

V. WORK AND PAY

V.1 Labor Market

Fiscal Issues

The Czech system of social protection needs to be retooled from a massive redistribution scheme to one focusing on poverty alleviation. The high level of state-guaranteed minimum income defining eligibility for social support benefits results in a large number of benefit recipients. The total sum of various welfare benefits represents a welfare trap for specific types of households. To give but one striking example, the head of a family with two children where the spouse does not work is better off collecting welfare than working at the average national wage rate. Further, especially low-skill workers are likely misusing the sickness insurance scheme.

A sector in need of increased expenditure in the medium-term is education. However, the state education budget had been cut substantially during the recent recession. The savings were realized at the expense of the depreciation of facilities and by freezing already low wages in education. The shrinking cohorts of youth currently passing through the publicly funded education system can provide slack funds. Unfortunately, the growing demand for expenditure outweighs the potential savings from the demographic decline. In particular, the tertiary education system is in dire need of expansion and this is unlikely to happen under the current funding rules.

The share of the population with secondary-level (especially vocational) education is extraordinarily high. Yet, the enrolment

in general secondary programs remains the lowest among OECD countries and despite the high proportion of the population with secondary education, the (growing) share of workers with tertiary-level education remains very low compared to the OECD average. Not surprisingly, university level education in particular has become highly valued in the Czech labour market. The demand for education in state universities is persistently twice the size of the available supply of classroom seats, but the introduction of tuition that would both increase supply and help limit demand has so far been politically infeasible.

Other Issues

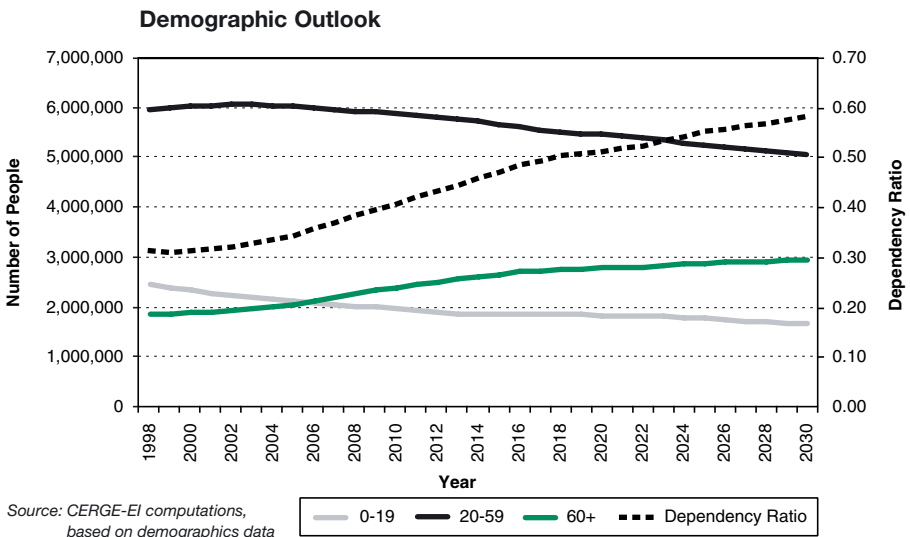
There is no government interference in wage setting by employers and the minimum wage level is low. The labour code is relatively flexible, but this flexibility is not used by the employers as reflected, for example, in the very low fraction of part-time jobs. This may be one of the reasons that unemployment has decreased little even though the economy has now been growing for two years. Alternatively, unemployed workers may have been trapped in the welfare system. In August of 2001 there were only 20 thousand fewer unemployed compared to 1999, the last year of declining GDP, when 443 thousand workers were jobless. Except for certain sectors (mining, railways) trade unions are perceived as rather weak. While trade union coverage is relatively low, about 30 % of employment, their influence is likely

to be stronger in the companies that are in need of restructuring and therefore in need of wage cuts.

The labour market participation rate is very low among the Romany population because of their lack of education and because of the ethnic prejudices of employers. Over the last few years, foreign employ-

ment has become a significant substitute for local low-skill labour, especially in the construction industries. At the same time, illegal foreign employment (especially from former Soviet states) has grown. Foreign workers often work under safety and pay conditions that are far from acceptable to local labour.

