "the institutions of high culture, universities and academies, have the right to organise

themselves autonomously as they see fit, within the limits established by the law of the country" (art. 33).

The reform of 1989 established the Ministero dell'Università e della Ricerca Scientifica e Tecnologica – MURST (Ministry of Universities and Scientific and Technological Research), which is responsible for the design and promotion of scientific and technological research; drafting of triennial development plans for universities; arrangements for the financing of these plans; coordination of universities' and other research institutes' participation in international programmes; distribution of allocations included in the Ministry's budget and allocation of resources to universities on the basis of objective criteria defined by law.

Financing higher education institutions

Financing of university institutions remained more or less unchanged from 1980 to 1993. Until 1993, universities were financed almost entirely by the State. Enrolment fees constituted a relatively small portion of the university budget. Resources were distributed to individual universities, which were bound by rigid criteria. Government financial policy in recent years has sought to reduce spending at university level in particular by altering the allocation of available resources. The Financial autonomy law of 1993, consists of the ability to make direct use of comprehensive financing which is not bound to rigid budgetary categories. New regulations governing university tuition fees ensure that individuals who use a service help to cover its costs. In order to make this shared participation in the expenses more equitable, a mechanism was introduced to classify students by income category. Having established a minimum fee level, each university can alter what it charges according to a students' income category as determined by their nuclear family's actual status and income. General and uniform criteria have been established for the entire national territory to identify students' real economic status. These criteria take into account tangible and intangible assets as well as income. These same criteria form the basis of the new norms governing the right to financial aid for higher education students. University departments may also raise funds from external sources by hosting research conventions on public and private themes and creating a constantly expanding range of continuing education courses, vocational training, and advanced study courses. The university administration usually withholds a percentage of the financing that departments receive for these external activities, but the method used to resolve these problems varies greatly from one institution to the next.

Law no. 390 of 1991 (Diritto allo studio)⁴ defines the authority of the State, the regions and the universities regarding the right to study. It confirms the regions' role in administering scholarships and providing services to students (such as cafeterias and accommodation), and reaffirms the State's role as coordinator. It was issued in an attempt to remove the economic and social obstacles, which were limiting equal access to higher education for all citizens. It also allows individual universities to grant students exemptions from general fees and tuition fees. Later decrees⁵, adopted measures involving new controls to ensure uniform treatment both in awarding

⁴ DPR 616 of 1977 for the first time transfers responsibilities from the State to the regions in the area of the right to study as well.

⁵ Right to study: Decree of the President of the Council of Ministers of 13 April 1994, Decree of the President of the Council of Ministers of 30 April 1997, Ministerial Decree of 24 July 1997, Decree of the President of the Council of Ministers of 28 July 1997 and associated executive rulings.

grants and in assessing the amount of fees to be paid by students. They corrected an earlier situation, which had created disparities in the way students were treated in terms of the criteria adopted by individual regions. Over the period 1999-2001, there was a 21.9% reduction in the scholarships and grants awarded to students in higher education from public sources⁶.

One of the most serious problems facing the Italian university system has always been the extreme overcrowding of certain universities, the so-called megatenei (mega-universities). Law no. 662 of 1996 deals with the problem of the gradual structural division of a university, which must take place when the number of students and teaching staff becomes greater than a figure to be established by ministerial decree for each university. It has led to an agreement with the largest state universities to create new campuses and divide some faculties. The law provides an opportunity to improve the balance between North and South in terms of the territorial distribution of the university system and to break up the mega-universities. The goal is to put an end to the indiscriminate expansion of the university sector by giving it quality-enhancing development planning goals.

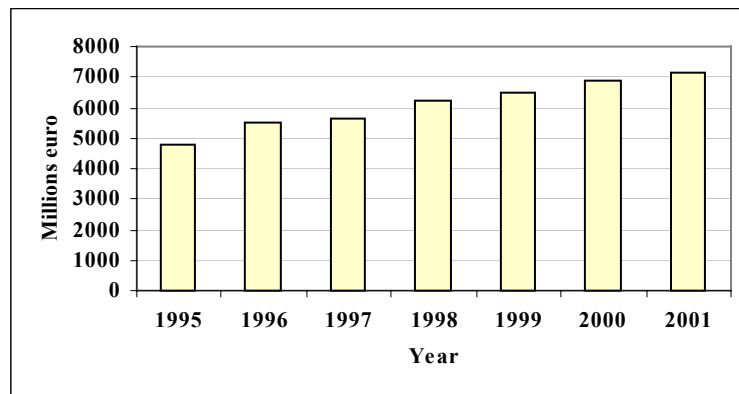
Public income of universities

Despite the fall in the number of students in higher education since 1995, income of universities rose during the period 1995-2002 by 41.8%. Figure 75 shows the income of universities from public sources during the period 1995-2002. Income from public sources includes national, regional, local government, and it also includes international sources. Over the period 1995-2002, income from national government increased by 39%, income from regional government increased by 213%, and income from local government increased by 313%. The increase in public funding of universities by regional government can in part be explained by the 1991 law and subsequent laws on the right to study, which defined the role of regional authorities in higher education. It should be noted that the share of total public income coming from regional, local, and other governmental sources is small. In 2002, 94% of total public income of universities in 2002 came from the national government, 2% came from regional government, 0.3% came from local government, and 1% from international sources, and 3% came from other public sources. Over the period 1995-2001, income from international sources decreased by 18%.

Over the period 1995-2002, income from selling services to the private sector increased by 37%. The periods 1997-1998, and 2001-2002 saw slumps in revenue from the private sector. Figure 76 shows the income of universities from selling services to the private sector.

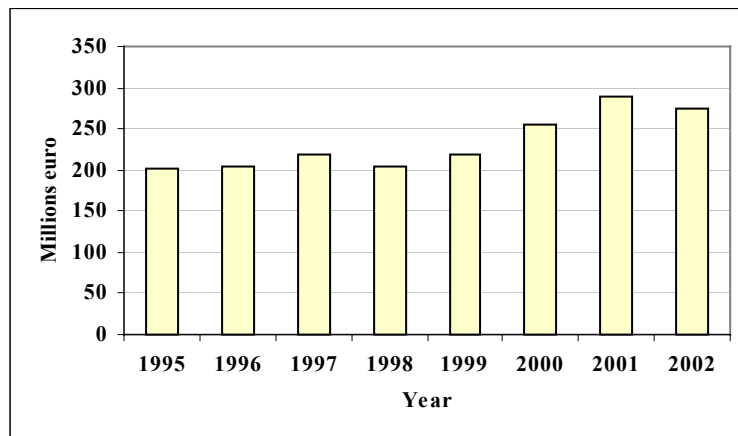
⁶ Source: UNESCO-UOE-Eurostat data collection.

Figure 75: Income of universities from public sources (1995 constant prices)



Source: Ministry of Universities and Scientific and Technological Research

Figure 76: Income of higher education institutions from the private sector (1995 constant prices)



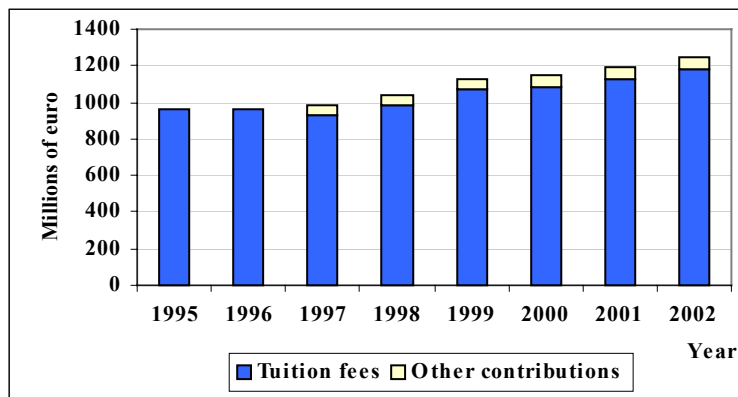
Source: Ministry of Universities and Scientific and Technological Research

Contributions from students

Figure 77 shows the income of higher education institutions from students broken down into tuition fees and other student contributions. Over the period 1995-2002, there was a 30% increase in income from contributions. Contributions from students, consists of tuition fees and other charges. It should be noted that during 1995-2002, there was a 23% increase in income from tuition fees.

In order to make additional funds available, a regional enrolment tax was created in the academic year 1996/97, to be used to promote the right to higher education. The amount of this tax varies between ITL 120,000 and ITL 200,000 (most regions charge ITL160, 000). The tax is combined with 'ad hoc' funds of the regions, in order to be used for grants, loans and other services for students, according to their study results and income. Universities can totally or partially exempt students from the payment of fees. Furthermore, universities provide grants to attend postgraduate courses and specialisation courses.

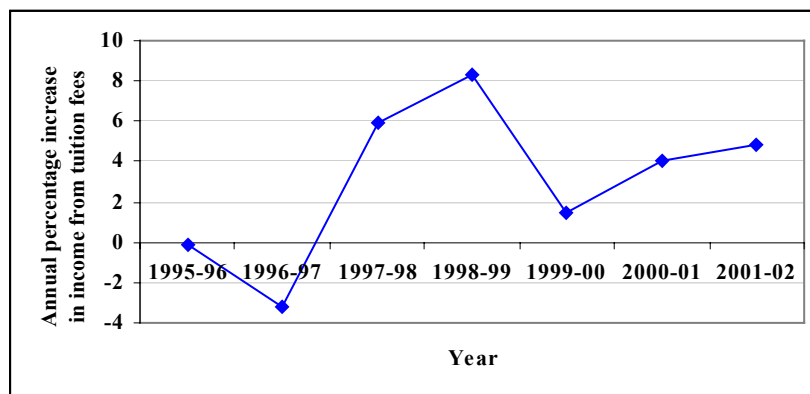
Figure 77: Income of universities from students, broken down by type (1995 constant prices)



Source: Ministry of Universities and Scientific and Technological Research

Figure 78 shows the annual percentage increases in universities income from tuition fees. In considering the income of universities from tuition fees, it has to be noted that this type of income is dependent on the number of students and on the rate at which tuition fees are set.

Figure 78: Annual percentage increases in higher education institutions income from tuition fees (1995 constant prices)

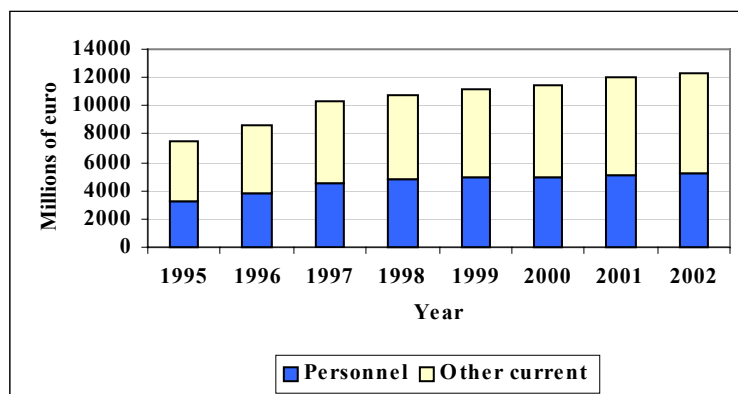


Source: Ministry of Universities and Scientific and Technological Research

Expenditure of higher education institutions

The law no. 537 of 1993 established evaluation centres in universities that use comparative cost-benefit analyses to oversee the correct administration of public resources, research and teaching productivity, and the impartiality and smooth operation of the administration. Current expenditure of higher education institutions has increased over the period 1995-2002 by 65%, of which expenditure on personnel increased by 60%, and other current expenditure increased by 69%.

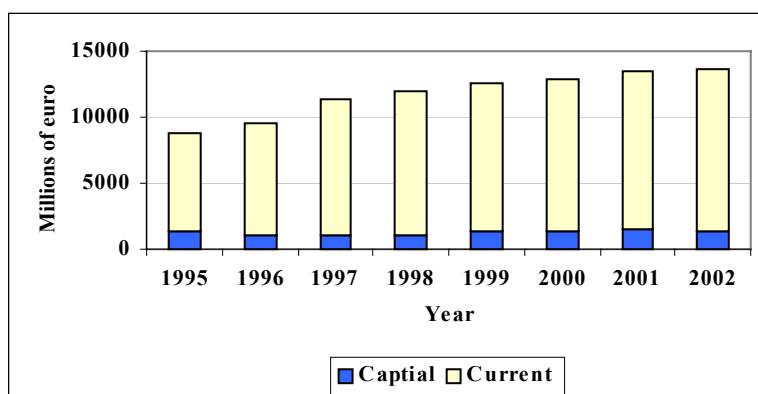
Figure 79: Breakdown of current expenditure of higher education institutions by type (1995 constant prices)



Source: Ministry of Universities and Scientific and Technological Research

Over the period 1995-2002, the total expenditure of higher education institutions increased by 55% of which expenditure on capital increased by only 1%. Figure 80 shows the total expenditure of higher education institutions broken down into current and capital expenditure. Since 1995, higher education institutions have reduced the share of total expenditure that is devoted to capital expenditure from 18% in 1995 to 11% in 2002.

Figure 80: Expenditure of higher education institutions broken down into current and capital expenditure (1995 constant prices)

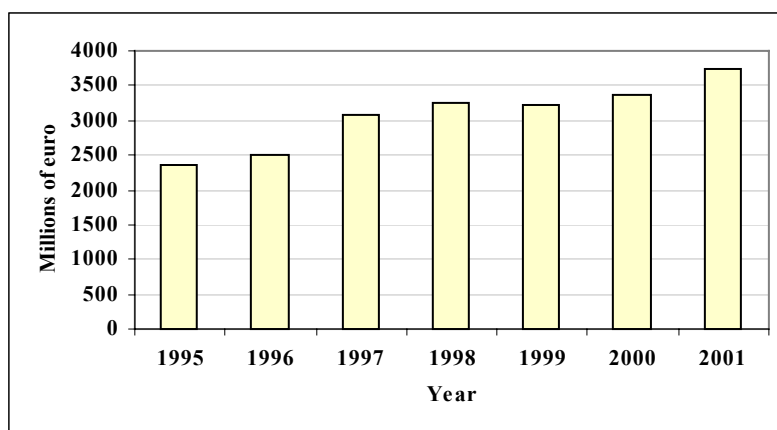


Source: Ministry of Universities and Scientific and Technological Research

Expenditure of the higher education sector on R&D

Expenditure of the higher education sector on research and development has increased by 59% over the period 1995-2002. Despite a 0.7% decrease in R&D expenditure during the period 1998-1999, there has been a clear upward trend in the higher education sector expenditure on R&D, as is illustrated in figure 81.

Figure 81: Expenditure of the higher education sector on R&D (1995 constant prices)



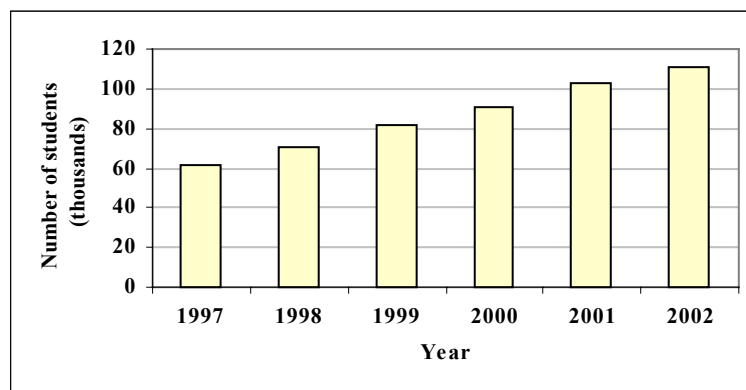
Source: Ministry of Universities and Scientific and Technological Research

Latvia

Historical development of higher education

In the 19th century the first higher educational institutions were established in the territory of present Latvia. In 1861 Riga Polytechnicum was found which later served as the basis for the establishment of the University of Latvia. In 1919 the University of Latvia, the Latvian State Conservatoire and the Latvian Academy of Arts were established. During the years of occupation higher education institutions and their research centres continued to function and much attention and resources were devoted to the development of science. In 1991, reforms provided autonomy for higher education institutions. The new Law on Education introduced bachelor and master levels, as well as professional study programs instead of the 5-year diploma studies, and it also opened the possibility to establish private higher educational institutions. There are four universities and a number of other higher education institutions in Latvia. The main split between university and non-university higher education is between the programmes rather than between the institutions, since the law allows academic and professional programmes to be organised within the same institution. All universities and 17 other institutions are state run. All the recognized institutions enjoy autonomy. Figure 82 shows the evolution of the number of students during the period 1997-2002. The increase in the number of students enrolled at higher education institutions has been continuous and steady since 1997. During the period 1997-2002, the number of students in higher education increased by 78.2%.

Figure 82: Number of students in higher education (ISCED level 5/6)



Source: Eurostat

Educational Policy

The national concept of the development of higher education and the institutions of higher education of 1998 calls for a number of urgent tasks, which includes the following:

- Increase in number of students (from 19% to 25% of each age cohort in state funded institutions by 2005);
- Administrative and academic reform of study programmes;
- Differentiation of types of institution and accelerated development of professional (non-university) higher education;
- Accelerated and purposeful training of a young generation of teaching staff.

The concept states that the financing of higher education institutions should be based on student demand for places. Higher Education institutions should be encouraged to attract private financial means. Emphasis is placed on the introduction of student loans, either from the state budget, or by institutions with state guarantees.

A report entitled the “Concepts of Education Development 2002 –2005” addresses a number of issues relating to higher education including transferring public-sector secondary professional and higher educational establishments, which were supervised by six different Ministries, under the subordination of the Ministry of Education and Science. During the following four years, it was decided to:

- i. Equalise the costs of similar education programmes;
- ii. Ensure compliance with the norm of minimum costs in professional education;
- iii. Start a transition from the norm of minimum costs to the norm of optimum costs;
- iv. Develop long-term contractual relations between the Ministries and the higher education organisations;
- v. Develop and introduce a system of indicators for monitoring the performance of higher education institutions;
- vi. Lay down the methods of determining government procurement in professional education.

The main tasks to ensure the development of the system of financing higher education are the approximation of the financing to the optimum study costs by changing from the minimum study cost factor values to the optimum values gradually over a period of 10 years starting on January 1, 2003; and the improvement of the study loans system, the local governments providing loan guarantees for those students receiving loans who come from indigent families resident in their territory.

Furthermore, it was decided to gradually carry out a transition from the minimum study cost factor values to the optimum values over a period of 10 years starting on January 1, 2003, realise all part-time studies for study fees only, and for the local governments, to take measures to ensure loan guarantees to borrowers coming from poorer families resident in their administrative territory.

Financing of higher education institutions

Numerous changes in the overall funding mechanisms of the University have been introduced since 1989. The funding of teaching is being changed step by step from the historical model to the formula based funding model. As a result, the state will finance, not the institutions themselves, but course programmes that have the appropriate enrollments as designated by the Council of Higher Education. In order to bring about this transition, the Cabinet of Ministers confirmed that the state would cover the teaching costs (tuition fees) at institutions as per distribution formulae. The University distribution formula or funding model is based on the coefficient (ratio) system). Unfortunately, the regulations regarding the state subsidy for higher education institutions still do not produce the expected results. Thus, the universities still receive a lump sum budget.

In the domain of research, full transition has been made from the institutional funding of research to grant and project funding. In terms of financial management, the University is autonomous with regard to state regulations. It sets its goals according to the disposition of the University

Constitution. The state determines the size of the state subsidy for those students admitted according to the traditional pattern, free of tuition charges. Any other earnings to the institutional budget of the university: tuition fees, research activities, and other sources of income are the responsibility of the institution itself.

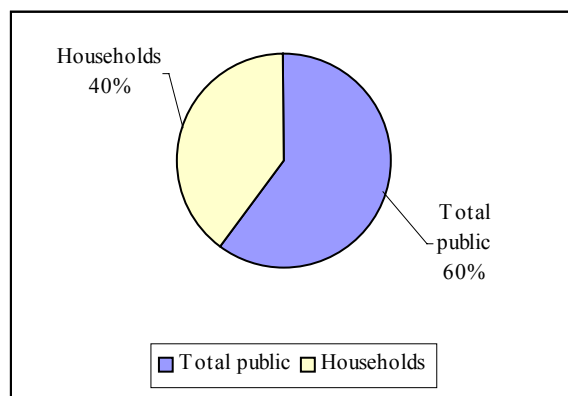
Currently, the overall institutional budgetary resources of the University consist of the following:

- A state subsidy for a set number of full-time students;
- Revenues from research activities including grant and project funding contracts with enterprises;
- International projects;
- Tuition fees charged to students unable to gain inclusion in the State subsidized quota;
- In-house activities (renting of spaces, etc.)

The University is permitted to incur expenses as per a financial plan confirmed in advance by the Ministry of Education and Research and according to the estimated costs appearing in this plan. This plan determines the annual income and expenditure in monthly increments as set expenses: salaries, scholarships and transportation compensation, and investments. Changes are permitted only in that part of the plan concerning self-earned income. Applications to make changes are submitted to the Ministry of Education and Research that either accepts or rejects the proposals. In the past, higher education was free of charge. Today the scarcity of budget resources and increasing number of candidates results in situation where there are state-supported and fee paying students in public higher educational institutions. Tuition fees are charged to students who meet the entrance examinations but fail to be admitted to state-financed places. There has been a long debate on tuition fees. Several times a proposal has been put forward that the system should be rearranged so that all students would pay tuition fees. The negative reaction of students and society so far has blocked this initiative.

It is rather difficult to compare the University budget over the last decade with what it was in 1989, as two monetary reforms took place over the intervening period, and rapid changes in the rate of inflation took place between 1991 and 1995. The trend is that of a steady decrease in the funding level for the University. Almost all public funds transferred to higher education institutions in Latvia come from the central government. With regard to universities, the central government is the only public institution taking part in their financing. During the period 1999-2001, income of higher education institutions from households (tuition fees and other fees charged for educational services) doubled, whilst income from national government decreased by 8.7%. Income from international sources also decreased by 31% between 1999-2001.

Figure 83: Breakdown of total income of higher education institutions by type of source as a percentage of total income in 2001

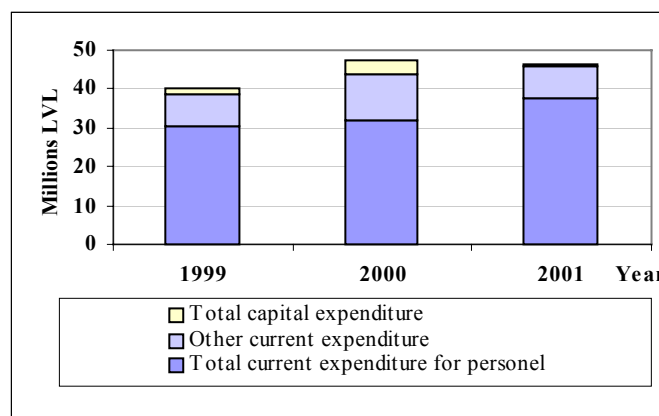


Source: Eurostat UOE data collection

Expenditure of higher education institutions

During the period 1999-2001, the total expenditure of higher education institutions increased by 16%. Expenditure on personnel represented the biggest outlay, averaging 75% of total expenditure during the period. Capital expenditure decreased by 52.3% during 1999-2001. However during 1999-2000, capital expenditure increased by 140% (see Figure 84).

Figure 84 : Current expenditure and capital expenditure of higher education institutions (1995 constant prices)



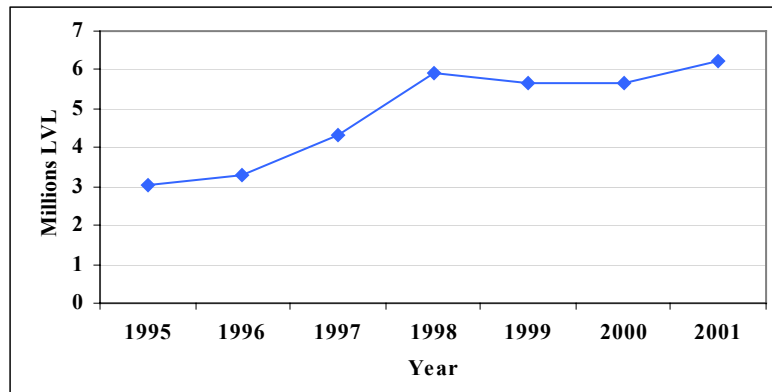
Source: Eurostat UOE data collection

Expenditure of higher education institutions on R&D

Expenditure by higher education institutions on R&D increased their real expenditure on research and development by 105% between 1995 and 2001 (see Figure 85). The government is the largest source of funds for R&D in the higher education sector (see Table 14). During the period 1995-2001, expenditure of the higher education sector on R&D from government funds increased by 160%. The higher education sector has seen the share of total expenditure on R&D that came from the business sector fall from 30.1% in 1995 to 10.0% in 2001. Higher education sector expenditure

on R&D that came from the business sector decreased by 32% during 1995-2001. Expenditure on R&D that came from abroad increased by 193% in the same period.

Figure 85 : Total expenditure of the higher education sector on research and development (1995 constant prices)



Source: Eurostat

Table 14: Breakdown of expenditure of the higher education sector on R&D by source of funds as a proportion of total expenditure.

Year	Business	Government	Private	
			non-profit sector	Abroad
1995	30.1	62.4	:	7.5
1996	17.2	75.3	0.9	6.7
1997	12.6	78.8	:	8.6
1998	27.0	66.0	:	7.0
1999	23.4	68.3	:	8.3
2000	27.1	68.6	:	4.3
2001	10.0	79.3	:	10.8

Source: Eurostat

Student support

Students in the state financed places of educational establishments studying in secondary vocational, post-secondary vocational or higher educational programs receive a monthly scholarship for personal expenses. Students who study full time in the institutions offering the State's licensed educational programs can receive loans. It is decided at the central level every year how much money will be distributed for loans. There are loans to cover tuition fees and loans to cover living expenses. Bidding tenders are issued by the executive annually for the list of professions where the loan of the tuition fee can be erased. For every served year in the named institution of the state or the municipality, the amount of repayable loan is reduced of 10%. If a student has a job, every year he can apply for income tax reduction to the certain sum of income, and get this money back from the state. Table 15 shows the breakdown of financial aid to students into scholarships/grants, and loans.

**Table 15: Financial aid to students by type of scheme
(million LVL, 1995 constant prices)**

Year	Total aid	Scholarship and other grants	Student loans
1999	5.20	2.97	2.23
2000	5.01	3.58	1.43
2001	8.13	5.11	3.01

Source: Eurostat UOE data collection

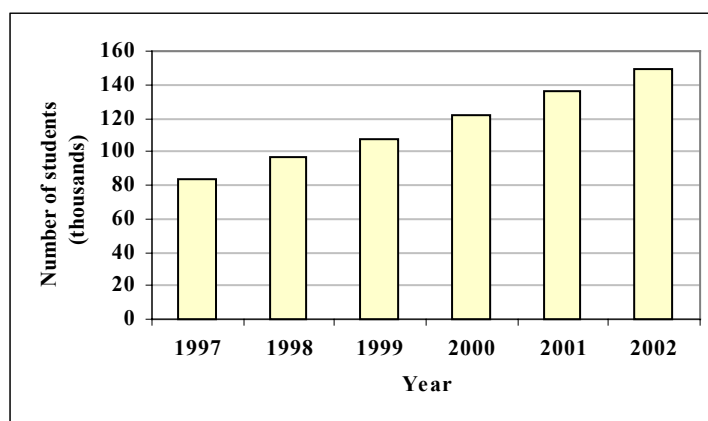
Lithuania

Historical development of higher education

The first higher education institution in Lithuania, the Academy and University of Vilnius, was founded in 1579. The Jesuits originally directed it until 1781, when it was secularised and renamed the Principal School of the Grand Duchy of Lithuania. In 1803 it received a new set of statutes and the title of the Imperial University of Vilnius. The participation of the university teachers and students in the 1831 uprising resulted in the czar closing the University in 1832. As a result the young people of Lithuania obtained their advanced education in the universities of Russia, Poland and Western Europe with no higher education establishments left. The Polish authorities reopened the university in 1919. In 1920-1922, the Lithuanian scholars' organization, the Society of Advanced Sciences established the first institution of higher education in the independent state of Lithuania, the Courses of Higher Learning. During the years of independence (1918–1939) nine higher education institutions were established in Lithuania. The restoration of Lithuania's independence stimulated changes in the system of higher education. By 1989, the greater part of the Lithuanian institutions of higher education had already developed their new draft statutes. The Vytautas Magnus University was reopened in 1989. The reform of studies and learning received a strong impetus from the Union of Scientists of Lithuania established in 1989.

There are two types institutions, universities and colleges. A college is a higher education establishment where non-university studies prevail and the majority of students study in accordance with non-university study programmes, applied research and / or development or professional arts. Figure 86 shows the number of students in higher education during the period 1997-2002. During this period the number of students increased by 77%.

