

# VET Research Report 2009

**CZECH REPUBLIC**

## ***VET Research Report 2009***

***Country: Czech Republic***

---

### ***Authors:***

Vera HAVLICKOVA (National Observatory of Employment and Training of National Training Fund)

Martina KANAKOVA (National Institute of Technical and Vocational Education)

Filip PERTOLD (CERGE-EI – Centre for Economic Research and Graduate Education)

Jana VAVRECKOVA (Research Institute for Labour and Social Affairs)

Mr Jiri VOJTECH, NUOV (National Institute of Technical and Vocational Education)

Ms Helena VYCHOVA (Research Institute for Labour and Social Affairs)

Mr Martin ZELENKA (Faculty of Education – Charles University in Prague)

### ***Editors :***

Vera CZESANA (National Observatory of Employment and Training of National Training Fund)

Zdenka SIMOVA (National Observatory of Employment and Training of National Training Fund)

This report is one of a set of European country reports on VET research. Although it has been produced under the guidance of Cedefop, the opinions are those of the contractor only and do not necessarily represent Cedefop's official position.

The preparation of this report has been cofinanced by the European Community.

## Table of contents

<b>Abstract</b> .....	<b>2</b>
<b>Theme 1: Benefits of VET</b> .....	<b>4</b>
Filip Pertold	
<b>Theme 2: Transitions</b> .....	<b>13</b>
Martina Kanakova, Jiri Vojtech, Martin Zelenka, Helena Vychova	
<b>Theme 3: Anticipation of labour market skill needs</b> .....	<b>34</b>
Vera Havlickova	
<b>Theme 4: VET and employment-related mobility and migration</b> .....	<b>44</b>
Jana Vavreckova	

---

## **Abstract**

*The 2009 National VET Research Report maps research activities concerning VET and related fields within last five years (2004-2009). It consists of four separate themes. Two of them (Benefits of VET and VET related mobility and migration) were determined by Cedefop and are common for all ReferNet member states. The other two (Anticipation of skill needs and Transitions) were chosen at national level based on the national priorities and research available.*

### **Benefits of VET**

The chapter deals with research on Benefits of VET which is rather neglected in the CR. The number of available high quality research studies concerned with this topic is very small despite the fact that there is a range of institutions that carry out official research into education and training. In view of these limitations the text is concerned with the benefits of education from an individual perspective, monetary ones in particular, and the position of individuals at the labour market in relation to their educational attainment and, possibly, in relation to the training undertaken as part of active labour market policies. Moreover, the text deals with the benefits of education for socially excluded groups. Each section contains both a basic summary of the outcomes and their critical assessment.

### **Transitions**

The chapter is divided into four separate parts dealing with recent research on different types of transitions: (1) transitions from secondary education to labour market, (2) transitions from tertiary education to labour market, (3) labour market re-entrance and (4) leaving work for retirement.

The activities concerned with transition from secondary education into the labour market in the Czech Republic include, above all, the following: monitoring of the development of the numbers of students according to the level and field of education, analyses of educational programmes in terms of the employability of graduates, tracking the transition of graduates into the labour market and into tertiary education (particularly their success in employment and evaluation of the qualification they acquired). Other activities focusing on this topic include monitoring of the position of graduates at the labour market, the rate and development of unemployment among them and the stability of their career choice (match between education and employment), evaluation of the graduates' preparedness for the labour market, identification of employer needs and analyses of reasons behind young people's early leaving of the education system.

## **Anticipation of skill needs**

Forecasting skill needs has been a subject of research in the CR particularly in the last decade. The research is carried out by several institutions as part of grant schemes of the MoLSA and the MoEYS, It focuses on three areas: methodologies, systems and application. As regards methodology, particular attention is paid to the development of a combined qualitative/quantitative approach primarily for the national level and, partly, for regional levels. At present, projections already bring valid results that are subject to publication and that will be elaborated upon by users in line with their needs. A system for regular forecasting has been proposed and its piloting is being envisaged. There is a growing importance being ascribed to anticipation of skill needs, which should lead to an increased amount of financial resources flowing into this research area and boost the development of forecasts so that users can regularly get structured and relatively reliable information for their decision-making.

## **VET and employment-related mobility and migration**

The chapter is divided into three thematic parts that relate to mobility and migration in connection with employment and vocational as well as general education. The topics concerned include geographical mobility within the Czech Republic, the external migration of Czech citizens and in-migration of foreigners to the CR, including their integration into mainstream society. An overview of the existing research projects, topics and issues is provided for each thematic area and recommendations concerning new research topics are proposed.

The transition of tertiary education graduates into the labour market at national level in the Czech Republic is the subject of research in three major domains: monitoring of graduate unemployment, research focusing directly on the employment of tertiary education graduates and studies concerned generally with the transfer of graduates from school to work. Apart from this there are a number of independent surveys carried out by various schools and faculties as well as various recruitment agencies and consultancies.

The subchapters Re-Entry into the Labour Market a Transition from Work into Retirement briefly summarise the existing research activities concerned with the topic of re-entering the labour market, particularly as regards disadvantaged groups, and transitions into retirement. It provides a brief overview of the organisational provisions and implementation of specialist research into these issues. In addition to public administration bodies, this research is carried out primarily by public research institutions and also by some non-profit and private organisations.

---

## **Theme 1: Benefits of VET**

*The chapter deals with research on Benefits of VET which is rather neglected in the CR. The number of available high quality research studies concerned with this topic is very small despite the fact that there is a range of institutions that carry out official research into education and training. In view of these limitations the text is concerned with the benefits of education from an individual perspective, monetary ones in particular, and the position of individuals at the labour market in relation to their educational attainment and, possibly, in relation to the training undertaken as part of active labour market policies. Moreover, the text deals with the benefits of education for socially excluded groups. Each section contains both a basic summary of the outcomes and their critical assessment.*

### **1.1 Introduction**

Knowledge of the benefits of education and training is of key importance both for practical implementation of public policies and for understanding the workings of the labour and education markets. In a post-transition economy such as that of the Czech Republic, there are additional specific points raised that are associated with major social and economic changes that began in the 1990s.

Over the last decade the Czech education system has experienced a major expansion of tertiary education. In 2006 the number of enrolments accounted for 50% of secondary school leavers (holders of the *maturita* certificate), while in 1997 it was only 22% of this age cohort. The impact of this expansion of tertiary education on the labour market is one of the major topics discussed in the Czech Republic. The issue of the benefits of education must therefore be addressed in the context of this specific institutional environment.

It must be pointed out that schooling and education is a relatively new topic in Czech socio-economic research and there is therefore a relatively limited number of expert sources. As mentioned in the paper by Owens (2004) there are a number of benefits from and effects of education and training both in terms of the individual and of society (monetary, non-monetary, individual, social), and there are therefore many research opportunities.

There is a range of institutions in the Czech Republic that carry out official research into education and training. In general, they may be divided into two groups. Firstly, there are specialist institutions whose official mission is to conduct research and monitoring within this sector in the CR. These are the National Institute for Technical and Vocational Education, the Centre for Higher Education Studies, the Institute for

Information on Education and the Research Institute of Education. For institutions belonging to the second group education is one of many research topics. This group includes, most importantly, higher education institutions (Charles University, University of Economics, Mining University), various institutes of the Academy of Sciences (e.g. CERGE-EI, the Institute of Sociology) and, for example, the Research Institute for Labour and Social Affairs as a research institution of the Ministry of Labour and Social Affairs.

Despite the relatively large number of institutions whose task, either primary or secondary, is to carry out research into education, the actual number of available high quality research studies concerned with the benefits of education for society and the economy is very small. There are several reasons for this. In my opinion, the main reason is that most experts have inappropriate education in the field of econometric methods of socio-economic research. Another problem is a shortage of publicly available individual data about education and the labour market. One example is the still inaccessible individual panel data with socio-economic characteristics, particularly those concerning wages.

This chapter summarises and evaluates only that research which was published in Czech or English and concerns the Czech Republic. The papers concerned are those that are publicly accessible and were or are subject to a review procedure. Unfortunately, this means that a number of topics mentioned in Owens's paper (2004) are not covered, since at present there are simply no relevant and good quality research outcomes available.

In view of these limitations the text is concerned with the benefits of education from an individual perspective, monetary ones in particular, and the position of individuals at the labour market in relation to their educational attainment and, possibly, in relation to the training undertaken as part of active labour market policies. Moreover, the text deals with the benefits of education for socially excluded groups. Each section contains both a basic summary of the outcomes and, if required, their critical assessment.

## **1.2 Monetary benefits of education**

### **1.2.1 Development in the economy as a whole**

The social and economic changes in the early 1990s brought about, apart from other things, a major increase in demand for educated workforce. Empirical evidence shows that, along with the change from a centrally planned economy to market structures, there was a major change in terms of the benefits of education. This is shown in the work of Münich et al (2005) that, while applying the regression analysis method and using a sample survey among men in 1996, provides the following

findings. In the centrally planned economy education generally produced very low benefits. However, transformation to a market economy resulted in their significant increase. The benefits per year of study more than doubled from 2.6% to 5.8%. The increase per one year of secondary and tertiary education was similar. If we compare earnings according to educational attainment, the increase was even more dramatic. In 1996 a male with a tertiary qualification earned 78% more than a male with lower secondary education. At the end of the communist era this difference was only 28%. In general it may be stated that earnings in the private sector increased earlier compared to the public sector where the increase in wages was slower and began later.

However, the increase in the benefits of education only occurred in some fields. The largest increase at the level of secondary education occurred in education focusing on business and trade, while there was no increase in the benefits of education for males with secondary qualifications in teacher training, healthcare and social services. University education provided for an increase in benefits nearly in all fields, although in law the increase in the benefits was by far the highest. Various authors also identify the so-called “sheepskin effect” in the period of transformation, which means that the benefits per one year of education leading to the acquisition of a diploma are higher than those per year of education that does not lead to a diploma – particularly in tertiary education. All these findings show what a major change the labour market has experienced and how the position of people with more advanced qualifications has changed.

Another of a number of papers assessing the benefits of education is by Jurajda (2005). Using rich linked employee-employer data the article estimates the benefits of education in the private sector and reveals that one year of education produces a more than 10% increase in wages. This benefit is considerably higher compared to the old EU countries. Moreover, the article shows that the benefit increased significantly between 1998 and 2000, whereas it remained about the same between 2000 and 2002. The author attributes the difference between the CR and the old EU countries primarily to the excess of demand over supply as regards workforce with tertiary qualifications in the CR.

Another paper that deals with the development of the benefits from education over time is by Flabbi et al (2007). As opposed to Jurajda (2005) the authors show that since the mid-1990s the benefits of education have not experienced any increase and that in the Czech Republic they are relatively lower compared to other countries in Central and Eastern Europe. One of the reasons why they arrived at different figures than Jurajda (2005) might be a low number of observations per one cross-section sample (approximately 500). Such a low figure can hardly produce sufficiently representative results in relation to the population.



It will be interesting to examine the benefits of education particularly after 2005 when there was a steep increase in the number of students admitted to tertiary education institutions. Their entry to the labour market might significantly change the position of tertiary education graduates at this market. However, at the moment there is no up-to-date study of the wage premium available. There are certain descriptive statistics (Koucký and Zelenka, 2008) that point to a large difference between the average wage of tertiary and secondary education graduates in the Czech Republic as compared to, for example, Sweden.

Nevertheless, there is no sophisticated study of the most recent developments in terms of the benefits of education. In this respect there is, above all, a lack of data that would make it possible to track an individual over time. The missing longitudinal data on wages (for example in the form of records of the Czech Social Security Administration) do not allow for carrying out a correct econometric analysis of the impact of education in various fields on wage levels and success in the labour market.

### **1.2.2 Gender pay gap**

The position of women at the labour market is the topic of an extensive academic as well as political debate. Although women often catch up with or even overtake men in terms of educational attainment levels, their benefits from education apparently fail to equal those of men. In the CR the “gender pay gap” is addressed, for example, by Jurajda (2005). The author points to lasting differences in wage levels, although legislation designed to ensure equal opportunities for men and women has been adopted. Another paper by Jurajda and Franta (2007) reveals that there is a strong segregation of women into specific jobs, although this segregation is gradually being eliminated among recent graduates and reaches the levels common in the old EU member countries. However, in view of the segregation of women into specific fields of secondary and tertiary education, the inequalities in the labour market position are likely to last. Furthermore, a study by Jurajda and Paligorová (2009) assesses wage differences using a cross-section linked employer-employee data while applying an econometric analysis of men and women in managerial positions – i.e. highly skilled workers. The authors show that the pay differences between men and women do exist but, essentially, they are similar at all management levels.

There are many studies dealing with discrimination against women at the labour market. However, they are either not publicly accessible or fail to show appropriate methodological quality. The issue of discrimination against women in the context of the benefits of education at the labour market should be the subject of further intensive research. The reason is that it is still not clear when and where the gender pay gap originates, what causes it and what type of discrimination (if any) employers pursue. Again, there is a lack of available panel data and linked data about individual

wages and the performance of companies. Research of this kind could show, for example, whether or not companies with a lower proportion of women perform differently. This type of discrimination should not exist in a fully competitive environment, but it cannot be ruled out in the environment with market imperfections.

## **1.3 Labour market position**

### **1.3.1 Educational attainment and unemployment**

The data about the (un)employment of graduates at the labour market in the CR are relatively more accessible. Descriptive statistics point to a large difference between the unemployment rates among tertiary education graduates, secondary school leavers and individuals with a vocational training certificate (without “full” secondary education). This points to the relatively large benefits of education.

The relationship between unemployment and educational attainment is analysed in several papers. Jurajda and Terrell (2009) provide the most up-to-date analysis in terms of methodology and policy relevance. They examine the relationship between human capital and the inflow of foreign direct investment in regions of Central and Eastern Europe using individual and regional data. The authors ascribe regional differences in unemployment to differences in the average level of educational attainment in the given region. They point out that skill-intensive capital is relatively more mobile compared to the capital that requires lower skilled labour. They also point out that highly skilled workforce tends to move to regions with already high concentration of highly skilled labour, and high-skill-intensive capital follows. The authors also ask the question as to what is behind the relatively lower level of mobility of less skilled workforce. According to their findings the reason lies in centralised labour market institutions. These institutions include the welfare system and the minimum wage. They are designed for the entire economy and affect the opportunity costs of not working. As the opportunity costs for more skilled workers are much higher, these workers show a higher level of work-related mobility.

A descriptive view of the situation of graduates at the labour market is provided by a number of publications of the National Institute for Technical and Vocational Education and the web portal [www.infoabsolvent.cz](http://www.infoabsolvent.cz). These sources contain both data on the unemployment of graduates that are provided by labour offices, and data from sample surveys that examine, for example, graduates’ satisfaction with the way in which they use their education at the labour market and employers’ satisfaction with the graduates they employ. In the publication by Skácelová et al (2009) the authors show that satisfaction with the choice of secondary school is much lower for those who completed vocational programmes without *maturita*. They also display the highest rate of unemployment and the lowest rate of satisfaction with the qualification achieved. Graduates of secondary general schools (*gymnázia*) who normally

continue studying at a tertiary education institution show the highest level of satisfaction. The publication by Doležalová and Vojtěch (2005) confirms that less than a half of graduates of secondary technical and vocational programmes with *maturita* perform jobs in the same or similar field they studied. This, among other things, points to the fact that the historically large proportion of secondary schools with a relatively narrow specialisation fails to meet the current labour market needs. However, it must be pointed out that all these descriptive studies and information sources do not deal with wages, although the wage data constitute the most important information about the graduates' labour market position.