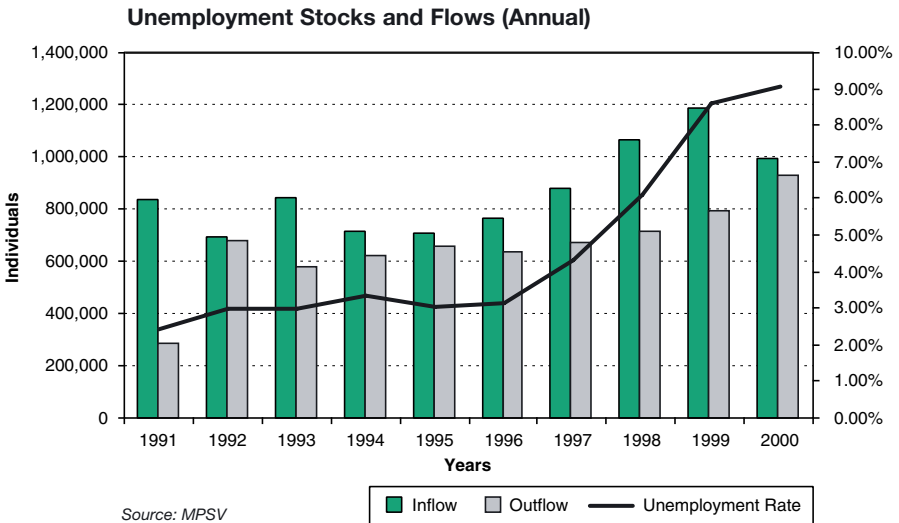
V.2 Age Structure and Trends



The Czech Republic is facing the prospect of an aging population. The dependency ratio measuring the share of citizens 60 years of age and older on the working age population 20-60 years of age reached its minimum in 2000. The dependency ratio is expected to grow steadily for the next few decades. While the ratio is about 30 % now, it will reach 40 % in 2010 and steadily rise to 50 % and 60 % in 2020 and 2030. This

trend will impose fiscal pressures on the current pay-as-you-go pension system, yet, there is no pension reform plan, even while the existing system is already in notable and growing deficit. The decline in young cohorts over the next two decades also has important implications for the education system. Reduced numbers of students will necessitate school system restructuring and teacher displacement.

V.3 Unemployment, Long-term Unemployment



The unemployment rate – the most closely observed labor market comparative indicator – reached its historical maximum (9.7%) at the beginning of 2000. Since then, the unemployment rate has dropped to stabilize slightly below 9.0% at the end of 2001. This unemployment rate is above the current EU-15 average (7.6%) and is comparable with Euro-zone (September 2001 values). Based on CERGE-EI modeling, the forecasted unemployment rate for 2002 suggests stagnation or slow upward growth (See table).

The unemployment rate, however, does not provide enough information on its underlying dynamics. The annual change in unemployment reflects a net difference between annual inflow to and outflow from unemployment. The figure provides a time series of annual inflows and outflows for the last decade. The time series indicates that

Past and Forecasted Unemployment Rate

Quarter/Year	Unemployment Rate [%]
I/1999	8.23
II/1999	8.23
III/1999	8.93
IV/1999	9.08
I/2000	9.65
II/2000	8.80
III/2000	8.92
IV/2000	8.60
I/2001	8.92
II/2001	8.17
III/2001	8.49
IV/2001*	8.70
I/2002*	9.01
II/2002*	8.66
III/2002*	9.11
IV/2002*	9.35

Note: Actual values are based on quarterly averages of monthly values reported by MPSV.

