THE HUNGARIAN LABOUR MARKET
REVIEW AND ANALYSIS
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EDITED BY

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FOREWORD BY THE EDITORS

The series of our labour market yearbooks was launched with the goal of reviewing the main developments in the Hungarian labour market annually, and of giving an in-depth analysis of selected issues.

1. Labour Market Activity and Wages in 2007–2009

The introductory chapter of the volume discusses trends and recent changes in employment, activity, and unemployment in Hungary between 2007 and the first quarter of 2009. Because the first part of the "In Focus" chapter discusses certain important aspects of the Hungarian labour market in an international comparison, this chapter concentrates mostly on recent events. Although not much data is available for in-depth analysis, the *Introduction* discusses the first signs of the impact of the economic crisis which unfolded following the autumn of 2008 along with other dominant features of the macroeconomic environment.

Unfortunately, the last two years did not bring about positive changes in the employment situation in Hungary. Not only was Hungary already performing the worst in terms of employment figures within the EU by mid-2008, it is also likely that the crisis will make it even more difficult to escape from this situation. Indeed, the Hungarian GDP contracted by 2.5 percent in the first quarter of 2009, and is expected to shrink further at a rate of 6 percent during the whole year – this has a direct effect on employment, but also an indirect one through contracting domestic demand. The *Introduction* analyses stylised facts to show how employment has changed in different groups of the population, with an emphasis on the largest groups which were already displaying small initial employment rates. Data show that the employment situation had already worsened among the least educated prior to the outbreak of the crisis, and did not improve among the young mothers with small children, and inhabitants of the least developed regions especially those in the small villages. Improvement is visible only among the highly educated and among older workers who were affected by the increase in the pension age.

Differences in employment rates of distinct groups of the population and their changes are affected by factors that can be influenced by policy on different time horizons. The employment rate of the least educated can only be improved through the systematic development of the education system to help

the accumulation of marketable human capital, and the removal of institutions and restrictions that make their employment more costly than necessary. Further increase of the pension age to 65 – already voted for by the Parliament – makes an increase in the employment rate of older people very likely. These are effects that work in the longer term, but there is room for improvement also in the shorter term. Following the outbreak of the crisis, the overall unemployment rate increased rapidly – it is expected to reach 11 percent during 2009 –, and a new type of unemployment appeared at the same time: that of skilled, but not highly educated people. Both of these changes in unemployment make the need for a modern unemployment support system even clearer than before. Putting personalised services in place, along with strict accounting for search efforts and the re-calibration of the unemployment benefit system to make the search for a high quality job viable also for higher earners, are tasks that are unavoidable. Finally, although it is not a measure aimed directly at employment policy, the restructuring of the tax system (and the adjustment of the system of social transfers accordingly) is instrumental in increasing the employment chances of any individual.

The second part of the *Introduction* looks at wages. Trends in the evolution of wages are characterised through the use of aggregate indicators for all earners, and additionally for several subgroups. Special attention is paid to the gender wage gap and to regional differences.

2. In Focus

The *In Focus* section of the *Hungarian Labour Market* yearbook usually summarises previously published research.* This year the editors decided to depart from this tradition to some extent. The first part of this year's *In Focus* presents a simple descriptive statistical overview of the Hungarian labour market as seen through the microdata of the *European Labour Force Survey* (EU LFS). The chapter does not attempt to give an explanation for observed deviations from European trends (if any). What it undertakes to do is present the comparative data in order to bring clearly to light those specific Hungarian phenomena that actually need to be explained by future research. Naturally, this compels us to present more statistics than usual, while explanations and references to the literature will be given far less attention.

The data confirms that the substantial disadvantage observed among the entire 15–64 year old population in Hungary is primarily explained by low levels of employment among the oldest and the youngest: the transition from school

* *In Focus* parts of the previous volumes discussed the following topics: 2002: I. Wages: A Decade of Transformation, II. Income Support for the Jobless; 2003: I. Labour – the Supply Side, II. Labour – the Demand Side; 2004: Labour Market Inequality and Geographical Mobility in Hungary; 2005: Education and the Labour Market; 2006: Industrial Relations in Hungary; 2007: Wages: New Developments. 2008: Education and the Labour Market. Each volume can be downloaded from the homepage of the Institute of Economics-HAS: http://econ.core.hu/english/pub/mt.html

to work is a slow-moving process, and a large number of men over the age of 40 have left or are leaving the labour market permanently. Mothers with small children constitute a third group whose employment level lags far behind the European average. (The latter problem was discussed in detail in last years' *In Focus.*)

With regard to people "of the best working age," Hungary's disadvantage is far less pronounced thanks to a relatively low level of absenteeism and long working hours. In terms of full-time equivalent employment within the non-student population aged 15–59, Hungary occupies a medium position close to Slovakia and not far removed from Denmark, Finland, or Ireland, with a score 7.1 percent *above* the old EU members' average.

The sections on the prime-age population identify striking contrasts with the West-European patterns of employment and non-employment. The Hungarian prime-age population is divided into two groups with a remarkably sharp boundary between them: those who work the standard eight hours a day, five days a week, and a strikingly large group of those who are out of work and who do not even search for jobs. Forms of labour attachment other than full time employment are underdeveloped and rudimentary: few of the employed work part time, few workers are temporarily away from their workplace; few people have working hours deviating from the standard, and those who do, do not owe this to flexible working arrangements; few people work at home; few workers participate in adult training programmes, and even fewer attend training courses as part of their regular working hours. Of those who are not employed, few are actively seeking employment, and few register with the unemployment agency. The share of persons out of work who have no desire to find paid employment is particularly high.

Most of the above-mentioned characteristics are common to Central and East European countries, and some of them can also be observed in Southern Europe. The low level of job searching, however, is a unique feature of the Hungarian labour market compared to other former communist countries. A section comparing Hungary, Poland, and Slovakia finds that the situation in Hungary is most probably due to its system of unemployment assistance. The majority of the non-employed, including those aged 15–59, receive disability pension or child-care benefits. As a result, few of them are registered in the job centres and, in addition, few of those who are registered are actively looking for jobs. While registration practices and job searching among the registered unemployed differ substantially across the three countries considered, the linkages between job search and education, gender, age or duration of joblessness are similar.

The data on the young call into question some widely held stereotypes. The concerns voiced in connection with youth unemployment – in particular unemployment among young university graduates – appear to be overly pessimistic in light of the results of a European comparison.

The basic statistics do indicate relatively high unemployment among young people in Hungary. The exceptionally wide range of the ILO-OECD employment and unemployment rates across the EU suggest, however, that these indicators cannot accurately capture the highly complex process of transition from school to work. The section on youth employment finds that the ILO-OECD indicators are heavily affected by the system of vocational training and by the patterns of student work, both of which are factors that show extreme variation across the countries of Europe. The level of youth employment in Hungary is substantially lowered by the infrequency of apprentice work among secondary school students, and the low share of students working in parallel with their college or university studies. It is a notable feature of the data that not even student workers are likely to have jobs with atypical working hours such as part-time, seasonal, weekend, or evening/night-time employment. Hungarian student workers are also less mobile: they remain in the same job for a longer time. The data does give cause for concern, however, in the case of the young who leave the education system with only primary qualifications (mostly secondary school dropouts).

The results for men older than 40 are less astonishing given Hungary's infamously permissive retirement policies. Among the 24 European countries under analysis, Hungary has the highest share of men in retirement or permanently disabled within each education group, and the situation is especially alarming for the youngest cohort aged 40–49.

More in line with our usual practice, in the second part of *In Focus* a specific aspect of the labour market is discussed in as much detail as is possible, on the basis of currently available research evidence. *Vocational training* is a relatively under-researched area of the Hungarian labour market, even though not a day goes by without businessmen and policy makers making explicit comments on the shortage of skilled workers, the quality of training, and the desirable direction of development.

"Uncertified" vocational training, in which no upper secondary (Matura) qualifications are awarded, remains an important segment of the Hungarian education system. Research addressing the quality of training and the skills and labour market careers of vocational school graduates depicts a troubling picture of this form of education. The chapter summarises the main findings of the Hungarian literature, and presents the most important data supporting the belief that vocational training is an ailing part of the educational system, and is an area where profound reforms are required.

Vocational training school (VTS) students have always come from relatively poor and uneducated social backgrounds and from among the lowest-achieving primary school graduates, but the gap between secondary schools and VTS has critically widened over the past decade. The children of parents who have a primary school background are eight times more likely to enrol in vocational train-

ing than children from better educated middle class backgrounds. Almost two thirds of Roma children in post-primary education attend this type of school. Children of parents who have at least Matura qualifications represent no more than a quarter of VTS students. These schools are characterised by five to six times higher dropout rates, and two and a half to three times higher grade retention rates than vocational or academic secondary schools. The students and graduates tend to show very poor performance on skills assessment tests. The data on wages indicates that the market value of vocational qualifications has been depreciating, and the only reason why employment remained relatively high was that a large share of VTS graduates became employed in simple jobs requiring no qualifications.

While adverse selection is a part of the picture, it cannot be accepted as the sole explanation for the low level of skills typical of VTS graduates, or as an excuse for the failures of the education system. Those graduating from VTS displayed substantially poorer performance than those graduating from secondary schools *prior to* the contraction of traditional vocational training. Data from the mid-1990s on the basic skills of VTS graduates did not show the kind of improvement relative to older generations that was observed in the case of secondary school graduates. Furthermore, adverse selection obviously does not lessen, but merely transforms and makes more difficult the task facing educators: schools have to educate students with lower initial abilities to a level that helps them find employment in the service sector and modern manufacturing industry.

The data and research results discussed in this part of *In Focus* suggest that vocational training fails to equip students with the basic skills and competencies needed for post-school development and adaptation. This conclusion is supported by direct observations such as test scores, as well as indirect evidence based on the employment careers and wages of VTS graduates. Occupational mismatch and the deficiencies of practical skills are part of the problem, but the authors believe that by focusing on the problem of basic skills, they are addressing the key issue.

Hungarian firms are keen to employ workers with vocational qualifications (preferred to primary school educated workers) for jobs with low literacy requirements, but even the VTS graduates are excluded from knowledge-intensive jobs. With respect to literacy, the demands of new workplaces are much closer to the Western pattern than those of old workplaces. An especially marked change can be observed in blue-collar jobs. Changing demands and the low level of basic skills have a major impact on the employment prospects of the VTS graduates.

The importance of basic skills is also highlighted by research on "skill shortages". While we have convincing empirical evidence that vocational qualifications have become less marketable, the media, business chambers, and economic policy makers have repeatedly complained of a shortage of skilled blue-collar

workers. The available firm-level evidence suggests that the problem essentially lies in difficulties in adjusting to technological advances rather than in some sort of "underproduction" of vocational qualifications.

The chapter arrives at some conclusions relevant to training policy. If, as is often demanded, the training system is tailored to companies' short-term needs, the long-term employment prospects of participants will suffer. Publicly financed vocational training should focus on enhancing participants' general competencies and core vocational skills, since it is these that empower skilled workers to successfully participate in advanced training and retraining programmes and in company-funded on-the-job training programmes that are necessary to acquire the specialised knowledge required by their employers throughout their careers, i.e., to enjoy long-term labour market success. Education programmes that neglect to emphasize the enhancement of basic skills leave their graduates in a despondent position.

3. The Legal and Institutional Environment of the Labour Market

The previous issues of the Labour Market Review provided an overview each year of the main changes in the legal and institutional context of the labour market and the drivers of these changes. This year, instead of presenting the changes, we provide up-to-date information on current regulations. As has happened on several occasions in the past, this year once again a major legislative review – the *Pathway to Work Programme* – was also commenced during the writing of this volume. The final proposal, however, was not available at the time of its submission. Therefore, in addition to the facts, the likely changes will also be discussed. The legal basis of the current institutional system of the Hungarian labour market was created by Act IV of 1991 on the Promotion of Employment and Unemployment Compensation (Employment Act), which created a stream of insurance for unemployment benefits, established the institutions of organised social dialogue, established a single public employment service, and expanded the range of active labour market policies. Their current legislative framework and implementation is reviewed in this chapter.

4. Statistical Data

The closing chapter presents a comprehensive collection of statistical data on the Hungarian labour market. It gives exhaustive information on the social and economic developments, such as demographic trends, employment, unemployment and inactivity, wages, education, labour demand and supply, regional differences, migration, commuting and labour relations, along with some international comparisons. Labour market developments broken down to the regional level are included as well.

* * *

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LABOUR MARKET ACTIVITY AND WAGES IN 2007–2008

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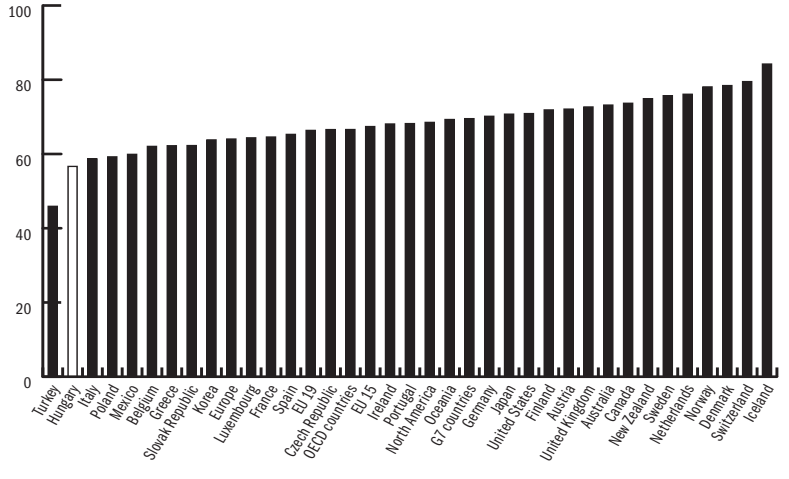
INTRODUCTION

One distinguishing feature of the Hungarian labour market compared with either the developed Western European countries or the neighbouring ex-socialist states, is the extremely low level of employment. In 2007 the employment rate of the population between 15–64 years of age was 56.7 percent, which is more than ten percentage points below the OECD average. Recently, Hungary's position has deteriorated further, so that now, out of the 29 OECD countries, only Turkey fares worse *(Figure 1)*. The deficiencies of the labour market take a huge toll on the individual as well as on society as a whole. The lack of jobs and stable wage earnings lead to poverty, the weakening of social ties, the erosion of knowledge and skills and deteriorating health and life expectancy. The low employment rate also reduces the number of those paying social security contributions and in the long run makes the social security systems impossible to finance. Through poor socialization, the lack of jobs has a negative impact on the entire career of the next generation.

Figure 1: Employment rate of the 15–64 age group in the OECD countries in 2008



Source: OECD Dataset: LFS by gender and age-indicators.

The past few years have witnessed several ambitious government proposals to remedy the situation and expand employment in Hungary. The magnitude of the task at hand is well illustrated by the fact that in order to reach the cur-

rent average employment level of the Western European countries Hungary would need to provide jobs for approximately 680,000 inactive citizens. In order to be on par with Switzerland, at the top of the ranking, or with the North European countries such as Sweden, Norway and Denmark, Hungary would need to increase the number of employees by over 1.3 million. In 2004, during the preparation of the Lisbon action plan the Hungarian government made a commitment to meet the employment objectives for 2010 approved by the European Commission. The objective was to increase the number of employees by 100,000 each year, so that Hungary could reach the employment rate of 70 percent. Contrary to these plans, employment in Hungary only increased by a total of 31,000 in two years. The convergence programme approved by the EU Commission in 2006 already took account of these realities and set much more modest targets for the period 2007–2011 (*Republic of Hungary...*, 2006). The programme projected a GDP increase of 2.2–2.6 percent for 2007–2008 and 4.2–4.5 percent for 2009–2010, respectively. This relied on the assumption that the activity rate would increase by 2 percent for 2009–2010, not specifying how employment and unemployment would change within that overall figure. Nonetheless, the government trusted that the economic development programmes financed by the National Development Plan, and the proposed measures to help the disadvantaged regions would close the gap and that the new employment subsidies for disadvantaged workers would be sufficient to expand employment.

However, the end of 2006 brought a downturn in the macroeconomic environment of the Hungarian labour market. Not least due to the considerable pressure from the European Union, Hungary implemented the restrictive measures proposed in the convergence programme for cutting the budget deficit. Although the austerity measures resulted in improved budget balance indicators, the restrictions also caused far slower economic growth than expected, investments dropped and the growth potential of small and medium-sized firms significantly deteriorated. Gradually it became obvious that even the modest employment objectives of the National Development Plan were impossible to meet.

While no real progress was seen, the global financial and real economy crisis beginning in the autumn of 2008 further reduced the likelihood of future expansion. The country is now faced with the same structural problems but without the advantage of the global economic boom of the previous years. *Table 1* shows that Hungary has not experienced a drop in the GDP as large as in the fourth quarter of 2008, but the decrease was even larger, 6.7 percent in the first quarter of 2009. While construction and agriculture do not seem to be affected by the recession (yet), industrial production acted as a leading indicator of GDP growth: it shrunk earlier and to a greater extent than GDP itself. The slowdown of the previously dynamic growth and the subsequent

contraction of export clearly show that it is the exporting, most importantly manufacturing firms that are affected by the downturn.

Table 1: Selected indicators of the Hungarian economy, 2007–2009 Q1, quarterly data (same quarter of the previous year = 100)

	2007				2008				2009
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
GDP	102.6	101.0	100.8	100.7	101.8	102.1	101.3	97.5	93.6
Industrial production	109.0	106.7	109.0	107.0	108.0	105.7	99.3	88.5	77.7
Construction	98.7	93.5	80.0	78.4	82.5	93.6	94.0	100.8	95.9
Purchase of agricultural produces	108.5	114.2	110.5	84.6	100.2	91.6	96.2	118.5	117.2
Export	119.0	117.0	116.8	110.4	113.1	109.7	100.7	91.1	83.7

Source: HCSO Stadat.

1. LABOUR MARKET PARTICIPATION

Trends in employment and unemployment

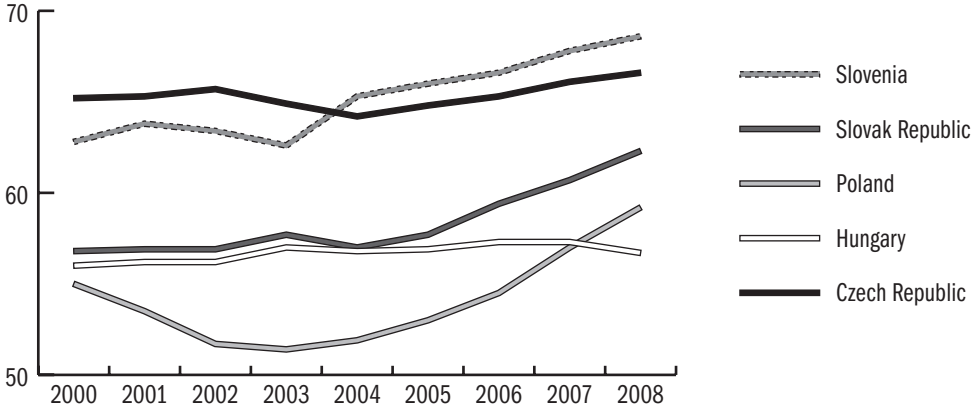
Considering only the aggregate indicators of employment and unemployment,[1] it is fair to say that the relatively calm period of 2007 and the first half of 2008 was succeeded by gravely negative trends. Stagnating at a low level since the turn of the Millennium, the Hungarian employment rate ranked lowest among the Visegrád countries by 2008. While the employment rate has significantly increased in Poland, Slovakia and Slovenia over recent years and even the Czech Republic produced some noticeable growth, Hungary has been unable to rise above the level of the past decade (*Figure 2*). The only significant change was seen in 2008 when the employment rate, with no reserves for growth, immediately reacted to the worldwide decrease of market demand. The long run trend is equally characterised by stagnation. Following the modest rise by 300,000 between 1997 and 2000, the size of the employed population fluctuated within the very narrow range of 3,850,000 and 3,900,000 until 2008 *(Figure2)*.

Overall, the employed population grew by 22,000 between 2004 and 2007, and the employment rate consequently increased from 56.8 to 57.3 percent. This gain, however, evaporated in less than a year: as a result of the crisis, the employment rate dropped to the level seen five years ago. Current figures are even worse than in late 2008 and make it clear that the employment effects of the crisis are starting to unfold only in 2009. *Table 2* shows that the 55.1 percent employment rate in the first quarter of 2009 was 1 percentage point less than during the same period last year (56.1 percent). Although data of this frequency are affected by seasonality, comparing changes between two quarters to changes between the same quarters in the previous years allows us to control for this effect to some extent and the conclusion remains un-

1 In all cases the aggregate activity data shown in this section refer to the age group of 15–64.

changed.[2] The drop in the number of the employed between the past year's fourth quarter and the first quarter was 114 thousand, almost double the 60 thousand drop between the similar periods of the past year.

Figure 2: Employment rate of the 15–64 population in the Visegrád countries, 2000–2008



Source: Eurostat.

Table 2: Economic activity of the 15–64 population in Hungary, quarterly

	2007		2008				2009
	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Employment rate	57.7	57.1	56.1	56.5	57.3	56.7	55.1
Unemployment rate	7.3	7.8	8.0	7.7	7.8	8.0	9.7
Activity rate	62.2	61.9	61.0	61.2	62.1	61.7	61.0

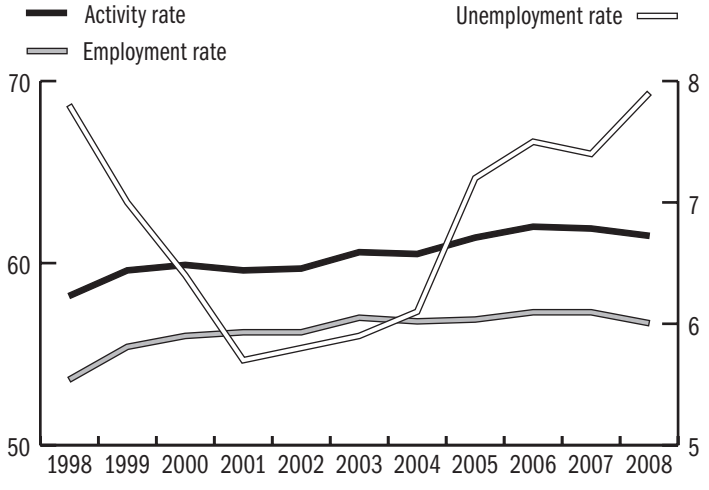
Source: HCSO Stadat (LFS).

It is structural deficiencies that lie behind the low and very stable Hungarian activity rate and these are very hard to influence in the short run. A significant increase in employment would require a major development of the available labour force, the renewal of the education system, improvements in the conditions of commuting, and a strong stimulus of labour demand first and foremost through the reduction of the tax burden on labour. In Hungary, low employment is coupled by relatively low unemployment rates and very high inactivity. The exceptionally low job search intensity of the unemployed is mainly due to the low education level of those involved, the lack of job related skills and knowledge, the high commuting costs compared to reservation wages, the underdeveloped transportation infrastructure and, last but not least, poor labour supply incentives within the welfare system. Adaptation to the new situation created by the worldwide economic crisis is not an easy task in any country. Indeed, Eurostat data show that the drop in employment rates was not the largest in Hungary between the third and fourth

2 If we believed that it is only the crisis that makes 2007 and 2008 different, we could say that this is a difference in approach to measuring its effect. Naturally, there are others affecting the Hungarian labour market, most importantly the over-time effects of the austerity measures.

quarters of 2008 – Latvia, for example suffered a 2.5 percentage point loss. Indeed, the 0.6 percentage point drop was exactly equal to the EU–25 average. Unfortunately, no comparable data exists for the first quarter of 2009, so we can not compare that change to international benchmarks. It is expected however, that the structural problems behind the low employment rate will make adjustment more difficult than it would be in the case of a well functioning and flexible labour market.

Figure 3: Trends in labour market activity, 1998–2008



Note: The right scale indicates the unemployment rate.
Source: KSH Stadat (LFS).

After 2004, unemployment began to increase. Expanding employment and increasing unemployment also led to a slight increase in the activity rate (*Figure 3*). The government preferred to attribute the increasing job search activity of the inactive population to the development of employment services and the improving of job prospects. Unfortunately, the analysis of labour market flows does not seem to support this interpretation. All trends seem to indicate that rather than the increasing job search activity of the inactive, the rise in unemployment has been caused mostly by the growing unemployment among the poorly educated young between 15–29 years of age and college graduates entering the labour market (*Fazekas and Telegdy,* 2007).

The impact of the budgetary restrictions was barely felt in 2007 and in 2008 – it was hard to separate from the impact of the global crisis. In 2007 and for the most part of 2008, there was little change in the size of the 15–64 population and in either the employed or the unemployed population. The share of firms planning to increase or decrease their workforce did not change significantly in the labour demand prognosis issued by the Public Employment Office.[3] The first signs of decreasing labour demand resulting from the fallback

3 See chapter *Statistical Data* in the volume for the data.

of economic growth are now visible. In 2008, the unemployment rate rose well above the previous trend, and instead of the usual seasonal drop in the first months of the new year, it showed a rapid rise to already approach double digits in the first quarter of 2009 (*Figure 5*). This increase shows a deviation from a trend expected on the basis of past experience by at least 65 thousand. The vacancy rate varied around 10–12 vacancies per 100 job seekers between 2000 and 2005, but started to drop thereafter. In 2008, it reached an all time low value of 5.7 (*Figure 4)*. Although this process had already started before the crisis materialised, it does make it less likely that the labour market can absorb the newly laid off.

Among all labour market indicators, it is unemployment that shows most closely the reaction of the labour market to the drop in demand. Still, it is stock measure and thus does not show the various influences whose combination resulted in this increase. Unemployment increases by companies and businesses laying off employees and decreases through hiring over time. Layoffs can occur one by one or *en masse* and can vary according to the different characteristics of the employee and the employer. Individuals laid off do not transform into unemployment necessarily and might find a job quickly – but the increase in the unemployment rate does not suggest this to be the case now. Layoffs cannot fully characterise the increase in unemployment, but their evolution is nevertheless indicative of the number of workers that has to be absorbed as a minimum by the labour market.

Figure 4: Reported vacancies per 100 registered jobseekers

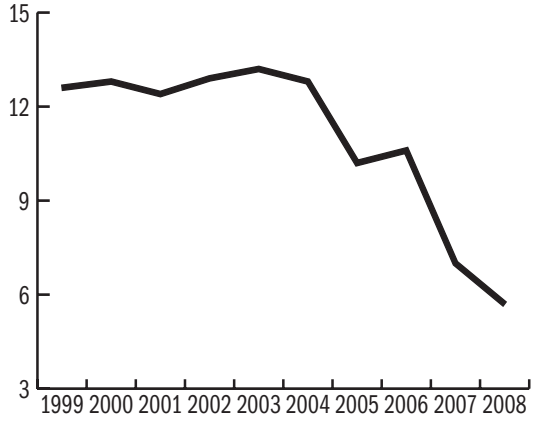
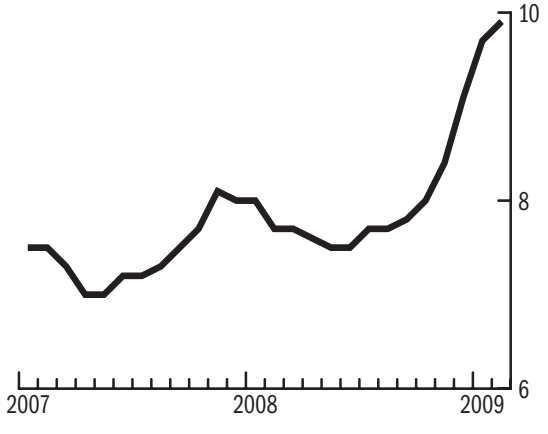


Figure 5: Unemployment rate, 2007–2009

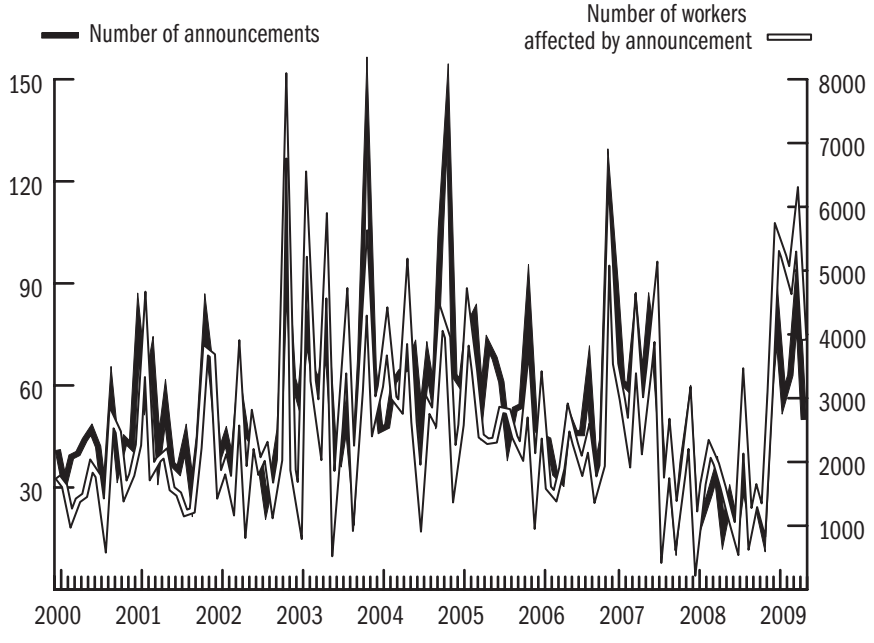


Source: National Employment Office. Source: KSH Stadat (LFS).

Based on data from the Public Employment Service, *Figure 6* shows the number of mass-layoffs announced and the number of workers affected by the announcements between January 2000 and April 2009, the latest available data point. The number of mass layoffs announced has increased after

November 2008, and the number of workers affected has increased even more so. Layoffs between November 2008 and April 2009 have affected a total of 28,415 employees, most of whom were working in the manufacturing industry and in the more developed, western part of the country. Although this figure is not low, it can in itself explain only around 40 percent of the increase in the level of unemployment (provided that the probability of transition from unemployment is low). The figure deliberately covers a longer period. By looking at data from 2007 only, it might seem that the increase from the end of 2008 was huge. Looking at earlier data however, it seems that layoffs of this magnitude did occur earlier too, but did not lead to a comparable increase of unemployment.

Figure 6: The number of announced mass-layoffs and the number of workers affected, January 2000–April 2009, monthly



Source: Public Employment Service monthly first releases.

Using individual-level panel data from the LFS, we can take a look at the stability of the unemployment state and the chance of escaping unemployment. Connecting the indicator of economic activity with the same indicator in the next period shows the proportion of individuals who were in a given labour market state in the first period, and were in another in the second period. In other words, we are looking at a set of transition probabilities, such as the probability that someone will be employed in the next quarter given that she or he is unemployed in the current quarter. *Table 3* shows these transition probabilities for the third and fourth quarters of 2008 and for 2007, as a

benchmark. It is interesting to see that prior to 2009, there is no sign of dramatic changes in the labour market. The transition probabilities into unemployment or inactivity have not increased, but decreased. At the same time, "staying" probabilities are higher for all states and also the escape probabilities from unemployment and inactivity have decreased. This indicates a significantly decreased flexibility of the labour market, but also shows that the drop in the unemployment rate was unexpected in the first months of 2009, as there was no increase in the employed-unemployed transition probability prior to that. All this evidence shows, in accord with Figure 4, that until the end of 2008, there was no significant change in turnover of the unemployed, that is the rise of the unemployment rate contributed to a great extent to the increase of the longer-term stock of the unemployed.

Table 3: Transition probabilities between the last quarters of the years 2007 and 2008

	Employed	Unemployed	Inactive
2007			
Employed	97.21	1.19	1.59
Unemployed	15.97	77.06	6.97
Inactive	1.81	1.19	97.00
2008			
Employed	97.55	1.03	1.42
Unemployed	14.43	78.95	6.62
Inactive	1.76	0.68	97.56

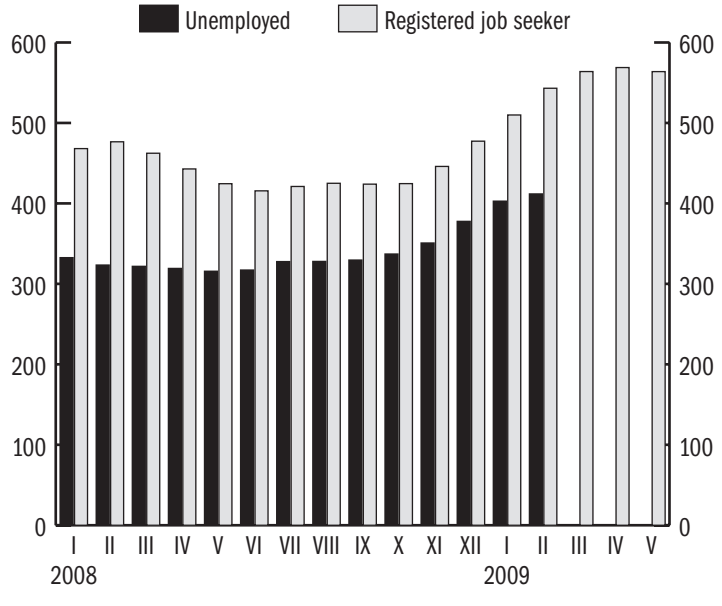
Source: Calculations from HCSO LFS microdata.

The registered unemployed and those characterised by the ILO definition are two overlapping, but distinct populations – there are unemployed persons searching for a job but not registered as such, and there are even more who are registered, but fail to fulfil some of the ILO criteria. Bearing this difference in mind, we can consider the always up to date information on the registered unemployed, extending as far as May 2009. As Figure 7 shows, the number of the registered unemployed has been on the rise since the autumn of 2008 and also after the beginning of the new year, similarly to the number of ILO unemployed. Recent figures show that after an increase of around 50 thousand in 2009, the first slight decrease is visible in May for the first time.

The government's report on the implementation of the Second National Development Plan published for discussion by the social partners (*Programme...*, 2008) projected an annual economic growth of 2–3 percent and some expansion of employment for the years 2008–2013. Only two months later, the November 2008 inflation report of the Hungarian National Bank was already accounting for the gloomier prospects of world markets and forecast an annual 1–2 percent reduction of employment by 2010. Even the most recent forecasts expect a turnaround only after 2010. By 2008 the fast-

spreading global financial melt-down and the expected consequences in the real economy had made it inevitable for the government to review its previous, very optimistic projections. The National Action Programme submitted to the European Commission in November 2008 for the implementation of the Lisbon Strategy (*NFÜ*, 2008) calculated on a GDP reduction of 4 percent and forecast an increase in employment only after 2010. In the spring of 2009 the government expected such growth only a year later and, in full accord with the prognosis of the Hungarian National Bank, forecast that the GDP will shrink by 6.7 percent in 2009 and by around 1 percent a year later. Sadly, given the actual GDP growth figures in *Table 1,* this forecast does not seem to be far-fetched.

Figure 7: The number of unemployed defined following the ILO criteria and the number of registered unemployed – in thousands



Source: HCSO Stadat (LFS) and PES data.
Note: the numbers following the ILO definition are three month moving averages starting at the indicated month

As we have seen, today we still have limited knowledge of the relatively slowly unfolding labour market impacts of the economic crisis. The direction of adaptation, however, is determined not only by recent unemployment data but also by the structure of the labour market that has evolved over recent years. For the past 18 months, the Hungarian economy has been characterised by relatively high nominal wage growth. Private sector firms gradually harmonised with the very significant salary increases implemented in the public sector since 2002 (see *Figure 16* below). Based on the evaluation of the Hun-

garian National Bank, this would more likely force companies to respond to decreasing demand by reducing employment. Therefore, we can expect massive layoffs in 2009 and unemployment may grow by over 2 percentage points. The May 2009 inflation report of the Hungarian National Bank estimates that 180,000 people will lose their jobs, primarily in the private sector.

Undoubtedly the layoffs in the private sector will affect not only the number of unemployed but also their composition, which seems to be supported by the fact that the unemployment rate is growing in parallel with dismissals. Earlier the majority of the unemployed were poorly educated people and young adults entering the job market. In 2009, however, the tendency of the previous years is taking a sharp turn: as a result of the increasing number of factory close-downs and lay-offs, the share of skilled workers among the unemployed is on the rise. It is unfortunate that neither the unemployment benefit system nor the labour market organization is prepared for the challenge of this new, and fundamentally different, situation.

Although growing unemployment among the active population is an alarming trend, the low level of Hungarian employment, for the most part, can be explained by low activity. The analyses attempting to uncover the roots of the problem (*Köllő*, 2005, 2006; *Fazekas* 2006; *Scharle*, 2008) primarily attribute the low Hungarian employment rate to the following factors:

– people with poor education represent a large group and their employment rate is very low,
– employment is relatively low among the population aged 15–25,
– employment is also low among older workers aged 55 and older and near the statutory retirement age,
– employment of women is low and especially low among mothers with small children
– employment is extremely low in disadvantaged regions and small settlements.

Looking beneath aggregate trends, we may discover some changes in the employment situation of these groups. Unfortunately, the past two years have presented a deteriorating rather than an improving tendency.

Differences by educational attainment, age and gender

Figure 8 indicates that the exclusion of the poorly educated from the labour market has become more significant over the past two years. The total employment rate rose with the increasing share of educated workers, but employment rates have fallen in all educational sub-groups except for college graduates. Among those with only 8 years of primary and those with vocational education there is a very drastic fallback of 3–5 percentage points (approx. 8 percent). Unemployment has increased primarily within this group since 2004. The unemployment rate for those with 8 years of primary school or less increased

from 12 to 18.5 percent between 2004 and 2008, while the employment rate increased significantly only among college and university graduates.

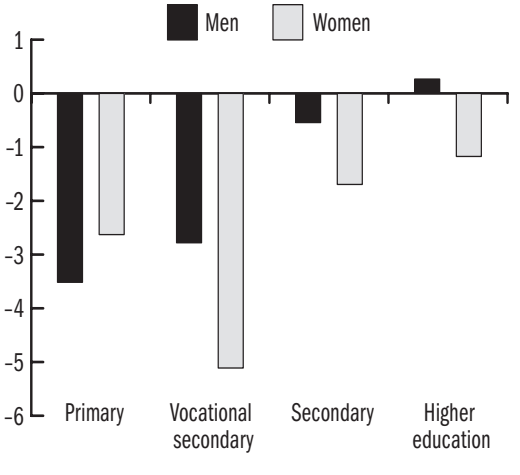
The outbreak of the crisis has changed the long-term trend to some extent. Following its usual seasonal variation, the number of unskilled and college-educated registered unemployed has increased up to December 2008. Differently from its former cyclical behaviour, the former increased by around 16 thousand and the latter has not decreased but increased by 2 thousand from January to May. This implies that the remaining 36 thousand of the total increase of 54 thousand must be attributed to a rise in skilled, but less than college-educated employment having worked for the hardest hit manufacturing sector.[4]

The expansion of employment shows considerable variation across gender and age groups. The employment rate significantly dropped among young people (15–19 and 20–24 age groups) due to increasing unemployment among poorly schooled new entrants and, more importantly, due to the expansion of higher education. It is mostly men in the 30–50 age group who experienced employment growth. No doubt, the expansion of employment is closely related to the increase in the statutory retirement age: employment increased significantly only in the age group affected. Over the past ten years, the employment rate has grown by over 15 percentage points among women between 50–54, over 20 percentage points among men between 55–59 and over 25 percentage points among women between 55–59 years of age (*Figure 9*).