The ROA-CERGE forecasting model is also currently in use in the Czech Republic<sup>1</sup>. It projects the future situation of graduates (and other job applicants) at the labour market and their employment prospects. The model was designed in 2001 and its task is to forecast the relative position of graduates of various fields of study (clusters) at the labour market. Specific outcomes are available at the website of the Research Institute of Labour and Social Affairs ([www.vupsv.cz](http://www.vupsv.cz)). Due to the expansion of tertiary education in recent years the model forecasts relatively worse employment prospects for tertiary education graduates as compared to secondary school leavers. However, this forecast does not take account whether graduates will accept the wage they afford on the market. It is therefore possible that graduates of secondary schools and vocational training centres will be able to find a new job easily, but the level of remuneration will not be acceptable for them.

Forecasts of this kind can improve general lack of information about perspectives of graduates on the Czech labour market. However, this model has two principal weaknesses. The reason behind the first one is external – inaccessibility of individual data on wages that would also include information about the specific field of education. If this model had the capacity of including directly graduates' wages, its credibility would increase considerably. The second weakness is insufficient publicity given to the outputs of the model. The outputs are somewhat “hidden” at the website of the Research Institute of Labour and Social Affairs and there has not been any effective public presentation. Recently the outputs of the model have been taken over by the National Training Fund that published forecasts concerning occupations at the website [www.budoucnostprofesi.cz](http://www.budoucnostprofesi.cz).

### **1.3.2 Evaluation of the effects of active labour market policies (ALMP)**

Although there is a range of active labour market policy schemes in the Czech Republic, we may only find one attempt at a rigorous evaluation of the impact of these schemes on the position of jobseekers at the labour market. This attempt is the work of Sirovátka and Kulhavý (2007) that uses data in the jobseekers register and

---

<sup>1</sup> For details about the model please see Chapter „Anticipation of labour market skill needs“ of this report.

contains information on both the running ALMP schemes and on the characteristics of individuals. This work was already evaluated in the publication by Jurajda et al (2008). The main problem of this analysis is the incorrect use of the methodology of matching individuals who took part in an active labour market scheme with those who did not. The technical details are described in the already mentioned publication by Jurajda et al (2008), which also includes the best practice that predominates in the existing academic and applied literature.

Unfortunately, there is no study that covers the impact of employment policies on wages. Again, the reason lies in the inaccessibility of administrative and other databases on wages in a panel form.

#### **1.4 The Roma minority: education and labour market performance**

The problems of the Roma minority related to labour market performance and education receive insufficient attention in the CR. This is so despite the fact that the total employment of Roma is only 27% as compared to the 66% of the population of the CR as a whole. One of the few studies dealing with this topic in a comprehensive manner is a World Bank report (World Bank, 2008). The report points to principal facts in relation to the position of the Roma in education and at the labour market. The Roma often display lack of functional literacy (up to 40%), or they only have very limited skills (another 40%). The truth is that education and skills acquired are the best predictor of labour market success. The Roma who achieved higher than primary education show a far higher rate of employment. On the contrary, there are very low employment levels among the Roma who attended special schools. However, the report points to the fact that even those who are employed have jobs that are short-term and low paid.

Moreover, the report of the World Bank states that the active labour market policies implemented so far have not been effective enough so as to improve the position of the Roma at the labour market. The only long-term solution to the problems the Roma minority face at the labour market consists in a general enhancement of their educational attainment levels.

Unfortunately, in the Czech Republic there is currently no good quality research into inter-generational transmission of attitudes and approaches to education. Nor are there social experiments, which are common for example in the United States and Great Britain that examine how a change in the environment and neighbourhood can change the behaviour of families at the labour market and, possibly, the school attendance of children.

## 1.5 Conclusion

This chapter summarizes and assesses current literature on the benefits of education in the Czech Republic. In view of the limited availability of publications on this topic, my primary focus is on the individual benefits of education at the labour market – i.e. on wages and the labour market position. Empirical work shows that tertiary education graduates still have a very good position at the labour market. However, this may change dramatically as a result of the current expansion of tertiary education. As regards the assessment of the impact of active labour market policies, I point to the fact that no proper study on this topic has been carried out. I pay particular attention to the labour market position of women and the Roma population. Using empirical literature I show that the differences between men and women are gradually decreasing, particularly in the young generation. As opposed to this, the labour market position of the Roma is unlikely to improve, particularly due to poor school attendance at all levels of education.

Many issues, contained for example in the paper by Owens (2004), are not covered. These include, above all, the social benefits of education. Research on the impact of education on health, crime rates and fertility is currently missing in the Czech Republic. These topics should therefore be part of future research into the impact of education on the Czech economy and society.

## 1.6 References

Doležalová, G.; Vojtěch, J (2006): Shoda dosaženého vzdělání a vykonaného a vykonávaného zaměstnání – 2005 (*“The Match Between Education Achieved and Jobs Performed – 2005”*). Prague: National Institute for Technical and Vocational Education.

Flabbi, Lucca, S. Paternostro; E. T. Tiongson (2008): Returns to education in the economic transition: A systematic assessment using comparable data. In: *Economics of Education Review*, Vol. 27, pp. 724–740.

Jurajda, Š. (2005): Czech Returns to Schooling: Does the Short Supply of College Education Bite? In: *Czech Journal of Economics and Finance (Finance a úvěr)*, Vol. 55 (No 1-2), pp. 83-95.

Jurajda, Š., D. Munich, L. Drnáková; F. Pertold (2008): Metodologické přístupy k měření kauzálních dopadů programů politiky zaměstnanosti a možnosti implementace v České republice (*“Methodological Approaches to Measuring Causal Effects of Employment Policy and Opportunities for Implementation in the Czech Republic”*). Prague: CERGE-EI, not published.

Jurajda, Š.; Franta, M. (2007): Occupational Gender Segregation in the Czech Republic. In: *Czech Journal of Economics and Finance (Finance a úvěr)*, Vol. 57 (No 5-6), pp. 255-271.

Jurajda, Š.; Paligorova, T. (2009): Czech female managers and their wages. In: *Labour Economics*, Vol. 16, No. 3, pp. 342-351.

Jurajda, Š.; Terrell, K (2009): Regional Unemployment and Human Capital in Transition Economies. In: *Economics of Transition*, Vol. 17, No 2, pp. 241-274.

Koucký, J.; Zelenka, M. (2008): Postavení vysokoškoláků a uplatnění absolventů vysokých škol na trhu práce (*"The Position of Tertiary Qualification Holders and Recent Tertiary Education Graduates at the Labour Market"*). Prague: Education Policy Centre, Faculty of Education, Charles University.

Matějů, P.; Straková J. et al. (2006): Nerovné šance na vzdělání (*"Unequal Educational Opportunities"*). Prague: Academia.

Munich, D. (2004): Estimating the Impact of School Quality, Selection, and Supply on Student's Achievements: Evidence from The Czech Nation-wide Testing of Youth, unpublished.

Munich, D., J. Svejnar and K. Terrell (2005), Returns to Human Capital Under the Communist Wage Grid and During the Transition to a Market Economy. In: *The Review of Economics and Statistics*, Vol. 87 (No 1), pp. 100–123.

Owens, J. (2004): A Review of the Social and Non-Market Returns to Education, [http://libserver.cedefop.europa.eu/vetelib/nat/gbr/ngo/2004\\_0004\\_en.pdf](http://libserver.cedefop.europa.eu/vetelib/nat/gbr/ngo/2004_0004_en.pdf) .

Sirovátka, T.; Kulhavý V. (2007): Programy aktivní politiky zaměstnanosti v ČR v roce 2005: Hodnocení efektů na nezaměstnanost v roce 2006 (*"Active Labour Market Policy Schemes in the CR in 2005: Evaluation of Effects on Unemployment in 2006"*). Prague: Research Institute for Labour and Social Affairs.

Skácelová, P. et al. (2009): Uplatnění absolventů škol na trhu práce – 2008 (*"The Situation of Graduates at the Labour Market – 2008"*). Prague: National Institute for Technical and Vocational Education.

World Bank (2008): Czech Republic: Improving Employment Chances of the Roma, Report No. 46120 CZ, Human Development Sector Unit, Europe and Central Asia.

---

## **Theme 2: Transitions**

*The chapter is divided into four separate parts dealing with recent research on different types of transitions: (1) transitions from secondary and tertiary professional education to labour market and higher education, (2) transitions from higher education to labour market, (3) labour market re-entrance and (4) leaving work for retirement.*

*The activities concerned with transition from secondary education into the labour market in the Czech Republic include, above all, the following: monitoring of the development of the numbers of students according to the level and field of education, analyses of educational programmes in terms of the employability of graduates, tracking the transition of graduates into the labour market and into tertiary education (particularly their success in employment and evaluation of the qualification they acquired). Other activities focusing on this topic include monitoring of the position of graduates at the labour market, the rate and development of unemployment among them and the stability of their career choice (match between education and employment), evaluation of the graduates' preparedness for the labour market, identification of employer needs and analyses of reasons behind young people's early leaving of the education system.*

*The transition of tertiary education graduates into the labour market at national level in the Czech Republic is the subject of research in three major domains: monitoring of graduate unemployment, research focusing directly on the employment of tertiary education graduates and studies concerned generally with the transfer of graduates from school to work. Apart from this there are a number of independent surveys carried out by various schools and faculties as well as various recruitment agencies and consultancies.*

*The subchapters Re-Entry into the Labour Market a Transition from Work into Retirement briefly summarise the existing research activities concerned with the topic of re-entering the labour market, particularly as regards disadvantaged groups, and transitions into retirement. It provides a brief overview of the organisational provisions and implementation of specialist research into these issues. In addition to public administration bodies, this research is carried out primarily by public research institutions and also by some non-profit and private organisations.*

### **2.1 Introduction**

The issue of transitions into the labour market concerns important stages in the life of an individual and has a major impact on his/her future employment and career path. The transition of graduates into the labour market, support for disadvantaged groups and the population ageing are among the current political topics. Surveys concerned with these issues provide important feedback for policy and decision makers, and

also for guidance institutions. As the topic of transitions is an extensive one, it was necessary to divide it into several research areas. These areas, which are dealt with by several research institutions in the Czech Republic, are also relatively broad and have their specificities. The National Institute for Technical and Vocational Education (NÚOV) focuses on secondary and tertiary professional education and transitions into the labour market. The Education Policy Centre (SVP) at the Faculty of Education at Charles University deals, apart from other research topics, with the transition of tertiary education graduates into the labour market. The Research Institute of Labour and Social Affairs (VÚPSV) covers a wide range of labour market topics, one of them being the re-entry into the labour market and a transition from work into retirement. There are also studies concerned with the success of graduates and their employment in the given field that are carried out by some secondary schools and tertiary education institutions in the CR. However, this research aims to serve the internal purposes of the institutions. It takes place mainly as part of individual initiatives at regional level (e.g. cooperation with local employers) and it is not monitored.

## 2.2 Secondary and tertiary professional education

As regards secondary and tertiary professional education, the issues that are gaining in importance are the transition into the labour market, transition into higher education and, last but not least, the issue of drop-outs from education. Research in these areas is of a long-term nature and constitutes a major base for education policy makers and career guidance at schools.

Basic information about secondary and tertiary professional education is provided by data collected by the Institute for Information on Education (ÚIV). They monitor, on a continuous basis, **the development of the structure of secondary and tertiary education** (development of student numbers at various types of school by regions and groups of fields of study).

Moreover, over the long term the ÚIV carries out **analyses of educational programmes** within secondary technical and vocational education. Recently, 50 school educational programmes (ŠVP) were evaluated as part of the Pilot S project in order to establish the degree to which they observe the requirements of the curricular reform. The reform is focused, among other things, on improving the employability of school leavers.

**Transitions of secondary and tertiary professional education graduates into the labour market and into higher education** are one of the subjects of research conducted particularly by the National Institute for Technical and Vocational Education (NÚOV). The main objective of the research entitled “Transition of Secondary and Tertiary Professional School Graduates to the Labour Market and



their Employment Situation” (e.g. Trhlíková et al., 2008), which has been running since 2000, is to map this transition and, most importantly, to identify the related problems. The study is longitudinal – the same set of respondents is polled in three consecutive periods: before graduation and 3 and 6 years after graduation.

The survey was followed upon by an analysis of **job-seeking strategies** employed by secondary and tertiary professional school leavers, and of their attitudes to work (Trhlíková, 2009).

The development of **unemployment among secondary and tertiary professional school leavers** is tracked by means of an annual analysis of their labour market situation while using an indicator of the rate of unemployment for various levels and fields of education (e.g. Chamoutová, 2009). This is done using statistical data provided by the Institute for Information on Education as background material. The continuity of the research ensures that relatively long time series may be obtained in order to track, among other things, the cycles of gradual absorption of recent graduates by the labour market in the course of a calendar year. Comparisons with the unemployment rates among young people in other countries are also made. For the sake of international comparison the rates of unemployment published on the websites of Eurostat and the OECD are used.

As part of research carried out in 2007-2009 and monitoring **students’ choices of educational paths and success when entering the labour market** (Trhlíková et al., 2008a) a survey was implemented with the objective of chartering the factors that affected the choice including the influence of the family, the broader social environment and the secondary school. Moreover, the objective was to identify how the graduates are happy with their choice and to pinpoint the main reasons for dissatisfaction and failure, as well as the impact of the social background and the level of education attained on finding a suitable job and job satisfaction.

A research study entitled “**Success of Secondary School Leavers in Higher Education**” was carried out in 2006-2007 (Kleňhová and Vojtěch, 2007). Its objective was to map the situation of secondary school leavers who pursue admission to higher education immediately after completion of secondary education. The research was also concerned with dropouts from tertiary education.

The objective of research concerned with the **match between the qualifications acquired and the jobs performed** (Vojtěch and Doležalová, 2006)) was, first of all, to obtain information about the employment situation of graduates of secondary technical and vocational education in terms of the match between the qualification acquired and the job performed according to categories of education within various groups of fields of study

**Fields of study in terms employment prospects** were subject of a research study entitled “Views of Labour Office Staff on the Employment Situation of School Graduates” (Trhlíková and Vojtěch, 2004; Festová, 2006; Burdová et al., 2007, Skácelová and Vojtěch, 2009). The study focused, firstly, on fields identified by labour offices as those producing the largest numbers of graduates who end up registered as unemployed or who are long-term unemployed, and the reasons for this were identified. Secondly, the most demanded occupations were identified as well as the chances of graduates of finding such employment. Moreover, the knowledge, skills and competencies required from graduates were pinpointed.

A similar topic was embraced by the study “**Employer Needs and Preparedness of School Graduates**” carried out in 2004-2009 (Kalousková and Vojtěch, 2008; Burdová and Paterová, 2009). The objective was to ascertain not only the views of employers as regards the knowledge, skills and competencies of school graduates and their readiness to enter the labour market, but also the factors that are decisive for employers in hiring new employees. The demanded occupations and fields of study were also identified and, last but not least, the study focused on what employers expect from the education system.

In addition to the aforementioned surveys the NÚOV monitored, in 2006-2008, the situation and development as regards the supply of job **vacancies advertised by employers** via labour offices, the media and recruitment agencies (Šťastnová et al., 2006, 2008).

An analysis of reasons for **young people’s early leaving from education** was implemented as part of the Survey of Early Leaving from Secondary Schools (Úlovcová et al., 2006). The respondents were young people who left the education system upon completion of compulsory education and did not continue studying at secondary level (some 30%) or dropped out of secondary education shortly after its commencement (70%) and are registered as jobseekers at labour offices. The survey also mapped the views of labour office staff who work with these unemployed young people.

The findings from most of the mentioned studies are presented in the Information System on the Situation of Graduates at the Labour Market (ISA) at [www.infoabsolvent.cz](http://www.infoabsolvent.cz).

### **2.2.1 Key research findings**

Decisions about the choice of an educational path are among those that are the most important in an individual’s life and have a major impact on his/her future position in the labour market. The outcomes of research studies reveal that the lowest level of satisfaction with this choice can be found in graduates of vocational programmes

without *maturita*. This dissatisfaction concerns both the type of education and the field chosen. Nearly 50% of these graduates would opt for a different educational path and, based on their experience of entering the labour market, they would prefer a programme with *maturita*. Graduates of *maturita* programmes at secondary technical schools are much happier with their choice of education.