Figure 86: Number of students in higher education (ISCED level 5/6)



Source: Eurostat

Educational Policy

The procedure of establishment, reorganisation and abolishment of higher education institutions as well as their administration and financing principles is regulated by the Law on Education and Science adopted on 12th February 1992, and other laws and statutes of higher education establishments. On June 11 2002, an Amendment of the Law on Education and Science of the Republic of Lithuania was adopted. In implementing the reform, the Law on Higher Education of the Republic of Lithuania was adopted on 21st March, 2000, which provided for the procedures of founding a higher education institution, its activities, the termination and re-organisation of thereof and established a binary system in higher education.

Prior to 1990, the system of R&D institutions was developed in Lithuania according to the Soviet standards. Much of Lithuanian research was structured and run according to the needs of Soviet Union, with a strongly centralised power of direction, which did not give priority to the needs of Lithuania. In 1990, after regaining the independence it was clear that existing flow of funds from the East would be terminated in the nearest future. So it was necessary to safeguard research potential of the country. The law on Research and Higher Education of 1991 enforced the principles of autonomy, academic freedom, integration of research and higher education and it also protected research activities of higher education establishments. Later the institutional structure of R&D was built and the best research establishments gained the status of State Research Institute, the main governing or advisory bodies of Lithuanian R&D system (e.g. the Science Council of Lithuania, the State Research and Higher Education Fund, the Lithuanian Academy of Sciences), were all established or reorganized.

Financing of higher education institutions

State budgetary funds are allocated to a state higher school to implement its study programmes according to 3-year agreements concluded between the Ministry and Higher Education Institutions. State budgetary funds are allocated as a “lump-sum”. The state budget allocated to a Higher Education Institution must be related to its programmes and the results of its performance assessment. When necessary, the Ministry can initiate an audit of the financial and operating activities of the establishment. The Ministry can conclude agreements with non-state higher education institutions and allocate the necessary funds to develop specialists in certain fields, if state higher educations do not prepare such specialists or their number does not meet the demand.

State higher education institutions have both budgetary and non-budgetary funds. Budgetary funds are their main source of financing. Non-budgetary funds of higher educational institutions include:

- Revenue from Lithuanian and foreign companies or organisations from contracts and other services rendered;
- The rent of premises or equipment;
- Donations form Lithuanian and foreign organisations and private persons, international organisations, and charities;
- Other kinds of revenue obtained in a legitimate way. The amount of non-budgetary funds cannot influence the budgetary financing of the higher educational institution.

The State funds for higher educational institutions include:

- State budget appropriations to cover the costs of state-financed studies;

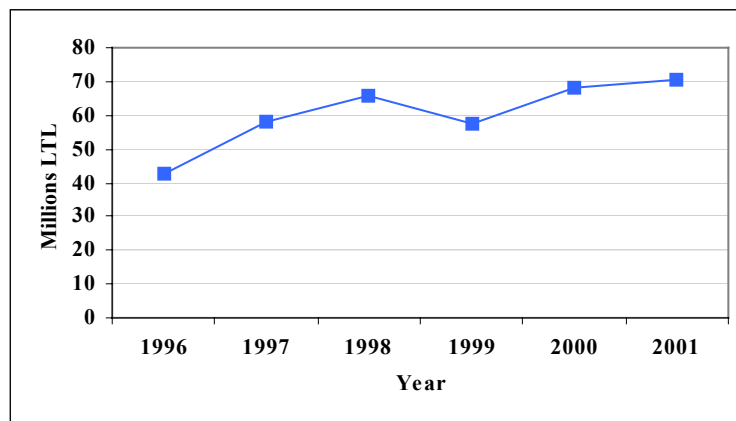
- State budget appropriations for research work and the activities which are not directly connected with the organization and servicing of studies;
- Study fees paid by non state-financed students;
- Revenues from scientific and economic activities and from services provided;
- Other funds obtained in a legitimate way.

Later, the funding provided by the state became totally dependent on student enrolments. The Rector's staff began to feel responsible for meeting the long-term needs of the State to increase the number of students. The main obstacle to meeting that need has been insufficient state funding. Therefore, the rectorate, supported by the University Senate, decided to establish partially fee-paying studies. Students admitted under this scheme were expected to pay tuition fees amounting to 25 percent of the total financial support allocated by the state per student. The expansion of enrollments in certain faculties was constrained primarily by lack of funding and of space. Therefore, the rule has been that course programmes for which there is a demand will be introduced, while those that are less attractive will be closed.

Expenditure of higher education institutions on R&D

Figure 87 shows the total expenditure of the higher education sector on research and development. Higher education institutions have increased their real expenditure on research and development by 65% between 1996 and 2001. During the period 1998-1999, the higher education sector experienced a 12.6% decrease in income for research and development.

Figure 87: Total income of the higher education sector on research and development (1995 constant prices)



Source: Eurostat

Student support

Student financial support in Lithuania appears in the form of scholarships and grants and loans, funded by the central government. Table 16 shows the value public resources devoted to financial aid for students. The share of loans of total aid to students was 11.6% in 2001.

Table 16: Financial aid to students by type of scheme (millions LTL, 1995 constant prices)

Year	Total aid	Scholarship and other grants	Student loans
1999	46.67	46.67	0.00
2000	53.77	48.95	4.83
2001	53.39	47.22	6.17

Source: Eurostat UOE data collection

Over the period 1999 to 2001, public resources devoted to scholarships and grants increased by 1.2%.

The absolute level of public resources devoted to student support increased by 15% in real terms over the period 1999-2000. However, during 2000-2001, public expenditure on student aid went down by 1%. It should be taken into account that the number of students rose by 14% in the period 1999-2000 and by 11% in the period 2000-2001.

Luxembourg

Historical development of higher education

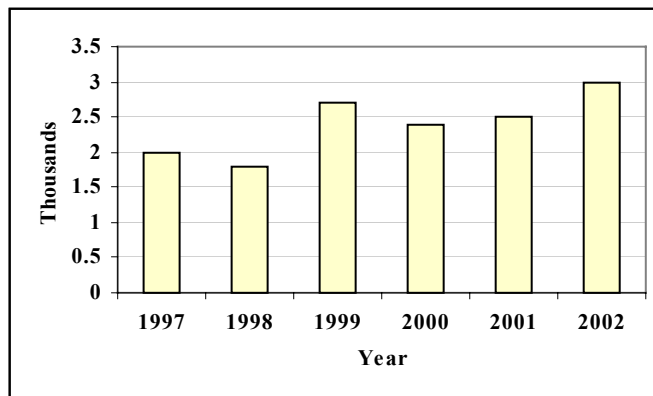
The history of post-secondary education in Luxembourg has been marked by the absence of a full higher education structure on the one hand, and on the other is bound up with the development of various courses requiring specialist institutions to be set up.

The post-secondary system in Luxembourg comprises:

- The '*brevet de technicien supérieur*' (BTS - advanced technical training certificate);
- Three-year courses for '*ingénieurs techniciens*' (engineering technicians) at the Institut supérieur de Technologie (IST - higher institute of technology), for primary school teachers at the Institut supérieur d'Etudes et de Recherches pédagogiques (higher institute for pedagogical study and research) and for educators at the Institut d'Etudes éducatives et sociales (IEES - institute for educational and social studies);
- Short course '*cycle court*' in higher management studies (in two years);
- University courses '*cours universitaires*' which offers first-year university studies geared to courses in neighbouring countries.

In 1996, Luxembourg adopted a law reforming higher education. This law clarifies the structure of higher education and grants a greater part of autonomy to the different institutions. A main characteristic of Luxembourg's education system is the absence of a fully-fledged higher education structure, i.e. one offering at least four years of study. Only a first year, and recently a second year are available, in the form of university courses '*cours universitaires*' at the Centre universitaire de Luxembourg, which was created in 1969. Figure 88 shows the number of students in higher education from 1997 to 2002.

Figure 88: Number of students in higher education (ISCED 5/6)



Source: Eurostat

Educational policy

Until 1996, there was no single legal framework governing the whole of post-secondary education. By law of 11 August 1996, the Governed adopted a reform of higher education. This law stipulates the role of higher education, which is as follows:

- Initial and continuing education;
- Scientific and technological research and the utilisation of its results;
- The dissemination of culture and of scientific and technological information;

- Inter-regional, European and international co-operation.

The law stipulates that this public higher education is at present provided by the provided by the following institutions:

- Luxembourg University Centre;
- Higher Institute of Technology;
- Institute of Pedagogical Studies and Research;
- Institute for Educational and Social Studies.

The Luxembourg University Centre and the Higher Institute of Technology were converted into public establishments with a legal personality. They accordingly enjoy scientific independence. The establishments are managed under the forms stipulated in private law.

Financing of higher education institutions

Until 1996, all higher education institutions were completely financed by the State. In granting the University Centre and the Higher Institute of Technology a new legal status, the Act of 11 August 1996 gave these two institutions financial and administrative autonomy. This means that in future the resources of these institutions can be made up of an annual financial contribution from the State's budget of revenue and expenditure, income from the institutions' own teaching and research activities, donations and bequests, and revenue from the management of their own assets. The overall budget that Luxembourg allocates to education is among the largest in Europe.

Financial aid to students

Attendance at higher education establishments in Luxembourg is free of charge with the exception of courses and seminars at the International University Institute. The Act of 1977 introduced a new financial aid system for students. This assistance could take the form of a grant or a loan with or without interest depending on the institution. The Act of 13 March 1992 amended this system. It replaced interest-free loans with low-interest loans (2%) and introduced a supplementary grant to be awarded solely to students who complete their two first years of study in a maximum of three years in order to encourage students to finish their studies quickly.

The following are entitled to receive financial assistance for higher education from the State:

- Students with Luxembourg nationality and citizens of other Member States of the European Union resident in Luxembourg;
- Foreign students who are not citizens of a Member State of the European Union who are domiciled in the Grand Duchy and hold a school-leaving certificate awarded by the European School in Luxembourg or another Luxembourg school.

The reform of the 1977 Act on financial assistance for higher education studies is part of a vast programme to reform the Luxembourg education system as a whole. The objective was to promote young people's pursuit of higher education in Luxembourg by awarding them more favourable assistance. Part of this financial assistance may consist of a non-refundable grant and/or an interest-bearing loan.

Grants are awarded on the basis of the economic circumstances (taxable income, other aid already awarded) of students and/or their parents. The State guarantees loans awarded by financial

institutions. It also arranges for students to receive very favourable interest rates (2%) and pays the difference between this and the market rate.

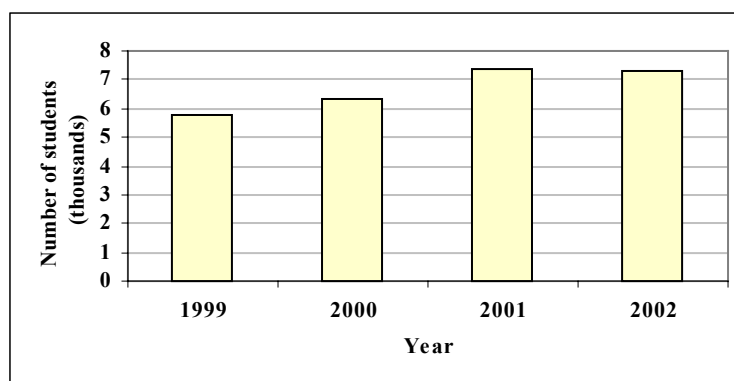
Certain higher education institutions such as the International University Institute award a certain number of grants to students who provide a recommendation from a university establishment or a superior, if they are already employed, along with their application. No financial assistance is awarded to citizens of foreign countries who are not domiciled in Luxembourg and whose parents do not pay taxes in the country. It should be noted that the Ministry of National Education and Vocational Training also makes grants available to students for post-university studies, as well as research training.

Malta

Historical development of higher education

The University of Malta traces its origins to the founding of the Collegium Melitense in 1592 which was run by Jesuits. In 1578, Pope Gregory XIII sanctioned the Jesuits to confer the degrees of Magister Philisophiae and Doctor Divinitas. During the French occupation, in 1798-1800 period, the University of Malta was reduced to an 'ecole centrale' with separate schools for medicine and surgery, and theological studies. It was revived in 1800 by the Maltese provisional government set up when the French left Malta and the English arrived. In the late 1960's, the Malta College of Arts, Science and Technology (MCAST) was set up. It consisted of three main departments: Engineering (mechanical, electrical and civil); Business studies; and hotel management and catering, food technology and tourism. Courses ranged from University degree courses, mainly for engineering to college diplomas and technical and craft level qualifications. Between 1999-2001, there was a 26% increase in the number of students in higher education (see Figure 89).

Figure 89: Number of students in higher education (ISCED level 5/6)



Source: Eurostat

Educational Policy

Tertiary education in Malta went through a radical reform following the 1978 Education (Amendment) Act. The 'New University' set up included faculties from the Old University of Malta and from the Malta College of Arts, Science and Technology, the latter including the Faculty of Business Management and the Faculty of Education. The Act also established a new system of administration for the New University. Reforms included the introduction of the numerus clausus for entry into University and the introduction of the student-worker scheme. In this scheme courses alternated between six months of study and six months of work. The number of sponsored posts from prospective employers determined the numerus clausus. Students received a stipend the whole year irrespective of whether they were studying or working. The student-worker scheme was dismantled following a change in government in 1987. However, students retained their remuneration and were expected to work during the summer holidays when they received full pay. The system of stipends for students is still in place although changes to its form and amount have been made.

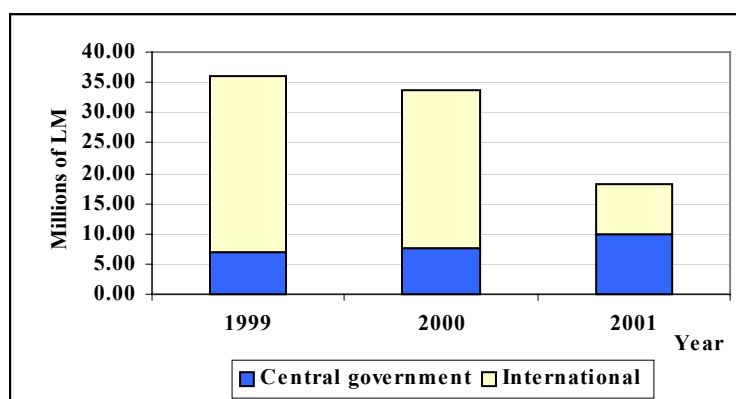
Article 40 of the 1988 Education Act stipulates that state schools and University education is to be provided free of charge to all Maltese citizens. The state is also committed to subsidise other non-State schools when these are of a non-profit-making nature. The Act also gives the Minister of Education power to prescribe the fees to be charged for examinations and special courses run outside regular hours and to be paid by students who are not Maltese. The Minister may also exempt any person from the payment of those fees.

The Minister is also given the power to determine the maximum fees which may be charged for the teaching of Maltese citizens in schools other than State schools and the maximum fees so determined may be different for different schools or for different levels or Sectors of schools other than State schools.

Financing of higher education institutions

Between 1999-2001, there was a 48.9% decrease in income from public sources. However, this decrease was due to the 71.3% decrease in income from international sources. Income from national government increased by 45% during this period (see Figure 90).

Figure 90: Total public income of higher education institutions by type of source (1995 constant prices)

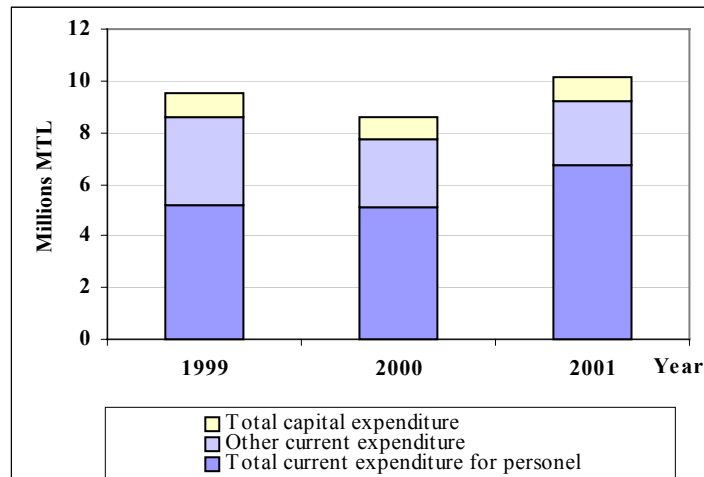


Source: Eurostat UOE data collection

Expenditure of higher education institutions

Over the period 1999-2001, the total expenditure of higher education institutions increased by 7.3%. Expenditure on personnel is the biggest expenditure outlay of higher education institutions, accounting for 66.3% of total expenditure in 2001. During 1999-2001, expenditure on personnel increased by 30.3%. Capital expenditure increased by 11.1% between 1999-2001 (see Figure 91).

Figure 91: Current expenditure and capital expenditure of HEIs
(1995 constant prices)



Source: Eurostat UOE data collection

Student support

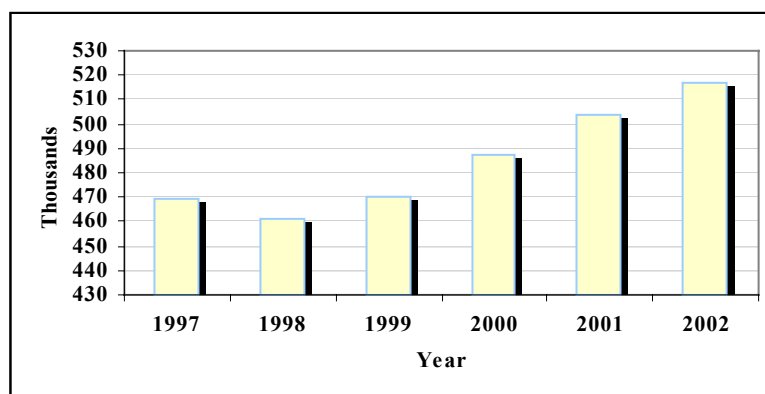
Students in tertiary education receive maintenance grants. The Education Act of 1988 gives the Minister of Education the power to determine rates of stipends payable to students receiving further education and may impose conditions for the payment of such stipends. In 2001, part of the payment of the grant, the capital part, was issued in the form of a smart card from which students can redeem a certain value of money when buying books and other educational supplies which are necessary for their studies. If it is found that its owner is misusing the card, then the card can be blocked.

The Netherlands

Historical development of higher education

University education (wetenschappelijk onderwijs) had traditionally been confined to only a small group, however in the 1950's universities began to gradually expand. The expansion of the student finance system helped to make a university education attainable for a much larger group of students. The growth in higher professional education (hoger beroepsonderwijs) began later, with the greatest expansion taking place during the 1970s after this form of education had been brought under the Secondary Education Act (WVO – Wet op het voortgezet onderwijs) in 1968. Higher professional education continued to be governed by the Secondary Education Act until 1986 when the Higher Professional Education Act (WHBO) came into force. In 1984, the Open University Open Universiteit of the Netherlands was established in order to offer adults a means of pursuing higher education without admission requirements and at their own pace, through distance education. The Open University Act (WOU) of 1985 gave the Open University of the Netherlands its own statutory framework. Higher education comprises higher professional education (hbo) and university education (wo). Between 1997 and 2002, the higher education sector experienced a 10% increase in the number of students. The period 1997-1998 saw a 1.6% decrease in the number of students. Figure 92, shows the number of students in higher education during the period 1997-2002.

Figure 92: Number of students in higher education (ISCED 5/6)



Source: Eurostat UOE data collection

Educational policy

The Higher Education and Research Act (WHW⁷) entered into force on 1 August 1993. Its underlying principle was to give institutions greater freedom of policy within the parameters laid down by government. Detailed *ex ante* control by the government is replaced by *ex post* control of a more general nature. At the same time the government remains responsible for the macro-efficiency of the system. The Higher Education and Research Plan (HOOP) 2000 sets out the government's intentions regarding higher education policy for the coming years. The result of the HOOP 2000 was that the higher education institutions were given more institutional autonomy. In the framework of the HOOP, there is a dialogue in which the government and the institutions can

⁷ (WHW – Wet op het hoger onderwijs en wetenschappelijk onderzoek)

together establish what is desired or required of the higher education and research system. The government is responsible for setting out macro-objectives in the planning cycle. The most important *ex ante* powers that the Act accords the government are as follows:

- Assessment of the macro-efficiency of new and existing study programmes
- Fixing a general formula for determining the size of the central government grant to institutions within the limits of the overall budget for higher education and research
- Restricting entry to study programmes in connection with labour market considerations and capacity
- Determining the main elements of personnel policy

Future developments

- System of research evaluation - it is envisaged that in the long term, a system for systematically determining research output will be introduced. This will make it possible to make periodical reallocation to those universities, or university departments, which perform the best. It is intended to enter into discussions with VSNU, NWO, and KNAW with the aim of deciding by 2006 on an evaluation system, which can then be implemented and developed further. The intention is to incorporate this kind of reward within the system of “performance-related funding” for university research, both in the long-term design of the system and in the “smart mix” which is hoped to be put in place in the short term.
- Spin-offs - The Dutch government intends entering into discussions with the major financial institutions regarding the conditions under which they consider it justifiable to make venture capital available to university spin-offs. It is possible that the Netherlands can also make use of EU instruments such as the European Investment Bank and the European Investment Fund.
- “Valorisation” means the conversion of the results of research into economic value. The Higher Education and Research Act (WHW) already states that the transfer of knowledge to society as a whole is one of the three core tasks of the universities. In order to clarify the WHW Act with respect to valorisation, a separate compartment for valorisation will be specified within the funding system. A certain percentage of the fixed contribution for research will be earmarked for valorisation.
- Matching- when universities receive indirect funding or external funding from national government or the EU, they are more or less obliged to contribute from their own funds. In some cases, this obligation only involves paying overheads, but in others the university needs to cover some of the actual research costs involved. The government believes that it has a duty to ensure that the sum total of matching obligations, considered nationally, does not undermine the universities’ own statutory responsibilities. To do this effectively, it is necessary to have sufficient information about the nature and extent of the various matching obligations. A study is being carried out into this problem.

Financing of higher education institutions

As a result of the introduction of the Bachelor Master system, the university funding system (PBM allocation) was changed, starting in the financial year 2003. The successor of the PBM model is labelled as the “BaMa” model. Compared to the PBM allocation model, two main changes can be

seen. The first change is related to the teaching component. The teaching component consists of the following parts:

- i. Fixed amounts for each university (i.e. a basic allocation)
- ii. Diploma-based allocation
- iii. New entrants allocation
- iv. Allocation for facilities related to training in veterinary sciences and dentistry.

In the new BaMa model, component (ii.) also serves as an incentive to increase the number of graduates; the diploma-based allocation is based upon both the bachelors and masters diplomas. The difference in tariff between Bachelor and Master degrees will be 2: 1, implying that universities will receive twice as much for a Bachelor degree as for a Master degree. The tariffs differentiate further between humanities/social studies versus science/engineering versus medically oriented sciences in the relationship 1:1, 5:3.

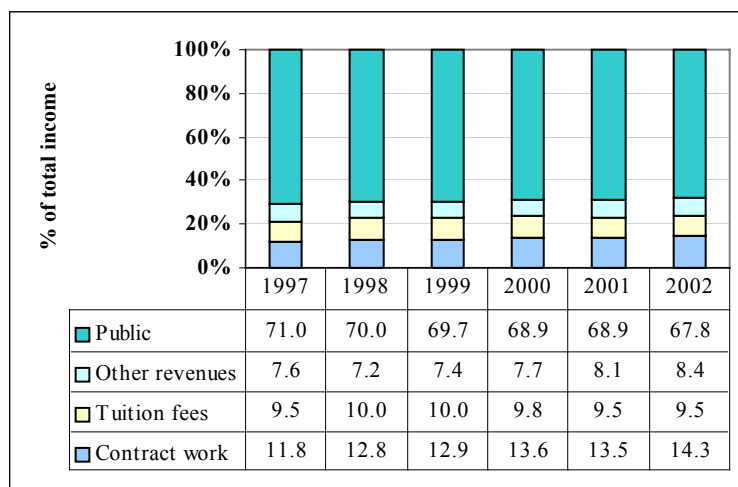
The research component consists of the following parts:

- i. A fixed amount for each university
- ii. Allocation for dissertations and designer certificates
- iii. Allocation for research schools
- iv. Allocation for excellent research schools
- v. Strategic considerations allocation.

In the existing PBM model component (i) is based upon fixed allocations per university. In the new BaMa model, the link between the research budget and the number of diplomas (both bachelor and masters) will be (re)introduced.

The biggest source of income of higher education institutions is the government. Since 1997, the importance of the government as main provider of income to the higher education sector has decreased from representing 71 % in 1997 of total income of the higher education sector to 67.8% in 2002 income . At the same time, the share of revenue of higher education institutions from contract work has increased from 11.8% in 1997 to 14.3% in 2002. Surprisingly, the share of total income of higher education institutions, acquired from revenue of tuition fees has stayed constant at 9.5%. Figure 93, shows the main sources of higher education institutions income as a proportion of the total income. During 1997-2002, higher education institutions' income from the government increased by 13.1%. In 2002, income to universities from the government represented 65.2% of total government income to the higher education sector. Figure 94 shows the income of higher education institutions from the government. From 1997 to 2002, the costs of providing teaching in universities increased by 31.7%, whilst the costs of providing research increased by 22.5%. The costs of providing research in universities were relatively stable during 1998-2002. On the other hand, the costs of providing teaching steadily increased over the period 1997-2002 (see Figure 95).

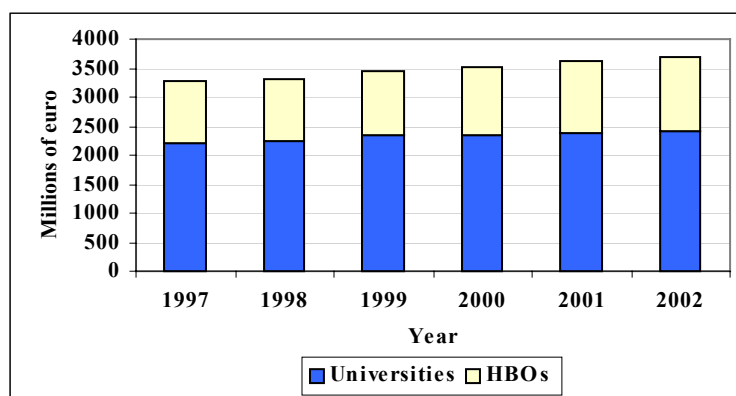
Figure 93: Sources of income of HEIs as a share of the total revenue



Source: Key Figures 1998-2002, and Key Figures 1999-2003 OCW

On behalf of the Dutch Ministry of Education, Science and Culture, a project group⁸, published a report during the spring/summer of 2000 “Talent voor de toekomst, toekomst voor talent”. The group examined the situation of the problems of personnel at universities and other research organisations. A number of recommendations were put forward including that talented young scientists have to be paid higher salaries; universities have to think about career planning opportunities for all of their scientific staff; and the improvement of the image of the universities. The government responded to this report in the autumn of 2000, by making extra money available to deal with the recommendations.

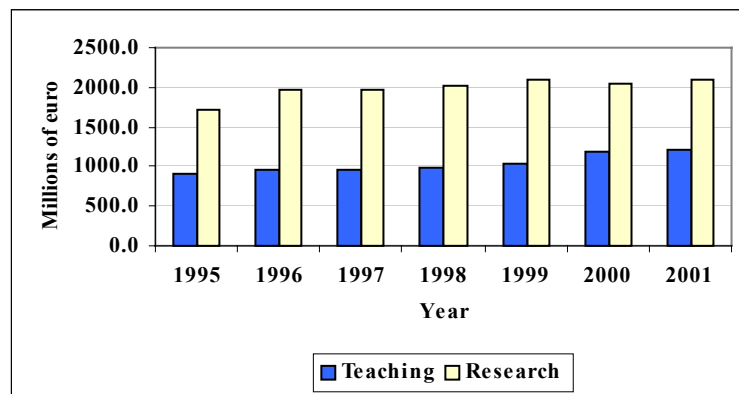
Figure 94: Public income of HEIs broken down by type of institution (1995 constant prices)



Source: Key Figures 1998-2002, and Key Figures 1999-2003 OCW

⁸ chaired by Lieteke van Vucht Tijssen

Figure 95: Actual costs of teaching and research in universities (1995 constant prices)



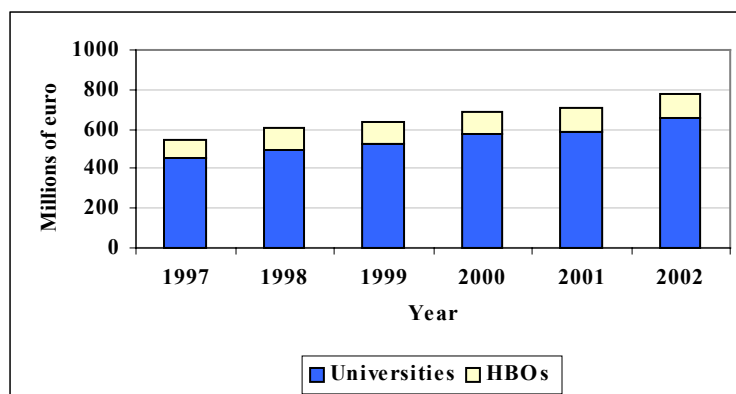
Source: Key Figures 1998-2002, and Key Figures 1999-2003 OCW

Notes: In universities, teaching and research are intertwined. To calculate spending on university teaching, expenditure is multiplied by a factor based on the ratio between the deployment of academic staff for research according to the statistics on university research (KUOZ) and the total academic staff establishment (WOPI).

