

**TERTIARY EDUCATION
IN THE CZECH REPUBLIC**

**Country report
Centre for Higher Education Studies
Ministry of Education, Youth and Sports**

Josef Benes
Helena Sebkova

Prague, January 2001

Table of contents

1. INTRODUCTION

2. EDUCATIONAL INFRASTRUCTURE

- 2.1 INTRODUCTION**
- 2.2 EDUCATION LAW**
- 2.3 PRE-SCHOOL EDUCATION**
- 2.4 PRIMARY EDUCATION**
- 2.5 SECONDARY EDUCATION**
- 2.6 TERTIARY EDUCATION**

3. HIGHER EDUCATION

- 3.1 HISTORY**
- 3.2 LEGISLATION**
- 3.3 STRUCTURE**
- 3.4 ACCESS**
- 3.5 PARTICIPATION**
- 3.6 OUTFLOW**
- 3.7 EDUCATION-LABOUR MARKET**
- 3.8 PERSONNEL**
- 3.9 POST-GRADUATE EDUCATION**
- 3.10 RESEARCH INFRASTRUCTURE**
 - 3.10.1 Introduction**
 - 3.10.2 Providers**
 - 3.10.3 Performers**
 - 3.10.4 Research in the higher education system**
- 3.11. FINANCIAL ASPECTS**
 - 3.11.1 Introduction**
 - 3.11.2 Institutional finance**
 - 3.11.2.1 Funding mechanism
 - 3.11.2.2 Teaching normative part
 - 3.11.2.3 Teaching, non-normative means
 - 3.11.3 Funding of research**
 - 3.11.3.1 Non-specified research
 - 3.11.3.2 Institutional money for research plans
 - 3.11.3.3 Developments - research centres
 - 3.11.3.4 Targeted money for research and development
 - 3.11.4 Capital investments**
 - 3.11.5 Student support and tuition fees**
 - 3.11.5.1 Student support
 - 3.11.5.2 Cost to students
 - 3.11.5.3 Funding arrangement for foreign students
- 3.12 GOVERNANCE STRUCTURE**
 - 3.12.1 Introduction**
 - 3.12.2 Federal and regional governance**
 - 3.12.3 Advisory bodies**
 - 3.12.4 Consultative and research bodies**
 - 3.12.5 Governance in higher education institutions**
 - 3.12.5.1 Situation after 1990
 - 3.12.5.2 Higher education act form 1998 (new Act)

3.12.5.3 Internal management of higher education institutions

3.13 QUALITY ASSURANCE

3.13.1 Introduction

3.13.2 Accreditation Commission

3.13.3 The main tasks of Accreditation Commission

3.13.4 Accreditation

3.13.4.1 Accreditation of a study programme

3.13.4.2 Accreditation of habilitation procedures and procedures for the appointment of professors

3.13.4.3 State permission

3.13.4.4 Possible consequences

3.13.5 Evaluation of quality

3.13.5.1 External evaluation

3.13.5.2 Internal evaluation

3.13.5.3 International evaluation

3.13.5.4 Conclusions

4. HIGHER PROFESSIONAL SCHOOLS

4.1 HISTORY

4.2 LEGISLATION

4.3 STRUCTURE

4.4 ACCESS

4.5 PARTICIPATION

4.6 OUTFLOW

4.7 EDUCATION -LABOUR MARKET

4.8 PERSONNEL

4.9 FINANCIAL ASPECTS

4.10 GOVERNANCE STRUCTURE

4.10.1 Federal and regional governance

4.10.2 Advisory bodies

4.10.3 Consultative and research bodies

4.10.4 Internal governance of higher professional schools

4.11 EVALUATION OF QUALITY

4.12 DEVELOPMENTS

5 CONCLUSIONS

6. REFERENCES

1. INTRODUCTION

This country report was produced with the aim to contribute to the list of the number of reports of EU countries developed in the framework of the CHEPS Higher Education Monitor country reports.

The intention was to use the same structure to enable to good orientation with respect to other available reports. It is necessary to mention that it was not possible to keep really unique structure as the Czech system of tertiary education do not fit to all suggested parts of the report content neither their sequence.

Another problem of this report is still not stable legislative situation in the country. It is expected that higher professional schools which belong to the tertiary education will be regulated very soon (hopefully from the next school year) by the new act on education while in the field of higher education there is quite strong activity initiated by the members of the Czech Parliament to accept the amendment to the new higher education act (valid from January 1, 1999). Both mentioned possible activities would bring the significant changes and so to update annually the reports is the idea strongly recommended/highly accepted by the authors of this report.

2. EDUCATIONAL INFRASTRUCTURE

2.1 INTRODUCTION

The basic principles of education are set in the Constitution of the Czech Republic. It was adopted on 16 December 1992 and it provides a general legal framework for future legal developments. The rights of citizens and the obligations of the State with regard to education were set down in Article 33 of the Charter of Fundamental Rights and Freedoms (the constitutional law approved by the Federal Assembly of the Czech and Slovak Federal Republic on 9 January 1991 and incorporated into the legal system of the Czech Republic). In this way the law upheld the general right to education; the right to free education at primary, secondary and (depending on ability and capacity) higher education level; the right to state assistance when studying, the development and functioning of private and denominational schools within stated legal provisions and the right of parents to decide on their children's education.

The Czech education system includes the following levels: pre-school education, basic/primary education, secondary education, tertiary education.

2.2 EDUCATION LAW

The present Education Act was passed in 1984. An amendment in May 1990 brought considerable changes (the reduction of compulsory attendance at school from ten to nine years and at the same time from eight to nine prolonged obligatory basic schooling, permission to establish private and denominational schools, eight-year *Gymnázia*, etc.). Important amendments (No.138/1995) to the 1984 Education Act were adopted by the Czech Parliament in June 1995 dealing with the introduction of a compulsory ninth year in basic schools; the establishment of School Councils; the emergence of higher professional schools; the introduction of an obligation for schools to provide public annual reports, etc.

The Law on State Administration and Self-Government (No.564/1990) introduced a system of school management based on educational authorities and schools' autonomy and established the Czech School Inspection. Amendments were approved in 1993, 1994 and 1995. The Law on Pre-school and School Establishments was published under No.395/1991 and was last amended in 1995.

There are four key features and principles in response to the general aims of the transformation process:

- the depoliticization of education and training;
- the recognition of pupils' and/or their parents' right to choose their educational path;
- the break-up of the state monopoly on education by allowing private and denominational schools to be established;
- the decentralization in the management of the education system;
- the introduction of formula funding.

2.3 PRE-SCHOOL EDUCATION

The Czech Republic has formal pre-primary education. Institutions of these sector provide education considered to be a preparation for primary schools for children from three to six years. Admission to pre-primary education is based on age. The curriculum depends almost entirely on the individual establishment and it is not divided into cycles. It involves care of children including boarding. The Ministry of Education, Youth and Sports exercises overall responsibility for these centrally and municipally funded state institutions, and for the state-subsidized private ones. Although normally no fees are payable, they may sometimes be charged, even in public establishments. Outside this formal system there can be found quite rare other private activities like playgroups organised usually by mothers with their own children. It is very usual that children attend pre-primary schools at least one year before primary schooling.

The work on the proposal of the new education act arouse the idea of the possibility to make the last year of pre-school education obligatory for all.

2.4 PRIMARY EDUCATION

Primary education lasts nine years. It is offered as a full-time education to children aged from six to fifteen. Admission is based on age and the child's maturity. The schools of this education sector provide primary and lower secondary education. The curriculum is divided into two cycles. The first lasts five years while second one lasts four years. The second cycle (lower secondary education) might also be offered by a grammar schools (see below). The language of instruction is Czech but schools for the minorities teach in Polish and Slovak as well. There is no examination between the two cycles (with exception of those pupils who would attend a grammar schools). The primary education is finalised by awarding certificate without any special final examination at the end of the second cycle.

The Ministry of Education, Youth and Sports exercises overall responsibility for these centrally and municipally funded public institutions, and for the state-subsidised private ones. Private establishments can be denominational and may charge fees.

Also in the field of primary education there are expected changes. The proposal of the new act involves new ideas related to second cycle of primary education offered by grammar schools, possible final examination after the ninth year of schooling etc.

2.5 SECONDARY EDUCATION

Secondary education comprises three main types of schools:

- grammar school (gymnasium),
- secondary professional schools
- apprentice schools.

Grammar schools (gymnasium) are more generally oriented. The study is finished with the Maturita examination and the graduates are awarded the Maturita certificate (Maturitni vysvedceni.). Grammar schools may vary as regards the length of provided programme. The typical length is 4 years and students enter the grammar school after finishing complete basic education. Another possibility is to enter grammar school after the 1st stage of basic school which means after the 5th class of the basic school. The length of programme is 8 years and

during their first 4 years students fulfil the compulsory schooling. It is also possible to enter grammar school after the 7th class of basic school and to fulfil the last 2 years of compulsory schooling there. In this case the length of the programme is 6 years. The proposal of the new education act, however, leads to limitation (up to full cancellation within proper time) of longer programmes with the idea to reduce too early selection of pupils during their basic education.

The secondary professional schools offer programs for a wide range of professions (technical, economic, agricultural, public administration, artistic etc.). In the last years some of them offer more general programs – so called lyceum. They are finished with the Maturita examination and the graduates are awarded the Maturita certificate.

As for the apprentice schools, they prepare either for the blue-collar (usually 3 years, in few cases 2 years lasting programs,) or they offer 4 year lasting full professional secondary education. The first ones are finished with the Final vocational examination (Zaverecna zkouska) and the graduates are awarded the Vocational qualification certificate (Vyucni list). The second ones, 4-years lasting, are finished with both the Maturita examination and the Final vocational examination, and the graduates are awarded parallel the Maturita certificate and the Vocational qualification certificate.

Institutions providing secondary education are or the state or private ones. Private institutions may ask (and they do it) students to pay tuition fee.

2.6 TERTIARY EDUCATION

Tertiary education in the Czech Republic include any type of education recognised by the state that requires a completed secondary education as an entrance condition.

All graduates of any type of a secondary schools who successfully completed Maturita examination and were awarded Maturita certificate can enter any type of tertiary education institution – a higher professional school (education not leading to an academic degree) or a higher education institution. Students in the field of arts may also be admitted upon completion of higher professional education provided by conservatories (the type of only tertiary education eligible without).

Tertiary education is composed of:

- **Higher education** (three level composition - bachelor, master and doctoral study programmes) provided by higher education institutions of both university and non-university types. The institutions are public, state and private.
- **Higher professional education** (professional education leading to the diploma) provided by higher professional schools
- **Post-secondary courses** (1 or 2 year education) provided mainly by secondary schools (it does not exist currently but it is proposed in the new act on education)
- **Courses of lifelong education** (wide spectrum of short courses recognised by the state) provided by any type of educational institution

3. HIGHER EDUCATION

3.1 HISTORY

Higher education in the Czech Republic has a long tradition. Charles University, founded in 1348 by Czech King and Roman Emperor Charles IV, was the first university in Central Europe. Thanks to Charles University, the Czech lands became an important European centre of culture and scholarship. In 1573, the second university in our area was established, in Olomouc. The development of higher technical education started with the foundation of the Engineering School in 1707, which became the Prague Polytechnic in 1806. After 1879 the Polytechnic used the name Higher Technical Institute. The statute and the name of this

institution were changed to the Czech Technical University after the establishment of the Czechoslovak Republic in 1918. The roots of the Academy of Fine Arts reach back to 1799. Since 1898 it has existed in the form that we know today. The Czech-German Technical Institute, the basis of the Technical University in Brno, was established in 1849. In the same century, the Higher Education Institute of Mining in Příbram and the Academy of Applied Arts, Architecture and Design in Prague were also founded. A large number of higher education institutions were established in the twentieth century. In 1918, the Higher Education Institution of Veterinary Sciences was set up in Brno, followed in 1919 by the University in Brno, the Higher education institution of Agriculture in Brno, and the Trade School in Prague. The development of Czech higher education system was interrupted by the Nazi occupation in 1939-1945. After the end of the Second World War, the Academy of Performing Arts in Prague was established, the university in Olomouc was re-established, and the Higher Education Institute of Mining was re-developed and moved from Příbram to Ostrava. The Janáček Academy of Music in Brno (later drama and music) was founded in 1947. Further faculties of medicine of Charles University were opened in Plzeň and Hradec Králové. The Military Technical Academy (later called the Military Academy) and the Military Academy of Medicine were established in 1951. In 1952 the Higher Education Institutes of Chemical Technology and Agriculture were separated from the Czech Technical University and became independent. Further independent higher education institutions were established in 1953: the Institute of Mechanical Engineering and Electrical Engineering in Plzeň, the Institute of Mechanical Engineering and Textile Engineering in Liberec, and the Institute of Chemical Technology in Pardubice. In the same year the University of Economics was established by fusing the School of Economics of the Czech Technical University and the Higher Education Institution of Political and Economic Sciences. In Plzeň, České Budějovice, Ostrava, Hradec Králové and Ústí nad Labem, Higher Schools of Education were made into Institutes of Education, and later became independent Faculties of Education.

Academic rights, freedoms and autonomy were restored to Higher education institutions after November 1989. These were codified by the Higher Education Act of 1990.

Extensive international contacts, exchange of students and teachers, as well as the process of transforming research and teaching were started immediately. New disciplines and new study plans came into being, new departments and faculties were established, new higher education institutions were formed on this basis and a number of existing institutions was restructured. Higher education institutions were established in 1991 in Plzeň, České Budějovice, Ústí nad Labem, Ostrava and Opava. The Higher Education Institution of Teacher Education in Hradec Králové was established in 1992. Many of these new institutions were founded on the basis of independent faculties that were already in existence.

In recent years, some new names of universities have appeared. These names express the development and achievements of the institutions out of which they have emerged: the Czech University of Agriculture in Prague, the Mendel University of Agriculture and Forestry in Brno, the Technical University of Mining and Metallurgy in Ostrava, the Technical University of Liberec, and the University of Pardubice and others.