* Forecasts – based on CERGE-EI modelling

Unemployment Rates (%) in EU Countries (September 2001)

	September		August
EU15	7.6	Portugal	4.4
Euro-zone	8.3	Sweden	4.8
Netherlands	2.2	Belgium	6.8
Luxembourg	2.5	Germany	7.9
Ireland	3.8	France	8.6
Austria	3.9	Finland	9.1
Denmark	4.3	Spain	13.1

Source: Eurostat, <http://europa.eu.int/comm/eurostat/Public/datashop/>

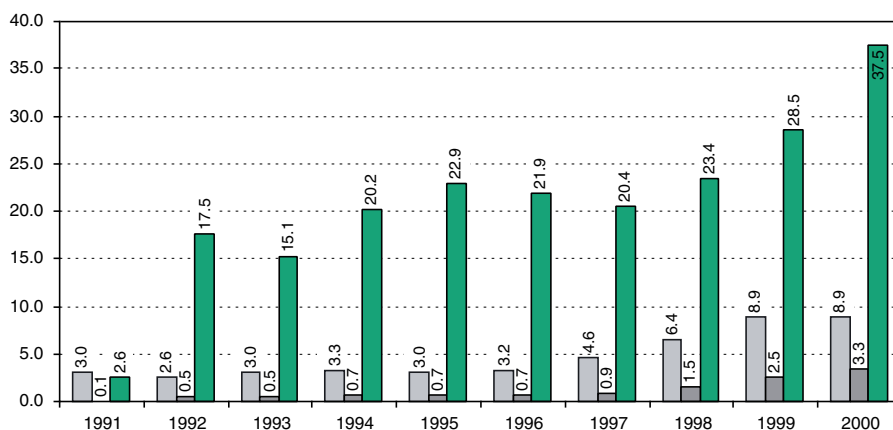
the large discrepancy between large inflow and small outflow experienced during the second half of the 1990s ended in 2001. This indicates a current stagnation of unemployment.

Perhaps even more important than unemployment evolution is the growth in long-term unemployment. Long-term unemployed are those job seekers who are unemployed for longer than a year. The figure shows the

proportional number of long-term unemployed in the pool of unemployed.

The proportion of long-term unemployed has continued to grow since 1997, even though unemployment stabilized in 2000, which was due to short-term unemployed becoming long-term unemployed over time. In 2000 the proportion of the Czech labor force which was long-term unemployed (4.3 %) already exceeded the EU average (3.7 %).

Unemployment and Long-term Unemployment (Registered Unemployment), %



Source: MPSV

Legend: Unemployment Rate Share of LTU on Labor Force Share of LTU on Unemployed

In its second decade of economic transition and on the advent of accession to the EU, the Czech labor market seems to suffer the same kind of labor-market sclerosis which appeared in the EU more than two decades ago.

Labor market sclerosis means that unemployment decline during economic expansion is smaller than the increase borne by previous economic recession. Note that the GDP growth in 2001 reached 3.4 % (see Section III) while unemployment barely declined. The causes likely lie in the ill-formed social welfare system and in the low flexibility of the labor force. Those individuals who lost jobs during the economic downturn already incurred initial costs related to unemployment and learned how to cope with the social welfare system. Consequently, their willingness to accept new jobs waned.

Long-term Unemployment Rate

(Unemployed Longer Than 12 Months/Labor Force, %)

	1999	2000
B	5.0	3.8
DK	1.1	1.0
D	4.4	4.0
E	7.3	5.9
F	4.4	3.8
IRL	2.7	2.0
I	6.9	6.4
L	0.7	0.6
NL	1.3	1.0
A	0.5	1.0
P	1.7	1.7
FIN	2.9	2.8
S	2.1	1.6
UK	1.8	1.5
EU15	4.2	3.7
CZ	2.5	4.1

Note: Based on Labour Force Survey unemployment

Source: Eurostat,

<http://europa.eu.int/comm/eurostat/Public/datashop/>

Current and Future Demand for Labour

(Based on Babeckij J., Jurajda S., Münich D.,: Regular Forecasting of Training Needs: Quantitative Models for the Czech Republic, forthcoming, CERGE-EI Discussion Paper No. 80, 2001)

The Czech economy is entering an era of rapid technological change, and EU accession is looming. This transition and extensive reallocation process must involve a transformation of the skills base of the labor force and a tailoring of the education system to the needs of the future economy. Understanding future skill needs is therefore critical to the Czech Republic’s successful entry into the EU. An important issue is avoiding high and stagnant unemployment while still meeting medium- and long-term demand for specific skills in the existing schooling system. Below we present a brief example of forecasts produced by a CERGE-EI manpower quantitative model. Details on methodology and possible deficiencies can be found in CERGE-EI DP No.80. Methodology relies on detailed statistical information of existing sectoral and occupational employment, macroeconomic outlook, trends in school graduates and demographic structure.