While at the end of their study programme some three quarters of secondary school graduates wish to work in the field they studied, three years following graduation the proportion of those who work in their field ranges from less than a third to some 50%. This proportion is the highest in the group of graduates without *maturita*, and the lowest in SOŠ graduates. However, in the latter group the low figure is offset by a higher proportion of those who are employed in related fields. This means that the resulting proportion of secondary education graduates who three years after graduation work in an entirely different field than that they studied, is about the same for all types of education (with and without *maturita*) and ranges from 36% to 40%.

In the category of graduates of vocational programmes without *maturita* there is a higher degree of match between the qualification achieved and the job performed particularly in services, mechanical engineering and construction. As for *maturita* programmes, there is a high level of match in healthcare, business and education fields.

Graduates of various types of school employ different job-seeking strategies. The non-formal approaches continue to predominate in spite of the development of the Internet. This is evidence of the importance of social networks for the graduates' entering the labour market. At the same time, it is clear that the proportion of graduates who find employment through formal channels increases along with increasing qualifications. In terms of the success of the graduate's transition into the labour market and finding a good job it is not a decisive factor whether he/she uses a formal or a non-formal channel. As compared to other jobseekers school leavers face the disadvantage of a lack of practical work experience, missing work habits and a minimum of experience in general. Although the situation as regards the employment of graduates had improved considerably before the economic downturn occurred, their rate of unemployment was higher than the rate of unemployment in the economy as a whole. The most recent findings confirm that the rate of unemployment among graduates decreases along with an increasing qualification.

The most frequent reasons behind the unemployment of graduates, as viewed from the perspective of labour offices, include their insufficient practical experience, large numbers of graduates in certain disciplines and a lack of interest in these graduates over the long term. The economic crisis and the slump in industrial output have worsened the employability of graduates of mechanical and electrical engineering programmes who were, until recently, very much in demand. Representatives of labour offices believe that, in general, graduates of universities and tertiary

professional schools should be more easily employable. However, the situation varies depending on the field of education. An active approach to jobseeking on the part of graduates is clearly the most important factor in ensuring a good employment situation.

Employers also stress the need to ensure that, during studies, students undergo sufficiently long periods of work placements or practical training in a real-life environment. They also urge that there should be more intensive cooperation between schools and employers. Moreover, it is necessary to spend more time familiarizing students with the labour market situation including their employment prospects.

The research focused on early leaving from secondary education revealed that students most frequently leave school in the 1<sup>st</sup> year, and the number of dropouts decreases in higher years. A high percentage of students who leave school in the first year point to problems related to career choice at basic school and therefore justify calls for improvement of career guidance at basic schools.

As concerns the transition into higher education, graduates of secondary general education are the most flexible and successful – i.e. graduates of grammar schools (*gymnazia*) and lyceums. The overall drop-out rate from higher education is 15%. However, a portion of these students who leave higher education before its completion are expected to resume their studies after several years and complete them with success.

## **2.2.2 Conclusions and implications for further research**

The outcomes of research studies provide comprehensive information about education and the labour market that may be used to support the curricular reform and also to assist in shaping the educational provision in regions. Moreover, this information proves helpful in discussions with employers and trade unions, and may also be used by schools, guidance institutions and the applicants for secondary and tertiary studies.

The economic downturn confirmed that it is not possible to modify educational provision and route basic school pupils to specific fields of study depending on the existing needs of the labour market and on the economic situation at a particular moment in time. The results of studies show that it is necessary to focus far more on the development of career guidance at schools and to make it possible for pupils to study those fields in which they are interested and for which they have talent. This of course requires that both pupils and career counsellors should have the relevant information related to the choice of secondary education in the context of the employment situation of graduates. This information is offered by the integrated

Information System on the Situation of Graduates at the Labour Market (ISA). Moreover, it is necessary to make sure that the data in the system are continuously updated and developed. This requires that the continuity of the research studies mentioned above should be maintained and new topics should be explored.

## 2.3 Higher Education

At national level, research concerned with transition of tertiary education graduates into the labour market in the Czech Republic can be divided into **three areas**. The first area covers a systematic and regular monitoring and analyses of data about unemployed and the unemployment rate of higher education graduates. The second area is concerned with occasional sample surveys focusing specifically on these issues. The third area involves studies that deal with these issues partially. The topics of the research include, above all, the employability of higher education graduates, evaluation of their studies and the use of the qualifications acquired at the labour market. These topics are studied in an international context and comparisons in terms of various levels and types of education and between schools, faculties and programmes are made. The research and monitoring of transition from higher education to employment and of the labour market situation of graduates in the Czech Republic has, over the long term, been mainly carried out by the Education Policy Centre, Faculty of Education, Charles University in Prague (EPC). Moreover, since 2006 the EPC annually publishes a report “The Situation of Higher Education Graduates at the Labour Market”.( Koucký et al.,2008)

Data about unemployed graduates are collected from labour offices and processed at the Ministry of Labour and Social Affairs on a regular basis twice a year (September and April)<sup>2</sup>. The EPC has developed and made accessible a **database of graduates and unemployed graduates of higher education institutions and faculties in the Czech Republic after 2000**<sup>3</sup>. Thanks to the fact that data on unemployment are inter-connected with data from the national register of students it is possible to compare the unemployment rates among graduates for various levels of education (Bachelor, Master, Doctoral), various HE institutions or faculties, for various specialisations and regions, periods following after graduation, etc. The data are therefore used not only by researchers, decision-makers and managements of various institutions or faculties, but may also assist in choosing which higher education programme to study.

---

<sup>2</sup> An unemployed school graduate is a person registered as a jobseeker at a labour office within two years of graduation. The data therefore concern so-called registered unemployment that differs from the international ILO definition.

<sup>3</sup> The database can be found at <http://www.strediskovzdelavacipolitiky.info/svp/>.

The second stream of research consists in **occasional national sample surveys focused specifically on the employment of higher education graduates**. The most important recent source of information is the international **project REFLEX** „The Flexible Professional in the Knowledge Society: New Demands on Higher Education in Europe“, which was carried out in 2004–2007. In the Czech Republic the survey was conducted under the guidance of EPC in 2006 and covered 7 thousand higher education graduates of 2001-2002. The project sought to answer three main questions: 1. What competencies do graduates need to meet new labour market requirements? 2. To what extent do various HE institutions, faculties and programmes develop these competencies? 3. What problems are faced by graduates, HE institutions, employers and other key stakeholders, and how can they be solved? A number of publications have been issued as an outcome of the REFLEX study. The survey is to be repeated at national level in the near future. ( Koucký et al.,2007a; Allen and Van der Velden, 2008; Koucký et al, 2007b)

There have also been several national surveys concerned with the **employability of graduates** at all levels, i.e. also higher education graduates. These surveys are regularly focused on those individuals in the 20-29 age cohort who completed their education. The first national survey was conducted as early as winter 1997/1998 (School Leavers), another was implemented in 2002/2003 (Retrospective Labour Force Survey II.) and the last one was done in 2007/2008 (Survey of School Graduates' Employment and Skill Requirements). (Koucký and Zelenka, 2006,2007,2008; Zelenka 2008)

The surveys mentioned above are beneficial in that they facilitate an analysis of the employment of higher education graduates as compared with that of graduates at lower levels. Overall, these three surveys make it possible to explore changes in the position and employment of graduates and their assessment of the qualifications acquired and school completed since as early as the 2<sup>nd</sup> half of 1990s.

Moreover, helpful complementary data are generated as part of various **international and national surveys** that, although not being specifically focused on transitions from school into employment, serve as a source of valuable information. With regard to international comparison these include, above all, the Czech and European databases of the Czech and European Labour Force Survey, and also the European Social Survey (ESS) and the International Social Survey Programme (ISSP) databases.

In addition to national surveys there are also **surveys implemented at school level**. Most HE institutions carry out their own studies of their graduates position at the labour market, for some of them this is a regular activity. The pioneering work in this area was done by Masaryk University in Brno in the 1990s. However, these efforts suffer from lack of coordination and the resulting low level of comparability of the

results. The use of the results is therefore mostly restricted to the needs of the relevant HE institution.

Finally, another source of information can be found in **research carried out by various recruitment agencies, consultancies and other similar private organisations**. One example is the annual survey of the LMC company that operates the Jobs.cz portal. As with HE institutions, the outcomes of the research are used predominantly by the companies themselves, or by their customers.

### **2.3.1 Key research findings**

Several major conclusions may be drawn based on an analysis of the research studies mentioned previously. Graduates of Czech higher education institutions currently have a better labour market position and employment prospects than their counterparts in most European countries. Higher education in the Czech Republic really pays off. HE graduates have a lower unemployment rate, spend less time looking for their first job, get a higher pay, and enjoy a better social position and higher job security. They more often work in the field for which they are qualified and show a generally higher level of job satisfaction. The main reason for this is that there is still a low proportion of them in the workforce. Moreover, the quality and relevance of higher education undertaken by Czech young people enhances their employment prospects.

The employment of graduates in each country is also closely linked to the overall economic development and situation at the labour market. The robust economic growth the Czech Republic experienced from 2004 (accession to the EU) until 2008 (the beginning of the economic downturn), and the pace of job creation therefore established favourable conditions for employment (a low rate of unemployment) and a good employment situation of tertiary education graduates.

### **2.3.2 Conclusions and implications for further research**

Since the end of 2008 the labour market situation has worsened due to the economic crisis. However, there is not yet enough relevant data for a thorough analysis and evaluation of the changing situation graduates face (a proper evaluation may be expected as late as the end of 2009). The ongoing massification of Czech higher education, and the related inflow of increasingly large cohorts of tertiary educated graduates into the labour market, will undoubtedly be another major driver in the future. Only regular and profound analyses and evaluation of the transition of graduates from school to work can draw appropriate attention to the risk of labour market imbalances and alleviate problems related to the employment of graduates.

## 2.4 Re-entry into the labour market

Research activities concerning the issue of re-entry into the labour market focus primarily on **groups of people facing disadvantages at the labour market**. The so-called “at risk” people include, for example, parents returning to the labour market after maternity or parental leave, elderly people, low-skilled people, the disabled, people from disadvantaged backgrounds, and members of national minorities, particularly the Roma community. The issue of re-entry into the labour market is, in most cases, addressed as part of research activities focusing on related broader thematic areas.

The institutional and organisational arrangements for research include both state and private organisations that deal with these and related issues as part of their research activities. It is largely public research institutions that carry out more general research. These are, for example, **the Research Institute of Labour and Social Affairs** ([www.vupsv.cz](http://www.vupsv.cz)) (e.g. Krause, 2005), **the Institute of Sociology of the Academy of Sciences** (<http://www.soc.cas.cz/cz/>) and others. The scope of specialist research conducted by research institutions is much larger, and the issue of re-entry into the labour market is addressed as part of their research projects on related topics (e.g. Mareš and Vyhlídal, 2006; Kulhavý, 2007). These studies deal, in particular, with **analyses of the position of and the risks faced by specific groups at the labour market**.

There is also room for research as part of projects the objective of which is to develop and implement measures to assist specific groups in re-entering the labour market. Most of these are projects supported from the ESF and the state budget that are designed, above all, to support equal opportunities at the labour market, to provide training opportunities for these people and to assist them in job seeking, childcare, etc. Although the primary focus of these projects is not research, research activities are carried out as part of some of them (e.g. ascertaining the views and needs of the target group). The data obtained can then be further used for more general research projects.

At government level, the issue of “at risk” groups is addressed, apart from the relevant ministries, by inter-departmental bodies that report directly to the government of the CR. Evaluation reports developed by these bodies constitute another source of information on disadvantaged individuals’ re-entry into the labour market. The bodies concerned are, for example, the Council of the Government of the Czech Republic for National Minorities and the Council of the Government of the Czech Republic for Roma Community Affairs. The latter developed, in cooperation with the World Bank, an **analysis of the strategy for supporting the employment of the Roma in the Czech Republic**. The resulting study entitled “Czech Republic: Improving Employment Chances of the Roma” (World Bank, 2008) presents data obtained during research carried out between November 2007 and October 2008 and



focuses, above all, on the effectiveness of labour offices and their capacity to deal with long-term unemployment and social exclusion particularly among the Roma, and with barriers both on the demand and supply side.

There are no specific statistical surveys concerned with this topic. Some data can be processed using data provided by **the Czech Statistical Office** (e.g. the number economically active people on parental leave, the number of foreigners in the CR, elderly people, disabled people, but no data such as the number of various national minority members, e.g. the Roma).

Increased attention is paid to the disadvantaged groups as part of employment policies implemented by **labour offices**. Labour office statistics also contain data on jobseekers according to “at risk” groups, and these data can be partly used in research concerned with labour market re-entries. However, this information does not provide a comprehensive picture. The key activation measures of the employment policy focusing on the unemployed’s re-entry into the labour market include education and training. The problem is that these programmes are largely attended by people with better education. Unemployed people with low skills, the disabled and the elderly, who are those most at risk of exclusion, are the least represented groups in training schemes. The training programmes fail to respond appropriately to the needs of disadvantaged individuals and, in terms of their focus, they tend to cover the needs of people who already have a certain level of skills and just need to acquire additional knowledge in a specific area.

A recent study generated new findings in this area (Kulhavý, 2007). It focuses on **evaluation of the effectiveness of ALMP schemes implemented in the Czech Republic in 2006**. The study compared the risks of unemployment faced by people who participated in the ALMP schemes with those faced by people who did not. Moreover, it evaluated the effectiveness of the schemes by means of comparing the characteristics of the “successful” and “unsuccessful” participants in ALMP programmes. Retraining courses constitute the most frequently used ALMP measure. Participation of people in ALMP programmes is related to educational attainment where people with a higher level of educational attainment tend to undergo the programmes more often. Moreover, the study evaluated the importance of factors that influence the success of various ALMP programmes.

#### **2.4.1 Key research findings**

The World Bank proposed recommendations concerning both active labour market policies (ALMP), where measures must be specifically designed for these jobseekers, and education and training that play a preventive role in eliminating disadvantages the Roma face at the labour market. In this respect, attention should primarily be paid to preventing early leaving of the education system and to supporting continuation of studies at more advanced levels. One of the reasons why the Roma are less

motivated to enter into employment lies in their indebtedness. A recommended solution consists in improving the economic situation of the Roma and supporting their financial education leading to acquisition of basic financial literacy.

The evaluation of the effectiveness of ALMP programmes shows that graduates and people requiring “a special treatment” are less likely to take part in the ALMP programmes. People in the latter category are more likely to be taken out of labour office registers as part of sanctions measures. When the period of unemployment prior to participation in an ALMP scheme is taken into account, it is apparent that the longer the period, the lower probability of participation. It is thus confirmed that ALMP programmes are designed so as to benefit less disadvantaged groups.

In terms of the age of unemployed individuals, retraining was the most effective in the middle age category, whereas it was the least effective in people over 50. The effects of retraining were also dependent to a large degree on the health condition where a better condition means a lower risk of unemployment. On the contrary, the level of educational attainment did not have a large impact on the effect of retraining. The situation is different as regards other ALMP programmes. The results of the study show that retraining programmes are among those that get the poorest ranking for their effectiveness in tackling unemployment. Measures designed to support job creation are rated as the best in this respect. The conclusion is that the impact of ALMP programmes (including retraining) in terms of an effective solution to the labour market situation is insufficient.

#### **2.4.2 Conclusions and implications for further research**

The monitoring and evaluation of the effects of active labour market policy measures in the Czech Republic is not yet satisfactory. As regards retraining, official labour office statistics only cover the number of people retrained who, within a certain period of completion of retraining, entered into employment. However, these data do not facilitate evaluation of the extent to which the retraining actually contributed to the re-entry of these people into the labour market. The possibility of setting up a system for evaluation of the effectiveness of active labour market policy measures, which is used in many developed countries, is the subject of long-term efforts of a team of experts at the Research Institute of Labour and Social Affairs.