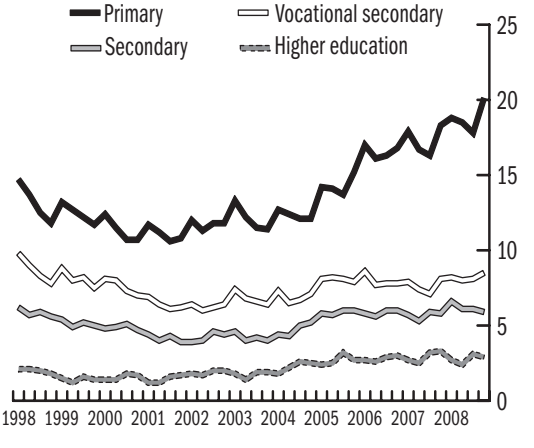
4 Note that when looking at the effect of individual characteristics, the difference between registered and ILO unemployment can be even wider than it is on average, due to the potential effect of the characteristics on job search.

Figure 8: Employment and unemployment rate by educational attainment, 1998–2008

Employment rate by educational attainment and gender, 1998–2008 (percentage point)

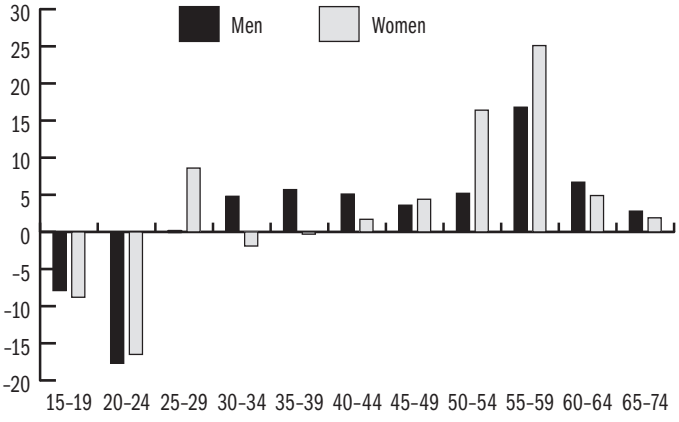


Unemployment rate by educational attainment, 1998–2008



Source: KSH Stadat (LFS)

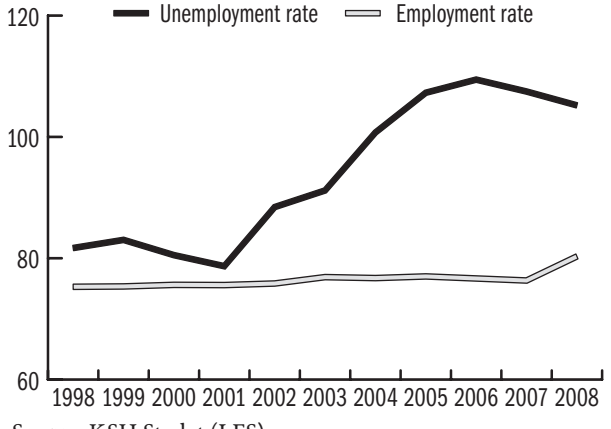
Figure 9: Employment rate differences by age and gender, 1998–2008 (percentage point)



Source: KSH Stadat (LFS)

A similar number of men and women have lost their jobs since the crisis began, and no significant change has happened in the employment rate of men and women over the past years. In 2008, 63 percent of the male 15–64 age group were employed, which was 12.4 percentage points higher than the 50.6 percent employment rate among women in the same age group. *Figure 10*, however, clearly indicates the significant change in women's unemployment over the recent years. In the decade following the change of the political regime, unemployment was 20 percent lower among women than among men. The relative position of women began to significantly worsen in 2001 and since 2006 there has been an improvement. Since 2004 the female unemployment rate has been higher than that of men; this difference was as high as 10 percent in 2006 and even in 2008 there was a 5 percent gap.

Figure 10: Female unemployment and employment as a percentage of the male unemployment and employment rate, 1998–2008



Source: KSH Stadat (LFS)

Rising unemployment among women has, in part, to do with the increase of the retirement age for women. Labour market activity, employment and unemployment have all increased in the age groups affected by the increased age limit. Another factor contributing to increasing unemployment among women was the massive layoffs in the public sector over recent years. Between 2003 and 2007, the number of civil servants has been decreasing at an average annual rate of 20,000. Since more women work in the public sector than in the private sector, the dismissals here had a larger impact on women than on men. Both before and since the beginning of the crisis, the economic slowdown has had a larger impact on the private sector and consequently on men, explaining the recent reversal of the earlier trend in female unemployment.

Sectoral and regional differences in employment and unemployment

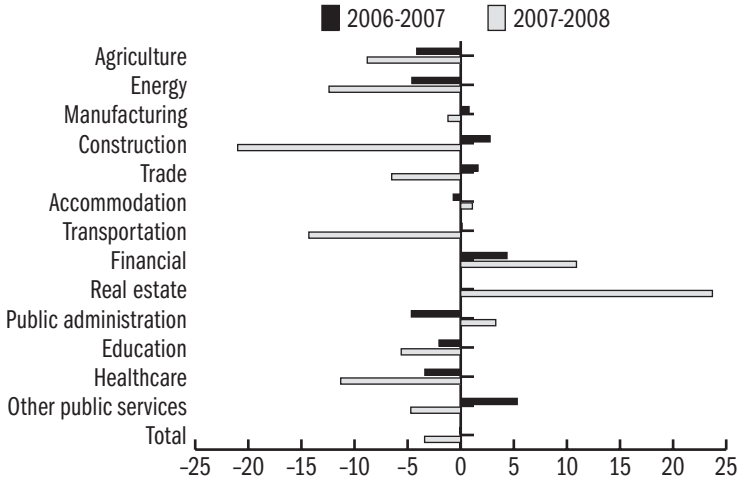
According to the Labour Force Survey of the HCSO in 2007, 88 percent of the total employed population were paid employees. Due to the budgetary restrictions, in 2007 the number of employees in the public sector was reduced by 50,000, which is over 6 percent. This negative trend was somewhat balanced out by the increased employment in the private sector. However, in 2008 the public sector (except for public administration) continued to shrink and unemployment increased even in the private sector in a number of industries. Despite being closely related to the crisis, the real estate and the financial sector were able to close the year with an employment increase of 20 and 10 percent respectively, while the transportation, construction and energy industries suffered a loss of 14, 21 and 12 percent respectively. *(Figure 11)*. Although we do not yet know for sure in which sectors the employment loss was the greatest in the first part of 2009, mass layoff figures suggest this to be manufacturing. In April 2009, 60 percent of the firms announcing mass layoffs and 76 percent of the persons affected by them were in this sector.

Disparities in employment and unemployment across regions and small regions have seen little change despite all the government subsidies and EU cohesion grants provided for development goals, substantial job-creation subsidies, and widely used active labour market programmes. Quite the contrary: an even more powerful polarization is visible in the country. Employment was relatively high (55 percent) in Central Hungary and the western and central Trans-Danubian counties while the employment level in the rest of the country was around 43–48 percent in late 2008 (*Figure 12*).

Ironically, it is the crisis which might be the influence with the greatest equalising power regarding unemployment. While registered unemployment has grown by 24 percent in the western part of the country (excluding Southern Transdanubia), the growth was only 6 percent in the remaining part. At the same time, hiring shows a geographically more even distribution. Except

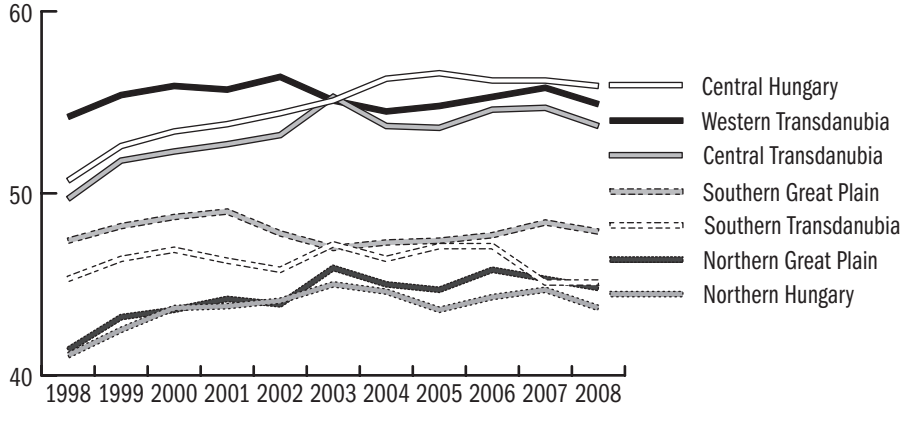
for the Northern Great Plain, the drop in hiring compared to the same months is between 35–45 percent for all regions.

Figure 11: Changes in the number of employees by industry, 2006–2007 and 2007–2008 (percent)



Source: KSH Stadat (LFS).

Figure 12: Employment rate in the planning regions, 1998–2008



Source: KSH Stadat (LFS)

A more accurate picture of regional disparities emerges from the analysis of small regions or settlement-level data. The unemployment register of the Public Employment Service indicates that in recent years there has not been any significant change in the differences of unemployment rates across sub-regions and between the specific settlement types. *Figure 13* shows the evolution of the relative differences in registered unemployment. With the small regions arranged into deciles based on their unemployment rate, the lines in the fig-

ure indicate for each decile the ratio of the average and the median unemployment rate, thus controlling for fluctuations in the level of unemployment. Apparently, most of the large and stable differences result from the very high unemployment rates of the small-regions that belong to the top two deciles. The relative situation of the top two deciles with the highest rates somewhat improved between 2002–2006 but has worsened over the past two years. 10–11 percent of Hungary's population live in regions where unemployment is above 20–22 percent (28 percent for the top decile), where estimates put the employment rate of the 15–64 group at 36–50 percent and where no improvement but actually deteriorating employment conditions can be expected.

Figure 13: Variation in registered unemployment across small regions, 1991–2008

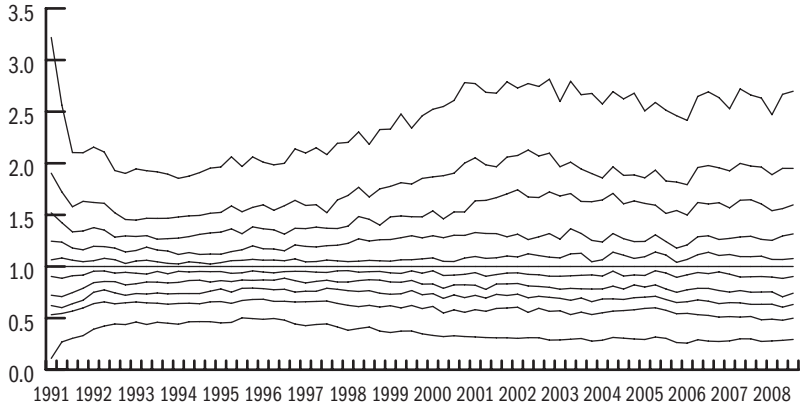
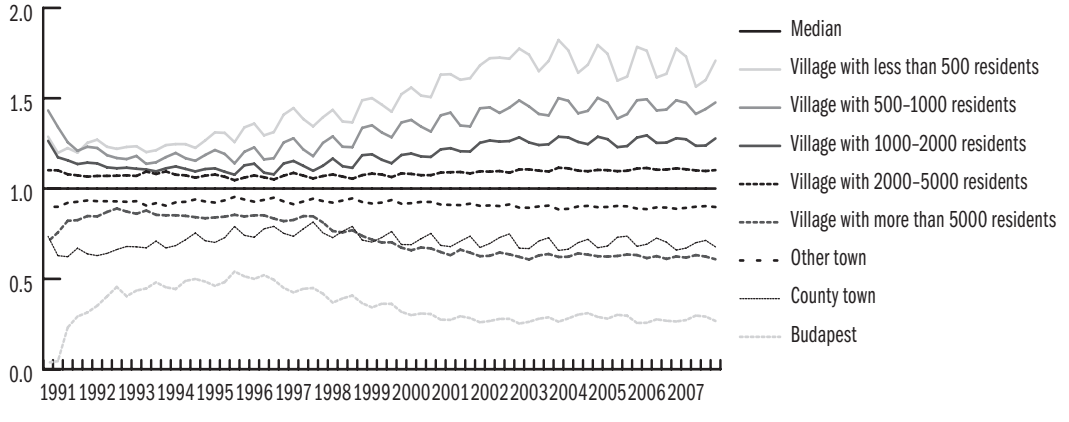


Figure 14: Registered unemployment by settlement type, 1990–2007



Note: the average unemployment rate of the specific settlement types divided by their median unemployment rate.
Source: MTA KTI employment database.

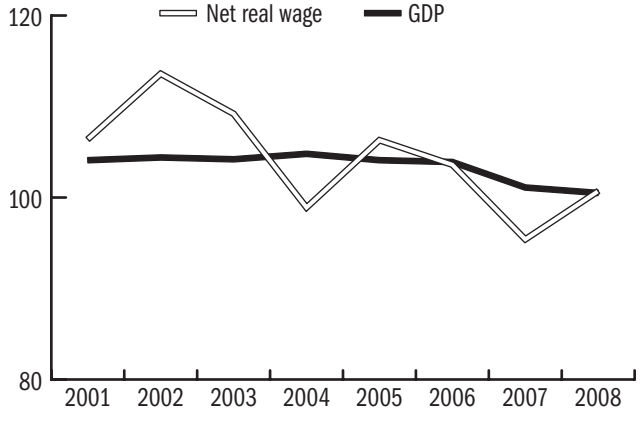
Figure 14 shows the evolution of relative differences in average unemployment rates by settlement type. The discrepancies are stunning. In 2007 the share of

the registered unemployed in the working age population of villages with less than 500 residents was 13.7 percent, while the same indicator was only 2.3 percent in Budapest and 5.7 percent in county towns. The figure shows that the relative situation of settlements with less than 5000 residents worsened in the early 2000s but then somewhat improved in recent years. One should note however that the share of the inactive population is extremely high in the most disadvantaged settlements.

2. WAGES BETWEEN 2001 AND 2008

In 2008 the average gross earnings of full-time employees was HUF 199,000, equal to net HUF 122,000. The gross income of civil servants was 14 percent higher than the earnings of private sector employees. *Figure 15* illustrates the increase of the net real wage and the GDP between 2001 and 2008. As a result of the budgetary restrictions, the decrease was followed by stagnation in 2008. The evolution of wages was in line with the slow-down in GDP growth following the crisis.

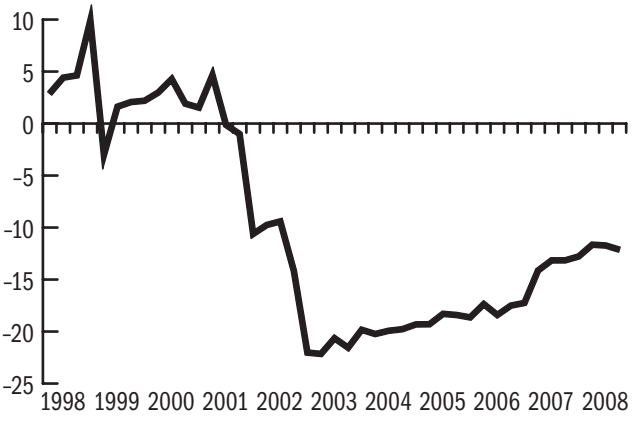
Figure 15: Net real wage and GDP growth, 2001–2008



Source: KSH Stadat.

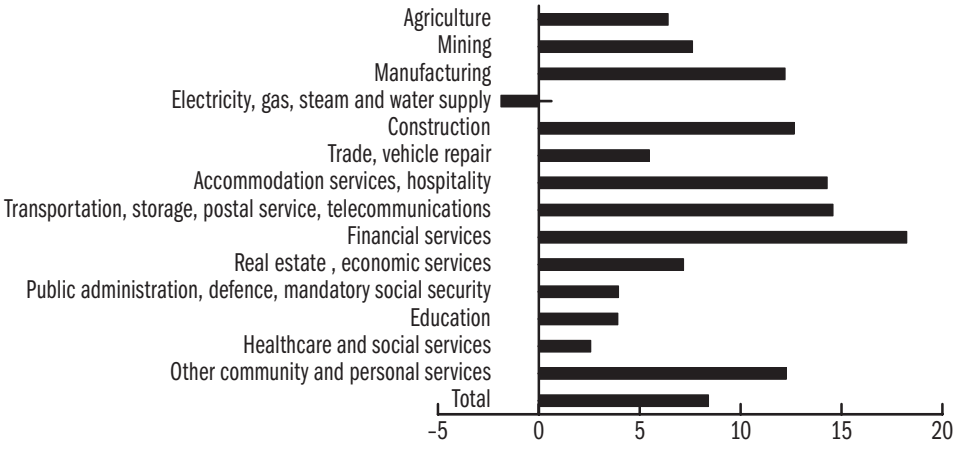
Figure 16 illustrates the increase of the net real wage in the private and the public sectors between 1998 and 2008. It is clear that after the large pay rise in the public sector in 2001–2, wage increases in the private sector have tended to exceed those in the public sector. Hence, the wage advantage of the public sector dropped from 22 percent to 12 percent between 2002 and 2008. The figure does not yet show the impact of abolishing the 13th monthly salary, which would further reduce the advantage of the public sector.

Figure 16: Wage ratio between the private and the public sector, 1998–2008



Source: Inflation report of the Hungarian National Bank. November 2008.

Figure 17: Real wages of employees, 2006–2007



Source: KSH Stadat.

The gender wage gap

In 2007 the average gross income of full-time employees in Hungary was HUF 188,000. For men the average was HUF 202,000 and for women HUF 173,000, showing a sizeable gap in line with the long-term trend. Women's wages fell 14.6 percent short of men's in 2007, which is 1.8 percentage point higher than a year before and even above the 2005 figure (13.9 percent) (*PES*, 2008). The gender-wage gap is not unique to Hungary but is typical worldwide. From the very beginning, the European Union have made efforts to establish equal employment opportunities: the 1957 Treaty of Rome included the principle of "equal pay for equal work"; in 1997 equal employment op-

portunities for men and women were included among the directives; in 2003 the European Union issued a directive to reduce wage differences between the genders by 2010.

From 24 percent in 1997, the wage difference between men and women in Hungary had dropped to the EU–27 average by 2002. In 2006 the average salary for women was 11 percent less than for men, which was no major change to the year before but a significant drop compared to a decade earlier.[5] The salary corrections implemented in the budgetary sector after 2001 were a major factor in reducing the wage difference between men and women since more than half of the public servants (68 percent in 2007) were women (*PES,* 2008).

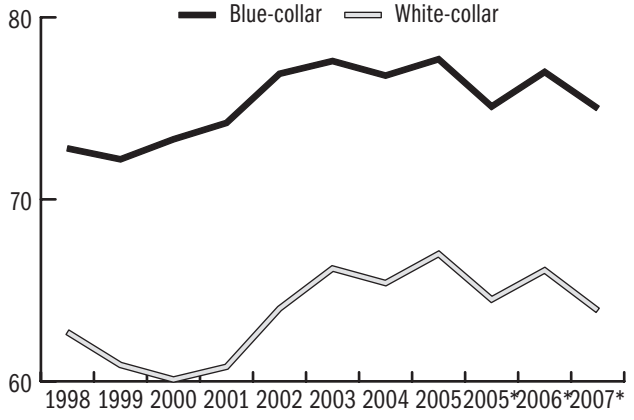
A number of factors contribute to the gender wage gap: variation in the characteristics of the employers (branch of industry, ownership, size, legal form, location, etc.) and in the characteristics of employees (age, educational attainment, employment history, family background, etc.). In addition to the characteristics of the labour market mentioned above, the lower earnings of women compared to men could also result from discrimination in the job market.

Concerning the wage gap by industry, in 2007 women continued to enjoy an advantage in fishing (0.1 percent), construction (15.3 percent) and were paid only a little less than men in mining (4.3 percent) and transportation, storage, postal service, and communication (1.9 percent). It should be mentioned however that the number of women employed in those sectors is relatively low compared to the total workforce and they typically hold white-collar jobs that result in higher salaries than for the blue-collar male workers. The disadvantage of women compared to men is largest in the financial sector (41.7 percent), manufacturing (28.1 percent), and accommodation and hospitality (27.3 percent).

When considering the characteristics of employers, experience shows that the wage difference of women tends to increase with age and wage band, and is also higher for married women compared to their unmarried peers (*Koncz*, 2008). When examining the wage gap in main employee categories, the disadvantage of women is larger within the groups of blue-collar and white-collar workers than combined *(Figure 18)*. This is explained mostly by the fact that 56–57 percent of working women are white-collar workers and white-collar men and women tend to earn more than blue-collar workers. The female-male wage ratio for white-collar workers was around 60–67 percent between 1998 and 2007, which is 10 percentage points lower compared to that of blue-collar workers. The larger wage gap of white-collar workers may be attributed to the fact that men are more likely to fill executive positions with higher salaries than women.

5 http://epp.eurostat.ec.europa.eu/tgm/graphToolClosed.do?tab=graph&init=1&plugin=1&language=en&pcode=tsiem040&r=true&toolbox=legend. Eurostat, Downloaded: 22 September 2008

Figure 18: Women's gross wages as a percentage of men's, 1998–2007



* Based on the tables presented in the Statistics chapter.
Source: Based on page 127 of *KSH* (2007).

Based on international and Hungarian experience, it is fair to say that beside labour market discrimination and the different characteristics of employees, the gender wage gap is also determined by employment segregation, i.e. female employees are concentrated in certain professions. Such typical female occupations include sales, cleaning, administrative personnel, dressmaking, kindergarten and primary school teachers and caregivers.

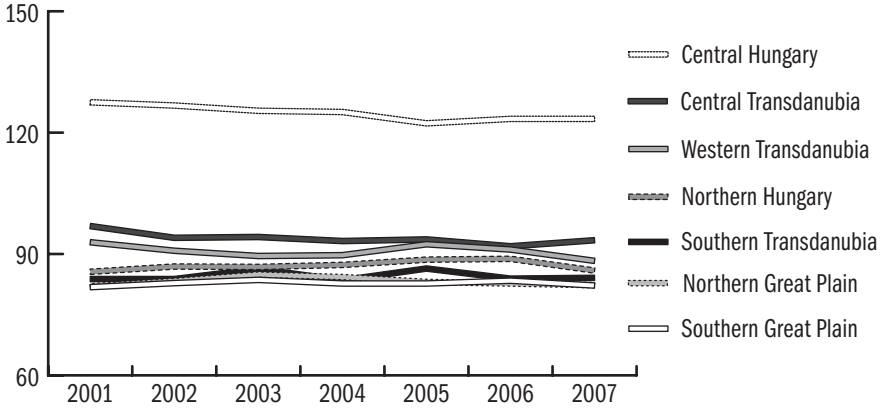
When examining the wage gap across levels of education, data suggest that women with college degrees suffer the largest disadvantage. In 2007, women with three or four-year college degrees had a disadvantage of 30.5 percent while those with five-year university degrees earned 23.6 percent less than their male counterparts. The gap was smaller for those with 2–3 years of vocational education (21.7 percent), 4 years of general secondary education (17.6 percent), 4–5 years of vocational education (16 percent), those with incomplete primary education (12.8 percent) and also for those with 4 years of vocational secondary education (with A levels) (12.4 percent).[6]

Regional wage differences

The decades following the transition to a market economy witnessed a steady rise in the raw wage differential (i.e. differences including composition-effects) between Central Hungary, the Central and West Trans-Danubian region and the rest of the country. From the turn of the millennium these differences began to decrease but over the past two years a slight increase has been visible. In 2007 only the South Trans-Danubian region was able to produce a higher wage increase than Central Hungary (*Figure 19*).

6 See chapter "Statistical Data" in the volume for the data.

Figure 19: Average gross earnings as a percentage of the national average, 2001–2007



Source: FSZ Wage tariff record

Table 4: Monthly gross earnings by region

Region	2006		2007	
	HUF	previous year = 100	HUF	previous year = 100
Central Hungary	212,001	109.9	229,897	108.4
Central Trans-Danubian region	157,824	106.9	173,937	110.2
West Trans-Danubian region	156,499	107.4	164,378	105.0
South Trans-Danubian region	144,189	105.8	156,678	108.7
North Hungary	152,521	109.1	159,921	104.9
Northern Great Plains region	142,142	108.4	153,241	107.8
South Great Plains region	143,231	109.8	153,050	106.9
Total	171,794	108.9	186,229	108.4

Source: KSH.

The data in figure 9.5 in the Statistics chapter of this volume indicate that the differences by county are even more significant and have shown no decline. An analysis of the causes behind regional wage differences indicate that regional differences in wages, for the most part, are attributed to variations in the composition of the workforce and in the productivity of firms. Once these two factors are controlled for, regional wage differences appear to have significantly declined in the second half of the 1990s, while no significant change has occurred in this respect in recent years.

CONCLUSIONS

Until the second half of 2008, the Hungarian labour market was relatively unchanged compared to previous years both in terms of its structure and its main institutions. The effects of the convergence programme launched in

2006 had taken some time to unfold. During 2007 and the first part of 2008, employment did not change and unemployment did not increase either – low employment, a relatively low level of unemployment, regional disparities and the polarisation of the labour market in general prevailed. Employment increased only in those groups affected by the increase of the statutory retirement age and those with higher education. By the end of 2008 however, the sharp economic downturn set in also in Hungary and the first effects related to the labour-market started to appear.

In the short run, employment policy in Hungary must face the labour market impacts of the global financial crisis. Recent statistics already signal the inevitability of mass layoffs and redundancies. The significant rise in unemployment aggravates the already poor job prospects of the low educated, the young, older workers, and mothers with small children. The public employment service will need to prepare not only for an increase in caseload but also for a change in the composition of the registered unemployed.

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IN FOCUS

I. The Hungarian Labour Market – A European Perspective
II. The Failures of "Uncertified" Vocational Training

Edited by
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PREFACE

The *In Focus* section of the *Hungarian Labour Market* yearbook usually summarises previously published research. This year we have decided to depart from this tradition to some extent. The first part of this year's *In Focus* presents a simple descriptive statistical overview of the Hungarian labour market as seen through the data of the *European Labour Force Survey* (EU LFS). The microdata of the EU LFS became available recently, and analytical research is likely to take quite some time. We believe that even the raw data, which is now readily comparable across countries thanks to Eurostat efforts, is suitable for revealing some of the characteristic features of the Hungarian labour market from a hitherto unfamiliar perspective. We would like to stress that we shall not attempt to give an explanation for observed deviations from European trends (if any) – what we undertake to do is present the comparative data in order to bring clearly to light those Hungarian specifics that actually need to be explained by future research. Naturally, this compels us to present more statistics than usual, while explanations and references to the literature will be given far less space.

More in line with our usual practice, in the second part of *In Focus* a specific aspect of the labour market is discussed in as much detail as is possible on the basis of currently available research evidence. *Vocational training* is a relatively under-researched area of the Hungarian labour market, even though not a day goes by without businessemen and policy makers making explicit comments on the shortage of skilled workers, the quality of training, and the desirable direction of development. The focus of this chapter is an overview of the results of research on the labour market position of workers with vocational qualifications but no secondary school qualifications (Matura certificates), and an attempt is made to draw the most important conclusions for education policy.

THE EDITOR

I. THE HUNGARIAN LABOUR MARKET – A EUROPEAN PERSPECTIVE

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Introduction

In 2007 researchers were given access to the micro data of the *European Labour Force Survey* (EU LFS), a collection of quarterly and annual labour force surveys covering the EU member states. The data allows us to analyse the major characteristics of the labour market while choosing our own preferred grouping and using multivariate models. The Eurostat online interactive database allows some of the published data to be grouped according to age and educational attainment, but it is not always possible to limit the analysis to the specific population (or group the data in the specific way) required for the purposes of a given research.

In this first chapter of *In Focus* we use individual level data from the EU LFS with the aim of characterising selected aspects of the Hungarian labour market. Setting several issues of crucial significance aside we selected areas in which Hungary's position in an international context had previously been difficult to establish due to the lack of comparable data. The chapter departs from the tradition of *In Focus* in that it presents descriptive statistics rather than research evidence. We firmly believe that an overview of the data constitutes a major step forward relative to comparisons based on small samples, and limited to a small number of countries.

The data on employment confirms that the substantial disadvantage observed among the 15–64 year old population in Hungary is primarily explained by low levels of employment among the oldest and the youngest: the transition from school to work is a slow-moving process and a large number of men over the age of 40 have left or are leaving the labour market permanently. As regards people "of the best working age," Hungary's disadvantage is far less pronounced thanks to a lower level of absenteeism and long working hours. The population of the best working age is divided into two groups with a remarkably sharp boundary between them: those who work the standard eight hours a day, five days a week, and a strikingly large group of those who are out of work and do not even search for jobs. Forms of labour attachment other than full time employment are underdeveloped and rudimentary: few of the employed work part time, few workers are temporarily away from their workplace; few people have working hours deviating from the standard, and those who do, do not owe this to flexible working arrangements; few people work at home; few workers participate in adult training programmes, and

even fewer attend training courses as part of their regular working hours. Of those who are not employed, few are actively seeking employment, and few register with the unemployment agency. The share of persons out of work who have no desire to find paid employment is particularly high.

The first part of this chapter is primarily concerned with the features mentioned above, namely the sharp boundary between employment and non-employment in the population of "best working age". This will be supplemented by a discussion of the two areas, where employment is low by any standards: transition from school to work, and employment in old age.

1. The data

The overview is based on data from 2005. For most countries four quarterly observations were recorded, but only a single observation is available for some of the member states. We use the quarterly population weights to make our calculations representative, because not all of the countries compute annual weights.[1]

As regards the most important grouping variables, *educational attainment* is measured according to the classifications provided by Eurostat (primary, secondary and tertiary), where vocational training involving no Matura qualifications is classified as secondary education.[2] The continuous variable of *age* unfortunately fell victim to the efforts ensuring anonymity; it has been replaced by five-year cohort variables in the dataset made available to researchers. The data on social benefits and wages has also been removed, leaving only a dummy variable indicating the presence or absence of benefits specifically tied to unemployment. Identifiers that would allow individuals to be followed over time have been removed from the public version of the dataset, and since they were not replaced with anonymity-preserving codes, it is impossible to build panel datasets for those countries, where individuals are observed several times in the national survey (as is the case in Hungary, where each respondent is interviewed six times in an 18 month period).

The majority of the national labour force surveys follow the Eurostat recommendations. They are similar in their choice of variables and in their concepts, although not all variables are recorded in all countries and some national surveys (especially those of Iceland, Cyprus and the Baltic States) appear to be too small to allow detailed analyses. Cells with an insufficient number of observations will either be deleted from the tables, or starred, and we add notes to explain why some countries are missing from the given table or equation.

2. Employment in the population aged 15–64 years

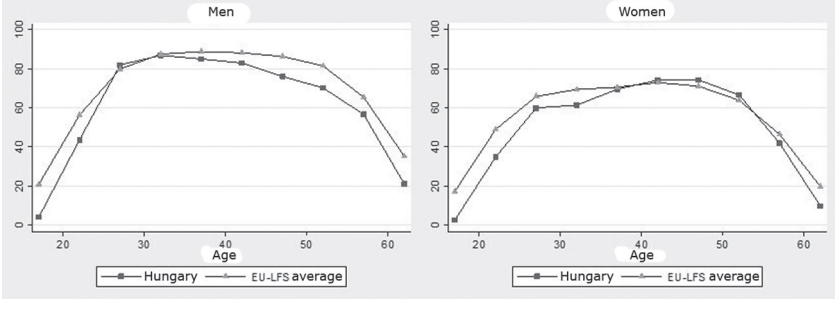
There are three groups for which the figures indicate substantially lower employment rates in Hungary compared to the European average: *young peo-*

1 The results of the two types of weighting show little difference.

2 This also applies to Poland in the European Labour Force Survey. In the publication *Education at a Glance* (*OECD,* 2007c), Poland lists vocational training in a separate column, distinct from other forms of secondary level education.

ple, men older than 40, and women aged 25–40. As shown by the curves of employment by age displayed in *Figure 1.1*, young Hungarians appear to be characterised by low levels of employment both among men and women. Men aged 25–40 display similar or only marginally lower employment rates than the EU average, but looking at the next section of the curves, a wide gap can be seen between the Hungarian and the European average figures for men aged 40–54. Employment rates among women aged 25–40 are similarly low, but the figures characterising 35–59 year old women approach or, for some cohorts, even surpass the European average.

Figure 1.1: Employment rates among the population aged 15–64 as defined by the ILO-OECD, second quarter of 2005 (percent)



EU LFS-average: average of the aggregated and weighted sample of member states.

The problem of exceptionally low employment among young women and, within the group, those with young children was discussed in detail in last year's issue of The Hungarian Labour Market (*Bálint & Köllő,* 2008). Putting this issue aside, we devote two sections to young people and men over 40 at the end of the chapter, with the main text focussing on the 15–59 year old population not enrolled in full time education. We will not dedicate a separate section to the issue of exceptionally low employment rates among people having at most primary education, a widely known problem in all former socialist countries, but educational differences will be discussed within each of our topics.

3. Employment and working hours among the 15–59 year old non-student population

The ILO-OECD convention defines employed persons as those who performed at least one hour's paid work during a reference period – typically the week preceding the interview – adding those who did not perform any work, but were only temporarily absent from the job to which they had a formal attachment. Taking this definition, in Hungary 69.3 percent of the non-student population aged 15–59 was employed, which is the fifth lowest

value in the European Union (*Table 1.1*), but is only 3.1 percent lower than the EU–15 average, as opposed to the 9.4 percent disadvantage observed in the 15–64 year old population.[3]

Table 1.1: Employment among the 15–59 year old non-student population under different definitions of employment, 2005 (percent)

Country	ILO-OECD-employed	Country	Worked at least 1 hour	Country	Full-time equivalent employment[a]
Iceland	90.4	Iceland	79.5	Iceland	82.4
Denmark	84.9	Estonia	74.8	Latvia	77.6
Norway	83.9	Latvia	74.6	Czech Republic	76.3
Sweden	83.7	Lithuania	74.4	Estonia	75.1
Netherlands	80.7	Portugal	73.1	Cyprus	74.1
Finland	80.2	Cyprus	73.1	Greece	73.4
Austria	79.9	Denmark	73.0	Portugal	72.9
Cyprus	79.2	Czech Republic	72.4	Slovenia	72.6
Slovenia	78.8	Ireland	71.4	Lithuania	71.1
Czech Republic	78.7	Austria	70.6	Austria	70.0
Lithuania	78.6	Norway	70.5	Denmark	69.3
Portugal	78.5	Sweden	70.3	Slovakia	69.1
Luxembourg	77.9	Slovenia	69.8	Ireland	67.8
Estonia	77.7	Netherlands	69.7	Hungary	67.1
Ireland	77.4	Luxembourg	68.4	Finland	65.9
Latvia	77.0	Greece	68.3	Sweden	65.8
France	76.0	Finland	68.0	Luxembourg	64.7
United Kingdom	74.0	Slovakia	67.3	Poland	63.3
Belgium	73.8	Hungary	66.1	France	61.5
Greece	71.3	France	64.9	United Kingdom	60.3
Slovakia	70.9	United Kingdom	64.7	Norway	59.9
Hungary	69.3	Germany	62.8	Italy	59.4
Italy	68.9	Belgium	62.6	Belgium	58.7
Germany	68.8	Italy	61.7	Netherlands	57.8
Spain	66.2	Poland	61.3	Germany	56.5
Poland	64.0	Spain	57.1	Spain	55.9

[a] The figures show the percentage of the given population who could complete the total number of hours worked if everyone worked 40 hours a week. The hours of work performed by a person are equated with the usual working hours (with the exception of "highly variable" working hours, in which case the actual hours worked during the reference week are taken).

The number of people actually performing work during the reference week is somewhat smaller, and there are substantial differences between the East and the West. In Hungary 3 percent of the population categorised as being in employment were away from their job during the reference week, while the corresponding values approach or exceed 10–12 percent in several West European countries. With respect to the proportion of people actually performing work, Hungary occupies a more favourable rank – it is the eighth country from the

3 The group of countries labelled as EU–15 here does not include Malta, for which no data is available. The group includes Norway, however, which is not an EU member but provides data for the European Labour Force Survey.

bottom: 66.1 percent of the population of the best working age worked for at least one hour during the week under observation, which is two percent *higher* than the average value for the old EU member states.[4]

Hungary climbs even higher in the ranking if full-time equivalent employment (FTE) is considered. The FTE measure compares total hours actually performed by those in employment to total hours potentially performed by the working age population provided that each person makes 40 hours a week. Formally, $FTE = hE/40P$, where E stands for employment, P denotes the working age population and h denotes actual average weekly working time. The average working week is quite long in Hungary, longer than 40 hours. Taking this into consideration we arrive at the position where 67.1 percent of the population would have needed to work 40 hours during the reference week to complete the total number of working hours actually performed that week. In the ranking of the European countries according to full-time equivalent employment, Hungary occupies a central position close to Slovakia and not far from Denmark, Finland or Ireland, with a score 7.1 percent *above* the old EU members' average.

Table 1.1 clearly shows that the relative positions of all the former socialist countries change similarly to Hungary's, as we move from the ILO-OECD employment ranking towards the FTE ranking: in the latter list even Poland, the Eastern European country with the lowest value, ranks higher than the UK, France, Germany, Norway, Belgium, the Netherlands, Spain and Italy.

It is not the low level of employment that merits special attention regarding the population of the best working age in Hungary: the country is not far behind the EU average in terms of the ILO-OECD criteria of employment, and it does not display any disadvantage at all in terms of the two alternative indicators considered in Table 1.1. A relatively high share of the labour potential is put to use, however the structure of employment is characteristically different from the Western model: relatively few people work and they work relatively long hours.[5]

4. The non-employed of "best working age"

One of the characteristic features of the Hungarian labour market is that the labour force participation rate of the working age population remains at a low level. The recommendations of the ILO and the OECD classify those non-employed as economically active who were seeking employment during the weeks preceding the interview, and are able and available to start work. Inactive persons are those who do not work and are not seeking employment, or are searching but are unable or unavailable to start work should they find a job. (In practice the classification relies on job search with the criterion of availability playing only a marginal role.)