**Forecasted Demand and Supply of Labor by Education Field
(Cummulative for 2000–2004 Period)**

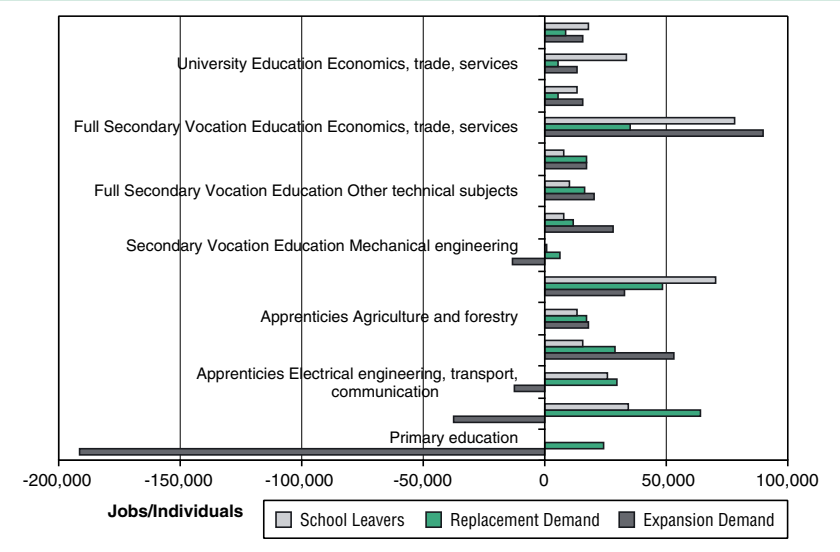
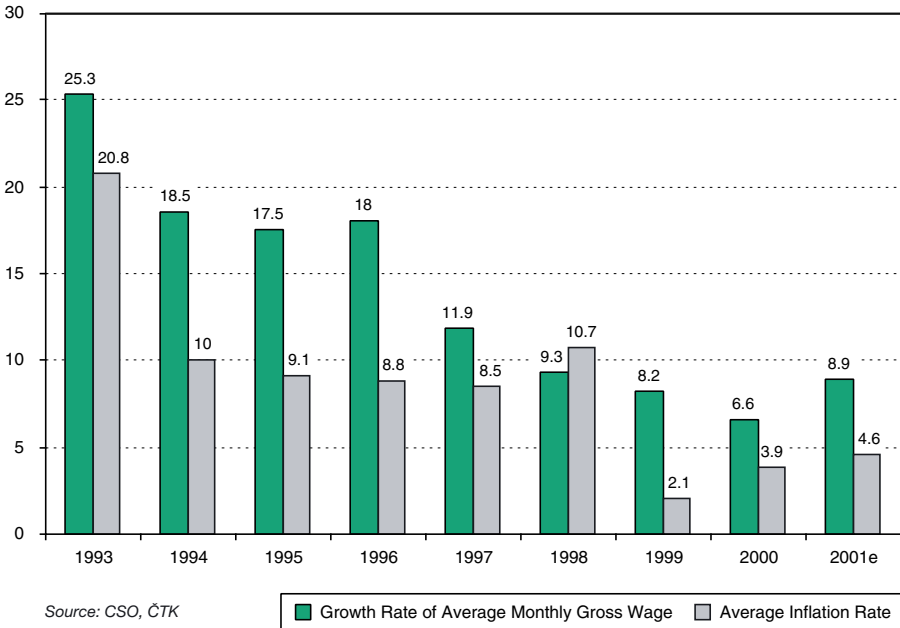


Figure presents some results for a few selected educational fields. Forecasted changes in demand and supply of labor between the base year of 1999 and the target year of 2004 are compared.

