

# The Czech educational system and evaluation of the ISCED-97 implementation

Jana Straková

The ISCED classification fits rather well to the educational system of the Czech Republic. However there are several minor restraints that complicate its use and distort the results of international comparisons for the Czech Republic. The first part of the chapter gives a description of the structure of the educational system of the Czech Republic.<sup>1</sup> The second part describes the problems concerning the ISCED classification.

## 1 Description of the education system

### 1.1 Administrative control and extent of public-sector funded education

Since January 1<sup>st</sup> 2005, the Czech educational system has operated under new laws regulating education, its public administration and teacher profession, from pre-primary to upper secondary and tertiary professional schools. Since that time, individual measures have also come into force. The Higher Education Act from 1998, most recently amended in 2005, regulates higher education.

Schools are administered within the framework of the state administration. Responsibilities are distributed between the central government, 14 regions and municipalities. Regions are provided with a high degree of autonomy.

The Ministry of Education, Youth and Sports maintains the integrated nature of state educational policy by formulating long-term strategies of education and the development of the educational system, which it submits to the government every two years.

The Ministry of Education, Youth and Sports above all

- executes state administration of the school system;
- is responsible for the conception, state and development of the educational system;
- determines the content of education (approves curricular documents);
- accredits educational programmes for tertiary professional schools and for higher education institutions;
- is responsible for teachers' salaries and teaching aids;

---

<sup>1</sup> Source: [www.eurydice.org](http://www.eurydice.org)

- is in charge of the school register (with the exception of nursery schools);
- is an organizing body of institutions for in-service training of teachers and detention centres for adolescents.

Regions are responsible for education in their jurisdiction. Regional authorities also formulate long-term strategies for their region every two years, in compliance with national objectives. Regions are organizing bodies for upper secondary and tertiary professional schools.

Municipalities are responsible for compulsory education, and they establish and administer nursery and basic schools. Municipal governments often carry out these tasks through an Education Commission.

Organizing bodies appoint school heads on the basis of a tender, who can be dismissed only for reasons defined by law.

Since January 1<sup>st</sup> 2003, all schools have the status of legal entities. School heads are given full responsibility for the quality of the educational process, for financial management of the school, for appointing and dismissing teachers and for community and public relations. By law, the school organizing body must establish a School Council enabling parents, pupils, staff (except for the school head), and the public to participate in the administration of the school.

Schools are funded from two sources: capital and operational costs are funded by the organizing bodies (regional authorities and municipalities, the latter of which have funds allocated from the regional budget), salaries and teaching aids are allocated from the state (central) budget by the Ministry of Education, Youth and Sports via regional administration. Funding is allocated on a per capita basis.

Private schools have been established since 1990 (at the level of tertiary education, since 1999). Most private schools are not faith-based; their legal form can be a for-profit or a non-profit (grant aided) organization. Both private and denominational schools constitute 1.4% of the total number of basic schools and 0.8% of their pupils; private upper secondary schools constitute 22.5% of such schools and 15% of the pupils. For tertiary professional schools, they constitute 33% of institutions and 34% of students; and for higher education institutions they constitute 60% of institutions and 6.1% of students in 2004/05. The funding of private schools is based on the same formula as the funding of operational costs for public schools in the respective region. Basic subsidies (50–80% of the amount of similar public institutions, according to the type) can be increased to 80–100% if the school meets a set of criteria. Denominational schools receive the same funding as public schools directly from the Ministry. Private higher education institutions must be non-profit to be given a state grant.

The Czech School Inspectorate is a central control body under the direct supervision of the Ministry. It is responsible for monitoring schools and school facilities at all levels except for higher education institutions. They particularly monitor educa-

tional conditions and results, the quality of management, the efficiency of using funds and compliance with binding regulations.

## 1.2 Pre-primary education

Nursery schools have a long tradition as part of the educational system. Pre-primary education is based on the Framework Educational Programme approved by the Ministry. The age group catered for is from 3 to 6. Attendance is not compulsory; nevertheless, nearly 88.2% of that age group attends these schools. Parents can be asked to pay a maximum of 50% of the operational (not educational) costs covered by the municipality, with the exception of the pre-school year, which must be accessible to all pupils free of charge.

## 1.3 Compulsory education

School attendance is compulsory for nine years, usually from the ages of 6 to 15.<sup>2</sup> The academic year starts on the 1<sup>st</sup> of September and ends on the 30<sup>th</sup> of June. All pupils start in a basic school; at the second stage of compulsory education (from age 11 onwards), it is possible to attend a *gymnasium*.