This development also means an expansion of the capacities of higher education institutions, which was urgently needed. The expansion of secondary education, larger numbers of secondary school graduates, and the growth of interest in higher education all exerted considerable pressure on higher education institutions from young applicants. Higher education institutions are therefore increasing the numbers of enrolled students and increasing their teaching capacities.

The question of teaching capacities, and especially of further modernisation of the structures and strategies of higher education institutions, is dealt with by the Higher Education Act of 1998.

3.2 LEGISLATION

The Higher Education Act (No.172/1990) was approved by the Federal Assembly of the Czech and Slovak Federal Republic in May 1990 giving the higher education institutions extensive autonomy, academic freedom and democratic internal mechanisms (student participation in decision-making processes). An amendment on personnel policy was passed in 1993.

The new system of organization and management of higher education institutions, qualitatively completely different from past decades, was initiated by the act from 1990. This followed on from the tradition in the management of higher education institutions as autonomous institutions established on principles of self-government, and returned academic freedoms to them. It emphasised the role and the responsibility of higher education institutions in the development of education which is a part of the culture of the whole of society, it defined their status as supreme educational, scientific and artistic institutions and thus opened the way to their development and their return to the traditional interconnection of teaching and research. The main important change related to higher education studies was the first step to diversification through the introduction of the short cycle of study programme leading the bachelor degree.

Several years' experience of the action of the above described act confirmed its unquestionable priorities and contribution to the development of the higher education system. At the same time, however, the necessity to solve some legislative problems brought out by the overall development of society and the step-by-step integration of the Czech Republic to European structures, manifested itself gradually. The new Higher Education Act (new Act in further text) which was approved in April 1998 by the Czech Parliament was prepared over a period of more than four years. The new legislative standard is based on the good experiences of the past eight years and supplements what the higher education system lacks so far. This can mostly be seen in greater chances of programme and institutional diversification and in a basic change of property rights, resulting in a transformation of a state higher education institutions into a public-legal ones and necessary changes of their internal management. The institutional diversification (higher education institutions of both university and non-university types), including possibility to establish private higher education institution together with the new position of the hitherto state higher education institutions, requires changes of the rules of economic management and leaves the way open to multi-source financing.

3.3 STRUCTURE

At the present time (January 2001), 42 higher education institutions belong to the Czech higher education system. There are 24 public institutions, 4 state higher education institutions (military higher education institutions, under the authority of the Ministry of Defence, and the Police Academy under the Ministry of the Interior) and 14 private higher education institutions. The public and military higher education institutions are university-type institutions. The Police Academy and all of the new private higher education institutions are non-university type institutions. The activities of the state schools are partly regulated by the legislation of the appropriate Ministry.

Charles University, Palacký University in Olomouc, and Masaryk University in Brno, are traditional multi-field universities, with a combination of humanities, natural science and medicine. There are now six newer multi-field universities in the Czech Republic, with a combination of social sciences, natural sciences and technical or agricultural sciences. The number of universities of the arts and specialised universities, i.e., agricultural, veterinary and economic, has remained unchanged.

Table 1: Changes in the structure of higher education institutions

Type of higher education institution	1989	1999	2001
Universities (multi-field)	3	9	10
Technical universities (multi-field)	2	4	5
Technical universities (specialised)	5	1	1
Veterinary universities	1	1	1
Universities of economics	1	1	1
Agriculture and forestry universities	2	2	2
Universities of education	-	1	-
Universities of the arts	4	4	4
State higher education institutions	4	4	4
Private higher education institutions	-	9	14
Independent faculties of education	5	-	-
TOTAL	27	36	42

Private higher education institutions were established in 7 cities of the CR. Their study programmes are focused on economics (67%), law (5,5%), informatics and various types of computer sciences (5,5%), arts (16,5%) and applied ecology (5,5%).

Although the total number of higher education institutions remained the same until 1999 when new private institutions come into existence, there have been fundamental changes in the number of faculties and in course structure.

Whereas in 1989 there were 69 faculties in the Czech Republic, in 1999 the number of faculties and similar units has risen to 110. Three theological faculties were added to the higher education system in 1990. Among other units belong the Institute of Tropical and Sub-tropical Agriculture at the Czech Agricultural University, the Institute of Languages and Humanities at Pardubice University, etc. All new bodies reflect the interests of students and the requirements of the regions. The faculties of transport and the faculty of forestry and wood technology have filled gaps in the available study programmes that arose after the splitting of Czechoslovakia in 1993. New Act stipulates that non-university institutions are not divided into faculties.

The establishment of new higher education institutions and faculties has also had a considerable influence on the regional structure of higher education. The proportion of students studying in the traditional university centres of Prague and Brno has dropped by roughly 4%, in favour of the regional centres of Ostrava, Olomouc, Liberec, České Budějovice, Pardubice and Ústí nad Labem. About 40% of students now study in Prague compared with more than 43% in 1989, in Brno 19% compared to 23%. Opava has become a new seat of higher education. Detached faculties of universities have been established in Cheb, Zlín, Karviná and Jindřichův Hradec. The last important change in the structure was the establishment of University of Tomas Bata in Zlín on the basis of faculties belonging before to the Brno University of Technology that has come into functioning in January 2001.

3.4 ACCESS

Admission to a bachelor programme or to a 4 to 6 year master study programme is conditional on graduating from a secondary school education or a comprehensive vocational secondary school. Applicants for art education who have not completed their comprehensive secondary education, comprehensive vocational secondary education, or higher vocational education provided by a conservatory may exceptionally also be admitted. Holders of foreign secondary school leaving certificates should apply to the relevant local school Authority for recognition. To enter a 2- or 3-year master programme requires graduation from a relevant bachelor programme.

Recognition of a foreign diploma is based on the decision of the relevant Czech public higher education institution on the basis of the Convention on the Recognition of Qualifications concerning Higher Education in the European Region (Lisbon Convention).

There is a uniform admission procedure at higher education institutions in the Czech Republic, either for home students or for foreign students. According to the new Act, an applicant should demonstrate not only the required degree of education but also the necessary ability and motivation to pursue higher education studies. Methods of examining and selection are in the competency of the faculty or of the higher education institution, where there are no faculties. The conditions of acceptance are approved by the academic senate of the higher education institution or faculty. In practice, there is usually a written examination, an interview, or both. For art schools, faculties of architecture, faculties of education, sports studies and dentistry, part of the examination is a test of talent or practical skills. Restrictions on admissions (“numerus clausus”) are not stipulated at higher education institutions in the Czech Republic. Entrance examinations are administered due to the limited capacity of a higher education institution or faculty. Many faculties also require the applicant to be at least 18 years of age.

Table 2: New entrants at higher education institutions (public and state) by disciplines

	Natural sciences	Technic. progr.	Agricult. progr.	Medicine progr.	Econom. Progr.	Teacher Educat. progr.	Humanit. and soc. progr.	Art progr.	Total
1989/90	898	10 620	2 570	2 321	3 001	5 027	1 876	473	26 786
1990/91	1 733	9 863	2 252	2 092	2 522	4 777	3 565	703	27 507
1991/92	1 210	8 319	1 510	1 541	2 983	4 558	3 262	526	23 909
1992/93	1 680	9 921	1 803	1 753	4 131	5 780	4 084	643	29 795
1993/94	1 699	11 568	1 899	1 712	5 067	5 952	4 458	694	33 049
1994/95	2 552	14 518	2 483	2 221	6 579	6 731	4 324	711	40 119
1995/96	2 925	13 671	2 897	2 404	7 461	8 210	5 344	910	43 822
1996/97	3 341	15 164	3 220	2 710	7 837	7 647	6 181	922	47 022
1997/98	3 957	16 533	2 578	3 088	8 091	7 653	6 934	1 033	49 867
1998/99	4 195	17 314	3 038	3 141	9 549	7 918	7 213	1 096	53 464
1999/00	2 979	15 660	1 955	2 931	7 782	7 804	6 338	885	46 334
2000/01	4 115	10 453	1 904	3 019	10 027	7 156	6 292	922	43 888

3.5 PARTICIPATION

Considerable increase of the number of students according to the increased number of faculties (institutions) is the characteristic feature of the last ten years. At present (academic year 2000/2001) there are 199 000 studying at public higher education institutions from which approx. 34 000 are students of bachelor study programmes. Besides, there are about 10 000 foreign students who pay for their studies. Private non-university higher education institutions enable studies for 2 000 students in bachelor study programmes. In addition there are 5 500 students at state higher education institutions from which 2 700 are students in bachelor study programmes.

The total increase of students comparing academic year 2000/2001 to the academic year 1989/1990 is about 80%, as regards new entrants comparing the same academic years the number was doubled. The total number of enrolled students (48 000) related to 19 years old cohort of population reaches 34%.

As it is clear from dates above the offer of newly established private non-university higher education institutions has not influenced yet the offer of study places significantly.

Table 3: Number of students at higher education institutions by discipline

	Natural sciences	Technic. progr.	Agricult. Progr.	Medicine progr.	Econom. progr.	Teacher Educat. Progr.	Humanit. and soc. progr.	Art progr.	Total
1989/90	3 831	40 461	10 275	10 335	12 633	22 298	8 126	2 062	110 021
1990/91	4 923	40 611	10 168	11 337	12 627	21 433	11 416	2 557	115 072
1991/92	4 787	36 290	8 765	10 762	12 504	20 589	13 093	2 429	109 219
1992/93	5 603	35 552	8 044	10 760	13 107	20 753	15 377	2 484	111 680
1993/94	6 314	36 054	7 446	10 320	15 994	21 486	18 232	2 996	118 842
1994/95	8 681	40 688	8 616	11 378	20 328	25 269	18 503	3 103	136 566
1995/96	10 238	42 649	9 266	11 590	24 163	28 540	21 967	3 735	152 148
1996/97	11 832	45 864	10 558	11 966	27 401	29 538	25 005	3 971	166 135
1997/98	13 355	49 683	10 300	12 694	29 405	30 725	27 417	4 144	177 723
1998/99	13 878	53 113	10 988	13 259	31 000	31 629	28 880	4 401	187 148
1999/00	14 194	58 489	7 836	14 324	35 631	32 800	30 995	4 692	198 961
2000/01	16 782	58 822	8 183	15 593	39 084	32 909	32 815	5 110	209 298

Note: Table include, in contrary with the text above, numbers of foreign students studying in foreign languages outside of international agreements

Table 4: Percentage female participation at higher education institutions

	1981	1991	1993	1995	1996	1997	1998	1999
Total number of students	120914	111990	127137	148433	166135	177723	187148	198961
Number of Female students	49238	50357	55582	65387	73436	79458	85513	92267
The share of Female students	40,7 %	44,9 %	43,7 %	44,1 %	44,2 %	44,7 %	45,7 %	46,4 %

3.6 OUTFLOW

Since 1999 the standard length of particular study programme is stipulated by the new Act. A student is allowed to prolong his/her studies for one additional year without any payment. The public higher education institution shall set a fee the minimum of which for each commenced month of study is given by the act if student's enrolment in a bachelor or a master study programme exceed the standard length of study by more than one year.

Table 5: Graduates at higher education institutions by discipline

	Natural Sciences	Technic progr.	Agricult. Progr.	Medicine progr.	Econom. Progr.	Teacher Educat. Progr.	Humanit. and soc. sc. progr.	Art Progr.	Total
1989	592	7 209	2 068	1 790	2 460	2 490	1 996	323	18 928
1991	552	6 361	1 992	1 370	2 215	3 913	1 371	269	18 043
1993	674	6 074	1 705	1 490	2 328	3 345	1 618	279	17 513
1995	1 077	4 143	1 330	1 809	3 618	3 890	2 622	312	18 730
1996	1 037	4 616	1 075	1 766	4 151	3 908	3 195	431	20 179
1997	1 341	4 847	1 429	1 832	5 203	3 944	3 843	495	22 934
1998	1 464	5 729	1 416	1 650	6 443	4 937	3 796	525	25 960
1999	1 387	5 930	976	1 719	7 070	4 826	4 300	479	26 687

It is expected that described measure will be a motivation of students to finish their studies in proper time. The result would be the shortening the average duration of studies. The total number of students graduation in master study programmes has rise about 62% from 1990. The increase of students in bachelor study programmes is gradual during recent years. The state strategy requires that study programmes should be restructured and about one half of graduates should be those of bachelor study programmes till the year 2005.

3.7 EDUCATION - LABOUR MARKET

Finding a job after graduation is significantly connected with the general economy situation and job market development. Graduates from tertiary education in the Czech Republic, similarly as in many other countries, belong to the groups of inhabitants highly influenced by the negative job market development. During the period of economic stagnation the employers do not seek for the new graduates without any or neglected experience with requirements of an offered position.

Employment offices regularly (two times a year) provide monitoring on graduates unemployment – in the end of April and in the end of September. Agreement with the Ministry of Labour allows to supply ministry of education with data related to the registered numbers of unemployed. New methodology of unemployed graduates investigation used from September 1999 (provided two times a year again) gives the possibility to identify study field, education institution and the year of graduation of an unemployed.

There was found, similarly as in several previous years, gradual increase of the overall unemployment in 1999. Investigation in September showed that the rate of unemployment reached 9,4% in comparison with the 7,5% in September of the previous year. In contrary, the results from the end of May 2000 speaks about slight decrease (8,7%) that is the development occurred for the first time from 1996.

Similar trends can be found in monitoring of unemployed graduates. General character of unemployment was approved: the higher education is obtained the less percentage of unemployment is found (as it is clear form the Table 6).