4 The figure applies to the aggregated samples of the old member states together with Norway and Iceland.

5 We shall return to the issue of working hours in the section *In between work and non-work*.

In Hungary a markedly high proportion of the non-employed is *not seeking employment* compared to other Central and Eastern European countries and to most old EU member states, as can be seen in *Table 1.2*.

Table 1.2: The distribution of the 15–59 year old non-student population by labour market status. Regional averages, within-region standard deviations of national averages, and the Hungarian mean, 2005

		EU–15	Baltic	CEE	All	Hungary
Men						
ILO-OECD employed	Mean	84.3	83.6	80.0	83.6	76.2
	St.dev.	(4.7)	(5.2)	(7.2)	(5.1)	
ILO-OECD unemployed	Mean	5.5	6.2	10.2	6.3	5.8
	St.dev.	(1.8)	(2.6)	(5.0)	(3.0)	
Non-seekers who desire paid work	Mean	1.9	4.0	2.1	2.2	5.2
	St.dev.	(1.1)	(3.3)	(1.0)	(1.5)	
Those who do not desire paid work	Mean	8.2	6.2	7.7	7.9	
	St.dev.	(2.9)	(1.0)	(3.2)	(2.8)	12.7
Women						
ILO-OECD employed	Mean	70.7	71.5	66.1	70.0	62.7
	St.dev.	(9.6)	(4.9)	(7.4)	(8.8)	
ILO-OECD unemployed	Mean	5.6	5.5	10.1	6.3	5.0
	St.dev.	(2.3)	(1.3)	(4.0)	(3.0)	
Non-seekers who desire paid work	Mean	3.9	5.7	4.1	4.1	6.0
	St.dev.	(2.8)	(5.2)	(1.9)	(3.0)	
Those who do not desire paid work	Mean	19.8	17.2	19.6	19.5	26.3
	St.dev.	(7.1)	(10.5)	(3.0)	(6.8)	
Formerly working women						
ILO-OECD employed	Mean	77.6	74.5	70.0	76.0	67.1
	St.dev.	(7.7)	(4.8)	(6.6)	(7.6)	
ILO-OECD unemployed	Mean	4.9	4.9	8.3	5.4	4.6
	St.dev.	(2.3)	(1.3)	(3.2)	(2.6)	
Non-seekers who desire paid work	Mean	3.2	5.1	3.6	3.5	5.0
	St.dev.	(2.4)	(4.7)	(1.8)	(2.6)	
Those who do not desire paid work	Mean	14.2	15.3	18.0	15.0	23.2
	St.dev.	(5.3)	(9.9)	(3.0)	(5.6)	
Number of countries		18	3	4	25	1

EU–15: excluding Malta, including Norway. Baltic: Estonia, Latvia, Lithuania. CEE: excluding Hungary: Czech Republic, Poland, Slovakia, Slovenia. All: excluding Hungary and Malta, including Norway.

The employment rate of men is lower in Hungary than the EU average, and falls outside the Western European and Baltic ranges. The rate of *unemployment* nevertheless remains low. We have, in contrast, a high proportion of non-employed not seeking but "wanting" paid employment: their share is two and a half times higher than the figures observed in Western or Central and Eastern Europe, although it is not substantially higher than the average of the Baltic region. We also find a high proportion of men who do not

want paid employment.[6] Women display a similar pattern of labour market status, but there is more variation across other countries considered in Table 1.2.: the Hungarian level of female inactivity falls near the top of the range. If, however, we limit our attention to women attached to the labour market – those, who have had at least one job before – we find that Hungary is once again exceptional with its rather high proportion (23.2 percent) of women not willing to work. Values similar to Hungary's are observed in only two other countries: Ireland (24.2 percent) and Luxembourg (26.6 percent).

Table 1.3 shows the percentage of jobseekers *within* the non-employed population broken down into the categories used above. In Hungary only a quarter of non-working men and less than one in seven non-working women are classed as unemployed. The Hungarian value is outside the EU–15 and Central and Eastern European ranges.[7] For women, the proportion of those seeking employment is also below the regional averages: it appears in the lower half of the overall European range and remains well below the average value for Central and Eastern Europe.[8]

Table 1.3: Proportion of jobseekers among the 15–59 year old non-student and non-working population. Regional averages, within-region standard deviations of national averages, and the Hungarian mean, 2005

	EU-15	Baltic	CEE	All	Hungary
Men					
Mean	35.0	36.8	50.0	37.7	24.6
st.dev.	(6.9)	(5.1)	(14.5)	(9.7)	
Women					
Mean	19.5	20.1	29.0	21.1	13.4
st.dev.	(7.1)	(7.1)	(6.1)	(7.6)	
Formerly working women					
Mean	22.4	20.5	27.1	23.0	13.5
SD	(8.7)	(7.8)	(5.8)	(8.0)	
Number of countries	18	3	4	25	1

EU–15: Excluding Malta, including Norway. Baltic: Estonia, Latvia, Lithuania. CEE: the Czech Republic, Poland, Slovakia, Slovenia.

Working-age inactivity is not only frequent in Hungary, but also rather long-term. In the European Labour Force Survey the duration of inactivity can only be measured with the help of retrospective data, by comparing labour market status at the time of the survey to the preceding years' status. Holding the level of inactivity constant, however, *the proportion of currently inactive persons who were also inactive a year before* is indicative of the probability of becoming active following a period of inactivity.[9] The lists of the countries ranked according to this approximate indicator (*Table 1.4*) reveal that Hungary is characterised by the most persistent inactivity among working-age men in Europe. Looking at inactivity among women, Hungary is only

6 The proportion of those not wanting to work is similar to the Hungarian figure in Belgium, Germany, Poland, Spain and the United Kingdom.

7 A similarly low value is observed in only one other country (the United Kingdom).

8 Five of the countries display lower values than Hungary's: the Netherlands, Luxembourg, the United Kingdom, Ireland and Iceland.

9 If n denotes inactivity, p_{nn} indicates the probability of a path starting in n being in n a year later, p_{xn} is the probability of a path starting in a state other than n being in n a year later, we obtain the equation $n_1 = n_0 p_{nn} + (1 - n_0)p_{xn}$. If $n_1 = n_0$, then the ratio $n_0 p_{nn}/n_1$ corresponds to the probability of remaining inactive (p_{nn}).

outranked by countries – Italy, Greece and Cyprus in one group and Belgium and Luxembourg in the other – where women's employment has never been comparable to the level characteristic of Hungary in the past, and where the traditional division of labour in the family has not faded as much as in most Western European countries.

Table 1.4: Proportion of 15–59 year old non-student persons inactive during the reference period who were also inactive a year before the survey – rankings for men and women

	Men		Women	
Rank	Country	Percent	Country	Percent
1	Hungary	89.6	Italy	95.9
2	Italy	88.8	Greece	95.2
3	Slovakia	88.4	Luxembourg	91.7
4	Portugal	85.7	Cyprus	91.3
5	Denmark	84.9	Belgium	89.6
6	Lithuania	84.4	Hungary	87.9
7	Greece	84.4	Lithuania	86.1
8	Latvia	83.0	Portugal	85.5
9	Estonia	82.9	Norway	83.7
10	Belgium	82.7	Slovakia	81.7
11	Czech Republic	81.9	Latvia	81.4
12	Norway	81.7	Estonia	80.9
13	Finland	80.3	Poland	80.0
14	Poland	78.8	Czech Republic	78.1
15	Slovenia	78.2	Denmark	76.7
16	Cyprus	77.9	Slovenia	76.6
17	Luxembourg	69.3	Finland	69.7
18	Sweden	55.9	Sweden	68.0

Note: The variable indicating labour market status a year before the survey is not available for the countries not shown in the table.

The pattern of inactivity observed in Hungary is in especially sharp contrast with the Polish and Slovakian patterns. In Hungary, 69.3 percent of the 15–59 year old non-student population of men and women had jobs in 2005, and the corresponding figure was 70.9 percent for Slovakia. Thus while the two employment rates are essentially equal, the rate of unemployment in Slovakia (16.3 percent) was more than twice as high as the Hungarian figure (7.2 percent).[10] Poland was characterised by a somewhat lower rate of employment (64 percent), but unemployment was more than two and a half times as high here (18.2 percent) as it was in Hungary. What might provide an explanation for such striking differences between countries which have similar employment rates and are closely matched in other respects as well? This is the question we now turn to.

10 Annual figures based on the European Labour Force Survey.

Unemployment versus inactivity – a comparison of Hungary, Poland and Slovakia

Table 1.5 displays the results of a logit estimation. The model applies to the 15–59 year old non-student and non-working population. The dependent variable equals 1 for individuals seeking employment (and available for work) and 0 for inactive individuals. The estimated odds ratios indicate the effect of a one unit change (from 0 to 1) in each explanatory variable on the probability of an individual seeking a job, controlling for the effects of other variables in the equation. (The odds ratio refers to the ratio of the probability of job search to the probability of the absence of search: $p/(1-p)$. If the odds ratio is greater than 1, the variable in question has a positive effect, while a number smaller than 1 indicates a negative effect.) This is clearly not an explanatory model, but an attempt to map group differences with respect to the intensity of job-seeking.

Table 1.5: Factors affecting job-seeking in Hungary, Slovakia and Poland in 2005 – logit odds ratios

	Hungary	Slovakia	Poland
Female	0.6762	0.3654	0.4004
Education: primary	0.3187	0.3643	0.4691
Education: secondary	0.5754	0.5321	0.6341
Aged 15–19 years	1.6894	1.7220	2.6788
Aged 20–24	2.3775	2.4834	2.9166
Aged 25–29	1.5375	1.1279[n]	1.3354
Aged 55–64	0.2681	0.2326	0.2089
Period of being out of work			
13–24 months	0.7256	0.7982	0.6437
25–36 months	0.7039	0.3883	0.5336
37–48 months	0.5088	0.4936	0.6220
Longer than 48 months or never worked	0.2578	0.3321	0.4499
Registered, not receiving unemployment benefit	11.0509	56.5593	20.0708
Registered, receiving unemployment benefit	6.3514	35.7442	9.4638
Pseudo R^2	0.3022	0.5493	0.4130
Number of observations	52 650	17 695	45 025
Search rate	16.9	46.2	37.6

Sample: 15–59 year old non-student, non-working population.
Dependent variable: 1 if seeking work, 0 if not.
Significance: Each odds ratio shown is statistically significant at $p < 0.01$ except those marked by the superscript index n
Reference categories: male, tertiary education, aged 30–54 years, has been out of work for 0–12 months, not registered unemployed.

We find a smaller difference between men and women in Hungary compared to the other two countries, but educational attainment has similar effects in all three countries.[11] The probability of looking for a job varies between age groups in roughly the same way in Hungary and Slovakia and also in Poland

11 Those having low educational attainment would like to find paid work with more than average probability, but within the group wishing to work are less likely to be actively looking for a job.

for those aged over 24. (There is a considerably higher share of jobseekers, however, among the 15–24 year old non-student Polish population.) The probability of job-seeking declines with the passing of time following the loss of an individual's job in all three countries, although the three patterns show some differences. Those out of work for 25–36 months are more likely to be looking for a job in Hungary than they are in Slovakia, while those who left their last job more than four years before data collection or never had a job are less likely to search. Compared to Poland, in Hungary the intensity of job search declines more slowly in the first three years and more steeply thereafter.

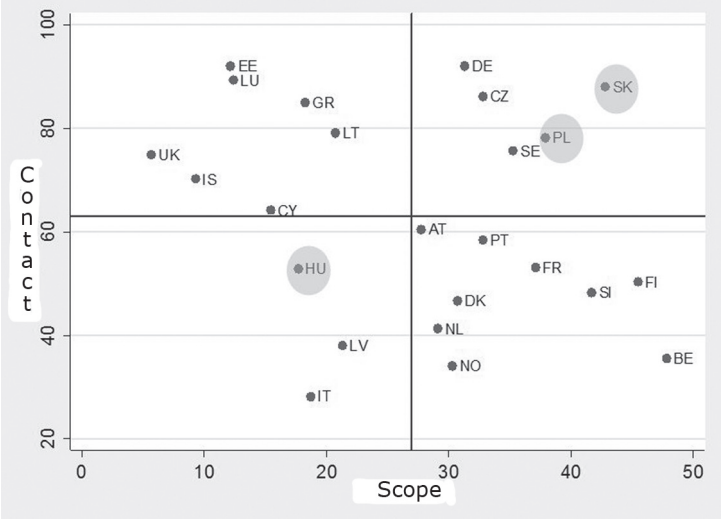
These dissimilarities are, however, negligible compared to the differences between the relative job-seeking intensities of *the registered unemployed and those receiving unemployment benefit* in Hungary, and in the other two countries. The odds ratios indicate that while a higher proportion of the registered unemployed and the benefit recipients report that they are looking for a job relative to the unregistered non-workers in all three countries, the difference is far greater in Slovakia and Poland than in Hungary. This cannot be explained by a high level of job search among the non-registered in Hungary: only 8.8 percent of them reported that they were looking for work here, while the corresponding figures are 14.1 percent for Slovakia and 14.9 percent for Poland. Among those not receiving unemployment benefits, the corresponding proportions are 12.6 percent for Hungary, 46.1 percent for Slovakia, and 38.1 percent for Poland.

To be able to understand the differences in the relationship between jobseeking and unemployment registration, a brief detour is in order here. Hungary is one of the few countries where a relatively small portion of the non-working population are registered with the national employment agency and, as evidenced by the data on the frequency of contact, the relationship between the jobcentres and their clients is fairly loose. This can be seen in *Figure 1.2*. The horizontal axis of the graph displays the percentage of unemployment registrations among the 15–59 year old non-employed population, while the vertical axis shows the percentage of registered unemployed who made contact with the employment office sometime during the month preceding data collection. Most of the Western European countries are located in the top left or bottom right quarter of the data space. In the former case, relatively few people are registered with the agency, but there is an intensive relationship between the job centre and its clients. The other group (bottom right corner) is characterised by a high proportion of registrations (25–50 percent) but a looser relationship.

Of the Visegrad countries, the Czech Republic, Slovakia and Poland – together with the post-Hartz Reform Germany and Sweden – form a third group: we find a fairly high proportion of registrations and contact remains intensive nevertheless. Hungary is located in the bottom left quarter of the

space sharing this corner with only Italy from among the old member states (and Latvia as the only other new EU member): few non-workers are registered with the labour market organisation, and their contact with the job centre is not at all intensive compared to European employment services having a clientele of a similar size.

Figure 1.2: Registration of the non-employed and contact with the job centre, 2005



Scope: the proportion of registered unemployed within the non-employed population (aged 15–59 = 100).
Contact: the proportion of registered unemployed contacting the employment agency sometime during the month preceding the interview.
The vertical and horizontal lines mark the unweighted EU average.
Country codes: AT – Austria, BE – Belgium, CY – Cyprus, CZ – Czech Republic, DK – Denmark, DE – Germany, EE – Estonia, FI – Finland, FR – France, GR – Greece, IE – Ireland, IS – Iceland, IT – Italy, LT – Lithuania, LU – Luxembourg, LV – Latvia, HU – Hungary, NL – Netherlands, NO – Norway, PL – Poland, PT – Portugal, SI – Slovenia, SK – Slovakia, SE – Sweden, UK – United Kingdom.

The substantial differences between the national strategies are related to a number of factors. These include the division of duty between the public employment agency and local governments with respect to unemployment support; the relative weights of state and private employment services; coverage (whether the job centre is prepared to assist inactive clients not claiming unemployment benefit or clients with jobs),[12] and the role of the job centre within the social security system. Last but not least, the position of a particular country is also influenced by the nature of the services: whether the job centre expressly requires its clients to look for work, and how often clients are required to report on their progress. The various strategies are discussed in detail by *Frey* (2005) and in *OECD* (2007*a*).

12 In Denmark and Norway, more than a third of registered clients are employed. The overall average figure for Europe is 14 percent and the corresponding Hungarian value is 1.3 percent.

Returning to the three countries under scrutiny, let us examine the details of the differences between the Hungarian, Slovakian, and Polish registration practices, and their relationship to the intensity of job search. We start out from *Table 1.6* indicating that the Hungarian Public Employment Service registers only a small percentage of non-employed, and within the group, those seeking a job as unemployed. The dominant share of clients registered with the Employment Service receive unemployment benefits or social assistance (or are individuals that receive active support, who cannot be identified in the European Labour Force Survey).

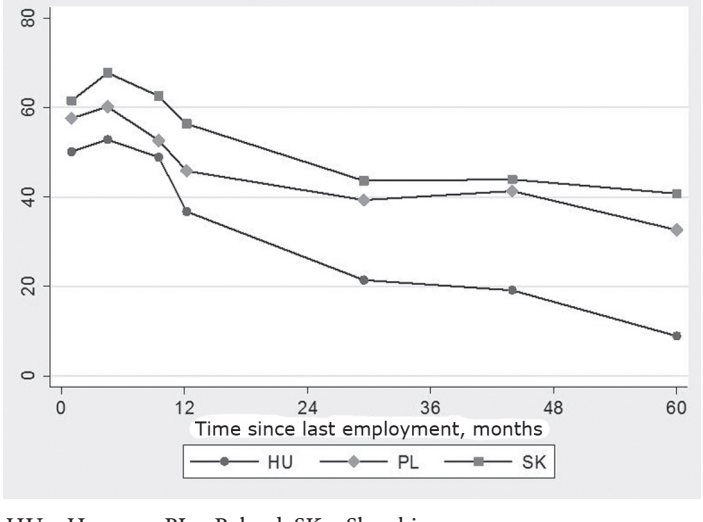
Poland and Slovakia are characterised by a far lower proportion of *unemployment* benefit recipients but that does not mean that registered clients do not receive some other type of support. In Slovakia, several welfare benefits are only accessible to those who have registered with the "Centres for Labour and Families", and in Poland, pension entitlement is tied to registration. (In Hungary pension entitlement is dependent on the social security contribution paid by the state after some kinds of benefits such as insurance-based unemployment benefit or childcare allowance.) Hungarian registered clients and benefit recipients visit the job centres less frequently, and fewer of them report that they are seeking work than do their Slovakian or Polish peers. At the same time, four and ten times more of them say that although they are not looking for a job, they would like to have paid work than do, respectively, Polish and Slovakian registered clients and benefit recipients. The total proportions of those who are searching for *or at least desire* a job are actually similar in the three countries: 85–95 percent.

Table 1.6: Some indicators of registration practices in Hungary, Poland and Slovakia, 2005

	Hungary	Slovakia	Poland	Conclusions
Registered/non-employed	17.8	42.8	37.9	Only a small share of non-employed and jobseekers register in Hungary.
Registered/jobseeker	59.0	83.3	76.7	
Benefit recipient/registered	66.9	7.6	10.5	A large share of the registered receive unemployment benefits.
Visited in the past month/registered	52.1	86.8	77.0	Registered clients and benefit claimants rarely visit their job centres.
Visited in the past month/benefit recipient	49.1	87.2	75.0	
Jobseeker/registered	57.3	90.3	72.5	Few of them are actively looking for a job...,
Jobseeker/benefit recipient	54.2	93.0	74.3	
Wants paid work/registered	29.3	3.1	7.7	..., but a large share "would like to work."
Wants paid work/benefit recipient	33.0	3.1	9.0	
Is looking for or desires work/registered	86.4	93.4	80.1	A relatively high proportion would at least like to have paid work.
Is looking for or desires work/benefit recipient	87.2	96.1	83.3	

The proportion of active jobseekers among registered clients remains low despite the fact that the Hungarian Public Employment Service reaches a substantially smaller percentage of the long-term unemployed than do its Polish or Slovakian counterparts. As shown in *Figure 1.3,* while the registration rates among the short-term unemployed do not substantially differ between the three countries, the gap grows to between twenty to thirty percentage points if we look at those who have been out of work for two or more years. This is of course related to the fact that there is a high proportion of unemployment benefit and active support recipients among the clients of the Hungarian employment service, and these welfare programmes have a limited duration, while in the other two countries, clients continue to benefit from being registered for a longer time period. In Hungary, the active-age non-employed receiving regular social assistance are required by law to register and co-operate with the job centre, but since social assistance is tied to an income threshold, only a minority of the long-term unemployed receive assistance.

Figure 1.3: Proportion of the registered unemployed among the non-employed as a function of time since last employment in Hungary, Poland and Slovakia, 2005



HU – Hungary, PL – Poland, SK – Slovakia.
Note: within the 15–59 year old non-student non-working population.

Registered and ILO-OECD unemployment

The data reviewed so far suggests that there is a rather loose relationship in Hungary between the two types of unemployment measures (registered versus ILO-OECD unemployment). We have not only a low proportion of jobseeking unemployed, but also a low registered unemployment rate. Both Type I and Type II "errors" are significant: a relatively small share of active jobseekers are registered, while job centres have a large number of registered clients

not looking for a job. The magnitude of the problem is indicated by the figures in *Table 1.7*. In 2005, 59.0 percent of active jobseekers were registered in Hungary. This figure is 20–25 percentage points lower than the corresponding figures for Poland and Slovakia. The proportion of jobseekers among the registered (57.3 percent) is not only poor relative to the Polish and Slovakian levels, but is in fact the lowest in the whole of Europe.

Table 1.7: The association between ILO-OECD unemployment and registered unemployment in Hungary, Poland and Slovakia, 2005

	Hungary	Slovakia	Poland
Employed/population	69.3	70.6	63.6
ILO-OECD unemployment rate	7.3	16.6	18.6
Registered unemployment rate	7.5	15.5	19.8
Percentage of registration among jobseekers	58.5	92.2	76.8
Percentage of job-seeking among the registered	60.8	82.2	72.1
Cramér's *V* (registered and ILO-OECD unemployment)	0.499	0.778	0.660

The last row of the table shows Cramér's *V,* which estimates the strength of the association between job-seeking and registered unemployment.[13] The closer the value is to 1, the stronger the association between the two unemployment measures. We can see that the *V* indicator is far lower in Hungary than in Poland or Slovakia. A more detailed analysis – not shown here – reveals that this difference holds for each level of education, and regardless of the period of time passed since the non-worker's last employment.

Why does Hungary differ so sharply from its neighbours? The available cross-sectional data does not allow us to identify the factors that lead to the low levels of both registered and ILO-OECD-defined unemployment, and the weak correlation between the two in Hungary: whether the reason for the small number of jobseekers is that the labour organisation only covers a small section of the market and/or fails to coerce the unemployed into job-seeking, or that the jobless choose not to establish contact with the employment service (job centres) because they do not want a paid job.

It is presumably the case that some of the jobless have access to a substantial income while out of formal employment, thanks to their activities in the hidden economy or to welfare transfers, and thus do not seek contact with the employment agency or only register to procure further welfare payments. This could perhaps constitute an explanation for the low registration rate and to some extent for the high share of non-search among the registered clients, but it cannot account for *the large number of non-registered jobseekers*. The observed symptoms could hardly occur simultaneously if it was not the case that *a)* unemployment support in the narrow sense had markedly diminished in Hungary and *b)* the employment agency was largely unable or unwilling to demand job-seeking as a condition of social assistance.

13 Given a special case of a 2 × 2 contingency table, this measure is equivalent to the square root of χ^2/n. Note that the population weights could not be used in computing the *V* values.

Transfers that make up a substantial part of the Hungarian social security system either do not specify co-operation with the employment agency as a requirement, or, if it is specified by the regulations, the job-seeking requirement is not given priority in practice. As much as 39 percent of the 15–59 year old non-student non-working population were pensioners in 2005. Even though labour market considerations such as expected wages and pensions, or job finding probabilities, play a major role in early retirement (*Cseres-Gergely,* 2007; *Scharle,* 2007), the employment service is assigned a marginal role in efforts to keep it under control. Hungary does not as yet maintain any comprehensive programmes treating early retirement as a labour market problem, such as the British *Pathways to Work* programme discussed in depth in last year's issue of the Hungarian Labour Market (*Scharle,* 2008). Further, in 2005, 17 percent of the non-employed were on paid childcare leave. Even though participation in family support programmes can also be shown to have a strong association with labour market prospects (*Bálint & Köllő,* 2007), the employment service records only 2–3 percent of the child-care recipients as unemployed, and no services have been developed to provide information or help for those out of work for a prolonged period. A further 15 percent of the non-employed of the best working age received social assistance benefits. Although in principle social assistance claimants are under an obligation to co-operate with the job centre and thus to look for work, in practice, this requirement is only partially enforced and there is substantial variation between job centres (*Bódis & Nagy,* 2008). Priority tends to be given to testing "availability for work" via occasional public works rather than job-seeking activity. Standing by and participation in the public work schemes organised by local governments take time and attention away from job-seeking on the part of the unemployed, and from the enforcement of job-seeking on the part of labour offices.

The only support scheme wherein job search is regularly monitored is insurance-based unemployment assistance. However, according to the data from 2005, only 5 percent of the non-employed received this type of unemployment benefits. Starting from the second half of the nineties, unemployment insurance was cut back and eligibility became more restricted (*Nagy,* 2000), which had the side-effect of limiting access to job centre services on the one hand, and reduced the power of the employment agency to sanction individuals' failure to look for a job by withholding some of the benefit on the other.

The most poignant counterexample within Europe is no doubt provided by Slovakia, where registration is requisite for a variety of social assistance claims, and the job-seeking requirement is rigorously enforced.[14] Prior to the reforms of 2005, the unemployed were required to visit the job centre once a month, while Hungarian regulations specified one visit every three months. (The local rules of some job centres specified more frequent visits; see *Bódis*

14 We are grateful to *Stepan Jurajda, Jaroslav Kačmar, Daniel Munich* and *Michal Palenik* for their help with the interpretation of registration practices in Slovakia.

& Nagy, 2008). The 2005 Slovakian reform amended the frequency of visits to one per week for the long-term unemployed and two per month for other clients, and introduced the requirement of supplying written proof of job-seeking activity, such as a certificate issued by the employer approached by the jobseeker.[15] The conditions of assistance claims play a decisive role in the fact that in Slovakia an exceptionally high proportion of the non-employed are registered, and a large share of the registered declare in the labour force survey that they are looking for a job.[16] We must remember that although the questions on job-seeking are asked by interviewers having no civil authority, they are often seen by respondents as persons representing official matters: if only jobseekers are eligible for unemployment support, respondents will tend to present themselves as jobseekers even in a semi-official setting, such as a survey interview.[17]

Does job-seeking matter at all?

A part of what seems to be a large difference between Hungary, Poland and Slovakia may result from distortions due to false declaration. However, the low search intensity of the non-registered non-employed in Hungary warns that another part of the difference is "genuine". Should we care about it? This leads us to the broader question of whether it makes sense at all to draw a boundary between unemployment (*U*) and non-participation (*N*). The answer depends to a great extent on the purpose of the investigation.

A dynamic macro-analysis is likely to be satisfied with the ILO-OECD unemployment rate as the descriptor of the labour market. Although there is huge variation across countries in the *U/N* ratio, the *U* and the *N* rates typically change in the same direction and at a similar pace. Static international comparisons are not significantly distorted either by using the ILO-OECD rate: even if the different definitions of unemployment show substantially differing unemployment rates (see, for instance, *Brown et al*, 2006), this has little effect on the ranking of countries (*Sorrentino* 1993, 1995, 2000).[18]

Studies investigating the issue of *employment potential,* however, cannot afford to be so nonchalant about the question of distinguishing *U* and *N,* in so far as the momentary presence/absence of job-seeking is indicative of long-term differences in the strength of labour market attachment. A seminal paper by *Flinnand & Heckman* (1983) found substantial differences between the *U* and the *N* groups in terms of their long-term attachment to the labour market and their employment prospects. *Juhn et al* (1991) and *Murphy & Topel* (1997), in contrast, found the combined analysis of the two groups to be the most fruitful approach. *Garibaldi & Wasmer* (2001) and *Boeri* (2000) – the latter using former socialist countries as the field of study – construct models where neither labour market equilibrium nor unemployment level can be predicted without considering the division between *U* and *N*. *Jones & Riddell*

15 Several small businesses offer to issue these certificates at a reasonable price (the equivalent of € 1–2).

16 The rigorous monitoring of job-seeking activity was relaxed in 2008. The return to the pre-2005 conditions suggests that the Slovakian government did not consider the earlier draconian measures a success.

17 Although it is also true for Poland that registration and the recognition of job-seeking by allowing the preservation of pension entitlement may motivate respondents to claim to be looking for a job, Polish job centres tend to be considerably less rigorous than their Slovakian counterparts. In fact, the *OECD* (2007*b*) reports that Polish job centres have the most relaxed approach to the monitoring of job-seeking activity among all the European countries assessed.

18 Hungary happens to demonstrate that there may be exceptions: even the ranking position of a country may be significantly influenced by the choice of unemployment indicator.

(1999) place their emphasis on the heterogeneity of the inactive population, revealing that those who *are not searching* for a job but *desire* work have a level of labour market attachment similar to the unemployed.

Research in Hungary has produced inconclusive results. *Micklewright & Nagy* (1999) and *Köllő* (2001) used a labour force survey to trace non-employment patterns for one and a half years starting in the first quarter of 1997. The authors' discrete time duration models indicated statistically equivalent job placement prospects for men *searching* for a job and for those *not searching but desiring* work. Women who search had higher exit to job rates than women who merely wanted a job. By contrast, the paper by *Köllő* (2001) also covered a cohort starting in the third quarter of 1997, and found a significant effect of job-seeking for men as well as women, which suggests that the results of the first quarter's sample may have been distorted by temporarily dismissed workers returning to their previous jobs at the start of the construction and agriculture sectors' season. Some of the inactive men were probably awaiting the opening of these seasonal jobs and could then return to work without any job-seeking activity.

A further piece of evidence suggesting that search matters is provided in *Micklewright & Nagy's* (2005) randomized trial, in which a group of unemployed were called to attend the job centre more frequently than usual. The results indicate that stricter enforcement of the job search criterion significantly increased the probability of employment for certain elements of the registered unemployed.

A related question to ask is whether the absence of job search reduces labour market flexibility. Within certain limits it does not, since most labour market movement (discounting first-time employment and retirement) occurs between employment and unemployment or between different jobs with no intermediate stage of unemployment. The Hungarian labour market appears to be highly flexible in analyses relying on the usual institutional indicators (*Riboud et al,* 2002, *Cazes* & *Nesporova*, 2003, *Rutkowski et al,* 2005) and inflexibility similarly does not appear to be a major problem in estimates of wage elasticity (*Kőrösi* 2005, *Köllő,* 2001), job turnover (*Kőrösi*, 2005) or adjustment costs (*Kőrösi & Surányi*, 2002). In terms of an indicator analogous to the one shown in *Table 1.4*, *unemployment* appears to be less persistent in Hungary as it is in Poland or Slovakia (or, for that matter, in Slovenia, Italy, Belgium, Greece or Lithuania). These results, however, do not necessarily contradict the suggestions of the preceding sections. Hungary may have a flexible labour market but it incorporates a relatively small fraction of the population, and is embedded in a large pool of inactivity.

The lack of job search and willingness to work can make itself felt in the event that the demand for labour rises. Latent labour market attachment may become active if there is a marked improvement in employment prospects.

This is indicated by the finding of the "discouraged worker effect" observed in many countries on many occasions: some of the inactive population enter the labour market in response to an upturn. In Hungary, only women display a macro data pattern that could possibly imply an effect of this type: the increase in employment among 15–55 year old women observed between 1997 and 2000 was accompanied by a decrease in inactivity. (This pattern, however, could have been related to an increase in womens' statutory retirement age.) Among men, the shifts clearly took place between employment and unemployment in both good and bad periods. If the discouraged worker effect does not surface, employment and unemployment can respond sensitively to market signals without having any effect on the large inactive population: the market can be flexible and very small at the same time. Considering the results of the studies cited above, it would not come as a surprise if a possible boost in economic growth would have the effect of lowering the by now high level of unemployment in Hungary, similarly to the process observed in all other former socialist countries over the past three years,[19] but large-scale and permanent inactivity may limit the benign effect of an economic upswing.

The impact of inactivity on flexiblity also depends on how non-participation affects wages. Unfortunately, no research has yet been carried out investigating the impact of all types of non-employment on wages. The effects of *unemployment* on wages have been investigated in a number of studies. *Kertesi & Köllő* (1998) found an association between unemployment levels and wage levels typical of mature market economies, while *Kőrösi's* (2005) results revealed the association loosening over time. As long as the inactive population fails to compete for jobs, the absence of job-seeking may also inhibit the growth of employment indirectly, by abating wage pressures.

Closing remarks

This section did not attempt to evaluate Hungarian unemployment registration and support policies, which are clearly interwoven with the problem of economic inactivity among people of working age. The overview of the data has convinced us, however, that if we were to conduct a more thorough analysis in order to find the key to the Hungarian peculiarity of low employment paired with low unemployment, we would need to investigate the welfare system rather than the old or the young, the school-leavers or the uneducated, or duration dependence among the long-term unemployed.

5. In between work and non-work

It is not only in the sense discussed in the previous section that there is a sharp boundary between work and non-work in Hungary. A similarly striking attribute is the continuing dominance of the traditional eight hours a day and five days a week working arrangement, i.e., the small number of workers hav-

19 In March 2005 Hungary had an unemployment rate of 6.8 percent, while the average figure for the eight former socialist EU members and the two candidate countries (Bulgaria and Romania) was 10.4 percent. By March 2008 the Hungarian rate rose to 7.6 percent, which was now higher than the average level for Eastern and Central Europe (6.1 percent) and the third highest in the region surpassed only by Poland (7.7 percent) and Slovakia (9.8 percent). Hungary is the only former socialist EU member state where the unemployment rate increased between 2005 and 2008 (Eurostat).

ing *partial* labour force attachment. The present section gives a brief overview of the availability of part-time work and its different realisations. This time, the discussion will concern all of Eastern and Central Europe (in some cases Eastern and Southern Europe) rather than just Hungary.

The subject of our inquiry remains the 15–59 year old non-student population. One reason for this choice is that there is substantial variation between countries in terms of the probability of part-time and temporary employment by age within Western Europe as well. As for the young, among 15–24 year olds not in full-time education the proportion of those working fewer than 36 hours a week ranges from 19 percent (in Italy) to 57 percent (in Norway), and the proportion of those working fewer than 20 hours a week may be as low as 1 percent (Iceland) or as high as 37 percent (Norway). A separate section will therefore be dedicated to the issue of employment and working hours among young people. Older cohorts are excluded from the discussion for the opposite reason: because of the relatively small variation across the countries. In Hungary on average 40.1 percent of the working population aged over 59 worked fewer than 36 hours a week between 2000 and 2005, which is within the range observed for the EU–15.[20] Old-age employment will also be discussed in a separate section.

Comments on methodology

The international comparison of working hours and the proportion of part-time workers is made difficult – or, strictly speaking, impossible – by the different interpretations of "usual hours of work" across countries in the EU LFS. Some of the respondents report having "highly variable" working hours, as they cannot say what their usual hours of work are in their main job. The percentage of persons giving this reply covers a very broad range (*Figure 1.4*).

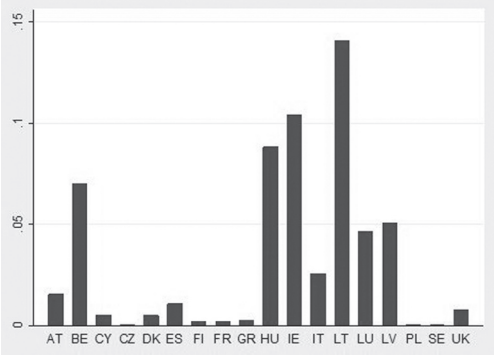
In a small share of the countries - Belgium, Ireland, Luxembourg, Latvia and Lithuania as well as Hungary – 4–10 percent of respondents declared that they had highly variable working hours in 2005. The corresponding figure is one or two percent in five countries, and zero or effectively zero in more than ten of the countries. This is clearly not a genuine difference, but rather a methodological discrepancy, since in some of the countries this option is not even offered in the survey, and in some others the interviewers presumably press the respondents for a choice of "usual hours."

Therefore, while the data on usual hours is of no use in establishing the length of the working day at an individual level (and is of limited use at a population level), the measure of *hours actually worked* during the reference week is an equally unreliable indicator, since it may substantially differ from the typical hours over a longer period. The hours of work performed during the reference week have a zero value for a non-negligible proportion of the population, as displayed in *Table 1.8*. Western Europeans are approximately three

20 The decision to average over several years was warranted by the small number of cases.

times as likely to be temporarily absent from their jobs as are the residents of the former socialist countries, and temporary absence is also far less frequent among the populations of Greece, Cyprus, Portugal and Ireland.[21]

Figure 1.4. Percentage of persons working highly variable hours, 2005



Country codes: AT – Austria, BE – Belgium, CY – Cyprus, CZ – Czech Republic, DK – Denmark, ES – Spain, FI – Finland, FR – France, GR – Greece, IE – Ireland, IT – Italy, LT – Lithuania, LU – Luxembourg, LV – Latvia, PL – Poland, SE – Sweden, UK – United Kingdom.

This option is not available and the value is zero: Germany, Estonia, Iceland, Netherlands, Norway, Portugal, Slovakia, Slovenia

Table 1.8: Percentage of those temporarily absent from work during the reference week among the employed as defined by the ILO-OECD criteria, 2005

Rank	Country	Percent	Rank	Country	Percent
1	Sweden	16.0	14	Italy	10.5
2	Norway	15.9	15	Germany	8.8
3	Belgium	15.2	16	Czech Republic	8.0
4	Finland	15.1	17	Ireland	7.8
5	France	14.6	18	Cyprus	7.7
6	Denmark	14.0	19	Portugal	6.8
7	Spain	13.8	20	Lithuania	5.3
8	Netherlands	13.6	21	Slovakia	5.1
9	United Kingdom	12.6	22	Hungary	4.6
10	Luxembourg	12.3	23	Greece	4.2
11	Iceland	12.1	24	Poland	4.1
12	Austria	11.7	25	Estonia	3.7
13	Slovenia	11.4	26	Latvia	3.1

In order to circumvent this problem, the length of the working day and the probability of part-time employment is analysed within individual groups formed on the basis of the association between usual and actual hours of work, restricting our inquiry to persons who performed at least one hour's work during the reference week. Displaying our calculations for all of the countries would result in an unintelligible multitude of figures, thus, in ad-

21 The average proportion is 11.7 percent for the EU–15 countries, 5.2 percent for Eastern and Central Europe and 5.1 percent for the Baltic region.

dition to Hungary, we shall restrict our presentation to four countries representative of the different types observed in Europe: Denmark, Austria, Greece and Slovakia. The European averages and the ranges will be indicated in the accompanying text.

Table 1.9 displays the distribution of persons across the different groups formed according to actual and usual hours of work, and *Table 1.10* shows the actual hours worked by the different groups.