Contract work

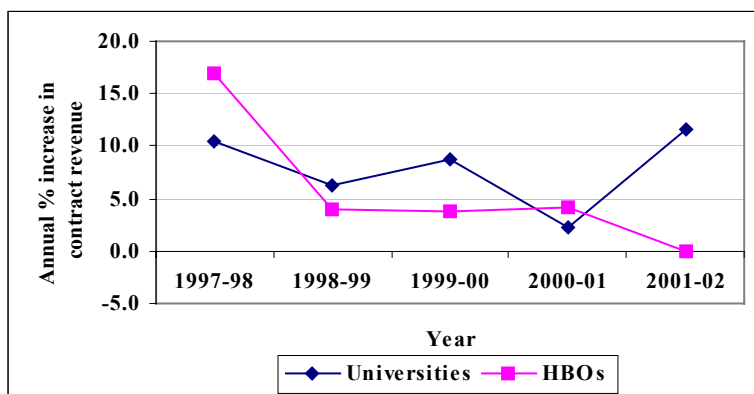
Higher education institutions increased their income from contract work by 43% during the period 1997-2002 (see Figure 96). On average during the period 1997-2002 universities share of the total income generated from contract work of higher education institutions was 83%. Annual percentage increases in income generated from contract work by universities during the period 1997-2002 tended to fluctuate between 6-11%. However during the period 2000-2001, the annual percentage increase was only 2.2% (see Figure 97).

Figure 96: Revenues of HEIs from research contracts broken down by type of institution (1995 constant prices)



Source: Key Figures 1998-2002, and Key Figures 1999-2003 OCW

Figure 97: Annual percentage increases of revenue from research contracts for HBO's and universities

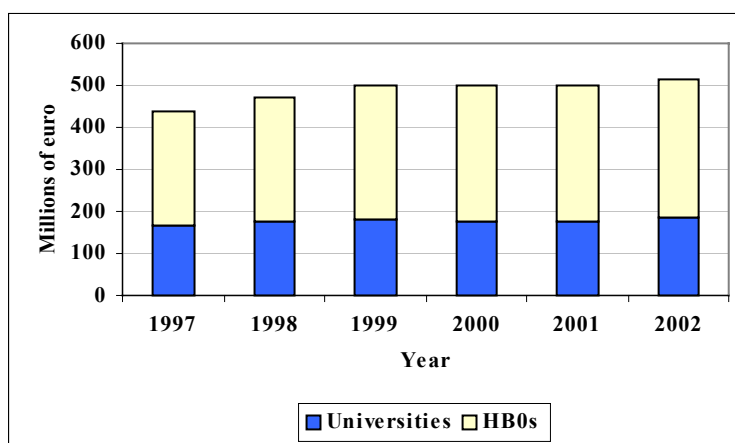


Source: Key Figures 1998-2002, and Key Figures 1999-2003 OCW

Income from tuition fees

Income from tuition fees in higher education institutions has increased by 17.9% from 1997 to 2002. On average during the period 1997-2002, HBO's share of the total income generated from tuition fees of higher education institutions was 64%.

Figure 98: Income of HEIs from tuition fees, broken down by type of institution (1995 constant prices)



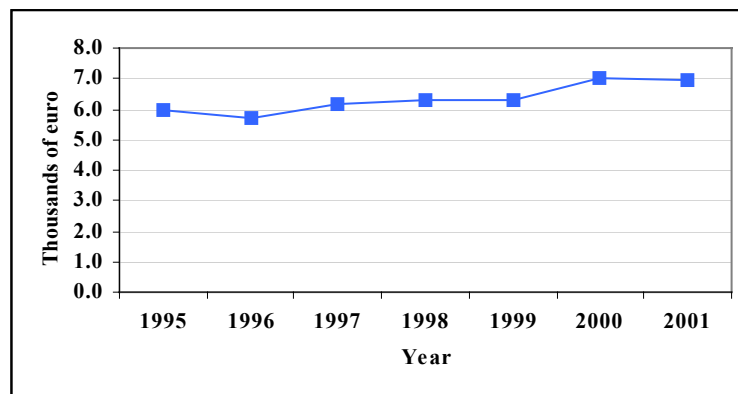
Source: Key Figures 1998-2002, and Key Figures 1999-2003 OCW

Note: Tuition fees are estimated. The standard amount is taken and multiplied by the number of students.

Teaching costs per student

Over the period 1997-1999, the teaching costs per student in universities were relatively constant. However, in 2000 the costs per student increased by 12% from the previous year (see Figure 99).

Figure 99: Teaching costs per student in universities (1995 constant prices)

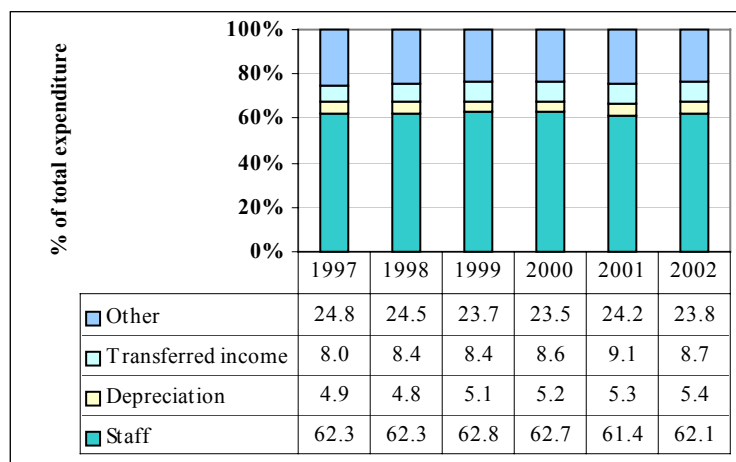


Source: Key Figures 1998-2002, and Key Figures 1999-2003 OCW

Expenditure of higher education institutions

The biggest outlay of expenditure by higher education institutions is on staff. In 2002 the share of total expenditure that is devoted to staff was 62.1%. Expenditure on staff has increased by 17.9% from 1997 to 2002.

Figure 100: Breakdown of total expenditure of HEIs by type of expenditure



Source: Key Figures 1998-2002, and Key Figures 1999-2003 OCW

The 'performance grant' system

The performance grant was introduced on 1st September 1996. Students receive their previous grant-aid as an initial loan. If students meet study progress requirements, the conditional loan will be converted into a non-repayable grant. This means that students must pass 50% of the exams in the first-year to get the grant portions of the first year converted into a gift. The grant portions of succeeding years only become a gift if students complete their degree within the nominal duration of the program plus 2 years (6 or 7 years in total). In 2000, the time limit to complete a degree was relaxed. Students can now take up to 10 years to complete their degree, regardless of the nominal duration of programs. The maximum age at which students are entitled to student support was

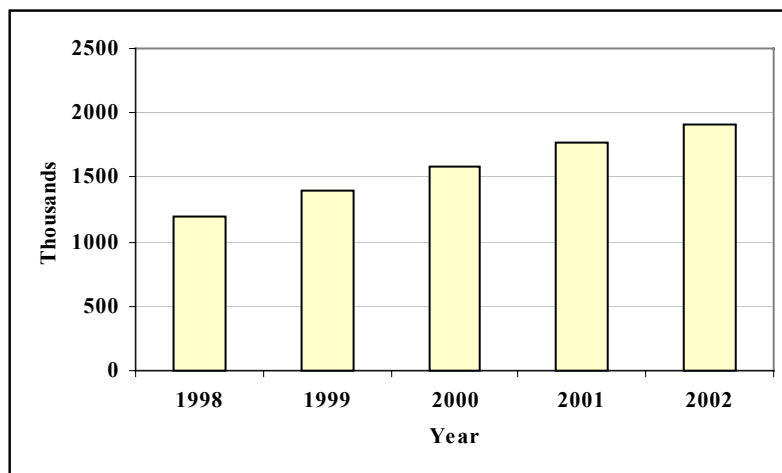
raised from 27 to 30 years. However, the basic grant and the additional grant are provided only for the period of the nominal duration of the programme a student attends. When the nominal duration of a programme is over, a student may apply for student aid in terms of full-loans only. This implies that no gifts are available to students in the extra time they use to finish a programme. In December 2002, the Committee Vermeend was set up to investigate the opportunities of a graduate tax system or income contingent loans in the Netherlands.

Poland

Historical development of higher education

The first Polish university was The Jagiellonian University, which was in Krakow in 1364 by King Kazimierz Wielki (Casimirus the Great). Before the Second World War there were 6 universities in Poland (Krakow, Vilnius, Lvov, Warszawa, Wroclaw and Poznan) and 3 technical universities. After the II World War a number of new higher education institutions were established. During the period of communism the management of higher education system was centralised. Following the fall of communism in 1990, major changes took place in the higher education system. Higher education institutions were granted institutional autonomy, including a large degree of independence from the state administration and academic freedom (freedom in teaching and research), and internal self-governance was developed. New legislation made it possible to establish non-state higher education institutions, which was a return to the pre-war situation when the ownership structure in the higher education system was coherent with the democratic system and market economy. The general structure of higher education sector became more diversified in terms of types and levels of institutions. The Act of 26 June 1997 on Schools of Higher Vocational Education created the legal basis for establishment of state higher education vocational schools. In September 2001 the new law on higher education came into force (1990 Act on Higher Education revised by the 20.07. 2001 bill), which on one hand increased the autonomy of higher education institutions and on the other hand - increased the scope for supervision and evaluation of their activities, mainly with respect to the quality of education. Between 1998-2002, there was a 60% increase in the number of students in higher education (see Figure 101).

Figure 101: Number of students in higher education (ISCED 5/6)



Source: Eurostat

Education policy

The current system of higher education is based on Article 70 of the Polish Constitution⁹, and on four other Acts. Article 70 of the Polish Constitution states that education in state schools shall be

⁹ 6th April, 1997

without payment. However, statutes may allow for payments for certain services provided by state higher education institutions. In addition, the article says that the autonomy of higher education institutions shall be ensured in accordance with principles specified by statute. Since 1990, the higher education in Poland underwent radical changes, which included authorising the establishment of private higher education institutions. In 2002, there were 250 private schools of higher education, with approximately half a million students. 27% of student in higher education institutions come from private institutions of higher education. The Higher Education Act of 1990, allowed higher education institutions to charge for certain services, and the development of paid studies for evening courses, distance learning, and postgraduate studies in State higher education institutions.

State higher education institutions are funded through state allocations for teaching, operating costs of the institution, material aid for students, and allocations for investments (buildings). Additional resources of state higher education institutions include income from teaching activities, tuition fees, and research activities. Except for the Catholic University of Lublin and the Papal Academy in Krakow, private higher education institutions, did not receive additional resources from the state. In the last two years, state aid in the form of grants has been extended to students of private higher education institutions in day courses.

According to the ‘Development Strategy of higher education until 2010’ of the Republic of Poland, in the long-run the strategy will be increase income of higher education institutions from the following sources:

- EU funds
- Private sector (fund-raising, income from foundations)
- Introduction of “iron capital”- Endowments
- Development of tuition fees for postgraduate studies for enterprises and private individuals.

Furthermore, more financing will be sought from local and regional government.

By the end of the first decade of the 21st Century, it is foreseen that a number of changes will be made to the structure of higher education, including transforming smaller institutions into university colleges, and the liquidation of substandard institutions.

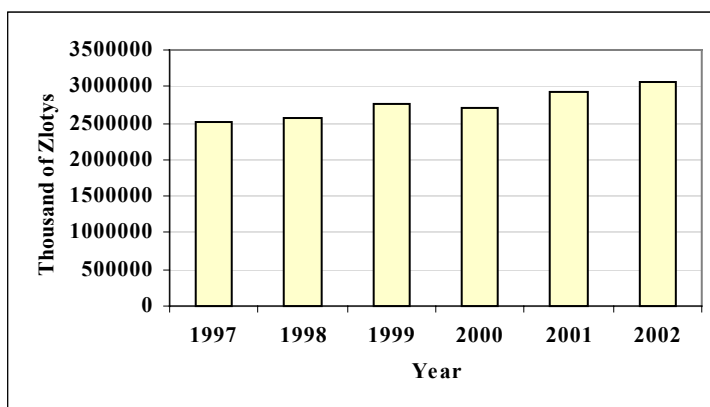
A number of questions have been put forward for further debate including the question of what type of education services should be charged?

Financing of higher education institutions

There was a 22.1% increase in public income of higher education institutions for teaching from 1997 to 2002. During the same period, there was a 22% increase in the budget allocations for teaching from the government. Budget allocations from the government represent the biggest source of income of higher education institutions from public sources for teaching. In 2002, income from the national government represented 89% of total public teaching income of higher education institutions (see Table 17). In 2002, income from international sources constituted

12.0% of total income of higher education institutions for teaching. Income from international sources increased by 23% from 1997-2002.

Figure 102: Public income of HEIs for teaching (1995 constant prices).



Source: Higher schools and their finances (GUS)

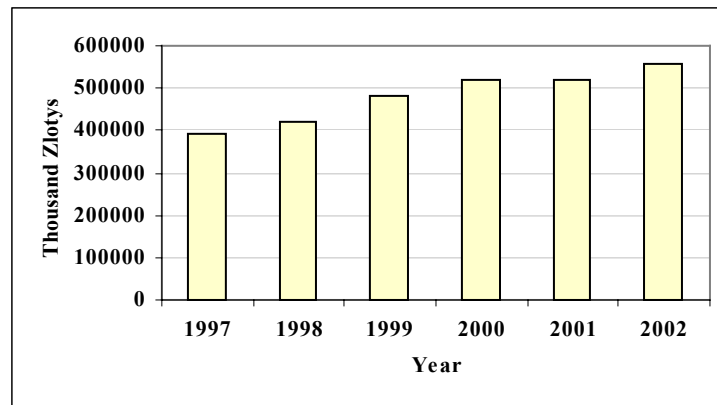
Table 17: Public income of HEIs for teaching by type of source as a percentage of total public income

Year	National	International	Local
1997	89.1	11.9	0.4
1998	88.5	12.6	0.3
1999	88.1	13.1	0.4
2000	87.8	13.4	0.4
2001	88.7	12.2	0.4
2002	89.0	12.0	0.3

Source: Higher schools and their finances (GUS)

Between 1997-2002, there was a 42.8% increase in income of higher education institutions for research from the national government (see Figure 103). In 2002, 44.2% of national income for research came in the form of core funding for statutory R & D activities. Other national income for higher education institutions includes subsidies for R & D programmes of national importance commissioned by enterprises, state administrative bodies or local authorities, peer-reviewed research grants based on research proposals, presented by small research teams or individual researchers Subsidies for selected R & D support activities.

Figure 103: Public income of HEIs for research (1995 constant prices).

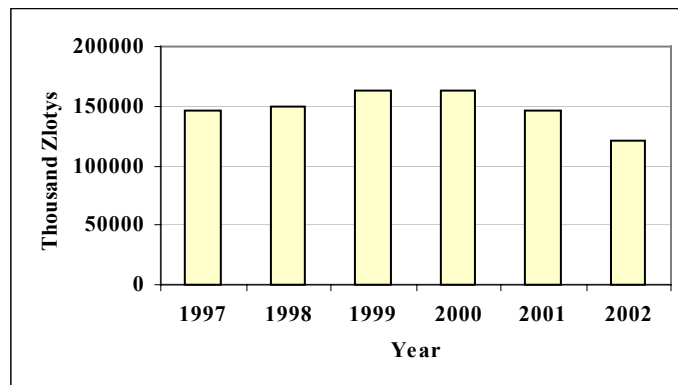


Source: Higher schools and their finances (GUS)

Income from selling services and other income from the private sector

During the period 1997-2002, there was a 17.5% decrease in income of higher education institutions from the sale of research results, and research contracts.

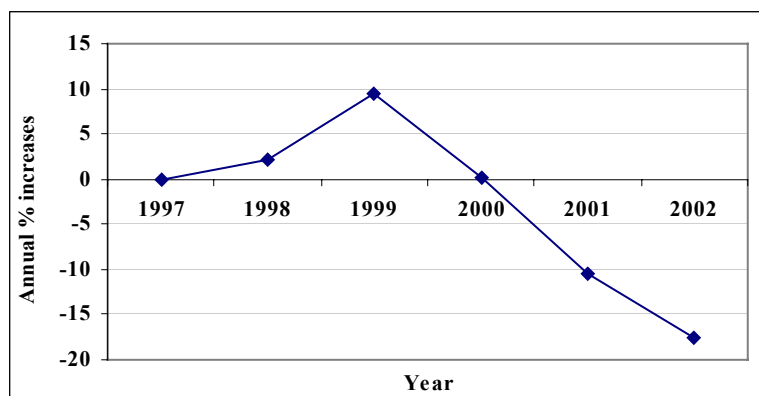
Figure 104: Income of HEIs from selling research results, and research contracts to the private sector (1995 constant prices)



Source: Higher schools and their finances (GUS)

Since 2000, higher education institutions have seen their income from the sale of research results and research contracts experiencing large decreases (see Figure 105).

Figure 105: Annual percentage increases in income from the sale of research results and research contracts to the private sector (1995 constant prices)

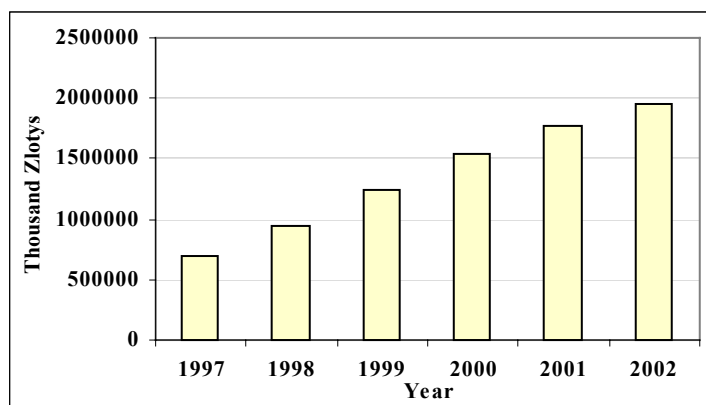


Source: Higher schools and their finances (GUS)

Income from tuition fees

Higher education institutions saw a 180% increase in income from tuition fees over the period 1997-2002 (see Figure 106). Income from tuition fees refers to fees for postgraduate studies and other special courses. In 1997, income from tuition fees accounted for 17.7% of the total income of higher education institutions. However in 2002, the share of the total income of higher education institutions that tuition fees accounted for increased to 32.6%.

Figure 106: Income of higher education institutions from tuition fees (1995 constant prices)



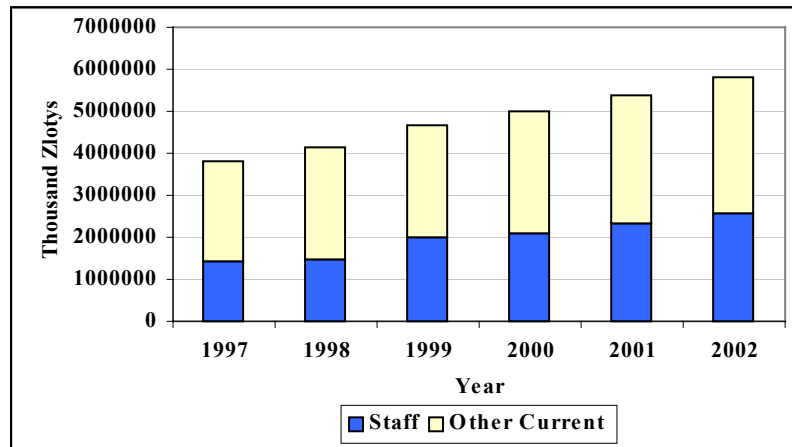
Source: Higher schools and their finances (GUS)

Expenditure of higher education institutions

There was a 51.3% increase in expenditure of higher education institutions over the period 1997-2002 (see Figure 107). The biggest current expenditure outlay of higher education institutions is on personnel. It should be noted that this refers to gross expenditure on personnel salaries. It does not include social security contributions, contributions to housing, meals. Expenditure of higher education institutions on building investments and the purchase of equipment increased by 56.3% from 1997 to 2002 (see Figure 108). Furthermore, during the same period, there was a 16.4%

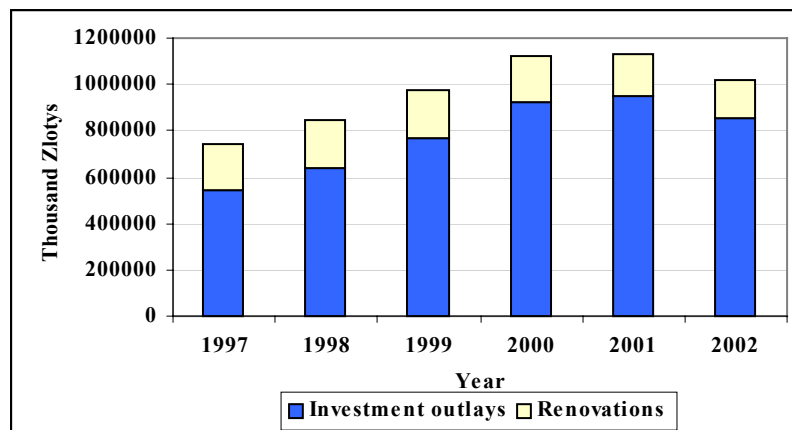
decrease in the expenditure of higher education institutions on renovation costs. Renovation costs include the renovation of student hostels and refectories (see Figure 8).

Figure 107: Current expenditure of HEIs (1995 constant prices)



Source: Higher schools and their finances (GUS)

Figure 108: Expenditure of HEIs on investment outlays and on renovation costs (1995 constant prices)



Source: Higher schools and their finances (GUS)

Cost per student

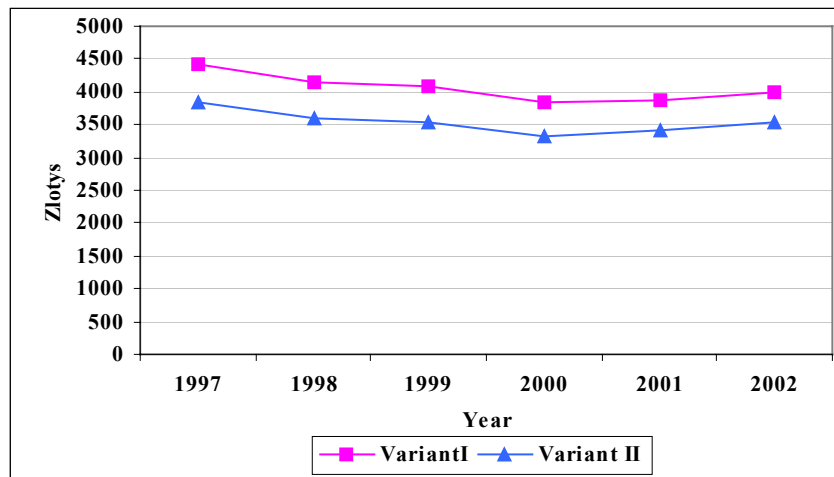
The cost per student can be calculated by two methods:

- i) Variant I – is calculated by calculating the sum of the total costs of higher education institutions, the expenditure on material aid for students, and the expenditure on student grants.
- ii) Variant II- is calculated from the sum of the total teaching costs, the expenditure on material aid for students, and the expenditure on student grants.

During the period 1997-2002, both variants of calculating the cost per student showed that there was a decrease in the cost per student in higher education institutions (see Figure 109) as follows:

- 9.6% decrease in the costs per student using the variant I method.
- 7.7% decrease in the costs per student using the variant II method.

Figure 109: Cost per student in HEIs calculated by type of variant method (1995 constant prices)

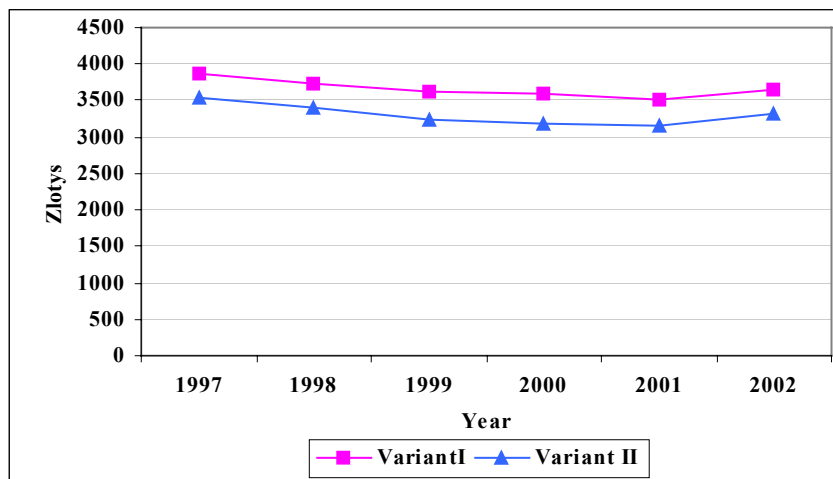


Source: Higher schools and their finances (GUS)

During the period 1997-2002, there was a decrease in the cost per student as calculated by both the variant methods in universities (see Figure 110), as follows:

- 56% decrease in the costs per student using the variant I method.
- 6.1% decrease in the costs per student using the variant II method.

Figure 110: Cost per student in universities calculated by type of variant method (1995 constant prices)



Source: Higher schools and their finances (GUS)

Student support

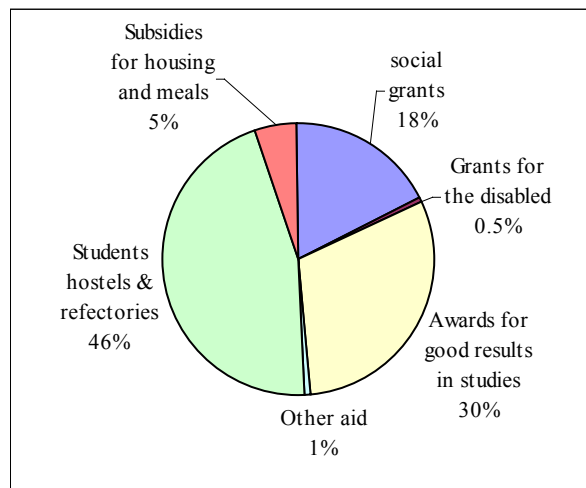
Higher education institutions operate a number of funds including the following:

- 1) The material aid fund for students – this fund is formed from current budget allocations, income from student hostels, and income from student refectories. This fund is used to provide grants, awards for excellent result in studies, additional aid to students, maintenance costs and renovation costs of student hostels and refectories, and subsidies for

accommodation and meals. Figure 111 shows the breakdown of expenditure of the student aid material fund by type of expenditure. The biggest expenditure outlay of this fund is supporting the costs of hostels and refectories. The second biggest expenditure outlay of the material student fund is on awards for good results in studies. There was a 14.8% increase in the expenditure of this fund, from 1997-2002.

- 2) Institutions grant fund - This fund is used to provide grants to students and personnel. Between 1997-2002, there was a 193.5% increase in the expenditure of this fund.
- 3) Award fund - this fund is formed from the net profit of the institution. It is used to provide awards to students and personnel for achievements in research or other activities. Expenditure of this fund increased by 41.2% from 1997 to 2002.
- 4) Additional fund- is used to provide awards, according to the decision taken by the rector. During the period 1997-2002, there was a 147.1% in the expenditure of this fund.