The developed model approach should provide instruments for public policy makers to be able evaluate the effects of employment policy on the labour market situation. The approach is based on identification of co-called net effects where a comparison is made between a situation that would be achieved if no employment schemes were implemented with a situation achieved as a result of their implementation. However, state administration bodies do not yet use the model to carry out regular, nation-wide evaluation of ALMP.

## 2.5 Transition from work into retirement

The issue of retiring workers receives attention particularly as part of research activities concerned with the impact of the population ageing on the pension system and the labour market. The ageing of the workforce raises concerns that there might be a collapse of the pension system and a shortage of labour.

At a more general level, the issue of transition into retirement is addressed by state administration bodies, most importantly by the Ministry of Labour and Social Affairs (MPSV) where the Council of the Government of the Czech Republic for Older Persons and Population Ageing operates. The Council is responsible for implementation of the “National Programme of Preparation for Ageing for 2008-2012” (MPSV, 2008). The issue of the demographic ageing of the population is the subject of research carried out, above all, by **the Research Institute of Labour and Social Affairs** ([www.vupsv.cz](http://www.vupsv.cz)), and **the Institute of Sociology of the Academy of Sciences** (<http://www.soc.cas.cz/cz/>). Other institutions include higher education institutions, private research organisations and public opinion research companies.

Some statistical data providing an overview of the number of pensioners – classified as old-age pensioners and persons in disability retirement, and their economic activity are collected by **the Czech Statistical Office**. In line with the Commission Regulation (EC) No. 388/2005 of 8 March 2005 the Czech Statistical Office implemented a survey, in 2006, concerned with the ad hoc module “**Transition into Retirement**” (AHM 2006- Czech Statistical Office 2007). The objective of the survey was to map the standpoints of people aged 50-69 as to their real or planned retirement from working lives or the reasons why they intend to extend the period of economic activity. The publication presenting the results of the survey is available at the website of the Czech Statistical Office at [www.czso.cz](http://www.czso.cz).

The issue of older people staying on at the labour market was treated in a comprehensive manner as part of the project “**Support for the Employment of Older People**” implemented by the Research Institute of Labour and Social Affairs in 2005-2007 (Remr, 2007).

### 2.5.1 Key research findings

The outcomes of the research focused on elderly people staying on at the labour market revealed that employers value older workers primarily for their years of work and life experience, a higher degree of responsibility and loyalty, and also for more prudent and composed decision-making, reliability, lower turnover rates and higher flexibility in terms of time. What employers see as negative aspects are, most importantly, the lower levels of educational attainment, lack of willingness to learn, missing skills to use new technologies, insufficient language and computer skills, poorer physical performance, more frequent health problems and a burden of

stereotypes. If there is an experience of unemployment, another negative aspect is the lack of job-seeking skills and more severe effects on the state of mind that weakens motivation to search for a new job. If these negative aspects accumulate – and this concerns primarily low qualifications and a bad health condition, the older person is virtually unemployable. The main reason why older people continue working even beyond retirement age is clearly financial. Moreover, the need to be in contact with other people and to be useful is also significant.

One important precondition for older people staying in employment is their willingness to undergo continuing education. This willingness is generally (and this is even more true of older people) linked to the level of educational attainment and increases proportionately to this level. People aged 50+ most frequently explain their lack of initiative to pursue continuing education by pointing to uselessness of such education, lack of time, aversion to learning, higher age and the related difficulties in acquiring new knowledge. The respondents saw the main barriers to continuing education in the cost of training courses that is considered to be too high, inappropriate supply of courses and missing information about continuing education opportunities.

## **2.5.2 Conclusions and implications for further research**

The estimated future development trends point to the need for changes in the employment of elderly persons who will have to replace the young population that is in short supply. The Czech Republic, as well as other developed countries, realises the need for a long-term strategy designed to support higher employment levels among older workers. Research in this area is most often focused on increasing the rates of employment of elderly people, extending their active working lives and seeking effective solutions in this respect. The key issues include the need for continuing education as a prerequisite for successful employment of older people. Since education is one of the main instruments that assist in retaining the workforce at the labour market, in their re-entering it and in prolonging the periods of their economic activity, there is a growing attention paid to the links between education and population ageing.

It is necessary to increase the attention paid by experts to the issue of educational provision and teaching methods adjusted to the needs of elderly people. Moreover, increased attention should be paid to the professional training of lecturers in adult education, a good information/guidance system, certification of the skills acquired and a system for controlling the quality of continuing education on offer. Although some of these issues do receive certain attention, the outcomes of research activities remain in the form of project outputs without being put into practice.

## 2.6 References

### Transitions from school-to-work, VET and higher education

- Burdová, J.; Paterová, P. (2009): Potřeby zaměstnavatelů a připravenost absolventů škol – šetření v zemědělské sféře (*“Employer Needs and Preparedness of School Graduates” – survey in the area of agriculture*). Prague: NÚOV.
- Burdová, J.; Trhlíková, J.; Vojtěch, J. (2007): Názory pracovníků úřadů práce na uplatnění absolventů škol – 2006 (*“Views of Labour Office Staff of the Employment Situation of School Graduates – 2006”*). Prague: NÚOV.
- Chamoutová, D. (2009): Nezaměstnanost absolventů škol se středním a vyšším odborným vzděláním – 2009 (*“The Unemployment of Graduates of Secondary and Tertiary Professional Schools – 2009”*). Prague: NÚOV.
- Festová, J. (2006): Názory pracovníků úřadů práce na problematiku mladých uchazečů o zaměstnání se základním vzděláním (*“Views of Labour Office Staff of the Issue of Young Jobseekers with Basic Education”*). Prague: NÚOV.
- Kalousková, P.; Vojtěch, J. (2008): Potřeby zaměstnavatelů a připravenost absolventů škol – souhrnný pohled (*“Employer Needs and Preparedness of School Graduates – an overview”*). Prague: NÚOV.
- Kleňhová, M.; Vojtěch, J. (2007): Úspěšnost absolventů středních škol ve vysokoškolském studiu, předčasné odchody ze vzdělávání (*“Success of Secondary School Graduates in Higher Education, Early Leaving from Education”*). Prague: NÚOV.
- Skácelová, P.; Vojtěch, J.: Názory pracovníků úřadů práce na uplatnění absolventů škol v období ekonomické krize – 2009 (*“Views of Labour Office Staff of the Employment Situation of School Graduates in Terms of Economic Crises – 2009”*). Prague: NÚOV.
- Štastnová, P.; Kalousková, P.; Úlovcová, H.; Vojtěch, J. (2008): Potřeby zaměstnavatelů z pohledu analýzy inzertní nabídky zaměstnání a názorů pracovníků personálních agentur (2007–08) (*“Employer Needs from the Perspective of Analysis of Advertised Jobs and the Views of Staff at Recruitment Agencies 2007-08”*). Prague: NÚOV.
- Štastnová, P.; Kalousková, P.; Úlovcová, H.; Vojtěch, J. (2006): Potřeby zaměstnavatelů z pohledu analýzy inzertní nabídky zaměstnání a názorů pracovníků personálních agentur (*“Employer Needs from the Perspective of Analysis of Advertised Jobs and the Views of Staff at Recruitment Agencies”*). 1<sup>st</sup> edition, Prague: NÚOV.
- Trhlíková, J.(2009): Strategie získání zaměstnání absolventů středních a vyšších odborných škol a jejich postoje k práci (*“Job-seeking Strategy for Graduates of Secondary and Tertiary Professional Schools and their Attitude to Work”*) (Complementary analyses based on data from surveys into transition of graduates into the labour market implemented by NÚOV). Prague: NÚOV.

Trhlíková, J.; Úlovcová, H.; Vojtěch, J. (2008a): Rozhodování žáků při volbě vzdělávací cesty a úspěšnost vstupu na trh práce (*“Decision-Making of Students Related to Choice of Educational Path and Success in Entering the Labour Market”*). (Research based on a survey of secondary school leavers who took part, at the age of 15, in PISA-2003 and of a sample of their employers). Prague: NÚOV.

Trhlíková, J.; Vojtěch, J. (2004): Názory pracovníků úřadů práce na uplatnění absolventů škol – 2004 (*“Views of Labour Office Staff of the Employment Situation of School Graduates – 2004”*). Prague: NÚOV.

Trhlíková, J.; Vojtěch, J.; Úlovcová, H. (2008): Připravenost absolventů středních odborných škol na uplatnění v praxi (*“Preparedness of Secondary Technical School Graduates for Employment”*) (Comparison of the situation of secondary technical education graduates with a vocational certificate with those with *maturita* certificate and with practical training three years after completion of studies). Prague: NÚOV.

Úlovcová, H.; Bubíková, M.; Viceníková, T.; Hytša, P. (2006): Předčasné odchody mladých lidí ze středního vzdělávání (*“Early Leaving of Young People from Secondary Education”*). Prague: NÚOV.

Vojtěch, J.; Doležalová, G. (2006): Shoda dosaženého vzdělání a vykonávaného zaměstnání – 2005 (*“Match between Qualifications Achieved and Jobs Performed”*). 1<sup>st</sup> edition, Prague: NÚOV.

### **Transition of higher education graduates from education to the labour market**

Allen, J.; Van der Velden, R. (eds) (2008): Flexible Professional in the Knowledge Society: General Results of the Reflex Project. Maastricht: Research Centre for Education and the Labour Market, Maastricht University.

Koucký, J.; Kuchař, P.; Bartušek, A.; Voříšek, P.; Zelenka, M. (2007a): Závěrečná zpráva z dotazníkového šetření projektu Reflex v České republice (*“Final Report from Questionnaire Survey as part of the Reflex Project in the Czech Republic”*). Prague: SVP PedF UK.

Koucký, J.; Meng, Ch.; Van der Velden, R. (2007b): Reflex Country Study. Maastricht: Research Centre for Education and the Labour Market, Maastricht University.

Koucký, J.; Voříšek, P.; Zelenka, M. (2008): Absolventi vysokých škol na pracovním trhu (*“Higher Education Graduates at the Labour Market”*). In: Aula, Vol. 16, No 2, pp. 1-10.

Koucký, J.; Zelenka, M. (2006, 2007 & 2008): Postavení vysokoškoláků a uplatnění absolventů vysokých škol na pracovním trhu. Zprávy za roky 2006-2008 (*“The Position of Higher Education Graduates at the Labour Market” – reports for 2006-2008*). Prague: SVP PedF UK.

Zelenka, M. (2008): Přejít absolventů škol ze vzdělávání na pracovní trh (*“Transition of School Graduates from Education to the Labour Market”*). Prague: Charles University, Faculty of Education.

## Re-entry into the labour market and transitions into retirement

Czech Statistical Office (2007): Přejít do důchodu podle výsledků ad hoc modulu 2006 výběrového šetření pracovních sil (*“Transition into Retirement According to the Results of Ad Hoc Module 2006 of Labour Force Survey”*). Prague: Czech Statistical Office. Available at <http://www.czso.cz/csu/2007edicniplan.nsf/p/3123-07>

Kulhavý, V.; Sirovátka, T. (2007): Hodnocení efektivity programů APZ a doprovodných nástrojů a projektů zaměstnanosti v roce 2007 (*“Evaluation of Effectiveness of ALMP Programmes and Accompanying Instruments and Projects Concerned with Employment in 2007”*). Prague: VÚPSV.

Mareš, P.; Vyhlídal, J. (2006): Mění se rizika a šance na trhu práce. Analýza postavení a šancí vybraných rizikových skupin na trhu práce (*“Changing Risks and Chances at the Labour Market. Analysis of the Position and Chances of Selected Groups at Risk at the Labour Market”*). Prague: VÚPSV, Research centre in Brno.

MPSV (2008): Hodnocení mainstreamingové strategie. Národní tématické sítě A. Zlepšování přístupu a návratu na trh práce pro osoby obtížně integrovatelné. Zpráva v rámci projektu „Zajištění činnosti NTS CIP EQUAL“ (*“Evaluation of Mainstreaming Strategy. National Thematic Networks A. Improving Access and Re-entry into the Labour Market for People Facing Difficulties Related to Integration”*). Report as part of the project “Provisions for the Activities of NTN CIP EQUAL”). Community Initiative Programme EQUAL. Prague: MPSV.

MPSV (2008): Kvalita života ve stáří. Národní program přípravy na stárnutí na období let 2008 až 2012. (*The Quality of Life at Old Age. National Programme of Preparation for Ageing for 2008-2012*). Prague: MPSV.

Remr, J.; Kotíková, J. et al (2007): Podpora zaměstnávání starších osob. Souhrnná zpráva (*“Support for the Employment of Elderly Persons. Comprehensive report”*). Prague: VÚPSV.

World Bank (2008): Czech Republic: Improving Employment Chances of the Roma. World Bank document.

## 2.7 Other relevant literature

Burdová, J.; Chamoutová, D. (2008): Nezaměstnanost absolventů škol se středním a vyšším odborným vzděláním – 2008 (*“The Unemployment of Graduates of Secondary and Tertiary Professional Schools – 2008”*). Prague: NÚOV.

Chamoutová, D.; Burdová, J. (2007): Nezaměstnanost absolventů škol se středním a vyšším odborným vzděláním – 2007 (*“The Unemployment of Graduates of Secondary and Tertiary Professional Schools – 2007”*). Prague: NÚOV.

CSVŠ (2006): OECD Thematic Review of Tertiary Education: Country Background Report for Czech Republic. Prague: Centre for Higher Education Studies (CSVŠ).

Doležalová, G. (2006): Vývoj profesních nároků ve vybraných odvětvích národního hospodářství a náměty pro jejich reflexi v odborném vzdělávání (*“Development of*

*Occupational Requirements in Selected Industries of the National Economy and Suggestions for their Reflection in VET*). Synthetic publication, Prague: NÚOV.

Doležalová, G.; Sukup, R.; Vojtěch, J. (2007): Analýza profesní struktury pracovních sil v České republice z pohledu sféry vzdělávání – 2006 (*“Analysis of the Occupational Structure of the Workforce in the Czech Republic from the Perspective of the Education Sector – 2006”*). Prague: NÚOV.

Festová, J. (2004): Nezaměstnanost absolventů škol se středním a vyšším odborným vzděláním – 2004 (*“The Unemployment of Graduates of Secondary and Tertiary Professional Schools – 2004”*). Prague: NÚOV.

Festová, J.; Vojtěch, J. (2005): Nezaměstnanost absolventů škol se středním a vyšším odborným vzděláním – 2005 (*“The Unemployment of Graduates of Secondary and Tertiary Professional Schools – 2005”*). 1<sup>st</sup> edition, Prague: NÚOV.

Festová, J.; Vojtěch, J. (2006): Nezaměstnanost absolventů škol se středním a vyšším odborným vzděláním – 2006 (*“The Unemployment of Graduates of Secondary and Tertiary Professional Schools – 2006”*). Prague: NÚOV.

Kaloušková, P. (2006): Potřeby zaměstnavatelů a připravenost absolventů škol – šetření v terciární sféře (*“Employer Needs and Preparedness of School Graduates – survey in the tertiary sector”*). Prague: NÚOV.

Kaloušková, P.; Štastnová, P.; Úlovcová, H.; Vojtěch, J. (2004): Potřeby zaměstnavatelů a připravenost absolventů pro vstup na trh práce – 2004 (*“Employer Needs and Preparedness of Graduates for Entering the Labour Market – 2004”*). Prague: NÚOV.

Kaloušková, P. (2007): Potřeby zaměstnavatelů a připravenost absolventů škol – šetření v kvartérním sektoru (*“Employer Needs and Preparedness of School Graduates – survey in the quaternary sector”*). Prague: NÚOV.