Table 1.9: Distribution of persons who worked during the reference week according to the numbers of actual and usual hours of work, 2005

Hours worked during the reference week relative to the usual hours of work	Austria	Denmark	Greece	Hungary	Slovakia
Men					
Actual=usual	61.2	53.2	85.3	76.9	96.3
Actual<usual	27.4	31.4	13.7	7.5	3.7
Actual>usual	9.8	14.5	0.8	3.2	n.a.
No usual hours (highly variable)	1.6	0.9	0.2	12.4	n.a.
Total	100.0	100.0	100.0	100.0	100.0
Women					
Actual=usual	60.7	51.9	82.9	82.1	94.5
Actual<usual	28.6	34.5	16.0	10.7	5.5
Actual>usual	9.2	12.3	0.8	2.1	n. a.
No usual hours (highly variable)	1.5	1.3	0.3	5.1	n. a.
Total	100.0	100.0	100.0	100.0	100.0

Sample: Persons who performed at least one hour's work during the reference week.

Table 1.10: Actual weekly working hours of persons who worked during the reference week (mean and standard deviation, 2005, hours)

	Actual hours worked during the reference week relative to the usual hours of work								Total	
	Equal		Actual<usual		Actual>usual		Highly variable			
Country	Mean	St.dev.	Mean	St.dev.	Mean	St.dev.	Mean	St.dev.	Mean	St.dev.
Men										
Austria	44.0	11.0	35.0	11.5	50.8	11.0	..		43.0	12.1
Denmark	40.3	9.6	32.4	10.8	49.4	12.0	..		39.9	11.6
Greece	45.0	10.5	32.1	10.1	55.8	10.1	..		43.7	11.2
Hungary	41.3	5.9	30.2	9.8	50.7	7.4	45.6	12.6	41.6	8.0
Slovakia	42.1	6.6	n. d.	n. d.	n. d.	n. d.	n. d.	n. d.	42.1	6.6
Women										
Austria	34.4	13.3	27.1	12.0	41.5	13.2	..		34.0	13.7
Denmark	34.9	8.4	26.7	9.7	41.5	10.2	..		34.0	10.0
Greece	40.1	10.6	28.4	10.3	54.9	11.5	..		38.9	11.3
Hungary	39.4	5.5	27.1	9.1	48.0	8.4	41.0	13.6	39.0	7.2
Slovakia	39.9	5.7	n. d.	n. d.	n. d.	n. d.	n. d.	n. d.	39.9	5.7

Sample: Persons who performed at least one hour's work during the reference week.
Notes: Two dots indicate that the small number of cases did not allow analysis. n. d. = no data.

In Hungary – as well as in Greece and Slovakia – the actual hours worked relatively rarely deviate from the usual hours. 12.4 percent of men and 5.1 percent of women report "highly variable" usual hours here, while the corresponding figures are very small for the other countries. In Slovakia we only have data of actual hours corresponding to, or shorter than, the usual hours.

Average hours of work

The 41.3 hour working week observed for Hungarian men *working their usual hours* during the reference week is considerably shorter than the corresponding values for Greece and Austria but is similar to the Slovakian figure, both of which being longer than the hours recorded for Denmark. Women in Hungary, however, work five hours longer (39.1 hours) than women in Austria or Denmark, although their working week is somewhat shorter than that of Greek and Slovakian women. There is far less variation in working hours in the two former socialist countries than in the three old EU member states.

The data on persons working *less than their usual working hours* shows little difference between the countries, whether we consider men or women. Looking at the group of those working *longer than their usual hours*, we find Hungary positioned between the two Western European countries and Greece.

Hungarian men having *highly variable working hours* performed more than 45 hours of work during the reference week, and the corresponding figure was 41 hours for women. Further data (not displayed in the table) reveals that only 4.4 percent of Hungarians declaring to have highly variable working hours were altogether absent from work during the reference week, which means that this group is most similar to the population in full-time permanent employment both in terms of the frequency of work activity, and the hours of work performed during the reference week.[22] (The average working hours for the other countries are not shown because of the small number of cases observed. We should note, however, that high values, of more than 36 hours, were typical for these countries.)

On the whole, Hungarian men's actual average working week does not appear to be either outstandingly short or outstandingly long. It occupies a position halfway between the Danish value and the Greek value, the latter of which is remarkably high even in an overall European context. (The 41.6 hour working week is 36 minutes longer than the EU–15 average.) Hungarian – as well as other Central, Eastern and Southern European – working women, however, work substantially longer hours than their Western European peers: they work 5 hours longer a week than Austrians or Danes. Hungarian women's 39 hour working week is 6.5 hours, almost a whole day, longer than that of Western European women on average.

22 This group, however, has a higher than average proportion of persons working part-time, as will be discussed later. It should be noted that in the Hungarian labour force survey, the majority of those reporting to have *highly variable* hours of work are self-employed and assisting family members.

Part-time work

For the reasons discussed above, the proportion of part-time workers can only be reliably measured among those working their usual hours during the reference week. As shown in *Table 1.11*, 2.6 percent of men are estimated to have regular employment involving less than 36 hours of work, and a negligible proportion work less than 20 hours. This value is one half to a one third of the figures observed for the three old EU member states, and essentially equals the Slovakian value.

Table 1.11: Percentage of part-time workers among different populations, 2005

	Performed 1–35 hours of work during the reference week		Performed 1–19 hours of work during the reference week	
	Worked usual hours	Works highly variable hours	Worked usual hours	Works highly variable hours
Men				
Austria	5.0	..	1.1	..
Denmark	8.2	..	1.5	..
Greece	7.4	..	0.7	..
Hungary	2.6	16.0	0.1	2.2
Slovakia	2.1	n. d.	0.2	..
Women				
Austria	40.4	..	10.2	..
Denmark	37.8	..	3.6	..
Greece	21.0	..	3.1	..
Hungary	8.1	29.1	0.4	4.0
Slovakia	5.9	..	0.6	n. d.

Note: Two dots indicate that the small number of cases did not allow analysis.

Among women working their usual hours during the reference week, 8.1 percent worked less than 36 hours, which is less than half of the Greek, less than a quarter of the Danish, and a fifth of the Austrian value, but marginally higher than the Slovakian figure.[23]

As can be seen in *Table 1.11*, while Hungarians working highly variable hours work relatively long hours on average, there is a non-negligible proportion of part-time workers among them: 16 percent of men and 29.1 percent of women work less than 36 hours, and 2.2 and 4 percent work less than 20 hours – this, however, only adds about 1.5 percent to the probability of part-time employment among the total population.

It should be noted that the low probability of part-time employment is mainly typical of the former socialist countries *in Central Europe*: Hungary, the Czech Republic, Slovakia and Slovenia. Poland and the Baltic states are characterised by a substantially higher proportion (20.4 and 13–17 percent respectively) of women in regular part-time employment, although these values still fall behind the figures observed in the EU–15 countries.

23 For the female population of the EU–15, the overall part-time employment rate calculated using a similar method (1–35 hours worked) comes to 47.3 percent. This is a misleading figure, however, since in a number of countries even the median number of hours worked is less than 36. Discounting these countries, (the Netherlands, France, the United Kingdom and Germany), the average value is 36.1 percent. Note that the median hours of work exceeded 35 hours for each of the countries shown in *Table 1.11*.

Flexible work schedules

Work arrangements permitting a flexible work schedule are far less frequent in Hungary, which is an important factor explaining the result that Hungarian men and women are less likely to be absent from their jobs and far less likely to work either less or more than their usual working hours. In Austria and Denmark, respectively 30 and 44 percent of those working less than their usual hours during the reference week were in a position to do so due to their flexible work schedules, while the corresponding proportion is 5.6 percent for Hungary (and even lower for Greece and Slovakia). Similarly, in Austria and Denmark 40–50 percent of those working more than their usual hours cited their flexible work schedules as the reason, while in Hungary only 17 percent did so (*Table 1.12*). In this respect the demarcation line lies not between the East and the West but between the Western and Northern European countries on one side and the Central, Eastern and Southern European countries on the other. For the old EU member states, among persons working less than their usual hours, the unweighted average share of those citing flexible work schedules as the reason was 30.4 percent in 2005.

Table 1.12: The role of flexible work schedules in explaining shorter or longer than usual hours of work, 2005 (percent)

	Persons citing flexible work schedules as the reason for deviating from usual hours of work during the reference week	
Country	Among those working less than usually	Among those working more than usually
Austria	30.0	38.9
Denmark	43.9	51.7
Greece	0.4	2.6
Hungary	5.6	17.2
Slovakia	1.0	6.7

Sample: The employed population as defined by the ILO-OECD criteria.
Further choices were: bad weather, lack of work, strike, training, sickness, nursing, family reason, holidays, change of jobs, overtime, other.

Home-based work

The EU LFS defines home-based work as work performed on premises where the person lives. Work performed in the building containing the worker's home does not qualify as home-based working if the location of the work is separated from the living unit (e.g., a shop, restaurant, workshop or office with a separate entrance). The category also excludes work performed by farmers around the house, in the garden, stables, engine-shed, etc. Employees are considered to be working at home if this forms part of a formal work arrangement between the employer and the employee (telework contract, permitted regular home-based work).

As shown in *Table 1.13*, notwithstanding the incomprehensibly restrictive definition of home-based work, Austria and Denmark are characterised by a high proportion (20–25 percent) of people working at home at least some of the time, while the corresponding proportions remain below 10 percent in Hungary, Slovakia and Greece. A noteworthy feature of the data is that home-based work *is no more frequent* among women than it is among men. In about half of the countries, in fact, a higher share of men appear to fall into this category.

Table 1.13: Home-based work, 2005 (percent)

	Men		Women	
Country	Usually home-based	Sometimes home-based	Usually home-based	Sometimes home-based
Austria	5.3	19.0	7.6	13.9
Denmark	4.0	23.3	5.3	17.3
Greece	1.2	2.3	2.3	3.8
Hungary	2.7	5.0	2.8	6.5
Slovakia	3.2	4.6	4.9	4.4

Sample: The employed population as defined by the ILO-OECD criteria.
Note: See the text for the definition of home-based work.

The proportion of those that work at home shows a large variation between countries even within the group of old EU members: it is over 20 percent in Austria, Belgium, Denmark, Great Britain and Iceland but remains under 10 percent – in terms of the definition used here – in Southern Europe. The figures range from 8 to 15 percent for the former socialist countries, which is not very far from the overall average figure for the total European Labour Force Survey sample (12.1 percent among men, 11.9 percent among women).

The average values and gender differences are of course highly sensitive to employment status. This is illustrated through a comparison of Austria and Hungary, as displayed in *Table 1.14*. It can be seen that in Austria the share of at-home workers is substantially higher in each employment category and, in a relative sense, the difference between the two countries is greatest when employees are considered. Gender differences remain small even if the data is broken down according to employment status (except for assisting family members in Hungary).

Table 1.14: Percentage of those who work at home in Austria and Hungary, 2005

	Hungary		Austria	
Employment status	Men	Women	Men	Women
Employee	4.4	6.6	14.4	14.4
Self-employed	28.6	31.2	59.2	61.3
Assisting family member	25.4	37.0	47.1	52.1

Sample: The employed population as defined by the ILO-OECD criteria.

Participation in adult education[24]

In this chapter, we do not look at adult education as a significant component of human capital formation, but as one of the activity statuses of those on the boundary between work and non-work. Some of the adult education participants are employed, but are currently not working, and the unemployed and the inactive individuals mostly attend job-related adult education courses.

Given that adult education participation varies significantly across age cohorts, we analyse the 25–29 year-olds and those aged over 29 separately. The comparative analysis is based on the countries analysed so far, except that we use Italy instead of Greece as a representative of Southern Europe – as the data concerning adult education is not complete for Greece. Whenever necessary, we refer to adult education participation rates in other European countries. *Table 1.15* presents the adult education participation rates for those aged 25–29 in five selected European countries. In Hungary, only a small proportion of the 25–29 year-olds participated in adult education in 2005, both in an absolute and in a relative sense: a mere three percent, which is the sixth lowest participation rate among the 24 European countries.[25] It is worth noting that a similarly low participation rate characterises Poland, the Slovak Republic and numerous Southern European countries. The participation rate is the highest in Finland, Sweden and Denmark, and amounts to 17 percent, 19 percent and 25 percent respectively.

Table 1.15: Participation rate in adult education among 25–29 year-olds, 2005 (percent)

Country	Men	Women	Together
Austria	12.6	13.9	13.2
Denmark	23.8	26.3	25.0
Hungary	2.0	4.1	3.1
Italy	2.6	3.9	3.3
Slovak Republic	3.4	4.1	3.8

The distribution according to the field of study shows that in Hungary and in Poland almost half of the 25–29 year-old adult education participants pursue foreign language courses (*Table 1.16*) – however, out of all those 25–29 year-olds who study foreign languages, the proportion who choose adult education foreign language courses (as opposed to other means) is similar in all of the five countries, and amounts to around one percent.

It is worth mentioning that in Hungary 78 percent of the adult education participants attend job-related adult education courses (as opposed to adult education courses whose purpose is personal/social). At the same time, in Hungary remarkably few participants attend adult education courses during paid working hours (a mere 10 percent).

24 Adult education participants are those individuals who attended any courses, seminars, conferences or received private lessons or instructions outside the regular education system within the last four weeks.

25 The international comparison is based on 24 countries: Norway, Iceland and the 25 European Union Member States, with the exception of Germany, Malta and the United Kingdom. At times, the text of the chapter refers to all of the 24 countries, however, the tables present figures for five selected countries only, namely, Hungary, one Western, one Northern, one Southern and one Central and Eastern European Union Member State.

Table 1.16: The distribution of 25–29 year-old adult education participants according to the field of study, 2004–2005 (percent)

Field	Austria	Denmark	Hungary	Italy	Slovak Rpublic
General programmes	3.78	2.76[a]	5.01[a]	1.16[a]	0.63[a]
Teacher training and education science	6.64	2.98[a]	1.35[a]	5.28	1.41[a]
Humanities, languages and arts	10.89	5.01	2.89[a]	6.44	0.72[a]
Foreign languages	22.15	6.00	40.46	15.47	45.14
Social sciences, business and law	9.37	19.94	20.39	26.08	17.98
Natural sciences and computing	8.36	6.20	10.17	13.90	9.58
Engineering and agriculture	9.73	6.90	2.29[a]	6.59[a]	6.00[a]
Health	22.61	10.43[a]	4.53[a]	11.66	3.77
Services	6.46	39.79	12.91[a]	13.42	14.77[a]
Total	100.00	100.00	100.00	100.00	100.00

Note: Given the small number of observations, we pooled the 2004 and 2005 samples for the analysis.
[a] The number of observations is less than fifty.

We model adult education participation in the framework of a logit model, based on a pooled 2004–2005 sample. The figures in *Table 1.17* present the odds ratios; an odds ratio less than one implies a negative effect and an odds ratio greater than one implies a positive effect. According to the figures for Hungary, within the population of 25–29 year-olds, single persons and women are more likely to participate in adult education than married individuals and men, individuals with low and medium education levels are less likely to participate than their highly educated counterparts and those who are employed are more likely to participate than the group of unemployed and inactive individuals. The estimation results for the other four countries under analysis are qualitatively similar to the results for Hungary as far as education level, gender and marital status are concerned – however, quantitative differences in the parameter estimates exist. For instance, in Denmark, education level is not as significant in determining the probability of participating in adult education as in the other countries.

In Hungary, only one percent of the individuals aged 30 and older participated in adult education in 2005, which is the third lowest figure among the 24 countries under analysis. The figures are similarly low in Southern and Eastern Europe, as opposed to Western Europe, where the participation rate in adult education is between five and eight percent for this age cohort. Adult education participation is remarkably high, over 12 percent, in the Nordic countries – it is the highest in Denmark, where it reaches 18 percent. It is worth noting that the one percent participation rate in adult education – the third lowest in the European ranking – characterises both genders in Hungary (*Table 1.18*).

Table 1.17: Logit odds ratios for participation in adult education for 25–29 year-olds, 2004–2005 (odds ratios)

Groups	Austria	Denmark	Hungary	Italy	Slovak Republic
Single	1.44***	1.36***	1.53***	1.58***	1.09
Low education level	0.23***	0.57***	0.14***	0.10***	0.20***
Medium education level	0.38***	0.65***	0.42***	0.29***	0.25***
Female	1.16***	1.11	1.76***	1.24***	1.67***
Unemployed or inactive	0.95	0.73***	0.87*	1.00	0.25***
Number of observations	19,656	5,507	42,764	70,310	15,962

Dependent variable: 1, if participated in adult education within the past four weeks, 0, if did not participate in adult education within the past four weeks.
Sample: individuals aged 25–29, excluding students and those in compulsory military service.
Reference: married, high education level, male, employed.
Single: single, divorced or legally separated, widowed.
Education levels: Low education level refers to at most lower secondary level (ISCED 0–2) completed, medium education level refers to at most upper secondary education (ISCED 3–4) and high education level refers to tertiary education (ISCED 5–6).
Statistically significant at the * 10 percent, *** 1 percent level.

Table 1.18: Participation rate in adult education among those aged 30 years and older, 2005 (percent)

Country	Men	Women	Together
Austria	7.6	8.6	8.2
Denmark	15.7	20.4	18.1
Hungary	0.9	1.2	1.1
Italy	2.2	2.3	2.2
Slovak Republic	2.7	2.6	2.6

The distribution by field of adult education for this age cohort is similar to that of those aged 25–29. It is worth mentioning that in 2005 both in Hungary and in the Slovak Republic the largest fraction (nearly one third) of adult education participants attended foreign language courses – as opposed to the other three countries under analysis. Similarly to the younger age cohort, 80 percent of the Hungarian adult education participants aged 30 and older attended job related adult education courses in 2005.

The figures in *Table 1.19* show the various factors that affect the probability of participating in adult education. In each of the five countries – as for the cohort aged 25–29 – single persons (with the exception of Denmark) and women are more likely to attend adult education than married individuals and men, and individuals with a low education level are less likely to participate in adult education than their highly educated counterparts. However, the effect of age on the probability of participating in adult education differs across the countries: whereas in Austria, Hungary and the Slovak Republic

older individuals are less likely to participate in adult education than those aged 30–34, in Denmark and Italy this only holds for those aged over 54. Furthermore, while in each country the inactive are less likely to attend adult education courses than their employed counterparts, the position of the unemployed individuals varies across countries.

Table 1.19: Logit odds ratios for participation in adult education for those aged 30 and older, 2005 (odds ratios)

Groups	Austria	Denmark	Hungary	Italy	Slovak Republic
Aged 35–39	0.94**	0.99	0.82***	1.07*	0.80***
Aged 40–44	0.91***	1.01	0.61***	1.27***	0.75***
Aged 45–54	0.83***	0.96	0.48***	1.25***	0.82***
Aged over 54	0.53***	0.78***	0.13***	0.93***	0.85**
Single	1.04**	0.86***	1.25***	1.17**	1.21***
Low education level	0.17***	0.28***	0.10***	0.09***	0.02***
Medium education level	0.42***	0.59***	0.38***	0.41***	0.18***
Female	1.55***	1.55***	1.62***	1.31***	1.32***
Unemployed	1.21***	0.87	0.97	0.67***	0.66***
Inactive	0.48***	0.53***	0.63***	0.32***	0.22***
Number of observations	132,758	39,203	182,681	484,750	71,643

Dependent variable: 1, if participated in adult education within the past four weeks, 0, if did not participate in adult education within the past four weeks.
Sample: individuals aged over 29, excluding students and those in compulsory military service.
Reference: aged 30–34, married, high education level, male, employed.
Single: single, divorced or legally separated, widowed.
Education levels: Low education level refers to at most lower secondary level (ISCED 0–2) completed, medium education level refers to at most upper secondary education (ISCED 3–4) and high education level refers to tertiary education (ISCED 5–6).
Statistically significant at the * 10 percent, ** 5 percent, *** 1 percent level.

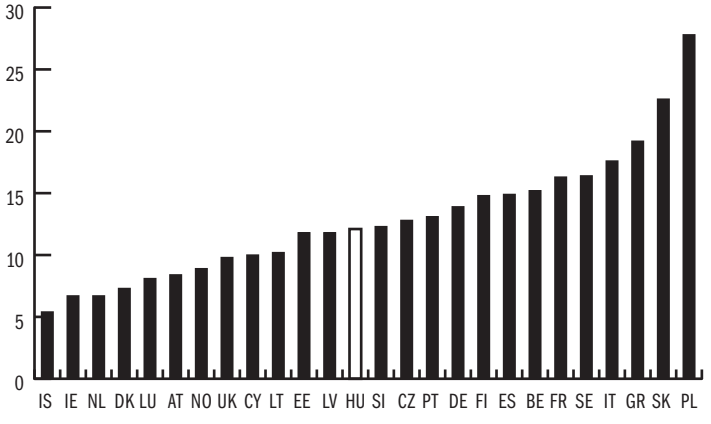
All in all, in Hungary participation in adult education was low in 2005, in both an absolute and a relative sense, which supports the findings for the time period of 1999–2003 (*Hámori*, 2008). The remarkably low participation rate characterises not only young adults, but also men and women aged 29 and over. It is worth mentioning that the low participation in adult education is generally characteristic of the Southern European and the Central and Eastern European countries, as opposed to the Scandinavian countries, which perform best in this area.

6. From education to the labour market – entering the labour market and unemployment among young people

The basic statistics indicate relatively high unemployment among young people in Hungary. The exceptionally wide range of ILO-OECD rates across the

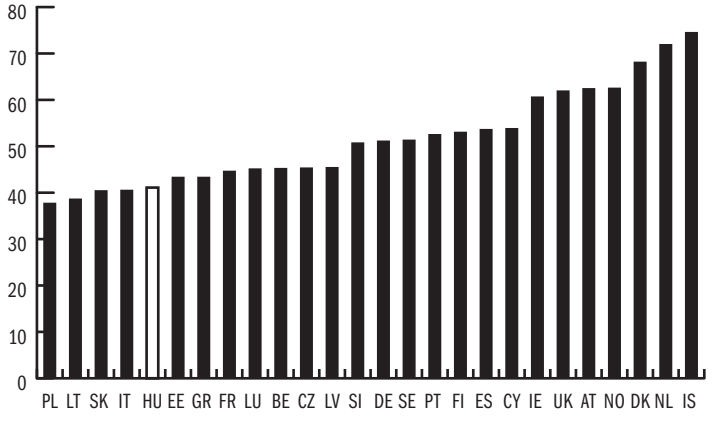
countries of the European Union suggest, however, that the ILO-OECD definition cannot accurately capture the highly complex process of transition from school to work. Similar cautionary remarks apply to the unemployment rates, which assign Hungary to an even worse position, as can be seen in *Figures 1.5* and *1.6*.

Figure 1.5: Unemployment rates among 15–29 year olds, 2005



Country codes: AT – Austria, BE – Belgium, CY – Cyprus, CZ – Czech Republic, DK – Denmark, DE – Germany, EE – Estonia, ES – Spain, FI – Finland, FR – France, GR – Greece, IE – Ireland, IS – Iceland, IT – Italy, LT – Lithuania, LU – Luxembourg, LV – Latvia, HU – Hungary, MT – Malta, NL – Netherlands, NO – Norway, PL – Poland, PT – Portugal, SI – Slovenia, SK – Slovakia, SE – Sweden, UK – United Kingdom.

Figure 1.6: Employment rates among 15–29 year olds, 2005



Country codes: AT – Austria, BE – Belgium, CY – Cyprus, CZ – Czech Republic, DK – Denmark, DE – Germany, EE – Estonia, ES – Spain, FI – Finland, FR – France, GR – Greece, IE – Ireland, IS – Iceland, IT – Italy, LT – Lithuania, LU – Luxembourg, LV – Latvia, HU – Hungary, MT – Malta, NL – Netherlands, NO – Norway, PL – Poland, PT – Portugal, SI – Slovenia, SK – Slovakia, SE – Sweden, UK – United Kingdom.

The *unemployment* rates of 15–29 year olds cover a considerably wide range: from 5.4 percent in Iceland to 27.8 percent in Poland, with Hungary (12.1 percent) occupying a middle position. The unweighted average of the 26 countries is 12.9 percent. As regards *employment* rates, we once again find Poland (37.7 percent) and Iceland[26] (74.5 percent) at the two extremes of the scale but Hungary, with 41.1 percent, is positioned well below the average (51.5 percent).

The position of young people making their way from school to the labour market is of outstanding significance with respect to both education and labour policies. It is unacceptable, however, to evaluate this process purely on the basis of unemployment or employment rates, since the values of youth unemployment and employment are to a large extent a function of the type of training, the typical timing of leaving school and the incidence of student employment.

This section is divided into three parts. First, we look at employment among young people who were not receiving formal education at the time of the interview. Student employment (and its weight within youth employment) will next be investigated, and finally, some features of youth – and within that student – labour will be discussed.

Employment among non-students

Looking at the employment rates of 15–49 year olds grouped according to the time at which they obtained their highest educational qualifications, the lowest employment rate is found among those who left education 1–3 years before the interview but even this level is over 80 percent in some of the Western European countries, including Austria and Denmark. The highest employment rates are typically observed among those who left education 4–5 years before the interview in Western Europe, among those who left 6–8 years previously in the Southern countries and among those who left more than 9 years previously in the transitional economies of Central and Eastern Europe.

The employment rates among *young people starting their careers having at most primary education* are displayed in the first data column of *Table 1.20.* The *value for Hungary is the lowest in Europe* (15.8 percent), followed by Greece and Cyprus (18.2 and 22.8 percent respectively). All other countries have rates of over 30 percent. The employment rates among labour market entrants with a low educational attainment are relatively high in the United Kingdom (71.1 percent), in Austria, Denmark, the Netherlands and Luxembourg within Western Europe (60.3–72.5 percent) and in Portugal (57.7 percent). The values for the remaining countries range from 33 to 57 percent.

26 Iceland is characterised by several exceptional figures by European comparison. Its special position resulting from its small population means that the high level of employment and the low unemployment rates cannot be taken as a reference point in international comparisons. When there are a sufficient number of cases, Iceland is shown in the tables and figures but in the remainder of this paper it will not be discussed in the text.

Table 1.20: Employment rates among the 15–49 year old non-student population by time since obtaining highest educational qualifications and by age cohort, 2005

	1–3 years since leaving education			4–5 years since leaving education				6–8 years since leaving education		
	15–19	20–24	25–29	15–19	20–24	25–29	30–49	20–24	25–29	30–49
Country	year old cohort									
Austria	60.3	85.7	89.7	52.8	85.9	91.6	92.0	75.6	87.2	90.2
Belgium	35.0	74.0	86.2	..	73.7	90.4	83.4	71.3	86.0	89.4
Cyprus	22.8	70.2	89.4	..	75.2	87.0	92.6	80.9	86.7	89.0
Denmark	67.3	84.5	90.1	..	78.9	93.3	93.6	77.6	87.9	92.6
United Kingdom	71.1	84.6	87.8	75.9	81.1	91.2	88.5	77.1	87.4	87.8
Estonia	46.6	69.6	83.6	..	74.5	79.6	82.8	69.0	72.3	93.1
Finland	55.8	77.2	85.4	..	71.4	84.1	86.2	69.4	82.9	87.4
France	43.3	71.4	78.1	35.1	70.6	82.1	76.2	67.1	81.8	81.4
Greece	18.2	53.2	66.8	53.8	62.5	80.7	83.8	69.7	78.0	84.4
Netherlands	71.5	89.0	92.7	70.9	85.5	94.9	88.4	82.5	90.4	89.2
Ireland	48.8	82.6	89.5	..	81.8	91.1	86.8	75.3	88.2	88.2
Iceland	86.1	90.7	95.6	..	82.8	96.7	92.6	83.2	95.0	95.4
Poland	33.7	53.8	78.7	..	53.9	76.7	88.1	50.9	69.2	88.1
Latvia	51.2	80.0	82.0	..	67.9	78.9	94.6	70.1	79.5	81.6
Lithuania	57.1	72.9	88.7	..	67.9	87.1	95.3	70.1	84.4	89.3
Luxembourg	72.5	85.9	94.1	..	89.2	95.0	89.8	80.2	91.7	90.2
Hungary	15.8	63.5	87.0	19.2	64.6	84.1	87.2	58.6	77.6	82.7
Germany	40.4	74.0	86.8	..	71.9	80.5	87.9	58.1	77.5	86.1
Italy	35.8	59.8	59.0	40.7	71.9	76.9	81.2	63.6	80.0	84.6
Portugal	57.7	76.0	84.6	62.4	82.5	85.9	92.3	81.2	87.1	91.8
Spain	49.4	69.7	76.1	54.7	75.4	83.1	80.6	74.5	84.0	83.1
Sweden	50.7	74.7	85.7	47.2	78.2	88.9	91.8	71.9	87.6	91.1
Slovakia	34.7	68.1	87.4	..	72.5	85.7	88.4	59.2	72.7	83.1
Slovenia	41.0	69.9	86.3	..	78.3	90.7	95.9	71.4	83.6	96.4
EU-24	48.6	74.2	84.6	51.3	74.9	86.5	88.3	71.2	83.3	88.2

Sample: The 15–49 year old population excluding students and conscripts enrolled in compulsory military service.
Notes: No data are available for the Czech Republic or Norway; two dots indicate that the small number of cases did not allow analysis.

The second data column (20–24 year olds) displays the employment rates among young *labour market entrants typically having secondary education,* which vary between 53 and 89 percent. The countries that stand out – with rates over 80 percent – are the Netherlands, Luxembourg, Austria, Denmark and the United Kingdom. Next in the ranking are the Northern countries, the remaining Western European countries (Germany and France), the Baltic states and, from among the Southern countries, Portugal (70–80 percent). The bottom of the range is occupied by the remaining Southern European countries and the former socialist countries (Hungary with 63.5 percent), with Greece and Poland showing the poorest results.

The order of the countries remains similar when we look at the employment rates among 20–24 year olds who left school 4–5 years preceding the survey,

the only difference being that not all countries show improvement relative to the population who left education 1–3 years previously. (This can probably be mainly attributed to a larger share of people having primary education in this group.) The Greek rate, however, increases by more than 9 percentage points to 62.5 percent, which makes the disadvantage of Poland (53.9 percent) even more pronounced.

25–29 year olds who obtained qualifications 6–8 years before the interview appear in the last column of the table. Most of their employment rates fall within the range of between 77 and 92 percent (the exceptions being 69.2 percent for Poland, 72.3 percent for Estonia and 72.7 percent for Slovakia), which indicates that the differences between the countries are reduced as labour market experience increases. There is not much change in the ranking of the countries, but as 17 out of the 24 countries have values of over 80 percent, the ranks may be less informative than the increase in the employment rate of those completing school 6–8 years before the interview relative to the employment rate of newly qualified persons. Let us look at the countries where a few years' experience is accompanied by a more than 10 percent increase in employment. This phenomenon is especially striking in the Southern countries: Greek school leavers have an employment rate of 53.2 percent compared to the 78 percent rate for those who qualified 6–8 years ago; an increase of 20.2 percentage points is observed for Italy and 11.1 percentage points even for Portugal. In the former socialist countries (with the exception of Slovakia) the employment rates among those leaving school 6–8 years before the interview are 14–15 percentage points higher than the rates among those who qualified 1–3 years preceding the survey.

The high level of employment among newly qualified secondary school graduates in the Western countries cited may be related to the structure of vocational training. Apprenticeship programmes have special significance in Austria, Germany and Switzerland (which is not included in our dataset), where vocational training is conducted in a dual training system, whereby apprentices receive training at two sites – at a school and in a company – in parallel, i.e., each week of training is divided between the two locations. In Germany and Switzerland, practical training programmes cover all areas of the economy; two thirds of 16–19 year old young people participate in some way during their studies. In Austria, practical training is mainly associated with vocational occupations and involves 40 percent of young people. Practical training is also an important tradition in Denmark, where, if needed, students can turn to their vocational schools for help in finding trainee positions at companies. (Some studies also classify the Danish system as a dual education system. See, for instance, *OECD,* 2008). The apprenticeship period spent with a company as part of the dual education programme is frequently treated as temporary but full-time employment (*OECD,* 2008), i.e., partici-

pants are classified as both full-time employees and students in statistical surveys. In the Netherlands, the vocational training system was reformed in the mid-1990s, assigning a greater role to company-based training. About a third of the young population participate in apprenticeship programmes in both of the countries. Internships are less wide-spread (with about 15 percent participation) but these programmes receive financial support in Britain and France. A feature shared by all seven countries is that companies are responsible for 70–80 percent of vocational training, and students successfully completing the programme are awarded nationally recognised qualifications (*Steedman,* 2005, pp. 2–4; *Quintini & Martin,* 2006, p. 23).

The lowest employment rates among *newly qualified graduates of tertiary education* (aged 25–29) are observed in the Southern countries, with the exception of Cyprus and Portugal (59 percent in Italy, 66.8 percent in Greece and 76.1 percent in Spain). France and Poland are characterised by rates just under 80 percent, and the rates of the remaining countries are over 80 percent. Several values fall in the range between 85 and 90 percent, including Hungary's 87 percent employment rate observed in 2005. The employment rates among those who graduated from tertiary education 6–8 years prior to the survey (aged over 30 at the time of the interview) are over 80 percent for all of the countries.

Summarising the data on the labour market entry of young people, we conclude that almost 90 percent of tertiary education graduates enter employment within three years of completing their studies in most of the countries under analysis, including Hungary, although this level is not met by some Southern countries, France, the Czech Republic, or Poland. The EU countries do not show major differences in terms of the employment rates among young college and university graduates. In contrast, less than one in five young people who have a low level of education finds employment within three years in Greece and Hungary, and one in three in Slovakia and Poland, while the corresponding rates are well over 50 percent in most of the Northern and Western countries.

Similar conclusions can be drawn from an analysis of employment rates broken down to the level of education and *age*, as displayed in *Table 1.21.*

Looking at employment among *those with a low educational attainment*, the lowest values are found in the countries of Eastern and Central Europe for all cohorts. The rates show large variation across the countries, especially for 15–19 year olds. The countries with the lowest employment rates for the youngest cohort of people with at most primary education are the Czech Republic, Slovakia, and Hungary, with values of around 8–10 percent. The highest values (over 60 percent) are observed in the Netherlands, Luxembourg and Denmark, while – with a few exceptions – the employment rates in the remaining Western countries, the Southern countries, and the Baltic

states fall in the range between 30 and 50 percent. In most of the countries, within the group of those with a low educational attainment, the 30–49 year old cohort has the highest probability of being employed. This pattern is not followed by the Southern countries – with the exception of Italy – where the employment rates are highest among those in their twenties.

Table 1.21: Employment rates among the 15–49 year old non-student population by level of education and age, 2005

	Low				Medium				High		
	15–19	20–24	25–29	30–49	15–19	20–24	25–29	30–49	20–24	25–29	30–49
Country	year old cohort										
Austria	31.9	58.5	59.4	69.4	73.4	86.3	87.3	86.1	85.9	89.7	92.1
Belgium	19.7	52.8	56.3	65.2	45.4	72.6	82.7	82.9	81.4	91.0	91.7
Cyprus	19.8	78.2	76.5	73.4	31.4	70.7	82.1	83.8	73.8	87.7	89.3
Czech Republic	8.2	34.9	39.7	55.2	55.0	76.0	76.8	86.0	76.2	84.9	92.2
Denmark	63.1	71.5	65.5	72.3	80.0	86.4	86.5	89.5	87.3	90.2	92.6
United Kingdom	38.3	42.1	44.0	55.3	70.9	78.2	79.5	83.4	86.8	92.7	91.7
Estonia	51.4	52.6	55.1	60.2	..	73.0	76.9	80.2	83.1	82.7	87.4
Finland	48.7	62.2	64.1	71.9	69.2	76.1	80.8	83.9	90.5	87.7	89.4
France	28.7	50.1	56.4	71.1	52.9	72.0	78.2	84.4	74.6	85.6	87.4
Greece	19.7	65.3	69.9	69.4	25.2	59.7	75.9	75.7	58.2	77.3	88.1
Netherlands	64.7	74.0	72.1	73.0	77.8	88.7	88.9	85.0	91.8	94.9	91.9
Ireland	31.7	59.6	61.6	66.8	68.1	82.2	86.1	79.7	87.3	92.1	89.6
Iceland	85.7	81.9	86.0	81.7	..	90.6	90.9	93.4	..	96.4	93.8
Poland	22.0	30.9	42.8	51.2	33.9	53.8	66.7	72.6	64.8	82.0	92.4
Latvia	46.8	60.3	60.6	63.0	39.3	75.5	77.1	79.2	90.0	84.5	90.9
Lithuania	41.9	59.8	64.3	58.2	44.1	66.6	83.2	81.1	82.7	89.5	91.4
Luxembourg	63.1	69.1	78.1	77.3	70.6	86.7	89.2	81.5	84.7	93.7	88.7
Hungary	10.2	39.0	46.6	52.0	38.5	64.5	75.1	79.7	78.5	87.0	89.3
Germany	28.5	42.7	49.6	61.1	61.7	75.8	78.1	80.1	83.2	87.8	89.4
Norway	42.0	54.4	60.0	68.4	71.8	80.5	83.1	86.0	84.6	91.4	92.4
Italy	35.2	56.8	62.6	66.2	38.3	66.8	77.6	81.4	46.2	61.9	88.4
Portugal	57.5	77.9	80.8	79.9	45.8	79.4	85.5	89.2	68.6	85.9	94.3
Spain	48.1	70.8	72.5	67.3	46.5	73.6	81.0	78.8	72.5	81.9	86.4
Sweden	48.4	56.0	68.4	77.1	66.2	78.8	85.8	89.3	81.1	89.0	92.7
Slovakia	8.1	19.4	14.9	34.4	40.8	69.3	71.7	80.3	76.4	85.5	91.1
Slovenia	21.6	45.0	63.3	75.2	44.9	74.5	85.1	89.0	75.4	87.6	96.0
EU26	37.9	56.4	60.4	66.0	53.8	75.3	81.2	83.2	78.6	86.9	90.8

Sample: The 15–19 year old population excluding students and conscripts enrolled for compulsory military service.
Note: Two dots indicate that the small number of observations did not allow the calculation of employment rates.

Having a few years of labour market experience more than doubles the probability of employment in the former socialist countries (with the exception of Poland). In Slovakia, however, the employment rate among 20–24 year olds is still only 19.4 percent, while the corresponding values are between 31 and

39 percent for Poland, the Czech Republic, and Hungary, and 45 percent for Slovenia. Looking at the 30–49 year old cohort of people with primary education, the lowest employment rate is observed in Slovakia (34.4 percent), followed by Poland (51.2 percent), Hungary (52 percent) and the Czech Republic (55.2 percent). The corresponding values fall between 60 and 80 percent in the Northern, Southern and Western countries.