Table 6: Rates of unemployment related to various education fields

	Total (%)			technology (%)			Agriculture (%)			Health (%)			Humanities (%)		
	IX.99	IV.00	IX.00	IX.99	IV.00	IX.00	IX.99	IV.00	IX.00	IX.99	IV.00	IX.00	IX.99	IV.00	IX.00
Vocational education	35,8	26,4	52,3	37,3	28,3	55,4	41,3	31,7	53,3				32,3	22,6	47,8
Secondary education	25,6	16,1	26,4	29,6	21,3	31,2	26,5	18,3	28,0	11,5	4,8	9,8	26,1	15,7	26,9
Higher professional education	17,6	12,0	15,3	24,8	23,1	21,3				8,2	2,7	7,5	20,2	12,9	17,8
Higher education	11,7	5,4	10,4	14,7	7,2	13,7	22,3	9,9	27,9	7,9	2,9	6,9	10,0	4,5	8,3

3.8 PERSONNEL

Academic staff consists of employees of the higher education institution, who carry out both pedagogical and also scientific, research, development, artistic and other creative activity. Among them are professors, associate professors, senior assistants, junior assistants, lecturers and scientific, research and development personnel participating in the instructional activity. The rank of *professor* is acquired after successful procedure in which the educational and scientific or artistic qualifications of the applicant are approved. The prerequisite for the starting of proceedings is the prior nomination as associate professor on the basis of the so called habilitation procedure (*venium docendi*).

Access to employment as a higher education teacher is bound by the new Act to the results of selective procedure and admission to employment is confirmed by a work contract. The working conditions of higher education teachers are governed by general labour-legal standards.

The main aim of the Czech higher education is to continue the activity leading to the improvements of its academic staff. It is emphasised that the structure and qualification level is the most important aspect of the long term higher education development. Taking this fact into consideration higher education institutions worked out the analysis of the structure of personnel capacity of their units and on this basis the plans of further professional career of academics. The intention is to assess the development in this field regularly.

Among serious problems belongs first of all still quite high age of academic workers. The average age of professors is over 60, the exception is the age of a professor below 40 and there is only about 5% of those younger than 50 years. Slightly better situation can be found in the category of associated professors (approximately 10% of them under the age of 40, 25% under 50 but about 30% over 60).

To the mentioned above it should be pointed out that the procedures leading to habilitation and appointment of professors are more complicated in the Czech Republic than in a number of other countries. In addition, they enable to reach the academic title but this does not mean that its holder has the right to enter relevant position.

Similarly, the number of assistants in the higher age categories should be an exception which is still not valid in the Czech higher education.

In average there is quite satisfied qualification structure of academic workers even if there are higher education institutions which are fighting with a lack of properly qualified personnel and so they should improve a lot in this field.

Currently (year 2000) there is about 14 500 pedagogical and research workers employed at higher education institutions. From this number there are 253 professors, 3 300 associated professors, 7 976 senior assistants, 751 assistants and 319 lecturers. As an external professionals there are acknowledged experts from practice and other research organisations, mainly Academy of Sciences of the CR working for higher education institutions.

Table 7: Staff at higher education institutions (full time equivalent)

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total staff	27 970	28 247	27 428	27 784	29 266	28 936	29 279,9	25 514,3	25 808,6	25 809,2	26 285,2
Academic staff	11 644	11 839	11 958	12 105	12 561	12 625	12 889,9	12 968,7	13 215,9	13 291,7	13 578,8
Non-academic staff	16 326	16 408	15 470	15 679	16 705	16 311	16 390,0	12 545,6	12 592,7	12 517,5	12 706,4

Table 8: Percentage of female staff at higher education institutions in the CR (physical persons)

	1998	1999
Total staff	33 609	34 035
Female staff	16 832	16 975
Total academic staff	15 763	15 939
Female staff	5 253	5 284

Note: Percentage of the female staff is monitored only from 1998

3.9 POST-GRADUATE EDUCATION

Formal system of post-graduate education is composed by the offer of doctoral study programmes by the higher education institutions of university type. The responsibility bear individual faculties alike as in the case of other study programmes of lower level or higher education institutions in the case that it is not divided into faculties. Until 1990 there was parallel system of post-graduate studies provided by the Academy of Sciences of the CR. The right to accredit doctoral study programme and to award PhD degrees was given to the higher education institutions exclusively by the higher education act from 1990. It is obvious that it is highly desirable to involve research capacity of the Academy into this type of higher education. The way to emphasise collaboration with the Academy was opened by the new Act. Its provisions give the rules for accreditation of doctoral study programmes jointly provided by higher education institution and an organisation dealing with research and development.

Admission to a doctoral study programme is conditional on graduation from a master study programme; doctoral students in the field of the arts must hold an academic degree. Applicants are required to take a special entrance examination or an interview. Students also have to find professor who will act as a supervisor during their studies.

Table 9: Percentage female participants at higher education institutions

Year	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01
Czech doctoral students	6 760	8 278	9 812	11 453	12 209	14 028	16 230
Female	1 839	2 391	2 979	3 702	4 129	4 958	5 871
Foreign doct. students	353	401	455	516	710	979	1 149
Female	71	86	102	127	202	311	392
Total doctoral students	7 113	8 679	10 267	11 969	12 919	15 007	17 379
Female	1 910	2 477	3 081	3 829	4 331	5 269	6 263
Female %	26,9	28,5	30,0	32,0	33,5	35,1	36,0

3. 10 RESEARCH INFRASTRUCTURE

3.10.1 Introduction

The Ministry of Education, Youth and Sports of the Czech Republic is by the Act No.2/1969 and later regulations the body of the central government responsible for science policy and research and development inclusive international co-operation. The Ministry is furthermore responsible for the implementation of the research and development tasks resulting of generic obligatory regulations. Such regulations in which the Government explicitly lays responsibility to some other body make the only exception.

The progress of science, research and development plays an important role in the efforts aiming at the increase of material and intellectual standard of the society. Its support is a manifestation of educational and cultural level of the state. It is the state that is responsible for the establishment of legislative and financial conditions for research and development and for the purposeful execution of state administration in this field. Research and Development Council of the Government of the Czech Republic (further also "Council") - professional and advisory body of the Government - performs an important role in all these spheres.

The Council was established in 1992 by the Act of the Czech National Council on the State Support of Scientific Activity and Technology Development (amended in 1995 and completed in 2000).

3.10.2. Providers

Research and development in the Czech Republic is funded by the state and by industry. The development of the R&D expenditures is presented at the following table. During the short

history of its development (from 1990) there could be find various changes. In 1990 total research and development expenditure abruptly decreased and since the end of that year their level was stable. In 1993 the last reduction of total research and development expenditure occurred, in 1994 the trend way halted and then, in 1995, the expenditure was raised again. It was expected more interest and related investments into science and technology from the side of industry and at the same time there was planned significant increase of the Government support of research and development.

Table 10: Distribution of the research and development budget (CZK,%)

		1994	1996	1998	2000
GDP	(bn)	1182	1572	1798	Estimation 1880
Total means for R+D ¹	(bn) ¹	12,983	16,257	22,865	
R+D in % from GDP	%	1,1	1,03	1,27	
From this state means ² ,	(bn) ²	4,216	4,868	8,731	11,576
	%	32,5	29,9	38,2	
Governmental sector	%	28,5	31,1	25,7	
Higher education	%	4,5	8,9	9,5	
Industry	%	66,0	59,9	64,6	
Others	%	1,0	0,1	0,2	

1 Source: Czech Statistical Office (used by OECD statistics)

2 Source: Research and Development Council of the Government of the Czech Republic

Distribution of the financial means for research and development

Since 1993, the Council according to the law annually compiles the proposal for the allocation of the state funds to research and development. R&D in the Czech Republic are financed from 20 budgetary chapters of individual ministries, other central bodies and institutions (the Academy of Sciences of the Czech Republic and the Grant Agency of the Czech Republic). The distribution of funds among these chapters and further distribution for the targeted support of programmes, projects, grants and institutional support of research plans and activities is the significant assignment of the Council.

The proposal for the money allocation into the individual budgetary chapters of the state budget is compiled by the Council on the basis of the assessment of the documents obtained from the administrators of the budgetary chapters. Mentioned documents include the requirements of individuals sectors of the national economy (ministries) for institutional support of R&D organisations (on the basis of their research plans) and requirements for the targeted support of programmes and grant projects. Since 2000, the Council is governed apart from still valid regulations, also by the provisions of the National Research and Development Policy of the Czech Republic. The Council considers the requirements of all ministries and compare them with the possibilities of the state budget for the relevant year. After discussion with administrators of budgetary chapters Council compiles the draft budget taking into account both the sum of the requirements and feasibility from the point of view of the budget as a whole. The draft budget is submitted to the government and through Ministry of Finance it is included into the draft budget of the state. After final approval by the Government and Parliament the Ministry of Finance allocates the earmarked funds into individual budgetary chapters.

As it was mentioned above, state support assumes two forms:

a) **targeted support**, i.e. support of research projects, which succeeded in public tenders of:

"grant projects" that means projects submitted by physical or legal entities and "programme projects" that are projects submitted in the framework of programmes proposed and opened by the administrators of budgetary chapters and assessed by the Council.

Targeted funds are provided by the administrators of the state budget chapters in two forms:

* As grants for legal entities or physical persons for the support of projects, the results of which are determined to be public for the needs of the state administration bodies and/or other users

* As loans for legal entities and physical persons for the support of projects the results of which are determined for one user only (except of the results determines for the state administration bodies' needs).

Public tenders for the provision of targeted funds including rules and criteria for the assessment of the project proposals are publicised by the administrators of the state budget chapter.

Table 11: Distribution of the targeted funds according to the research fields in the year 2000 (in millions of CZK)

Research field	Social sciences	Technic.sciences	Natural sciences	Medical sciences	Agricult.sciences
Target. Funds	563	1712	1903	622	332

b) institutional funding. Organisations of R&D are provided by research funds from the budgetary chapters of relevant central bodies (establishers) on the basis of their research plans. Assessment of the research plans and their results is the responsibility of the establisher and the Council.

Table 12: Division of the state funds developments (institutional funds and targeted funds, in millions of CZK)

Year	1993	1994	1995	1996	1997	1998	1999	2000
Inst. Funds	2080	2567	2762	2656	3335	3451	4861	5636
Targeted funds	1920	1649	2106	3577	4218	5280	4810	5940

Grant Agency of the Czech Republic

The Council substantially participated in the establishment of the Grant Agency of the CR and constantly co-operates with it. The Grant Agency was formed in 1993 according to the act No 300/1992. It supports the best projects from all branches regardless of the legal form and/or administrative classification of the project holder on the basis of publicising public tenders for "standard" research and development projects the topic of which is chosen by the proposing person or organisation.

Since 1997, the Grant Agency also publishes the tender for the grants for the graduates of doctorate studies to support young research workers.

In compliance with the National research and Development Policy of the CR the Grant Agency has published the tender for projects of no-oriented research and development for the year 2001.

The Grant Agency of the CR:

- is in the position of a central body of the state administration for the budgetary (financial) purposes;
- publishes tenders for the support of R&D projects proposed by physical of legal entities and for the support of projects implementing its programmes;

- provides funds on the basis of the results of a public tender;
- provides the evaluation of project proposals by professional committees and funds selected projects;
- uses organisation and manner of making public a tender in accordance with its Statute approved by the Government.

Table 13: Division of funds provided by the Grant Agency of the CR according to the type of funded organisation (in percentage, year 2000)

Organisation	Academy of Sciences of the CR	Faculties of higher educ. institutions	Independent research institutions	R&D enterprises
%	42,7	44,2	5,6	7,5

3.10.3 Performers

Organisation performing R& D and S&T are: higher education institutions, Academy of Sciences of the Czech Republic, industry, independent research organisations (under direct control of respective ministries and other central bodies of government) and research associations and unions (non-governmental organisations). The main performers as regards percentage of the overall research activities are the first three ones. According Frascati Manual all the research and development activities at higher education institutions and in the Academy of Sciences are taken as the scientific investigation whereas research and development operations in industry facilities and in the ministries organisations are regarded as the target-oriented research and development.

3.10.4 Research in the higher education system

For the period since 1990 Czech higher education institutions have been characterized by the effort to renew the principle of the unity of teaching and research. The disruption of this principle occurred in connection with the establishment of the Academy of Sciences in the fifties, the result of which was the restriction of the research capacities of the higher education institutions. In keeping with this effort the new Act also formulates as a key task of higher education institutions that they "preserve and multiply knowledge achieved and cultivate according to their type and trend scientific, research, development, artistic or other creative activity".

The aim of the transformation in relation to research in higher education institutions was necessarily the increase of its share in the total activities and in the structure of state-wide research. At the same time it aims at raising the quality. An inevitable prerequisite for achieving the aims set in this field is the renewal of the complete freedom of research, exchange of information and facilitating the necessary contacts with foreign countries which occurred immediately at the beginning of 1990. The process in question is accompanied by a basic change in the position of higher education institutions in society, their dynamic development and internal changes, including the increase the number of institutions and students and changes in the field structure of higher education studies.

Research is carried out in higher education institutions by their teachers and researchers. Also included in research are students working for master degrees and of course postgraduates working on doctorates. Teachers combine teaching activity with research. According to estimates they devote roughly one quarter to one third of their working hours to research, i.e. 500-600 hours a year. Researchers devote their full working capacity to research, even though they are usually also engaged to a certain extent in teaching. They are included either in the individual departments (chairs) or in the purely research facilities of the higher education institution.

A much discussed question is the number of higher education teachers in relation to the number of students, which was even the subject of analyses abroad. Against this the teaching staff point out that the main obstacle to the more intensive development of research are the considerable demands on teaching activity. A considerable part of the institutional financing is, as a result of the increase in numbers of students, swallowed up by teaching activity. The strange situation then arises where, according to international standards, there is an excessively high number of teachers in the Czech Republic who, at the same time, are complaining of having too much teaching to do. This circumstance can be explained by the different consideration of the role and different concept of doctorate studies in the Czech Republic and elsewhere in the world. In Western universities there is far greater inclusion of postgraduates working for doctorates (and sometimes even students in senior years) in teaching and in research. This makes both processes cheaper and changes the quantitative ratio between teachers and students, the structure of the actual potential of teaching and research is altered and the entire system becomes more flexible. In many higher education institutions they have already embarked on the path to a similar concept of the work of those studying for a doctorate.