Figure 111: Breakdown of expenditure of the material aid fund for students by type of expenditure, as a percentage of total expenditure in 2002



Source: Higher schools and their finances (GUS)

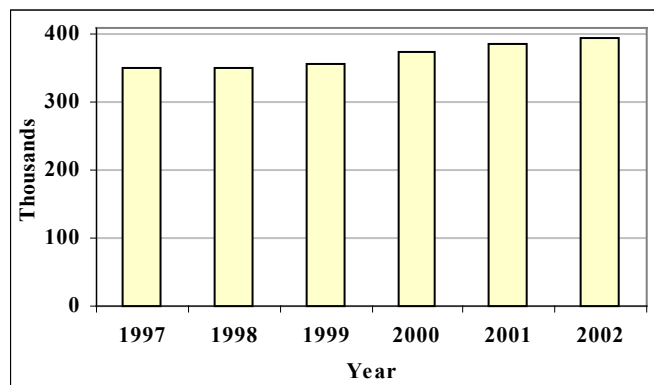
Portugal

Historical development of higher education

The first Portuguese university was founded in 1290, by a royal decree, issued by King Dinis. There had also been two large mediaeval-style religious schools in Coimbra and Alcobaça since the twelfth century. In the first half of the twentieth century, little was invested in developing and expanding higher education. In the nineteen sixties there were still only four universities in Portugal: the Lisbon Technical and Classical Universities, and the Oporto and Coimbra Universities, consisting of several different colleges, institutes or faculties. The 1970s saw considerable growth in the Portuguese higher education system. The reform in 1973 was responsible for creating schools of higher education outside the traditional teaching centres, which contributed both to the decentralisation at this level of education and to the development of the regions where these new schools were opened. At the start of the seventies, there were 42 state and 37 private schools of higher education.

Higher education in Portugal is divided into two subsystems: university education and non-university higher education (polytechnical education). The two systems of higher education (university and polytechnic) are linked and it is possible to transfer from one to the other. Figure 112 shows the number of students in higher education during the period 1997-2002. Over the period 1997-2002, there was a 13% increase in the student population.

Figure 112: Number of students in higher education (ISCED level 5/6)



Source: Eurostat

The Education Act (Law No. 46/86, amended by Law No. 115/97) establishes the general rules for all levels and types of education, including higher education, defining scope and objectives (Art. 11), entry conditions (Art. 12) and types of school (Art. 15).

Financing of higher education institutions

Higher education institutions enjoy financial autonomy and manage the budget allocated to them by the State. However, before they receive their annual grant, they are required to submit their overall budgetary policy, and the Ministry of Education may exercise its powers of co-ordination

and supervision by making changes to financial plans, altering the budget or projects, or authorising investment expenditure. The law on public universities' autonomy of 1988 gives the universities autonomy with regard to internal organisation, the creation and running of courses, research, personnel and the administration of facilities. University autonomy was increased in 1997, in particular in matters of personnel and university buildings. The Ministry of Education is mainly concerned with the budget, current investment, the number of places that universities may offer under each programme and the numbers of academic and non-academic staff in public universities. The higher education finance law establishes a system of external audits for state universities designed to create tight controls on spending. For private and co-operative universities, a working party ensures that the institutions meet the requirements established in the respective regulations, making adjustments whenever necessary.

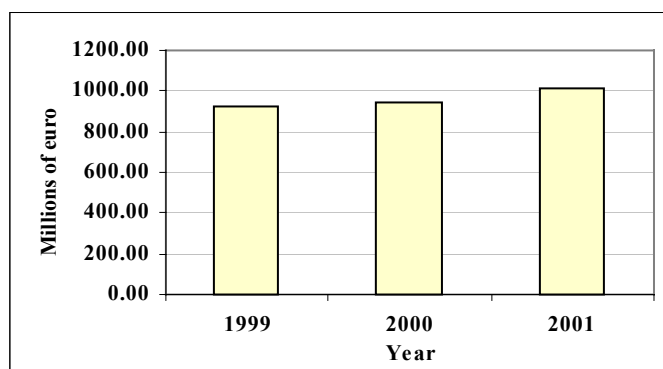
The current expenditure budget is calculated through a formula that takes into consideration the number of students, student to academic and to non-academic staff ratios, as well as salaries, which depend on national rules relating to qualifications. The ratio of students to full-time equivalent academic staff varies according to the field of study, as well as the type of institution (university or a polytechnic). It also takes into consideration the fact that the number of teaching hours for academic staff is different according to the institution, 6 to 9 at universities and 6 to 12 at polytechnics. The investment budget depends on the planning of construction and facility renewal activities, undertaken at national level, in agreement with the institutions, by the Ministry of Education and following proposals made. These activities are included in the budget of each institution, which is responsible for implementation. The budget financed through the Ministry of Education is mainly dedicated to educational activities, although it supports the salaries of academic staff, who dedicate part of their time to research. The research activities of higher education institutions also receive funding from the Ministry of Science and Technology. These institutions are also financed by their own income from contract work. The PRODEP programme, which is co-financed by the European Regional Development Fund and the European Social Fund, supports building and renewal of education, sport, residence and canteen facilities, as well as training for academic staff at postgraduate level and work experience for students, in both public and private institutions.

In Portugal, the only public source of income at higher education institutions is the central government. The regions and the municipalities play no role in the financing of higher education. During the period 1999-2001, higher education institutions' income from the central government increased by 9.3% in real terms. Figure 113 shows higher education institutions income from central government during the period 1999-2001. In 2001, income from households made up 7.7% of the total income of higher education institutions.

In 1996/97, tuition fees were 5.99 € (PTE 1,200), an amount first fixed in 1941. In 1992¹⁰, the government established a new level for fees, which were to rise to 50% of the current expenditure budget figure per student. This law was suspended in 1995 and the previous amount re-established.

¹⁰ Law 20/92, 14 August

Figure 113: Public income of HEIs (1995 constant prices)



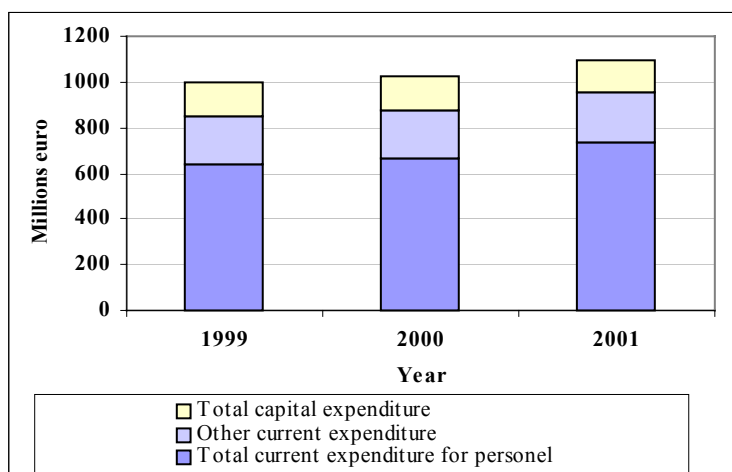
Source: Eurostat UOE data collection

The Framework Act on Higher Education Finance passed in 1997, first applied in the academic year 1997/98, established that the annual tuition fee is equal to one monthly minimum national wage, independent of the cost of the programme. For the academic year (1997/98), this corresponded to PTE 56,700. The present formula to determine the current expenditure budget was established in 1994. Up to that time, the budget of each higher education institution was based on the previous budget and direct negotiation between the Ministry of Education and the institutions. The formula currently comprises an adaptation component, allowing the institutions to adapt progressively to the reference budget.

Expenditure of higher education institutions

The total current expenditure of higher education institutions increased by 12.5% during the period 1999 to 2001. In contrast capital expenditure decreased by 4.4% during the same period. Expenditure of higher education institutions increased by 14.7% during the period 1999-2001. In 2001, expenditure on personnel accounted for 77.4% of total current expenditure. Figure 114 shows the total expenditure of higher education institutions broken down by type. The total expenditure of the higher education sector on research and development in Portugal has increased by 80.7% in real terms during the period 1995-2001.

Figure 114: Total current expenditure and total capital expenditure of HEIs (1995 constant prices)



Source: Eurostat UOE data collection

Student support

In accordance with Law no. 113/97 of 16 September, which sets the ground rules for financing the state higher education sector, the State is required to work towards assuring the existence of welfare services which facilitate access to higher education and academic success on the part of higher education students, applying positive discrimination in relation to students from needy backgrounds and students studying away from home. These services ensure that no student is excluded from higher education on economic grounds.

In practice, the State grants direct and indirect financial aid, managed on a flexible and decentralised basis. Direct aid can take the form of student grants and emergency aid. Indirect welfare services can take the form of access to meals and accommodation, health care services, support for cultural and sporting activities and access to other forms of educational support. Special help is also provided for disabled students. Recent legislation has created a system of competitive scholarships for students in higher education, like those offered to secondary school students. A Student Welfare Board has been created in every higher education establishment in order to administer these services. Under the internal regulations of each institution, these boards are granted administrative and financial autonomy, which they exercise through their own offices and departments.

In 1990, subsidies to pay fees were established for students of private higher education with lower incomes. This system remained in place until the academic year 1995/96, with changes only in the maximum amount of the subsidy. In 1996/97, for the first time, such students were given grants, as well as the fee subsidy. Although the number of grants is still limited by the budget, it has been increasing. The objective is to cover all lower income students. In 1997/98, the rules applied to the grants were almost identical to those of public higher education, with an additional fee subsidy.

For 1997/98, students that are eligible for a grant must be enrolled in an undergraduate degree programme and be in a position to complete their studies in $n+2$ years, which means that they must succeed in completing 40% of the curricular units every year. The grant amount depends on the per capita income of the family, which must be below the minimum national wage (€282.8 in 1997/98). Other provisions include a special subsidy for students studying at a higher education institution away from their place of residence.

During the period 1999-2001, central government expenditure on grants and scholarships for students increased by 12.9% (source: Eurostat UOE data collection). The central government is the only body participating in the financing of higher education students in Portugal. The student support scheme in Portugal is based only on scholarships and other grants.

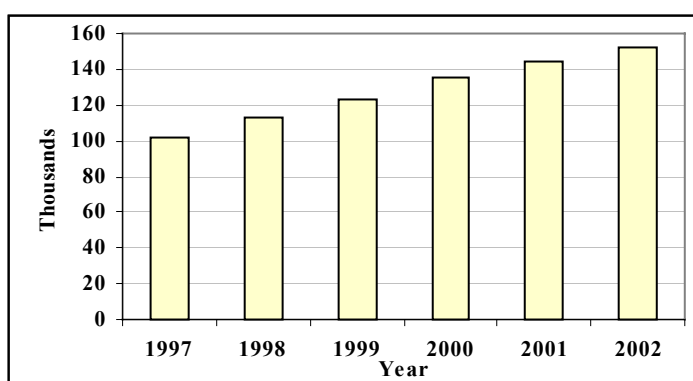
Slovak Republic

Historical development of higher education

The first Slovak higher education institutions were founded in Great Moravia in the 9th century. The first university existing in Slovakia was Academia Istropolitana founded by Matthias Corvinus in Bratislava in 1465. In the 16th century the Old Hungary had no university, and therefore the inception of Jesuit universities in Trnava in 1635, was a major development in education. The need for vocational training led to the foundation of higher vocational schools. The first College of technical orientation in Europe was founded in Slovakia in Banská Štiavnica in 1762.

A new époque in the development of higher education began in 1918 with the establishment of the First Czechoslovak Republic. Older colleges were dissolved and a state university was founded in Bratislava named Comenius University. After 1948, higher education was developed on the principle of a unified, state education. The Higher Education Act of 1950 followed the Soviet model of planning and control of higher education institutions. The aim was to *“educate professionally and politically skilled specialists, loyal to the People’s Democratic Republic and devoted to the idea of socialism...”*. A department and scientific postgraduate study was the basic organisational unit of educational and scientific work. The Act No. 46/1956 supplemented the former Act in all fields concerning management, organisation and staff of higher education institutions. After 1989, the Slovak Republic started to move towards the European model of higher education. The Higher Education Act No. 172/1990 set up comprehensive parts of higher education consisting of the Bachelor, Master and doctoral studies, the fundamental academic rights and freedoms, namely; the freedom of scientific research and of publishing its results, the freedom of artistic creation; the right to teach and to study; the right to elect academic self-governing bodies; the right to hold diverse philosophical views and to profess religious beliefs and disseminate them; the right to use academic insignia and symbols; and to perform academic ceremonials. Between, 1997–2002, there was a 49.2% increase in the number of students in higher education (See Figure 115).

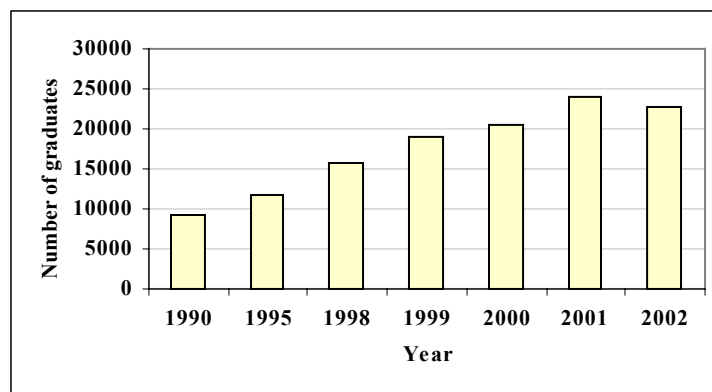
Figure 115 : Number of students in higher education (ISCED level 5/6)



Source: Eurostat

Over the period 1990-2002, there was a 145% increase in the number of graduates. However, the period 2001-2002 saw a 6.1% reduction in graduates.

Figure 116: Number of graduates (ISCED 5A/6)



Source: UIPS

Financing of higher education institutions

The New Act on Universities in 2002 defines in a comprehensive way the mission, status and activities of universities, their organisation, and funding management, as well as their status

According to this article all higher education institutions are legal entities and are divided into:

- i. Public higher education institutions;
- ii. State higher education institutions;
- iii. Private higher education institutions.

The new law on higher education institutions gave greater economic autonomy to higher education institutions. Public higher education institutions and state higher education institutions are mainly financed from the state budget as follows:

- Public higher education institutions via MŠ SR or another ministry;
- Military higher education institutions from the Ministry of Defence;
- Health-care higher education institutions from the Ministry of Healthcare;
- Private higher education institutions can receive financial support from the State budget, from the Ministry of Education.

Public higher education institutions receive income from the following sources:

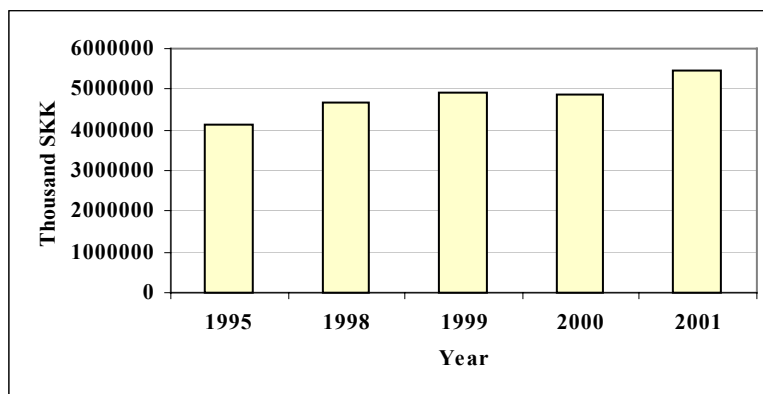
- Appropriation from the state budget, school fee;
- Tuition fees;
- Incomes from further training;
- Profit from the property and intellectual property;
- Donations from physical and legal entities;
- Profits from entrepreneurial activities and other incomes.

The Slovak Cabinet withdrew its proposed bill on student loans, which also would have introduced university tuition fees of up to €520 a year. The government was forced to reconsider in the face of mass student protests.

Over the period 1995-2002, public income for universities has increased by 32.8%. Figure 117 shows the total income of universities from public sources. Public income includes income from national, European, and local sources. Over the period 1998-2001, income from European sources

averaged 1.7% of total public income of universities. Although income from European sources makes up only a small fraction of total income of universities, they have increased their share of this income from 0.6% in 1995 to 2.7% in 2001. Overall, over the period 1995-2001, there has been a 549% increase in income from European sources.

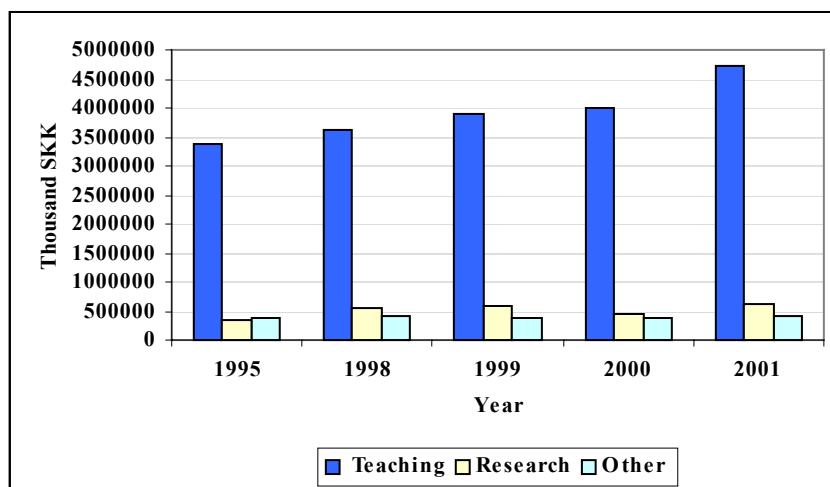
Figure 117: Public income of universities (1995 constant prices)



Source: UIPS

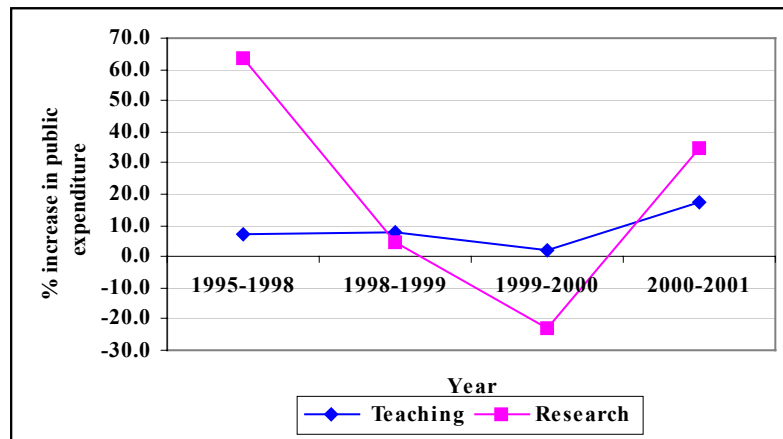
Over the period 1995-2001, there was a 39.5% increase in public funding for teaching, a 78% increase in public funding for research, and a 14.3% increase in income for other purposes. Figure 118, illustrates the trends in the public funding for teaching, and research for the period 1995-2001. There was a reduction in the annual growth in public income for teaching during the period 1999-2000, despite an increase both in students and graduates (see Figure 119). The law on The Agency for support of science and technology in 2001 and a new law on the science and technology in 2002 provide new tools for the financing of the science and technology in Slovakia. The higher education institutions can apply for supplementary financial resources via state orders and state programs. Other resources are the finances obtained via EU education programme.

Figure 118: Income of universities from national sources, broken down by purpose (1995 constant prices)



Source: UIPS

Figure 119: Annual increase in income for teaching and research from national sources

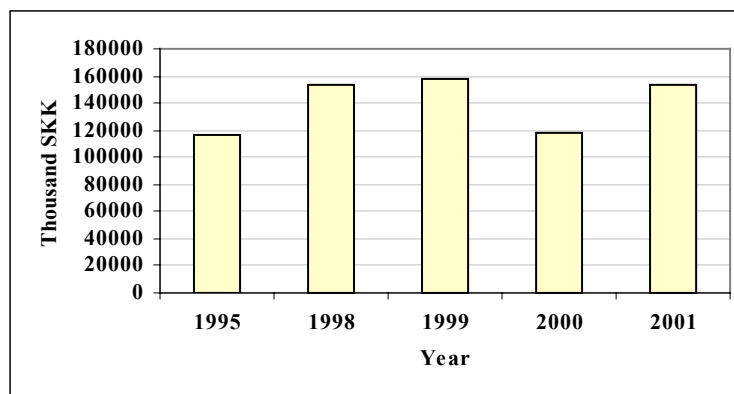


Source: UIPS

Business activities of universities

A public higher education institution can carry out entrepreneurial activities. Within the framework of its entrepreneurial activities, the public higher education institution carries out for a payment, activities related to its educational, research, development, therapeutic-preventive, artistic or other creative activities, or those for a more effective use of human resources and assets. Entrepreneurial activities are not allowed to put at risk the quality, scope and availability of activities fulfilling the mission of the public higher education institution. Over the period 1995-2001, there was an overall increase of 56.1% in the business activities of universities. However, in 2000, there was a 25.7% increase in income from business activities.

Figure 120: Income from business activities of universities (1995 constant prices)



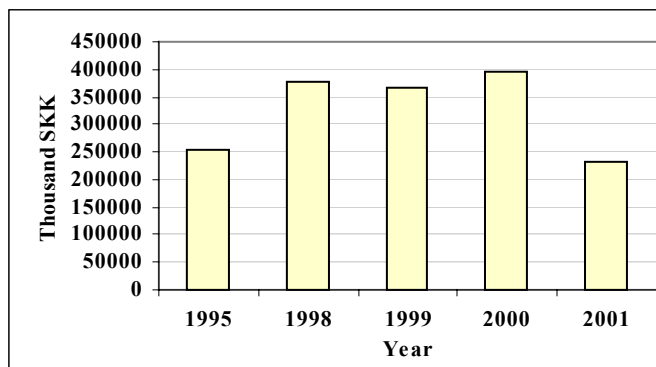
Source: UIPS

Donations to higher education

Donations are another source of income of universities in the Slovak Republic. Over the period 1995-2001, there was an 18.2% fall in income from donations. Figure 121, shows income of universities from donations. Income from donations in the Slovak Republic can be split up into donations for teaching, research, and for other purposes. Over the period 1995-2001, income from

donations for research increased by a staggering 9314%, whilst donations for teaching decreased by 18.2%. During the period 1998-2001, income for donations for research only accounted for on average, 2.2% of total income for donations. Donations for purposes other than teaching and research increased from 1995–2001, by 56.1%. Another important point to note is that donations are extremely unpredictable.

Figure 121: Income of universities from donations (1995 constant prices)

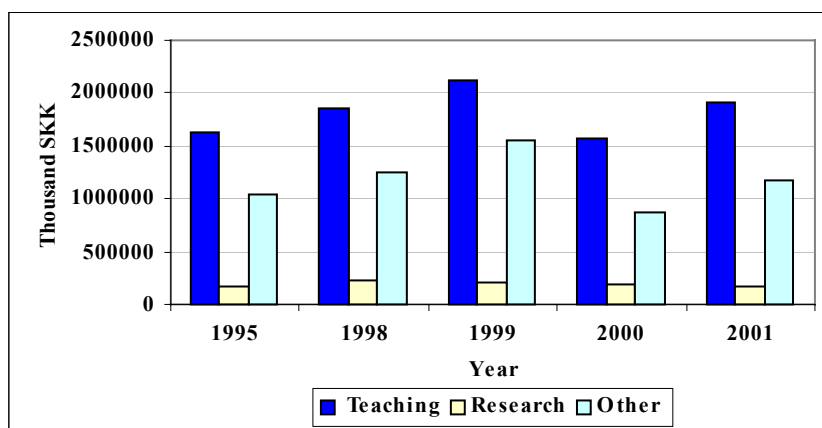


Source: UIPS

Expenditure of higher education institutions

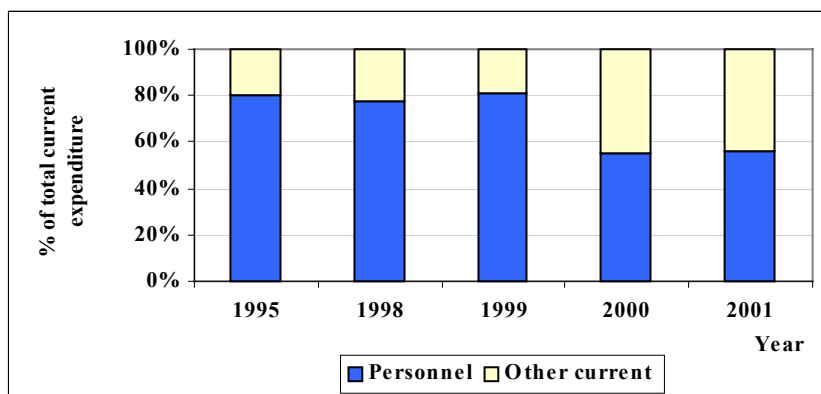
Over the period 1995-2001, current expenditure of universities increased by 62.3%, of which expenditure on personnel increased by 14.6%, and other current expenditure increased by 12.9%. The largest expenditure outlays by universities on personnel are on teaching staff, followed by other personnel. During the period 1995-2001, expenditure on research personnel accounted for on average 6.2% of total expenditure on personnel. Over the period 1995-2001, expenditure on teaching staff increased by 17.4%, whereas on other personnel it increased by 12.9%. However, expenditure on research staff decreased by 0.95%. Figure 122, shows universities current expenditure. In 1995, personnel accounted for 80% of total current expenditure, but in 2001, it's share was reduced to 56.2%. Figure 123 shows the evolution of the relative importance of expenditure on personnel.

Figure 122: Expenditure of universities on teaching, research and other personal (1995 constant prices)



Source: UIPS

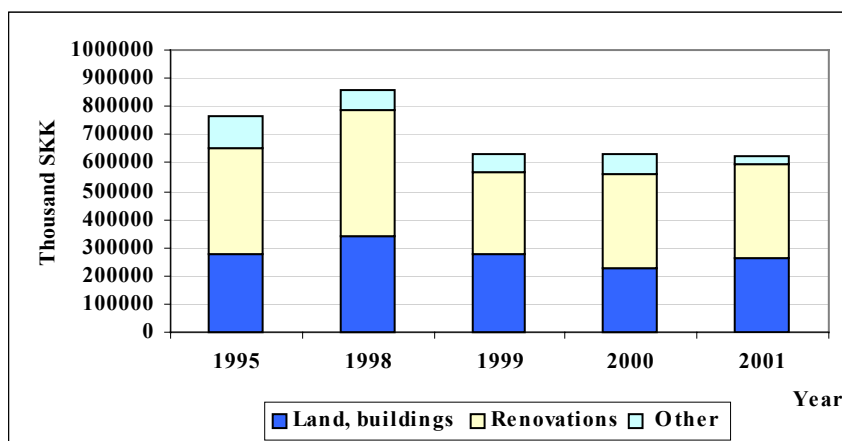
Figure 123: Breakdown of current expenditure of universities into personnel and other expenditure



Source: UIPS

There was a decrease in capital expenditure of universities from 1995-2001 of 18.1%. Figure 124, shows the breakdown of capital expenditure by purpose.

Figure 124: Capital expenditure of universities, broken down by type (1995 constant prices)

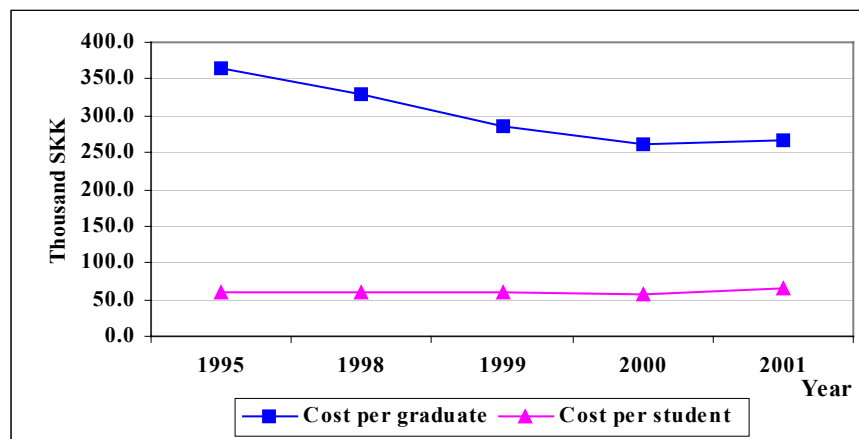


Source: UIPS

Cost per graduate and per student

Figure 125, shows the cost per graduate and cost per student in universities. The cost per graduate has decreased from 1995 to 2001 by 27%, whereas the cost per student over the same period has increased by 6.6%. Between 1995-2000, the cost per student was relatively constant averaging 59.6 thousand SKK. In 2001, the cost per student rose from the previous year by 12.9%. The cost per graduate also increased by 1.6%.