Among *those with secondary education,* 60 to 80 percent of 15–19 year olds are in employment in the Western and Northern countries (with the exception of Belgium [45.4 percent] and France [52.9 percent]), while in the Southern and the former socialist countries the corresponding rates range from 25 to 46.5 percent (with the exception of the Czech Republic at 5 percent). The top positions are occupied by Denmark, the Netherlands, and Austria, probably thanks to the dual vocational training system discussed above. Employment odds increase with age in every country. Initially low rates show greater improvement, while initially high rates are affected to a lesser extent. For the majority of the countries the employment rates are highest among 30–49 year olds, which is primarily explained by the temporary labour market absence of women in their twenties .

As expected, *people with tertiary qualifications* enjoy the highest probability of being in employment; the employment rates among 30–49 year olds are over 86 percent in all of the countries. Younger cohorts are somewhat less likely to have jobs, which is related partly to child bearing, and partly to difficulties in starting a career. The unweighted average employment rate of newly qualified higher education graduates is 78.6 percent for the 26 countries, which is dragged down by the rates observed in the Southern countries. The low employment rate among newly qualified graduates in the Southern countries is accompanied by a high unemployment rate. It has been pointed out by *Fernández* (2006), among others, that the labour markets of these countries differ from those of the other countries in that the probability of unemployment among the 20–29 year old population increases with their level of education. In her analysis of the employment odds of young Spaniards, the author finds that employers give priority to labour market experience and, she argues, the curriculum acquired at universities is not sufficiently demand-oriented.

Hypotheses suggesting that Hungarian graduates face exceptional difficulties in finding a job because of the large-scale overproduction of tertiary qualifications have been questioned before by a number of studies (*Galasi,* 2004; *Kertesi & Köllő,* 2006), and do not appear to be supported by the present international comparison either, which uses considerably simpler methods than were previously available: Hungarian graduates' employment rates do not deviate significantly from the average of the 26 countries, no matter which age cohort or labour market experience group we look at.

Working students

For present purposes the category of "student" is not restricted to full-time students but includes every person participating in education or training. A respondent is classed as a student if he or she participated in a primary, vocational, secondary, college, university or PhD programme as a student or apprentice during the four weeks preceding the survey)[27] (*Eurostat,* 2005, p. 34).

The proportion of students among the 15–29 year old employed population is shown in the first four data columns of *Table 1.22.* A striking feature of the data is the enormous variation between countries, with a tenfold difference between the two extremes (Greece 4.5 percent, the Netherlands 43.7 percent). For the 15–19 year old cohort, the percentage of students among the employed is exceptionally high in Germany, the Netherlands, Denmark and Austria, which can be attributed to the dual training system. Among the 15–29 year old population in employment, students are least frequent in the Southern and the former socialist countries, but there are former socialist countries (Slovenia, Poland) where 15–19 year old workers are several times more likely to be in education than are older people, which reflects the emphasis on apprenticeship in vocational training.

The countries widely differ in terms of the proportion of students among *the 20–24 year old* employed population. In seven of the countries more than a third of persons in this group are (by now typically) university or college students, in 11 countries more than a quarter, while in 8 countries less than one in ten. Hungary, together with the Czech Republic, Slovakia and several Southern European countries, belongs to the latter group.

The frequency of students among the employed decreases as we move to older cohorts, just as we find a small proportion of students within a given age cohort if we move up to a higher level of education. It is therefore worth looking at the probability of employment among the student population, which is displayed in the right block of the table.

Looking at the youngest, 15–19 year old cohort, the probability of employment among students covers a wide range of values (from 0.3 percent to 52.3 percent, the former of which is the value observed in Hungary): the student employment rates are high in the countries with dual training systems and in the Northern states, while they are low in the the former socialist countries.

There are only five countries where the employment rates among 20–24 year old higher education students remain below 10 percent: Hungary being one of them in the company of Italy, Greece, the Czech Republic and Slovakia. In 12 of the countries, at the same time, more than a third of students are in employment. It is only the group of 25–29 year old students typically studying for their second degree or PhD for which the Hungarian data approaches the European average.[28]

27 Students were identified based on the EDUCSTAT variable of the European Labour Force Survey.

28 It has previously been suggested (*Kutas & Tóth*, 2007) that the labour force survey captures only a small section of student employment. The authors argue that the employment rate estimated by the labour force survey is substantially lower than the actual rate partly because full-time higher education students are more likely to work than the labour force survey suggests: the study shows that 176 thousand students were enrolled in full-time higher education in 2000–2001, out of which 26 thousand were in employment according to the labour force survey. The authors argue, citing survey evidence, census data and aggregated data supplied by student organisations, that at least half of full-time higher education students "work fairly regularly" and should therefore be classified as being in employment as defined by the ILO-OECD. If this is correct, the employment rate among young people in Hungary is higher than the data shown in the present chapter indicates. However, observing the employment criteria of the labour force survey, we could only classify the working 50 percent of full-time students as employed if *each of them* worked at least one hour during *each of the 52 weeks of the year:* only this would guarantee that the number of working students in any one randomly chosen week of the year equalled half of the total student population. This assumption appears to be too strong. Therefore we regard the results of Kutas & Tóth as an overestimation.

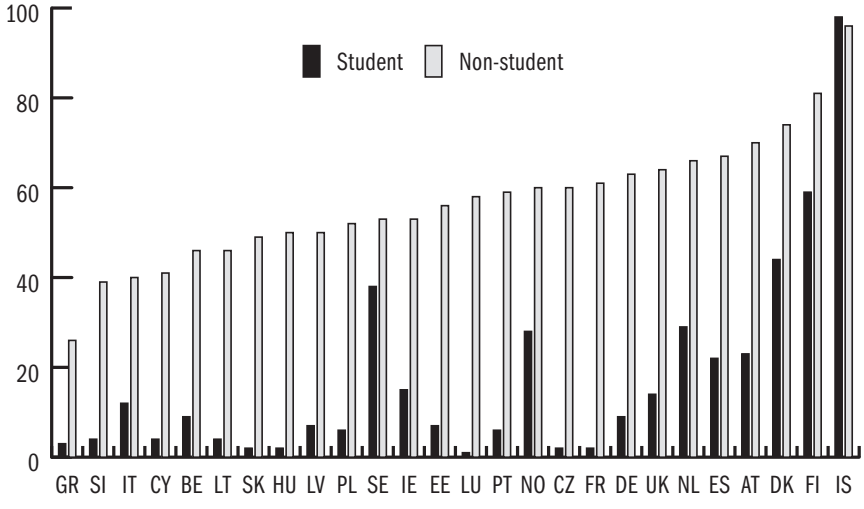
Table 1.22: Percentage of students among the employed population by age cohort, 2005

	Students among the employed				The employed among students			
	15–19	20–24	25–29	15–29	15–19	20–24	25–29	15–29
Country	year old cohort							
Austria	76.7	18.2	8.4	24.8	33.2	39.0	54.4	36.8
Belgium	45.4	8.1	3.9	7.4	3.5	10.4	45.3	7.7
Cyprus	..	6.6	..	5.6	.	20.4	..	9.9
Czech Republic	15.0	5.0	4.2	4.8	0.9	6.6	43.7	5.5
Denmark	84.4	45.3	21.8	46.0	52	61.4	62.1	56.5
United Kingdom	56.7	21.4	10.7	24.6	30.1	50.2	68.7	39.0
Estonia	..	28.4	.	21.4	3.2	33.2	..	17.8
Finland	70.5	40.1	21.0	34.6	17.2	44.8	64.2	33.5
France	64.5	15.8	2.6	12.7	8.1	19.6	37.3	12.5
Greece	17.4	7.6	2.3	4.5	1.6	7.8	24.1	5.5
Netherlands	86.1	44.2	16.4	43.7	52.3	68.6	75.4	60.1
Ireland	47.5	17.5	5.3	15.3	16.8	42.7	55.6	27.6
Iceland	.	44.5	20.5	42.0	..	63.5	60.9	61.7
Poland	71.5	33.6	10.9	21.8	4.7	23.9	60.3	15.9
Latvia	42.1	30.2	..	22.2	4.8	37.4	.	20.1
Lithuania	..	18.0	11.6	14.2	..	14.4	64.7	9.8
Luxembourg	..	..	..	..	2.0	..	..	1.8
Hungary	7.6	9.6	6.8	7.7	0.3	9.2	51.7	7.8
Germany	87.7	36.7	13.1	34.6	24.6	46.7	46.4	33.9
Norway	66.8	31.0	11.6	29.5	35.3	49.9	53.5	42.5
Italy	15.1	9.6	5.4	7.3	1.5	9.9	23.5	7.0
Portugal	13.0	9.7	6.6	8.1	2.3	14.0	43.5	11.0
Spain	25.3	14.2	7.0	10.9	5.6	23.4	51.0	16.9
Sweden	43.7	16.6	10.4	17.7	13.3	28.9	43.6	21.5
Slovakia	..	5.8	3.6	4.5	..	8.4	42.7	4.5
Slovenia	77.5	39.7	21.3	32.2	11.6	37.2	67.0	29.6

Sample: The 15–29 year old employed population.
Note: Two dots indicate that the small number of cases did not allow analysis.

While the above data characterises student and employment status at the time of the survey, *Figure 1.7* below shows the proportion of those having some *previous* formal work experience among the 15–29 year old non-employed and non-student population. (Short-term employment such as vacation work and compulsory military or public service are disregarded.) These figures are concordant with our earlier results. At least 60 percent of young non-students have previously had a job in the countries with dual training systems (Denmark, Austria, the Netherlands, the United Kingdom, Germany and France), while the corresponding figure is 49.5 percent for Hungary, which positions the country in the bottom third of the scale. Among those still pursuing education, having work experience is very infrequent in Hungary and other Eastern and Central European countries, as well as in Greece and France.

Figure 1.7: Percentage of students and non-students with labour market experience, 2005



Sample: The 15–29 year old currently non-employed population.
Country codes: AT – Austria, BE – Belgium, CY – Cyprus, CZ – Czech Republic, DK – Denmark, DE – Germany, EE – Estonia, ES – Spain, FI – Finland, FR – France, GR – Greece, IE – Ireland, IS – Iceland, IT – Italy, LT – Lithuania, LU – Luxembourg, LV – Latvia, HU – Hungary, NL – Netherlands, NO – Norway, PL – Poland, PT – Portugal, SI – Slovenia, SK – Slovakia, SE – Sweden, UK – United Kingdom.

The forms of youth employment

Part-time and fixed-term employment are frequent solutions when young people first enter the labour market. This may have both supply and demand causes: in some countries, employers prefer not to employ new entrants full-time or on a permanent contract while on the part of the students, part-time work may be a transitory form of moving from education to the labour market. In most of the countries this type of employment is only a temporary solution for young people; they transfer to full-time and permanent jobs within a few years. Part-time work among 15–29 year old students is the most common in the Netherlands, Norway, Sweden and Denmark, where more than 70 percent of working students have part-time employment. It is least frequent in Lithuania and Hungary, where roughly 90 percent of working students are in full-time employment. Part-time employment is – as expected – less frequent among non-students than among students in all countries. It is relatively common (over 20 percent) in the Netherlands, Norway and Sweden, and the least common in the former socialist countries (2.5 percent in Hungary and 1.5 percent in Slovakia).

Table 1.23: Percentage of part-timers and workers on fixed-term contracts, 2005

	Part-timer		Temporary/fixed-term worker	
Country	Student	Non-student	Student	Non-student
Austria	29.1	12.8	67.6	8.6
Belgium	47.4	15.4	59.6	17.9
Cyprus	..	5.8	35.0	19.7
Czech Republic	26	2.3	28.7	11.4
Denmark	71.8	16.4	33.9	12.2
United Kingdom	62.2	14.7	17.7	7.4
Estonia	30.8	..	..	..
Finland	53	11.4	49.2	29.4
France	39.1	12.7	81.7	25.1
Greece	34.3	6.4	41.1	19.6
Netherlands	82.7	31.9	44.9	24.5
Ireland	57.7	7.4	22.5	4.6
Iceland	58.1	11	17.1	9.2
Poland	30.1	9.4	59.8	45.9
Latvia	18.6	5.1	15.8	13
Lithuania	8.9	6.8	9.4	9.3
Luxembourg	49.2	8.6	..	14.7
Hungary	10.9	2.5	12.4	11.4
Germany	25.4	15.4	79.1	22.1
Norway	76.1	26.2	29.8	20.3
Italy	54.1	11.4	47.5	24.8
Portugal	29.8	4.8	52.2	35.9
Spain	53.6	11.6	70.4	53
Sweden	76	23.4	61.7	35.3
Slovakia	17	1.5	20	7.8
Slovenia	40.6	5.1	65.1	34.9

Sample: 15–29 year old students and non-students in employment.
Note: Two dots indicate that the small number of cases did not allow analysis.

Fixed-term employment contracts among students are the most common in Germany, Spain, France and Austria, where more than 65 percent of student employment pertains to this category. Our data indicates a considerably lower proportion for Hungary, only 12.4 percent. Looking at non-students, more than 40 percent of young workers are employed on fixed-term contracts in Spain and Poland while, at the other end of the scale, the figure is less than 10 percent in the United Kingdom, Ireland, Austria, Slovakia, Iceland and the Baltic states.[29]

The distribution of young workers across blue-collar, white-collar, and service sector occupations is well represented by the data for the five countries shown in *Table 1.24*. The majority of student workers perform white-collar work in Greece, Slovakia, and Hungary, while in Denmark and Austria students are more evenly distributed across the three categories of occupations. The high share of manual jobs observed in some Western countries is prob-

29 It is an important question from the point of view of young people starting their working lives whether they enter fixed-term employment by choice or would prefer permanent employment but cannot find any. As revealed by an OECD study from 2006, the latter possibility tends to be the case among young people on fixed-term contracts in Spain. It also takes them longer to transfer to a permanent job (*Quintini–Martin,* 2006).

ably the result of their emphasis on apprenticeship in vocational training. A somewhat higher proportion of non-students have manual rather than white-collar occupations in the two former socialist countries, and the exact opposite pattern is observed for the other three countries.

Table 1.24: Distribution of young workers across occupation categories, 2005

	Student			Non-student		
Country	White-collar	Services	Manual	White-collar	Services	Manual
Austria	39.1	22.3	38.6	47.6	16.2	36.2
Denmark	26.7	34.4	38.9	41.9	22.5	35.6
Greece	45.5	36.1	18.5	38.0	25.1	36.9
Hungary	69.0	18.1	12.9	38.6	19.6	41.7
Slovakia	75.3	17.5	7.3	38.0	18.5	43.5

Sample: 15–29 year old students and non-students in employment.
Note: White-collar: managerial and office jobs requiring tertiary education qualifications; manual: jobs in agriculture, manufacturing, mechanical, maintenance and installation jobs and others.

Atypical (evening, night-time, or week-end) work is most frequent in the Southern countries among both students and non-students: these countries are characterised by the highest proportions of the young frequently performing work of this type (*Table 1.25*). Among students, those who never work atypical hours are represented in the highest proportions in Hungary and Austria, while among non-students, their share is the highest in Hungary, Belgium, Finland and Sweden.

Table 1.25: Frequency of atypical working times among the young, 2005 (percent)

	Student			Non-student		
	Often	Occasionally	Never	Often	Occasionally	Never
Evening or night-time work						
Austria	10.2	13.3	76.5	15.7	18.9	65.4
Denmark	32.6	13.6	53.7	25.6	20.8	53.6
Greece	28.8	39.6	31.6	26.6	37.2	36.2
Hungary	10.2	11.5	78.3	11.4	15.4	73.2
Slovakia	17.9	13.9	68.3	27.6	13.7	58.7
Weekend work						
Austria	28.2	10.3	61.5	30.6	12.8	56.6
Denmark	40.3	19.3	40.4	28	17.7	54.3
Greece	38.8	24.3	36.9	42.5	23.6	33.9
Hungary	11.4	20.5	68.1	14.4	25.9	59.7
Slovakia	19.2	15.9	64.9	29	27	44

Sample: 15–29 year old students and non-students in employment.

Our most important results are summarised in a logit model, in which employment probabilities among the 15–49 year old population are estimated as a function of gender and the interaction between level of education and

the time since leaving education for non-students, and the highest completed level of education for students (*Table 1.26*). The reference category is men with tertiary education who obtained their qualifications more than nine years prior to the EU LFS interview. Their employment rates are shown in the last row of the table.

As shown in *Table 1.26* the probability of employment is significantly reduced relative to the reference group by student status in all five countries. The lower the educational level, the smaller the odds ratio. Denmark is characterised by substantially higher employment odds of secondary school students relative to the reference category compared to any of the other four countries, which is presumably due to the apprenticeship system in vocational training.

Table 1.26: The employment odds of 15–49 year olds (logit odds ratios)

	Austria	Denmark	Greece	Hungary	Slovakia
Gender	0.471***	0.582***	0.185***	0.456***	0.518***
Non-students (level of education, time since obtaining qualifications)					
Low, 1–3 years	0.0289***	0.122***	0.00984***	0.00495***	0.0054***
Low, 4–5 years	0.0821***	0.148***	0.105***	0.0249***	0.0139***
Low, 6–8 years	0.113***	0.216***	0.161***	0.0612***	0.0190***
Low, longer than 9 years	0.188***	0.181***	0.254***	0.107***	0.0358***
Medium, 1–3 years	0.449***	0.398***	0.0955***	0.153***	0.146***
Medium, 4–5 years	0.623***	0.701**	0.236***	0.244***	0.234***
Medium, 6–8 years	0.573***	0.609***	0.335***	0.307***	0.196***
Medium, longer than 9 years	0.526***	0.590***	0.380***	0.381***	0.300***
High, 1–3 years	0.819*	0.688***	0.271***	0.917	0.501***
High, 4–5 years	1.087	1.584**	0.650***	0.767***	0.540***
High, 6–8 years	0.667***	1.032	0.833***	0.597***	0.380***
Students (highest completed education)					
Low	0.0391***	0.104***	0.00197***	0.00098***	0.00016***
Medium	0.0717***	0.0987***	0.00730***	0.0238***	0.0146***
High	0.194***	0.165***	0.0544***	0.252***	0.118***
Constant	37.75***	32.23***	125.2***	32.30***	34.25***
Number of observations	98,392	23,377	140,061	142,237	55,904
Pseudo R^2	0.172	0.122	0.306	0.292	0.334
Employment in the reference category (percent)	95.73	95.54	95.17	94.75	96.03

Reference category: men with a high level of education attained more than 9 years previously.
Statistically significant at the * 10 percent, ** 5 percent, *** 1 percent level.

The odds ratios of students increase with the level of education and with labour market experience. This is not entirely correct for Greece, however, since the difficulties of young labour market entrants in finding employment are reflected in the results (for Greece – whichever educational level is considered –

newly qualified people have very low odds ratios compared to those who left education more than nine years prior to the survey). The opposite pattern can be observed for the remaining countries: within each educational level, the increase in odds ratios due to the accumulation of time since leaving education is slower than the increase observed between educational levels.

The odds ratios of people with tertiary education who graduated 6–8 years previously are low in the two Western and the two Central European countries. To demonstrate that this phenomenon is caused by women being absent from the labour market because of child rearing, the estimation was run on men and women separately and the results confirm that the decline only occurs in the odds ratios of women.[30]

Closing remarks

The most important conclusion of this section is that the usual employment and unemployment figures, when used to characterise the young population are misleading without a closer look at the details. The ILO-OECD indicators calculated for young cohorts are heavily affected by the system of vocational training and by the patterns of student work, both of which are factors that show extreme variation across the countries of Europe. The extent of the problem will be illustrated through two examples: a comparison between Denmark and Hungary, and one between Portugal and Hungary.

For 2005, in Hungary the employment rate of the 19–29 year old population was 41.1 percent, while the corresponding value was 68.2 percent in Denmark. It does not follow, however, that the Danish young person's labour market prospects are so much better, since the Danish rate is pushed up by the high incidence of employment among students, which is a consequence of the apprenticeship system in vocational training. Moreover, in Denmark there is a higher proportion of students – who work in far higher proportions than their Hungarian peers – in this age cohort.

If the employment rate among *students* in Hungary was equal to the corresponding rate in Denmark, the employment rate of the total 15–29 year old population would be considerably higher: a level of student employment similar to the Danish level would push the aggregate employment rate of young Hungarians up to 60.9 percent, approaching the Danish rate (an increase of 19.9 percentage points).[31]

If *non-student* young people were employed with the same probability in Hungary as they are in Denmark – i.e., if the Hungarian non-student employment rate was replaced by the Danish figure – the employment rate of 15–29 year olds would increase to a lesser extent, to 52.35 percent (by 11.26 percentage points).

If the *share* of students within the 15–59 year old cohort was the same in Hungary as in Denmark while the group-specific employment rates remained

30 The results of the logit model run separately on men and women would be more informative than the results shown in Table *1.26*, but we decided not to display those results because of the small number of observations for a number of variables in Denmark and Slovakia.

31 The employment rate of 15–29 year olds is given by $e = s \times e^s + (1 - s) \times e^{ns}$, where s denotes the proportion of students and e^s and e^{ns} stand for the employment rates of students and non-students, respectively. The calculations give an indication of the changes that would follow if the Hungarian values of s and e^s, e^{ns} corresponded to the values observed for Denmark.

constant, the Hungarian employment rate would fall by 8.36 percentage points to 32.74 percent.[32]

The effects of the different components have also been calculated for countries where vocational training is not apprentice based. In Portugal, for instance, young people have an employment rate of 52.5 percent, which is 11.4 percentage points higher than the Hungarian rate. Roughly the same proportion of 15–29 year olds are students in the two countries, and the employment rates among students are also similar, i.e., the difference must be primarily explained by the higher level of employment among Portuguese school leavers: if non-student youngsters in Hungary were employed with the same probability as their peers in Portugal, the employment rate for the total 15–29 year old population would increase by 9 percentage points to 49.8 percent. For Austria, Denmark, Norway, Portugal and Slovenia (the countries for which the different components of the employment rate were compared to the Hungarian figures), the substitution of the non-student employment rate would lead to an increase of 7.7 to 11.3 percentage points in the employment rate of Hungarian youth.

The simple calculations presented in this section incorporated educational attainment, student status, and the period of time since leaving education. The indicators derived from these details reveal that the countries display the least amount of variation with respect to the employment of young people with tertiary education. In each of the countries under analysis, graduates have a fairly good chance of entering employment within a short period following graduation. The employment figures of the labour force survey characterising the young populations with primary or secondary education are highly sensitive to the role of apprenticeship in the vocational training programme of a given country. Most of the Western and Northern countries operate dual vocational training systems, where the time spent at a company carries at least as much weight as the time spent in a classroom. This system both has the effect of boosting the number of students classified as having employment and is likely to improve the labour market prospects of young people with secondary education in these countries. The employment rates among young *non-students* having at most primary education are strikingly low in the countries of Eastern and Central Europe, and the rates among those having secondary education are also not particularly high either.

The level of youth employment in Hungary is substantially lowered by the infrequency of apprentice work among secondary school students and the low share of students working in parallel with their college or university studies. It is a notable feature of the data that not even student workers are likely to have jobs with atypical working hours such as part-time, seasonal, weekend or evening/night-time employment. Hungarian student workers are less mobile: they remain in the same job for longer.

32 In Hungary $e = 0.41, e^s = 0.08, e^{ns} = 0.64, s = 0.41$. In Denmark $e = 0.68$, $e^s = 0.57$, $e^{ns} = 0.83$, $s = 0.55$.

7. Men approaching retirement age

In Hungary, the the employment ratio of men aged 40–64 is the second lowest in the European ranking[33] – Hungarian men rank between their Polish and Slovak counterparts –, while Hungary takes first place in terms of the proportion of men in retirement or permanently disabled[34] (*Table 1.27*). It is worth mentioning that among Slovak, Czech and Polish men approaching retirement age, the fraction of those in retirement and permanently disabled is by around ten, eight and six percentage points lower respectively than among their Hungarian counterparts.

Table 1.27: The distribution of men aged 40–64 years according to their self-perception regarding their labour status, 2005 (percent)

Country	Employed	In retirement/permanently disabled	Unemployed/other inactive person	Together
Austria	71.77	21.72	6.50	100.00
Belgium	70.12	20.71	9.17	100.00
Cyprus	83.56	10.22	6.22	100.00
Czech Republic	74.80	20.63	4.57	100.00
Denmark	79.33	16.17	4.50	100.00
Estonia	71.32	16.18	12.50	100.00
Spain	78.27	4.66	17.07	100.00
Finland	70.95	19.38	9.67	100.00
France	72.27	17.45	10.28	100.00
Greece	79.40	16.34	4.26	100.00
Hungary	62.69	29.28	8.03	100.00
Ireland	79.92	13.59	6.49	100.00
Iceland	94.26	3.53	2.21	100.00
Italy	71.59	20.91	7.50	100.00
Lithuania	74.54	14.77	10.69	100.00
Luxembourg	75.49	21.08	3.43	100.00
Latvia	73.17	14.64	12.19	100.00
Netherlands	77.60	14.52	7.87	100.00
Norway	81.55	13.95	4.50	100.00
Poland	61.25	22.89	15.87	100.00
Portugal	74.53	14.99	10.48	100.00
Sweden	80.02	12.87	7.11	100.00
Slovenia	67.90	21.90	10.20	100.00
Slovak Republic	69.48	18.98	11.54	100.00

Sample: Men aged 40–65, excluding students and those in compulsory military service.
Other inactive person: fulfilling domestic tasks, other inactive person.

A cross-country comparison of the proportion of employed males within the different age cohorts[35] – when all education levels are pooled – shows that in Hungary, out of all age cohorts, those aged 45–54 are the worst off. In all 24 countries, the fraction of employed men aged 40–64 is lower among those

33 The international comparison is based on 24 countries: Norway, Iceland and the 25 European Union Member States, with the exception of Germany, Malta and the United Kingdom. Some of the text of the chapter refers to all of the 24 countries, however, the tables present figures for five selected countries only, namely, Hungary, one Western, one Northern, one Southern and one Central and Eastern European Union Member State.

34 The groups of men in retirement and permanently disabled are aggregated into one category, as the criteria for belonging to these two groups may differ across countries.

35 The disadvantage of the EU Labour Force Survey is that the exact age of the individuals is not available, only aggregated five year age groups, hence cross-country differences in retirement age cannot be accounted for in the analysis.

with a low education level than among those with medium or high education levels. It is not surprising that in Hungary the proportion of employed men varies greatly with education level: it amounts to 55 percent, 87 percent and 94 percent within the group of men aged 40–44 with a low, medium and high education level respectively (*Table 1.28*). There are noteworthy cross-country differences in terms of the proportion of employed men within the oldest group of the low-educated men: while, as in Hungary, this proportion is small in numerous Eastern European countries, in the Northern European countries the corresponding proportion is significantly higher – in Sweden it reaches 53 percent. In fact, Hungary belongs to the laggard countries concerning the fraction of employed men among the low-educated for each age cohort. However, Hungary's position in the international ranking is better regarding certain age cohorts with higher qualification levels: Hungary takes seventh place in terms of the proportion of employed men with a secondary education level aged 40–44 and aged 60–64, and is in the middle of the ranking regarding men aged 55–64 with a tertiary qualification.

For three age cohorts, Hungary has the highest proportion of men in retirement and permanently disabled – when all education levels are pooled – namely, those aged 40–44, 45–49 and 50–54, among the 24 countries under analysis (*Table 1.29*). Moreover, the figures for the 24 countries imply that the high proportion of men in retirement or permanently disabled within the 60–64 age cohort is a Central and Eastern European phenomenon: in the Visegrád countries, this proportion is between 66 and 85 percent in the given age cohort, while in the Scandinavian countries it is between 39 and 54 percent.

Turning to the education levels separately, Hungary belongs to the group of countries with the highest proportion of men in retirement or permanently disabled for each education level and for each age cohort. In fact, Hungary has the highest or second highest proportion of men in retirement or permanently disabled among men aged 40–49 for each education category among the 24 countries under analysis. The large proportion of men in retirement or permanently disabled among the low-educated men aged 45–49 characterises numerous Central and Eastern European countries as well: in the Visegrád group it is in the range of 17 to 21 percent.

Overall, in Hungary, the proportion of employed men is remarkably low within the group of low- educated men near retirement age – a phenomenon which is characteristic of men aged 60–64 in several former socialist countries. However, this is not the case for Hungarian men with higher qualification levels. Furthermore, the detailed analysis of men in retirement or permanently disabled supports the fact that in Hungary the proportion of men claiming pension is remarkably high within the 40–64 age cohort: among the 24 European countries under analysis, Hungary has the highest (or second highest)

share of men in retirement or permanently disabled within each education group, and the situation is especially alarming for men aged 40–49.

Table 1.28: The proportion of employed men within the group of men aged 40–64, by age group and education level, 2005

Country/Age group	Low education level	Medium education level	High education level	Together
Austria				
40–44	81.6	91.8	95.1	91.4
45–49	80.4	89.3	94.6	89.1
50–54	75.7	83.9	92.1	84.1
55–59	49.1	58.4	78.8	60.8
60–64	9.2	13.5	29.2	15.7
Denmark				
40–44	77.9	91.5	96.5	90.3
45–49	77.8	90.8	94.9	89.2
50–54	71.6	87.7	91.2	86.0
55–59	66.1	82.1	87.3	81.0
60–64	31.8	39.7	60.6	43.8
Greece				
40–44	89.7	94.3	95.5	93.0
45–49	87.4	92.9	94.9	91.1
50–54	83.8	85.6	91.8	86.0
55–59	69.6	67.2	77.6	70.3
60–64	44.1	36.7	54.3	43.8
Hungary				
40–44	54.8	86.8	93.9	82.5
45–49	53.1	77.9	92.5	75.6
50–54	48.6	70.5	90.2	69.6
55–59	34.3	56.6	79.3	55.6
60–64	8.1	20.2	43.2	18.8
Slovak Republic				
40–44	39.6	85.1	97.2	83.8
45–49	35.4	81.9	91.6	79.3
50–54	49.1	77.5	91.1	76.1
55–59	37.0	69.3	84.1	67.6
60–64	3.9[a]	13.4	29.0	13.9

[a] The number of observations is less than fifty.

Sample: Men aged 40–65, excluding students and those in compulsory military service.

Education levels: Low education level refers to at most lower secondary level (ISCED 0–2) completed, medium education level refers to at most upper secondary education (ISCED 3–4) and high education level refers to tertiary education (ISCED 5–6).

Table 1.29: The proportion of men in retirement or permanently disabled within the group of men aged 40–64, by age group and education level, 2005

Country/Age group	Low education level	Medium education level	High education level	Together
Austria				
40–44	7.9	1.9	0.7[a]	2.3
45–49	7.8	3.9	1.7[a]	4.1
50–54	10.1	9.9	5.3	9.0
55–59	38.1	33.4	15.8	30.7
60–64	82.8	83.3	69.2	80.4
Denmark				
40–44	14.1[a]	3.8[a]	0.0[a]	4.8
45–49	18.6	5.8[a]	1.8[a]	7.3
50–54	20.3[a]	9.1	4.5[a]	9.6
55–59	24.2	11.1	6.7[a]	12.0
60–64	65.6	57.6	38.1	53.9
Greece				
40–44	4.8	1.4	1.7[a]	2.7
45–49	6.2	3.0	3.0	4.3
50–54	10.1	10.5	5.9	9.4
55–59	25.4	28.8	19.4	25.3
60–64	52.8	59.6	44.1	53.1
Hungary				
40–44	17.3	5.5	3.1[a]	7.1
45–49	26.5	12.3	4.5	13.7
50–54	36.1	21.7	6.6	22.0
55–59	53.6	36.1	17.2	36.7
60–64	90.4	78.4	56.1	79.8
Slovak Republic				
40–44	17.1[a]	2.7	0.3[a]	3.3
45–49	17.1	5.9	3.0[a]	6.4
50–54	23.5	11.1	4.7[a]	11.7
55–59	34.3	19.6	8.5[a]	19.8
60–64	94.8	85.5	70.5	85.0

[a] The number of observations is less than fifty.

Sample: Men aged 40–65, excluding students and those in compulsory military service.

Education levels: Low education level refers to at most lower secondary level (ISCED 0–2) completed, medium education level refers to at most upper secondary education (ISCED 3–4) and high education level refers to tertiary education (ISCED 5–6).

8. Concluding remarks

Our study did not aim to find an explanation for the low level of employment in Hungary. Neither the cross-sectional, nor even the repeated cross-sectional data of the European Labour Force Survey are suitable for that purpose; the best they can do is to highlight the areas where more detailed investigations are needed.

One long-known problem is that of people exiting the labour market permanently at about the age of 40, i.e., far too early. Several measures have been introduced in the past 10 years to combat this problem, proposals of active intervention have also been put forward, and it is becoming quite clear that the retirement options of the groups that are the most prone to exiting will radically narrow over the years ahead of us. The groups at higher risk of claiming early pension do not accumulate sufficient accrued years to apply for pension (or at least a pension to cover their subsistance), and this will reduce outflows to retirement in the foreseeable future (*Augusztinovics,* 2005, *Augusztinovics & Köllő,* 2007, *Augusztinovics, Gyombolai & Máté,* 2008).

The concerns voiced in connection with youth unemployment – in particular unemployment among young university graduates – appear to be overpessimistic in light of the results of a European comparison: the undoubtedly low employment rate of the 15–29 year old population is to a large extent explained by the structure of training (the absence of company-based training) and the low fraction of working students. The data does give cause for concern, however, in the case of the population who leave the education system with only primary qualifications (mostly secondary school drop outs).

Based on our overview of the labour market position of people of the best working age, two major directions for future research have emerged. First – and foremost – further analyses are needed to assess the degree of labour market attachment of the population classified as inactive according to the ILO-OECD definition, and whether this population competes for jobs, curbing the pressure on wages. Within this problem area, it would be fruitful to investigate the relationship between job search intensity and unemployment registration plus benefit claims, which would shed some light both on the reasons why the services of the labour organisation fail to reach almost 40 percent of active jobseekers, and on the causes behind the exceptionally low probability of job-seeking among benefit claimants and the registered unemployed. The cross-sectional data of the EU LFS does not allow us to establish whether we are faced with a case of statistical illusion or a genuine problem – longitudinal cohort studies would be needed to clarify this issue – but it is clear from the results that the key to the problem of inactivity, which is at the forefront of daily politics, is to be sought in the welfare system.

Second, more information would be needed regarding the expenses – employer or employee – constituting a barrier to the spread of intermediate forms of employment, the absence of which in Hungary and other former socialist countries create a sharp demarcation line between work and non-work. While it may be the case that in Hungary the amount of work performed by those of the best working age is actually higher than in Western Europe, the low level of employment in terms of working persons is still a warning sign, since the demand for benefits is primarily determined by the number of non-

working individuals rather than by the total amount of hours worked. Atypical forms of employment are not necessarily worth encouraging (let us recall the negative experiences of work sharing in Western Europe, see for instance *Kapteyn et al,* 2004), but if high fixed employee costs turn out to constitute the main barrier to atypical work arrangements, a decision to reduce these costs may alleviate long-term joblessness and may even lower welfare expenditure on the whole.

Appendix 1: Participation in regular education, individuals, aged 20–29

The fraction of Hungarians aged 20–29 participating in regular education – mostly tertiary education – is in the middle of the international ranking. Nevertheless, participation in regular education is significantly lower in Hungary than that in certain Scandinavian countries: whereas in Hungary 23 and 24 percent of men and women aged 20–29 respectively has been a student or apprentice in regular education in 2005, in Denmark it is 36 and 43 percent respectively (*Table A1.1*). The Slovak and Czech participation level in regular education is lower than that in Hungary, as opposed to the Polish participation level. It is worth noting that the OECD statistics – although they do not cover the exact same cohort – provide a similar picture as the figures in *Table A1.1*: in Denmark, (a remarkably high proportion) 40 percent of the individuals aged 25–34 possessed a tertiary degree in 2005, while in Hungary merely 20 percent (*OECD*, 2007).

The analysis by age cohorts indicates that the participation in regular education is significantly higher for those aged 20–24 than for the 25–29 year-old age cohort.[36] Hungary is in the middle of the European ranking for both age cohorts, but lags significantly behind numerous Northern European countries: it lags behind Denmark and Finland by 12 percentage points for the 20–24 year-old age cohort, and for the 25–29 year-old age cohort the magnitude of the lag is even greater, namely, 19 and 16 percentage points respectively.

The last three columns of *Table A.1.1* present the proportion of tertiary graduates aged 20–29 who pursue further studies (in regular education) in the selected countries. It is apparent from the figures for the five countries that Hungary – similarly to the Slovak Republic – is a laggard in this area, in both age groups and for both genders. In fact, in Hungary, the proportion of tertiary graduates aged 20–29 who pursue further studies is the sixth lowest out of the 24 countries under analysis. Numerically, for the full sample, while in Hungary this proportion amounts to 16 percent, in Norway, Sweden and Denmark it is around 30 percent. The magnitude of the lag is smaller for women than for men.[37]

36 The disadvantage of the EU Labour Force Survey – as mentioned earlier – is that the exact age of the individuals is not available, only aggregated five year age groups, hence cross-country differences in school entry and leaving age cannot be accounted for in the analysis. For instance, the usual age range at which individuals acquire ISCED5A and ISCED5B degrees in Austria is between 23 and 25 years of age and between 20 and 22 years of age respectively, in Denmark it is the highest, namely, between 22 and 27 years of age and between 21 and 25 years of age respectively, in Hungary between 21 and 25 years of age and 21 years of age respectively, in Italy between 23 and 25 years of age and between 22 and 23 years of age respectively, and in Slovakia between 22 and 25 years of age and between 21 and 22 years of age respectively *(OECD, 2007)*.

37 From the 24 European countries under analysis, in Hungary, the female proportion of tertiary graduates and those aged 25–29 who pursue further studies in regular education is eighth and ninth lowest respectively.

Table A1.1: Participation in regular education, individuals aged 20–29, 2005 (percent)

	Entire sample			Tertiary graduates		
Country	Men	Women	Together	Men	Women	Together
Aged 20–24						
Austria	30.6	33.1	31.9	33.8	31.8	32.8
Denmark	47.6	57.9	52.8	62.0a	51.4[a]	56.1
Hungary	39.6	42.0	40.8	24.0	24.2	24.1
Italy	35.5	44.1	39.8	65.4	51.0	56.7
Slovak Republic	29.3	35.4	32.3	22.5[a]	19.8	20.7
Aged 25–29						
Austria	13.8	11.0	12.4	21.8	14.8	17.9
Denmark	25.6	29.6	27.6	28.8	26.8	27.7
Hungary	9.0	9.8	9.4	14.6	13.6	14.0
Italy	13.2	15.8	14.5	19.1	17.3	18.0
Slovak Republic	5.4	6.2	5.8	7.9	8.2	8.1
Aged 20–29						
Austria	22.2	22.2	22.2	24.7	18.5	21.3
Denmark	35.5	42.6	39.0	33.3	30.1	31.5
Hungary	22.6	24.2	23.4	16.1	16.0	16.1
Italy	23.2	28.5	25.9	28.8	24.2	26.0
Slovak Republic	17.1	20.6	18.8	10.2	11.0	10.6

[a] The number of observations is less than fifty.