A factor acting positively on the achievement of the aims mentioned above is the promising development of co-operation between the higher education institutions and the Academy of Sciences. This co-operation can be seen in the joint participation of staff of both institutions in research and tuition, especially in studies for doctorates, membership in management bodies of partner institutions and the establishment of joint facilities, but especially in the participation in joint research centres and projects. Promising opportunities for the mutual co-operation of the Academy of Sciences and higher education institutions are opened up by the new Act with its provision that "the accreditation of a study programme may be applied for, together with a higher education institution, by a legal entity with residence in the Czech Republic which deals with educational and scientific research, development, artistic or other creative activity". It is to be presumed that the institutes of the Academy of Sciences will make use of this opportunity and that higher education teachers will also be included in their activities. On both sides there is the will to support mutual communications and mobility. Efforts are also being developed jointly to create a system of evaluation concerning institutions and individuals, which would relate to the whole of basic research.

Co-operation with research in the business sector is proving less successful. This is clearly due to the low demand for the results of research on this side, as well as the present situation of the research facilities of the business sphere which for the time being, due to its own problems, does not show any interest in developing co-operation with universities on a broader scale. Research "to order" in the form of secondary economic activity is actually so far the main type of co-operation with industry.

In general it may be said that in the majority of higher education institutions the position of research has improved and that research is once again considered the key activity of a higher education teacher.

At the majority of higher education institutions one can see changes in the orientation of research. These are mainly due to the opening up to the world of science and the concentration on the main thematic trends, and also the entry to international research networks. A further influence here is the importance of the research projects themselves, the shift in the values and requirements of society. The influence of the requirements of the business sphere on the direction taken by higher education research is practically negligible. The division of research potential of higher education institutions between basic and applied research or development can be estimated at around 2/3 to 1/3 in favour of basic research.

The development of research in higher education institutions is also accompanied, however, by serious problems not only as regards staff, but also finance, which are mutually closely

connected. The basic factors are the budgetary restrictions which, with the given system of financing of higher education, lead to the institutions having to restrict the means for research in order to safeguard teaching. This also appeared, for instance, in the restriction of the numbers of auxiliary staff in research. Research is, however, also being abandoned by qualified researchers due to the more advantageous wage conditions in the business sphere.

Certain indications of a positive change can be predicated to the increasingly wide implementation of the grant system, the introduction of which means that research is gradually becoming advantageous activity for higher education institutions. Grants also serve for the acquisition of new equipment for research and thus also for teaching. The success of an institution in the grant contest has, then, considerable economic importance, which is often decisive for its further activity. Financing by means of grants in this sense ceases to be merely supplementary. Contributions from foreign grants - as the result of the increasing inclusion in international projects - are especially high with regard to the present exchange rate of the Czech crown. In some higher education institutions the financial incomes from foreign grants are higher than the total amount of domestic financial means. The benefit of internal and foreign means acquired outside the higher education budget represents an important step towards multi-source financing. A far from unimportant part is played here by the Grant Agency of the Czech Republic with its own chapter of the state budget from which it supports research and development projects, especially in the sphere of basic research. The share of the grants acquired from this source by higher education institutions has varied since 1993, when it amounted to 47%, around 41 - 43% (in 1996). Here it must be taken into account that the majority of the successful projects (around 70%) in the selection of the Grant Agency of the Czech Republic are dealt with by several institutions in co-operation, so that the higher education institutions also have a certain share in the remaining grants awarded. Also a considerable contribution was the establishment of the Fund of Higher Education Development which is created from the higher education budget. It is managed jointly by the Ministry of Education, Youth and Sports and the Council of Higher Education Institutions and it helps to finance more extensive projects mainly dealing with problems connected with the general development of higher education institutions.

On the background of the processes mentioned the research profile of the individual higher education institution is crystallised. Higher education institutions are basically clear about the long-term programme connected with this profile, which can be seen from the development plans elaborated by them recently.

3.11. FINANCIAL ASPECTS

3.11.1. Introduction

Until the year 1990 higher education institutions were fully financed by the state. Allocation of the state budget among particular institutions was based on the incremental rules. At that time it was obvious that this financial mechanism allowed to allocate money not on the real needs and requirements of institutions but it was strongly influenced by many side aspects. All of them were related to the position of leading institutional authorities in the political scene, to the interests of persons highly placed within the just one leading political party etc.

It was clear that this way deformed incremental mechanism could not be used in any possible modification for the higher education system development under new conditions after 1990.

The higher education act of 1990 dealt with the economic questions of higher education institutions only in a very unexplicit outline. The higher education institutions were according to it financed from state resources. At the same time it was permitted to acquire means for their activity from other sources and carry on economic activity.

There was accepted the practice that the amount of means from the state budget to appropriate higher education institution become fixed by the mechanism of mutual agreement between the Council of Higher Education Institutions and the ministry of education. This was accordance with the act in question on the obligations of the ministry and the competencies of the Council. According to this a so-called Representative Commission was formed (composed from the representatives of the ministry, Czech Rectors' Conference, Council of Higher Education Institutions and registrars) which dealt very seriously and intensively with budgetary regulations and tried to adjust them in such a way that it were as fair as possible and suited all the higher education institutions. For just one year, the budgetary regulations were passed purely on a normative method. Later on the basic part of the contribution for an individual institution was fixed according to the output formula (number of student x cost of study). The further part of the contribution, amounting to 10-15% of the total volume of means, was meant for the motivation of the research activity of the institution. Only a relatively small part of the contribution is allocated on the basis of non-normative components (for example contribution for student accommodation and boarding) .

The new Act, as has already been stated, transforms the present state higher education institutions into public institutions and thus fundamentally alters their financial management concerning property and also budgeting. It is presumed that in the future also the basic part of the budget of a public higher education institution will consist of the state subsidy. There should also be more implementation of other incomes, yields on property, other incomes from state budget - from state funds and the community budget, yields from auxiliary activity, incomes from gifts and inheritance and from different study fees.

According to the new Act a public higher education institution is entitled to a state subsidy with the limits defining what this subsidy may be used for. It also adjusts in outline the regulations according to which the subsidy will be determined.

The above-mentioned auxiliary activity from which the public higher education institution may acquire further means can, therefore, be carried on for payment. It is defined by the Act as activity which serves the more effective use of human resources and property, but which must not threaten the quality, extent and accessibility of the activities for which the public higher education institution was established.

A private higher education institution is obliged by the new Act to ensure financial means for its activity. The Ministry may provide such an institution with a subsidy only in the case that it acts as a non-profit institution. Similar criteria to those valid for a public higher education institution are used to determine the level of the subsidy in such a case.

3.11.2 Institutional finance

3.11.2. 1 Funding mechanism

The number of students and the financial demands of the accredited study programmes continues to be decisive, but apart from this the new Act introduces a new and a very important element, this being the long-term development plan of the public higher education institution. Its content and accordance with the long-term plan of the state will play an important part in the determination of the level of the state subsidy allocated.

Construction of the lump sum of the state money for particular institution is set on teaching and research performance. The main part of the budget for teaching is based partly on the formula (it is expected that for several years this part will stay the major one) and partly on contract dependent on the coincidence of both institutional and state plans. The only small part of the teaching budget is allocated on the non-normative rules. Research budget consists basically also from two parts - a part related to so called non-specific research and a part based on specific research purpose.

3.11.2.2 Teaching normative part

This part of the basic lump sum is derived from the volume of teaching activity. It is calculated as a product of normative number of students of particular higher education institution and basic normative (cost of study) of a study programme. Normative number of students can be found as a sum of all students in all study programmes of higher education institution taking into consideration the coefficients of particular study programmes. Basic normative/tariff means the amount of money which can be obtained by dividing the total state budget devoted to teaching activities by the normative number of all students in higher education sector. For the purpose of budget allocation the study programmes are ranked into the six groups of the different coefficient which should express the different costs of study programmes belonging to particular group. The highest normative is 3.5 times more than basic one the value of which is 1.0.

Input data regarding the number of students are taken from the students' registry including all needed details as numbers of students supported from other state sectors or foreign students studying in foreign languages the study of which is not paid from the state budget (see below) or they are paid in the framework of international agreements etc. There are also specific rules (approved in details annually on the basis of negotiations of the Representation Commission) concerning the involvement into the total number of the newcomers, so called special students who are those studying longer time than standard length of appropriate study programme, students studying more than one study programme at the same institution etc.

It is necessary to mention that during several recent years there has been adopted the agreement among higher education institutions and the ministry annually reached on the basis of serious debate of the above mentioned Representative Commission on the respected increase of the number of students which is valid for individual institution. Respected increase means that institution is not limited in its plans but only the agreed increase of students is paid from the state budget. This very unpopular constraint is caused by the limited state funds on the one side and the requirement of higher education institutions not to allow decrease the basic normative for one student on the other side. The individual institution is fully responsible to decide on the total number of students and on the increase of the number of students in particular study programmes provided. The following table demonstrates the groups of study programmes, appropriate coefficients and real costs expressed in the Czech crowns.

Table 14: Normatives

Field of study	Coefficient	Normative in CZK
Economy, law, humanities	1,00	27 620
Teacher training	1,20	33 144
Engineering, mining, geology	1,65	45 573
Architecture, natural sciences,	2,25	62 146
Chemistry, medicine	2,80	77 337
Veterinary medicine, arts	3,50	96 671

Financial means for artistic study programmes (there are special higher education institutions deal with study programmes of this type, see Table 1) are financed by different rules. There decision exists that appropriate part of the budget is allocated among these institutions taking into consideration the number of students and related normative.

Described mechanism, fully input oriented, seems to be very clear and simple. In theory it is so but in practice there is a long time continuing complicated and exhausting debate on normatives/tariffs of study programmes and their grouping. It was improved that to retain the establishment of Representative Commission composed of delegates of the ministry,

representation of higher education institutions and registrars was the wise idea. It makes the best to reach consensus on tariffs for mentioned six groups of study programmes and all other issues concerning allocation of the means from the state budget.

Anyway, faculties as main providers feel themselves underestimated in all cases without consideration what type of study programmes is in question. The main reason of this fact is not bad decision on tariffs but still quite low state subsidy for higher education in general. There is not possible to compare the real money (given for instance in the report of the Netherlands). Suitable indicator for comparison might be the percentage from the gross domestic product devoted to higher education (having in mind that Czech domestic product is not sufficient and so even in the case of comparable percentage is not fair to speak about comparable conditions).

3.11.2.3 Teaching, non-normative means

Teaching dependent on the long-term strategy

As it was mentioned the new important and gradually increasing role in money allocation should play the agreement of an institution's long-term plan with the long-term plan prepared by the Ministry of Education. It is still very new feature of the funding mechanism and it is not possible to speak about any experience in this field.

For the year 2001 there is proposed to allocated CZK 450 millions on the basis of developmental programmes. There are several main ideas of these programmes: support of bachelor study programmes provided in co-operation of higher education institution and higher professional school, support enabling increase of doctoral scholarships, new bachelor study programmes fitting to the society interests and enabling implementation of Bologna Declaration, support of lifelong learning using new modern technologies, additional support (to EU educational programmes) of mobility of students, support of study programmes focused on teacher training. The rules for particular programme including guidelines how to apply have been worked out (January 2001).

Other non-normative financial means

This part of the overall grant is divided into several categories:

- Scholarship for postgraduate students (students in doctoral study programmes) expresses the support for the development of this type of study. There is set the fixed grant related to one student which is CZK 60 000 per one year while total grant is obtained on the basis of proposed number of the total number of full time doctoral students. The balance between proposed situation and the reality is made during the second half of the year in question.
- Grant covering expenses of foreign students studying in the framework of international agreements and programmes is calculated on the basis of the real situation concerning the number of students, appropriate study programmes, needed scholarship etc.
- Costs connected with capital investments approved for the year in question.
- Special grant called Fund of Educational Policy is used for developmental activities or support any specific important intention. The Minister is responsible to decide about the means allocated from this Fund.
- Fund of the Higher Education Development is well established internal higher education grant agency. This Fund is steered jointly by ministry of education and Council of Higher Education Institutions. Thematic priorities are set annually (usually less than six of them) and institutions are invited to submit proposals of projects. There is highly selected evaluation provided by commissions established again jointly by the ministry and Council. Under this scheme there is allocated about CZK 200 millions.
- Fund for possible solution of any type of breakdowns and accidents contains about CZK 50 millions.

- Last but not least there is grant devoted to student accommodation and boarding. There are settled tariffs for one student meal and average cost of accommodation. Grant (approx. CZK 780 millions) is allocated to the appropriate higher education institution as a lump-sum and should be used just for this designated purpose.

Note: The total grant for higher education during recent four years have reached about CZK 10 billions.

3.11.3 Funding of research

3.11.3.1 Non-specified research

A higher education institution receives grant devoted for so called non-specified research. The purpose of this financial means is to support any type of research, development or other creative activity closely connected with education. Responsibility to decide on the total amount of this money is in hands of the Research and Development Council of the Government of the Czech Republic and during the recent years it is around 8% of the total expenses devoted to research and development from the higher education budget .

The mentioned grant is allocated to the particular institution on the basis of the formula using following indicators: sum of money received by the institution from research and developmental projects, the ratio of professors and associated professors to the total number of teachers, the ratio of graduates from doctoral study programmes to the total number of students of the institution. To avoid oscillations of the grant made by possibly different situation from one year to another there are taken into consideration above mentioned data valid for last two years.

Making clear what type of projects can be involved into the calculation there is provided quite detailed guidelines by the Ministry.