Figure 125: Cost per graduate and cost per student (1995 constant prices)



Source: UIPS

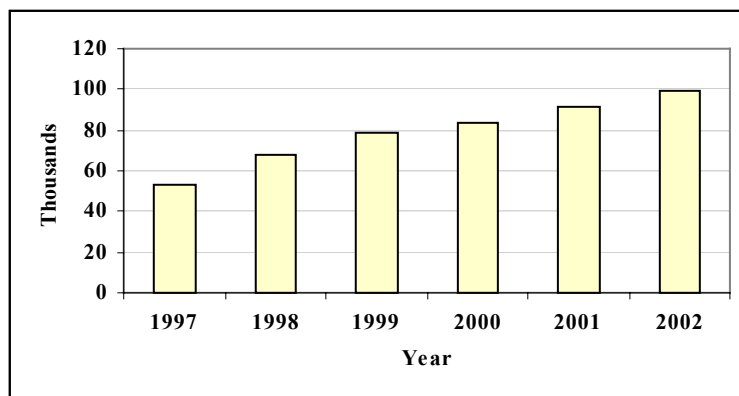
Slovenia

Historical development of higher education

Post-secondary education began in Ljubljana with the work of the Jesuits in the first half of the seventeenth century. This period saw the foundation of the ideologically similar Academia Operosorum (association of important writers and artists, theologians, physicians, and lawyers). While courses were already taught at the Jesuit collegium, the Academia Operosorum aimed at establishing an actual university in Ljubljana. With the dissolution of the Jesuit order (1773), the Ljubljana Faculty of Arts and the Theological Faculty came under Austrian rule. The Jesuit collegium became a state lyceum and most courses continued to be taught by the Jesuits. This system was retained until 1848, with the exception of a number of years when the school system of Napoleon's Illyrian Provinces was introduced. In 1810, the French university "Ecoles Centrales" was opened in Ljubljana. "Ecoles Centrales" was a university entitled to confer academic degrees on students. The French university in Ljubljana saw its decline when the French left the country. As early as 1815, the Austrian lyceum school system was reintroduced. Revolutionary movements in Ljubljana in 1848 revived the demand for the foundation of a Slovene university. Courses of criminal and civil law taught in the Slovene language were the only achievements toward fulfilling the demand until then. The 1860s brought about the revival of the movement for a united Slovenia coupled with firm demands for a Slovene university, which never saw the light of day. The movement for a university in Ljubljana intensified at the turn of the century. After years of struggle for the recognition of the Slovene language, the University of Ljubljana was founded in July 1919.

From its foundation to the end of World War II, the University of Ljubljana experienced an ongoing threat of being closed down. Rapid development of higher education in Slovenia began after World War II. Besides university studies, studies of the arts developed after World War II including the Academy of Music (already established before World War II), the Academy of Film, and Academy of Fine Arts. Besides university studies, *višje šole* (junior colleges with two- or three-year study programmes) and *visoke šole* (professional colleges with four-year study programmes) were established, especially because of high demands for qualified staff. Most junior colleges evolved to professional colleges, offering post-secondary vocational and higher education. After 1945, the focus shifted from universities to individual higher education institutions. The legislation of 1954 defined a university as a group of faculties, while faculties became independent (scientific and higher education) institutions. Former joint issues became separated. The administrations of faculties and other higher education institutions won administrative independence. The Higher Education Act established new regulations in 1994. This Act laid the foundations for a new relationship between universities, other higher education institutions, and the state. Figure 126 shows the number of students in higher education between 1997-2002. Between 1998-2002, there was an 87.2% increase in the number of students.

Figure 126: Number of students in higher education (ISCED 5/6)



Source: Eurostat

Education policy

The Higher Education Act regulates the status of higher education institutions, requirements for performing higher education activities, and public service in higher education and its financial support. Furthermore, this Act regulates the status of libraries, institutes, and other institutions required for performing higher education activities, provided all these institutions have been established as part of (universities) and students' residential facilities. The Higher Education Act is based on the following principles:

- Autonomy of universities and other higher education institutions, pursuant to the Magna Charta of European universities from 1988 providing for freedom of teaching, knowledge acquisition, research, and artistic creativity;
- Deregulation with Acts only regulating issues associated with exercising specific rights under the constitution (e.g. right to education, unity of higher education system, regulation of relationships between state and higher education institutions);
- Legislation regulating all aspects of higher education, in particular, direct combining of educational, research, and artistic components with studies;
- Publicity, according to which universities and other higher education institutions must consider public interest. Therefore the internal organisation of universities and other higher education institutions, even if autonomous, must include clearly defined competence areas and responsibilities;
- Right to select a study programme under equal conditions;
- Competition among higher education institutions achieved by establishing private higher education institutions.

Some of the goals of the modifications of the Higher Education Act, which were accepted at the end of 1999, are as follows:

- Providing autonomy only for universities and single higher education institutions established by the Republic of Slovenia;
- Implementing the principle of integral funding of public service in higher education. New regulations shall be the basis for funding study and study-related activities of universities and single higher education institutions established by the Republic of Slovenia, and for private higher education institutions that were granted a concession. The funds shall

depend on the number of students enrolled in an academic year, the number of graduates in the previous calendar year, and the different educational costs of the fields of study. Each university shall, thus, be financed from a dedicated budgetary source. The ministry having jurisdiction over higher education will determine funds for investments and maintenance. Furthermore, the ministry also determine funds for other activities (predominantly research), and others in higher education.

The Higher Education Master Plan defines the development strategy and provides for a reform of the system of financing higher education. The financial means required to implement the Higher Education Master Plan are set forth in the budget of the Republic of Slovenia. The Plan is implemented by public higher education institutions and other institutions (university members, student groups, and students' residential facilities), and private higher education institutions based on a concession.

Financing of higher education institutions

The actual financing pattern is a mixture of different allocation models. There are elements of a “faculty envelopes per weighted capita” model to a “lump sum financing” model. Most of the state funding still flows directly into the accounts of the individual units. However, gradual changes in the direction of lump sum funding have begun. The Ministry of Education and Sports and the University of Ljubljana have signed a so-called “main contract” which determines the activities that the government is to finance and the rules of financing, while yearly amendments to the contract determine the sums and the allocation of funds to the members. The Ministry of Science and Technology has, so far, ignored the requests of the University of Ljubljana for lump sum financing of the “national research programme” and directly finances the member units, the departments, and even the research groups.

Basic changes in funding will come when amendments to the Law on Higher Education are passed. According to the amendments that had already passed the second reading in the Parliament, State funds within the “national programme of higher education” should flow into the university account as a lump sum. The University should then allocate these funds to the accounts of the schools. The University of Ljubljana is trying to obtain the same solution for the funding of the “national research programme”. The University of Ljubljana is trying to increase its financial autonomy by means of amendments to the Law on Higher Education that are being debated in Parliament. According to these amendments, the University would receive lump sum funding. It would retain its exclusive legal status, while its member institutions would retain a high degree of financial independence for activities that are not a part of the “national programme”.

Spain

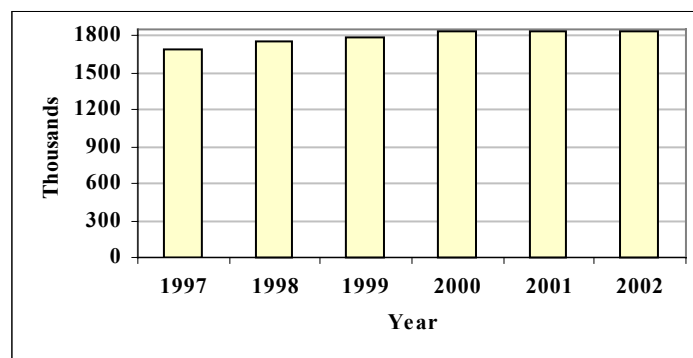
Historical development of higher education

The 1857 Act of Public Instruction (Moyano Act) incorporated technical and professional studies into post-secondary education, in addition to those already taught at university. Resulting from the proclamation in 1873 of the First Spanish Republic, freedom of teaching was fostered, and the Faculties of Philosophy and Arts, Sciences, Pharmacy, Law and Theology were regulated through decree. At the end of the XIX century, there were a series of reforms concerning teacher training schools, university education curricula and university autonomy. In 1936, after a military coup d'état the civil war started, lasting for three years. In the post-war period of the dictatorship some acts on Higher Education were enacted, among them the Act governing University Organisation in 1943 and, some time later, the Act on Technical Education of 20th July 1957. The latter contributed to normalise the system, as it incorporated the school of engineers and architects into the University and provision was made for admitting a higher number of students.

At present there are 50 public and 19 private officially recognised universities in Spain. Universities are divided into facultades universitarias (faculties), escuelas técnicas superiores (high technical schools), escuelas universitarias (technical schools), institutos universitarios (university institutes), and other centres, notably the colegios universitarios (university schools). The Consejo de Universidades (University Council), where the Ministry, the Autonomous Communities and the Universities are represented, coordinates the activities of state and private institutions and proposes the main lines of educational policy. It also sets up guidelines for the creation of universities, centres and institutes.

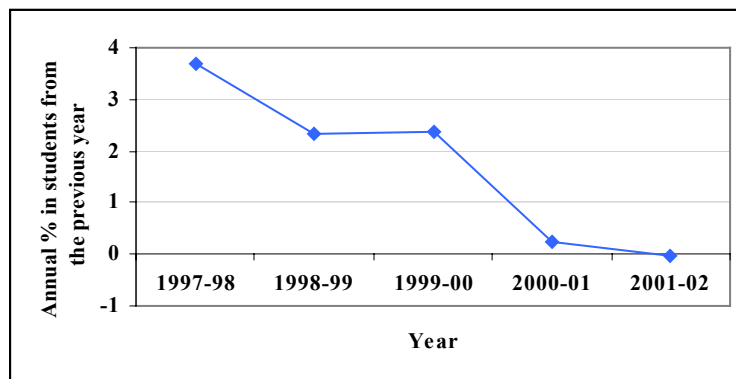
Figure 127 shows the number of students in higher education institutions during the period 1997-2002. During the period 1997-2002, the number of students increased by 8.8%. However, the annual rate of increase in the number of students is decreasing over time. In the period 1997-1998, the growth in the number of students was 4%, however in 2001-2002 there was a 0.04% reduction in the number of students (see Figure 128).

Figure 127: Number of students in higher education (ISCED level 5/6)



Source: Eurostat

Figure 128: Annual percentage increase in the number of students (ISCED 5/6)



Source: Eurostat

Educational Policy

Under the 1970 General Act of Education and Financing of the Educational Reform (LGE) Act, university studies were structured around three cycles, and the *escuelas universitarias* and university schools were established, as well as the Institutes of Educational Sciences. The LGE lasted slightly more than 10 years regarding Higher Education, since in 1980 the project of the Act of University Autonomy was presented. However, this act never came into effect as it was withdrawn in 1982. In 1983 the Act of University Reform was passed (LRU), was based on three constitutional principles: the right of all Spaniards to education, the freedom of education and university autonomy. This act introduced major changes in the legal framework of Spanish universities. Universities, which had been completely controlled by the central government, became autonomous, moving from dependence on the central government to dependence on the regional governments. The decision-making power was transferred from the state bureaucracy to collegial bodies with significant representation of non-academic staff and students.

On December 21, 2001 the Organic Act on Universities (LOU) was passed. This Act repealed the previous Act of University Reform (LRU) of 1983 with the aim of improving quality and developing university activity. The central problem, the internal power structure of universities remains untouched. Nevertheless, the LOU introduced some elements of flexibility that could be taken by universities or autonomous regions as a means of moving forward. For instance: non-civil-service positions at all levels of the academic staff ladder can be created; wage increments to compensate staff productivity will be introduced by regional governments; and universities will have more freedom to establish their own internal statutes.

Financing of higher education institutions

University finances comprise of the following elements:

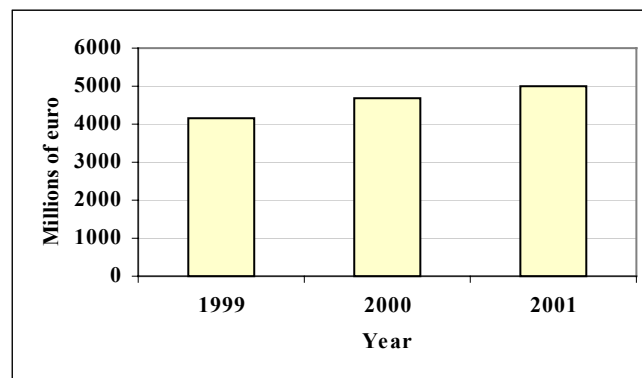
- The overall subsidy fixed annually by the Autonomous Communities. This subsidy should distinguish clearly between running costs and investment costs.
- Tuition fees and any other charges that are legally established, which are paid by households. In the case of studies that lead to an official qualification, tuition fees should be set by the

Autonomous Community, within certain limits that are established by the Council of Universities.

- Subsidies, legacies or donations that are awarded through any public or private entity. These kinds of donations come under laws that apply to foundations benefiting the student population.
- Income from its estate and other economic activities carried out according to statutes. These estates and gains together with the revenue from them are exempted from taxes.
- Income derived from the agreements that the university departments and institutes and their staff make with public and private institutions in order to be able to carry out work of a scientific, technical or artistic nature.
- Credit for the financing of its investment costs which can be agreed upon after the authorization of the Autonomous Community.

During the period 1999-2001, there was a 20.7% increase in the income of higher education institutions from public sources (see Figure 129). Whereas, during the same period universities saw a 10.2% increase in their income from public sources.

Figure 129: Total public income of HEIs (1995 constant prices)

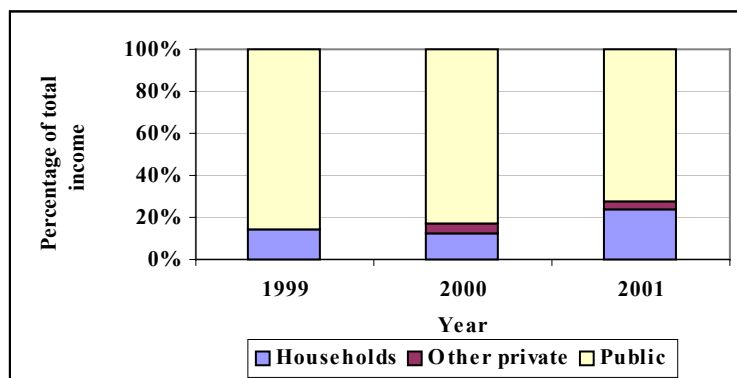


Source: Eurostat UOE data collection

In Spain, due to administrative decentralisation, the role that Autonomous Communities play in higher education is much more relevant than that of the Central Government or the Local Government. In 2001, the share of total public income of higher education institutions coming from regional government was 90%, compared to 8.6% for central government, and 1.4% for local government. As a matter of fact, the latter plays a minor role in higher education, whereas it has more competencies in primary and secondary education.

The increasing importance of households in the financing of higher education should be noted. Higher education establishments saw their income from households (tuition fees and other fees charged for educational services) double in 2001 in relation to the previous year. During the period 1999-2001, universities saw their income from households increase by 128.2% (see Figure 130).

Figure 130: Sources of income of universities as a share of the total revenue

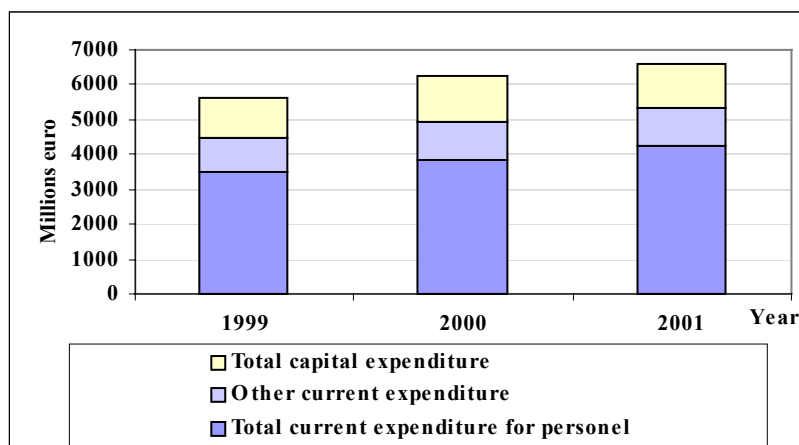


Source: Eurostat UOE data collection

Expenditure of higher education institutions

The total expenditure of higher education institutions increased by 17.2% during the period 1999-2001. The current expenditure of higher education institutions increased by 19.8% during the same period. Expenditure on personnel increased by 21.4% during the period 1999-2001. In 2001, capital expenditure accounted for 19.1% of total higher education expenditure.

Figure 131: Current expenditure and capital expenditure of HEIs (1995 constant prices)

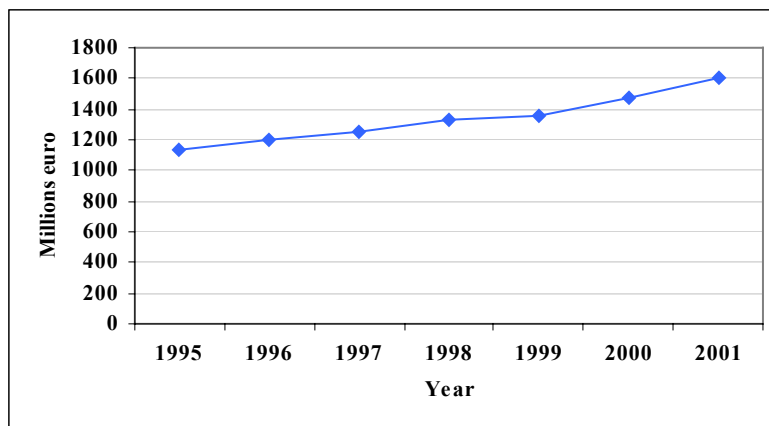


Source: Eurostat UOE data collection

Expenditure of the higher education sector on R&D

Figure 132 shows the total expenditure of the higher education sector on research and development. Higher education institutions increased their real expenditure on research and development by 41% between 1995 and 2001. It should be noted that the expenditure increased remarkably from 2000 to 2001, showing annual growth rates of 9%.

Figure 132: Total expenditure of the higher education sector on research and development (1995 constant prices)



Source: Eurostat UOE data collection

Student support

Economic aid for students is framed by the general policy of compensatory education based on the principles of equity and solidarity. The system of scholarships and other study grants constitutes its basic tool, the objective being to allow access and continuation of higher education studies to those who show ability but lack economic resources. A scholarship includes an exemption from paying tuition fees and enables registration at higher education institutions. The Ministry of Education and Culture, in turn, gives the universities annual compensation for the amounts that they do not receive as a consequence of this exemption.

The system of scholarships and grants applies to the whole of Spain, and only the Autonomous Community of the Basque Country awards its own scholarships, because of its special system of financing through an economic agreement. Most of the Autonomous Communities organise additional calls to complete or widen the scope of scholarships in general. The scholarships awarded to higher education students can comprise the following: exemption from paying tuition fees (university compensated directly); compensating aid; aid for transport; aid for accommodation; aid for books; aid for end of studies project. The different types of aid are cumulative. The total amount of assistance cannot be higher than the minimum salary of a public or private sector worker.

In Spain, student support consists of grants and scholarships. There is no loan scheme developed by the public sector. Table 18 shows the evolution of total aid for the period 1999-2001.

Table 18: Total public financial support to students (millions euro, 1995 constant prices) and broken down by type of source as percentage of total aid

Year	Total aid	Scholarship and other grants as % of total public aid	
		Central government	Regional government
1999	428.0	91.8%	8.2%
2000	432.7	94.2%	5.8%
2001	455.6	95.6%	4.4%

Source: Eurostat UOE data collection

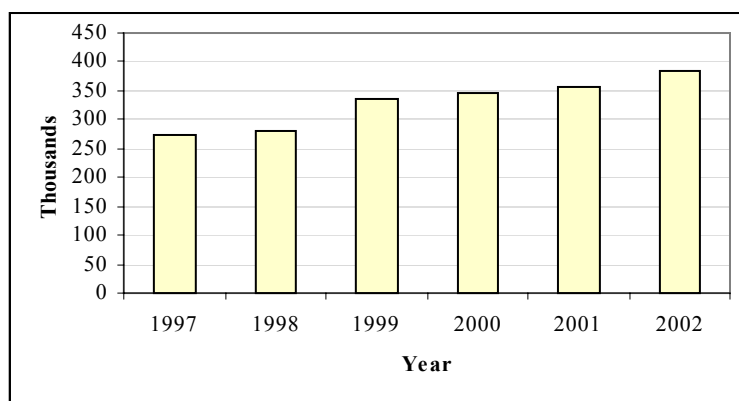
The public resources devoted to student support have increased in real terms over time, although the expansion has been moderate. The role played by the central government in the financing of students has become more relevant, whilst that of the regional governments has a decreasing importance. Both the local authorities and the private sector have a negligible influence in the financing of students.

Sweden

Historical development of higher education

The first Swedish university was founded in 1477 in Uppsala. At the end of the 19th century a number of specialised higher education institutes were started which later on became university colleges. Other 'free' university colleges were established in Stockholm in 1878 and in Göteborg in 1891. The major expansion of higher education took place in the 1960s when university colleges were also established in many places. In 1977 higher education underwent comprehensive reform. Nearly all post-secondary education was integrated into a single system governed by common legislation and ordinances. The most recent institutions of higher education to be granted university status are Örebro, Karlstad and Växjö, whose authorisation was approved in 1999. Participation in higher education has increased dramatically since 1950. The number of students increased from 16,000 in 1950 to over 330,000 in 1999. Today there are about fifty institutions of higher education in Sweden run by either central government, regional authorities or private organisers. The designation of university means an institution has the unrestricted right to award PhDs. Figure 133 shows the increase in the number of students in higher education since 1997.

Figure 133: Number of students in higher education (ISCED level 5/6).



Source: Eurostat

Educational Policy

Before the 1975-1977 reform, the system of higher education was collegial, with the administrative and political power mostly in the hands of full professors. Academics recruited the decision-making boards in accordance with professorial criteria. Major institutional reforms in the seventies led to extensive decentralisation and the introduction of external participation in the decision-making bodies. The 1975-1977 reforms decentralised several major functions including the allocation of money that was previously granted in broadly specified budgetary appropriations. These reforms resulted in teaching and research being separately funded. The government has set objectives of 50% of a year group of young people attending institutions of higher education and providing more study places in natural sciences and engineering. A more general objective is to increase the social and ethnic diversity of higher education, by such means as revising the rules governing eligibility and admission. In 2001, a government bill proposed

measures to expand recruitment for universities and university colleges and open new paths to higher education.

The Swedish Minister of Education recently proposed that the nation's universities and colleges charge tuition fees to students from countries outside of the European Economic Area (EEA) students. The motion has since been supported by a 185-140 majority within his Social Democrat party and thus is likely to come before Parliament in 2005. If passed, it would mark a reversal in Swedish higher-education policy. While the vote at the Social Democrat Congress clearly indicates a new direction, it is unlikely that fees would be introduced in the short term for Swedish students and other EEA students — it is currently unconstitutional.

New higher education act and ordinances

In January 1992, the new government published a Memorandum on independence of universities and university colleges, for wider discussion of the measures to be included in the new Higher Education Act, which came into effect on 1 July 1993. The main aim of this reform was to give higher education institutions increased autonomy in the organisation of studies, admissions, use of resources and general organisation. The government lays down certain objectives and parameters, mainly financial and delegates decisions about the orientation of the content of education and training offers to universities and university colleges. All universities and university colleges are responsible for the internal allocation of resources; the admission of students; the appointment of professors; the methods and focus of research; the salaries of all staff except the vice-chancellor; the quality of teaching and research; the premises and investment in furniture and equipment.

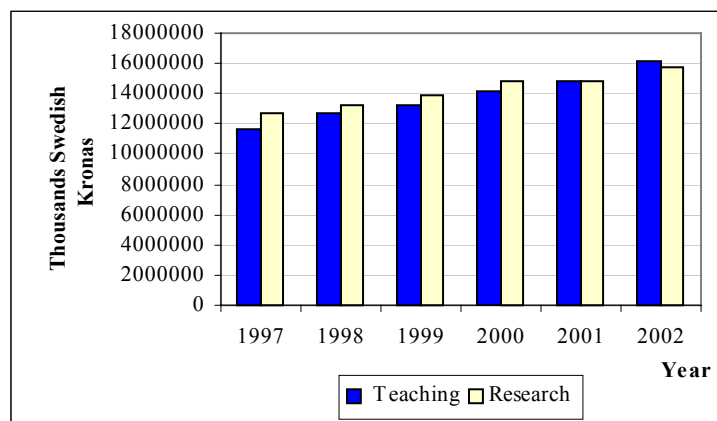
As a result of the 1993 higher education reform, a new budgeting process was introduced for resource allocation for undergraduate education. Universities and university colleges are allocated grants on the basis of the number of enrolled students and what they have achieved, rather than on the basis of plans and forecasts as was previously the case. The idea behind the new system of 1993 was to encourage institutions of higher education to tailor the courses they offer to student demand. By linking the allocation of funds to results, higher education institutions are also given an incentive to make the most effective use of their resources.

An 'assignment' sets out the financial planning framework for the remaining 2 years of a 3-year period. The amounts to be paid for full-time equivalent students and annual performance equivalents are determined on an annual basis by the Government and stated in official guidelines for the use of appropriations, in the 'Government implementation document'. These amounts differ for different subject areas but are standardised in as much as, within each of these areas, the same amount in annual student and performance remuneration applies to all institutions of higher education. (All programmes and courses are divided into these subject areas.) As institutions are responsible for the internal allocation of resources, they have the right (and obligation) to redistribute resources internally. The university and university college amount for annual students includes all costs, including for premises, equipment and furnishings.

Financing of higher education institutions

Universities and university colleges receive provisional funds at the beginning of each budget year and the finalised amount is determined at the end of the year, taking into account student numbers and accomplishments presented in the annual report for that budget year. Teaching and research are budgeted separately. During the period 1997 – 2002, national expenditure on teaching increased by 41.2, and on research it increased by 21%. Figure 134, shows the trends in the funding of teaching and research by the Swedish government. In 1997, more public resources were devoted to research. However by 2002 this trend has been reversed and more public resources were being devoted to teaching. An explanation that can be given for this reversal in the financing of teaching and research is that the government set objectives of 50% of a year group of young people attending institutions of higher education, and measures to expand recruitment to universities and university colleges. Figure 135, shows the annual percentage increases in national government expenditure on teaching and research. The period 2000-2001 only saw a 0.6% increase in national expenditure on research (constant prices). Although no specific explanation can be given for the low growth in research funding during the period 2000-2001, it should be noted that this was a transitional period in the organisational structure of research funding. From 1 January 2001 the Swedish Research Council took over the responsibilities of the 5 research councils¹¹. The reduction in the growth of national government income for teaching in the period 2000-2001 can in part be explained by the reduction in the number of graduates in the period 1999-2000. The teaching grant is calculated on the basis of two factors. The first factor concerns the number of students registered, and it is based upon the number of study credits achieved by the students.

Figure 134: National expenditure on teaching and research in 1995 constant prices.



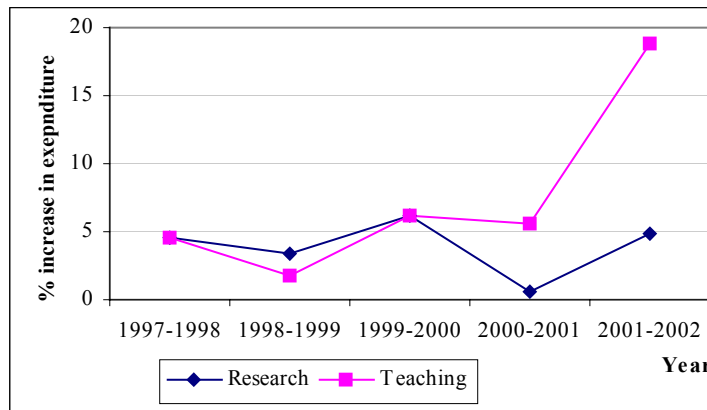
Source: National Agency for Higher Education

Higher education institutions receive income from regional government and international sources (ie. European Union). Funds from the European Union are a very small fraction of all public income for both teaching and research, and are quite erratic. The same is also true of regional funds. However for the years 1998 –2001, funding for teaching from regional government increased, averaging 10.2% of total public income for teaching. In 2002, funding from regional

¹¹ Council for Planning and Coordination of Research (FRN), Swedish Council for Research in the Humanities and Social Sciences (HSFR), Swedish Medical Research Council (MFR), Swedish Natural Research Council (NFR) and the Swedish Research Council for Engineering Sciences (TFR).

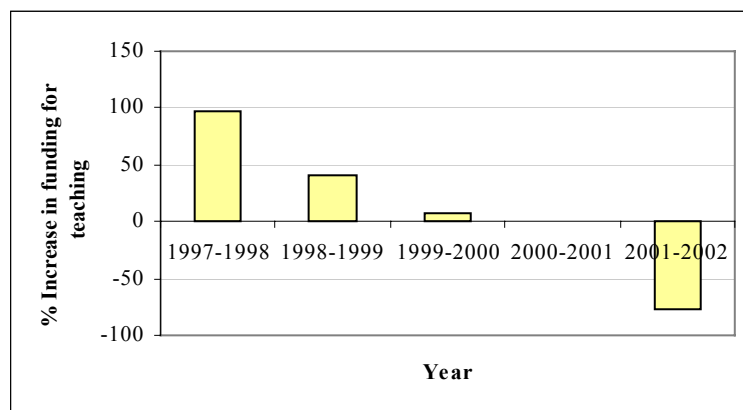
government for teaching fell by 77% on the previous year (see Figure 136). Overall, since 1997, regional funding for teaching has fallen by 32%.