2. THE FAILURES OF "UNCERTIFIED" VOCATIONAL TRAINING

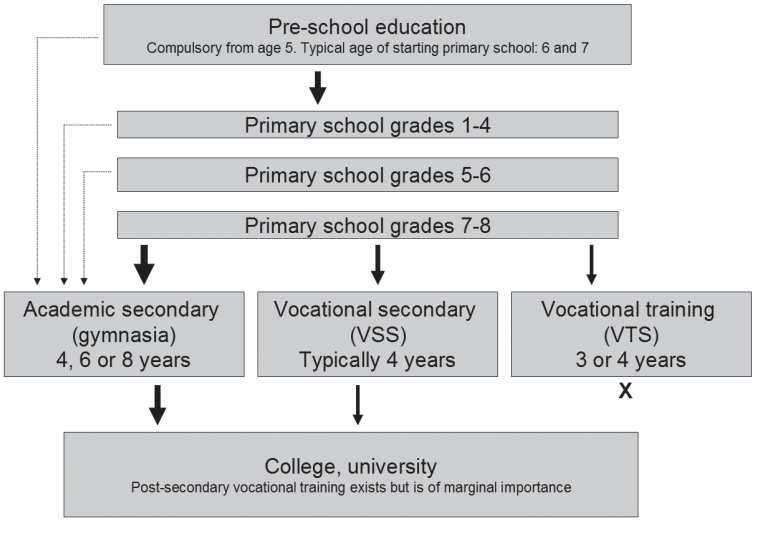
GÁBOR KÉZDI, JÁNOS KÖLLŐ & JÚLIA VARGA

Introduction

"Uncertified" vocational training, in which no upper secondary (Matura) qualifications are awarded, remains an important segment of the Hungarian education system. Research addressing the quality of training and the skills and labour market careers of vocational school graduates depicts a troubling picture of this form of education. This chapter summarises the main findings of the Hungarian literature and presents the most important data supporting the belief that vocational training is an ailing part of the educational system and is an area where profound reforms are required.

For readers unfamiliar with the Hungarian educational system chart below gives a simplified overview of how pupils move from pre-school to higher education.

Figure 2: Hungarian educational system



Note: A matura exam is required for those applying to higher education. Vocational training schools do not prepare their pupils for matura exam but the graduates can participate at preparatory courses at their will.

Vocational training schools (VTS) are typically commenced after the completion of 8 years in primary school, at age 14–15. Unlike the graduates of vocational secondary schools (VSS), VTS students can not enter higher education unless they pass a maturity exam on their own. (In both VSS and gymnasia students are prepared for the examination within the frame of their standard curriculae). Vocational training is partly apprentice-based in Hungary: about 60 per cent of the pupils acquire practical skills in firms while 40 per cent practice in school-based workshops.

Vocational school students have always come from relatively poor and uneducated social backgrounds and from among the lowest-achieving primary school graduates, but the gap between secondary schools and VTS has critically widened over the past decade. A study by *Liskó* (2008) reveals that in the new millennium, the children of parents having a primary school background were eight times as likely to enrol in vocational training as children from better educated middle class backgrounds. Almost two thirds of Roma children in post-primary education attend this type of school. Children of parents who have at least Matura qualifications represent no more than 25 percent of VTS students. These schools are characterised by five to six times higher dropout rates, and two and a half to three times higher grade retention rates than VSS or academic secondary schools.[1] The students and graduates of vocational training schools tend to show very poor performance in skills assessment tests, as will be discussed in more detail later in the chapter. Data on wages indicates that the market value of vocational qualifications has been depreciating, and the only reason why employment remained relatively high was that a large share of VTS graduates became employed in simple jobs requiring no qualifications.

The above data reflects two simultaneous effects: the poor quality of education, and adverse selection. An increase in the latter of these had inevitably followed *i)* from the extension of compulsory education to 16 and then to 18 years of age,[2] *ii)* from the circumstance that some of the better quality vocational training schools have been turned into VSS, and *iii)* from the fact that colleges and universities have become accessible to a broader audience, thus enhancing the attractiveness of school types that promise better chances for higher education. It is a complicated task to separate the effects related to selection from those related to the quality of education – it would require the analysis of experimental settings, which is a task Hungarian labour market research has not yet undertaken, or been in a position to undertake.[3]

It is, however, unacceptable to cite adverse selection as the sole explanation for the low level of skills typical of VTS graduates, or as an excuse for the failures of education. Firstly, as we will show in what follows, those graduating from VTS displayed substantially poorer performance than those graduating from VSS prior to the contraction of traditional vocational training. Data from the mid-1990s on the basic skills of VTS graduates did not show

1 *Liskó* (2009) reports a dropout rate approaching 30 percent. The Tárki-Educatio Life Course survey (*Kertesi & Kézdi,* 2008), however, observes a 3.7 percent dropout rate between school years 9 and 10 in vocational training, and 0.5 and 0.1 percent dropout rates in, respectively, vocational and academic secondary schools. It may be the case that students are most likely to drop out after year 10, but it is also possible that the Life course survey sample of ten thousand people provides a more reliable estimate and the absolute dropout rate is indeed lower. Both sources however indicate a large gap between school types.

2 At the end of 2005, only 3 percent of 15 year olds and 6 percent of 16–17 year olds said they were not students in reply to the question concerning their main labour market status as part of the labour force survey. The replies to the question on participation in school-type training during the four weeks preceding the interview indicate similar proportions.

3 In Romania *Malamud & Pop-Eleches* (2008) studied the effects of the 1973 education reform, when the share of general education was substantially increased at the expense of vocational education in ten-year primary schools. The authors find that the cohorts affected by the reform were more likely to find white-collar jobs but – contrary to the results of cross-section data – no increase could be observed either in their employment rate or in their relative wages. The authors conclude that the cross section data indicating differences between primary school leavers and vocational training school leavers essentially reflects a selection effect. It should be noted that the Romanian reform only changed the structure of educational content but did not bring about a significant change in the composition of teaching staff over the short period of its duration.

the kind of improvement relative to older generations that was observed in the case of secondary school graduates. Furthermore, adverse selection obviously does not lessen, but merely transforms and makes more difficult the task facing educators: schools have to educate students with lower starting abilities to a level that helps them find employment in the service sector and modern manufacturing industry. The data and research results discussed in this chapter suggest that this objective has not been achieved, and that no radical improvement can be expected from current development plans concerning vocational training.

It is important to note that the inadequacies of vocational training reflect on the entire public education system, since those dropping out of, or graduating from, VTS continue to constitute well over one-third of the "final output" of the public education system; they make up the *largest* share of the population moving directly from public education to the labour market.

The expansion of higher education has brought about a shift in the function of primary and secondary education. The majority (according to the latest figures about 90 percent, cf. *Liskó,* 2009) of secondary school students successfully takes the Matura examinations; almost 90 percent of academic secondary school graduates and two thirds of VSS graduates continue their studies and enter the labour market only after spending at least a few years in higher education.[4] Academic secondary schools and VSS institutions essentially prepare their students – from the age of 10, 12 or 14 depending on the school – for further education, rather than for employment directly following the Matura examinations. Vocational training institutions are characterised by entirely different proportions: a far higher share of their students drop out, and only a third of those completing the programme continue their studies in college (*Liskó*, 2004).

Although the precise proportions are impossible to determine as no accurate figures are available on dropout rates, approximate estimates can be made based on the Labour Force Survey. The educational distribution of the 20–25 year old non-student population with no higher education degree at the time of the observation is shown in *Table 2.1* for 1995, 2000 and 2005.

Between 1995 and 2005, the share of those with vocational training decreased by about ten percentage points among the young population shown in *Table 2.1.* The decline in traditional vocational training was fully counterbalanced by the expansion of vocational education incorporating Matura examinations.[5] The probability of exiting the public education system with at most primary school qualifications remained at a high level, almost half of which – if the results of *Liskó* (2009) are correct – can be attributed to vocational training school dropouts. Taking the dropout figures of *Kertesi & Kézdi* (2008) as a lower bound, and *Liskó's* estimates as an upper bound, we estimate that about 35–45 percent of the 20–25 year old population not en-

4 It must be emphasised that contrary to common assumptions, the coverage of Hungarian higher education is still substantially smaller than the European average. In 2005, in Hungary 20.9 percent of the 25–29 year old non-student population had higher education degrees as opposed to the European average of 29 percent (the average observed in the European Labour Force Survey, which excludes Malta but includes Norway and Iceland). The Hungarian higher education graduate rate was the seventh lowest of the 26 countries included in the European Labour Force Survey data. (The figures were calculated by the authors of the present study using the European Labour Force Survey data. See Chapter 1 of this *In Focus* on the Survey.)

5 The data reveals that among those entering the labour market after secondary school, the proportion of vocational qualifications was essentially the same in 2005 as it had been ten years previously, although it was lower compared to 2000.

rolled in higher education had attended vocational training institutions for some period of time preceding the 2005 labour force survey.

Table 2.1: The distribution of the 20–25 year old population* by highest educational attainment in 1995, 2000 and 2005 (percent)

Highest educational attainment	1995	2000	2005
0–8 years of schooling	26.4	21.9	24.7
Vocational training (VTS)[a]	41.3	40.3	32.2
Vocational secondary school (VSS)[b]	20.7	28.0	29.1
Academic secondary school	11.6	9.8	13.9
Total	100.0	100.0	100.0

* Full-time students and college/university graduates excluded.
[a] Vocational training not offering Matura qualifications: vocational training schools and technical schools, including those of only one or two-year training programmes.
[b] All types of vocational secondary schools offering Matura qualifications.
Source: KSH Labour Force Survey data for the fourth quarter.

While traditional vocational training remained a sizeable sector of the educational system we have ample evidence calling into question the quality of its "output". The papers summarized in the forthcoming sections (*Kertesi & Varga,* 2005; *Kézdi,* 2008; *Kézdi & Varga* 2007, *Köllő,* 2006, 2008) suggest that vocational training fails to equip students with the basic skills and competencies needed for post-school development and adaptation. This conclusion is supported by direct observations as well as indirect evidence based on the employment careers and wages of VTS graduates. Occupational mismatch and the deficiencies of practical skills are part of the problem, but we believe that by focusing on the problem of basic skills, we are addressing the key issue.

1. Basic skills of vocational training school students and graduates

Indirect indicators: skilled workers' life-course wages

The shape of skilled workers' age earnings profile provides indirect evidence of deficiencies in their basic skills. An analysis of pay curves may help reveal the causes of the striking decrease in the labour market value of vocational training qualifications relative to the value of Matura qualifications. VSS institutions assign greater importance to general skills while vocational training schools have always (or certainly up to the turn of the millennium) focused on vocation-specific skills. We have reason to believe that specific skills became devalued with the transition from a planned to a market economy. First, compared to socialist times a worker is now far less likely to remain in the same vocation for the duration of his or her active lifetime. Second, vocational content itself has also changed. The latter phenomenon is a consequence of

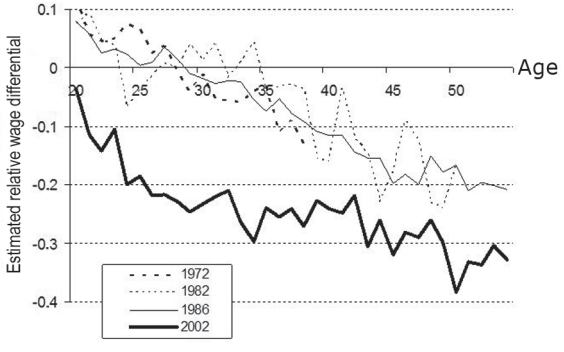
general technological development, which took place at an accelerated pace in Hungary following the regime change.

If general skills can be made use of in a wider range of tasks, or constitute a better foundation for career development, the wages of workers in possession of these skills will rise faster over the course of their careers. When comparing qualification types, a progressively widening gap is therefore expected between skilled workers' wages and secondary school graduates' wages as their careers progress. Also, if general skills gained value during transition, this gap is expected to grow faster during the post regime-change period. To test these hypotheses, the following regression model is estimated for 1972, 1982, 1986 and 2002. Each cross-section sample is limited to workers who have vocational training or Matura qualifications as their highest educational attainment.

$$\ln w_i = \sum_{s=20}^{54} \alpha_s A_{si} + \sum_{s=20}^{54} \beta_s A_{si} \times sw_i + \gamma' x_i + u_i \qquad (1)$$

In *Equation (1), i* denotes an individual, and *s* stands for age. A_{si} is a set of dummy variables measuring age (1 if individual *i* is *s* years old, and 0 otherwise), *sw* (skilled worker) is a dummy variable standing for education (1 for skilled workers, 0 for Matura qualifications), and the vector *x* stands for other individual traits (gender, region, settlement type). The aim of the analysis is to estimate the β_s coefficients. These show the difference between skilled workers' wages and Matura qualified workers' wages at a given age (*s*). The results are displayed in *Figure 2.1*.

Figure 2.1: Skilled workers' wages relative to secondary school graduates' wages over the course of their careers, 1972, 1982, 1986, 2002



Authors' estimations based on Regression Equation (1). Data: Income Surveys (1972, 1982) and Wage Surveys (1986, 2002). Interpretation of relative wage differential: a value of –0.1 for instance means a 10 percent disadvantage.

Figure 2.1 shows a significant decline with the advancement of age both during the socialist and the post-transitional time period in Hungary. The estimates

follow essentially the same pattern for 1972, 1982 and 1986. All of them indicate that skilled labour probably appeared quite attractive to young people, since higher wages could be expected with less studying relative to the population with Matura qualifications. This advantage quickly disappeared, however, as from about age 25–30, the latter population had higher earnings. A notable feature of the graph is the steady relative decline of skilled workers' wages, which suggests that the specialised skills these workers possessed became obsolete over the course of their careers, even during the period of state socialism.

The regime change brought about two significant changes in connection with our subject of investigation. First, skilled workers now have lower wages even at the start of their careers. Second, their disadvantage grew at a considerably faster rate over the years up to the age of 35. The wage gap somewhat narrowed after this age, but skilled workers' relative wages remained well below the level observed before the regime change throughout their career cycle. The data therefore supports our hypothesis that the specialised skills acquired in vocational training substantially depreciated following the regime change. As a consequence, skilled workers can expect lower wages from the very start of their careers than can secondary school graduates, and their disadvantage increases rapidly and to a substantial extent over the course of their working lives. The results further reveal that the devaluation of specialised vocational skills over the career path is not a new phenomenon: although it became more pronounced with the regime change, it had also been unmistakably present in socialist Hungary. At that time, completing vocational training had been a good investment for the worker in the short term, but not in the long term. At present, it is not even a good investment in the short term.

Direct observations of the basic skills of adults with vocational training

We have access to valuable direct evidence – albeit from ten years ago – on the basic skills of workers with vocational training. The International Adult Literacy Survey (IALS), organised by the OECD and Statistics Canada and conducted in two waves in 21 countries – in 1998 in Hungary – aimed to gather comprehensive data on practical reading, writing, and numeracy skills. Rather than complete school-type tests, respondents were asked to interpret simple texts and documents (brief news items, announcements, user instructions, timetables, bills, etc.), and to solve simple arithmetic problems of the kind they encounter at work or in everyday life. Thus the survey examined the existence of basic skills whose absence constitutes a barrier not only to employment, but also to further learning and the ability to adjust to changes (see, for instance, *Murnane & Levy,* 1996 on this subject). The survey, using random household samples, covered reading and writing tasks typical of

a workplace, and recorded information on the respondents' origins, education, labour market status and cultural habits.[6]

The following discussion focuses on the data and test results of people who have vocational training in Hungary and other former socialist countries, and compares them to Western workers of a similar educational level. It is not a straightforward task to decide which respondents should be included in this category, as the International Standard Classification of Educational (ISCED) used in the IALS does not provide sufficient details. [Hungary, similarly to the Czech Republic and Slovenia, but unlike Poland, classifies people who have vocational training as secondary school graduates. See *Kertesi & Varga* (2005) on the untenability of this choice.] The international literacy survey includes, however, data on the number of successfully completed school years. The great majority of the population who have vocational training completed 11 years of schooling not counting repeated years – in 1998 this was predominantly made up of eight years of primary school, and the three years of the traditional vocational training programmes.[7] In what follows we will look at respondents with 11 years of schooling from Hungary, Poland, Slovenia, and the Czech Republic, and compare the results to the corresponding results of the Western European population who have the same number of years in school. Although we are not in a position to compare Hungarians who have vocational training with people educated in the very different Western European vocational training system, our choice of the target population is not motivated by feasibility alone: it appears to be a valid research question to look into the overall basic skills possessed by people completing the same number of school years in the two halves of Europe.

The report on the IALS results uses average scores and a scale running from 1 to 5 to evaluate performance in each of the three test areas (the reading of prose, understanding of documents, and numeracy) (*OECD,* 2000). Our analysis relies on the averages of the three final scores, ranging from 0 to 500 points.[8]

In terms of test scores, the Czech Republic showed relatively good performance (283 points, 16 points above average), while Hungary, Poland, and Slovenia performed very poorly (254, 229 and 235 points, respectively). (See *Appendix 2.1.*) The spread of scores within the former socialist countries was not wider than the average, but for each of these countries, the results showed a much stronger association with educational attainment than for Western Europe.

In the regressions behind Figure 2.2. (*Köllő*, 2006) the within regions variations in the standardized test scores were explained by various individual and contextual variables. In studying the effects of education and age *young higher education graduates were chosen as the reference category*, a group whose absolute test results were only slightly (3 percent) lower than those of their Western

6 The survey results were published in a detailed report (*OECD,* 2000) supplemented by a publication providing guidelines for using individual data (*Statistics Canada,* 2001). The methodological issues emerging in the course of analysing the IALS data and some other skill surveys are discussed at length by *Micklewright & Brown* (2004). American and European skill and wage distributions are compared by *Devroye & Freeman* (2000) and *Blau & Kahn* (2000), while the IALS, PISA and TIMMS results of English speaking countries are analysed by *Micklewright & Schnepf* (2004). *Denny et al* (2004), *Carbonaro* (2002) and *McIntosh & Vignoles* (2000) attempt to isolate the wage returns to education and literacy (and also occupation in the latter study).

7 The Czech Republic does not fully fit the description, as between 1960 and 1978 and after 1990 primary schools had 9 years. That is, some of those who were born between 1954 and 1964 or after 1975 and completed 12 years of schooling are likely to have completed 3 years of vocational training. This group may include those born in September-December 1953 or 1974 but the International Adult Literacy Survey does not provide data on the month of birth. See Appendix 2.1.

8 It would be unacceptable to collapse the results into a single score for an investigation of reading literacy and education, but an averaged score should suffice for an economist looking into other issues as long as this indicator does not obscure overly large differences that would question the validity of averaging. The between-country variation observed in the IALS results is highly stable, there is only minor deviation within test types, and the differences across test types are not significant enough to question the validity of an aggregated indicator.

European peers (300 points compared to an average of 309 points for Western respondents).[9] This allows the parameters to be used to evaluate both *relative* and (with some error) *absolute* advantages and disadvantages.[10]

While the test score variation due to social background, place of residence, immigration status, first language, and cultural habits (whether the respondent goes to the cinema or theatre, reads newspapers or books) observed in Central and Eastern Europe is similar to, or lower than, the variation observed in Western Europe, the differences explained by education and age are substantially larger (*Figure 2.2*). The pattern of the Central and Eastern European disadvantage differs between age cohorts: older cohorts' performance lags behind the performance of their Western peers to about the same extent at each educational level. The Eastern gap between young secondary school graduates and young higher education graduates is similar to the gap observed in Western Europe, i.e., the disadvantage of young secondary school graduates is not especially marked, just as the test results of young higher education graduates are not far below those of their Western peers in absolute value. *Young Central and Eastern Europeans who do not have Matura qualifications – and, within them, those with 11 years of schooling – in contrast, are at a major disadvantage relative to both local secondary school graduates and their Western peers. Also, their performance is only slightly, or not at all, better than that of older cohorts with similar educational attainment.*

Figure 2.2: Literacy test scores relative to young higher education graduates in Western Europe, CEEs and Hungary (IALS, Europe, the 15–59 year old non-student population)

Education: 1: 0–10 years; 2: 11 years; 3: 12–14 years; 4: more than 15 years.
Older cohort: 35–59 year olds. *Young cohort*: 15–34 year olds, excluding students.
West: The European countries participating in the IALS literacy survey, excluding the former socialist countries.
CEE: the Czech Republic, Poland, Hungary, Slovenia.

9 People in this group were born in 1970 on average, and started their higher education studies around 1989.

10 See *Köllő* (2006), (2008) for details of the calculations discussed here, methodological difficulties and the limitations of the datasets.

The curve data points show the IALS score disadvantage of the different educational groups relative to the population of young higher education graduates in a given country, measured in standard deviation, controlling for other factors (gender, place of residence, father's education, immigration status, first language and cultural habits).

It is a reassuring development that the better educated members of young generations display reading and writing literacy skills on a par with Western levels, while the basic skills of older Central and Eastern European higher education graduates remain far below those of their Western peers. *No signs of similar generational improvement can be observed, however, for those with vocational training,* and this cannot be attributed to the strengthening of adverse selection among those enrolling in vocational training institutions. The average VTS graduate in the IALS sample was 27 years old at the time of the survey, i.e., had attended vocational training school sometime between 1986 and 1990, years before the point when this type of school went on the decline.[11]

The basic skills of current vocational training school students

Recent surveys assessing the basic skills of VTS students, using methods similar to the IALS, continue to indicate major deficiencies relative to secondary school students. In the 2006 Hungarian Assessment of Student Competencies, among tenth year students, 8 percent of academic secondary school pupils and 25 percent of VSS students failed or barely passed text comprehension tasks, and, respectively, 14 and 31 percent performed at this level at the arithmetic test. In the case of VTS students, by contrast, the proportion of *failed* tests amounted to *75 percent* in both reading and arithmetic.[12]

The results of the PISA surveys[13] also indicate poor performance. Vocational training institutions can only be distinguished from other vocational schools in the survey of 2000. In that year's text comprehension tests, Hungarian VTS students displayed a disadvantage of 152 points (30 percent) relative to academic secondary school students, while the average difference between the two groups was only 50 points (9 percent) in the OECD on average (*Liskó*, 2009). For Hungary, the test results revealed a vocational training school disadvantage of 119 points in arithmetic skills, and 137 points in scientific literacy, while the corresponding average OECD values were, respectively, 47 and 53 points. As vocational training school qualifications cannot be distinguished from vocational secondary school qualifications in the 2003 and 2006 PISA surveys, Hungary and the OECD as a whole can only be compared in terms of the performance of students receiving general education relative to those receiving either form of vocational education. These results reveal a vocational school disadvantage of 70–90 points in Hungary, while this disadvantage varies between 2 and 40 percent for the OECD depending on the type of the test and the survey year. It is important to remember that the PISA tests,

11 It is also apparent that the Hungarian data reveals a striking disadvantage for the population with only primary education, and the gap is even larger than it was for previous generations.

12 See *Hermann & Molnár* (2008) for details of the National Assessment of Basic Competencies.

13 PISA: Programme for International Students Assessment.

similarly to the IALS tests, are aimed at assessing the most important basic skills and the ability to put the acquired theoretical knowledge to practical use, rather than encyclopaedic knowledge.

The role of work experience

While reading and writing skills are acquired at school, the attained knowledge matures at and via the workplace, or – depending on the kind of job – is forgotten once in employment. One non-negligible reason why Central and Eastern European workers struggle with functional literacy is that *they spent decades working in jobs where they had little use for literacy,* and training schools were designed to prepare them for such types of jobs. The effects of this system are still clearly manifest in the IALS data gathered ten years after the regime change.

The IALS literacy survey includes questions on the incidence and frequency of 13 types of reading and writing tasks at work. These are summarised in *Table 2.2. The number* of reading and writing tasks, which is a continuous variable with a value ranging from 0 to 13, appears to be an indicator that aptly characterises the literacy requirements of various jobs. (A job is classed as involving reading and writing if the respondent chose any one of answers 1–4 listed beneath *Table 2.2.*)[14]

14 The most important requirement is that the indicator (R) should accurately reflect the complexity of the job and, ideally, map it onto a linear function. Whether this is the case can be assessed using calculations over the entire sample. The complexity of the job must be reflected in the skills of the workers employed in the job, which may be estimated by a number of measurements: educational attainment, IALS test results, and wages. The indicator chosen to approximate complexity can be taken to be reliable if it is found that the workers' various skill indicators are monotone and, ideally, linearly increasing as we progress from the simplest ($R = 0$) to the most complex ($R = 13$) type of job. This condition appears to be satisfied: with only a few exceptions, a higher level of R is accompanied by higher educational attainment, literacy skills and wages observed among those employed in a given job, and the associations are characterised by curves approaching linear functions (*Köllő*, 2008).

Table 2.2: International literacy survey questions on reading and writing requirements at work

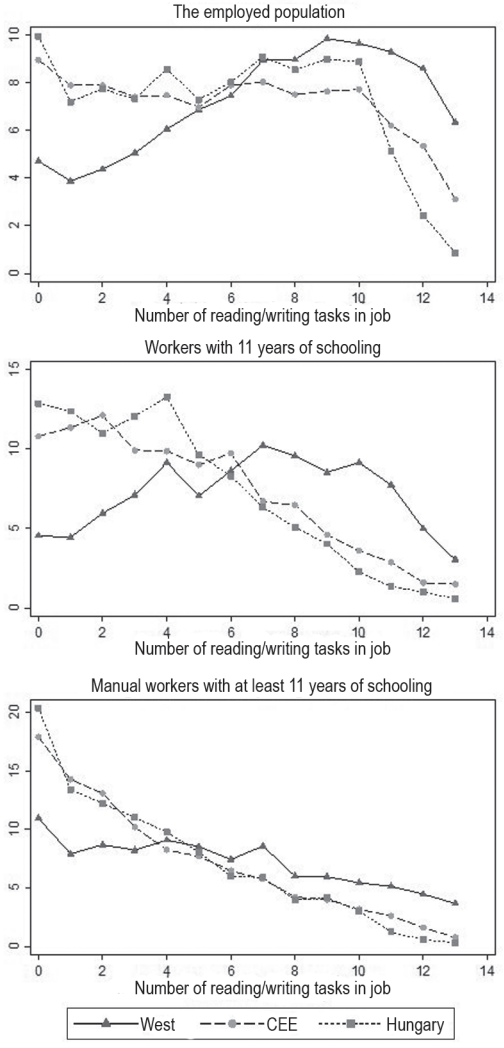
Reading at work	Writing at work	Arithmetic at work
Reading letters or memos	Writing letters or memos	Measuring objects
Reading invoices or forms	Filling in invoices or forms	Calculating prices and costs, preparing budgets
Reading reports, catalogues or manuals	Writing reports or articles	
Reading diagrams or graphs	Writing estimates or technical specifications	
Reading budget tables		
Reading directions or instructions		
Reading material in a language other than Hungarian		

Choices: 1. Every day; 2. A few times a week; 3. Once a week; 4. Less than once a week; 5. Rarely or never.
Source: *Statistics Canada* (2000).

The three graphs in *Figure 2.3* display the distribution of respondents in Hungary and the Western and Central/Eastern European countries participating in the international literacy survey across jobs involving different numbers of reading and writing task types broken down into three populations:

all workers, workers with 11 years of education, and *manual workers* with at least 11 years of education. (The International Standard Classification of Occupations or ISCO was used in the IALS. The class of manual workers comprises *"craft and related trades workers", "plant and machine operators"* and *"elementary occupations"*.)

Figure 2.3: Distribution of jobs by the number of reading and writing tasks involved (IALS, Europe, 15–59 year olds' jobs)



West: The European countries participating in IALS excluding the former socialist countries.
CEE*:* The Czech Republic, Poland, Hungary and Slovenia.
The curves show the percentage of workers in the sample who reported performing 0, 1, ..., 13 of the reading and writing tasks listed in *Table 2.2* at work.

The first graph reveals that in 1998, the probability of being employed in jobs not involving any reading or writing tasks was *twice as high* in Central and Eastern Europe, including Hungary, as in Western Europe. Compared to the Western European sample, those required to perform 0–4 tasks involving literacy skills are heavily overrepresented, while those who have to perform 7–13 tasks are underrepresented. Looking at the subpopulation of workers with 11 years of education, the same pattern emerges. Although jobs requiring little functional literacy dominated among the jobs filled by skilled workers (who are identified as manual workers with at least 11 years of schooling) in the West as well, jobs involving 0–4 reading or writing tasks were found with far higher frequency, and those involving 7–13 such tasks were found with far lower frequency in the Eastern countries. In the West, 10 percent of skilled workers had jobs that did not involve any kind of reading, writing, or mathematical tasks, while the corresponding figure was 20 percent for Hungary.

We cannot contend that the data displayed in *Figure 2.3* simply reflects a heritage of the socialist era. At the time of the IALS literacy survey, only 30 percent of the non-student population under the statutory retirement age were still employed in their pre-1990 jobs (and an even smaller proportion if we limit the sample to the private sector), and 40 percent entered the job held in 1998 after the regime change. (30 percent were out of work). The corresponding figures are, respectively, 29, 43 and 28 percent for the population with vocational training (*Köllő,* 2008). The pattern observed in the IALS literacy survey closely reflects the way in which the post-socialist economies allocated workers with different levels of educational attainment to jobs involving different levels of literacy – which is the subject of the next section.

2. Employment and workplaces of the population educated at vocational training schools

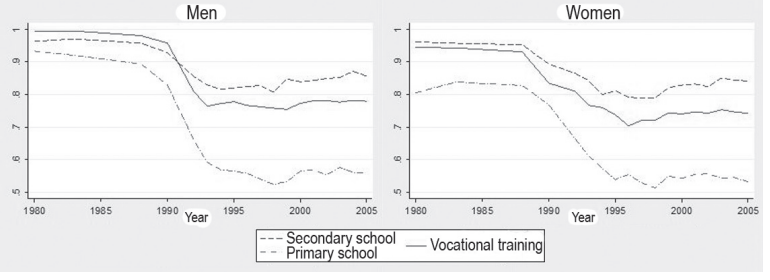
The shock of the transition and the restructuring of the economy resulted in a substantial fall in the demand for skilled labour, which was reflected in the drop in their employment rate, a shift towards jobs not requiring vocational training, and lower wages. This section looks at some key data concerning employment.

Employment rate

Our analysis of employment relies on the following datasets: a 3 percent household sample from the 1980 census and a 2 percent sample from the 1990 census; the 1983 and 1988 income survey data collected by the Hungarian Statistical Office (KSH); and the Labour Force Surveys between 1992 and 2005. Our analysis here is limited to the first quarter samples of the labour force surveys. The datasets provide individual level data, and are exceptionally extensive. The KSH labour force surveys adhere to the ILO international

standard definition of employment while the older surveys use the definitions of the census. There are discrepancies between the two but these do not have a significant distorting effect on our analysis. The datasets are described in detail in *Ábrahám & Kézdi* (2000), for instance. The trends in employment rates, as indicated by the available data, are displayed in *Figure 2.4*.

Figure 2.4: Employment rates among the populations with primary, vocational and secondary (with Matura) education, 1980–2005



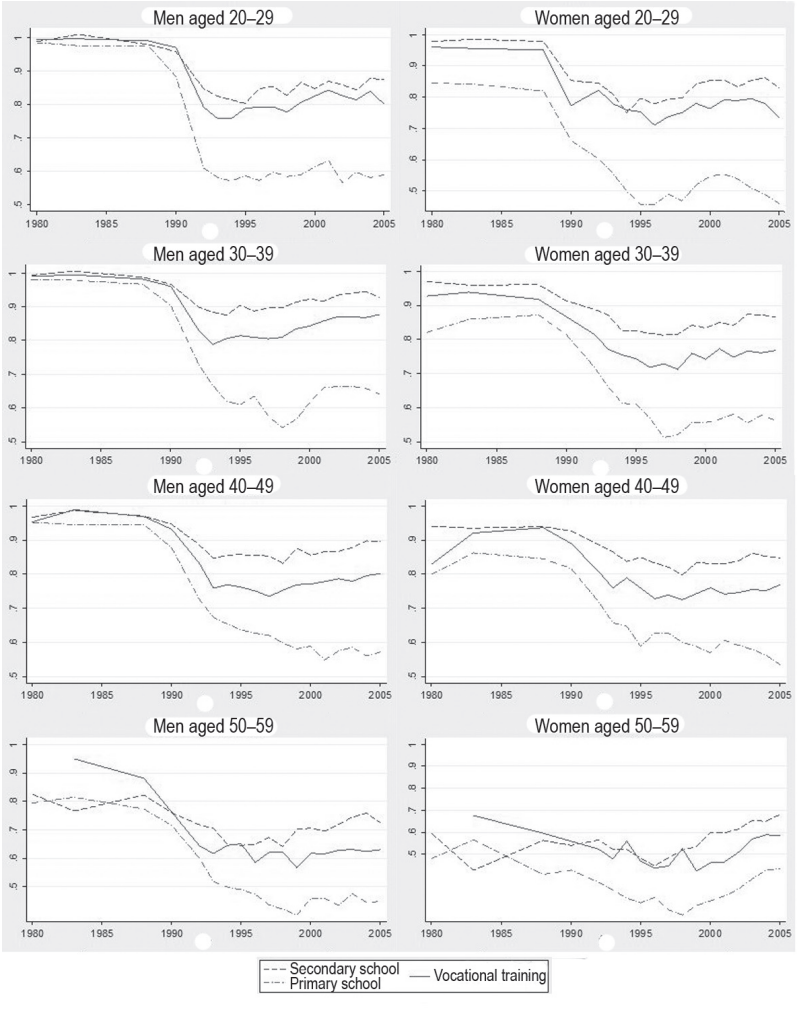
Note: Men aged 20–59, women aged 20–54. Full-time students and mothers on paid childcare leave are excluded.

Data source: based on individual samples from the 1980 and 1990 census, individual samples from the 1983 and 1988 KSH income surveys, and individual samples from the first quarters of the KSH labour surveys from 1992 to 2005.

The regime change brought about a substantial decline in the employment of unskilled workers, which indicates a reduction in demand. Between 1989 and 1995, the employment rate among those with only primary education fell from 90 percent among men and 80 percent among women to about 50 percent, and, since that time, has not increased. Skilled workers with no Matura qualifications also experienced a substantial decline in employment, but to a lesser extent. The almost 100 percent pre-transition employment rate of men dropped to less than 80 percent, while the figure for women fell from 90 to about 70 percent. The employment pattern of the group with Matura qualifications displays a similar course, but the decline is less pronounced than it is for skilled workers. Also, the employment rate among the former group shows a slight increase starting in 2000, which is not observed, or not to the same extent, for the other two groups under analysis.

These trends are shown broken down into age cohorts in *Figure 2.5*. The most striking feature of the graphs is that while for the youngest cohort, the employment rates among people with vocational qualifications and those with Matura qualifications follow the exact same curve, the two curves characterising the middle cohort diverge. We see a smaller gap for the oldest cohort, but here the employment rates are also closer to that of the population with only primary education.

Figure 2.5: Employment rates by age cohort among those with primary, vocational and secondary (with Matura) education

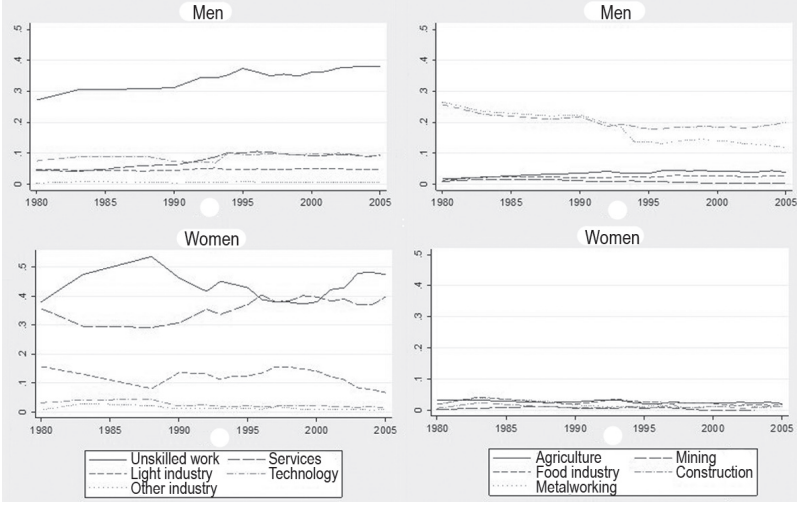


Note: Full-time students and mothers on paid child care leave are excluded.
Data source: based on individual samples from the 1980 and 1990 census, individual samples from the 1983 and 1988 KSH income surveys, and individual samples from the first quarters of the KSH labour surveys from 1992 to 2005.

The occupational composition of employment is displayed in *Figure 2.6*, where only the population with vocational qualifications (skilled workers) are shown. The graphs show the distribution of workers in employment across different occupations or, more accurately, across different groups comprised of similar occupations. Those employed in occupations that are not, and have never been, taught at vocational training schools are assigned to a separate category.

This information comes from an analysis of occupations among the outflow of vocational training schools (see the next section).

Figure 2.6: Distribution of skilled workers with no Matura qualifications across occupational groups, highlighting unskilled occupations (those not taught at vocational training schools)



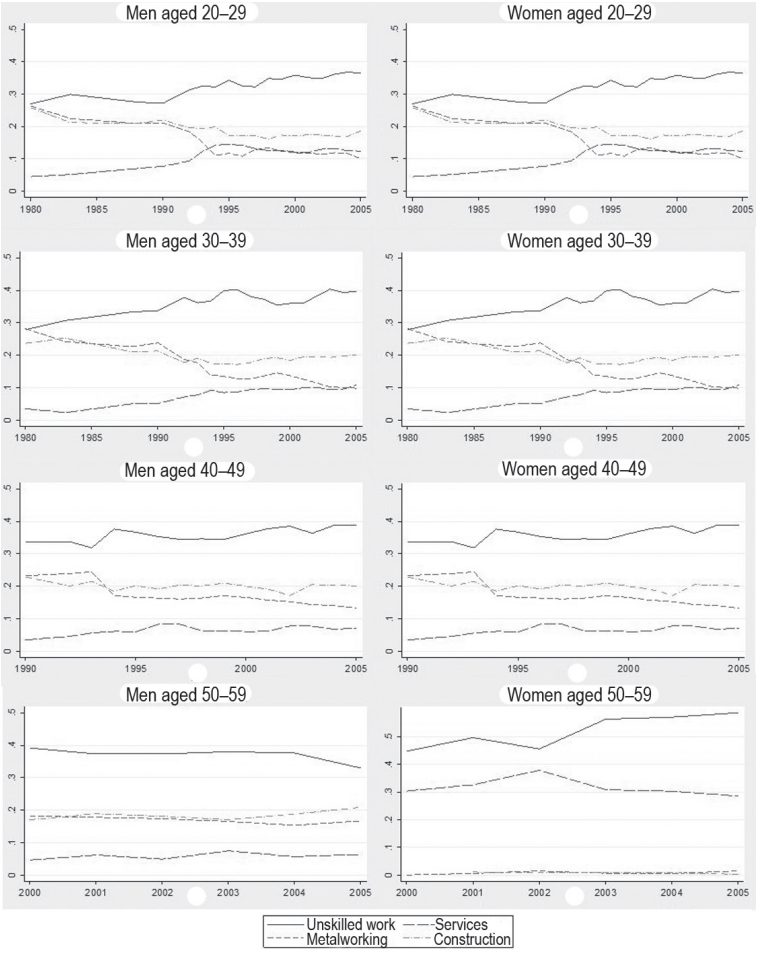
Note: The sample only includes workers with vocational qualifications (skilled workers) who are employed. Age restrictions: between 20 and 59 years.
Data source: based on individual samples from the 1980 and 1990 census, individual samples from the 1983 and 1988 KSH income surveys, and individual samples from the first quarters of the KSH labour surveys from 1992 to 2005.