3.11.3.2 Institutional money for research plans

This grant (newly introduced in 1998) should increase the research support and harmonise gradually institutionally supported research and development with relevant situation in EU countries. The amount of money devoted to research plans is settled again by the Research and Development Council of the Government of the Czech Republic and it was CZK 1,2 bn for the year 2000 which represents financing of 318 research plans. There were worked out Rules for evaluation of the plans and their results and approved in the form of the Governmental Decree. There were established four evaluation commissions which cover following research fields: social sciences, natural sciences I (mathematics, physics, earth sciences, agricultural, ecology), natural sciences II (biology, chemistry, medicine, pharmacy), technological sciences. Before starting evaluation of the individual research plan the commission requires to receive independent expert view from two Czech and two foreign experts. As the process of evaluation is in the beginning it is too soon to speak about its results or experience.

3.11.3.3 Developments - research centres

Among the main development it should be involved the new programme “Research Centres”. The main aim of this programme is to deepen quality of the particular fields of R+D a to support those of them which can approve home facilities. It will enhance the co-operation of different sectors of the R+D (preferably institutions of Academy of Sciences of the CR, higher education institutions, other research institutions and industry) that is still insufficient. The effort will be paid to the collaboration in the research training PhD students, young researchers and to development conditions for close co-operation of the above mentioned institutions. In addition, it will be required involvement into the international research networks. In the case of oriented research centres it is expected that their results will be used in practice.

Goals of research centres:

- To concentrate capacities on the selected research targets, to accept the long-term requirements of users and to take into consideration the regional needs
- To focus financial means on the limited number of centres
- To increase financial support of young researchers
- To support collaboration of teams composed of researchers from different institutions

For the year 2000 it was allocated CZK 375 millions and the estimation is to double this amount during the near future.

3.11.3.4 Targeted money for research and development

Research money conveyed for specific research purpose are used mainly for support of projects running within a number of programmes. There are programmes approved by the Research and Development Council of the Government of the Czech Republic and financed on the basis of its decision:

- Development of R+D Information Infrastructure
- Strengthening of Development at Higher Education Institutions
- Access to R+D Results in the Czech Public
- Popularisation of R+D
- Research Centres (explicitly mentioned above)
- Information Sources for R+D
- Development for the State Administration Purposes
- Research required by the ministry of education

All of these programmes, with exception of the second one, are open to any legal or individual entity. Research and Development Council of the Government of the Czech Republic is responsible to approve selection process.

Another purpose to which the money are devoted is the support of projects solved within the framework of international programmes. The main attention has been paid to the projects of the 5th Framework programme (previously the 4th Framework programme). Besides that Czech higher education institutions participate in further international programmes COST and EUREKA while another programmes - INGO (International non-governmental organisation) and KONTAKT enable to receive support from the state budget for the research international collaboration.

3.11.4 Capital investments

The special part of the state contribution is devoted to the capital investments. It has been allocated under individual plans of higher education institutions. This idea was strongly supported by the new Act and its requirement to submit long-term plans that should, of course, to include plans concerning capital investments. Agreement among state and institutions' long term plans should be found and it should create basis for capital investment distribution. As regards the total sum it was relatively constant for several years reaching about 10% of the total sum of the state contribution for higher education. The significant change occurred in planning budget for the year 2001 when capital investments increased by about 50% in comparison with the year 2000. The decision was made to devote about 30 % to facilities while the rest should be devoted to the new buildings construction or to the deep reconstruction of the current ones.

3.11.5 Student support and tuition fees

3.11.5.1 Student support

There is not financial assistance to students neither specially organised possibility of students' loans at the national level (state guaranteed).

Among students rights there is stipulated by the new Act that is to be granted a scholarship from financial means of the higher education institution. In this case conditions for granting a scholarship given in the Scholarship Rules should be fulfilled.

Scholarship can be covered from the grant provided to the institution by the state in the case of:

- excellent study results
- results in research, development or other creative activity which can contribute to enhancement of knowledge
- poor social situation
- other cases worth of special consideration.

Scholarship covered by the state grant can also be provided to:

- support Czech citizens studying abroad
- support foreign students in the CR
- support students of doctoral study programmes.

Ministry can provide scholarship within established programmes. In this case it uses similar conditions mentioned above taking into account obligations coming from international treaties.

3.11.5.2 Cost to students

In principle higher education in the CR is free of charge. The new Act introduces study fees for students of public higher education institutions with a provision, the wording of which is based on the compromise proposal accepted after very long and serious discussions by the greater part of all participants of legislation and by political representatives of the Czech Republic. A public higher education institution can set the fees for entrance proceedings, the maximum level of which is determined by the new Act (approximately up to CZK 500). Students who study more than a year longer than is determined by the study programme will pay. As far as this type of fees for studies are concerned, the minimum limit is prescribed by the new Act and the maximum amount is left to the consideration of the higher education institution itself. The value is derived, if the amount of fees is limited, from the average non-investment costs per student from the state budget. Above mentioned payments are meant for an income of the scholarship fund of the appropriate higher education institution. The institution may also request payment for foreign students if studies are realized in a foreign language; the amount of this payment is not prescribed by the new Act. In addition the new Act gives the rector the possibility of reducing, waiving or deferring the terms of part payments according to the principles which are presented in the statute of the higher education institution.

Higher education institution may or may not ask for fee for courses provided life long learning. These courses are running beyond the scope of the accredited study programmes, participants of these courses do not have status of students. Graduates receive certification issued by higher education institution.

For a private education institution the study fees are not adjusted by the new Act, the determination of their amount is completely in the competence of the institution.

3.11.4.3 Funding arrangements for foreign students

Foreign citizens can study at higher education institutions in the Czech Republic on the basis of:

- an international cultural agreement between the appropriate state and the Czech Republic
- international aid of the Czech Republic
- individual interest and at their own expense.

The Ministry offers study stays with scholarships for a maximum duration of one year to foreign students from countries with which it has concluded an international agreement through the government of the other contract party. The Government of the Czech Republic also provides scholarships for bachelor, master and doctoral study programmes, in the framework of international aid. The governments of eligible countries are informed through their embassies about the available scholarships for study places. Foreign students admitted for study in the framework of international aid given by the Czech Republic are awarded a scholarship that is adjusted according to the rate on inflation. In 2000, the scholarship awarded to students taking bachelor and master study programmes is CZK 4000 per month, and for students of doctoral study programmes it is CZK 4500 per month. Candidates admitted for studies in the framework of international agreements receive the same scholarship, unless the agreement specifies otherwise. The scholarship covers only essential expenses (living expenses, food, etc.).

Foreign students who study in the Czech language have the same statute as home students i.e. they do not pay tuition fee at public and state higher education institutions. Rules concerning fee for entrance procedure and fee in the case of prolonged studies are valid for these students as well. A tuition fee is charged by public higher education institutions for study programmes taught in a foreign language. Applicants can obtain definitive, up-to-date information on fees from the academic department of the dean's office of the respective faculty.

The private higher education institutions are free to set their own tuition fee both for foreign and home students.

Foreign students are entitled to live in student halls of residence and eat in student canteens. Alternatively, they may rent private accommodation, but this is more expensive and may also be difficult to find in many university towns.

3.12. GOVERNANCE STRUCTURES

3.12.1 Introduction

Czech higher education institutions enjoy considerable autonomy given by the new Act which ensures their academic rights and freedoms. They are self-governing in a broad terms and steered by the Ministry indirectly by means of allocation of the state budget.

3.12.2 Federal and regional governance

Ministry of Education, Youth and Sports

The Ministry of Education, Youth and Sports represents the state, in relation to higher education institutions. One of the main tasks of the Ministry, just as so far, is the allocation of financial means to individual higher education institutions from the state budget and controlling of their proper use. Arrangement of favourable conditions for the development of higher education institutions and co-ordination of their activities is, according to the new Act, regulated by a provision, obliging the Ministry to elaborate long-term plan of development of higher education system. The Ministry negotiates its plan with plans of individual institutions in order to reach harmony concerning future development. Up-to-date adjustments of the long-term plans are part of the annual report on the state of higher education, published by the Ministry.

The Ministry decides on the accreditation of study programmes, habilitation procedure for the obtaining „*venium docendi*“ and procedures for the appointment of professors and accords state permission to the activity of private higher education institutions. The new Act sets the Ministry tasks concerning the procedures applied against higher education institutions whose measures are in contradiction with the Act. Further tasks concern the registration of internal regulations, i.e. statutes, awarding scholarship from the state budget, recognition of studies and qualifications and the material support of the Accreditation Commission. The Ministry may use information from the Student Register and has to appoint further members of state examination commissions. Legal provisions restrict the execution of the state administration by the Ministry in regard to higher education institutions and acts in the matter of administrative procedures as well.

Research and Development Council of the Government of the Czech Republic

The act from 1992 (see 3.10.1) defines the Council as a professional and advisory body of the Government of the Czech Republic in the research and development sphere, stipulates its tasks and rules for its activity and imposes a number of executive functions on it.

According to the provisions of the act the Council has 15 members who are the public officials. They are appointed by the Government from among prominent scientists and experts from higher education institutions, the Academy of Sciences of the Czech Republic, research institutes of individual ministries and from the entrepreneurial sphere. The term of office of the members is four years and they can be appointed only during two consecutive terms. The manner of the selection of candidates for the membership in the Council and other requirements necessary for the operation of the Council are governed by the Government-approved Statute of the Council and by the Rules of Organisation approved by the Chairman of the Council. The provision of the act requires that the Chairman of the Council must be the member of the Government and he/she is appointed on the recommendation of the Prime Minister. He/she is responsible for the management of the Council activities and for the communication between the Council and the Government.

The activities of the Council are administratively supported and shared by the Secretariat of the Council that is an independent section of the Office of the Government of the Czech Republic. The Secretariat, composed of six members and one clerk in present is headed by its director who is scientific Secretary of the Council. The Secretariat is responsible for the administration of R&D databases: CEP (Central register of state-supported R&D projects), RIV (Register of the results of state supported R&D), CEZ (Central register of research plans of state-supported institutions) and VES (Central register of public tenders for the allocation of the target means from the state budget devoted to the R&D support).

For fulfillment of its tasks the Council settles working groups comprising of the Council members and the secretary added by external experts if needed.

3.12.3 Advisory bodies

Accreditation Commission

The Accreditation Commission as independent body takes care of the quality of higher education and performs comprehensive evaluation of all activities of higher education institutions. It gives its standpoint over the issues related to accreditation. For more details about the Accreditation Commission see 3.13.

3.12.4 Consultative and research bodies

Representation of higher education institutions

Higher education institutions as a whole have their representation constituted by the new Act. The representation is composed of two bodies. In the first one the members are delegated by representative organs of the academic community (academic senates in the case of public higher

education institutions) which corresponds to the former representation established by the act from 1990 uses also the same name - Council of Higher Education Institutions. Private institutions are very active in this body. The second one is made up of legal representatives of the higher education institutions who are at present rectors of public institutions (Czech Rectors' Conference). The representation is an important partner of the Ministry in all key decisions concerning higher education. In particular it is a matter of partner discussions on the budget rules.

Centre for Higher Education Studies (CHES) provides research in higher education and co-ordination of guidance centres working at individual higher education institutions. Three departments of the CHES deal with other tasks (different from research but using obtained research results): National Centre for Distance Education, Centre for Equivalence of Documents about Education and National Agency for Educational Programmes of the European Union – Socrates and Tempus.

3.12.5 Governance in higher education institutions

3.12.5.1 Situation after 1990

To provide higher education system with the new legislation was the first priority after the so called "velvet" revolution in November 1989. The act was worked out very quickly - during several months and accepted by the Parliament of the Federal Czechoslovak Republic. It came into power on July 1, 1990 and opened the way for immediate institutional development.

Important items of the act were:

- reduction of the state influence and state control of higher education to minimum
- confirmation of the academic freedom and academic rights
- constitution of institutional self-government

Provisions of the act established self-governing bodies of the institutions - rectors and their offices, academic senates, scientific councils and set the range of their rights and responsibilities. Further, there were established Council of Higher Education Institutions (democratic representation of higher education institutions) and Accreditation Commission. Ministry was given competencies concerning allocation of the state budget granted to higher education, control its effective use and another limited tasks exactly stated by the act.

In the frame there are settled matters regarding study and academic degrees, including the first step to diversification by introduction of bachelor degree, student affairs, higher education teachers and other employees

The Act was amended in July 1993, when the Act No. 216/1993 was adopted. It brought new regulations under which all instructors without exception are employed under limited contracts (for 2-5 years) and on a competitive basis. The intention was to help improve the quality of academic teaching staffs. Unfortunately, the rules used were too strict and only very hardly acceptable by academic community. Its reaction was extremely negative, provisions of the act were eluded and the main idea of improvement was not reached at all.

3.12.5.2 Higher education act from 1998 (new Act)

The high importance of the higher education act from 1990 was explicit. Rapid development of higher education, changes in economic conditions and overall changes in society, development of the international situation, new demands on harmonisation of higher education studies within EU and last but not least considerable problems not well covered or even not solved by the mentioned act were the reasons for the decision to prepare a new Act on higher education.

The new Act is valid from January 1, 1999. It makes the best of positive provisions of the previous act while incorporates changes to eliminate its shortcomings and to cover until not solved problems.

Its implementation which started in 1999 can be consider as the next reform step within higher education system in the Czech Republic. Several important issues articulated in the new Act are mentioned below.

a) Diversification

The broad diversification concerning higher education institutions and study programmes was introduced. There are three levels of higher education leading to the relevant academic degrees (bachelor, master and doctoral ones). Higher education institutions can be of university or non-university types, both of them can exist as public (almost all those established before 1990), state (military higher education institutions and Police Academy) and private (possible to establish from January 1999). Higher education institution of non-university type provides preferably bachelor study programmes. Higher education institution of university type should offer programmes leading to the master degree and it is focused, of course on bachelor study programmes which are the necessary condition of the access to continuing master study. It is expected that this type of institution provides also doctoral study programmes.

Note:

As bachelor study programmes and higher education institutions of non-university type are new qualities of the Czech higher education system, it is common that higher education institutions established before 1990 are mostly of university type

Diversification opens the way to follow a world-wide strategy - to enable increasing access to higher education using diversified abilities of a high percentage of youth in a relevant age group without decreasing quality. Currently, the number of accepted students doubled approximately from 1989.