**Table 1. Compulsory education in the Czech Republic**

Institution	Typical age	ISCED level
Basic school (single structure; primary and lower secondary)	first stage: 6–10; second stage: 11–15	1 and 2
Gymnasium (general lower secondary)	11 (or 13)–15	2

Catchment areas are defined, but the choice of school is open. During the first stage of compulsory education, pupils can take entrance examinations for classrooms or schools with extended curricula of certain subjects (foreign languages, mathematics, sciences, arts, etc.). 9.5% of all pupils receive compulsory education in such specialised classrooms or schools. At the end of the fifth year, pupils can leave *basic school* in order to attend a *gymnasium* with an eight-year academic programme; or, at the end of the seventh year, they can attend a six-year *gymna-*

<sup>2</sup> Pupils born until September 1 – the beginning of the academic year – are supposed to enter school in the given calendar year. Pupils born from September to December are supposed to enter school in the following academic year. However, about 25% of pupils every year receive permission to start school a year later than expected.

*sium*. For all *gymnasia*, pupils must pass an entrance examination set by the school. 9.75% of pupils in the appropriate age group study at a *gymnasium*.

In 2004/05, the number of pupils per teacher was 14.5, and the average class size was 21.4. The number of pupils per class varies between a minimum of 17 and a maximum of 30. Classes are co-educational and made up of pupils of approximately the same age. For the primary stage of basic education, small municipalities can organize schools with one or more classes of mixed age (4% of pupils). At the first stage, the same teacher usually teaches all subjects, whereas at the second stage, teachers are specialised, generally teaching two subjects. Lessons of 45 minutes are spread over five days a week. There are 20–25 lessons at the first stage and 27–31 lessons at the second stage (gradually increasing).

#### **1.4 Special education**

Special schools exist from pre-school up to the upper secondary level and are designed for students with physical and mental handicaps. In many cases, they also serve pupils from culturally and socially disadvantaged environments. In 2004, 5% of pupils in compulsory education fell outside mainstream education. Attendance at a special school requires a recommendation from the appropriate authority and parental consent.

#### **1.5 Upper secondary and post-secondary education**

There are two main prerequisites for attending an upper secondary school: completing compulsory education and successfully passing the entrance examination. The content of the entrance examination (written and oral) is determined by the school. Pupils can apply for one school of their choice. Those who did not pass the examination in the first round can participate in the second round of entrance examinations at a school that has available capacity. Prerequisites for attending a *post-secondary extension* school are the completion of three years of study at a *vocational secondary school* and successfully passing the entrance examination.

Gymnasia provide students with a general academic education and are attended by less than 20% of all secondary students. Secondary technical schools combine general and vocational education; the proportion of general subjects to vocational subjects is about 40:60. Secondary technical schools are attended by 40% of secondary students. At vocational schools (attended by the remaining 40% of secondary students), the proportion of general subjects to vocational subjects and practical training varies. Practical training in three-year courses (which are prevalent) constitutes 30–45% of all classes. All four-year secondary studies conclude with a maturity examination, which entitles students to apply for tertiary studies. Students who complete the shorter vocational studies can receive a maturity diploma only if they

continue in post-secondary schools, which are concluded by a maturity examination.

**Table 2. Upper secondary and post-secondary education in the Czech Republic**

Institution	Type of education	Certificate	Duration in years	Typical age	ISCED level
<i>Gymnasium</i>	General upper secondary	Maturity	4	15–19	3A
<i>Technical secondary school</i>	Technical upper secondary	Maturity	4	15–19	3A
<i>Vocational secondary school</i>	Vocational upper secondary	Apprenticeship certificate	2	15–17	3C
		Apprenticeship certificate	3	15–18	3C
		Maturity	4	15–19	3A
<i>Post-secondary extension</i>	Post-secondary	Maturity	2	18–20	4A

### 1.6 Tertiary education

Tertiary professional schools provide students with an advanced technical knowledge. Their curriculum is prepared by the school and accredited by the Ministry. The proportion of general, basic vocational, and specific vocational subjects is about 20:40:30.