First, “expansion demand” for labor is due to expected growth or decline of key industrial sectors which translates into changes in the occupation-education structures. We see a large decrease in demand for primary-educated workers. Second, “replacement demand” is due to the need to replace workers leaving the labor market for reasons like retirement and maternity. Consider, for example, the substantial negative expansion demand for workers with only primary education and note that the actual drop in demand for these workers is predicted to be somewhat lower due to the need to replace retiring cohorts of such workers. In contrast, apprentices in engineering display a pattern of small negative expansion demand and large positive replacement demand. The picture is completely different for apprentices in construction: here the sum of positive replacement and expansion demand creates a large total demand for workers with this qualification-such that it will not be satisfied by the supply of graduates to appear on the market. Similarly, there will apparently be a lack of secondary-school workers with an economics background. The relatively high inflow of graduates from tertiary programmes in economics and business will therefore likely substitute for the shortage of workers with only a secondary education in economics.

V.4 Wages

Wages and Inflation, Annual Growth Rate, %



During 2001, wages were growing by 8.9% in nominal terms and thanks to low inflation during this period employees experienced a high growth of real wages at 3.3% (September to September). Yet, high wage growth does not seem to initiate wage inflation. The aggregate growth in wages is accompanied by an ongoing divergence of wages by professions and industries. High wage professions and industries keep increasing wages the most. The lowest wages and growth appear in services and in textile industry. The service sector has low

growth because of a highly competitive labor supply and in textile industry has suffered for years with comparatively low productivity. Wages in the public sector also exhibit a substantial increase mainly due to an ad hoc wage shift in wages introduced at the beginning of 2001. A similar wage increase for the year 2002 originally agreed between the government and public sector unions has been postponed by several months to save money in the tight state budget for 2002. The trend in real wages is likely to continue during the 1st half of 2002.

V.5 Educational Attainment/Skills

The widespread opinion that workers in countries of the former Soviet block inherited a high level of human capital has been challenged by several recent studies going

beyond the indicators based on simple school attainment indicators. The most recent results of the PISA 2000 OECD study underscore this changing opinion. PISA scores are

Reading	Score ¹⁾	Math	Score ¹⁾	Science	Score ¹⁾
Finland	546	Japan	557	Korea	552
Canada	534	Korea	547	Japan	550
New Zealand	529	New Zealand	537	Finland	538
Australia	528	Finland	536	United Kingdom	532
Ireland	527	Australia	533	Canada	529
Korea	525	Canada	533	New Zealand	528
United Kingdom	523	Switzerland	529	Australia	528
Japan	522	United Kingdom	529	Austria	519
Sweden	516	Belgium	520	Ireland	513
Austria	507	France	517	Sweden	512
Belgium	507	Austria	515	Czech Republic	511
Iceland	507	Denmark	514	France	500
Norway	505	Iceland	514	Norway	500
France	505	Liechtenstein	514	United States	499
United States	504	Sweden	510	Hungary	496
Denmark	497	Ireland	503	Iceland	496
Switzerland	494	Norway	499	Belgium	496
Spain	493	Czech Republic	498	Switzerland	496
Czech Republic	492	United States	493	Spain	491
Italy	487	Germany	490	Germany	487
Germany	484	Hungary	488	Poland	483
Liechtenstein	483	Russia	478	Denmark	481
Hungary	480	Spain	476	Italy	478
Poland	479	Poland	470	Liechtenstein	476
Greece	474	Latvia	463	Greece	461
Portugal	470	Italy	457	Russia	460
Russia	462	Portugal	454	Latvia	460
Latvia	458	Greece	447	Portugal	459
Luxembourg	441	Luxembourg	446	Luxembourg	443
Mexico	422	Mexico	387	Mexico	422
Brazil	396	Brazil	334	Brazil	375

Note: 1) Scores represent mean performance on the corresponding literacy scale

- Countries statistically significantly above the OECD average
- Countries statistically not significantly different from the OECD average
- Countries statistically significantly below the OECD average