The skilled workers working in unskilled occupations are, of course, "career changers": none of them works in their original occupation. Their share among men steadily increased from 25 percent in 1980 to almost 40 percent in 2005. A similar increase can be observed among women, although starting at a higher level, especially during the last few years of the socialist regime. This peak is followed by a downward trend lasting until 2000, when the curve starts rising again, and in 2005, the proportion of women not employed in their original vocation approaches 50 percent.

Looking at the "genuine" skilled occupations, the proportions of men working in the service sector and in agriculture increased slightly, and, following a moderate dip, the frequency of employment in technology stabilised at the pre-regime change level of 10 percent. A notable decline is only observed in metalworking and construction, with the proportion of male workers stagnating or only slightly decreasing in other occupations. The only occupations in which women were employed in significant numbers were in light industry and in the service sector. The transition brought about a substantial decline in the proportion of women working in light industry, in parallel with an increase in the proportion of those employed in services.

It should be noted that the graphs show the proportions within the employed population. Since the overall employment level declined following the regime change, employment decreased in every occupation but those displaying a marked increase in their share of the employed population (namely, unskilled occupations among men and service sector jobs among women). That is, with the exception of service sector occupations, there was a decline in the demand for all skilled occupations and this decline was substantial in most cases.

Figure 2.7: Distribution of skilled workers with no Matura qualifications across major vocational groups by age cohort



Note: The sample only includes workers with vocational qualifications (skilled workers) who are employed.

Data source: based on individual samples from the 1980 and 1990 census, individual samples from the 1983 and 1988 KSH income surveys, and individual samples from the first quarters of the KSH labour surveys from 1992 to 2005.

The trends of the most important occupational groups are broken down into age cohorts in *Figure 2.7*. There are two important features to note. First, we find a higher proportion of workers in unskilled occupations among the oldest population, but the curve characterising changes through time is more level. Therefore, for each age cohort, the proportion of both men and women working in unskilled occupations was around 40 percent in 2005 (with the exception of the oldest group of women, almost 60 percent of whom were in this position). Second, the trends displayed by skilled occupations are also more marked among 20–39 year olds than among those over 39.

Matching supply and demand

The match between the supply and the demand for vocational qualifications can be more accurately characterised by looking at the probabilities of graduates trained in different vocations remaining in their occupations, transferring to other occupations, or being excluded from the labour market. It may be the case that the reason behind the marked decrease in the labour market value of vocational training is that it is more difficult for skilled workers to find employment in their original occupation in the post-socialist era than it was before the regime change.

It has been shown by *Fazekas & Köllő* (1990) that during the period of Hungarian state socialism there were significant discrepancies between students' preferences and enterprises' demand for skills as well as between both of these and vocational training school capacities. Authorities tried to adjust demand, supply and capacities in a multi-step bargaining process. At the end of the day, however, the occupational structure of employment proved to be closer to students' original preferences and highly dissimilar to both the occupational structure of vocational qualifications and the needs declared by companies.

As well as leading to a drastic shift in demand, the regime change also transformed the nature of the bargaining process. Vocational training, at the same time, remained subject to strict central regulation. In principle, this could have resulted in either a poorer or a better match: with the demand decentralised, the central administration has to make do with less information but bargaining processes may be less affected by political distortions. *Liskó* (2001) reveals that several years after the regime change, only 50 percent of vocational training school graduates were employed a year after obtaining their qualifications, and this figure rose to only 75 percent five years after graduation. More than a third of skilled workers found employment in occupations not related to their training.

As we have seen, virtually 100 percent of skilled men and 90 percent of women were employed under state socialism in Hungary. Following the transition, these employment rates dropped to 80 for men and 70 percent for women.

We have also looked at data revealing that during the period preceding the regime change, 30 percent of men and 40–50 percent of women with vocational qualifications worked in unskilled occupations. Following the regime change, the proportion steadily increased to 40 percent among men and after a period of decrease returned to 50 percent among women.

Combining these figures we see that before the regime change, at least 30 percent, and after the regime change, at least 60 percent of men with vocational qualifications failed to find employment matching their qualifications. The corresponding proportion increased from 50–60 percent to 70–80 percent for women. Given that two thirds of the population with vocational training are male, the overall result is that the proportion of those not working in their occupation (employed in other jobs or not working at all) rose from the pre-transitional level of 35–40 percent to about 60 percent under the new regime. Note that these are conservative estimates, since those employed in skilled occupations other than the one they qualified in are not included. It is this issue that the following analysis addresses. The proportion of those employed in jobs matching their qualifications, and the temporal trends of this proportion are analysed using an inter-temporal comparison of cross-section data, which is the best method allowed for by the availability of data (see the box below for a discussion of data problems).

3. On the deficiency of data available for longitudinal analysis

Under optimal circumstances, the issue of occupational matching should be investigated by following the careers of vocational training school students graduating in different years. In Hungary, however, no suitable data sources are currently available. The *life-course* survey organised by Sulinova and Tarki tracks the careers of 10 thousand students who were in Year 8 of schooling in 2006. In a few years' time there will be data on the careers of those continuing their studies at vocational training schools and the survey will provide an exceptionally rich source of information. The dataset, however, will not be ready for analysis for several years, and the survey is limited to a single cohort. If we want to compare the careers of workers graduating in different years – which is one of the tasks involved in an analysis of the development of supply and demand – regular longitudinal surveys are needed covering every cohort of school graduates.

Careers in the different vocations can, in principle, be mapped with the help of *cross-section* surveys in the absence of the *longitudinal* data. Surveys of the adult population can include questions on vocational qualifications and the respondent's current occupation. In theory, this allows an

assessment of the proportions of respondents with various qualifications being out of work, employed in their original occupations, or working in other occupations at the time of the survey. If a cross-section survey of this kind is available for every year, the employment proportions in different occupations can be followed over time. This method cannot be a substitute for longitudinal surveys, since it does not permit an analysis of occupational switches. It can, however, shed light on the question of trends in the proportions of workers employed in occupations matching their qualifications with respect to different characteristics.

A major problem concerning surveys collecting information on vocational qualifications retrospectively is that respondents may remember inaccurately, and inaccuracies tend to be systematic. In these surveys, a larger number of respondents tend to report that their original qualifications match (or almost match) their current qualifications than the number for whom this is indeed the case. This distortion alone is sufficient to question the validity of an analysis of employment by vocation.

The KSH labour force survey, which is an excellent source of information on employment in Hungary, is not a longitudinal survey, but a series of regularly repeated cross-section surveys. Although the surveys have a longitudinal aspect in the sense that that each household is interviewed six times over a period of one and a half years, no efforts are made to locate respondents who move or fail to respond for some other reason. As this would introduce a distortion into an analysis of job changes, the labour force survey is not suitable for even a short-term longitudinal analysis, but is best seen as a series of cross-section datasets. Also, the survey is clearly unsuitable for our purposes, since it is not sufficient to follow careers for only one to one and a half years after leaving school. The labour force survey presumably records retrospective occupational details, since questions have always been included on employed respondents' occupation and on all adults' vocational qualifications. For a large part of the period under analysis, however, the data on vocational qualifications is not accessible in the publicly available databases (stored by the Institute of Economics of the Hungarian Academy of Sciences). That is, in addition to the general problems raised by retrospective qualification data, there are practical barriers to using the survey data for a long-term longitudinal analysis.

Our analysis takes the number of vocational training school graduates qualifying in each occupation in each year starting with 1966, and compares the observed pattern to the occupational structure of the employed population with vocational training. The data sources used for the analysis are the lists

of final year students of vocational training schools for each occupation, and the cross-section employment surveys.

The principle behind the method is that the number of students qualifying in a given occupation in a given year can be compared to the size of the population of the appropriate age working in that occupation (with vocational qualifications). If every young vocational training school student was 17 years old when he or she obtained the school graduation qualifications, and mortality and emigration are at a negligible level, the proportion of those working in their original occupations can be estimated through a survey conducted, for instance, 20 years later, assessing the size of the 37 year old employed Hungarian-born population with vocational qualifications for each occupation. This method, of course, cannot capture potential symmetrical vocation changes. Let us assume that each textile worker either works in his or her own occupation, or as a hairdresser, and *vice versa,* each qualified hairdresser is either employed in his or her original occupation or as a textile worker. If the number of qualified textile workers employed as hairdressers equals the number of qualified hairdressers working in the textile industry, our method falsely indicates that everyone is employed in their original occupation. That is, the method shows some kind of net occupational immobility and provides a conservative estimate of the percentage of people who do not work in their original occupation. It can deal with some problems, however, that previous estimations could not. The results are, of course, highly sensitive to measurement errors, which may introduce various distortions.

The model used here is a panel regression model similar to the one described by *Bound et al* (2002), where it is used to investigate a problem of different content but a very similar structure. Let j stand for a job, g denote the year of qualification and t the year of observing employment. Let S_{jgt} stand for the number of vocational training school educated people qualifying in year g and working in job j in year t (the stock). Finally, let F_{jg} stand for the number of individuals qualifying in job j in year g (the outflow). This analysis excludes people working in unskilled occupations. The regression equations are the following:

$$\log\left(S_{jgt}\right) = \beta \log\left(F_{jg}\right) + \alpha_j + u_{jgt} \qquad (2)$$

$$\log\left(S_{jgt}\right) = \beta \log\left(F_{jg}\right) + \alpha_j + \gamma_g + u_{jgt} \qquad (3)$$

$$\log\left(S_{jgt}\right) = \beta \log\left(F_{jg}\right) + \alpha_j + \gamma_g + \theta_t + u_{jgt} \qquad (4)$$

The parameter of interest here is β. If the outflows are exogenous, β can be interpreted as an elasticity. It shows the percentage increase in employment in a given occupation in year t among the birth cohort qualifying in year g that results from a one percent increase in the outflow of training in the given oc-

cupation in year *g*. The elements α_j, γ_g and ϑ_t indicate the fixed effects of, respectively, employment, outflow year, and employment year.

If graduates qualified in each of the occupations continue to work throughout their lives and to stay within their original occupations, β will take the value 1 (perfect match). If graduates work in different occupations (or, more precisely, work in other occupations with the same probability as in their original occupations), β will have a value of 0 (no match). The actual value of β is likely to fall between these two extremes. A lower value indicates a poorer match. A poor match may mean that school graduates fail to find employment, or that they are employed, but not in their original occupations. As was mentioned before, the present analysis captures net mobility: β remains unaffected if the people qualified in *A* are employed in occupation *B* with the same probability as people qualified in *B* are employed in occupation *A*. The results are displayed in *Table 2.3*.[15]

Table 2.3: Estimated employment outflow regression parameters analysing occupational matches (weighted estimates)[a]

	Pre-regime change			Post-regime change		
	Equation			Equation		
	(2)	(3)	(4)	(2)	(3)	(4)
Log outflow [log(F)]	0.416 (0.056)***	0.420 (0.059)***	0.295 (0.077)***	0.518 (0.038)***	0.514 (0.038)***	0.360 (0.037)***
Occupation, fixed effects[a]	+	+	+	+	+	+
Year of employment, fixed effects	–	+	+	–	+	+
Year of qualifying, fixed effects	–	–	+	–	–	+
Number of observations (N)	1235	1235	1235	8426	8426	8426
Within R^2	0.54	0.54	0.54	0.48	0.48	0.48
Overall R^2	0.80	0.80	0.83	0.70	0.71	0.73

Dependent variable: log(*S*)
[a] Weighted by outflow size.
Statistically significant at the *** 1 percent level.
Fixed effects: take the fixed effects of occupation and year into consideration.
Robust standard errors given in brackets, clustered within year-occupation cells.

The results of the most plausible specification (equation (4) where all three fixed effects are controlled for) show that 29.5 percent of workers settled in their occupations in the pre-regime change era and 36 percent in the period following the regime change. Looking at the figures from the opposite perspective, 70 percent were not employed in their occupations before and 64 percent after the regime change. As a reminder, in addition to the non-employed and those employed in unskilled occupations, these figures also include those permanently working in another occupation. Our previous results, which excluded the latter group, showed 35–40 percent before and 60 percent after the regime change. For the period preceding the regime change, the regression results indicate either that the mobility between skilled occupations was

15 The regression was weighted by outflow size. Since some of the cells have a value of 0, the log(*S*) and log(*F*) values were replaced by log(*S* + 1) and log(*F* + 1). The substitution has a negligible effect on the values of non-zero cells, since the figures are in the order of thousands. Robust standard errors are corrected for heteroscedasticity and clustering within year-occupation cells.

several times higher than it was after the regime change, or that the measurement of employment occupations is too noisy in the data, noisier than in the labour force survey data. Neither explanation is very likely.

The results for the post-regime change period are easily interpretable: they show negligible mobility (or at least negligible net mobility) between different skilled occupations. Overall, about a third of those not working in their occupations for an extended period are not in employment of any kind, and the remaining two thirds are employed in occupations that do not require vocational qualifications. The proportion of those working in another skilled occupation is therefore negligible.

Flows into occupations not requiring vocational qualifications

The fact that the employment level among the population educated at vocational training schools remained relatively high in the post-regime change period is to a substantial extent explained by their large-scale flow into occupations not requiring vocational qualifications – as we have learnt from the data discussed above. What was the course of this process?

During the socialist period the large batches in production and the low quality requirements permitted the mass-scale employment of uneducated labour in a long line of skilled occupations: in 1986 workers with only primary education were represented in the same proportion as workers with vocational qualifications among cooks, waiters, bakers, tailors, upholsterers, jewellers, electricians, printers, smelters and welders and in a fairly high proportion among workers such as carpenters (33 percent), masons (35 percent), machinists (29 percent), locksmiths (26 percent) and shoemakers (19 percent). In total, less than half of the population with at most 8 years of primary education were employed as unskilled workers, and more than a third were engaged in skilled occupations.[16] Large numbers of them were employed as human substitutes for absent auxiliary machinery (such as material handling and packaging machinery or feeding systems) in factories which were aptly described by *Ellmann* (1979) as "labour intensive variants of capital-intensive techniques."

Let us now look at employment trends among those with only primary education, those with vocational qualifications, and the two groups together, distinguishing among between-occupation and within-occupation changes. While the former is closely related to shifts in the industry structure, the latter is a better reflection of changes in the skill requirements.[17] The data suggests that *within-occupation* shifts between the two groups played an important role throughout the period and an absolutely dominant role after 1995. Workers with primary education were being displaced in almost all occupations and all periods at a rate which was faster than the decline of their population share. The non-voluntary nature of the process – that is a process of

16 The data cited come from the 1986 wage survey.

17 Contrasting the two components this way is only justified in the short term; in the long term the industry structure itself adapts to changes in education.

crowding out – is suggested by the fact that their disappearance from skilled as well as unskilled occupations was accompanied by a steady increase in their unemployment rates.

Our analysis relies on a panel database that distinguishes 16 occupations and four education levels, giving a total of 64 qualification groups, and includes data on employment, unemployment, and wages for 1986, 1992 and 1994–2003. A summary of the database is given in *Appendix 2.2*.

Changes in the employment of those with only primary education and those with vocational qualifications are displayed by occupational group in *Figures 2.8–2.10* during the early stage of the transition (1986–1992), at the intermediate stage (1992–1995) and at the latest stage under analysis (1995–2003).

The changes are divided into between-occupation (c_B, between or external) and within-occupation (c_W, within or internal) components as defined by Equation (5), where W denotes the size of the working population of a given educational level in each occupation, w stands for their share within an occupation, S is the total number of workers employed in an occupational group, the summation applies to the occupations, and the indices 0 and 1 mark the base and the reference periods.

$$\Sigma F_1 - \Sigma F_0 = \Sigma f_1 L_1 - \Sigma f_0 L_0 = \Sigma (L_1 - L_0)\frac{f_0 + f_1}{2} + \Sigma (f_1 - f_0)\frac{L_0 + L_1}{2} = c_K + c_B \quad (5)$$

Figure 2.8: The components of changes in the employment of the population with less than Matura qualifications, 1986–1992

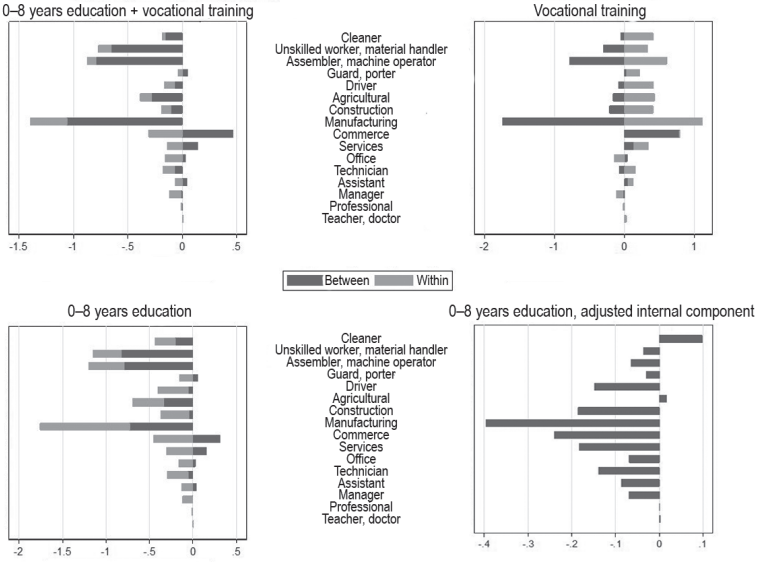


Figure 2.9: The components of changes in the employment of the population with less than Matura qualifications, 1992–1995

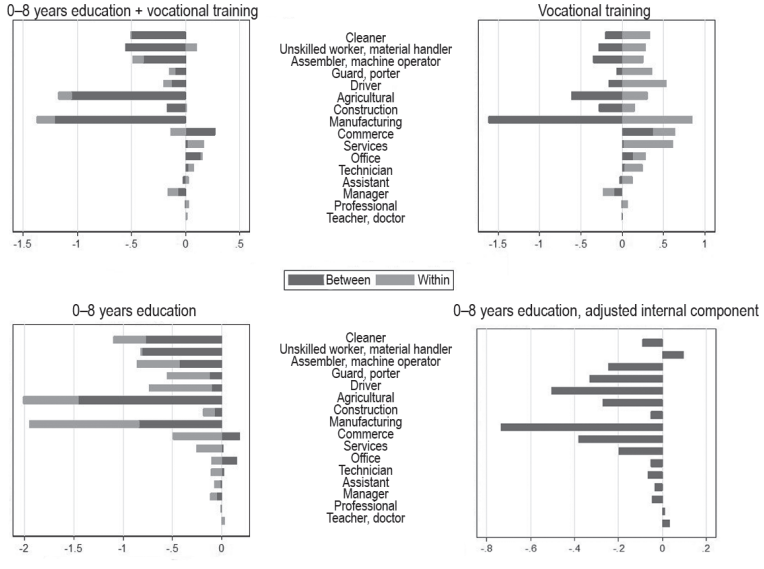
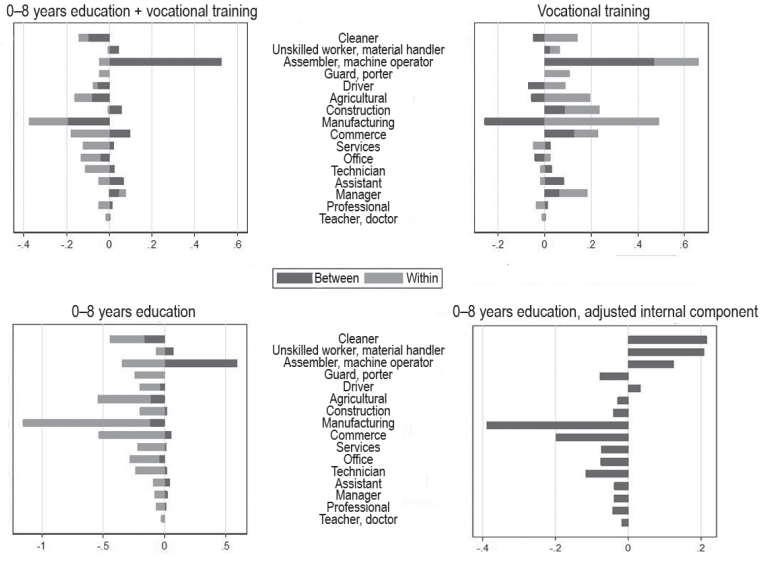


Figure 2.10: The components of changes in the employment of the population with less than Matura qualifications, 1995–2003



The components shown in *Figures 2.8–2.10* are expressed as annual percentage change relative to the initial aggregated worker stock with a given educational level. For example, in the period 1986–1992, the between component $c_B = -1.1$ for manufacturing workers having no Matura qualifications means

that as a result of workforce cuts in manufacturing, the aggregate employment of this educational group fell by 1.1 per cent per annum The corresponding internal component $c_W = -0.3$ shows that an inflow of workers with Matura qualifications into manufacturing decreased the aggregate employment of primary school and VTS graduates by 0.3 percent per annum. The shifts observed in manufacturing had a total employment effect of $c_B + c_W = -1.4$ percent each year.

In addition to the three graphs per period, *Figures 2.8–2.10* also display a fourth graph labelled "Adjusted internal components." In some sense Equation (5) overestimates the share of within-occupation changes, because it disregards the decline in the supply of workers with only primary education. The adjusted internal component was calculated according to Equation (6) for the population with up to 8 years of primary education to correct for this distortion. A negative value of <?> indicates that the proportion of those with primary education decreased faster (or increased more slowly) in the given occupation than among the total working age population. In Equation (6), N stands for the size of the working-age population with a given educational level.

$$c_B^* = \Sigma\left(f_1 - \frac{N_1}{N_0} f_0\right)\frac{L_0 + L_1}{2} \quad (6)$$

During the early period of the transition (1986–1992), the change with the strongest effect on unskilled employment was the decline of manufacturing, which affected skilled manufacturing workers, assembly workers and machine operators, as well as unskilled labourers and material handlers. A second factor was the shift *within* elementary occupations in favour of VTS graduates. Those with primary education were replaced in these occupations (with two exceptions: cleaners, and, to a much lesser extent, agricultural workers) at a faster rate than the rate of their decline within the total population. By contrast, the employment of both primary school and VTS graduates increased slightly as a result of the expansion of trade and services.

Looking at the period between 1992 and 1995, the years of the transformational recession, the continuing decline of industry was coupled with a weakening of agriculture, with almost as strong an effect. The positive employment effects of the expansion of the tertiary sector continued to be limited to the population with vocational qualifications. Among porters, guards, drivers, and manual workers in the retail trade, those with only primary education were replaced by skilled workers on a mass scale. The rate of displacement among the under-educated continued to be faster than the decline of this group among the total population for all but one occupational group (unskilled workers and material handlers).

The period starting in 1995 was characterised by slower changes, which were also of a different character. The number of assemblers and machine operators grew at an exceptionally rapid rate (by 42 percent from 1995 to 2003). Dur-

ing the post-transition period this was the only occupational group in which the employment of workers with primary education increased (by 11 percent), even though the internal proportions still favoured those with higher educational attainment, predominantly skilled workers. Also, the share of primary school educated workers among assemblers/machine operators, as well as among cleaners and unskilled workers, declined at a slower rate than their proportion among the total population.

Figures 2.8–2.10 suggest that the ratios of external and internal components showed considerable variation across the different stages of the transition. This feature is shown more clearly in *Table 2.4,* where the external and internal components calculated for the different occupational groups are summed up. It can be seen that although by the last stage of the transition the changes in the total size of the workforce in the different occupations had a (very weak) positive effect, the negative effect of the shifts within occupations decreased only very slightly.

Table 2.4: Contribution of the between and within components to annual changes in the employment of the population with 0–8 years of education (percent, base period employment=100)

Component	1986–1992	1992–1995	1995–2003
Between (c_B)	-2.5	-4.3	0.4
Within (c_W)	-4.5	-4.7	-4.2

Definitions are given in Equation (5) and in the text.

Exclusion from jobs requiring literacy skills

Towards the middle and end of the nineties, Central and Eastern European under-educated workers were concentrated in jobs not requiring reading or writing to a substantially larger extent than were their Western European counterparts. This was observed for both older and younger cohorts, even after controlling for the effects of industrial and occupational composition. This is unquestionably a Central and Eastern European phenomenon: no similar degree of concentration could be observed in the Western countries, not even in those characterised by a low level of employment among the population having only primary education.[18]

To show this we return to the IALS. The details of the sample and the selection criteria used for our analysis are given in *Appendix 2.1.* An analysis of how jobs and workers are matched should undoubtedly be carried out by country and, within that, by economic sector. Such an analysis cannot be carried out due to the absence of a sufficient number of observations. For this reason, our data are organised into three groups of countries. The first group is composed of six countries in continental Europe (Norway, Denmark, Germany, the Netherlands, Belgium and Italy). The second group comprises

18 Our analysis of workplace-worker matches therefore uses two variables which can more or less justifiably be labelled exogenous. One is educational attainment, which rarely increases once an individual has entered the labour market. Our second variable is an indicator describing job requirements. We shall return to the question whether the latter depends on the individual.

Great Britain, Ireland and Finland: three Western countries where exceptionally low employment rates – approaching those of the former socialist countries – were observed among the population with basic education at the time of the survey. Finally, the four participating Central and Eastern European countries, the Czech Republic, Hungary, Poland and Slovenia, are assigned to the third group. In what follows, the three groups will be labelled West1, West2 and CEE.[19]

Our objective is to estimate the effect of a one unit increase in the indicator capturing literacy requirements in the job on the probability of that job being filled by a worker of low, medium or high educational attainment. In doing so we assume that employers are in a position – or have been in a position in the past – to choose a worker with the appropriate level of education to fill a position requiring given skills. We consider observed job-worker matches as evidence – by virtue of their existence – for the appropriateness of the employer's past decision. We rely on the premise that individuals educated to various levels will differ in their productivity in fulfilling tasks of different levels of complexity. A job not requiring reading or writing skills may perhaps be performed with similar productivity by a university educated candidate and by an individual with only primary education. Given a job requiring several types of reading, writing, and mathematical skills, however, the former applicant will prove to be more productive. A rational employer will evaluate expected productivity and wage costs in deciding between jobseekers of different educational levels.

The problem calls for an *alternative specific multinomial choice model* or McFadden model (*McFadden* 1974), where the employer's choice is determined by the type of job on the one hand, and the attributes of the chosen alternative on the other (complexity of the job and wages). We measure complexity by the number of reading and writing tasks (R) introduced earlier. How a unit increase in R affects workforce composition is influenced by the expected productivity of workers with different levels of education and by their relative wage levels, and is furthermore affected by unobserved individual characteristics.

The considerations discussed in *Appendix 2.1* suggest that in addition to a McFadden model, the available sample should be analysed in a simpler (multinomial logit) model, which does not make use of the available wage data of questionable value, and is easier to control. Such a model seeks an answer to the question of what is the probability of an employer choosing a worker with primary, secondary, or tertiary education for a job involving R literacy tasks *within* sectors and occupational groups.[20]

The different model specifications unequivocally suggest that an increase in the value of *R* is accompanied by a far more pronounced decrease in the share of low-educated workers in the former socialist countries compared to

19 In the countries pertaining to West1, the employment prospects of men improved by 0.7–1.9 percent as a result of each year of schooling. The corresponding figures were 3.1–4.2 percent for the countries in West2 and 2.5–5.2 percent for the CEE countries. To avoid the data from larger countries dominating the aggregated group results, the observed frequencies were converted such that their sum equal 1 for each individual country. Also, most of our estimations use standardised variables (with an expected value of 0 and a standard deviation of 1 for each country.)

20 See *Köllő* (2008) for the results of the alternative-specific models.

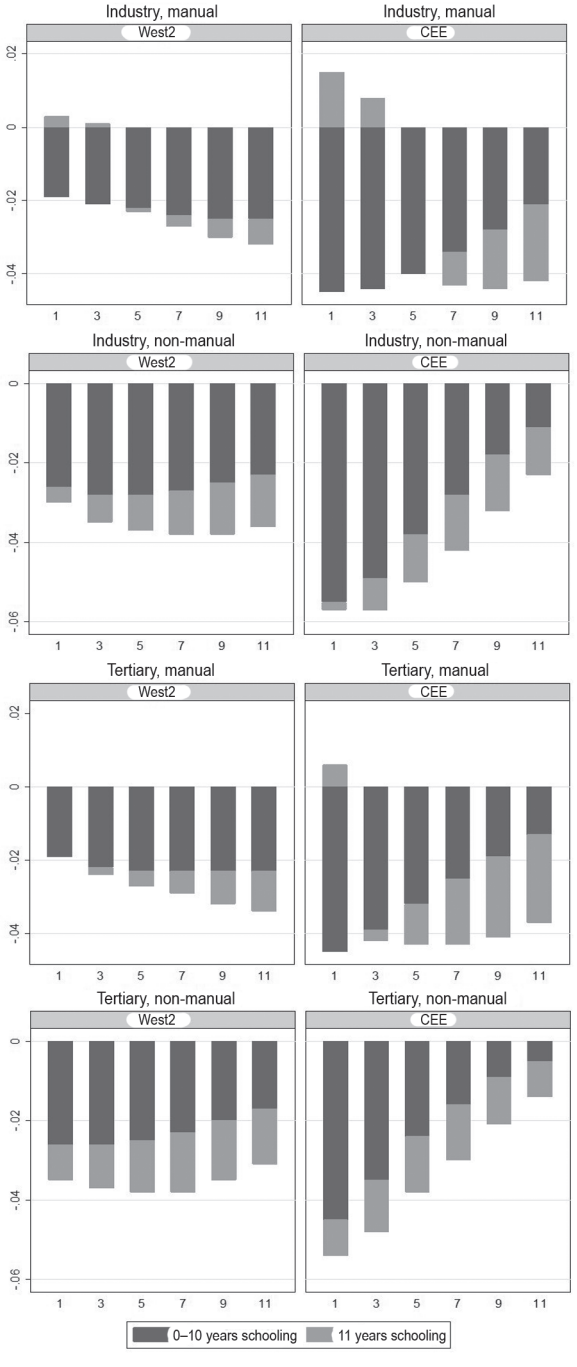
the two Western groups, the latter of which display very similar patterns with respect to workforce composition as a function of *R*. The changes in workforce composition accompanying an increase in *R* in the West2 and the CEE countries – as indicated by multinomial logit estimation – are displayed in *Figure 2.11*. The category of "industry" includes the construction industry and agriculture, and the category of "non-manual" comprises professionals, assistants, office workers, and technicians. *Figure 2.11* shows the difference in the percentage of workers with 0–10 or 11 years of schooling when *R* increases from 1 to 2, from 3 to 4, ..., from 11 to 12. The marginal effects add up to 0, i.e., the total change in the share of the two educational levels included in the model is balanced out by the total change of opposite sign in the share of the two upper levels of education.

Looking at industrial workers, an increase in *R* is accompanied by an increasingly fast rate of decline in the proportion of workers with 0–10 and 11 years of education in the West2 countries. This effect is, however, far weaker than it is for the former socialist countries, and the two patterns differ to some extent. For the CEE group, *at lower levels of R* an increase in literacy requirements may be accompanied by an increase in the proportion of VTS graduates at the expense of workers with 0–10 years of schooling. *At higher levels of R,* however, the proportions of both groups of workers with less than 12 years in school drop as *R* increases. Similar effects are observed among manual jobs in the tertiary sector.

In the West2 group a one unit increase in *R* in white-collar jobs is associated with a 3.5–4 percent decrease in the share of workers with 0–11 years of schooling at all levels of literacy requirements. In the former socialist countries, low-educated workers were excluded from non-manual jobs requiring reading and writing skills at a considerably faster rate *at low levels of R*. A 5–6 percent marginal effect can be observed as the value of *R* rises from 1 to 2, from 3 to 4 or from 5 to 6 while at higher levels of *R* the effects are similar to those observed in the West.

What this means is that Central and Eastern European employers tended to seek workers with at least Matura qualifications to fill positions involving even minimal reading and writing skills. In other words, during the late nineties, those with less than Matura qualifications clustered to an exceptional degree in jobs requiring no or almost no literacy skills. It is also clear from the data that at lower levels of literacy requirements, workers with only primary education are replaced by skilled workers as these requirements become more demanding.

Figure 2.11: Marginal effect of the number of reading and writing tasks on the proportion of workers with 0–10 and 11 years of schooling in different sectors and occupational groups, for two country groups (IALS, Europe, age 15–59)



Old and new jobs

Analysing the relationship between basic skills and job requirements, we may wonder why deficiencies in literacy skills should constitute a barrier to the employment of skilled workers given that – compared to the West – jobs not requiring such skills abound in the former socialist countries. Should it be the case that Central and Eastern European workers who have only primary or vocational qualifications are excluded from jobs with high literacy demands, this problem ought to be counterbalanced by the fact that jobs of this category are less frequent. This argument ceases to be convincing, however, as soon as the differences between *older and newer workplaces* are considered – which we shall now turn to, circumventing the problem that only a few (and moderately accurate) observations of the latter are included in the IALS sample.

Although the duration of employment in a particular job (the "age" of a given job-worker match) is not recorded in the IALS, there are indirect ways of identifying certain types of "new" jobs. Respondents were asked how many jobs they had during the 12 months preceding the interview. If a respondent had two or more jobs, his or her latest job is categorised as a new job for our analysis. Among respondents declaring only one job, this job was categorised as an old one if the worker's age and education suggested that the respondent was not a school-leaver.[21] We do know that some of the job-worker matches classified as old in this way are in fact new. This is the case if, for instance, the job was started during the year preceding the interview but the previous job had been left more than a year before the interview. This error is expected to dampen demonstrable differences between old and new jobs.

Our hypothesis that the literacy demand gap between the East and the West is smaller for recent jobs than it is for older ones is tested through simple regression equations estimated within educational groups and job type (old vs. new), as shown in Equation (7). Beta measures literacy demand relative to West1. The equations are estimated with and without controls (X) for sector and occupation.

$$R_i = \alpha X_i + \beta_1 \text{West2}_i + \beta \text{CEE}_i + u_i \qquad (7)$$

As shown in *Table 2.5*, there was only a slight difference between the West1 and the West2 countries in terms of the number of reading and writing tasks. In Central and Eastern Europe *old workplaces* demanded a substantially smaller number of literacy tasks (with the exception of higher education graduates) than they did in the West, and the gap was increasingly larger at lower levels of education. Looking at *new workplaces*, however, the difference between Western and Eastern requirements is substantially smaller, and tends to be less or not at all significant. We observe the largest changes in the case of unskilled workers. These "generational" shifts suggest that the lower

21 The only variable available for screening such cases was the estimated variable of potential labour market experience (age – number of years at school – 6) taking 6 as the typical age of starting school.

mode of the distribution of literacy requirements, which used to draw a sharp boundary between the former socialist countries and the West – even in the late nineties – is gradually disappearing.

Table 2.5: Number of reading and writing tasks at work relative to West1 countries in Central and Eastern Europe and in the WEST2 countries, for old and new workplaces

	No control variables		With control variables		N
	West2	CEE	West2	CEE	
0–10 years of schooling					
Old job	0.47***	–2.73***	0.34***	–2.06***	5515
New job	0.28	–1.75**	0.14	–0.72	527
11 years of schooling					
Old job	–0.28*	–2.38***	–0.18	–2.06***	3166
New job	–0.39	–1.23***	–0.38	–0.90**	380
12–14 years of schooling					
Old job	–0.43***	–1.15***	–0.30	–0.93***	7923
New job	–0.55**	–1.03***	.0.27	–0.97***	1076
15 or more years of schooling					
Old job	0.57***	–0.22**	0.38***	–0.40***	5749
New job	0.35	0.40	0.16	0.01	930

For an explanation of the coefficients see the text introducing equation (7). Control variables: 12 dummy variables for sectors and occupations.
Statistically significant at the * 10 percent, ** 5 percent, *** 1 percent level.

Skills and unemployment

Beside exerting influence on the allocation of workers across jobs, basic skills also affect a worker's probability of having a job at all. This effect is difficult to demonstrate because of endogeneity: workers in employment now have been more likely to work in the past, and therefore possess higher measurable skills, all else being equal. Regressing employment on skills therefore would yield strongly biased coefficients. We try to overcome the endogeneity problem by limiting the analysis to a sample of *actual and potential entrants.* The estimation sample comprises respondents who participated in the labour force during the year preceding the interview, and were either left unemployed, or entered a new job. The literacy skills of this population can be regarded as given for employers, allowing us to examine how the selection of entrants was affected by these competencies. We estimate a two equations model, where:

a) literacy skills are a function of educational attainment, potential labour market experience, and whether at least some of this is actual work experience, origins (immigration status, first language, father's education), and cultural habits (cultural event attendance, reading habits);

b) employment odds (which are captured by the number of weeks worked during the year preceding the survey) are a function of literacy skills, educa-

tional attainment, gender, age and age squared, place of residence, and transfer status (receipt of pension).

Literacy skills and employment odds may have further – possibly correlated – determinants. Taking this possibility into account, the two equations are estimated simultaneously using the method of three stage least squares (3SLS). The critical variable of IALS literacy test scores is represented by two alternative measurements. One version relies on scores standardised on the country level, thus capturing the relationship of *within-country relative knowledge* and either education or employment. In the second version the scores are standardised using the mean and standard deviation of skills in the entire IALS sample. In this individual test scores are measured relative to the "world" average. As before, the estimation is run separately for the two groups of Western European countries and for Central and Eastern Europe. The results are summarised in *Table 2.6* with the coefficients of the control variables not shown.