The three level organisation of higher education fits quite well to Sorbonna and Bologna Declarations. In spite of this, there are activities within Czech Parliament to prepare amendment of the new Act which would introduce bachelor study programmes as the obligatory first part of all master study programmes with the exceptions on which should decide Accreditation Commission.

Weakness, however, lies in the underestimation of bachelor studies from the side of students as well as employees. The reason for this was based in the past when only long-term university studies were offered. Moreover, the state has still not articulated the position of bachelor study graduates in the job market thus decreasing the public view of bachelor study programmes. In recent years, however, there has been an increase in the number of students in the shorter bachelor's degree courses

b) Quality assessment and assurance

The new Act approved establishment of the Accreditation Commission in a similar way as before, ie. it is a body composed of academic and professional experts nominated by the Czech government and stipulates its new rights and responsibilities For details see 3.13.2.

d) Long-term strategy plans

The new Act requires that ministry of education works out the long-term strategy plan of the higher education system development. Similarly, individual higher education institution is required to do so, ie. to elaborate strategy of its own development. Both ministerial and institutional plans should be updated annually and should be available to the public.

Very high autonomy and self-governance of higher education institutions allow the state's authority indirect steering of the system by means of the state budget allocation based until the year 1999 on the institutional performance (formula funding). The new Act introduces

mechanism which combines previous formula funding with a type of contracts based on the agreement of institutional strategy development with the state one.

Public long-term strategy plans are expected to motivate the Ministry to become more concerned about the future development of higher education institutions. It is hoped also that public plans of higher education institutions will not only increase the quality of education, but also contribute to their transparency and accountability.

c) Property of higher education institutions

The new Act is a continuation of the extensive legislation on economic management of the state property. With regard to these planned changes, the former ownership of the property of the state used by higher education institutions was transferred to their own property. Thus, the institutions were transformed from state institutions into public ones (with the exception of three military ones and Police Academy) having self-government right in the using and dealing with received property. The new Act also states that any higher education institution should establish a Board of Trustees, the main task of which is to give written agreement in prescribed cases (by the new Act) for managing property prior to the rector's decision (more about the Board of trustees see 3.12.5.3). Higher education institution as a public entity has more freedom in terms of its budget and its ability to seek out diversified financial sources. It is expected that the Board of Trustees will ensure the effective management of institutional property.

3.12.5.3 Internal management of higher education institutions

The main framework of institutional government and organisation is stipulated by the new Act. The majority of higher education institutions in the Czech Republic are traditionally divided into faculties. A different system of division at this level is exceptional. By the higher education act of 1990 the faculties were given the status of legal entities. This great decentralization, in some respects and in some higher education institutions possibly useful at that time, brought considerable problems in the management because of the same legal status of the institution and its components - the faculties. This structure has been modified by the new Act. Only the higher education institution is a legal entity, but the new Act stipulates in which matters faculties have the right to make decisions or act on behalf of the higher education institution. A most diverse division of higher education institutions is presumed - into faculties, institutes, other centres for teaching, research and special purposes. The new relationship between the higher education institution and its faculties contributes to the higher integrity of the institution and, hopefully also to its better functioning.

The above description does not valid in the case of higher education institutions of non-university type which are not divided into faculties.

At the head of the higher education institution there stands a rector. The rector of a state and public higher education institution is appointed by the president of the Czech Republic on the proposal of the academic senate.

Self-governing academic bodies are the academic senates, scientific councils and, which are new, disciplinary commissions. The composition of self-governing bodies is left practically completely in the competency of appropriate institutions. In academic senates the new Act stipulates only the minimum and maximum representation of students (from one third up to one half of the total number of members) and in scientific councils the minimum (one third) representation of external members .

The academic senate of a public higher education institution is its independent democratic and representative academic body. The members of the senate are elected from the academic community. The membership in the academic senate is incompatible with the duties of the rector, vice-rectors, deans and vice-deans. Senate is very important and powerful body. Its main decision-making duties are to approve annual budget presented by the rector, to decide on the establishment of the new units of the institution, to approve internal regulations of the

institution and its parts and to approve long-term plan of the institutional development. The new Act further determines a list of additional matters which should be approved by the senate and the others which needs senates' statements before they are approved by another body (rector or scientific board).

Members of the scientific board are appointed and dismissed by the rector who is its president. The main duty is to perform in procedures for the appointment of professors and procedures for obtaining "venium docendi" (habilitation) in the extent provided for by the new Act.

The new legal arrangement is based on the fact that the distribution of authority and responsibility for the activity of the higher education institution was not sufficiently balanced among the bodies mentioned. Therefore, some changes were made in this sphere. Of the most important changes one might mention the procedure of approving study programmes. As opposed to the past, it has been entrusted to the scientific councils after discussion in the academic senates. On the other hand, the academic senate have been entrusted with approving of aims of the long-term plan after they have been discussed in the appropriate scientific councils.

An important change in the management of higher education institutions which appears both at state level and also in their internal organization and the division of decision-making competencies is the establishment of a new body - the Board of Trustees of the public higher education institution.

Of various possibilities how to constitute such a body, its nomination by the Minister was preferred. Members of the Board of Trustees are nominated, after being considered with the rector, for a period of six years. They ought to be appropriate representatives of the public life, local government and state administration. The further provisions of the new Act regulate the preservation of the continuity of activities of the Board of Trustees and set the obligation to elaborate its statute, which is approved by the Minister.

The Board of Trustees should first and foremost implement and promote the public interest. There should be effective dealing with subsidies from the state budget and the extensive property that was transferred to the ownership of the higher education institution. Decisions about property are subject to rector's approval or to the bodies that are so stipulated by the statute of the higher education institution in question. In certain cases, however, the rector is allowed to decide only after previous agreement of the Board of Trustees: the acquisition or transfer of real estates, legal acts concerning movable items whose value exceeds a certain sum determined by the new Act, legal acts establishing a legal entity and enabling investments in such entities. The Board also gives its opinion on the budget of the higher education institution and on the annual financial report.

Taking the initiative and consultation activity are also expected of the Board of Trustees. For this reason, the Board should express its opinion both of the long-term plan of the higher education institution and of the annual report on institutional activity. It should make in public its suggestions of the activity of the higher education institution and forward them to the academic senate for its opinion.

Via the activity of the Board of Trustees, it is also expected that higher education will be more open to public interests and to all stakeholders.

In spite of the serious doubts during the preparation of the new Act and still short time of functioning of this new element in the management of higher education institution there was declared quite good experience of the majority of higher education institutions. It seems the expectation that it would have a considerable and effective influence on the activity and financial affairs of higher education institutions would be fulfilled.

There is similar composition of management at the faculty level except of Board of Trustees which exist only at the institutional level. A faculty is headed by the dean appointed by the

rector on the basis of faculty senate proposal (in contrary of the dean elected and appointed by the senate as it was stated by the higher education act from 1990). The rector may dismiss the dean in a very special cases of default of his/her duties only in the case if this act is approved by the academic senate of both faculty and institution. The new Act determines the minimum and maximum of students representation (from one third to one half) and incompatibility of membership with selected academic positions.

As at the institutional level academic senate of a faculty symbolises its independent representative academic body elected from among its academic community. Academic senate is responsible to approve important matters as allocation of financial means, conditions of admission to studies, internal regulations of the faculty, and others listed by the new Act.

Members of the scientific board of the faculty are appointed by the dean who is its president. Again, it is required that at least one third of board members are those outside the academic community of higher education institution involving the faculty in question.

Especially at the faculty level it is important to point out that study programmes should approve scientific board while academic senate is asked to make a statement to this issue.

As it was mentioned above, new position of a faculty within the institution together with precisely determined list of its rights and newly established relationship of rector and dean would contribute to the integrity and a good functioning of the whole institution.

The private higher education institutions are in no way affected by the new Act as regards internal management and their structure is also left open. The Ministry, however, reserves the right to register their statutes in the same way, as is the case with public higher education institutions.

Governance of Czech higher education institutions shared by rector and three other bodies (except Disciplinary Commission responsible only for student problems) seems quite complicated. Rector is given the overall responsibility for the institutional functioning. His chance to manage faculties is slightly better due to newly settled relationship to deans and better integrity of the institution in accordance with new position and by the new Act stipulated rights of faculties. He is still tied by the approval of the academic senate needed for his decisions in practically all important issues. In the other hand the powerful senate is always considered as the assurance of a good balance between the large authority of individuals and democratically elected body and it is highly appreciated by the academic community.

Shift of the responsibility to decide on study programmes from academic senate to scientific board is considered as a very important change and a great contribution to better balance between decision making power of both bodies. Nevertheless, it is obvious that activities of all bodies are highly interconnected (for approval by the scientific board there is often requirement to discuss relevant topic by academic senate and other way round) which is demanding at least on time needed for decision and it may very often cause lack of flexibility. It should be mentioned also that composition of scientific board is strongly influenced by academic senate due to obligation to approve board members by senate before their nomination.

The new body, Board of Trustees seems to be very useful not only for effective use of the property and its treatment but it is considerable contribution to the openness of higher education institutions towards society (which was and to the high extend continue to be really weak point of Czech institutions). Another point of view is, of course, that the governance of the institution is more complicated that is was before.

As it is clear from mentioned above, legislation in the CR plays very important role in functioning of higher education system including institutional governance. Changes are being implemented mainly by means of legislative provisions which are very closely linked to state policy. Modifying type of legislation helps to initiate and to implement reforms which

involves establishments of new institutions, organisation respectively reorganisation their structure, composition of internal governing bodies and their relationship.

3.13. QUALITY ASSURANCE

3.13.1. Introduction

Quality evaluation and its assurance is relatively new attribute of the Czech higher education. Until 1990 the higher education system was extremely unique, all institutions were considered to be the same providing the same type of education leading to the same types of academic degrees. No quality was evaluated even no discussed but on the other side high quality of education was simply declared and announced.

The big change like in many other aspects brought the higher education act from 1990. It established Accreditation Commission and imposed it the obligation to express expert opinion which should be the basis for the decision of the Ministry for the realization of post-graduate (doctorate) studies. Besides these obligations since 1992, the Accreditation Commission has conducted a peer review and a comparative evaluation of faculties in related fields.

As it has already been stated, broad diversification allowed by the provisions of the new Act was an opportunity for the further development of higher education, but also urgent call for the required quality assurance. The Accreditation Commission acquires according to this Act new and greater competencies connected with a number of relevant responsibilities.

3.13.2 Accreditation Commission

The Accreditation Commission is an expert body composed of 21 members. Members of the Accreditation Commission including chair and vice-chair are appointed for a six-year term by the Czech Government on a nomination of the Minister of education. Prior his nomination, the Minister ask for references from the representation of higher education institutions, the Research and Development Council of the Government of the Czech Republic and the Academy of Sciences of the Czech Republic and discuss the nomination with these institutions.

Members of Accreditation Commission should be persons enjoying general authority as experts who are not appointed at the same time to the position of a rector, vice-rector or dean. Accreditation Commission may establish working groups that deals with evaluation of specific matters/activities using jointly agreed mechanism and they are composed of specialists in particular study programme, its form and objective of studies.

The regulations of the Accreditation Commission as well as its work groups activities are given in the Statute approved by the Government. Material and financial means for the activities of the Accreditation Commission are provided by the Ministry.

3.13.3 The main tasks of Accreditation Commission

The new Act requires that Accreditation Commission issues its expert view in the case of application for accreditation of study programmes; application for the right to perform habilitation procedures and procedures for the appointment of professors; establishment, merger, amalgamation, splitting or dissolution of a faculty of a public higher education institution; application of a legal entity for awarding the state permission to operate as a private higher education institution; determination the type (university or non-university) of a higher education institution.

The new Act, however, further entails the Accreditation Commission to general care for the quality of higher education, which consists of the current evaluation of all accredited activities and the publication of the results. It also entails it to elaborate a professional standpoint on

further matters concerning higher education which are presented to it by the Minister for consideration.

3.13.4 Accreditation

3.13.4.1 Accreditation of a study programme

According to the new Act all types of study programmes are subject to accreditation. The award of accreditation of a study programme is a task in the competency of the Ministry, which means state agreement with its realization and including the right to award the appropriate academic titles. In case of non-accredited study programmes, it is impossible to admit any applicants, hold lectures, examinations or award academic degrees.

The accreditation is issued on the basis of an expert assessment submitted to the Ministry by the Accreditation Commission. The assessment should consider both the content of the study programme and the state of preparation of higher education institution or other educational institution to realize the programme. To assure the right of the Accreditation Commission to ask for relevant information and to give to programme provider clear guidance the new Act determines the frame content of the application for accreditation. Moreover, on the agreement with the Accreditation Commission, the Ministry issues the decree detailing the contents of the written application for study programme accreditation.

The Ministry is bound by the new Act not to award accreditation in the case of a negative assessment of a study programme, in the case of positive assessment it is bound by an explicit list of possibilities when it may refuse to award accreditation.

An accreditation of a study programme is awarded for a limited period which is at most double of the standard length of study. In the case of doctoral study programmes it should not exceed ten years.

Validity of an accreditation can be extended repeatedly if corresponding conditions of provided programme can be assured. A higher education institution can cancel and accredited study programme only if it provides students with an option to continue their studies in the same or a similar study programme at the same or another higher education institution.

To open space for providing higher education studies also to institutions different from formal higher education settings the new Act stipulates that any legal entity dealing with educational, research, developmental, artistic or other creative activity may ask for accreditation together with a higher education institution. Request for accreditation should be supplemented by the contract on mutual co-operation while providing a joint study programme. Mentioned type of legal entity may ask for accreditation independently as well. In the case of positive standpoint of Accreditation Commission Ministry should invite proper higher education institution to collaborate and to make contract in this sense.

The background for the idea to enable collaboration in providing study programmes was to invite Academy of Sciences of the Czech Republic to be highly active in doctoral study programmes. Side effect for present time but probably very important possibility in the future will be collaboration of higher education institutions with higher professional schools, but first of all with enterprises and other entities which would be able to influence higher education in a positive way and, hopefully, to help to find diversified sources.