Source: OECD, <http://www.pisa.oecd.org/>

based on standardized tests of pupils' capacities to apply knowledge and skills in reading, mathematics and science. The study is different from many previous studies by its focus on real-life use of knowledge instead of testing formal knowledge. 15-year old Czechs performed below the OECD average on reading literacy. In math literacy they show average performance and only in terms

of scientific skills do they belong to the above average group. Although not disastrous – note that Czechs still performed better compared not only to transition neighbors such as Hungary and Poland but also to Germany – the results will inevitably erode the old wisdom about the top quality of the Czech schooling system and will open space for well-based debates.

Financing Higher Education

Intense public debates about financing public universities were initiated by the so called “case of 2 billion CZK”. The story is the following. Early in 2001, public schools were encouraged by the ministry to enroll substantially more students, being promised an additional 2 bln. CZK in the next year’s budget. Later, as problems to form the state budget for 2002 became clear, the 2 bln. CZK promised did not appear in the budget proposal. After strong protests, the government fulfilled its original promise. This is, however, a negligible event compared to the lasting problems faced by the Czech university sector.

Public universities dominate. The law to certify private universities was established only in 1998, and private universities still form a negligible share. Public universities are almost fully dependent on central government funding. Funding is disbursed annually from the state budget. The demand for tertiary education persistently exceeds available slots by a factor of two. While the number of students grew substantially during the last ten years, real expenditures grew much less. As a result, the expected years of tertiary education for all 17-year-olds is extremely low in the Czech Republic. Moreover, a high rejection rate represents an obstacle for many prospective students, especially from disadvantaged social environments. Recent empirical studies convincingly show that applicants of more educated parents have a much higher acceptance rate. Over time this contributes to widening social differentiation and predeterminancy. Another indication of the relative shortage of tertiary-educated labor is the very high returns to tertiary education which significantly exceed the OECD average.

The major cause of the problems lies in the lasting and growing tightness of the state budget. Public expenditures on tertiary education relative to GDP are at 0.7 %, far from the OECD average (1 %). Given the very small share and role of private universities in the Czech Republic, the overall share of public and private expenditures is even smaller. Lasting problems to finance staff and current expenditures at low funding have been solved at the expense of maintenance and development. Evidence for sub-optimal funding is supported by other relative indicators presented in Table.

Czech Tertiary Education in Light of Financial Indicators

Indicator	Czech Republic	OECD Average
Direct Public Expenditure for Tertiary Educational Institutions as a Percentage of GDP (1997)	0.7	1.0
Expenditure Per Student (US Dollars Converted Using PPPs) on Public and Private Institutions at Tertiary Level of Education (Based on Full-time Equivalents) (1997)	5,351	8,612
Expenditure Per Student at Tertiary Level Relative to GDP Per Capita (Including Public and Private Institutions) (1997)	41	45
Share of Capital Expenditures on Current Educational Expenditures (for Public and Private Tertiary Institutions) (1997)	0.12	0.15
Share of Teacher's Compensation on Current Educational Expenditures at Tertiary Level (For Public and Private) (1997)	29	42
Relative Earnings by Age Groups with Income from Employment (Base 100 is Secondary Education ISCED 3/4) for Type A Tertiary Education	150	120 ¹⁾
Relative Earnings by Age Groups with Income from Employment (Base 100 is Secondary Education ISCED 3/4) for Type B Tertiary Education	180	160 ¹⁾
Expected Years of Tertiary Education for All 17-year-olds, Based on Head Counts (1997)	1.2	2.4

Source: *Education at a Glance 2000*, OECD

1) CERGE-EI computations

The current scheme of the funding of Czech universities calls for substantial reconsideration. Since public funds are and will be in great shortage, an institutional environment should be created allowing a much larger influx of private money to the system. Tuition accompanied by an effective loan system seems to be the best option. However, a reform of this kind requires strong political support and drive which seems to be lacking.