Kleňhová, M.; Vojtěch, J. (2006): Přejít absolventů středních škol do terciárního vzdělávání (*“Transition of Secondary School Graduates into Tertiary Education”*). Prague: NÚOV.

Kofroňová, O.; Vojtěch, J. (2006): Analýza vzdělávacích programů z hlediska zaměstnanosti absolventů (*“Analysis of Educational Programmes in Terms of the Employment Situation of Graduates”*). 1<sup>st</sup> edition, Prague: NÚOV.

Kofroňová, O.; Vojtěch, J. (2008): Analýza školních vzdělávacích programů – 2007 (*“Analysis of School Educational Programmes – 2007”*). Prague: NÚOV.

Krause, D. (2005): Analýza trhu práce České republiky z pohledu problematiky genderu se zaměřením na popis stavu a struktury zaměstnanosti žen v managementu. Dílčí studie. (*“Analysis of the Labour Market in the Czech Republic in View of Gender Aimed at the Characterization of the State and Structure of the Employment of Women in Management”*). Prague: VÚPSV.

Křížová, E.; Trhlíková, J.; Úlovcová, H. (2008); Vojtěch, J.: Přejít absolventů maturitních oborů SOU do praxe a jejich uplatnění na trhu práce (*“Transition of Graduates of Vocational Programmes with Maturita and Their Situation at the Labour Market”*) (Survey of graduates of secondary technical and vocational education with *maturita* and practical training three years after completion of studies). Prague: NÚOV.



MPSV (2007): Přístup imigrantek a imigrantů ke vzdělávání a na trh práce v ČR (*“Access of Female and Male Immigrants to Education and the Labour Market in the CR”*). Prague: MPSV. Available at [www.cizinci.cz](http://www.cizinci.cz).

OECD (2008): Thematic Review of Tertiary Education. Paris: OECD.

Sirovátka, T.; Kulhavý, V.; Horáková, M.; Rákoczyová, M. (2006) : Hodnocení efektivity programů aktivní politiky zaměstnanosti v ČR (*“Evaluation of Effectiveness of Active Labour Market Policy Programmes in the CR”*). Prague: VÚPSV, Research centre in Brno.

Soukup, T.; Michalička, L. et al (2009): Třídění uchazečů na úřadech práce – řešení problematiky cílení APZ a poradenství (*“Classification of Jobseekers at Labour Offices – addressing the issue of targeting ALMP and guidance”*). Prague: VÚPSV.

Trhlíková, J. (2006): Pohled absolventů odborných škol na volbu oboru vzdělání, připravenost a uplatnění v praxi (*“Views of Technical School Graduates of their Choice of Education, Preparedness for Employment and Employment Situation”*). Prague: NÚOV.

Trhlíková, J.; Úlovcová, H.; Vojtěch, J. (2004): Přejít absolventů středních škol do praxe a jejich uplatnění (*“Transition of Secondary School Graduates into the Labour Market and Their Employment Situation”*). SOŠ – Stage 2, Prague: NÚOV.

Trhlíková, J.; Úlovcová, H.; Vojtěch, J. (2005): Přejít absolventů vyšších odborných škol do praxe a jejich uplatnění. – I. etapa (*“Transition of Tertiary Professional School Graduates into the Labour Market and Their Employment Situation”*) (Survey of views of future graduates of tertiary professional schools). 1<sup>st</sup> edition, Prague: NÚOV.

Trhlíková, J.; Úlovcová, H.; Vojtěch, J. (2007): Přejít absolventů SOŠ do praxe a jejich uplatnění na trhu práce – II. etapa (*“Transition of Secondary Technical School Graduates to the Labour Market and Their Employment Situation – Stage 2”*). Prague: NÚOV.

Trhlíková, J.; Úlovcová, H.; Vojtěch, J. (2008b): Přejít absolventů vyšších odborných škol do praxe a jejich uplatnění – II. etapa (*“Transition of Tertiary Professional School Graduates to the Labour Market and their Employment Situation – Stage 2”*) (Survey of the opinions of tertiary professional school graduates three years after completion of studies). Prague: NÚOV.

Trhlíková, J.; Úlovcová, H.; Vojtěch, J. (2006): Přejít absolventů SOU do praxe a jejich uplatnění na trhu práce – III. etapa (*“Transition of Secondary Vocational School Graduates to the Labour Market and Their Employment Situation – Stage 3”*). Prague: NÚOV.

Úlovcová, H.; Trhlíková, J.; Vojtěch, J. (2006): Sociální aspekty dlouhodobé nezaměstnanosti mladých lidí s nízkou úrovní vzdělání (*“Social Aspects of Long-Term Unemployment among Young People with Low Levels of Educational Attainment”*). Prague: NÚOV.

Úlovcová, H.; Vojtěch, J.; Burdová, J.; Trhlíková, J.; Doležalová, G.; Chamoutová, D.; Kalousková, P.; Kleňhová, M. (2008): Uplatnění absolventů škol na trhu práce – 2007 (*“The Situation of School Graduates at the Labour Market – 2007”*). Prague: NÚOV.

Úlovcová, H.; Vojtěch, J.; Festová, J.; Trhlíková, J.; Doležalová, G.; Kalousková, P.; Kleňhová, M.; Šťastnová, P. (2007): Uplatnění absolventů škol na trhu práce – 2006 (*“The Situation of School Graduates at the Labour Market – 2006”*). Prague: NÚOV.

Úlovcová, H.; Vojtěch, J.; Festová, J.; Trhlíková, J.; Doležalová, G.; Kofroňová, O.; Kalousková, P. (2006): Uplatnění absolventů škol na trhu práce – 2005 (*“The Situation of School Graduates at the Labour Market – 2005”*). Prague: NÚOV.

Úlovcová, H.; Vojtěch, J.; Trhlíková, J.; Kalousková, P.; Chamoutová, D.; Křížová, E.; Koucký, J.; Lepič, M.; Skácelová, P. (2009): Uplatnění absolventů škol na trhu práce – 2008 (*“The Situation of School Graduates at the Labour Market – 2008”*). Prague: NÚOV.

Vojtěch, J.; Chamoutová, D. (2007): Vývoj vzdělanostní a oborové struktury žáků a studentů ve středním a vyšším odborném vzdělávání v ČR a v krajích ČR a postavení mladých lidí na trhu práce ve srovnání se stavem v Evropské unii (*“The Development of the Structure of Pupils and Students by Education and Field of Study in Secondary and Tertiary Professional Education in the CR and in Regions of the CR and Position of Young People at the Labour Market in Comparison with the Situation in the European Union”*). Prague: NÚOV.

Vojtěch, J.; Chamoutová, D. (2008): Vývoj vzdělanostní a oborové struktury žáků a studentů ve středním a vyšším odborném vzdělávání v ČR a v krajích ČR a postavení mladých lidí na trhu práce ve srovnání se stavem v Evropské unii – 2007/08 (*“The Development of the Structure of Pupils and Students by Education and Field of Study in Secondary and Tertiary Professional Education in the CR and in Regions of the CR and Position of Young People at the Labour Market in Comparison with the Situation in the European Union – 2007/08”*). Prague: NÚOV.

Vojtěch, J.; Chamoutová, D.; Skácelová, P. (2009): Vývoj vzdělanostní a oborové struktury žáků a studentů ve středním a vyšším odborném vzdělávání v ČR a v krajích ČR a postavení mladých lidí na trhu práce ve srovnání se stavem v Evropské unii – 2008/09 (*“The Development of the Structure of Pupils and Students by Education and Field of Study in Secondary and Tertiary Professional Education in the CR and in Regions of the CR and Position of Young People at the Labour Market in Comparison with the Situation in the European Union – 2008/09”*). Prague: NÚOV.

Vojtěch, J.; Doležalová, G.; Festová, J. (2006): Vývoj vzdělanostní a oborové struktury žáků a studentů ve středním a vyšším odborném vzdělávání v ČR a v krajích ČR a postavení mladých lidí na trhu práce ve srovnání se situací v Evropské unii – 2005/06 (*“The Development of the Structure of Pupils and Students by Education and Field of Study in Secondary and Tertiary Professional Education in the CR and in Regions of the CR and Position of Young People at the Labour Market in Comparison with the Situation in the European Union – 2005/06”*). Prague: NÚOV.

Vojtěch, J.; Festová, J.; Sukup, R. (2004): Vývoj vzdělanostní a oborové struktury žáků ve středním a vyšším vzdělávání v ČR a v krajích ČR a postavení mladých lidí na trhu práce – 2003/04 (*“The Development of the Structure of Pupils and Students by Education and Field of Study in Secondary and Tertiary Professional Education in the CR and in Regions of the CR and Position of Young People at the Labour Market – 2003/04”*). Prague: NÚOV.

Vojtěch, J.; Festová, J.; Sukup, R. (2005): Vývoj vzdělanostní a oborové struktury žáků ve středním a vyšším vzdělávání v ČR a v krajích ČR a postavení mladých lidí na trhu práce ve srovnání se situací v EU – 2004/05 (*“The Development of the Structure of Pupils and Students by Education and Field of Study in Secondary and Tertiary Professional Education in the CR and in Regions of the CR and Position of Young People at the Labour Market in Comparison with the Situation in the European Union – 2004/05”*). 1<sup>st</sup> edition, Prague: NÚOV.

Vojtěch, J.; Úlovcová, H.; Trhlíková, J.; Festová, J.; Kalousková, P.; Sukup, R. (2004): Uplatnění absolventů škol na trhu práce – 2004 (*“The Situation of School Graduates at the Labour Market”*). Prague: NÚOV.

## **2.8 Websites**

[www.nuov.cz](http://www.nuov.cz)

[www.uiv.cz](http://www.uiv.cz)

[www.infoabsolvent.cz](http://www.infoabsolvent.cz)

[www.vupsv.cz](http://www.vupsv.cz)

[www.soc.cas.cz](http://www.soc.cas.cz)

[www.strediskovzdelavacipolitiky.info](http://www.strediskovzdelavacipolitiky.info)

[www.czso.cz](http://www.czso.cz)

[www.cizinci.cz](http://www.cizinci.cz)

## **Theme 3: Anticipation of labour market skill needs**

*Forecasting skill needs has been a subject of research in the Czech Republic (CR) particularly in the last decade. The research is carried out by several institutions as part of grant schemes of the Ministry of Labour and Social Affairs (MPSV) and the Ministry of Education, Youth and Sports (MŠMT). It focuses on three areas: methodologies, systems and application. As regards methodology, particular attention is paid to the development of a combined qualitative/quantitative approach primarily for the national level and, partly, for regional levels. At present, projections already bring valid results that are subject to publication and that will be elaborated upon by users in line with their needs. A system for regular forecasting has been proposed and its piloting is being envisaged. There is a growing importance being ascribed to anticipation of skill needs, which should lead to an increased amount of financial resources flowing into this research area and boost the development of forecasts so that users can regularly get structured and relatively reliable information for their decision-making.*

### **3.1 Overview of development and the current situation as regards research**

Skill needs forecasting is being developed primarily by means of projects implemented by the National Training Fund – National Observatory of Employment and Training (NVF – NOZV) in cooperation with the Research Institute for Labour and Social Affairs (VÚPSV) and the Centre for Economic Research and Graduate Education (CERGE-EI). These organisations focus on (i) developing forecasts and other data about future skill requirements, (ii) preparing methodological instruments and (iii) establishing a systemic environment. Another organisation that is concerned with skill needs forecasting is the Education Policy Centre (SVP). They analyse the historical development of the labour market and develop projections of qualification and educational requirements.

#### **■ Labouratory project**

An important initial step towards research into skill needs forecasting was taken in the form of the Labouratory<sup>4</sup> international project (1999 – 2001). This project was led by the NVF – NOZV and CERGE-EI was the Czech partner. The outcome was a

---

<sup>4</sup> *LABOURatory – Regular Forecasting of Skill Needs: a comparative analysis, development and application of the methodology* was an international research project within the Leonardo da Vinci programme. The partners included the Netherlands, France, Ireland, Germany, Poland, Slovenia and the Czech Republic. The project was led by the NOZV.

proposal for a quantitative/qualitative prognostic approach. (Strietska – Iliina et al., 2001) The core instrument is the ROA-CERGE model developed along Dutch lines. The model generates five-year projections of skill needs at national level. The outputs are complemented by data obtained from qualitative sector studies.

#### ■ Knowledge society project

Another important project was the MPSV project *Knowledge Society – Requirements on Human Resources Skills and Continuing Training* (2004 – 2009). The main implementer was the NVF – NOZV, co-implementer was the VÚPSV. The CERGE-EI contributed to the improvement of the quantitative model. (Franta et al., 2005), (Franta et al., 2006), (Guzi et al., 2007) (Pertold et al., 2008) As part of this project the ROA-CERGE model was developed and pilot quantitative projections of skill needs were drawn up. (Havlíčková et al., 2005), (Havlíčková, 2007), (Havlíčková and Lapáček, 2007), (Stupnitsky et al., 2005), (Michalička and Stupnitsky, 2006), (Michalička et al., 2007), (Michalička et al., 2008), (Michalička et al., 2009) Moreover, the project examined ways in which quantitative outcomes may be complemented by qualitative data on the development of key factors affecting employment development trends in various sectors. A sector study for the energy industry was developed. (ČOK, 2006) In the final years of project implementation valid results of quantitative projections were obtained that can be put to practical use. (NOZV-NVF, 2009)

#### ■ Labour Market Institute

As part of the MPSV project *Labour Market Institute* (2007-2008) the NVF – NOZV drew up a proposal for a system of regular forecasting of skill needs (Czesaná et al., 2008b), developed a methodological framework for sector studies (Czesaná et al., 2008a) and, on this basis, carried out two sector studies (for electrical engineering and Information and Communication Technologies (ICT) services) (NOZV-NVF and Bláha, 2008a), (NOZV-NVF and ČOK, 2008a). These studies were further elaborated to cover five selected regions. (NOZV-NVF and Bláha, 2008b), (NOZV-NVF and ČOK, 2008b). The outcomes are available at [www.nvf.cz/observatory/forecasting.htm](http://www.nvf.cz/observatory/forecasting.htm).

#### ■ Forecasting Jobs and Skills

Another project dealing with forecasts of employment in various industries is FORJOBS (Forecasting Jobs and Skills, 2009-2010), an international project run by the National Employment Agency of the Bulgarian Republic in which the NVF – NOZV is involved. One of the outputs will be the testing of an Italian model for forecasting the development of employment for industries and occupations while using input data for the CR, and presenting it for utilisation in the CR.

## ■ Project Kvalita II

In the *Kvalita II* project (2007 – 2008) the SVP explored the qualification needs in regions of the CR and prepared a forecast of further development until 2017 (Koucký and Lepič, 2008a).

## ■ KONTAKT ME

As part of the *KONTAKT ME 948* project the SVP developed a methodology for implementing analyses and projections of skill and qualification requirements needs at the labour market. A database of the industry, skill and qualification structure of the CR and the EU was prepared. The changes in skill and qualification requirements in the CR and in the EU in 1995-2007 were analysed while using a classification of economic sectors and education, the relevant methodology and labour force survey data. Skill and qualification profiles for 23 industries were developed according to the ISIC international classification. Changes in these profiles in the 1995-2007 period were examined and a forecast of expected development until 2017 was carried out. Similarities and differences in the industry profiles in the CR were analysed and compared with those of other EU countries (Koucký and Lepič, 2008b). The outcomes are available at [www.strediskovzdelavacipolitiky.info/default.asp?page=svp&KID=78](http://www.strediskovzdelavacipolitiky.info/default.asp?page=svp&KID=78).