3.13.4.2 Accreditation of habilitation procedures and procedures for the appointment of professors

Higher education institution or its unit has the right to carry out procedures for obtaining “venium docendi” (habilitation) and procedures for the appointment of a professor only on the

basis of accreditation. A similar mechanism to that for study programmes also applies in the case of both mentioned procedures.

3.13.4.3 State permission

New obligations arise for the Accreditation Commission as a result of the possibility of establishing private higher education institution. A legal entity with domicile in the CR which decides to act as a private higher education institution, must submit to the Ministry an application for *state permission*, the necessities for which are precisely specified by the new Act. One of these is the proposal for the study programmes, which it intends to realize. Before deciding on the granting of state permission the Ministry requests the Accreditation Commission for its expert standpoint on the study programmes submitted which is procedure described above. The new Act again states explicitly the list of possibilities when the Ministry does not accord state permission, one of these being the disapproving standpoint of the Accreditation Commission.

3.13.4.4 Possible consequences

If shortcomings while providing accredited activity occur the Accreditation Commission is empowered to require improvement in due term.

If Accreditation Commission discover serious shortcomings in the case of study programme provided it proposes to the Ministry relevant restriction. Ministerial restriction can consist in a ban of admission of new applicants to the study programme in question or in termination of accreditation which means a ban of on performing state examinations and awarding academic degrees or in withdrawal of accreditation. If the reason for restriction is eliminated (except of withdrawal of accreditation) the Accreditation Commission invites the Ministry to cancel measures taken.

In the event of temporary termination or withdrawal of accreditation of a study programme, the higher education institution is bound to provide students with the possibility to continue their studies in the same or a similar study programme at the same or another higher education institution.

3.13.5 Evaluation of quality

3.13.5.1 External evaluation

The accreditation of study programmes, procedures for obtaining “*venium docendi*” and procedures for the appointment of a professor and state permission needed for running private higher education institution is certainly quite rightly considered a very effective means for ensuring the quality of higher education.

These provisions that require Accreditation Commission to take care of the quality of higher education and to perform comprehensive evaluation of educational, scholarly, research, developmental, artistic or other creative activity of higher education institutions are not a new or fundamental change for its activity. It has been evaluating the quality of higher education ever since it was established, even though the act valid until 1990 did not expressly prescribe it this activity.

Since 1992, the Accreditation Commission has conducted a peer review and a comparative evaluation of faculties in related study fields. For this purpose it elaborated mechanism which enables to follow similar steps in particular evaluating process and would help to institutions as a certain type of a guide:

- Determination the group of faculties of similar study field and the member of Accreditation Commission responsible for the evaluating process
- Establishment of working group and its approval by the Accreditation Commission

- Information of the management of competent higher education institution about evaluation of its faculty, request for collaboration of faculty being evaluated with the working group
- Request for providing proper information (self-evaluation report) submitted to the faculty management
- Preparation of the site visit, possible standpoint of faculty management to the group of visitors composed from at least three members of working group
- Self-evaluations are compared with reality during the site visit and followed by writing a report
- Information of the faculty management on the preliminary proposal of conclusions and recommendations
- Elaboration of the final report regarding all evaluated faculties
- Debate on the evaluation process with higher education institution and faculty representation
- Presentation of final conclusions and recommendations together with references of evaluated faculty to the Ministry and making it public.

Evaluation is focused on the overall activity of the faculty and conditions under which it is provided. To be well informed and to receive proper basis for evaluation Accreditation Commission (working group) requires data on :

- * General characteristic of the faculty (educational aims, main strategy tasks in research and development).
- * Organisational structure and staff (division of faculty, numbers of employees, academics, members of boards etc.).
- * Equipment of its units (laboratories, libraries, ICT facilities, etc.).
- * Economic affairs (division of the budget and expenditures, student sholarships, students hostels and canteens).
- * Study programmes from the point of view of students (learning system, possible transfer among programmes, examinations, entrance conditions, numbers of graduates, guidance, lifelong learning etc.) and from the point of view of teachers (study texts, international collaboration, requirements for habilitation and appointment of professors etc.).
- * Research and development activities (characteristics, collaboration with other research isntituons, publications, home and international granted projects, international mobility etc.).

The main aims of the evaluation are:

- * To develop important aspects for the conceptual approach of evaluation and to establish a framework for possible comparison within the evaluated group of faculties.
- * To create a database providing information both on the group of faculties development as a whole and on the development of particular faculty with respect to specific differences, missions and aims.
- * To appreciate faculty's long-term plan in connection with follow-up evaluation procedure.
- * To offer recommendations leading to elimination of weaknesses and overall improvement.
- * To use evaluation results for driving faculties to improve all their activities (teaching and research).

Since 1990, three quarters of the total number of faculties have been evaluated. There has been a serious debate on the proper use of evaluation results. The prevailing idea is to maintain the improvement-oriented procedure and/or to provide institutions with enough time to improve the negative findings before any decision of punishment is made. Public reports including detailed strenghtens and weaknesses concerning individual faculties as well as relevant recommendations are considered to be the important tolls for further improvement and development.

3.13.5.2 Internal evaluation

The new Act requires any higher education institution to provide regular internal evaluation and to make its results public. Additional requirement is to describe evaluation procedure in more details within the internal regulations of a higher education institution. This is the only very free framework of this obligation and it is left up to the institution how to provide evaluation and how to use its results.

Development in the field of internal evaluation is highly diversified and it varies from very well organised systems to still not very good ones. There is no motivation to share information and good practice among institutions and it is felt as a weakness of the present situation in this field.

3.13.5.3 International evaluation

Czech higher education institutions undertook a number of evaluations provided by international bodies or by foreign institutions. As an example it is possible to put on: quality audit by CRE (Czech Technical university, Palacky University in Olomouc), evaluation by European Association for Veterinary Education (Veterinary and Pharmaceutical University in Brno), evaluation by prestigious foreign university (Czech Agricultural University evaluated by the Agricultural University in Wageningen), FEANI accreditation (received by 25 Czech faculties of technology), IGIP accreditation (received by four higher education institutions), NCFMEA (National Committee on Foreign Medical Education and Accreditation) accreditation (received by all Czech medical faculties) and others.

Mentioned activities are considered very useful for evaluated institutions. Besides that they contribute to better understanding of evaluation importance and offer the new view on different evaluating mechanisms and approaches.

3.13.5.4 Conclusions

The high number of evaluating activities would contribute to reach overall improvement and to create good evaluation environment. On the other side there is a danger of too high working load of those responsible for evaluation of any type at any level leading to negative results.

There is very strong idea in the Czech higher education community that evaluation results should be used (at least some of them) for the accreditation of study programmes. Accreditation Commission keeps its evaluation mechanism under continuous development. It collaborates with similar bodies in foreign countries and uses examples of good practice and adapts them to the Czech higher education tradition and needs.

Another important problem is connected with diversification of higher education studies initiated several years ago which is expected to continue quickly during the foreseeable future. It will be necessary to take more attention to bachelor study programmes and to enrich expert points of view of those involving spectrum of different stakeholders.

4. HIGHER PROFESSIONAL SCHOOLS

4.1 HISTORY

Until the beginning of the 90s there was the sector situated between secondary and traditional university type of education missing in the Czech system. Only short courses (duration of 1 or 2 years) of the post-secondary level were offered by secondary vocational schools until 1996. Since 1991 higher professional schools have been established in the Czech education system. Conception of higher professional studies was developed and subsequently higher professional programmes were introduced at 15 secondary vocational schools in the framework of experiment. In the school year 1992/1993 there were 1391 students studying at 21 higher professional schools. Majority of them (17) were state schools with 969 students

and 4 of them (with 422 students) were private ones. Denomination schools were also established during the experimental stage.

Covered experiment was followed in 1995 by the Education Act Amendment on the system of basic, secondary and higher professional schools together with complete abolishment of post-secondary short courses. In the same time the Ministry of Education, Youth and Sports asked secondary vocational schools for submission of projects devoted to the establishment higher professional courses. It was, in fact, the only way how to continue in providing education on the post-secondary level, even if longer courses (2,5-3,5 years) and so the interest in project proposals was extremely high.

There were appointed commissions the mission of which was evaluation of presented projects. On the basis of evaluation results projects were or recommended or rejected.

There were submitted more than 300 projects and more than one half of them was recommended by the commission to the Ministry of Education for the approval. Due to the great number of higher professional schools established in 1996, during the next years the number of successful proposals was suppressed to a minimum. On the other side, the approval of new education programmes, implemented in already existed higher professional schools has been encouraged.

As a result of described measures higher professional schools of a very different character were established. As concerns their education programmes they meet a broad scale of requirements ranging from rather modest forms of training (substituting the former post-secondary courses) to quite demanding newly conceived programmes, which aspire to become accredited as bachelor study programmes.

Assessment of the present state, problems, estimations

According to statistical data in the school year 1998/99 higher professional programmes are implemented in 168 schools (109 schools are state schools, 47 private schools and 12 denominational schools) and 29 566 students are studying there (18 724 students in state schools, 9 294 in private schools and 1 548 students in denominational schools).

Nearly all higher professional schools implemented full-time programmes while small number of distance programmes were introduced (only in 25% of schools). Most higher professional schools were established as a legal subjects together with secondary vocational schools, only 17% of the overall number were registered as an independent legal subjects. In the schools year 1997/98 no new higher professional school was opened, in the next two school years further higher professional schools were involved into the education network.

Mostly offered study fields of higher professional schools are economics and health care. With the exception of electrical engineering there is less interest in technical fields and due to this fact relevant lower number of students is enrolled (it is quite evident in the case of private schools). Taking into account technical fields in general the difference in the number of students with those studying economics is not so evident.

Generally it can be said that the graduates of higher professional schools would not have problems in finding their jobs in the labour market but there can be different deviations linked to the concrete situation in particular region. It is quite obvious that it will be necessary to monitor continuously changes of the labour market. In the same time there will be important to seek just smooth ways of regulation of future higher professional study fields structure so that overproduction of graduates will not occur anywhere. Close connection of this type of study to the needs of the labour market would help significantly.

In 1997 the Ministry of Education, Youth and Sports and the Czech School Inspection set a task consisting in the monitoring of all existed higher professional schools during three years. Annual inspection reports speak about teaching methods using modern technique, being mostly in good correlation with the goals of higher professional schools and near to teaching

applied at higher education institutions. Nevertheless, problems connected with not fully convenient legislation still have been found.

It was found that the higher professional schools network dispersion is not acceptable. The network was initiated under too liberal conditions and it is inevitable now that it does not correspond with the future needs of higher professional schools in terms of the number of them, their size, structure of study fields and their regional location.

During the recent years several conceptual materials regarding Czech education were produced: conceptual document of the Ministry of Education Youth and Sports of 1994 "Quality and Accountability", the sectoral study "Czech Education and Europe - Strategy of Human Resources Development in the Czech Republic at joining the EU", the analysis of OECD "Report on the Czech Education Policy" and finally the National Policy of Education Development which was, after broad public discussion submitted to the Czech government in the beginning of 2001. All of them became a basis for formulation of goals of the final version of education policy in the field of higher professional education. National strategy is, of course, influenced by the international development and during the last two years the main ideas of Bologna Declaration have played the important role.

Conceptual approach to the issue of higher professional schools requires to implement system of changes to eliminate both legislative and organisation shortcomings. The acceptable solution will take into account both existing different conditions at individual higher professional school, its perspective goals and the needs of higher self-governing territorial units (which have been established in January 2001) which come from the different situation in particular region. It will enable to differentiate existing higher professional schools according to the demand of study programmes and overall expectations of their different mission.

4.2 LEGISLATION

Provisions of the new education act which is expected to come into power from the beginning of the school year 2001/2002 find the necessary framework for the establishment of the new network of higher professional schools network and their educational programmes. Provisions of the act treats mission of the higher professional schools, internal structure and regulations, access to professional education, organisation of studies including frame education programme, right and responsibilities of students and teachers, evaluation of quality, financing and the role of the state represented by the Ministry and the role of the region.

The act stipulates that the length of programmes should be three years and it introduces again post-secondary courses of the length one of two years (they were abolished though amendment of the education law in 1995).

4.3 STRUCTURE

At the present time there is 166 higher professional schools in the CR. They are vary broadly, as it was mentioned, as regards their mission, size, studies provided and also quality. They are state, private and denominational. Even if they are distributed throughout the whole country the network due to above mentioned problems is not considered to be useful and effective.

4.4 ACCESS

Access to higher professional education is open to anyone who graduated from a secondary school education or a comprehensive vocational secondary school (the same conditions as of the access to higher education) and who satisfy conditions of admission procedure. Criteria of this procedure are in the responsibility of the school director who is at the same time responsible to evaluate their fulfilling. The act further gives the director of the school the right

to decide on a content, form and criteria of evaluation of the entrance examination if it is decided that it is a part of admission procedure.

Decision on the number of admitted students is the responsibility of the Ministry that also should set additional details of the admission administration procedure to those stipulated by the act.

Table 15: Higher professional schools by disciplines - years 1992 - 2000

Group of study programmes	1992	1996	1997	1998	1999	2000
Natural sciences	0	3	3	3	4	4
Technical sciences	9	35	36	39	39	40
Agricultural sciences	1	10	11	11	10	10
Medical sciences	0	36	32	33	33	33
Economics	7	57	61	66	64	63
Teacher education	2	18	19	20	21	22
Humanities and social sciences	2	7	6	8	8	8
Law	1	7	7	12	13	13
Arts	3	11	12	14	14	14
Total number of higher professional schools *	25	158	156	168	167	166

* The total number of higher professional schools is different from the sum total of respective columns from the reason that some institutions provide more disciplines.