School Reform

There has been a long debate about the school system in the Czech Republic. The change of regime after 1989 gave an additional impulse for its transformation; however, despite fundamental changes in almost all other fields, education still needs modification. A significant amount of work has been done, for example, many different types of schools (private, parochial) at different levels (primary, secondary, as well as tertiary) have acquired a legal personality. But, the main feature of Czech education remains unchanged: it is based on encyclopedic knowledge, the ability to remember and reproduce facts. This is a bigger and bigger handicap as new information and communication technologies rapidly develop. It is no longer necessary to know facts but to know how to find them and to cooperate and communicate effectively.

An attempt to change the current situation is embodied in the new Education Act. Initially, it had unfortunately many controversial parts and was returned by deputies to the government for revision. The original intention for a modern western style of education, to move the decision process closer to citizens, and to incorporate modern needs into the curriculum, was grounded by a fear of over-decentralization by the 14 different educational systems (specific for each region). Hence the bill was particularly complicated, unbalanced in the level of power and responsibility, with centralized financing, and with a stress on school-leaving exams to equalize the levels instead of focusing on the reform of primary and secondary education.

The new form of the school-leaving exam was proposed to monitor the results and make them objectively comparable across different schools. But the way it was designed—to add a standard state-given test of knowledge as a separate part of the exam—it works contrariwise. In fact, it supports memorizing and gap filling tests. There is no check on individual thinking, independent opinion formulation, and argumentation. All of these skills are of major importance today. Moreover the objectivity of evaluation is undermined by bias from random answer questions.

Hopefully the new system will create better conditions for students to want and be able to develop their skills and abilities. Again education is the key to success, health, contentment, and democracy building.

Emerging e-Learning in the Czech Republic

E-Learning is the often web-based delivery of content that allows students to see, hear, and speak to professors and fellow students on-line, without ever having to leave their local learning center, or even home or office. How does e-Learning work? GoPas,

one of the largest e-Learning providers in the Czech Republic right now, offers two sets of courses. “Self-assisted asynchronous courses” are more or less sophisticated self-study courses not tied to a timetable. “Instructor-assisted courses” are conducted synchronously in virtual classrooms and use tools such as interactive sessions, synchronized

web-browsers, on-line “blackboards”, and internet videos. GoPas also provides certificates for different levels of MS Windows.

Anglictina.com’s English courses, likewise, try to substitute 80% of traditional continuing education through on-line learning. Their courses offer interactive exercises, dictations, dialogs, phrasing, idioms, and pronunciation exercises. In addition, Anglictina.com offers complementary weekend conversation courses. At the end, customers receive a certificate.

Both GoPas and Anglictina.com are for-profit providers. ČVUT Praha, a state-funded university, in addition to its traditional courses offers services for those interested in preparing web-based educational programs as well as on-line courses. The on-line course “Řidičák na počítač” is part of a more comprehensive course whose graduates receive certificates confirming their basic knowledge of MS Word and Microsoft products. ČVUT admission tests in mathematics and physics are also available.

The Emerging Market for e-Learning

The Czech Republic, similar to other Central European transition economies, inherited from socialism a composition of human capital stock that in key areas did not meet the requirements of a modern market economy. The traditional system of education – while providing a relatively high level of literacy and numeracy – was, and is, not flexible enough to provide the set of new skills suddenly needed. Nevertheless, there is widespread acknowledgment that continuous learning of the labor force is a pre-condition for success in international markets. The resulting skills gap was, and is, most significant in IT and business related areas, including languages. In fact, there are concerns that the skills gap is growing. A central problem is that the trainers/content providers themselves have to learn the new skills, necessitating a bootstrapping process that takes time. To the extent that lifelong just-in-time learning authenticated by certificates – rather than just-in-case learning authenticated by degrees – is becoming more important, this problem worsens.