## ■ VIP Kariéra

The outputs of the previous project were used as part of the Information System on the Position of Graduates at the Labour Market (ISA), available at [www.infoabsolvent.cz](http://www.infoabsolvent.cz). The system, completed in 2008, was developed within the *VIP Kariéra* project implemented by the National Institute for Technical and Vocational Education. It provides information support to young people when they make choices concerning their educational paths. The SVP contributed to the ISA by providing an analysis of the development of qualification requirements at the labour market in the CR and abroad. The analysis contains a projection of the development of the economy and the jobs structure and qualification requirements in the CR until 2016. The projection was developed in line with the methodology used in the *KONTAKT ME 948* project (2007 – 2009).

The increasing interest in the development of forecasting on the part of central government bodies (MPSV, MŠMT) is the result of decisions taken at EU level that seek to improve the capability of anticipating and matching labour market needs and skill requirements in the EU and in individual member countries. The results of the first Europe-wide projection of skill needs until 2020, which must be taken account of at national level, have also brought attention to this issue. This is why we may expect an increased intensity of research activities – also thanks to resources from structural funds that are earmarked for this area.

## 3.2 An overview of main research outcomes

### 3.2.1 The ROA-CERGE quantitative model

The ROA-CERGE quantitative model developed as part of the *Labouratory* project and improved within the *Knowledge Society* project compares the supply of and demand for labour. The model works with time series of data on the employment and qualifications of the workforce obtained via the Czech Labour Force Survey (LFS). Moreover, it makes use of a medium-term forecast of employment in 15 industries and estimates of the number and qualification structure of future graduates and the short-term unemployed. It assesses development trends in the employment structure for 30 occupational groups and 27 groups defined by educational attainment on the basis of ISCO and ISCED classification respectively. These clusters were formed in order to achieve a sufficient level of statistical reliability. One disadvantage is a reduced capacity of interpreting the results as they relate to an entire group and may vary for individual occupations or qualifications. This means that the results may only be presented following an expert evaluation based on qualitative analyses, sector studies and employer surveys. An increase in the number of clusters would require that the LFS sample be enlarged or another source of data be used. However, these alternative approaches are not feasible in the near future.

Based on the age structure of employment the model distinguishes between replacement and expansion demand for labour. It assesses tensions at the labour market for various groups according to educational attainment and provides a lot of other quantitative information about the anticipated development at the labour market (e.g. departures from the labour market according to age, occupational and education groups, the scope of newly created jobs, the increasing or decreasing demand for certain fields of education in the economy, the impact of the fact that some people fail to find work for which they are qualified and must work in a related but still different field, coefficients of attractiveness of fields of study, etc.).

The results of the projection show, among other things, that in 2009-2013 there will be the best employment prospect for the occupational group “Medical assistants, opticians, rehabilitation therapists and nurses”. Demand will grow along with increasing requirements for the capacity of healthcare and nursing facilities for the ageing population. The higher average age of workers in this occupational group will also affect replacement demand, which accounts for roughly a quarter of total demand for these workers. A detailed picture of the development of various occupational/education groups is presented in the publication “*Forecasting Skills Needs*” issued in 2009. The results are also presented in a user-friendly way at the web portal “The Future of Occupations” at [www.budoucnostprofesi.cz](http://www.budoucnostprofesi.cz).

### 3.2.2 Projection of employment in industries

As part of the *Knowledge Society* project a medium-term forecast of employment in economic industries was developed at the NVF - NOZV which is part of the input data to the ROA-CERGE model. However, there is no special macroeconomic model that would have the capacity to forecast employment in a number of industries. At the beginning the HERMIN model was used to forecast employment in industries. The model works with four basic sectors: agriculture, the government sector, manufacturing and market services. Employment in these sectors was specified for various industries within the 4 basic sectors using statistical data on the past development of employment in these industries. As this approach failed to generate high quality outcomes (the proportions of various industries in total employment need not be the same in the future), an estimate of the impact of the key factors on the economy and employment in individual industries was made for 2005-2010 and the results were compared with employment trends in developed EU countries, the results of foreign prognostic studies and expert opinions. The following projection for 2007 – 2011/2020 was developed in cooperation with the British company Cambridge Econometrics (CE) where the E3ME macroeconomic model was used. However, this model did not provide for consistency between employment and labour productivity and it was necessary to carry out an expert correction of results so as to ensure they are in line with the macroeconomic outlook of the Ministry of Finance of the CR.

The most recent forecast of employment in industries was developed at the beginning of 2009 based on cooperation between experts at the Finance Ministry of the CR and the NVF-NOZV. It is based on a consistent model approach that draws on links between employment, the level of economic activity, demographic development, unemployment and GDP growth. It takes account of the most recent trends in the development of the economy, labour productivity and gross value added. Moreover, it uses predictions of economic activity and unemployment modelled by experts. The model divides the projection period into two main stages. The first stage is 2009-2010 and it is the economic downturn period. There are expectations that the economic situation should improve in the early 2010. Even after this there should still be a production gap with above-average unemployment levels, below-average use of production capacity and low inflation pressures. The second stage of the projection ranges from 2011 until 2020. At the beginning of this period there should be an overall economic revival supported by disbursement of European funds and expansion of production within the private sector. There will be an increase in the use of fixed capital and workforce, which will result in a closing of the production gap. The economy should stabilise around 2013. Then it is expected to develop along the lines of labour productivity levels converging to those in neighbouring more developed countries.



### **3.2.3 The methodology for sector studies and pilot sector studies**

The methodology for sector studies and pilot sector studies were developed as part of the *Labour Market Institute* (2007-2008) project. This project was commissioned by the MPSV and funded from the ESF. In this project the NVF-NOZV, while drawing on the outcomes of previous projects, developed a methodology for implementation of sector studies. Sector studies focus on medium-to-long-term development of the relevant sector (industry) at national or, possibly, regional level. They seek to identify, above all, whether or not changes in various industries will lead to changes in the scope of employment, creation of new occupations or disappearance of existing ones, changes in qualification requirements and the content of jobs, and surplus or shortage of the relevant workforce. Experts who either work in the specific industry or have access to detailed information about it are involved in the preparation of sector studies. At present there are three studies available – for energy, electrical engineering and ICT services, while the second and third one were further elaborated to deal specifically with five selected regions.

One of the main aspects identified in the energy sector is deterioration of the age structure of the workforce and the constantly decreasing proportion of young workers, which could result in a broken continuity in passing on know-how. The limited research capacity in the sector lowers the interest on the part of talented students in becoming top experts and researchers in energy. There is also insufficient interest in study programmes focusing on design and construction in energy engineering. The shortage of qualified constructors and technicians not only hampers renovation of outdated energy facilities in the CR, but also hinders the chances of winning contracts to supply power plants to developing markets in Asia and Eastern Europe. Over the long term (until 2016) there might be a shortage of up to 14 thousand workers in the field of electricity and heat generation and gas distribution alone. A large proportion of these will be people with qualifications in electrical and mechanical engineering – designers, constructors, ICT specialists, skilled technicians and specialists in chemical manufacturing.

The plan is to develop sector studies for all major industries and, ideally, for the entire economy, and to set up a databank of studies that, while being updated on a continuous basis, will serve as a source of information for the relevant decision-making and further research into skill needs.

### **3.2.4 The system for forecasting skill needs**

A proposal for the setting up of a system for regular forecasting of skill needs in the CR was developed as part of the *Labour Market Institute* (2007 – 2008) implemented for the MPSV by the NVF – NOZV. The activities related to forecasting should be arranged to form an organisational framework at national and regional levels. The proposal respects the basic principles of forecasting that are important for achieving

the required reliability of outcomes. These include regularity, methodological continuity, combination and inter-linking of results from various sources, cooperation and partnership. The system ensures that government/regional priorities should be observed by means of involvement of central government/regional bodies (particularly the MPSV and MŠMT, regional authorities). The system should make use of the existing know-how and the work of independent expert institutions and specialists. The solution also envisages a link to newly built structures that deal with occupational/qualification issues (e.g. sector councils).

### **3.2.5 The use of the results**

At the beginning the projections tested the functionality and reliability of the methods used. At present they bring valid results concerning the anticipated development trends in employment and requirements for skilled labour. This is a new type of information and the professional as well as general public must be prepared to use it. Dissemination of information about this type of forecasting work and its results takes place via publications, presentations at seminars and conferences and the development of the web-based resource (<http://www.budoucnostprofesi.cz/>; <http://www.czechfutureskills.eu>). Practical application of the results is hindered by the fact that, with a few exceptions, the outcomes are not provided in a format suitable for various types of user – i.e. targeted, for example, on career counselling, job brokering, support for the design of educational programmes or the development of labour market and education policies. Moreover, the results cannot be regularly updated since the relevant institutional and financial conditions have not yet been established.

The results of forecasting work concerned with employment and the demand for and supply of labour were used to formulate comments, on the part of the Czech Republic, concerning the results of skill needs projections carried out at European level (*Medium-term forecast of occupational skill needs in Europe (2007)* (Havlíčková and Michalička, 2006), *Medium-term forecast of skills supply in Europe (2008-9)*, *Forecasting skill supply and demand in Europe (2009 -13)* ).

The results obtained from the ROA-CERGE quantitative model and *the Energy qualitative sector study* were used to develop a study entitled “*The Need for Skilled Labour in the Energy Sector*”. The study forms one chapter of the report of the Independent Expert Commission for Assessment of Long-Term Energy Needs in the Czech Republic. Moreover, the results formed one of the inputs into the development of the State Energy Policy – the section entitled “Support for Research and Development Ensuring Competitiveness of the Czech Energy Sector and Support for Education Aimed at Revival and Development of Technical Intelligence of the Ministry of Industry and Trade.

### 3.3 Conclusions and implications for further research

Research into skill needs forecasting has been part of various projects for some ten years. A systemic approach that would ensure regularity, institutional cooperation and funding has not yet been established. The methodologies used are based on approaches employed by leading European countries (particularly the Netherlands, Ireland, France and the UK). The results of the forecasts carried out have only recently been presented, and their impact on decision-making is still limited. This is why forecasting activities must be further developed particularly in three main areas: the system, methodology and application.

- As regards the system, it will be necessary to work further on the framework design of the system, to test its functionality and to implement it at national and regional levels.
- The methodology will require that further research be focused on the design of a macroeconomic model for medium-to-long-term projections of the development of the economy and employment in industries. These projections will form an input into the modelling of occupational and qualification requirements of the economy. At regional level it will be necessary to develop the relevant database and to design methodologies for forecasting skill needs at regional level. At this level no long-term projections are carried out. At national level, the possibilities will be explored of expanding the database for the development of qualitative projections using the ROA-CERGE model with the objective to increase the number of occupational and qualification groups for which the forecasts are made. The development of the existing methodological instruments will continue with a view to increasing the level of reliability and relevance of the projections, and with a view to interconnecting outputs obtained via various methods. Possibly, new forecasting instruments may be developed.
- As for application, there will be regular quantitative projections using the ROA-CERGE model and qualitative sector studies carried out. The ways of using the outcomes will be examined and various product forms will be sought that support decision-making of various types of user.

### 3.4 References

ČOK, s.r.o. (2006): Analýza a výhled potřeb kvalifikované práce v sektoru energetika (OKEČ 40) (*"An Analysis and Outlook for Skilled Labour Needs in the Energy Sector" – NACE 40*). Working Paper NOZV-NVF No. 8/2006, Prague: NOZV-NVF.

Czesaná, V. et al (2008): Návrh metodických přístupů pro zpracování sektorových studií v rámci předvídání kvalifikačních potřeb (*"Proposal for Methodological Approaches to Development of Sector Studies as part of Skill Needs Forecasting"*). Prague: NOZV-NVF.

- Czesaná, V. et al (2008): Návrh na vytvoření systému analýz a prognóz kvalifikačních potřeb trhu práce (*“Proposal for Establishing a System for Analyses and Forecasts of Skill Needs at the Labour Market”*). Prague: NOZV-NVF.
- Franta, M., Guzi, M., Munich, D., Jurajda, Š. (2005): Technická studie rozšíření a zkvalitnění současné programové implementace modelu ROA-CERGE (*“Technical Study on Expansion and Enhancement of Current Programme Implementation of the ROA-CERGE Model”*). Prague: CERGE-EI.
- Franta, M., Guzi, M., Munich, D., Jurajda, Š. (2006): Technická studie model. A program. Rozšíření stávající implementace modelu Cerge-ROA (*“Technical Study on Expansion and Enhancement of Current Programme Implementation of the ROA-CERGE Model”*). Prague: CERGE-EI.
- Guzi, M., Pertold, F., Munich, D., Jurajda, Š (2007): Technická studie rozšíření a zkvalitnění současné programové implementace modelu Cerge-EI-ROA (*“Technical Study on Expansion and Enhancement of Current Programme Implementation of the ROA-CERGE Model”*). Prague: CERGE-EI.
- Havlíčková, V. (2007): Projekce zaměstnanosti v odvětvích do r. 2010 pro Českou republiku. (*“Projection of Employment in Industries in the Czech Republic until 2010”*.) In: Statistika Vol. 87, No. 5, pp 384-403.
- Havlíčková, V., Lapáček, M. (2007): Projekce zaměstnanosti v odvětvích do roku 2020 pro Českou republiku (*“Projection of Employment in Industries in the Czech Republic until 2020”*). Working Paper NVF-NOZV No. 4/2007, Prague: NVF-NOZV.
- Havlíčková, V., Michalička, L. (2006): Anticipating Europe’s Skills Needs – country contribution – Czech Republic, SkillsNet international seminar. University of Warwick, UK.
- Havlíčková, V., Šímová, Z., Vymazal, J. (2005): Projekce zaměstnanosti v ČR na období 2005-10 v členění dle ekonomických odvětví (*“Projection of Employment in the CR for 2005-10 According to Industries of the Economy”*). Working Paper NOZV-NVF No. 4/2005, Prague: NOZV-NVF.
- Koucký, J., Lepič, M. (2008a): Kvalifikační požadavky na vzdělání v krajích České republiky (*“Qualification Requirements in Regions of the Czech Republic”*). Prague: SVP.
- Koucký, J., Lepič, M. (2008b): Vývoj kvalifikačních požadavků na pracovním trhu v ČR a v zahraničí (*“The Development of Skill Requirements at the Labour Market in the CR and Abroad”*). Prague: NÚOV.
- Michalička, L., Kotíková, J., Stupnytskyy, O. (2009): Prognózování vzdělanostních potřeb – vývoj modelu LEON, současný stav a aktuální prognóza na období 2009 – 2013 (*“Forecasting Qualification Needs – development of the LEON model, the current state of affairs and up-to-date forecast for 2009-2013”*). Prague: VÚPSV.
- Michalička, L., Kotíková, J., Stupnytskyy, O. (2007): Prognózování vzdělanostních potřeb na období 2007 – 2011 (*“Forecasting Qualification Needs for 2007-2011”*). Prague: VUPSV.
- Michalička, L., Kotíková, J., Stupnytskyy, O. (2008): Prognózování vzdělanostních potřeb na období 2008 až 2012 – stav modelu a aktuální prognóza (*“Forecasting Qualification Needs for 2008-2012 – the state of the model and up-to-date forecast”*). Prague: VUPSV.