Table16: New entrants at higher professional school by discipline

	Natural sciences	Technic. progr.	Agricult. . progr.	Medicine progr.	Econom. Progr.	Teacher Educat. progr.	Humanit. and soc. progr.	Art progr.	Total
1996/97	104	1 666	273	1 731	4 233	516	1 787	248	10 558
1997/98	143	1 989	437	2 848	4 900	489	2 050	330	13 186
1998/99	123	2 073	475	2 773	5 118	500	2 204	297	13 563
1999/00	136	1 779	527	2 806	4 298	1 515	1 855	329	13 245
2000/01	65	875	236	2 003	2 701	1 378	1 404	270	8 932

4.5 PARTICIPATION

Higher professional education is a new contribution to the tertiary education in the CR. While there were only negligible number of the new entrants of higher professional schools in 1991 it can be considered rather considerable increase of the number of students at these schools during recent years as it is seen from the Tables 16,17. As it is characteristic for the CR there is almost balanced ratio between male and female participation.

Table17: The number of students at higher professional schools by discipline

	Natural sciences	Technic. progr.	Agricult. Progr.	Medicine progr.	Econom. progr.	Teacher Educat. progr.	Humanit. and soc. progr.	Art progr.	Total
1996/97	104	2 440	343	2 509	5 768	999	2 459	309	14 931
1997/98	228	3 447	671	4 556	9 079	1 190	3 764	591	23 526
1998/99	263	4 332	855	6 100	11 445	1 279	4 615	677	29 566
1999/00	278	3 670	1 070	6 754	11 362	3 873	3 365	701	31 073
2000/01	193	2 834	823	5 951	9 045	3 754	3 319	686	26 605

4.6 OUTFLOW

Even almost after a decade of higher professional schools existence it is not easy to assess outflow and to take serious measure in this respect. The main reason is the jump increase of the number of schools in 1995 but also radical change of a number of other aspects of this education. Anyway - it can be stated easily from the findings at particular schools that there is really high drop-out. It is not easy again to put recommendations and to take measures for the improvement because the major part of those leaving these schools before graduation are students who were able to pass successfully entrance examinations at higher education institution and decide to change.

Table 18: Number of graduates at higher professional schools by discipline

	Natural sciences	Technic. progr.	Agricult. progr.	Medicine progr.	Econom. progr.	Teacher Educat progr.	Humanit. and soc. progr.	Art progr.	total
1995/96	0	206	25	136	241	74	241	0	923
1996/97	0	254	21	398	560	149	198	47	1627
1997/98	50	325	141	388	1232	68	576	133	2913
1998/99	72	652	176	1387	2564	825	458	216	6350
1999/00	102	769	225	1961	3176	1018	538	184	7973

4.7 EDUCATION - LABOUR MARKET

In general graduates of higher education schools can find good job at the labour market positions and there can be found only a low percentage of unemployment among them. As during the last about two years the unemployment, even still almost negligible, started to grow as it is in the case of higher education graduates (see Table 6) it is necessary to deepen co-operation with the Ministry of Labour and Social Affairs and employers. The aim would be to set up the fourth education level achievement (at the prepared amendment of job catalogues) as an alternative prerequisite for determination of activities in the individual occupations. In such a way the more convenient remuneration of graduates can be assured. Position of graduates at the labour market should be continuously monitored with respect to the growing number of higher professional schools graduates. On the basis of knowledge of the labour market needs an education offer would be at least to some extent regulated (in co-operation with labour offices) in terms of its field structure.

4.8 PERSONNEL

As the aim is to differentiate a higher professional school from the high school there should be also different requirements as regards qualification of teachers. It is necessary to emphasise practical part of their education and to include this requirement into their professional career. It will be supported that a certain part of the staff is composed from external expert coming from practice. Anyway, the main responsibility for education should be in hands of permanent staff. Professionally oriented education is connected with the requirement to follow development in particular field and to improve own knowledge by the direct involvement into creative activity. To enable that it will be necessary to decrease the teaching load of the higher professional staff comparing to the teachers of high schools.

Table 19: Staff at higher professional schools

	1996	1997	1998	1999
Total number of teachers	4 189	4 845	5 904	6 285
Number of female teachers	2 313	2 615	3 230	3 519

4.9 FINANCIAL ASPECTS

Financing of the higher professional schools are based in principle on their performance. There are distinguished three types of direct costs: direct and operational ones, costs involving capital investments and costs needed for reproduction of a property.

Direct costs are paid by the Ministry of Education while other two types of costs are provided by the founder of the particular school.

Direct costs are allocated to the schools on the basis of normative funding and they should cover wages of both teacher and other schools employees and some other specific items like some facilitation provided to students etc.

According to the currently valid act state higher professional schools may ask students to pay tuition fee which is very modest one - approximately one fourth of the average monthly salary per one school year. The proposal of the new act suggests to cancel this possibility to ensure students in the public tertiary sector comparable conditions (public higher education institutions are not allowed to ask tuition fee). There are no limits as regards fee paid by the students of private higher professional schools.

4.10 GOVERNANCE STRUCTURES

4.10.1 Federal and regional governance

The Ministry of Education, Youth and Sports is in charge of most state administration activities concerned with education including higher professional education and sets out the conditions for its development. The Ministry of Education deals with overall strategy and educational policy and the preparation of appropriate legislative standards and executive and operational activities. It distributes the financial resources to the higher professional schools from the State budget partly directly and partly through regional administration.

4.10.2 Advisory bodies

Council for Education

Proposal of the education act suggests to establish Council for Education. It should be advisory body to the Ministry. Its members will be appointed by the Minister and their office will last three years. The statute and regulation procedures of the Council will be issued by the Minister.

Inspection

The Czech School Inspection is one of the key institutions which comes under the direct supervision of the Ministry of Education. This central control body is operational in the districts and concentrates on activities in pre-school, basic, secondary and post-secondary (higher professional) education. It is expected to monitor education results, the quality of professional and pedagogical management, staffing conditions, teaching materials and equipment, the efficiency with which the funds are used and observance of the generally binding regulations. The head of the Inspection is the Chief School Inspector appointed by Minister of Education. There are currently approximately 400 inspectors, most of whom are newly appointed, covering 15 000 schools in contrast to around 1 200 schools in 1989. Thus 40 schools and a few additional educational institutions are allocated to one inspector.

4.10.3 Consultative and research bodies

In response to the lack of theoretical and methodological background to guidance, the Institute of Educational-psychological Guidance was set up in 1994 with 10 staff under the direct management of the Ministry of Education.

Career guidance is, at present, the responsibility of Employment Offices through Information and Guidance Service Agencies, which have been established in forty districts. They focus on

guidance on the transition from compulsory education to secondary education and on unemployed young people.

The system of advisory and consultative bodies is still under development. The Ministry of Education assisted by several advisory bodies on educational development, different levels of the educational system, recognition of educational institutions, the economy, etc. Various interest groups – professional associations, teachers’ and parents’ associations, etc. – are also represented. There are other national public institutions providing education-related services under the direct responsibility of the Ministry of Education. In the field of higher professional education the National Institute for Vocational Education plays the role of a co-ordinating, consultative, expert and research institution working also on questions of secondary vocational and technical education.

4.10.4 Internal governance of higher professional schools

Internal governance of higher professional schools is currently regulated in a similar way as it is valid for the whole secondary sector of education. As it is unsatisfactory situation which causes limits of higher professional schools development the new act on education suggests principles as follows:

State higher professional school should be established by the act approved by the Czech Parliament. The regional authorities are responsible for the establishment process. Internal structure and rules of governance are given by the educational act.

The governing bodies of a higher professional school are the director, Council of Higher Professional School and Collegium.

The director is responsible for the overall functioning of the higher professional school and he/she has the right to decide on all matters concerning the school with exception of these which are governed directly by the act. The director is appointed by the school founder after discussion with the Council.

The act decides on the number of Council members and about the procedure of their appointment - they are appointed by the founder, one half of them on the proposal of the Collegium and one half after the discussion with the director, and sets the period of members office for the three years. In contrary to composition of the academic senate of higher education institution it is not allowed to appoint students among the Council members. Ministry has the right to decide on the procedure of voting a Council chair and on the Council action rules through ministerial decree.

The act stipulates that the Council should decide on long term strategy of higher professional school, annual report, budget and rules of its use, business report, rules for granting a scholarship and acting rules of Collegium. It should submit proposal for the appointment of the director to the founder and respectively to his/her dismissal and it discuss with the director proposal for the appointment of members who compose examination committee. Further, there are stated regulations of action if there is not reached negotiation on any item belonging to the responsibility of the Council.

Collegium is the body elected by the teachers and students of the relevant school. Participation of students in the body should reach not less than one third and not more than one half of the total number of the members. Collegium is rather advisory and consultative body and its responsibility lies first of all in discussion of the important issues before the decision are made by the Council. Internal regulations include statute of higher professional school, regulations of procedures of the Council and Collegium, school regulations, rules for students assessment, scholarship rules and voluntary others if the statute states so.

Comparing with the higher education institutions there is less autonomy and self-governance given to the higher professional school. The consequence of the new decentralised state administration is that some of the state influences that relates to internal organisation,

organisation of studies and also economic matters have been transferred to the regional authorities.

4.11 Evaluation of quality

There has not been completed widely used evaluation mechanism in the field of higher professional schools.

In principle the schools are evaluated by the Czech School Inspection but it is more organisational and formal process not leading to real evaluation of the programmes, teachers, etc.

Some of schools underwent external evaluation organised by the Association of Higher Professional Schools. It is insitutionalised procedure called Evaluation of Vocational Schools (EVOS) and it is offered on the commercial basis. The mechanism used comes from a broad experience gain from studying similar procedures in many foreign countries and it is even to some extent comparable with the mechanism used by the Accreditation Commission. Even if the cost of this service is not too modest those well running schools with the intention to advertise themselves and to prepare seriously their programmes for accreditation in the case of presumed transformation to a higher education institution of non-university type decided to ask EVOS for evaluation.

It is proposed to establish the Commission composed of the experts from the Ministry, research institutes, Czech School Inspection and several external experts including sector of employers steered by the Ministry. The first task of this Commission for the near future will be evaluation of all education programmes to facilitate categorisation of schools and establishment of their network. The main aim of the Commission will be continuous evaluation of higher professional schools.

4.12 Developments

The main aim of the strategy in this field of tertiary education is:

- To transfer shorter education programmes, especially provided by institution combining both higher professional and high vocational education, into the post-maturita category.
- To retain and promote higher professional schools with programmes well supported by its personnel staff and technical equipped. The intention is to establish functioning network of these schools that would properly contribute to the offer from the side of higher education institutions and positively influence educational opportunity in locations/regions with lower level of tertiary education capacity.
- To limit fractionalisation of higher professional schools looking for possibility of different type of their integration - connection of schools with similar programmes operating in the same location, various type of merge of schools (even with different programmes) into the well organised and effectively functioning units.
- To support establishment of the new higher education institutions of non-university type on the basis of those higher professional schools that are able to satisfy conditions of the accreditation procedure.

The realisation of the above described strategy goals will be supported by several circumstances: Majority of combined institutions provided both high and higher professional education were established after 1995 due to cancellation of possibility to offer post-secondary courses. The new act on education will reopen post-secondary courses offered by high/secondary schools and this fact enable to avoid formally established higher professional schools. The act postulates that framework educational programmes (at all levels up except higher education) should be elaborated and this activity will require assessments of the existing higher professional programmes. The results of both mentioned assessment and external evaluation passed by majority of higher professional schools which plan to transfer

themselves into higher education institution of non-university type will help to finalise above mentioned categorisation.

Several private higher education institutions from private higher professional schools have been established yet with practically no formal problems. It has not been established public higher education institution until current time (January 2001) as it should be done only by means of the act accepted by the Czech Parliament and it is, of course, in any case demanding task. Moreover, the year 2001 is the important margin step of the country internal organization. State administration has been decentralised and the consequence was that the right to establish public higher professional school was transferred from the state to the region. Just technical but in a number of cases not very clear problem might be the property and the rules for its use while establishing the new institution. Ministerial intention is to support the establishment of public higher education institutions of non-university type on the basis of those state higher professional schools that will receive positive expert evaluation of their education programmes expressed by the Accreditation Commission taking into consideration also other important aspects of the tertiary education development. There is also continuously supported possibility to provide accredited bachelor study programmes in collaboration of higher professional school and higher education institution. The last but not least as regards importance there is open legal way for higher professional school to become a unit of the existing higher education institution.

5. CONCLUSIONS – structure of tertiary education system in the CR

The main strategy goal is to establish highly diversified tertiary sector of education that will fit the ideas of Bologna Declaration. It will offer satisfied capacity, enable permeability in possible maximum and give the chance to anyone to change or re-enter to education in any age and any time. These goals are closely connected with the idea to use all specific abilities and expectations of the broad spectrum of new entrants and at the same time to focus graduates in a way to be successful at the job market.

6. REFERENCES

- Higher Education Act No. 111/1998. (www.msmt.cz)
- Education Acts No. 76/1978, 29/1984, 564/1990, 306/1990 (www.msmt.cz)
- Proposal of the New Education Act
- Strategy of Education System Development in the CR (1999) - (www.msmt.cz)
- National Programme of Education System Development (White Paper) - (www.msmt.cz)
- Convention on the Recognition of Qualifications Concerning Higher Education in the European Region – (www.csvs.cz)
- Sorbonne Declaration - (www.csvs.cz)
- Bologna Declaration - (www.csvs.cz)
- Strategy Plan of Tertiary Education Development – internal ministerial material
- Research and Development in the Czech Republic, Ministry of Education, Youth and Sports, Prague, 1997 – (www.msmt.cz)
- Comparative Analysis of Higher Education Systems in Central and Eastern Europe, CBIE, Ottawa, 2000
- Sebkova, H., Lejkova, K.: Higher Professional Education in the Czech Republic and its further Development, IGIP conference, Turkey, 1999
- Statistical Educational Yearbooks, CR

Sources of data: Statistical Education Yearbooks, CR; Yearbooks of the Czech Statistical Office; data of Research and Development Council of the Government of the CR