Figure 135: Annual percentage increases in national government expenditure on teaching and research



Source: National Agency for Higher Education

Figure 136: Annual percentage increases in income from regional funds for teaching

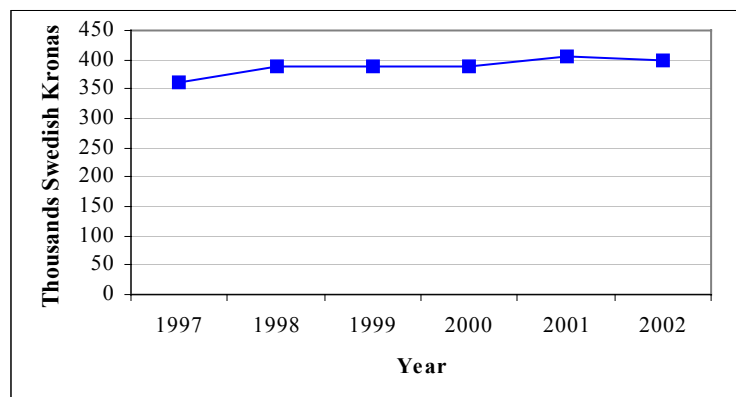


Source: National Agency for Higher Education

Cost for teaching related to the number of degrees

Over the period 1997-2002, the cost per degree has increased by 10%. The costs of teaching related to the number of degrees during the period 1998-2000, was stable, averaging 0.387 million Kronas (1995 constant prices). The period coincided with an increased number of students. A further increase in the number of students was experienced during the period 2000-2002. The period 2000-2001 coincided with a decline in the number of graduates, thereby increasing the cost per degree.

Figure 137: Cost for teaching related to the number of degrees (constant 1995 prices)

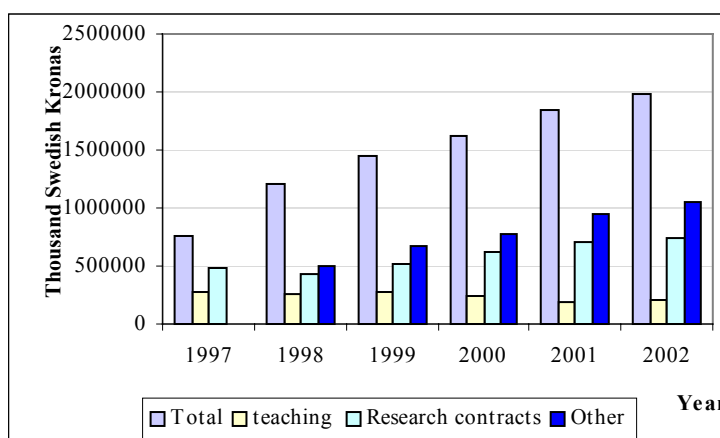


Source: National Agency for Higher Education

Income from selling services to the private sector

The higher education ordinance of 1996 made it explicit that contacts with business and industry, public sector activities, culture and adult education must become a natural part of higher education. On 10th October, 2002 the ordinance on contract education gave higher education institutions the authority to provide contract education only if it is associated with undergraduate and graduate education. If the client is the Swedish state, municipality, county council, or an equivalent public client from another country within the European Economic Area (EEA), the contract education may only consist of education necessary as a result of reasons pertaining to the labour market or to development assistance policy. Over the period 1997-2002, there has been a 163% increase in income from industry. Since 1997, there has been a 52 % increase in income from research contracts and moreover a 23% reduction in income related to teaching. Income from industry only represents a small fraction of the total income of higher education institutions. Most importantly, less income is generated by selling services to the private sector than is generated from private donations.

Figure 138: Breakdown of income from industry by type of activity

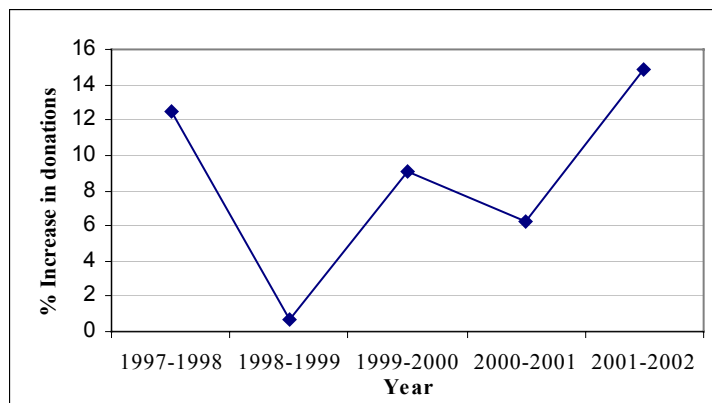


Source: National Agency for Higher Education

Donations to higher education

Another source of income to higher education institutions in Sweden is donations. Donations are the first source of non-public income to higher education institutions. Figure 139 shows the percentage increase in donations from the previous year. On average donations to higher education institutions as a percentage of all other total income have averaged 8 % over the period 1997-2002. Despite the overall upward trend in donations to higher education institutions over the period (1997-2002), it can be seen that growth in donations is subject to increased volatility from year to year.

Figure 139: Percentage increase in donations to higher education institutions (1997-2002)



Source: National Agency for Higher Education

United Kingdom

Historical development of higher education

England and Wales

The first universities, Oxford and Cambridge, evolved as private bodies during the twelfth and thirteenth centuries. It was not until the nineteenth century that the major civic universities were founded in England, Wales and Northern Ireland. In the first half of the twentieth century, many university colleges developed, catering mainly for local students taking University of London external degrees. In 1963, the Robbins Report, sponsored by the Government, laid down the basic principles, which guided university development in subsequent years. The Report stated that: *'courses of higher education should be available to all those who are qualified by ability and attainment to pursue them and who wish to do so.'* It recommended further expansion, a broadening of both the regional spread and of the scope and diversity of university education, and the creation of specialist technological universities, which was effected by upgrading many technological colleges to universities. Since then, universities have received a large proportion of their funding from the Government, although they have retained their autonomous status.

Polytechnics, were originally set up by charitable endowment to enable working-class men and women to advance their general knowledge and industrial skills on a part- or full-time basis, and were later maintained and regulated by local authorities. The Education Reform Act 1988 removed higher education institutions in England and Wales from local education authority (LEA) control, and gave them autonomy. The former polytechnics gained university status following the Further and Higher Education Act 1992 which reformed the structure of higher education in England and Wales into a single sector. Some present-day colleges of higher education were founded over 150 years ago and a significant number were established as Church Colleges. Colleges of higher education were subsequently maintained and regulated by local authorities, but since the implementation of the Education Reform Act 1988, they are autonomous. In 1994, faced with increasing demand for higher education, the Government imposed a ceiling on growth in full-time undergraduate student numbers. The National Committee of Inquiry into Higher Education was established in May 1996, to make recommendations on how the purposes, shape, size and funding of higher education, including support for students, should develop to meet the needs of the United Kingdom over the next 20 years. Recommendations were put forward by the Committee chaired by Sir Ron Dearing, (Dearing, 1997), which reported in July 1997. The Committee made a number of recommendations concerning funding of higher education, including a proposal that full-time students in higher education should pay some of the costs of their tuition fees.

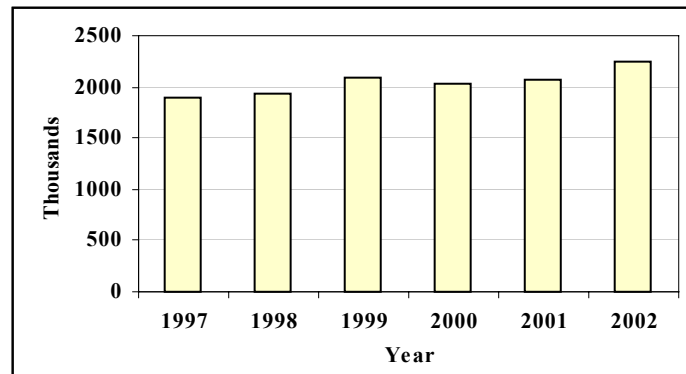
Scotland

The 'four ancient Scottish universities' (St Andrews, Glasgow, Aberdeen and Edinburgh) were founded in the 15th and 16th centuries. Four further universities (Strathclyde, Heriot-Watt, Stirling and Dundee) were formally established as independent universities between 1964 and 1967 and four others (Napier, Paisley, Robert Gordon and Glasgow Caledonian) were granted the title of university in 1992, with a fifth, the University of Abertay, Dundee, being added during 1994. Most

of the remaining higher education institutions, which all offer courses at degree level, were formerly Central Institutions, which specialised in particular areas.

Between 1997-2001, there was an 18.5% increase in the number of students in higher education (see Figure 140).

Figure 140: Number of students in higher education (ISCED 5/6)



Source: Eurostat

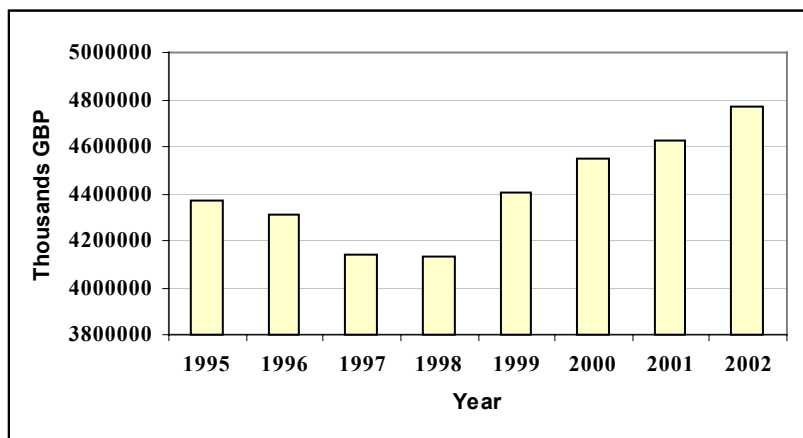
Financing of higher education institutions

Until 1992 the Universities Funding Council (UFC) and the Polytechnics and Colleges Funding Council (PCFC) were responsible for the funding of universities and polytechnics. In 1992, regional (i.e. for England, Wales, Scotland and Northern Ireland) independent, non-departmental Higher Education Funding Councils (respectively HEFCE, HEFCW, SHEFC and NIEC) were established. A Further Education Funding Council was established in order to fund the colleges of further education. The HEFCs provide funds for teaching and research. These funds are allocated by formulae (formula funding) and are distributed as a block grant, which institutions can spend at their own discretion. Part of the recurrent resources distributed to institutions is in the form of non-formula funding to support aspects of teaching and research which cannot be adequately supported through formula funding, e.g., inherited liabilities from local education authorities; copyright libraries; museums; galleries and collections and special initiatives. Institutes can freely use teaching grants to support research and vice versa.

Between 1995-2002, there was a 9% increase in income of higher education institutions from Funding Council grants (see Figure 141). Despite increasing student numbers, the period 1996-1997 saw a decrease in income of higher education institutions from Funding Council grants of 3.9%. Income from Funding Council grants includes recurrent, capital grants, and grants for the provision of further education. Recurrent grants are the biggest source of income of higher education institutions from the Funding Councils. In 2002, recurrent grants accounted for 96.9% of total income of higher education institutions from the Funding Councils (see Table 26). Between 1995-2002, there was an 18.6% increase in income from recurrent grants, a 13.2% increase in grants for FE provision, and a 79.5% decrease in income from capital grants. Recurrent grants include the block grant for teaching, research and other special grants. Income of higher education institutions from funding councils is the biggest source of income. However between 1995-2002,

the share of income from funding councils as a percentage of total income of higher education institutions decreased from 43.6% in 1995 to 39.3% in 2002.

Figure 141: Income of HEIs from funding council grants (1995 constant prices)



Source: Resources of higher education institutions (HESA)

Table 19: Income of HEIs from funding council grants by type as a percentage of total funding council grants

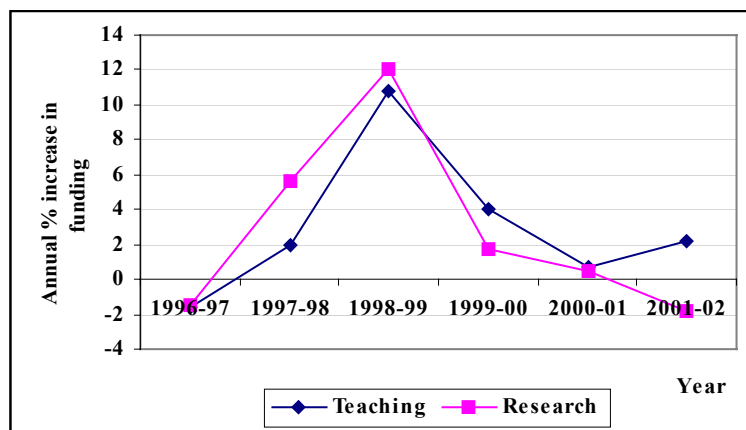
Year	Recurrent Grants	FE Provision	Capital Grants
1995	88.9	1.2	9.9
1996	89.6	1.2	9.2
1997	90.5	1.3	8.3
1998	92.9	1.2	5.9
1999	94.6	1.3	4.1
2000	94.8	1.3	4.0
2001	96.8	1.3	1.8
2002	96.9	1.3	1.9

Source: Resources of higher education institutions (HESA)

The HEFCE present funding method for teaching was introduced 1998-99. The method funds similar activities at similar rates for all institutions, and ensures that any variations are for explicit and justifiable reasons. In addition to the main teaching funding method, there are separate allocations to recognise the additional costs of recruiting and supporting students that are underrepresented in higher education or with disabilities. These allocations to widen participation recognise institutions' success in recruiting these categories of students. Most Funding Council research funds are distributed selectively to higher education institutions that have demonstrated their strength in research by reference to national and international standards. The quality is measured in a periodic Research Assessment Exercise (RAE). Public research funds are provided under a dual support system. The general funds provided by the HEFCE also support basic research in institutions and contribute to the cost of training new researchers. This basic research is the foundation of strategic and applied work, much of which is later supported by Research Councils, charities, industry and commerce. Between 1996-2002, there was an 18.9% increase in recurrent grants for teaching, and an 16.8% increase in recurrent grants for research. In general, the

annual percentage increases in funding council recurrent grants for teaching and research are correlated, except for the period 2001-2002. In the period 2001-2002, there was a 1.8% decrease in recurrent grant income for research, compared to a 2.1% increase in recurrent grant income for teaching (see Figure 142). The period 1998-1999 saw annual increases in recurrent grant income for teaching of 10.8% and for research of 12%. It should be noted that the period 1998-1999, saw a 7.4% increase in the number of students.

Figure 142: Annual percentage increases in recurrent grants for teaching and research from the Funding Councils



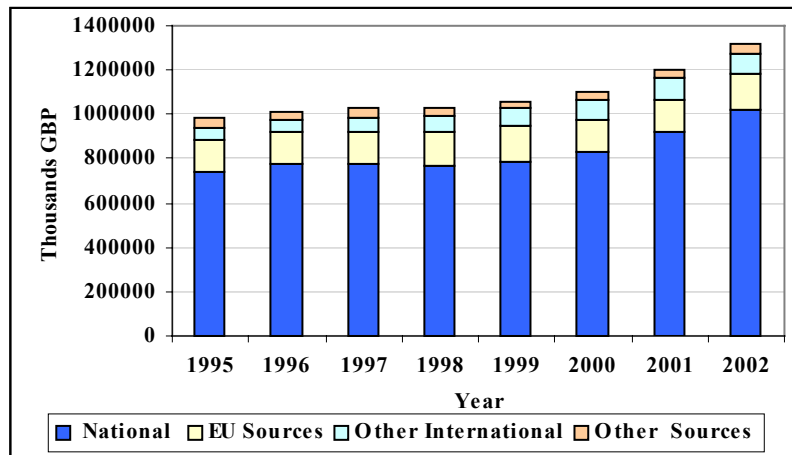
Source: Resources of higher education institutions (HESA)

Each year the Funding Councils provides special funding for a wide range of purposes. These funds are reviewed regularly and, wherever appropriate, new initiatives are introduced or the funds are phased out or incorporated into formula-based allocations. Special funding covers a variety of strategic areas as well as support for national facilities, capital funding and inherited activities. Between 1995-2002, there was a 36% increase in this income.

Other public income for research

Between 1995-2002, there was a 34.4% increase in income for research from other public bodies (see Figure 143). During the same period there was a 37.8% increase in income from other national sources. Other national sources refer to research grants and contracts from the Office of Science and Technology (OST). Between 1995-2002, there was an 8.9% increase in income for research from EU sources, a 72.7% increase in income from other international sources, and a 10.9% increase from other sources. EU sources refer to all government bodies operating in the EU, including the European Commission. Other international sources refer to all research grants and contract income from overseas bodies operating outside the EU. Other sources include income from other higher education institutions. The biggest source of other public income for research is the OST research councils, which accounted for 77.3% of total other public income for research. The second important source of other public research income is from within the EU. In 2002, sources within the EU accounted for 12% of total other public income for research (see Table 27).

Figure 143: Other public income of HEIs for research, by source of funds (1995 constant prices)



Source: Resources of higher education institutions (HESA)

Table 20: Other public income of HEIs for research, by source of funds as a percentage of other public income for research

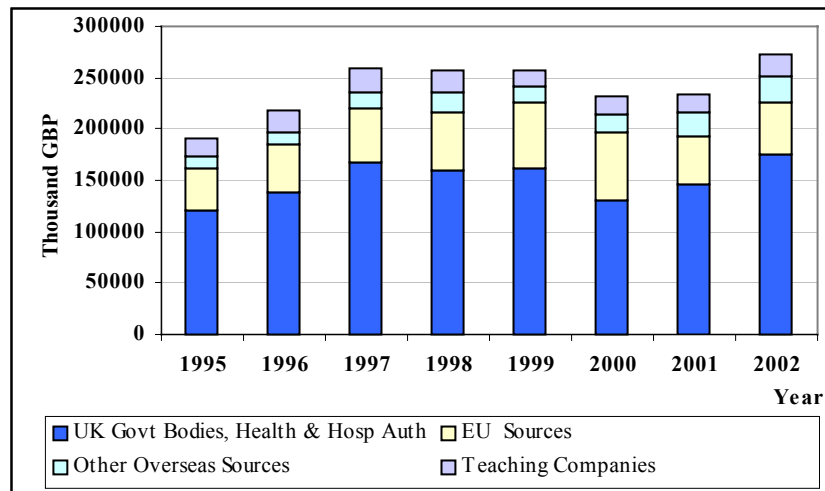
Source: Resources of higher education institutions (HESA)

Year	National	EU Sources	Other International	Other Sources
1995	75.4	14.8	5.7	4.1
1996	76.6	14.1	5.6	3.7
1997	75.4	14.5	6.3	3.8
1998	74.5	15.0	7.0	3.4
1999	74.0	15.5	7.7	2.8
2000	75.5	13.4	7.9	3.2
2001	76.6	12.2	8.1	3.1
2002	77.3	12.0	7.3	3.4

Public income for supply of goods and consultancies

Between 1995-2002, there was a 43.4% increase in income from public sources for the supply of goods and consultancies. The most important source of this income is UK Government bodies, Health and Hospital Authorities. In 2002, UK Government bodies, Health and Hospital Authorities accounted for 64% of total public income of higher education institutions for the supply of goods and services. Between 1995-2002, there was a 44.3% increase in income from Government bodies, Health and Hospital Authorities and a 27.5% increase in income from EU sources for the supply of goods and consultancies (see Figure 144).

Figure 144: Income of HEIs for the supply of goods and consultancies by type of public source (1995 constant prices)

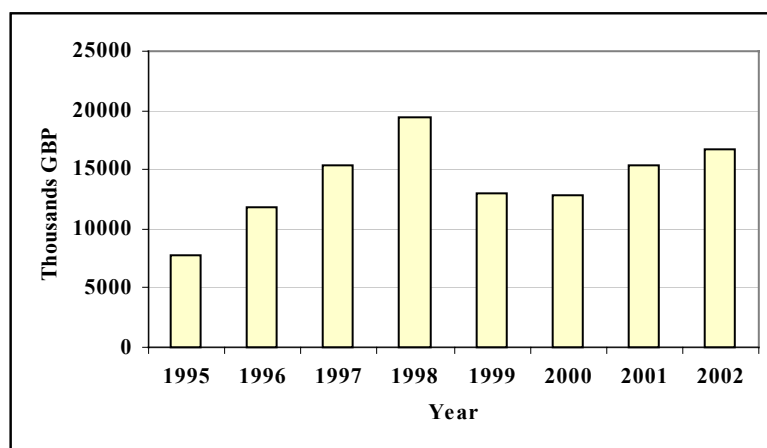


Source: Resources of higher education institutions (HESA)

Income from selling services and other income from the private sector

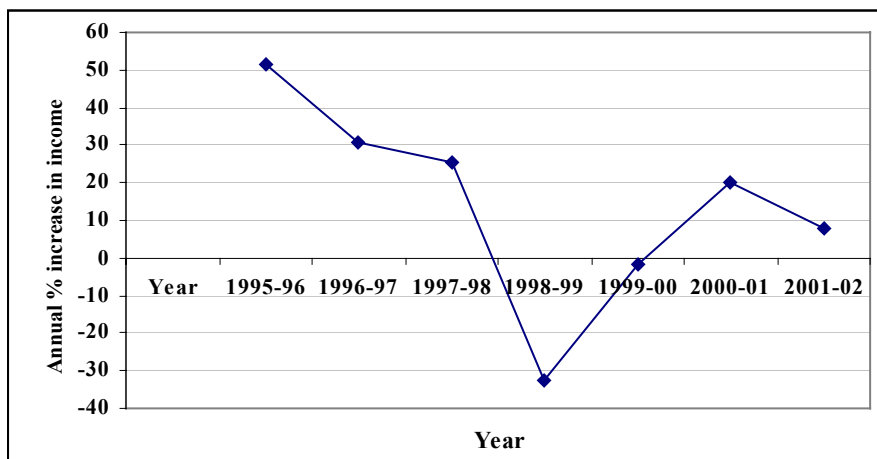
Over the period 1995-2002, there was a 52.5% increase in income of higher education institutions from research contracts with UK based charities and industry, commerce and public corporations. During the same period, there was a 114% increase in income of higher education institutions from intellectual property rights such as licences and patents (see Figure 145). However, during the period 1998-1999, income from intellectual property rights decreased by 33%. Figure 146 shows the annual percentage increases in income from higher education institutions from intellectual property rights.

Figure 145: Income of HEIs from intellectual property rights (1995 constant prices)



Source: Resources of higher education institutions (HESA)

Figure 146: Annual percentage increase in income from intellectual property rights



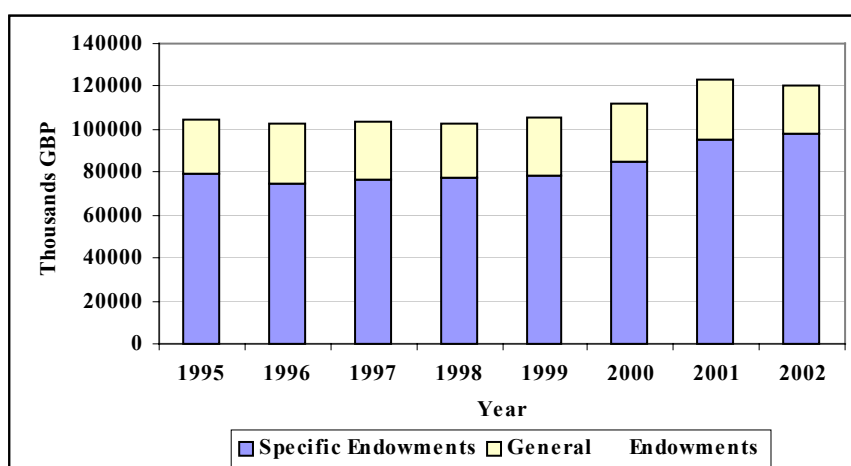
Source: Resources of higher education institutions (HESA)

It is apparent that income from intellectual property rights is influenced by other factors, not within the realm of higher education.

Income from endowments

During the period 1995-2002, there was a 14.8% increase in endowments income of higher education institutions (see Figure 147). Endowment income consists of specific and general endowments. Specific endowments include the appropriate amount of the income from the investment of specific endowments necessary to match the expenditure incurred on the purpose for which the specific endowment was provided. General endowments includes the full amount of the income from the investment of general endowments This includes the income earned from the capital of the endowment whether arising from the interest or dividends on investments, bank interest or rents from real property. In 2002, endowment income only accounted for 1% of total income of higher education institutions.

Figure 147: Endowment income of higher education institutions (1995 constant prices)

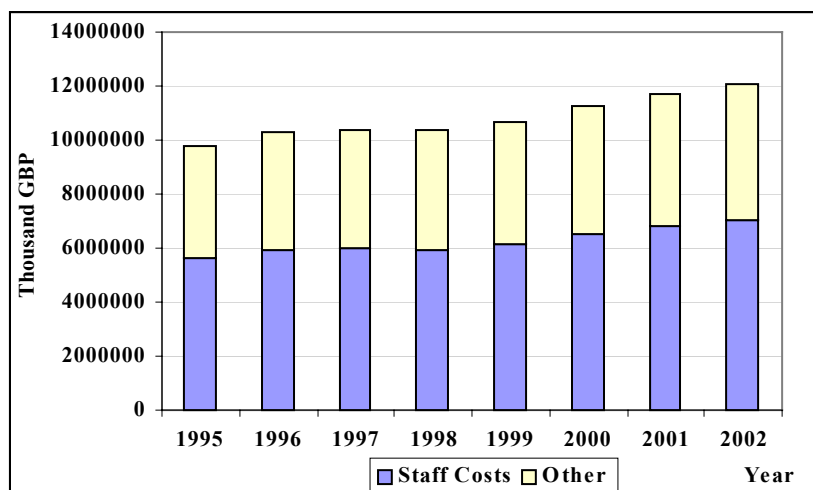


Source: Resources of higher education institutions (HESA)

Expenditure of higher education institutions

Total expenditure of higher education institutions increased by 23.4% over the period 1995-2002. The biggest expenditure outlay of higher education institutions is on personnel, which in 2002, accounted for 60% of total expenditure.

Figure 148: Expenditure of higher education institutions by type of expenditure (1995 constant prices)



Source: Resources of higher education institutions (HESA)

Chapter

3

**Trends in funding of higher
education in some other
countries**

Trends in funding of higher education in some other countries

Introduction

This chapter looks at recent trends in five European countries – Bulgaria, Iceland, Norway, Romania and Turkey. It also looks at trends in Australia, New Zealand, and the United States. The objective is to highlight, country by country, the historical development of the issue of higher education, the financing structure, some recent developments and general trends, as well as key characteristics of the funding structure. Some analyses are made based on available quantitative information to underline the trends in key aspects of the system. In a few cases¹, quantitative information is unavailable or of unreliable quality level to conduct such analysis.

Based on the evolution of the development of higher education (and their policies), the five non-EU European countries could easily be grouped into three. The evolution in Romania and Bulgaria follow more or less the same pattern of the new EU-Member States which were part of the old Eastern bloc. A period of “free” development of policies was chequered by the controlled era of the mid 1940s to end of 1980s. In the 1990, a new era of “free” policy development began with initiatives mostly aimed at ensuring autonomy for the institutions and ensuring adequate funding for the higher education institutions.

The second group consists of Iceland and Norway in which the development of policies have followed the same pattern as in most EU-15 Member States. In terms of sources of funds, higher education is mostly state funded in Norway, and in Iceland, most of the higher education institutions are state-run and funded. Like all other countries, new initiatives have been taken in the last ten years.

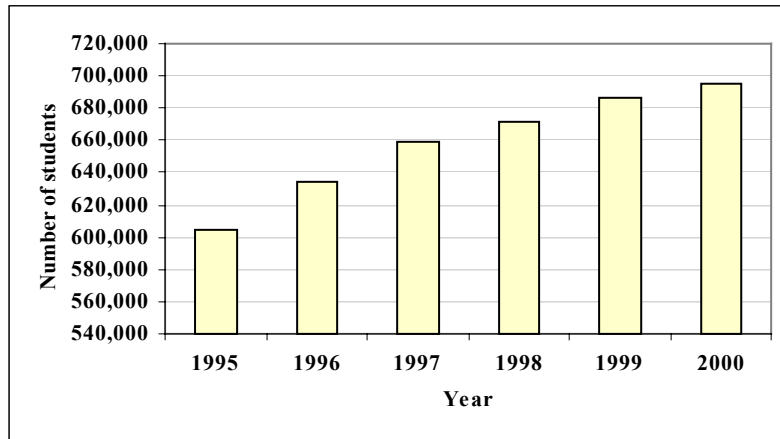
As a fairly *new* country founded only in 1923, Turkey does not have as long a history of higher education as most of the other countries. The first university was established in 1900 (by the Ottoman Empire). The first reform was done in 1933. Recent reforms have been carried out aimed at bringing policies up to date especially as regards funding of higher education.