- Michalička, L., Stupnytsky, O. (2006): Prognózování vzdělanostních potřeb na období 2007 – 2011 (*“Forecasting Qualification Needs for 2007-2011”*). Prague: VÚPSV.
- NOZV-NVF (2009): Předvídání kvalifikačních potřeb trhu práce (*“Forecasting Labour Market Skills Needs”*). Prague: NVF-NOZV.
- NOZV-NVF, Bláha, T. (2008a): Budoucí potřeba kvalifikované práce v sektoru ICT služeb v horizontu 2008-2020 (*“The Future Need for Skilled Labour in ICT Services in 2008-2020”*). Prague: NOZV-NVF.
- NOZV-NVF, Bláha, T. (2008b): Zaměstnanost a trh práce v ICT službách a zhodnocení potenciálu jejich rozvoje ve vybraných krajích ČR (*“Employment and the Labour Market in ICT Services and Assessment of the Development Potential of the Sector in Selected Regions in the CR”*). Prague: NOZV-NVF.
- NOZV-NVF, ČOK, s.r.o. (2008a): Budoucí potřeba kvalifikované práce v elektrotechnickém průmyslu v horizontu 2008-2020 (*“The Future Need for Skilled Labour in Electrical Engineering in 2008-2020”*). Prague: NOZV-NVF.
- NOZV-NVF, ČOK, s.r.o. (2008b): Zaměstnanost a trh práce v elektrotechnickém průmyslu (OKEČ 30 – 33) a zhodnocení potenciálu jeho rozvoje ve vybraných krajích ČR (*“Employment and the Labour Market in Electrical Engineering (NACE 30-33) and Assessment of the Development Potential of the Sector in Selected Regions in the CR”*). Prague: NOZV-NVF.
- Pertold, F., Guzi, M., Kačmár, J., Munich, D., Jurajda, Š. (2008): Technická studie model. A program. Rozšíření stávající implementace modelu Cerge-ROA (*“Technical Study on Expansion and Enhancement of Current Programme Implementation of the ROA-CERGE Model”*). Prague: CERGE-EI.
- Strietska – Ilina, O. et al (2001): Forecasting Skill Needs: Methodology Elaboration and Testing. Prague: National Observatory of Vocational Education and Labour Market – NTF.
- Stupnytsky, O., Kotíková, J., Michalička, L. (2005): Prognózování vzdělanostních potřeb na období 2006 – 2010; Zpráva o stavu a rozvoji modelu pro předvídání vzdělanostních potřeb ROA – Cerge v r. 2005 (*“Forecasting Qualification Needs for 2006-2010; report on the state and development of the ROA-CERGE model for forecasting qualification needs in 2005”*). Prague: VÚPSV.

### 3.5 Websites

<http://www.nvf.cz/observatory/forecasting.htm>

<http://www.budoucnostprofesi.cz/>; <http://www.czechfutureskills.eu>

<http://www.infoabsolvent.cz>

<http://www.nsp.cz/>

### 3.5 Other relevant literature

Havlíčková, V., Braňka J. (2007): Předvídání kvalifikačních potřeb (*“Forecasting Skill Needs”*). Pro Futuro No. 2/2007, Prague: NVF.

Havlíčková, V., Franta, M., Guzi, M (2007): A system for forecasting skilled labour needs in the Czech Republic: putting research results into practice in systems, institutional frameworks and processes for early identification of skill needs. Cedefop.

### 3.6 Acronyms used

CERGE-EI	Centre for Economic Research and Graduate Education – Economics Institute
CR	Czech Republic
ČOK, s.r.o.	Czech Business Office, Limited Liability Company
ISA	Information System on the Situation of Graduates at the Labour Market
LFS	Labour Force Survey
MPSV	Ministry of Labour and Social Affairs
MŠMT	Ministry of Education, Youth and Sport
NÚOV	National Institute of Training and Vocational Education
NVF -NOZV	National Training Fund - National Observatory of Employment and Training
SVP	Education Policy Centre – Faculty of Education, Charles University
VÚPSV	Research Institute of Labour and Social Affairs

## **Theme 4: VET and employment-related mobility and migration**

*The chapter is divided into three thematic parts that relate to mobility and migration in connection with employment and vocational as well as general education. The topics concerned include geographical mobility within the Czech Republic, the external migration of Czech citizens, and in-migration of foreigners to the CR, including their integration into mainstream society. An overview of the existing research projects, topics and issues is provided for each thematic area and recommendations concerning new research topics are proposed.*

### **4.1 An Overview of Major Research Issues and Projects Concerned with Mobility and Migration in Relation to VET and Employment**

Mobility and migration are among the most frequently discussed topics at both national and international levels. Generally, there are three major directions of movement – internal migration within a particular country, external migration and, finally, immigration and integration of foreigners in the host society. At political level objectives are set and solutions sought that concern, above all, the immigration and integration of foreigners from third countries into the European area. In this context a number of measures are adopted ranging from regulation of financial flows through support for specific schemes to legislative measures most of which relate to employment. The European Commission aims to coordinate the development and objectives of migration policies. Its initiatives provide a major impetus for the development of migration and integration policies in the Czech Republic.

#### **4.1.1 Migration and mobility within the Czech Republic**

Internal migration and mobility is understood to mean a process in which people move from one territory to another within one state or a federation of states. This issue was the subject of basic research conducted, above all, at the Institute of Sociology of the Academy of Sciences – by Mikeszová (2006). While pursuing an international comparison of the internal mobility within the CR and other EU member states, the authoress encounters a number of methodological problems. Firstly, there is no international consensus that would harmonise the methods for measuring internal migration (i.e. the methodology for data collection and processing). Secondly, countries apply various types of administrative-territorial divisions (NUTS II, NUTS III, NUTS IV) and also often use a different definition of migration. Geographical (internal) mobility in the CR is normally addressed in relation to labour market issues – i.e. the rate of employment (unemployment) and regional differences in this respect. Geographical mobility is also addressed in the context of the level of

educational attainment of the Czech labour force. Attention is paid to differences in the geographical mobility of unskilled (low skilled) workers, workers with secondary and tertiary qualifications, and emphasis is placed on differentiation of the rate of unemployment in terms of various levels of education. The issue of internal migration in relation to employment also appears in other papers developed by the Institute of Sociology (Lux 2001) as well as in several earlier and more recent studies by the Research Institute of Labour and Social Affairs (Baštýř et al, 1997; Kotíková, 2003; Kotíková and Kotrusová, 2008).

#### **4.1.2 External migration and mobility of Czech citizens**

Certain aspects of international migration were addressed in the CR as early as the 2nd half of the 1990s (Horáková 1996). In view of the CR's opportunity of becoming a member of the European Community the topic of international migration increased in importance, and it became even more relevant at the time of accession negotiations concerning the chapter on free movement of labour. The most comprehensive approach to this issue was taken by the Research Institute of Labour and Social Affairs: both in the form of more extensive grant-funded projects (Baštýř et al, 2000, 2008) and monographs (Vavrečková and Michalička, 2004; Vavrečková and Janata, 2005; Vavrečková et al, 2008). The studies are divided, in terms of content, into sections that complement one another and constitute a unique source of information.

A number of field surveys were conducted focusing on the migration plans of the Czech population as a whole and on those of individuals living in border regions neighbouring old member countries. The potential of cross-border migration and commuting was ascertained (Jeřábek, 2006) as well as the actual migration of Czech citizens to EU countries (Vavrečková and Musil, 2006), as allowed by the available data. These issues are addressed in the context of employment – i.e. only work-related out-migration is concerned. Issues related to education and training, both general and vocational, are touched upon only marginally (e.g. in relation to the educational attainment of potential migrants), or not at all. One research study focused specifically on the loss of knowledge and skills among Czech citizens abroad in the context of the actual experience of real migrants.

The scope of the potential and real external migration was also the subject of research conducted by other research institutions, including public opinion research agencies.

Since 2004, foreign work-related migration has been examined in the context of “brain drain” (Vavrečková et al, 2008). While the European Union is facing the threat of “trans-Atlantic” brain drain, new member states fear the leaving of “the best brains” for the old EU countries. The Czech Republic is no exception. The out-



migration of the highly skilled workforce was examined in the following groups: physicians, IT/ICT specialists, business research engineers and doctoral students. The risk of brain drain was explored in relation to the needs of the Czech and international labour market and the income-based motivation of the experts concerned. The research included a comparison of the education structure of the Czech and foreign (European) workforce, the situation and development as regards the numbers of graduates of programmes where there is a high tendency to migrate, and a forecast of their training needs until 2012 (Michalička, 2007; Michalička and Czesaná, 2006).

This project was followed by a research team at the Institute of Sociology of the Academy of Sciences (Kostecká and Bernard and Kostecký, 2008) that focused on the migration of Czech scientists and an analysis of policies designed to influence the migration of highly skilled workers.

#### **4.1.3 In-migration to the CR and integration of foreign nationals**

The most dynamic development regarding research into the migration of foreign nationals to the Czech Republic and their integration to Czech society has occurred during the last five years. The number of foreign nationals in the CR increases every year; in the last ten years it has roughly doubled, and the proportion of foreigners in the population is over 4% and they account for 6.5% of the workforce. Over the years the distribution of residence permits has changed in favour of permanent residence (40% of all foreign nationals in the CR).

There is a large amount of resources flowing into this area of research from the state budget, public budgets and European structural funds. In the CR there is a wide range of various research projects and activities related to these topics, such as the project “Migrating Individuals in the Czech Republic and Social Integration” (2006-2010) implemented by the Masaryk University in Brno (Rakoszyová, 2006; Rakoszyová et al 2007; Rakoszyová and Trbola, 2008). This project analyses the position of immigrants in the Czech labour market in the process of social integration. As part of improving integration mechanisms emphasis is placed on public immigration policies focusing on social inclusion, including foreign nationals’ access to education and language and retraining courses.

A team of researchers at the Faculty of Science of Charles University led by Mr Drbohlav have, for several years, been dealing with the problems of illegal migration and the economic activities of illegal migrants. There are often comparative projects allowing for Europe-wide comparison. One of them is the “International Migration and Illegal Work Activities of Migrants in the Czech Republic in a Broader European Context” project (Drbohlav, 2004; Drbohlav and Lukšíková, 2004; Drbohlav et al, 2008). The project seeks to identify the reasons why foreigners arrive in the

country, the characteristics of illegal migrants, their lifestyles and the ways they are likely to behave in the future. The research is carried out under the guidance of the European Science Foundation and ICMPD in Vienna, and there are nine participating EU countries and Switzerland.

Other important research activities include those of the team of Professor Mareš at the Institute for Studies of Social Reproduction and Integration at Masaryk University. The projects are focused on various national minorities and their integration into the Czech labour market. Attention is paid, above all, to the third largest group of foreigners in the CR – migrants from Vietnam (some 40 thousand) who show the highest number of permanent residency permits and trade licences. Nekorjak and Hofírek (2007) track the lifestyle of the Vietnamese, their isolation from mainstream society, exclusion from the Czech labour market and establishment of a specific space for economic reproduction by means of a relative self-reliance. The outcomes are compared with other minorities (particularly with Ukrainian work-related migrants). Klvačová (2006) focuses on immigrants from the former Soviet Union countries and tracks stories narrated by migrants from the perspective of their occupational and social integration into mainstream society.

A complementary perspective is offered by the work of researchers at the Institute of Ethnology at the Academy of Sciences carried out under the guidance of Dr Uherek, and by the work of Dr Leontiyeva of the Institute of Sociology of the Academy of Sciences (e.g. Leontiyeva, 2004). The research is focused on monitoring foreign communities from an anthropological perspective, and on their occupational and social integration according to the country of origin. Long-term trends in the development of work-related migration are monitored by Dr Horáková of the Research Institute of Labour and Social Affairs and published, semi-annually, in the bulletin "International Work-Related Migration in the CR". The bulletin deals with the development of foreign work-related migration since 1993. It provides up-to-date statistical data on foreigners in the CR from the perspective of economic activity, changes in the Czech labour market and the demography of the population. What is inspirational is the authoress' critical view of issues related to the educational attainment of foreigners from third countries and the ability of the Czech labour market to make use of their potential (Horáková, 2008).

The access of immigrants to education and employment is assessed, based on quantitative as well as qualitative surveys, by a unique study implemented by the GAC company and Jiří Kocourek (GAC, s.r.o., 2007). In the conclusion, the author states that despite the fact that knowledge of Czech is the key precondition for the employment of foreigners and their successful integration into mainstream society, the Czech Republic lacks a systemic approach to the teaching of the Czech language. Poor knowledge of Czech is a major disadvantage, especially for foreign children entering the 2<sup>nd</sup> stage of basic school (lower secondary level), and schools

lack the relevant teaching methods. The outcomes of the study also confirm that foreigners in the CR fill primarily those jobs where the pay is lower than the national average and in which Czech citizens are not interested.

The research study by Pořízková (2008), among others, presents the same conclusions. The authoress maps the main characteristics of foreign employment in the CR, assesses the position of foreigners in the labour market and the possibilities of their integration into society. Pořízková draws on surveys carried out by labour offices and analyses the approaches of foreign jobseekers to retraining and language courses. What is valuable is her pursuit of an analysis of foreign employment in relation to the development of selected socio-economic indicators of the development of the Czech economy<sup>5</sup>.

## **4.2 Research outcomes and their critical assessment**

### **4.2.1 Migration and mobility within the CR**

As research outcomes reveal, the CR ranks among countries with very low levels of internal geographical mobility. In terms of international comparison this level is one of the lowest. The roots of this situation must be traced back to the pre-1989 period marked by artificially levelled living conditions that did not provide sufficient incentives for the Czech population to move. The poor housing situation in the post-1989 period (for a large portion of the population flats were unaffordable) aggravated this situation even further. According to surveys carried out in this field – e.g. at the Institute of Sociology at the Academy of Sciences (Mikeszová, 2006; Lux, 2001), people most frequently move in order to “follow a family member” and due to “housing reasons”. Moving because of unemployment in the region of residence (a change of the place of work) is insufficient and the negative implications affect the labour market situation. A low level of flexibility of unskilled (low skilled) workers poses a major problem, as it is them who belong to the group that displays the poorest level of geographical mobility. Evaluation of the relationship between the education of migrants and their geographical mobility (moving within districts and between NUTS IV and NUTS III regions) confirms there is a major difference between the behaviour of the population with lower and more advanced levels of educational attainment. More than 50% of geographical mobility within districts (NUTS IV) concerns people with basic and secondary education, and over 50% of inter-regional mobility (between NUTS III and NUTS II) concerns people with tertiary

---

<sup>5</sup> Apart from the authors mentioned in this text there are many others who deal with the issue of foreigners in the CR (e.g. Krebs and Pechová 2008; Tolarová at all, 2006 – see References). The full list and a brief description of their work go beyond the scope of this chapter.

qualifications. The low level of mobility of the population contributes significantly to regional differences and to a higher rate of unemployment in the CR.

#### **4.2.2 External migration and mobility of Czech citizens**

The accession of new states from Central and Eastern Europe to the EU caused major concerns in the former “EU-15” in relation to the free movement of labour. From the onset of the accession negotiations the CR argued, drawing on research outcomes, that the migration potential of Czech citizens is not large and therefore poses no threat to the stability of European labour markets. Several field surveys of the attitudes of Czech citizens to work-related external migration (between 2000 and 2005 a total of 10,426 respondents were polled) fully endorsed this argument (e.g. Vavrečková and Janata, 2005). The surveys confirmed that the Czech population has strong ties to their homes and prefer to live and work in their mother country. The hypothesis of increased migration trends as a result of the lifting of labour market restrictions in Great Britain, Ireland and Sweden was not confirmed, and the total number of potential migrants did not increase as compared to previous years. The conclusions of Czech research were more realistic than the model approach to the forecasts of migration potential in a number of foreign studies (e.g. European Integration Consortium, Ifo Institut, UK Home Office and many others), where the projected numbers of migrants from new member countries are overestimated.

Moreover, surveys pointed to a relatively high level of educational attainment in potential Czech migrants, which is higher than the overall level for the Czech population (maturita certificate holders and people with tertiary qualifications account for more than a half of the sample of potential migrants). Two thirds of them refuse to accept a job abroad for which they are overqualified. However, experience in recent years shows that this tends not to be the case in reality. Respondents with manual work-related skills, students, trainees in vocational programmes and unemployed people are those who most frequently express their willingness to take up jobs for which they are overqualified.