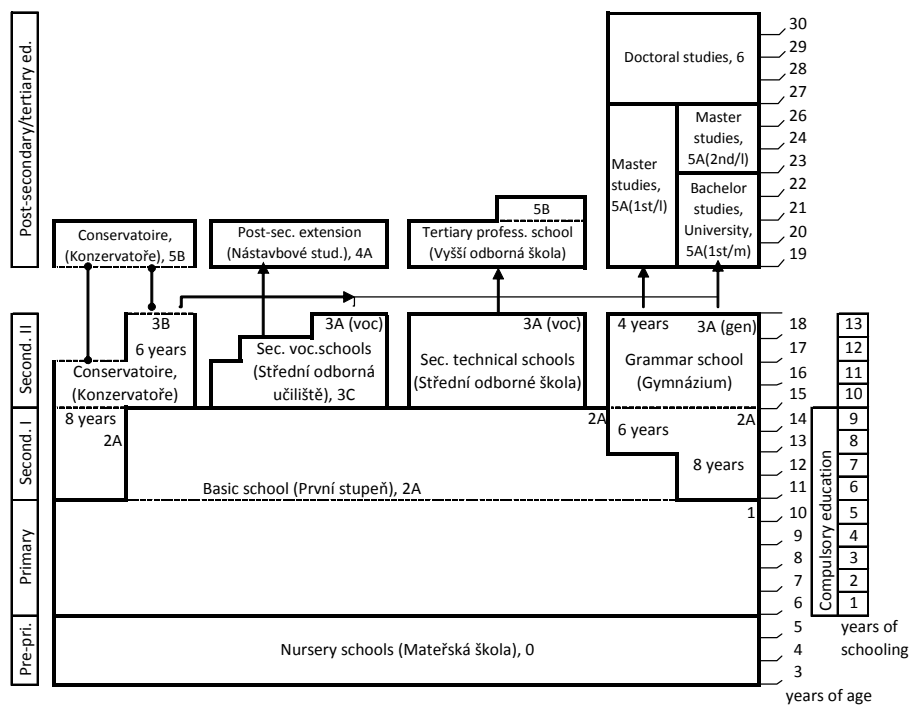
Higher education institutions are either university-type (in 2005, there were 28 institutions, 24 of which were public, 2 were state-run) or non-university type (36 private institutions). Study programmes are prepared by individual institutions/faculties and approved by the Accreditation Commission of the Ministry.

The *maturity examination* certificate is the minimum entrance qualification for all forms of tertiary education. Each institution defines its own admission criteria and determines the content of the entrance examination, if there is one.

The final examination taken upon completion of a tertiary professional school is called the *absolutorium*. The graduate is called “specialist with a diploma” (DiS).

Upon the completion of coursework at higher education institutions, students take a state examination and defend a thesis. Graduates of the first cycle of courses (3–4 years) are awarded the title of *bachelor* (Bc.). Graduates of the second cycle of courses continuing after the bachelor level (1–3 additional years) or long-type

Figure 1. The Czech educational system



courses (5–6 years) are mostly awarded the title of *Master* (Mgr.); for some branches, there are specific titles: MgA. (Master of Art), Ing. (for technical and economic branches), Ing.Arch. (in architecture); in medicine and veterinary medicine (and after an additional exam) the title *doctor* – MUDr., MDDr., MVDr. For holders of a *Masters* degree, it is possible to be awarded the title of JUDr., PhDr., RNDr., PharmDr., or ThDr. after this exam. On the completion of doctoral studies, students take a doctoral examination and are awarded the title *Ph.D.* (Th.D. in theology).

Table 3. Tertiary education in the Czech Republic

Institution	Certificate	Duration	Typical age	ISCED level
Tertiary professional school	<i>Absolutorium</i>	2–3.5	19–21/22	5B
Higher education institution	Bachelor	3–4	19–22/23	5A (1 <sup>st</sup> /short)
	Master	1–3	22/23–26	5A (2 <sup>nd</sup> /long)
	Master	5–6	19–24/25	5A (1 <sup>st</sup> /long)
	Doctorate	3	—	6

## 2 Problems with the international classification

1. The ISCED does not allow researchers to follow the educational career of individual Czech students in sufficient detail at levels 1 and 2. It does not allow for distinguishing between selective schools (schools with extended curricula at ISCED 1, and long academic tracks at ISCED 2), as well as mainstream schools (basic schools) and special schools.

2. At ISCED level 3, the commonly used classification of tracks in the Czech educational system is somewhat problematic:

Some vocational programmes and all technical programmes conclude with a maturity examination and enable students to enter tertiary education. However, the proportion of general education in these studies is only 30–60%. Graduates from secondary technical schools and especially from vocational schools are highly disadvantaged in the transition to tertiary education since they did not acquire most of skills and knowledge required in entrance examinations. The commonly used classification (3A, 3C without subdimensions) does not allow for differentiating between vocational and technical programmes with maturity and gymnasias, the latter of which prepare their graduates fully for the transition process.

3. Post-secondary extension is classified as ISCED 4. We would recommend that it be moved to level 3. Their graduates have exactly the same skills and knowledge as graduates from technical 3A schools.