¹ For Bulgaria and Romania, adequate quantitative information was either unavailable or of unreliable quality level to be of any analytical use.

Australia

Over the period 1995 to 2002, the number of students in higher education in Australia grew steadily going from just over 600.000 to just below 700.000. This increase represented over 15%. Figure 1 shows the trend over the years.

Figure 1: Number of students enrolled in higher education

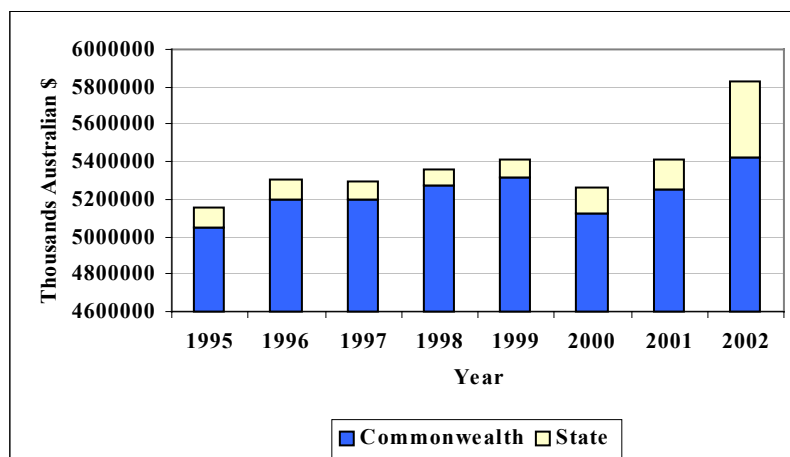


Source: DETYA

Public financing of higher education

The federal government (Commonwealth) has, since 1974 been responsible for the public funding of higher education. Before 1974, was done by the individual states. During the period 1995-2002, there was a 7.5% increase in income from Commonwealth funds for higher education institutions. However, the increase in public funding by the states was 287.7% during the same period. Figure 2, shows the increase in public income of HEIs in Australia.

Figure 2: Total public income of higher education institutions, by type of source (1995 constant prices)



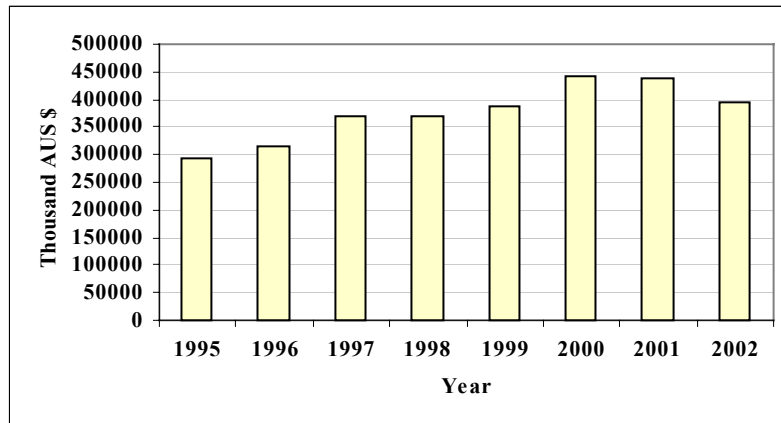
Source: Higher Education Annual Financial Reports

Commonwealth Government grants, includes grants pertaining to the Higher Education Funding Act and other grants. It also includes income from the HECS trust fund.

Income from research contracts and research results

During the period 1995-2002, Higher Education Institutions saw a 35.8% increase in income from research contracts (see Figure 3). There was also a 17.1% increase in income from royalties, trademarks and licenses between 2000-2002.

Figure 3: Income of higher education institutions from research contracts (1995 constant prices)

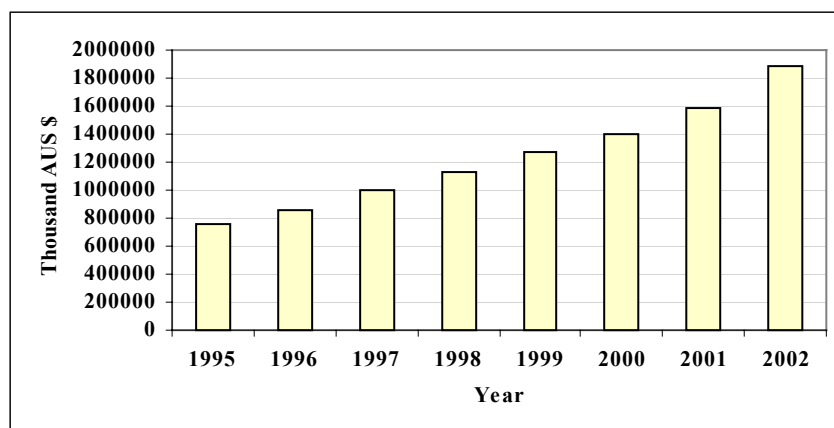


Source: Higher Education Annual Financial Reports

Contributions from students

The HECS was introduced in 1989, and a key feature of the scheme is that students have a choice of either paying their tuition fees upfront at the beginning of the semester and receiving a 25% discount, or repaying their HESC debt through an income-contingent liability scheme after graduating. Between 1995-2002, there was a 34.5% increase in income from tuition fees, which included student's up front payments to the Higher Education Contribution Scheme (HECS) (see Figure 4).

Figure 4: Total income of HEIs from tuition fees (1995 constant prices)

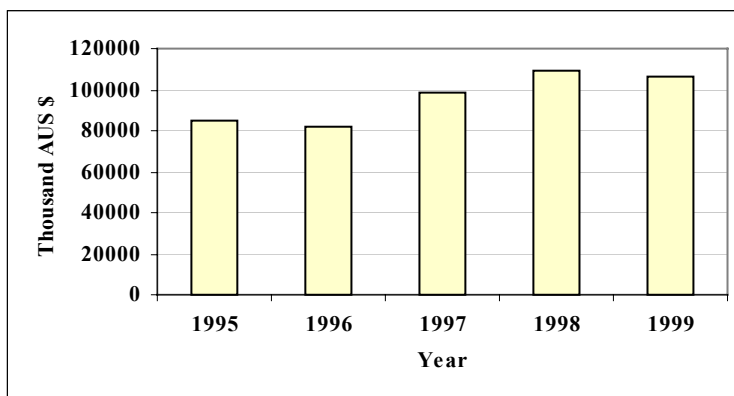


Source: Higher Education Annual Financial Reports

Income from donations and scholarships

Higher education institutions experienced a 24.4% increase in income from donations from 1995 to 1999 (see Figure 5). Income from donations is quite volatile since no discernable trend can be identified. Between 1995 and 1996, there was a 3.43% decrease. However in the following year there was a 19.7% increase. Over the period 1995 and 1999, there was a 53.4% increase in income from scholarships and prizes.

Figure 5: Income of HEIs from donations (1995 constant prices)



Source: Higher Education Annual Financial Reports

Overview of the main sources of income

Between 1995 and 2002, there was a 33.0% increase in total income of higher education institutions. Since the introduction of the HECS scheme in Australia, the Commonwealth has been slowly shifting the financial burden of supporting higher education to students. In 1995, the Commonwealth’s contribution to the total resources of HEIs was 67%, however in 2002 this share fell to 54.1%. Up front contributions by students to HESC increased the share of total fees contribution to the total resources of higher education institutions from 13.8% in 1995 to 23.9% in 2002 (see Table 1).

Table 1: Breakdown of the sources of income of HEIs as a percentage of the total income

Year	Commonwealth	State	Research contracts & results	Fees	Other
1995	67.0	1.4	3.9	13.8	13.9
1996	66.0	1.4	4.0	15.6	12.9
1997	65.8	1.1	4.7	17.7	10.8
1998	65.1	1.1	4.6	18.9	10.4
1999	64.0	1.1	4.7	20.7	9.5
2000	60.2	1.5	5.3	21.2	11.7
2001	58.3	1.7	5.1	22.6	12.2
2002	54.1	4.0	4.1	23.9	13.9

Source: Higher Education Annual Financial Reports

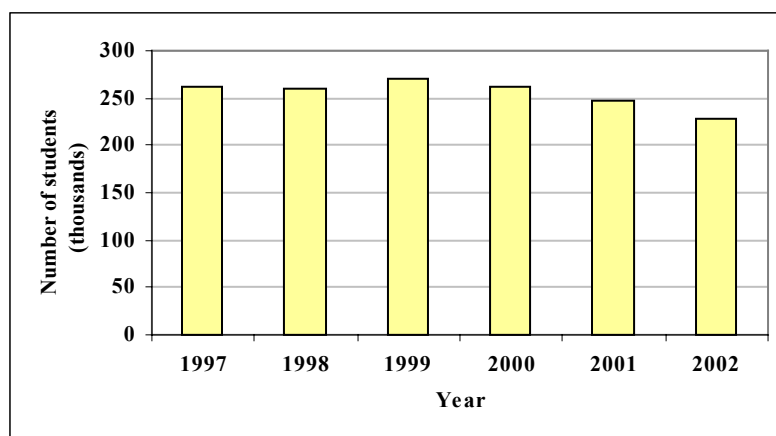
Bulgaria

Historical development of higher education

In 1888 the St. Kliment University of Sofia started as an annex to the men's high school. It was officially granted the status of university only in 1904. Universities, institutes and academies provide higher education in Bulgaria. Higher education is under the responsibility of the Ministry of Education and Science. Education is based on the Law on Higher Education (1995) and the Law on Scientific Degrees and Scientific Titles (latest amendments 1996). Post-secondary institutions have academic autonomy. In 1995, the National Assembly approved five new private higher education institutions.

Figure 6 shows the number of students during the period 1997-2002. Over the period 1997-2002 there was a 13.2% decrease in the number of students. The decrease in the number of student numbers coincided with the introduction of compulsory tuition fees.

Figure 6: Number of students in higher education (ISCED level 5/6)



Source: Eurostat

Educational Policy

The first post-1989 changes in the Bulgarian higher education system were brought about within the new legal framework that has provided conditions for the development both of the initiatives of universities as well as the educational initiatives coming from society. Both were encouraged by the *ad hoc* state policy allowing the universities to act independently as legal bodies and to respond to the growing demand for higher education. The legal framework was modified by the adoption of the 1990 Act on Academic Autonomy of Higher Education Institutions. The Act's main objective was to restore institutional autonomy and the academic freedom of teaching staff and students. This Act abolished the political structures existing in the individual higher education institutions and eliminated the requirement of political loyalty on the part of the academic staff. Amongst the things it provided for were the following: autonomy in defining the organisational structure of individual higher education institutions;

1. Institutional autonomy in recruiting and appointing teaching and research personnel;
2. Institutional freedom in deciding on curriculum and teaching methods;

3. Institutional autonomy in defining and implementing an international policy and the right to co-operate with other higher education institutions
4. Autonomous financial management within institutions.

The Act provided for an opportunity for the higher education institutions to negotiate, with the government, the state subsidy for the sector and also the provision for the replacement of incremental funding by a normative funding scheme.

The Act also provided the legal setting for the financial stability of institutions in the long-term through the following measures:

- (i.) Restitution of the ownership by universities of their real estate and reinstatement of their right to manage it as well as to manage the infrastructure provided for student accommodations and social support;
- (ii.) Allowing the universities to share ownership of and to create their own companies, that is, giving them the right to sell services related to the main scope of their activities, and thus, to improve their financial stability;
- (iii.) Exemption of university activities from taxes, fees, and customs duties;
- (iv.) Preferential taxation applied to businesses, which support teaching and research in higher education institutions.

In 1995, the development of the Bulgarian higher education system was modified by the adoption of a new Law on Higher Education. This Law put an end to *ad hoc* initiatives in higher education through the strengthening of the role of the state in the governance of the whole system. The Higher Education Act of 1995 regulates the institutional and functional control of the government over the higher education institutions by assigning a special role to the Ministry of Education and Science in exercising this control. Higher education institutions in Bulgaria, including private institutions, may be established and transformed and may operate only if their activities conform to the Uniform State Requirements. The 1995 Law outlined a new mechanism for the allocation of the budget for each university. The mechanism in question was elaborated and based on quantitative criteria such as, for example, state norms on the calculation of the cost per student, on staff salaries, and on qualitative criteria, such as the results of the university evaluation. With respect to financial management, the new legal framework limits the possibilities for higher education institutions to develop income-generating activities and eliminates tax preferences for businesses as well as for non-profit organizations (foundations) that might support higher education. In summary, the Law determined the introduction of:

- A number of measures and mechanisms aiming at safeguarding the quality of higher education;
- A new funding mechanism;
- A new higher education degree structure.

The private higher education institutions only require the payment of full-cost tuition fees. Between 1994 and 1996, the socialist Government introduced price controls to prevent non-public institutions from charging lower fees than those charged by fee-paying students at the public institutions. Being forced to provide the same services at higher costs, private institutions were bound to be confronted with high dropout rates and reduced demand in the ensuing period. However, the price control policy had a negative impact on the public institutions as well, for at

the time of its introduction, almost half of the student population was already fee-paying. In 1999, the Government introduced obligatory tuition fees for all students. A general lower tuition fee for all students was introduced (the fee can cover up to 30 percent of the true costs of tuition).

Student support

In 1998 the Government introduced student loans, as a new form of financial aid. One year later, it had become obvious that the unstable banking sector was failing to provide the necessary guaranteed resources. In addition, the lack of experience with student loans made local banks overly cautious in regard to investing in the new service. This uncertainty forced the banks to require real estate as collateral, which, even with lower interest rates, was not feasible for students who needed loans.

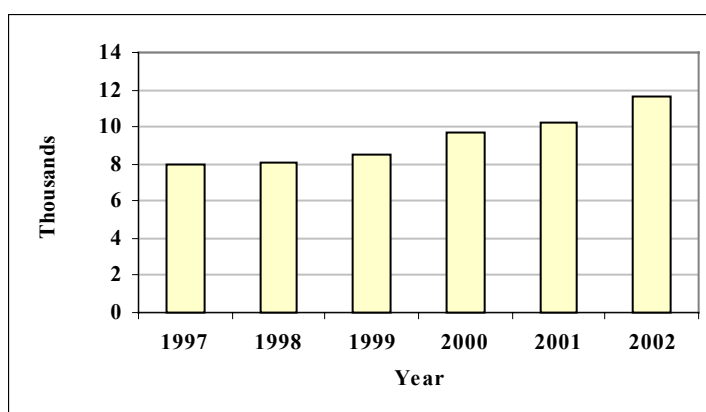
Iceland

Historical development of higher education

The University of Iceland was established in 1911, by merging three professional schools founded during the previous century. Before then, Icelandic students had mainly travelled to Denmark for higher education. The University of Iceland has grown rapidly during this century. The original faculties have been expanded and new ones have been added to extend the number of faculties from four to eleven. In the last three decades there has been a growing diversification in the higher education system. New higher education institutions have been established and several post-secondary institutions have been upgraded to the higher education level.

From the foundation of the University of Iceland, higher education institutions have mainly offered graduate programmes that last from 3-6 years. Students had to go abroad for their postgraduate studies. Over the last decade, institutions of higher education have increasingly started to offer postgraduate programmes. However, programmes at Master's and PhD level are still not offered in all study fields. During the period 1997-2002, there was a 45% increase in the number of students in higher education (see Figure 7).

Figure 7: Number of students in higher education (ISCED level 5/6)



Source: Eurostat

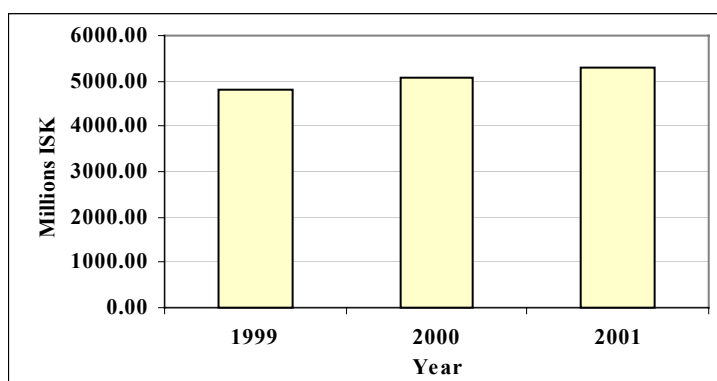
According to the Universities Act, the general objectives of higher education institutions are to serve as scientific research and educational institutions, to provide students with education preparing them for working independently in science, innovation and the arts and to fill the various employment positions in society that require higher education. Higher education institutions also aim to educate the public and to serve society through its knowledge.

In recent years there has been a significant rise in the number of students in higher education, followed by an increase in the availability of higher education programmes of various lengths. In relation to this, there is an ongoing debate about the finances of higher education institutions. Private institutions receive state support and can also charge tuition fees. Public institutions are only authorised to charge registration fees. Public institutions are considering ways to cope with their financial problems, for example by charging tuition fees or restricting admission to public institutions.

Public financing of higher education institutions

Most of the higher education institutions are state-run but some are private and receive government grants. Public and private higher education institutions receive individual appropriations from the state budget. Private institutions also charge tuition fees. Over the period 1999-2002, there was a 10.1% increase in public income of higher education institutions from the central government (see Figure 8). The University of Iceland has substantial income from a lottery that falls outside provisions made in the state budget.

Figure 8: Public income of higher education institutions (1995 constant prices)

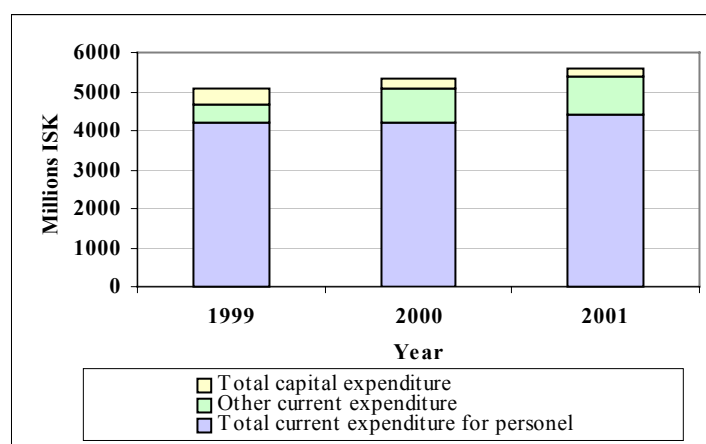


Source: Eurostat UOE data collection

Expenditure of higher education institutions

Over the period 1999-2002, the total expenditure of higher education institutions increased by 10% (see Figure 9). The biggest expenditure outlay of higher education institutions was on personnel. Expenditure on personnel averaged 80% of the total expenditure of higher education institutions during 1999-2002.

Figure 9: Total expenditure of HEIs by type of source (1995 constant prices)

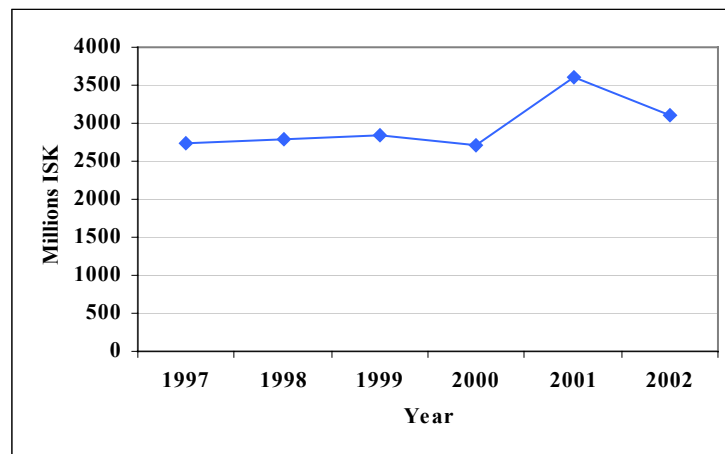


Source : Eurostat UOE data collection

Expenditure of higher education institutions on R&D

During the period 1997-2002, expenditure by higher education institutions on R&D increased by 14%. Figure 10 shows the total expenditure of the higher education sector on research and development. The period 2000-2001 saw a particular sharp increase in expenditure on R&D of 32%.

Figure 10: Total expenditure of the higher education sector on research and development (1995 constant prices)



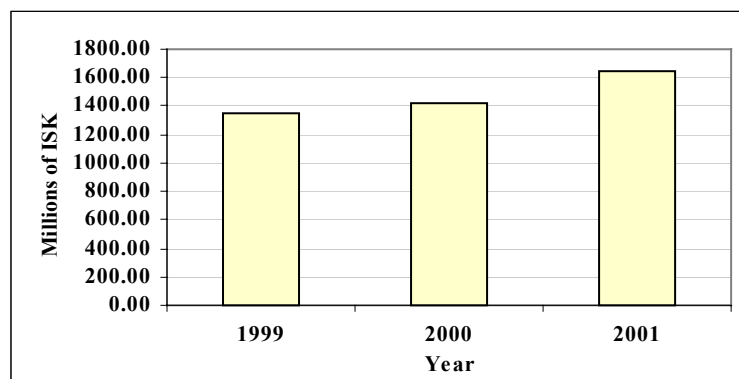
Source : Eurostat

Student support

Students attending institutions of higher education are eligible for student loans from the Icelandic Student Loan Fund. The total loan received per annum depends upon the academic performance and the income of the student (and his/her spouse). Repayments commence two years after completion or discontinuation of studies.

In accordance with the EEA Agreement, individuals from the European Union member states and the EEA-EFTA countries, who have worked in Iceland at their trade or profession for at least one year, are entitled to apply for a loan. Students from the Nordic countries, who are permanent residents in Iceland and are registered at an Icelandic institution of higher education, are also eligible for student loans if their own country does not support them financially. The Icelandic Student Loan Fund may grant loans to other foreign students if reciprocity agreements have been concluded between their countries of origin and Iceland. Between 1999-2001, there was a 21.9% increase in the aid provided by the central government to students in the form of loans (see Figure 11).

Figure 11: Public financial aid to students in the form of loans (1995 constant prices)



Source : Eurostat UOE data collection

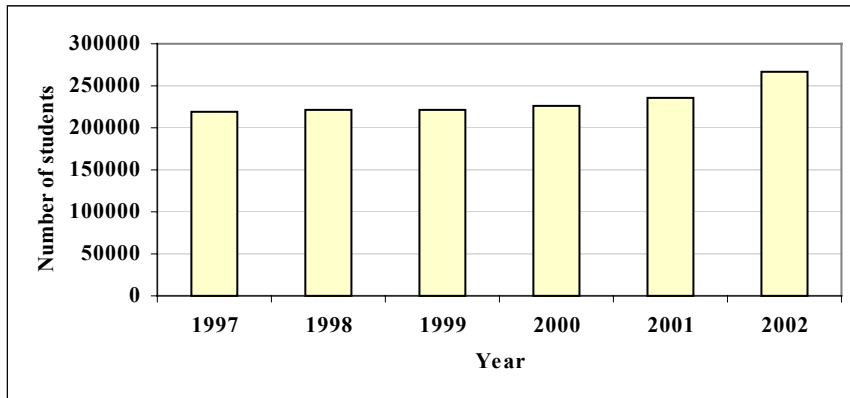
The Ministry of Education, Science and Culture offers annually a limited number of scholarships to foreign students to pursue studies in Icelandic language and literature at the University of Iceland.

Grants are available for postgraduate, research-oriented studies at higher education institutions in Iceland. The grants are awarded on the basis of a research proposal submitted jointly by a student and a professor.

New Zealand

Between 1997 and 2002, there was a 22.2% increase in the number of students in higher education (see Figure 12). The period 2001 and 2002 saw the biggest annual increase of 13% in the number of students.

Figure 12: Number of formally enrolled students in public tertiary education institutions

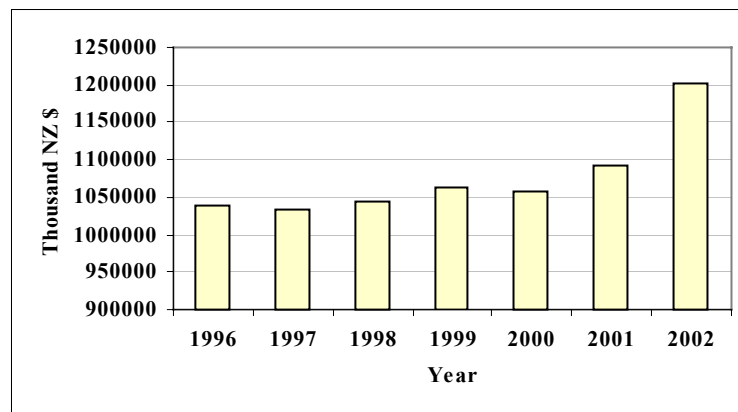


Source: New Zealand' tertiary education sector report- profile & trend 2002

Public financing of higher education

The period 1996-2002, saw a 15.7% increase in public income of HEIs (see Figure 13). The period 2001-2002 saw the biggest annual increase of 10.1% in public income.

Figure 13: Public income of HEIs (1996 constant prices)

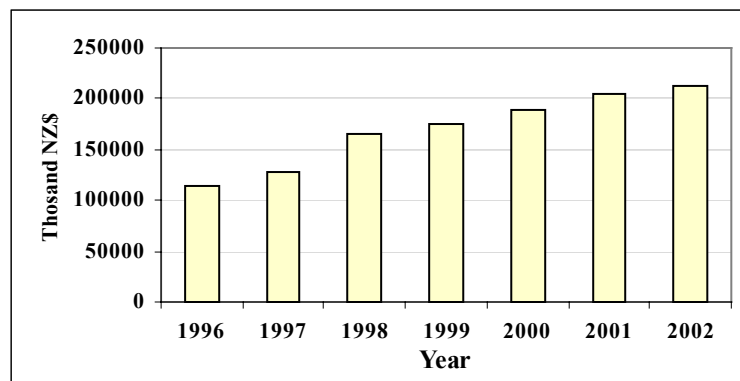


Source: New Zealand' tertiary education sector report- profile & trend 2002

Income from research contracts

The period 1996-2002, saw an 85.5% increase in income from research contracts (see Figure 14). The period 1997-1998 saw the biggest annual increase of 27.9% in income from research contracts.

Figure 14: Income of HEIs from research contracts (1996 constant prices)

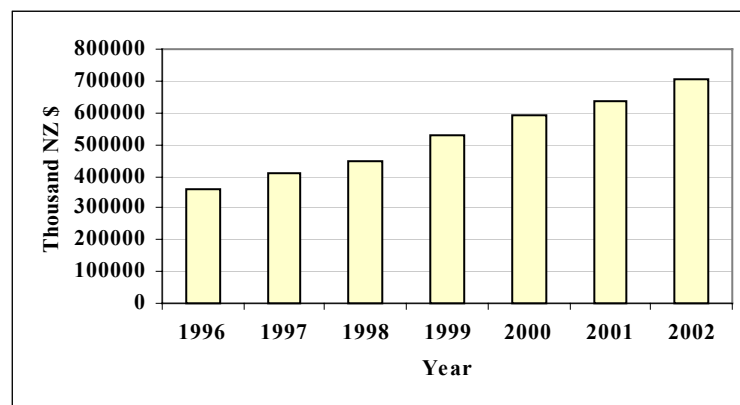


Source: New Zealand' tertiary education sector report- profile & trend 2002

Contributions from students

Higher education institutions saw income from tuition fees increase by 95.7% from 1996 to 2002 (see Figure 15).

Figure 15: Income of HEIs from tuition fees (1996 constant prices)



Source: New Zealand' tertiary education sector report- profile & trend 2002

Overview of the main sources of income

Public sources remain the most important source of income of higher education institutions in 2002. However, during the course of 1996 to 2002, the financial burden of supporting higher education institutions has been slowly shifting from the state to students. In 1996, tuition fees accounted for 20.2% of the total income of higher education institutions, however in 2002, the share of total income increased to 28.8% (see Table 2).