Research into the “brain drain” phenomenon began relatively late in the CR as compared to other countries. This is why rather than developing theoretical concepts the CR adopted the concepts of Western authors (Docquier and Rapoport, 2004; Schiff, 2005; Docquier and Sekkat, 2006). Analyses carried out in the CR prove that the qualifications and occupational structure of unsatisfied demand for highly skilled experts is virtually the same in the CR as in other EU member countries. These groups show a high risk of migration, but they differ considerably in terms of the intensity of the drive to migrate. There are differences between experts with tertiary qualifications and also between them and the Czech population as a whole. What is significant is that, with the exception of technical engineers, the intensity of external

migration in people with tertiary qualifications is far higher compared to the population as a whole. Declared external migration on the part of experts involves longer periods and a higher proportion of potentially permanent migrants. The group displaying the highest migration tendency are physicians whose intensity of migration is positively affected by lasting demand on the part of the developed economies, pay-related incentives and dissatisfaction of most doctors with the situation in the Czech healthcare system (Vavrečková et al, 2008). Even so, brain drain still does not have any major quantitative implications in the CR. The implications are more on the quality side in that there is a loss of top experts.

#### **4.2.3 In-migration to the CR and integration of foreign nationals**

The increase in the number of foreigners in the CR, the demographic changes in the Czech population, and the CR's membership of the European Community (which seeks trans-national regulation of migration and integration) have resulted in identification of a number of research issues and initiation of a wide range of research and development projects dealing with these issues. These issues are addressed both at national and local levels virtually in all areas of research. These activities are managed by five ministries and involve international cooperation and support for research and development activities implemented by foreigners from third countries and members of national minorities. However, there is a lack of coordination and cohesion in addressing these issues and the efforts are fragmented.

When making an international comparison it is necessary to take into account the specific features of the Czech Republic that affect the focus of the projects<sup>6</sup>. The in-migration of foreigners is a relatively new issue for the CR, and its scope and importance will increase in the future.

Nearly all projects being implemented concern employment. The main factor determining employment in the CR is the further economic development in the country. 70% of foreigners in the CR are employed. The decisive factor will be the development of the number of job vacancies. The effects of the economic downturn have been most painful for workers employed via recruitment agencies - i.e. citizens of third countries who, when losing employment also lose the right to stay in the country. The growing proportion of foreigners in the workforce (and the effects of the economic crisis) brings about risks regarding economic and social integration. Nationalist tendencies in mainstream society are the most serious consequences – see problems with the integration of foreigners in Europe (France, Great Britain, Germany...).

---

<sup>6</sup> The inflow of foreigners began as late as the 1990s. There is not yet a second generation of foreigners in the CR. The CR has a low proportion of people from the Muslim world; the second largest group are Slovaks who face no language or cultural barriers.

The projects only pay partial attention to the general and vocational education of foreigners. It has been proven that citizens from third countries perform jobs less demanding in terms of qualifications, and the scope of Czech language teaching as part of retraining courses for foreigners is insufficient (only 1.5% of foreigners registered at labour offices). According to analyses the reason is a low level of interest in retraining on the part of foreigners. What may be seen as entirely negative is the absence of regular monitoring of unemployed foreigners and a lack of qualitative data that would make it possible to evaluate the main reasons behind this.

### **4.3 Conclusions and implications for further research in relation to vocational education and training**

Based on an analysis of the research findings available the following research activities may be proposed for VET:

- due to insufficient internal mobility and the negative implications for employment to develop a model for forecasting training needs for specific regions and to attempt to inter-connect VET forecasts with stimulation of geographical mobility,
- in view of the constantly low migration potential of the Czech workforce to use research capacities to explore external mobility and the migration of individuals with tertiary qualifications; to implement regular monitoring of the existing demand for experts with tertiary qualifications in the labour market while comparing it with the situation and development of the supply of jobseekers with tertiary education; in this analysis to draw on the available statistical data classified using the educational and occupational categories (KZAM II), and to compare, while applying a cohort analysis, the increases and decreases in the number of experts in specific educational (occupational) categories; to identify, while using qualified forecasts of training needs and data about the development of the Czech labour market, expected increases/decreases in the categories that are in short supply and the implications for VET; to analyse, at the same time, activities to support the growth of Czech intelligence in the required educational and occupational structure in combination with an immigration policy targeted at required foreign experts,
- with regard to the progressing economic recession – to carry out regular monitoring of unemployed foreigners from third countries (including their occupational and educational structure), to analyse the causes of their unemployment and the ways in which they may take advantage of the instruments of active labour market policies, particularly retraining and language courses; in connection with the government regulation on provision of state subsidies to non-profit organisations to support the integration of foreigners by means of language and training courses, and to monitor the effectiveness and efficiency of these activities.

## 4.4 References

- Baštýř et al (1997): Sociálně ekonomická motivace na trhu práce k zaměstnávání osob z nízkopříjmových skupin obyvatelstva v produktivním věku (*"The Socio-Economic Motivation at the Labour Market to Employ Low-Skilled Individuals of Productive Age"*). Prague: Research Institute of Labour and Social Affairs (VÚPSV).
- Baštýř, I. (2008): Syntetické výsledky analýz vztahů výdělků vybraných skupin odborníků v ČR a státech EU (*"Synthetic Results of Analyses of the Relationships between Earnings of Selected Groups of Experts in the CR and EU Countries"*). In: Vavrečková et al: Riziko možného odlivu kvalifikovaných odborníků z České republiky do zahraničí (*"The Risk of Possible Outflow of Qualified Experts from the Czech Republic"*). Prague: Project final report 13 019/04.
- Baštýř, I. et al (2000): Důsledky vstupu ČR do EU na vztahy s Rakouskem se zaměřením na zaměstnanost, trh práce a migraci (*"The Impact of the CR's Accession to the EU on Relationships with Austria with Focus on Employment, Labour Market and Migration"*). Prague: VÚPSV.
- Drbohlav, D. et al (2008): Mezinárodní migrace a nelegální pracovní aktivity migrantů v Česku v širším evropském kontextu (*"International Migration and Illegal Work Activities of Migrants in the CR in a Broader European Context"*). Prague: Faculty of Science of Charles University.
- Drbohlav, D.; Lukšíková, P. (2004): Integrace cizinců v ČR, Studie arménské, vietnamské a ukrajinské komunity v Praze a středočeském kraji (*"Integration of Foreigners in the CR, Studies of the Armenian, Vietnamese and Ukrainian Communities in Prague and in the Central Bohemia Region"*). Prague: Faculty of Science of Charles University, IOM.
- Drbohlav, D.; Lukšíková, P. (2004): Pozadí výzkumu - přehled stavu zkoumaných komunit usazených v ČR. Ukrajinci (*"Research Background – Overview of the Situation of Communities Settled in the CR. The Ukrainians"*). Prague: International Organisation for Migration.
- GAC spol. s r.o., Kocourek, J. (2007): Analýza přístupu žen imigrantek a mužů imigrantů ke vzdělávání a na trh práce v České republice (*"Analysis of the Access of Female and Male Immigrants to Education and the Labour Market in the Czech Republic"*). Prague.
- Horáková, M. (1996): Pracovní pobyty českých občanů v Německu (*"Work-Related Stays of Czech Citizens in Germany"*). Prague: VÚPSV.
- Horáková, M. (2008): Dlouhodobé trendy ve vývoji pracovních migrací v České republice (*"Long-Term Trends in the Development of Work-Related Migration in the Czech Republic"*). Prague: VÚPSV.
- Horáková, M. (2009): Mezinárodní pracovní migrace, Bulletin No 22 (*"International Work-Related Migration"*). Prague: VÚPSV.
- Jeřábek, M. (2006): Regionální výzkum v severozápadních Čechách (*"Regional Research in North-West Bohemia"*). Ústí nad Labem: Acta Universitatis Purkynianae 124, Studia Geographica VII., UJEP.
- Klvačová, R. (2006): Inkluze/exkluze migrantů v transnacionální perspektivě (*"Inclusion/Exclusion of Migrants from a Trans-National Perspective"*).

Kostelecká, Y.; Bernard, J.; Kostelecký, T. (2008): Zahraniční migrace vědců a výzkumníků a nástroje k jejímu ovlivnění (*“External Migration of Scientists and Researchers and Instruments that Influence It”*). Prague: Institute of Sociology of the Academy of Sciences.

Kotíková, J. (2003): Rizikové skupiny uchazečů o zaměstnání z pohledu úřadu práce (*“Groups of Jobseekers at Risk from the Perspective of Labour Offices”*). Prague: VÚPSV.

Kotíková, J.; Kotrusová, M. (2008): Regionální dimenze nezaměstnanosti v České republice 2008 (*“Regional Dimensions of Unemployment in the Czech Republic 2008”*). Prague: VÚPSV.

Krebs, M.; Pechová, E. (2008): Zpráva z projektu: vietnamští dělníci a dělnice v českých továrnách (*“Project report: Vietnamese Male and Female Workers in Czech Factories”*). Prague: Ministry of the Interior of the CR.

Leontiyeva, Y. (2004): Ukrajinská komunita v České republice, „Pozadí výzkumu - přehled stavu zkoumaných komunit usazených v ČR – Ukrajinci (*“The Ukrainian Community in the Czech Republic, research background – overview of the MOP”*).

Lux, M. (2001): Má právní vztah k bydlení vliv na mobilitu lidí za prací? (*“Does the Legal Aspect of Housing Ownership Influence Work-Related Mobility?”*).

Michalička L. (2009): Prognózování vzdělanostních potřeb na období 2008 až 2012 - stav modelu a aktuální prognóza (*“Forecasting Training Needs for the 2008-2012 Period – the state of the model and the most recent prognosis”*). Prague: VÚPSV.

Michalička, L. (2007): Analýza počtu českých lékařů a IT/ICT odborníků v kontextu mezinárodního srovnání, stavu a vývoje sledovaných odborníků (*“Analysis of the Number of Czech Physicians and IT/ICT Experts in the Context of International Comparison, the Situation and Development Concerning the Experts under Review”*). In: Vavrečková et al Riziko odlivu lékařů a odborníků IT/ICT z České republiky do zahraničí (*“The Risk of the Outflow of Physicians and IT/ICT Experts from the Czech Republic”*). Prague: VÚPSV.

Michalička, L.; Czesaná, V. (2006): Komparace vzdělanostní struktury české pracovní síly se vzdělávací strukturou pracovní síly v EU (*“Comparison of the Educational Structure of the Czech Workforce with That of the EU Workforce”*). In: Vavrečková et al.: Migrace odborníků do zahraničí a potřeba kvalifikovaných pracovních sil (*“External Migration of Experts and the Need for Skilled Labour”*). Prague.

Mikeszová, M. (2006): Jak se lidé stěhují v rámci České republiky aneb vnitřní migrace v České republice ve srovnání s jinými evropskými státy (*“How People Move Within the Czech Republic – Internal Migration in the Czech Republic Compared to Other European Countries”*). In: Socioweb, Vol. 5, No 5.

Nekorjak, M.; Hofírek, O. (2007): Vietnamští imigranti a český trh práce - paralely a rozdíly s ukrajinskou pracovní migrací (*“Vietnamese Migrants and the Czech Labour Market – parallels with and differences from the Ukrainian work-related migration”*).

Požizková, H. (2008): Analýza zahraniční zaměstnanosti v České republice; postavení cizinců na trhu práce a podmínky jejich ekonomické integrace (*“Analysis of Foreign Employment in the Czech Republic; Position of Foreigners in the Labour Market and Prerequisites for their Economic Integration”*). Prague: VÚPSV.



Rakoczyová, M. (2006): Migrující osoby v České republice - postavení na trhu práce a sociální integrace (*"Migrating Persons in the Czech Republic – Labour Market Position and Social Integration"*). Prague: RILSA.

Rakoczyová, M.; Trbola, R. (2008): Lokální strategie integrace cizinců v ČR (*"Local Strategies for Integration of Foreigners in the CR"*). Prague: VÚPSV.

Rakoczyová, M.; Trbola, R.; Vyhlídal, J.; Kofroň, P. (2007): Zaměstnavatelé zahraničních pracovníků v České republice a jejich role v procesu sociální integrace; analýza poptávky po zahraniční pracovní síle (*"Employers of Foreign Workers in the Czech Republic and Their Role in the Process of Social Integration; analysis of demand for a foreign workforce"*). Brno.

Tolarová, B.; Stehlíková, E.; Bitrich, T.; Vodochodský, I.; Dymeš, P.; Paláček, J. (2006): Trh práce a cizinci - zpráva z výzkumu (*"The Labour Market and Foreigners – research report"*). Chomutov.

Uherek, Z.; Hošková, S.; Očenášek, J. (2002): Úspěšné a neúspěšné integrace cizinců (*"Successful and Unsuccessful Integration of Foreigners"*). Prague: Institute of Ethnology of the Academy of Sciences of the CR.

Uherek, Z.; Korecká, Z.; Pohárová, T. (2007): Cizinecké komunity z antropologické perspektivy. Vybrané případy významných imigračních skupin v České republice (*"Foreign Communities from an Anthropological Perspective, Selected Cases of Major Immigration Groups in the Czech Republic"*). Prague: Institute of Ethnology of the Academy of Sciences of the CR.

Vavrečková et al (2008): Riziko možného odlivu kvalifikovaných odborníků z České republiky do zahraničí“ závěrečná zpráva z výzkumného projektu 13 019/04 - DP 2 (*"The Risk of Outflow of Qualified Experts from the Czech Republic" – final report from research project 13 019/04 - DP 2*). Prague: VÚPSV.

Vavrečková, J. (2003): Migrační potenciál českého obyvatelstva c procesu evropské integrace (*"The Migration Potential of the Czech Population in the Process of European Integration"*). Prague: VÚPSV.

Vavrečková, J.; Janata, Z. (2005): Migrační potenciál po vstupu ČR do EU (*"Migration Potential after CR's Accession to the EU"*). Prague: VÚPSV.

Vavrečková, J.; Michalička, L. (2004): Monitoring zahraniční pracovní migrace a jejích podmiňujících faktorů se zaměřením na česko-německé a česko-rakouské příhraničí (*"Monitoring of External Work-Related Migration and Factors Causing it with a Focus on Czech-German and Czech-Austrian Borderlands"*). Prague: VÚPSV.

Vavrečková, J.; Musil, J. (2006): Sledování migračního pohybu českých občanů do států EU s důrazem na země s otevřeným trhem práce pro české občany (*"Monitoring Migration of Czech Citizens to EU Countries with Emphasis on Countries with Open Labour Markets for Czech Citizens"*). Prague: VÚPSV.

#### **4.5 Other relevant literature**

Brouček, S. (2003): Český pohled na Vietnamce (*"The Czech View of the Vietnamese"*). Prague: Institute of Ethnology of Academy of Sciences.

Czech School Inspectorate (2008): Rovnost příležitostí při vzdělávání cizinců v ČR (*"Equal Opportunities in the Education of Foreigners in the CR"*). Thematic Report of Czech School Inspectorate. Prague.

Czech Statistical Office (2008): Cizinci v České republice 2008 (*“Foreigners in the Czech Republic”*). Prague: Czech Statistical Office.

Horáková, M. (2008): Umíme využít pracovní potenciál cizinců? (*“Can We Use the Work Potential of Foreigners?”*). Prague: Comenius University.

Kováčová, P. (2006): Jak se žije cizincům v České republice? Analýza biografických vyprávění (*“The Lives of Foreigners in the Czech Republic. Analysis of Biographical Stories”*). Prague: Academy of Sciences of the Czech Republic.

## **4.6 Websites**

[www.cizinci.cz](http://www.cizinci.cz)

[www.mvcr.cz/cizinci.aspx](http://www.mvcr.cz/cizinci.aspx)

[www.czso.cz/csu/cizinci](http://www.czso.cz/csu/cizinci)

[www.msmt.cz/vzdelavani/program-na-podporu-aktivit-v-oblasti-integrace-cizincu](http://www.msmt.cz/vzdelavani/program-na-podporu-aktivit-v-oblasti-integrace-cizincu)

[www.migraceonline.cz](http://www.migraceonline.cz)

[www.vupsv.cz/index.php?p=publikace&site=default](http://www.vupsv.cz/index.php?p=publikace&site=default)