### 3 Validation of the ISCED-97 classification

#### 3.1 Czech Republic: educational attainment of the population

**Table 4. Czech Republic: highest completed education of the population aged 25–64 (Census 2001)**

ISCED	Highest completed education	Total	age 25–64	%
0	Without education	37,932	23,691	0.4
1	Primary	23,355	12,430	0.2
2	Lower secondary	1951,754	751,510	13.3
3C	Upper secondary without maturity total	3,255,400	2,403,497	42.7
	of which apprentice school	1,760,708	1,288,003	22.9
	of which secondary vocational with certificate	1,494,692	1,115,494	19.8
3A	Upper secondary with maturity total	2,134,917	1,518,233	26.9
	of which apprentice school with 'maturity'	125,281	83,383	1.5
	of which general secondary with 'maturity'	430,982	259,139	4.6
	of which secondary technical with 'maturity'	1,578,654	1,175,711	20.9
4	Follow-up courses	188,114	146,109	2.6
5B	Tertiary professional school	108,140	60,584	1.1
5, 6	Tertiary total (BA, Master, doctorate)	762,459	645,398	11.5
5A	lower tertiary (bachelor)	46,115	28,310	0.5
5A	higher tertiary (master, etc.)	683,490	594,046	10.5
6	doctoral studies	32,854	23,042	0.4
	Unknown	113,127	72,565	1.3
	Total	8,575,198	5,634,017	100.0

#### 3.2 Comparison of EU-LFS 2001 with Census 2001

**Table 5. Comparison of EU-LFS 2001 (population 25–64) with Census 2001 (population 25–64), in per cent**

	EU-LFS 2001 25–64, Q2	Census 2001, 25–64
ISCED 0 or no formal	0	0.43
ISCED 1	0.28	0.22
ISCED 2	13.81	13.51
ISCED 3C ( $\geq 3y$ )	41.99	43.22
ISCED 3A, B	34.32	27.30
ISCED 4	0	2.63
ISCED 5B	0.60	1.09
ISCED 5A	8.82	11.19
ISCED 6	0.18	0.41
Total	100.0	100.0



### 3.3 Comments and explanations

Problems described in paragraph 2 cause that the ISCED classification does not allow for sufficiently detailed and precise description of education system that would distinguish (at the horizontal level) between selective and non-selective tracks, schools and classroom.

However, at the vertical level, the ISCED classification suits the Czech education system fairly well with two minor exceptions described below.

First, in the Czech system there is recently no type of education that would fit in category 4. Until the 1990s, there had been a variety of two-year post-secondary courses that concluded by the same certificate as ISCED 3A. These courses are no longer present in the system. According to the instructions they belong to ISCED 3A, but sometimes researchers classify them as ISCED 4. Recently, vocational students after finishing ISCED 3C education can continue with a two-year study leading to maturity examination. According to the Czech ISCED instructions, these post-secondary studies should be classified as ISCED 4. As this does not make much sense in the context of the system many researchers tend to classify them as ISCED 3A. I believe that these confusions about ISCED 3A/ISCED 4 partly explain the discrepancies between these two categories in comparison of LFS and CENSUS in the table above.

The second confusion arises around ISCED 5A and ISCED 6. Czech education system has “small” and “big” doctoral degree. The first one (for example PhDr., RNDr.) is based on one year study, the second on a regular PhD thesis. According to the Czech ISCED instructions, small doctoral degrees should be classified as ISCED 5A. However, some researchers do not perceive this as the fair decision and code them as ISCED 6.

With exception of post-secondary non-tertiary education described above, the structure of education system remained almost unchanged<sup>3</sup> in the whole post-war period. This fact allows for consistent coding across generations.

### References

- European Commission (2007). The Education System in the Czech Republic 2006/07. Eurybase – The Information Database on Education Systems in Europe.  
[http://www.eurydice.org/ressources/Eurydice/pdf/eurybase/Eurybase\\_CZ\\_EN.pdf](http://www.eurydice.org/ressources/Eurydice/pdf/eurybase/Eurybase_CZ_EN.pdf)
- European Commission (2005). Key data on education in Europe 2005, Luxembourg: Office for Official Publications of the European Communities.  
[http://www.eurydice.org/ressources/eurydice/pdf/0\\_integral/052EN.pdf](http://www.eurydice.org/ressources/eurydice/pdf/0_integral/052EN.pdf).

---

<sup>3</sup> With minor changes in length of basic education (switching between 8 and 9) and ISCED 3A education (changing from 3 do 4).

Matějů, P./Straková, J. (2005). The role of the family and the school in the reproduction of educational inequalities in the post-Communist Czech Republic, *British Journal of Sociology of Education*, vol. 26, no. 1, pp. 17–37.

OECD (2006). *Education at a Glance: OECD indicators 2006*, Paris: OECD.

Straková, J. (2007). The impact of the structure of the education system on the development of educational inequalities in the Czech Republic, *Sociologický časopis/Czech Sociological review*, vol. 43, no. 3, pp. 589–609.