The important role of e-Learning in overcoming the skills gap

The U.S. higher education industry has responded to a similar – although much lesser – skills gap with the emergence of numerous e-Learning providers. e-Learning is the often web-based delivery of content that allows students to see, hear, and speak to professors and fellow students on-line, without ever having to leave their local learning center, or even home or office. Importantly, e-Learning reduces traveling expenditures and time costs. (According to some estimates it saves one half to two thirds of the costs that employers would bear if they sent their employees to traditional continuing education sites.) Advantageous, especially for employees, is the frequently encountered chance to study whenever they have time. Moreover, each participant

can choose the most appropriate pace for himself. Arguably the most important characteristic is that e-Learning knows no borders: It allows everyone access to on-line courses from everywhere, thereby opening the possibility to overcome the bootstrapping problem.

While the evidence on the pedagogical merits of e-Learning is somewhat mixed, the rapid growth of e-Learning providers in the USA (50 % of U.S. colleges and universities offered some form of distance learning in 2000, offering more than 50,000 university-level courses) and their indisputable and stable enrollment growth (e.g., the University of Phoenix Online) make it clear that e-Learning is here to stay.

E-Learning in the Czech Republic

The past couple of years finally has seen the rapid emergence of e-Learning providers in the Czech Republic. As elsewhere, these providers are both public and private firms. Our current, continuously updated survey of e-Learning providers in the Czech Republic lists nearly a dozen such firms as of late fall 2001. Some of them are home-grown products (e.g., Anglictina.com), some of them are home-grown products that also partner with foreign providers (e.g., ProIn, Kontis e-Learning), and some of them are foreign providers with Czech branches (e.g., IBM Czech Republic, CISCO for the Czech and Slovak Republics). Overall, the offerings are rather modest and, as in many other European countries, seem to trail developments in the U.S. by about 2–3 years.

Not surprisingly for a fledgling industry segment still struggling with viable business and delivery models, there is a wide variety of delivery models: They range from simple downloaded study materials and tests, to even more interactive arrangements like e-mail to discuss assignments or difficulties with study materials, to more sophisticated services for those interested in preparing e-Learning courses. Also not surprising for a fledgling industry segment, course offerings are somewhat meager. The majority of courses offer the study of desktop applications like MS Word, Excel, and Access. There are a few providers that offer business/management skills (e.g., GoPas) and one that offers English courses (Anglictina.com). Of course, these meager offerings may not be much of a problem, as there is no reason for those interested in some specific content – no reason other than affordability – not to sign up for courses from providers located in, say, the U.S. However, given purchasing power parity inequities, taking such courses may be prohibitively expensive, opening the door for more domestic providers and/or government subsidies.

(See also <http://home.cerge-ei.cz/BRHLIKOVA/eLvendors/>)

V.6 Welfare

The state social assistance scheme is still based on a two-income household model. It provides transfers to increase households' income to guarantee an official minimum standard of living. The standard is indexed to inflation and changes whenever inflation (CPI) rises by more than 5 % since the previous adjustment period. The level of the minimum standard of living reflects the household size and the age of household members. Some benefits (child allowances, social allowances, housing contribution, and transport contribution) are provided condi-

tionally depending on the household income, while others are not (parental allowances, birth or funeral bonuses, etc.) In particular, state support of maternity care has a long tradition in this country and has persisting public support. The system is not well targeted to individuals and households in need. For instance, approximately 75–85 % of all the dependent children in the country receive child allowances. Equally importantly, the system creates strong work disincentives for large families (see the 1998 report for a detailed discussion of this issue).

Earnings and Social Welfare

Unemployment Benefits Rules	60%(50%) of previous wage during first (second) 3 months of unemployment
Average Unemployment Benefit (June 1999, CZK)	2,513 CZK
Sickness Insurance Rule	50% of wage during first 3 days, 69% for next days up to 468CZK per day including weekends; not taxed; state budget payments
Sickness Expenditures (1998, CZK)	20.4 bln. CZK
Guaranteed Minimum Living Standard	
a) household 1 adult, 1 child (11 years of age)	5,880 CZK
b) household 2 adults, 2 children (11, 17)	10,670 CZK
Minimum Wage (effective January 2000)	4,000 CZK
Average Wage (2nd Q.1999, gross)	11,366 CZK in commerce, 10,149 in public sphere
Average Elderly Pension (2nd Q. 1999)	5,506 CZK, not subject to taxation

Source: MPSV