Table 2: Breakdown of the sources of income of HEIs as a percentage of the total income

Year	Public	Research contracts	Tuition fees	Other
1996	58.0	6.4	20.2	15.4
1997	55.9	6.9	22.2	14.9
1998	53.7	8.5	23.1	14.7
1999	51.1	8.4	25.5	15.0
2000	49.5	8.8	27.6	14.1
2001	48.7	9.1	28.3	13.9
2002	48.9	8.7	28.8	13.6

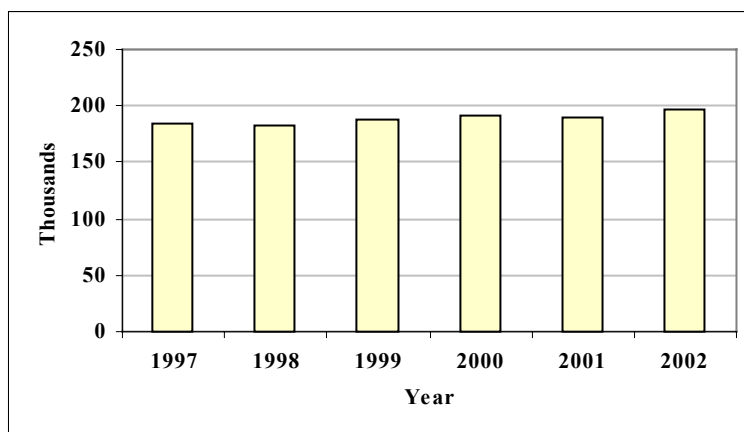
Source: New Zealand' tertiary education sector report- profile & trend 2002

Norway

Historical development of higher education

The first academic institution in Norway was established in Trondheim in 1760, under the name of the Royal Norwegian Society of Science. The first Norwegian university was established in Oslo in 1811, and opened in 1813. Other universities were all established after World War II, Bergen in 1946, Trondheim in 1969/1996, and Tromsø in 1972. Between 1997-2002, there was a 7% increase in the number of students in higher education (see Figure 16).

Figure 16: Number of students in higher education (ISCED level 5/6)



Source: Eurostat

All institutions of higher education are subject to the authority of the Ministry of Education, Research and Church Affairs. Higher education in Norway is mainly offered at state institutions, notably universities (four), university colleges (six), state colleges (26) and art colleges (2).

Educational Policy

In February 1992, the Government set up a commission to propose a new law for all state higher education institutions. Based on the proposals put forward by the commission in June 1993, the Government presented a bill to the national assembly in June 1994. This resulted in Act No 22 of 12 May 1995 on Universities and Colleges, which is applicable as of 1 January 1996. An important principle in the preparations of the 1995 Universities and Colleges Act was the introduction of a common legal basis for the university and non-university sectors. The result is a common framework for the regulation of conditions relating to the students, as well as for the management and organisation of all the institutions to which it applies.

In order for more discretionary power of decision-making to be delegated to the institutions of the non-university sector, it was seen as a necessity to obtain larger and more comprehensive institutions through reorganisation and merging processes. On 1 August 1994, the 98 former regional and vocational colleges were reorganised and merged to form 26 university colleges, and on 1 August 1996, seven colleges and academies of arts, crafts and design were merged into two new Fine Arts institutions, one in Oslo and one in Bergen. In addition, there have been a few minor mergers: In Oslo, the Eastern Norwegian Conservatory of Music was integrated into the

Norwegian State Academy of Music, and in Bergen, the Conservatory of Music is now part of the University of Bergen. In Trondheim, Trondheim Academy of Fine Arts and Trøndelag Conservatory of Music have been integrated into the local university (NTNU).

Financing of higher education institutions

Higher education in Norway is mostly state funded and offered by state universities and colleges. The national assembly determines as part of the annual budget the total amount of funding to be granted directly by the State.

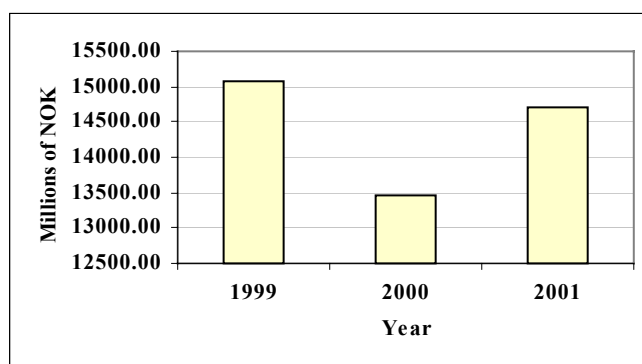
According to the new funding model, state allocations to the institutions will consist of a:

- Basic allocation (60%);
- Teaching allocation (25%);
- Research allocation (15%).

The sizeable basic allocation reflects a wish to maintain the provision of adequate scope of the system and to protect the academic environments from short-term fluctuations. However, in order to obtain a closer link between performance and funding, the teaching and research allocations are based on various performance measures, e.g. course credit production, international student exchanges, number of graduates, and funding obtained from other sources.

This state funding of higher education institutions is meant to cover most of the costs necessary for the running of the institutions. In addition to what is provided by the state, the higher education institutions can earn additional funds for research and development activities done in co-operation with, or on request by, national or local research institutes; from private or public funding of special projects or activities, from the sales of publications, etc. Between 1999 and 2001, the income of higher education institutions from the government decreased by 2% in real terms (see Figure 17). It should be noted that there was a particularly sharp decrease of 11% of public income between 1999-2000.

Figure 17: Public income of higher education institutions (1995 constant prices)

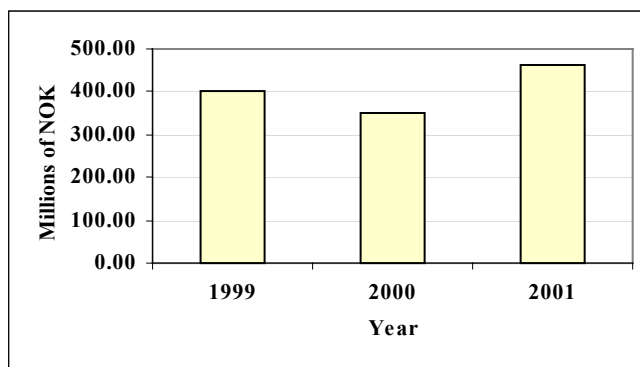


Source: Eurostat UOE data collection

Contributions from students

Tuition at state higher education institutions in Norway is free. However, the institutions may ask a small term fee (between NOK 230 and 400) for the running of student welfare activities. Private higher education institutions, charge tuition fees from their students. The amount of tuition fee charged is dependent on the amount of state funding. Despite the fact that the income of higher education institutions from public resources decreased in real terms, the income of higher education institutions from households increased. Between 1999-2001, there was a 15% increase in the income of higher education institutions (see Figure 18).

Figure 18: Income of higher education institutions from households (1995 constant prices)

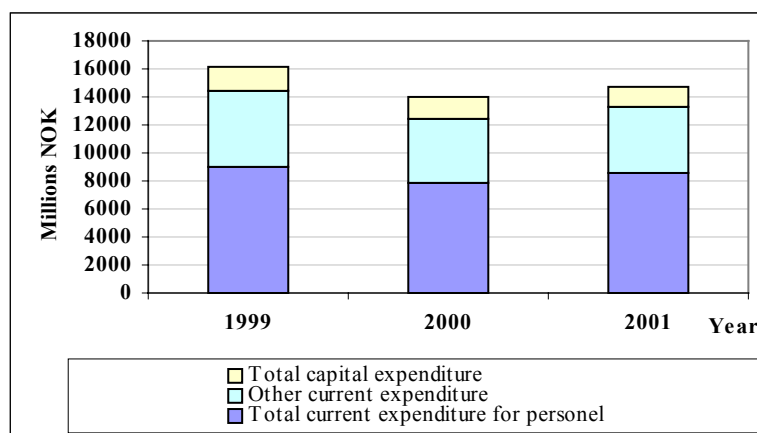


Source: Eurostat UOE data collection

Expenditure of higher education institutions

Between 1999-2001, the total expenditure of higher education decreased by 9%. The biggest outlay on expenditure is on personnel, which accounted for 58.5% of the total expenditure in 2001.

Figure 19: Current expenditure and capital expenditure of higher education institutions (1995 constant prices)



Source: Eurostat UOE data collection

Student support

In 1947, the State Educational Loan Fund was set up to provide students with financial support in the form of grants and loans. All registered students at recognised study programmes (in practice all study programmes at the state higher education institutions, and the recognised study programmes at private higher education institutions) may receive loans and/or grants from the State Educational Loan Fund for subsistence costs. These loans are interest free during the studies, and they do not have to be repaid while the student is still studying. They are repaid over a period of maximum 20 years after graduation. The loans and grants are intended to meet such expenses as housing, food and study materials. Norwegians studying at recognised study programmes abroad may also receive support from the State Educational Loan Fund.

Table 3, illustrates the public resources devoted to scholarships and grants and loans as a percentage of total public aid to students during the period 1999-2001. Loans are the most important expenditure outlay by the government on students. In 2001, loans accounted for 66.1% of the total financial aid to students. Between 1999-2001, there was a 6.8% decrease in public expenditure on grants and scholarships, and a 19% decrease in public expenditure on loans.

Table 3: Public financial support to students broken down by type of source as a percentage of total public aid (1995 constant prices)

Year	Scholarship and other grants (% of total aid)	Student loans (% of total aid)
1999	39.6	60.4
2000	40.1	59.9
2001	33.9	66.1

Source: Eurostat UOE data collection

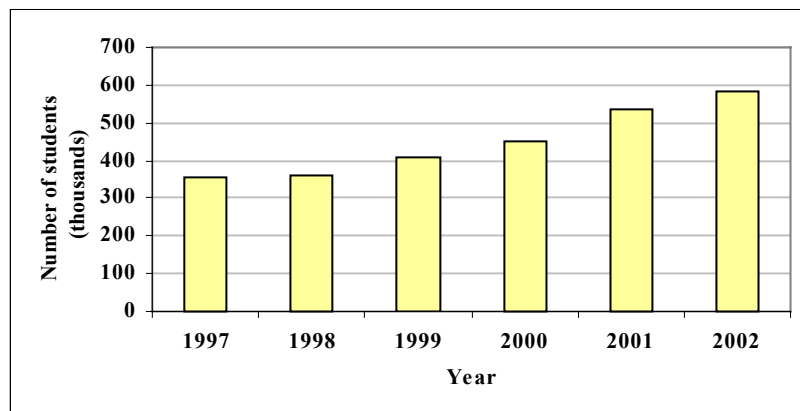
Romania

Historical development of higher education

In 1640, Prince Vasile Lupu founded the Academia Vasiliana as a higher education institution dedicated to the study of Latin and Slavonic languages. Academia Domneasca was set up in Bucharest during Serban Cantacuzino's reign (1678-1688). It was the first high school institution in the Greek language. The Academy had been functioning until 1821 and had been reorganised several times during the 17th century. A similar institution in the Greek language was established in Iassy in 1707.

In 1835 the Academia Mihaileana was established in Iassy. It was a higher education institution where courses of history, law, chemistry, mathematics and architecture were held in Romanian. After the union of the Principalities, the first university based on modern principles was established in Iassy, in 1860. Four years later the University of Bucharest was established. Figure 20 shows the number of students in higher education during the period 1997-2002.

Figure 20: Number of students in higher education (ISCED level 5/6)



Source: Eurostat

During the period 1997 to 2002, there was a 64.5% increase in the number of students in higher education.

Educational Policy

Since 1999, universities are applying a system of global funding that makes financial autonomy a reality. It is the government's responsibility to:

- Determine the number of study places to be funded from state budget on a *per capita* basis,
- Fund research grants accessible through project competition;
- Fund the teaching staff function relating to the number of publicly subsidised students;
- Funding investments in infrastructure for and repairs in universities;
- Allocating resources from international programmes according to project competitiveness.

However, universities are authorised to determine independently the numbers of places available to fee-paying students. At present, the relationship between the state and the university is regulated by an institutional contract that renders global funding concrete.

The main changes that have occurred in the financing higher education and the support of students are as follows:

- Switch to global financing using the number of students as a main indicator; the introduction of complex quality indicators leading to a ranking of universities according to their performance, financially encouraging the most dynamic and effective higher education institutions;
- The possibility for public universities to enrol students with tuition fees, public universities have an enrolment quota supported by budget and approved every year by the Ministry of Education, Research and Youth (MECT);
- Diversification of the scholarship system, supporting students with social problems but also eminent students.

Financing of higher education institutions

According to the Education Act, the financing of the higher education public institutions is made from two main sources:

- State Budget
- Own revenues collected directly by the higher education institutions.

Financial resources allocated from the State budget represent the main income of higher education institutions. Higher education institution financing includes:

- i. Basic financing - implies distribution of resources according to real necessities of each institution and the management of the funds by each institution. Basic financing is determined using unitary net costs per equivalent student. Basic financing covers staff and material expenses. The 'National Council for Higher Education financing' has the responsibility to analyse unitary costs and to propose specific recommendations for cost ceilings corresponding to various domains and levels of study. An institutions allocation is calculated by multiplying the relative costs for different study fields by the number of equivalent students in each domain. When the total allocation for higher education, which is determined using the formula, is greater than the available sum coming from the State budget, proportional reductions are implemented.
- ii. Complementary financing - is destined for social costs for students, investments in new buildings, capital repairs; modernisation of existing buildings, equipment for laboratory and teaching aids acquisition; scientific research. Basic financing represents about 75% of the total financing. Complementary financing supplements the system of global financing based on the specified formula. Higher education institutions request funds for new buildings, maintenance and repairs. The Ministry selects proposals using the priorities established through a common agreement with its consultative councils. Funds for scholarships are allocated in proportion to the number of eligible students.

According to the Education Act, the HEIs are entitled to collect and manage additional financial resources such as: revenues from sponsoring activities, grants, donations and other own revenues

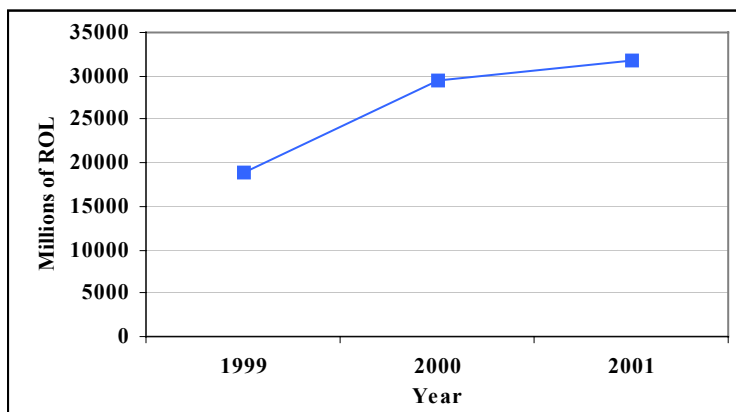
collected from legal entities private and/or public. Since 1991, the TEMPUS program represents the main external source for the co-financing of the higher education system. In 1995 Romania set up the framework for joining three other European Union programs: SOCRATES, LEONARDO and YOUTH FOR EUROPE.

Compared to the situation in 1989, a significant change in the funding of resources has occurred. By 1999, tuition fees and international programmes had become important sources of funds for higher education.

Expenditure of higher education institutions on R&D

Between 1999 and 2001, there was a 69.5% increase in the expenditure of the higher education sector on R&D (see Figure 21).

Figure 21: Total expenditure of the higher education sector on research and development (1995 constant prices)



Source: Eurostat

Student support

Students at graduate and postgraduate level, including those enrolled in doctoral studies, benefit from the 75.000 places supported every year from the budget, and approximately 25% of the students are granted scholarships from the state, of which:

- 5% are performance scholarships,
- 25% are merit scholarships, granted for outstanding results;
- 30 / 40% are scholarships for social support.

The university senates determine specific criteria for performance, merit, study and social support scholarships. These scholarships are subject to indexation. Scholarships cover accommodation and meal expenditure. The review of the scholarship granting system led to a slight increase in the number of scholarships for social support and merit. Students may also receive scholarships on the basis of contracts signed with economic agents and other legal and natural persons, as well as study loans extended by banks on such terms as determined by the law.

Students from rural areas are given special incentives to undertake higher education, through special scholarships. 1000 of these special rural scholarships are granted per year. Some students

from underprivileged families may be granted exemption or reduction of tuition fees. The university senate takes a decision regarding exemptions or reductions of tuition fees.

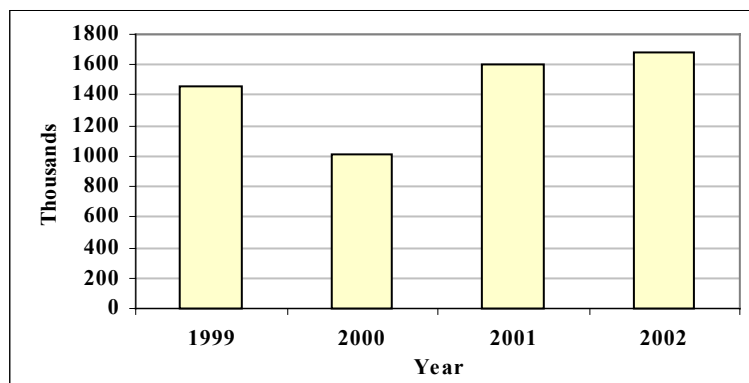
In 2002 in order to reduce the brain drain, the government decided to award 100 grants every year to young doctorate students (up to 35 years-old). These specific grants give doctorate students additional funding equal to the minimum wage (2 million lei).

Turkey

Historical development of higher education

In 1900, Darulfunun-u Sahane, the first university of the Ottoman Empire, was established. The Republic of Turkey, which was founded in 1923, inherited one university and seven educational institutions from the Ottoman Empire. Since 1923, new schools and universities have been established. The objective of the 1933 reform was to raise the activities of education, training, science and research to a contemporary level. This law is accepted as the beginning of the scientific activities and science education in its modern perception in Turkey. Today, higher education is provided in 53 state universities, including 2 higher institutes of technology, and 23 foundations (private universities). Between 1999-2002, there was an overall 14.6% increase in the number of students. However, the period 1999-2000 saw a 30.7% decrease in the number of students (see Figure 22).

Figure 22: Number of students in higher education (ISCED level 5/6)

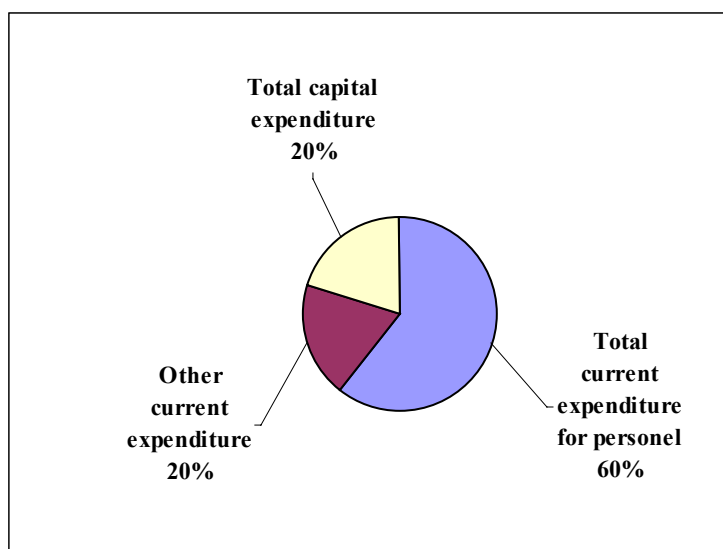


Source: Eurostat

Expenditure of higher education institutions

The biggest expenditure outlay of higher education institutions is on personnel, which accounted for 60% of expenditure of higher education institutions in 2001 (see Figure 23). Between 1999 and 2001, total current expenditure of higher education institutions increased by 137%, of which expenditure on personnel increased by 109.6%.

Figure 23: Expenditure of HEIs by type as a percentage of total expenditure in 2001

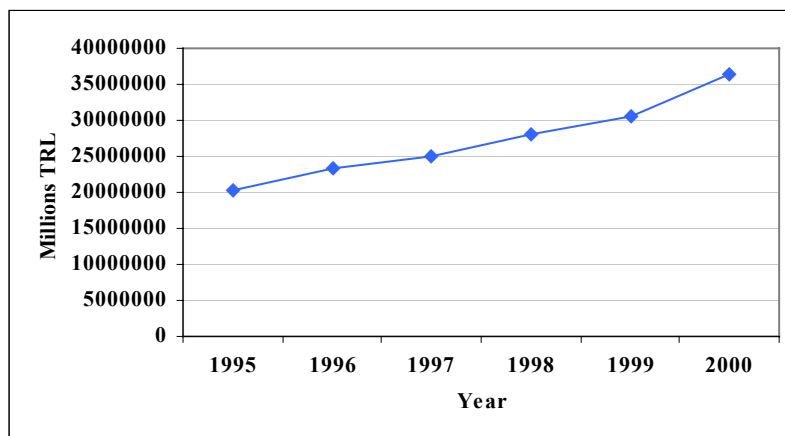


Source: Eurostat UOE data collection

Expenditure of higher education institutions on R&D

Over the period 1995-2001, expenditure of higher education institutions on R&D increased by 78.9%. Figure 24 shows the total expenditure of the higher education sector on research and development. The biggest source of income for R&D expenditure by higher education institutions is the government sector (see Table 4). However, during the period 1995 to 2001, the share of total R&D expenditure from the government decreased from 80.5% in 1995 to 72.7% in 2001. Between 1995-2001, expenditure of higher education institutions on R&D which came from the government sector increased by 61.6%. Over the period 1995-2001, the relative importance of the business sector as a source of funds for the higher education sectors expenditure on R&D has increased from 13.1% in 1995 to 19.4% in 2001. Between 1995-2001, expenditure of higher education institutions on R&D, from the business sector, increased by 165%, and expenditure from the private non-profit sector increased by 120.9%.

Figure 24: Total expenditure of the higher education sector on research and development (1995 constant prices)



Source: Eurostat

**Table 4: Expenditure of the higher education sector on R&D
by source of funds as a percentage of total expenditure**

Year	Business	Government	Private non- profit sector	Abroad
1995	13.1	80.5	6.4	
1996	18.0	74.7	7.4	
1997	19.0	77.8	3.2	0.1
1998	17.7	75.6	6.7	0.0
1999	18.5	74.4	7.1	
2000	19.4	72.7	7.9	

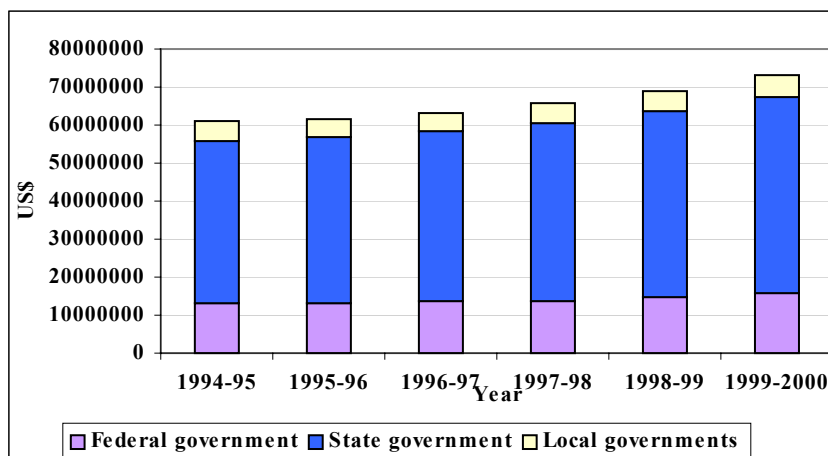
Source: Eurostat

USA

Public financing of higher education

Public institutions of higher education saw a 20.2% increase in public funding over the period 1994/95 to 1999/2000. Figure 25, shows the income of public higher education institutions broken down by type of source. During the period 1994/95 - 1999/2000, the federal government accounted for on average 21.5% of total income of public higher education institutions. The largest sources of public funds are the state governments. On average during the period 1994/95 - 1999/2000, State governments accounted for 70.8% of total income.

Figure 25: Total public income of public universities, by type of source (1995 constant prices)

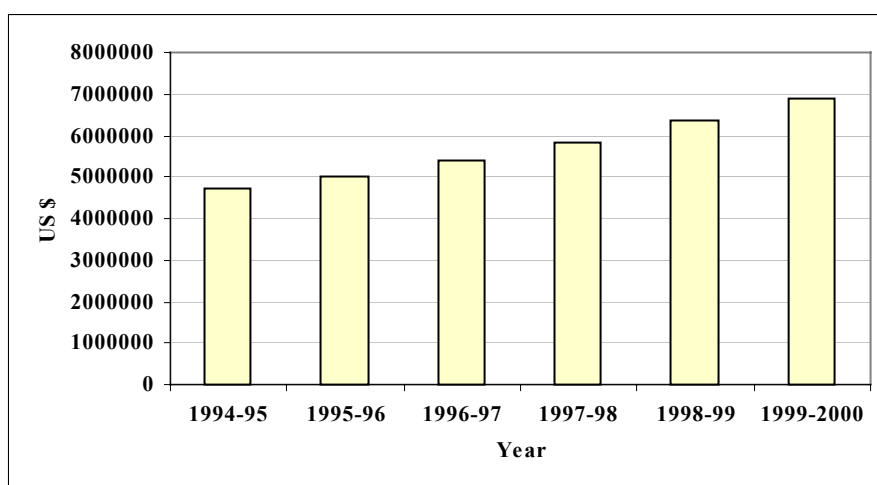


Source: Digest of Education Statistics 2002

Income from gifts, grants and contract work

Public higher education institutions experienced a 45.6% increase in income from gifts, grants and contract work between 1994/95 and 1999/2000. Between 1996-2000, annual increases in income averaged 8.4%.

Figure 26: Total income of public HEIs from gifts, grants and contracts (1995 constant prices)

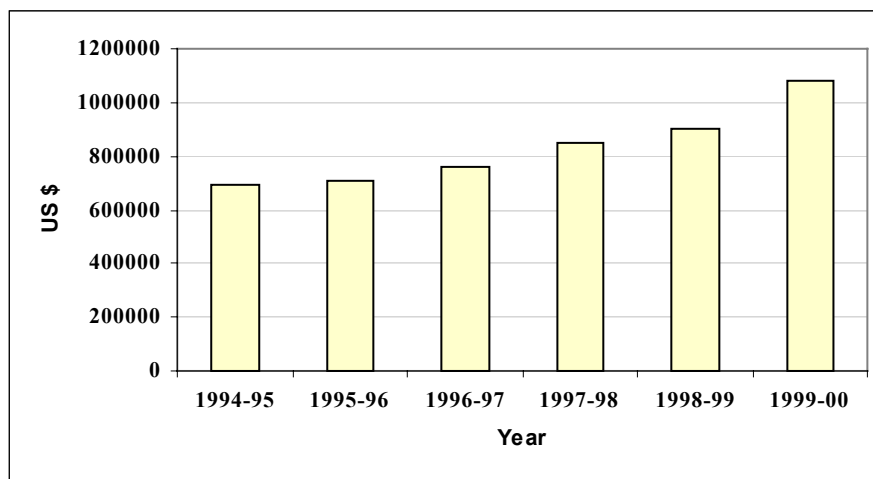


Source: Digest of Education Statistics 2002

Endowment income²

Over the period 1994/95 to 1999/2000, there was a 55.6% increase in income from endowments (see Figure 27).

Figure 27: Income of public HEIs from endowments (1995 constant prices)



Source: Digest of Education Statistics 2002

Overview of the main sources of income

Between 1994/95 and 1999/2000 there was a 21.4% increase in the total income of public higher education institutions. Public sources are the biggest contributor to the income of higher education institutions (see Table 6). However, unlike in some European Union Member States the share of total income that is attributed to public funds was only 50.4% in 1999/2000. Income from sales and services constitutes the second major source of income of public higher education institutions. In 1999/2000, the share of total income that is attributed to sales and services was 21.6%. Income from the sales of goods or services is income that is incidental to the conduct of instruction, research, or public service. Examples include film rentals, scientific and literary publications, testing services, university presses, and dairy products. There was a 13.7% increase in income from sales and services over the period 1994/95 to 1999/2000. Income from tuition fees is the third most important source of income of public higher education institutions. In 1999/2000, the share of total income from tuition fees was 18.5%.

² An endowment is a trust fund set aside to provide a perpetual source of revenue from the proceeds of the endowment investments. Endowment funds are often created by donations from benefactors of an institution, who may designate the use of the endowment revenue. Normally, institutions or their representatives manage the investments, but they are not permitted to spend the endowment fund itself, only the proceeds from the investments. Typical uses of endowments would be a chair for a particular department or for a scholarship fund. Endowment totals include funds functioning as endowments, such as funds left over from the previous year and placed with the endowment investments by the institution. These funds may be withdrawn by the institution

Table 5: Breakdown of the sources of income of HEIs
as a percentage of the total income

Year	Tuition Fees	Public	Private gifts, grants, and contracts	Endowment income	Sales and services	Other sources
1994-95	18.4	51.0	4.0	0.6	23.1	3.1
1995-96	18.8	51.0	4.1	0.6	22.2	3.3
1996-97	19.0	50.4	4.3	0.6	22.3	3.3
1997-98	18.9	50.1	4.5	0.6	22.2	3.7
1998-99	18.9	50.5	4.7	0.7	21.8	3.5
1999-2000	18.5	50.4	4.8	0.7	21.6	3.9

Source: Digest of Education Statistics 2002