Table 2.6: Association between education, basic skills, and employment in Western Europe and Central and Eastern Europe (three stage least squares estimation)

	Variable capturing literacy skills:					
	Standardized on the country level			Standardized on the level of the entire IALS sample		
	West1	West2	CEE	West1	West2	CEE
Test result equation						
Dependent variable: standardised IALS test score (Mean = 0, SD = 1)						
Education (years)	0.3266 (24.3)	0.4110 (19.45)	0.3782 (19.75)	0.0801 (25.35)	0.1144 (18.20)	0.1138 (19.35)
Time since leaving school × some work experience	–0.0084 (9.01)	–0.0021 (1.51)	–0.0064 (5.06)	–0.0066 (8.47)	0.0001 (0.14)	–0.0049 (4.17)
Time since leaving school × no work experience	–0.0105 (7.53)	–0.0051 (1.88)	–0.0131 (4.57)	–0.0126 (10.45)	–0.0071 (2.82)	–0.0165 (6.15)
Employment equation						
Dependent variable: number of weeks worked during past year						
Test result	5.7210 (6.73)	4.7056 (4.63)	8.4267 (4.74)	5.7952 (6.15)	4.6175 (4.75)	7.0820 (4.72)
Education (years)	0.2873 (0.58)	1.7822 (2.49)	–0.9289 (0.95)	0.3880 (2.84)	0.6397 (3.05)	0.2334 (4.72)
N	5836	2518	2898	5836	2518	2829
"R^2": test result equation	0.3757	0.4065	0.3218	0.4198	0.4098	0.3723
"R^2": employment equation	0.2295	0.2102	0.1224	0.2464	0.2167	0.1792

Other control variables in test result equation: immigrant, first language other than interview language, father's education (5 dummy variables), never goes to the theatre or cinema, never reads books, never reads newspapers. In the employment equation: age, age squared, gender, immigrant, rural residence, pension recipient, never worked.

Sample: 15–59 year old non-student population either not employed or employed for no longer than a year.

As shown by the results of the first equation, education had a slightly stronger effect on basic skills in the West2 and the CEE countries than in the rest of the sample. Also, in Central and Eastern Europe, test performance relative to the world average was substantially improved by each additional year of schooling. Looking at the result from the opposite perspective, it follows that *in Central and Eastern Europe a missed year of education results in more pronounced knowledge deficiencies.*[22]

The second equation reveals that employment is affected by both literacy skills and education, although with test results controlled for, the effects of the latter are not always statistically significant and are generally weak. Given that the standard deviations of the years of education are, respectively, 3.7, 2.7 and 3 years for the three groups of countries, a one standard deviation difference in education is associated with an additional 1–2 weeks spent working, while a one standard deviation test result differential increases working time by 4.7–8.4 weeks. Crucially, as indicated by the estimation, in Central and Eastern Europe basic skills have a far greater impact on employment prospects compared to either of the two regions of Western Europe; the effects of the test results are 25–50 percent stronger than in West1, and surpass the values estimated for West2 by 50–80 percent.

In summary, CEE firms are keen to employ workers with vocational qualifications (preferred to primary school educated workers) for jobs with low literacy requirements, but even the VTS graduates are excluded from knowledge-intensive jobs. With respect to literacy, the demands of new Central and Eastern European workplaces are much closer to the Western pattern than those of old CEE workplaces. An especially marked change can be observed in jobs for workers with primary education or vocational qualifications. Changing demands and the low level of basic skills have major impact on the employment prospects of low-educated workers in Central and Eastern Europe. Education programmes that neglect to emphasize the enhancement of basic skills leave their graduates in a despondent position.

4. Wages

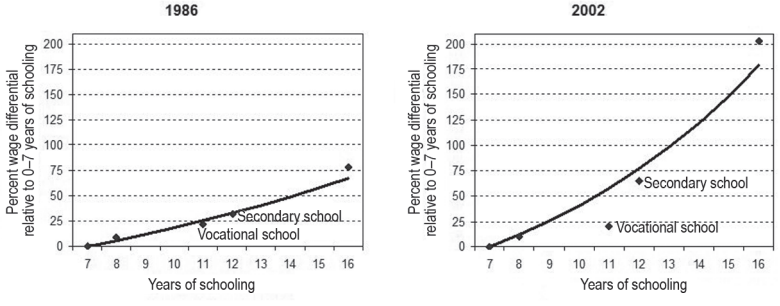
Our analysis of earnings relies on the following data sources: the 1973 and 1983 income surveys of the Hungarian Statistical Office (KSH) and the 1986, 1996 and 2002 payroll surveys. The wage surveys are administered by the Hungarian Labour Centre, the data are provided by employers, and the samples are large (with more than a hundred thousand observations). A more detailed description of these data sources can be found in Hungarian in *Ábrahám & Kézdi* (2000) and in the databank description of the IE-HAS (2006).

Figure 2.12 displays changes in the returns to education based on Mincer-type wage regressions. The returns to education show the percentage wage differential between high-educated and low-skilled workers with gender, age,

22 It is also clear that in these countries, it is only those who have not worked at all since leaving school whose knowledge fades with age at an especially fast rate.

region and settlement type held constant. The regression is estimated using two methods for both 1986 and 2002. In the first version, educational level is measured by the number of completed school years, while in the second version this is substituted by the qualification categories themselves.[23] *Figure 2.12* displays changes in the returns to education, with the continuous line showing the returns to the number of years in education and the diamonds indicating skill categories.

Figure 2.12: The returns to education, 1986 and 2002



The figure has two notable features. One is that the returns to education increased steeply between the two periods. While in 1986, each additional year at school implied a 6 percent rise in wages, this advantage doubled by 2002. The other, for our purposes more important, message of the chart is that while in 1986 all of the qualification categories fell close to the curve of average returns, in 2002 vocational qualifications appear well below it. The explanation for the disadvantage of vocational training is that there was a substantial increase in the returns to secondary schooling, and especially to tertiary education, compared to primary education or less (i.e., the curve shifted upwards), while the returns to vocational qualifications remained at the level observed before the transition. The labour market appears to have divided into workers with secondary (Matura) qualifications and those with lower education levels.

The wage effects of increased demand for skills versus "crowding out"

The available data allows us to disentangle the wage effects of "upskilling" and "crowding out," the latter referring to the case when skilled workers are willing to accept unskilled jobs for wages typical of unskilled workers. The data suggests that both processes were present, and they each had their distinct effect on skilled worker wages. The general increase in educational level (whereby the demand for higher skills increased throughout the qualification distribution) brought about an increase in the market value of vocational qualifications. The inflow of VTS graduates – in the event that it was not

23 The original regression model places log wages on the left. The coefficients can then be converted to percentages using the formula $(e^b - 1) \times 100$. It is this representation that has transformed the linear association between log wages and years of schooling into an exponential association.

accompanied by an increase in the share of high-skilled workers – however, resulted in the depreciation of the value of vocational skills.

Both upskilling and crowding out are likely to have occurred in each broad occupational category, since the shifts in educational composition were associated with changes in technology, market, and ownership patterns, i.e., with *firm* level events (as will be discussed later). We therefore attempt to capture the impacts of the two scenarios by analysing within-occupation shifts in workforce composition and their impact on wages, rather than by trying to assign individual occupations to one or the other category. Our analysis is based on a fixed effects panel regression model (8):

$$\left(\frac{w^S}{w^A}|X\right)_{jt} = \beta_1\left(\frac{F_S}{F_A+F_S}\right)_{jt} + \beta_2\left(\frac{F_K+F_F}{F_A+F_S}\right)_{jt} + c_j + u_{jt} \qquad (8)$$

where w stands for wages, *P, V, S* and *T* denote the four categories of education (primary, vocational, secondary, tertiary), X is a vector of control variables, c_j stands for fixed occupational effects, j marks occupations, and t stands for years. The panel regression models the impact of two types of changes in workforce composition on the relative wages of workers with vocational qualifications. The first component $[F_V/(F_P + F_V)]$ will increase if *within* the low education group there is a shift towards VTS graduates. The second component – $(F_S + F_T)/(F_P + F_V)$, with $F_V/(F_P + F_V)$ held constant – will increase if the number of those with at least the Matura qualification grows relative to the number of workers with no Matura qualifications while the educational composition of the low qualification workforce is held constant. We expect the first component to have a negative effect on skilled workers' wage premium ($\beta_1 < 0$, the mere fact of crowding out should decrease skilled workers' wage advantage) and the second component to have a positive impact ($\beta_2 > 0$, a general increase in the demand for skills should boost skilled workers' relative wages).

The data relate to 1994–2003 and comprise ten occupations in which a substantial number of uneducated people were employed: agricultural workers, porters and guards, cleaners, auxiliary workers, drivers, assemblers and machine operators, those employed in manufacturing, construction, commerce and the service sector. Such fine-grain earnings data are only available for the years of the Wage Surveys (1986, 1989, 1992, 1994–2003), and we only have annual panels for a relatively late stage of the regime change (from 1994 onwards), as the 1993 payroll survey did not break down the public sector data into educational levels.

Education-specific wages within occupations (w^P, w^V) were measured by estimating individual earnings functions using the data from the Wage Surveys, with log wages on the left hand side, and gender, labour market experience, and the square of labour market experience, a Budapest dummy, and 63

$(16 \times 4 - 1)$ dummy variables interacting occupation and education on the right hand side. The parameters of the latter set of variables measure the log wage premium of workers relative to academic secondary school (gymnasia) graduates employed in office-related jobs that was used as the base category.

The results are shown in the first row of *Table 2.7*. The coefficients confirm the expectations as to the direction of the effect: a one percent increase in the share of skilled workers within the low-educated workforce *lowered* the wage advantage of skilled workers by half a percent (with the combined share of low-education workers held constant), while a one percent increase in the share of high-educated workers was accompanied by a 0.17 percent *increase* in the wage advantage of WTS graduates.[24]

Table 2.7: Estimation of Equation (8) in a panel regression model assuming fixed occupational effects

Dependent variable	β_1 (Prob > t)	β_2 (Prob > t)	Constant (Prob > t)	R^2 internal R^2 total	F (Prob > F)	Hausman (Prob > chi^2)	Number of observations (number of groups)
$\ln(w^V/w^P)$	−0.4939 (0.000)	0.1696 (0.001)	0.2895 (0.038)	0.4106 (0.0707)	30.66 (0.000)	28.7 (0.000)	100 (10)
$\ln(w^V)$	−0.3693 (0.002)	0.1043 (0.229)	−0.0752 (0.155)	0.1147 0.1220	5.70 (0.004)	7.48 (0.024)	100 (10)
$\ln(w^P)$	0.1242 (0.328)	−0.0653 (0.494)	−0.3647 (0.000)	0.0100 0.1860	0.49 (0.614)	1.66 (0.436)	100 (10)

Sample: ten blue-collar occupations in 1994–2003
Note: The probability levels of the appropriate statistical test are given in brackets.

The estimation was repeated with the relative wages themselves as the dependent variable, i.e., the wage disadvantage of those having primary education and those having vocational qualifications relative to *office workers with Matura qualifications* (shown in the second and third data rows of *Table 2.7*). An increase in the share of skilled workers within the low-educated population was associated with a falling wage premium for VTS graduates, while primary school educated workers' wages were unaffected by the changes in workforce composition. This suggests that the reduced wage advantage associated with "crowding out" was *not* a consequence of wage concessions on the part of workers with primary education, but a reflection of the overall declining wage position of VTS graduates. Although skilled workers' wages increased and primary school educated workers' wages slightly decreased as a result of a growing share of high-education workers, neither effect was statistically significant on its own (in contrast with the significant results obtained for the ratio of the two wages shown in the first row of the table).

24 The introduction of a dummy variable controlling for the increase in the minimum wage for 2001–2002 did not effect any changes in the results. As expected, the coefficient was negative: −0.026, at the 1 percent level of statistical significance

5. On the "shortage of skilled workers"

While we have convincing empirical evidence that vocational qualifications have become less marketable, the media, business chambers, and economic policy makers have repeatedly complained of *a shortage of skilled workers*. The available evidence suggests that the problem essentially lies in difficulties in adjusting to technological advances rather than in some sort of "underproduction" of vocational qualifications.

We must clearly acknowledge that there *is* a shortage of skilled workers and the constant flow of complaints is triggered by some actual problems. Nor can we brush aside the issue contending that since we can only speak of a "shortage" at a given wage level, the problem could be solved overnight by raising the wages of skilled blue-collar workers. This would probably work in the long term, but if it could also provide a solution in the short term, firms – which are not constrained in this respect – would presumably raise skilled workers' wages. They do not do so however: not only do the average skilled worker's wages fall well below those of a worker educated to the Matura level, but even the best paid skilled workers' earnings remain at a low level. Although company managers and chamber officials tend to comment that firms today "offer wages to good skilled workers surpassing the salaries paid to top managers," such statements appear to be rhetorical exaggerations: as revealed by the 2005 wage survey, only *0.2 percent* of skilled workers earned more than the *average* manager, including lower-level managers and the owners of small firms. Enterprises do not offer high wages to WTS graduates, and the most likely reason they do not is that such a step is not expected to alleviate shortages.

The data analysed in the rest of this section suggests that the problem is likely to lie in deficiencies in workers' ability to adjust to technological changes. The companies complaining of a shortage of skilled workers tend to be those where difficulties in the adjustment to technological changes are seen as barriers to progress.

Our analysis is based on the Hungarian data from the EBRD Hungarian-Russian-Romanian corporate survey of 1997–2000 (*Commander & Köllő,* 2008). The sample covers 302 firms selected from the sample of the Labour Market Prognosis survey of the Hungarian Employment Agency, excluding agricultural employers and employers in rural areas or small towns. (Some of our calculations cover a smaller number of firms because of data availability.) The main details of the sample are given in *Appendix 2.3*.

The data in *Table 2.8* first of all reveals that a substantial proportion of companies complained of a shortage of skilled manual workers at the turn of the millennium: while for other categories of workers, only 7–11 percent of companies reported a smaller than ideal workforce size, the corresponding figure for skilled workers was 36 percent. The number of "missing" skilled

workers relative to the number employed by the companies was, however, several times smaller: no more than 3–5 percent. In general, companies approached the workforce size they considered to be ideal, both surplus and shortage were in the range of 0–5 percent. (This was incidentally true for the Romanian and Russian samples as well.)

Table 2.8: Firms reporting workforce surplus or labour shortage in 2000

	Larger than ideal workforce			Smaller than ideal workforce		
	Percentage of firms	Percentage of given category of workers (estimate)[a]		Percentage of firms	Percentage of given category of workers (estimate)[a]	
		Lower	Upper		Lower	Upper
Unskilled workers[b]	7.3	1.2	1.5	11.2	1.5	2.4
Skilled workers	3.0	0.7	1.0	35.8	3.2	4.5
Non-manual	9.0	3.6	3.7	9.9	0.4	0.4
Managerial	5.3	1.0	1.1	7.0	0.7	0.7

[a] The firms were presented with the following choices: workforce 0–5, 5–10, 10–20 or more than 20 percent larger than ideal, or 0–5, 5–10 or more than 10 percent smaller than ideal. The lower estimate was calculated by assuming 25 percent surplus or 15 percent shortage for the open-ended top categories while the upper estimate assumes 40 percent surplus or 25 percent shortage. The upper and lower estimates were calculated using these percentages and the median values of the closed range choices.

[b] Including workers trained on the job for simple tasks.

Source: EBRD survey 2001. See *Commander & Köllő* (2008) for details.

The estimates in *Table 2.9* are used to identify the factors increasing the probability of complaints of labour shortage (smaller than ideal workforce size) for different categories of workers.

The first important feature of the data is that the probability of skilled worker shortage is higher among companies that had previously *reduced* the number of skilled workers, indicating that their skilled workforce had not matched their requirements. Shortages were reported more frequently in manufacturing than in the tertiary sector. Large companies were also more likely to complain. Technological changes on their own did not increase the probability of shortage complaints, but complaints were substantially more frequent for companies where both new technologies had been introduced, and worker adjustment problems were reported. A company that considered worker adjustment deficits to be a major barrier to progress and had also introduced new technologies was more than *40 percentage points* more likely to complain of a shortage of skilled workers than a company not introducing new technologies.

The *co-occurrence* of shortage and adjustment complaints – among firms with technological innovations – was also frequent for other worker categories, but none of these displayed an association of comparable strength to that

observed for skilled workers. These results are concordant with the results of age-wage curve analyses and the IALS literacy tests, suggesting deficiencies in vocational school educated workers' basic skills, constituting a barrier to adaptation.

Table 2.9: Factors affecting the probability of smaller than ideal workforce in 2000 (probit marginal effects and standard errors)

	Unskilled worker	Skilled worker	Non-manual	Manager
Occupation change within given category (1997–2000, log)	0.0476 (0.0447)	–0.1509 (0.0736)**	0.0561 (0.0376)	0.0813 (0.0448)*
Medium-sized company (51–250 employees)	0.0033 (0.0561)	0.1491 (0.0794)*	–0.0392 (0.0369)	–0.0202 (0.0332)
Large company (251 or more employees)	0.0065 (0.0608)	0.1645 (0.0900)**	0.0385 (0.0465)	0.0126 (0.0392)
Manufacturing	0.0880 (0.0468)	0.1703 (0.0724)**	–0.0923 (0.0497)**	0.0447 (0.0300)
Private ownership (less than 50 percent state ownership)	–0.0081 (0.0601)	0.1483 (0.0789)*	0.1078 (0.0266)***	–0.0631 (0.0524)
Major technological change (dummy variable)[a]	–0.0906 (0.0989)	–0.0026 (0.1104)	–0.0061 (0.0559)	–0.0559 (0.0686)
Major technological change × deficient adjustment skills are a major barrier to progress[b] (dummy variable × agreement on a scale of 1–5)	.0356 (0.0208)*	0.0940 (0.0298)***	0.0292 (0.0137)**	0.0276 (0.0122)**
LR chí^2	7.28	46.70	25.48	10.31
Prob > chí^2	0.4005	0.0000	0.0006	0.1716
Pseudo R^2	0.0405	0.1337	0.1468	0.0745
Number of companies	228	263	261	276

Dependent variable: 1 if workforce size at firm is smaller than ideal, 0 otherwise.

[a] The variable is assigned the value 0 if the company has not introduced any new products, updated any existing products, or introduced quality assurance. The variable is assigned the value 1 if at least one of the above changes has taken place.

[b] Five if adjustment skills are a major barrier to progress. The average grade is 1.89 for the Hungarian sample, with a standard deviation of 1.18.

Statistically significant at the * 10 percent, ** 5 percent, *** 1 percent level.

6. Barriers to improving vocational training programmes

The declining labour market value of vocational qualifications is primarily associated with the steady depreciation of the specialised skills acquired at vocational training schools and the coinciding rise in the value of general skills. This phenomenon is explained first by the shift in employment stability, i.e., that a young worker entering the labour market is considerably less likely to stay in the same occupation throughout the active decades of his or her life than was the case in the past. The second reason is that as a consequence of

general technological advancement and the constant evolution of occupational content, an ability to keep up with new developments at all times and to acquire new skills is a prerequisite to long-term employment even within the same occupation. Also, as a result of changing job contents and increasing demand for basic skills (such as reading and writing at work), deficiencies in basic skills substantially depress the employment prospects of workers educated at vocational training schools.

Young people entering the labour market after leaving vocational training schools will spend more than 40 years in the labour market. What will happen to them in the course of their careers, whether their skills will be marketable or not, is contingent on unforeseeable changes in technology. Technological changes may render some occupations redundant and may entirely transform the content of others. Skilled workers' future employment prospects therefore depend on their ability to retrain themselves and keep up with the changes in their own occupations. Should they fail, they may have to contend with unskilled work, or may even be excluded from employment altogether. The key question is, then, whether skilled workers will be successful in acquiring the new skills that the changes call for, i.e., whether they will be able to participate in on-the-job training. In the absence of appropriate basic skills, they may get by for a few years with a mechanical application of their skills, but with the foundations missing, adjustment will remain beyond their reach.

One factor contributing to the worsening problem of adjustment is likely to be the increasingly fragmented institutional structure of vocational training. Even though the number of vocational school students has substantially decreased over the past decades, in 2006, training programmes were distributed across 580 locations compared to 465 locations in 1990. 90 percent of vocational training programmes are provided by multi-purpose institutions also offering secondary school and/or primary school education. These institutions accommodate vocational training in addition to education programmes offering Matura qualifications. The range of programmes offered by an institution depends on various factors, including considerations such as preserving teaching jobs, or gaining access to vocational training funds (*Mártonfi,* 2007). The labour market success of the students obtaining vocational qualifications is, however, not a decisive factor in developing the programme profile of an institution (partly because no relevant information on the graduates' careers is available). Neither is student demand for individual programmes a key consideration, in contrast to public opinion blaming the increasing share of "fashion occupations" among vocational training programmes for the structural inadequacies of the system. Almost 10 percent of primary school graduates intending to continue their studies are not admitted to the school of their choice (*Híves,* 2007). These students are redirected to vocational training schools and thus almost half of all vocational school

students attend a training programme that they did not choose as part of the usual application process. This is essentially a continuation of the career orientation practice that demonstrably increased the probability of the abandoning of careers during the socialist era.[25]

In 2007, a number of legislation amendments were endorsed to help improve the match between training and labour market demands. Regional Development and Training Committees were instructed to plan the enhancement and restructuring of vocational training in their region, to participate in the delivery of a career monitoring system, and to approach their local governments with proposals to set up associations coordinating vocational training programmes. The members of regional training committees are delegated by regional professional chambers, the Hungarian Employment Agency, the Education Office, and the Ministry for Education and Culture. In an effort to ensure the functioning of the career monitoring system, the Amendment to the Public Education Act specifies what kind of data must be supplied by different participants for the career monitoring system. The required details must be supplied by the school graduate if he or she is not employed at the time of data collection; for an individual in employment, data is provided by the employer specifying the position filled by the newly qualified worker as well as job responsibilities; finally, the school is required to notify the career monitoring system of a graduate successfully obtaining qualifications.

The success of efforts to attune the training system to labour market demand with the aim of improving the labour market prospects of workers educated at vocational training schools hinges on the availability of appropriate information. The Regional Development and Training Committees have access to more accurate information on the labour market prospects of newly qualified skilled workers than do either schools or school administrators. The problem is, however, that whatever data is currently available from the state administration or from sporadic survey sources is still not sufficient for assessing labour market success, and it is highly questionable whether the career monitoring system about to be introduced will be capable of providing reliable data. There are major barriers to an assessment of the demand for individual qualifications even for the short-term future. A worrying demonstration of the problem is that in the short-term labour market forecasts by the national Public Employment Service, which are based on employers' reports and categorise professions into those in demand and those that are in decline, several vocations appear in both categories at the same time. *Table 2.10* reproduces part of such a county-level vocation classification table from 2006 showing the vocations that appear in both groups.

25 According to a survey by *Fazekas & Köllő* (1990, p. 148), for instance, in the 1970s in a West Hungarian county, 31 percent of vocational school students studied for an occupation other than their first choice and these students were substantially more likely to drop out of school than were students who attended the school to which they had applied.

Table 2.10 Classification of vocations
by the Northern Hungary Regional Labour Centre

Occupations in demand as indicated by workforce expansion plans	Vocations of declining marketability as indicated by workforce reduction plans
National total	
150 or more workers	
Other unskilled workers (e.g., casual workers)	Other unskilled workers (e.g., casual workers)
Tailor, seamstress, model maker	Tailor, seamstress, model maker
Locksmith	Locksmith
Shop assistant	Shop assistant
Material handler, packaging worker	Material handler, packaging worker
100–149 workers	
Other doorkeepers and similar simple occupations	Other light industry machine operators and assembly line workers
Other light industry machine operators and assembly line workers	Other doorkeepers and similar simple occupations
50–99 workers	
Bricklayer	Bricklayer
Bus driver	Bus driver
Social worker	Social worker
Shoe manufacturing machine operator and assembly line worker	Shoemaker
Upholsterer	Upholsterer
General nurse	Social nurse
Machinist	Machinist
House and office cleaner	House and office cleaner

Source: The Hungarian Public Employment Service (ÁFSZ) 24th September, 2006. http://www.afsz.hu/engine.aspx?page=full_borsod_stat_szakma_fogl_poz.

Methods relying on company interviews are of little practical use for even the short-term forecasting of changes in demand. First, companies will not suffer any disadvantages if they report an employment intention that fails to be realised at a later stage. Also, questionnaire data does not usually provide any information on why a certain position is vacant: because there would be no applicants even if higher wages were offered, or because the wages the company is prepared to offer are not high enough, or else because the employer is dissatisfied with the skills of the applicants, which is usually equivalent to saying that as long as the wage offer remains low, the vacant position could only be filled by workers with poorer skills. Low wage offers are likely to be one of the key reasons for the shortage of applicants in some of the professions classified as being "in demand" by the short-term labour market projections (*MKIK GVI,* 2007). Even if reliable short-term estimates of future labour demand trends could be obtained, these would not solve the problem.

What is needed for determining the optimal distribution of student places at vocational training and vocational secondary schools are medium-term projections. Reliable, methodologically sound medium-term labour market projections are, however, unavailable at present, and there are no data banks from which medium-term projections could be derived.

An analysis of the education and labour market careers of school graduates may be an important tool in co-ordinating supply and demand. The data collection method specified by the Public Education Act, however, raises grave concerns with respect to the reliability of the data intended to be collected for the career monitoring programme. Firstly, a large share of non-employed school graduates are likely not to comply with the requirement to report their status, and a systematic difference is likely to exist between compliers and non-compliers. Similar concerns hold for employers' duties of providing data. Also, the results can be seriously distorted by missing or "manufactured" data. The programme only collects data on the fact of employment and whether the job "matches" the qualifications of the newly qualified employee. It does not extend to the most important indicator of labour market success, namely earnings, or to other factors affecting a worker's labour market outcomes (such as post-school training history and general competencies acquired at or outside school).

In the absence of appropriate forecasts and information sources, there is a danger that the Regional Development and Training Committees charged with planning a balanced secondary-level training structure will succumb to pressure from companies and give priority to satisfying *short-term* corporate needs at the expense of improving general education and long-term adjustment skills. Companies gain short-term benefits from this strategy, since they will have newly qualified workers to employ for a few years, and when these workers can no longer adapt to changing requirements, there will be another generation of newly qualified workforce, who are employable for another few years, and so on. In the long term, this solution has very serious social costs. This danger seems all the more likely since currently very few Hungarian companies make efforts to provide continued on-the-job training for their employees. The majority of companies expect the education system to supply *a specially trained and experienced* workforce to them. This expectation is not only unreasonable, but also stands in sharp contrast to modern Western corporate practices, where extensive on-the-job training is the key component in ensuring that large numbers of employees acquire specialised skills and experience.

As was discussed in detail in Chapter 1 of *In Focus*, Hungary is characterised by one of the lowest adult training participation rates among the EU countries. The proportion of companies offering in-service training programmes and employee participation rates in these training programmes are

both below the average level. According to a Eurostat survey, 37 percent of Hungarian companies offer on-the-job training (*Eurostat,* 2002), which is substantially less than the average value of 57 percent for the EU-25, and few countries display figures lower than the Hungarian ones.

The participation rate in the training programmes on offer is 26 percent in Hungary, which is also below average. A survey by the Business Analysis Institute of the Hungarian Chamber of Commerce and Industry (MKIK GVI) indicates an even lower incidence of training programmes. According to their results, in 2006 18 percent of companies provided training for their employees (*MKIK GVI,* 2007). The reasons behind the unpopularity of training services are currently unknown. The issue must be investigated, however, to allow policies to create an environment that encourages companies to offer training programmes. We can only speculate at present that the factors contributing to this situation may include the minimum wage regulations, which – especially in the case of uneducated employees – prevent companies from transferring some of the costs of training by reducing wages; companies' insecure business prospects; deficiencies in employees' general skills and learning skills, which would greatly increase training costs should the company wish to train its employees; and a number of other institutional and legislative factors.

If, however, the training system is tailored to companies' short-term needs, the long-term employment prospects of participants will suffer. Publicly financed vocational training should focus on enhancing participants' general competencies and core vocational skills, since it is these that empower skilled workers to successfully participate in advanced training and retraining programmes and in (company-funded) on-the-job training programmes that are necessary to acquire the specialised knowledge required by their employers throughout their careers, i.e., to enjoy long-term labour market success.

Appendix 2.1: The International Adult Literacy Survey

Survey sample. Our analyses cover the European sub sample of IALS excluding the three Swiss (German, French and Italian) sub samples. The number of observations is given in *Table A2.1.*

Table A2.1: IALS sample (15–59 year old non-student population)

Country	West1	West2	CEE
Belgium (Flemish)	2,261	0	0
Czech Republic	0	0	3,132
Denmark	3,026	0	0
Northern Ireland	0	2,907	0
Finland	0	2,928	0
Netherlands	3,090	0	0
Ireland	2,369	0	0
Poland	0	0	3,000
Hungary	0	0	2,593
Great Britain	0	3,811	0
Germany	2,062	0	0
Norway (Bokmal)	3,307	0	0
Italy	2,974	0	0
Sweden	3,038	0	0
Slovenia	0	0	2,972
Total	22,127	9,646	11,697

IALS test scores. Table A2.2 lists average score, and the percentages of those achieving Level 1 and Level 2 in each country. The countries are ranked according to their average score.

Table A2.2: Various indicators of IALS test results

	Average	SD	At least one test result at Level 1 or 2	All test results at Level 1 or 2
Norway (Bokmal)	297.299	42.804	0.388	0.192
Denmark	295.286	39.309	0.471	0.180
Netherlands	291.061	43.103	0.445	0.228
Germany	290.105	42.138	0.514	0.219
Finland	288.952	47.135	0.454	0.262
Czech Republic	287.789	45.732	0.564	0.247
Belgium (Flanders)	284.011	50.557	0.488	0.276
United Kingdom	278.208	61.904	0.527	0.351
Ireland	263.982	59.974	0.616	0.424
Hungary	255.969	47.570	0.831	0.444
Italy	252.067	55.690	0.727	0.516
Slovenia	233.994	60.312	0.831	0.622
Poland	233.002	61.646	0.839	0.628
Total	272.653	56.765	0.598	0.361

Measuring educational attainment. The IALS offers two methods for measuring educational attainment: the number of completed school years and the International Standard Classification of Education (ISCED). Although it was the problem of comparability that motivated the development of ISCED, the classification practices of different countries vary to such an extent that it renders any ISCED-based comparison nearly impossible, at least in some ranges of the hierarchy of qualifications. Individuals with 10 or 11 completed years of schooling, for instance, are assigned to the ISCED3 category (upper secondary) with a 0 percent probability in some countries, but with a 99 percent probability in others. The percentage in this category of those who completed 12 years of education varies between 22 and 99 percent, and we find 4–99 percent of those having completed 13 years here. The most critical argument against the use of the ISCED system for East-West comparison is, however, that with the exception of Poland, all Central and Eastern European countries lump individuals educated at vocational training schools together with those having Matura qualifications in the ISCED3 category.

Education and employment in Ireland. It is supported by OECD statistics that in the United Kingdom and Finland there is an exceptionally strong association between the level of education and employment. By contrast, judging from the data reported in *OECD* (2003*b*), in Ireland those assigned to the ISCED 0–2 categories appear to have a decidedly high employment rate: 74 percent as opposed to the OECD average of 68 percent for 2001. The ISCED 0–2 category is, however, very broad; 42 percent of the Irish male population were classed here in 2001. According to the IALS, this population was fairly evenly distributed across the educational groups of 6–10 completed years of schooling. While for the total male population, one additional year of schooling increased employment odds by 4.2 percent, the corresponding figure was 5 percent within the ISCED 0–2 category, which suggests marked heterogeneity and accounts for the discrepancy between school year-based and ISCED-based statistics.

The "Czech miracle". Czech participants displayed substantially better performance at the tests of the International Adult Literacy Survey (IALS) than did respondents in any of the other three former socialist countries; their educational attainment was higher (with a median of 12 years of schooling compared to 11 years for the other Central and Eastern European countries); Czech jobs were reported to have higher demands for literacy (7.3 versus 5.7 tasks); and the Czech population had a higher level of employment (83 versus 73 percent). Also, a substantially lower proportion of people had 11 years of schooling (17 versus 31 percent), which is, however, explained by the reform of primary education rather than a lower probability of vocational training. Primary schools had 9 grades between 1960 and 1978 and then again from 1990. As a consequence, some of those who were born between 1954 and

1964 or after 1975 and completed 12 years of schooling in fact attended 3-year post-primary vocational training programmes. (This group may include those born in September-December 1953 or 1974 however the IALS does not provide data on the month of birth.) *Table A2.3* suggests that among those who completed 12 years of schooling, the members of these cohorts are indeed less proficient and tend to be employed in jobs involving fewer literacy tasks than the members of previous or later generations.

Table A2.3: Some indicators of literacy skills and requirements for the Czech sample

Education	Proportion	*R*	*S*
Less than 10 years	9.8	–4.12	–1.64
11 years	17.4	–3.29	–1.19
12 years, probably vocational education	13.5	–3.29	–0.95
12–14 years, probably secondary education	38.3	–2.37	–0.65
More than 14 years	21.0	Reference	Reference

R: Reading and writing tasks at work, reference: higher education graduates.
S: Standardised IALS test scores, reference: higher education graduates.

The figures suggest that those educated at vocational training schools may constitute about 30 percent of the population, similar to other countries of the region. The linkages between education and employment are also similar to the patterns elsewhere. For this reason and because the overall Central and Eastern European results are not significantly affected by the inclusion or exclusion of the Czech Republic, our study does not separate the country from the rest of the former socialist countries.

Estimating workplace-worker matches. The questionable quality of the available wage variables is not the only barrier to the construction of alternative specific, multiple-outcome choice models (*Wooldridge,* 2002, 497–503). The way of estimating the coefficients of workplace-specific covariates (such as *R* itself, or company size and industry classification) is by creating interacted variables: the given covariate is multiplied by the dummy variables for education. This makes it practically impossible to control the equation for a large number of covariates. Secondly, the conditional logit (Stata *clogit*) and the "alternative specific simulated maximum likelihood multinomial probit" (Stata *asmprobit*) methods only allow the use of importance weights, which distort standard errors as do frequency weights. Third, it is not possible to compute marginal effects if there is a single positive outcome per group. (For an explanation see http://stata.com/support/faqs/stat/mfx_unsuit.html.) For the above reasons, our preferred specification is the multinomial logit model where the wage variable is excluded, but the sample is weighted, and controlled for sector, occupation, and company size.

Appendix 2.2: The occupational classification used for the analysis of skilled workers' wage advantage

Table A2.4: Codes defined by the Hungarian Standard Classification of Occupations (FEOR) of 1997 (or equivalent codes from before or after 1997)

Occupational group	FEOR code
Cleaners	911
Unskilled/semi-skilled workers	913–919
Machine operators, assemblers	81–83
Doorkeepers and cleaners	912 and 536
Agricultural workers	61–64 and 92
Drivers	833, 835, 836
Construction workers	76
Manufacturing workers	71–75
Workers in commerce	51, 421, 422 and 429
Workers in services	52–53 except 532, 533 and 536
Office clerks	41–42 and 532–533
Technicians	31–34
Assistants	35–39
Managers	11–14
Professionals	21–29 except 22–24
Teachers and doctors	22–24

Appendix 2.3: EBRD survey, 2001

Table A2.5: The EBRD survey sample and the average values of some indicators for 2000

	Sub-sample		
	Hungarian	Romanian	Russian
Number of firms	302	319	300
Number of employees	68,219	332,738	205,633
Manufacturing firms	203	184	156
Other sector firms	99	135	144
Small firms (fewer than 50 employees)	87	110	74
Medium-sized firms (50–249 employees)	128	88	115
Large firms (250 or more employees)	87	121	111
Private firms (less than 50 percent state ownership)	228	269	283
Firms established in or after 1990	78	123	56
Firms in foreign majority ownership	55	54	8
Firms introducing new products or modernising existing products	212	199	270
Firm introducing ISO 9000 quality control system	104	58	n. a.
Firms with significantly increased export	69	55	25

The EBRD survey covered more than 900 Hungarian, Russian and Romanian firms. The Hungarian companies were selected from the Short-term Labour Market Prognosis sample of the Hungarian Labour Centre (recently

renamed Employment Agency), excluding firms based in rural areas or small towns (having fewer than 20 thousand inhabitants), and agricultural and service sector companies. The firms included were grouped by sector and size. The survey questions concerned workforce size and average wages in 16 educational-occupational categories between 1997 and 2000. Several further questions were included on the prehistory of the company, on the technological, ownership, and market changes taking place between 1997 and 2000, and on the company's assessment of its human resources. The questionnaire is available at request. For an analysis based on the sample see *Commander & Köllő* (2008).

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THE LEGAL AND INSTITUTIONAL ENVIRONMENT OF THE LABOUR MARKET

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INTRODUCTION

The previous issues of the *Labour Market Review* provided an overview each year of the main changes in the legal and institutional context of the labour market and the drivers for these changes. This year, instead of presenting the changes, I will review current regulations to provide up-to-date information and facilitate a better understanding of Hungarian employment policies.

As has happened on several occasions in the past, this year too a major legislative review – the *Pathway to Work Programme* – was also begun during the writing of this study. The final proposal however was not available at the time of its submission. Therefore, in addition to the facts, the likely changes will also be discussed.

It is well known that the legal basis of the current institutional system of the labour market was created by Act IV of 1991 on the Promotion of Employment and Unemployment Compensation (Employment Act), which:
– created an insurance stream for unemployment benefits,
– established the institutions of organised social dialogue,
– established a single public employment service,
– expanded the range of active labour market policies.

Their current legislative framework and implementation is reviewed below.

I. THE SYSTEM OF UNEMPLOYMENT COMPENSATION

Current provisions for the unemployed

To compensate for the loss of income as a result of unemployment the Employment Act originally introduced three types of assistance: *the contribution-based unemployment benefit, the young entrants' unemployment allowance and the advance-pension*. The young entrants' unemployment allowance was phased out as of July 1, 1996. New eligibility for the advance-pension could be established up until December 31, 1997 however from January 1, 1998 it was replaced by the *pre-retirement unemployment benefit*.

At the beginning of 1993, a new type of unemployment compensation was introduced by *Act III of 1993 on Social Administration and Social Assistance* (Social Assistance Act); *the income replacement allowance* for those who can no longer receive the contribution-based unemployment benefit. *This was also phased out from May 1, 2000*. Since then, the only form of financial support

for people of working age in long term unemployment is the *regular social assistance (RSA).* The introduction of a new provision, the *job-search payment* as of July 1, 2003 attempted to fix the "slimming down" of the system of unemployment compensation.

From January 1, 2005 the self-employed and full-time partners in enterprises can also become eligible for unemployment benefit: *the contribution-based entrepreneurial benefit*.

The system of unemployment compensation completely changed after November 1, 2005. The contribution-based unemployment benefit was replaced by the – also contribution-based – *job search benefit*, and the job-search payment and the pre-retirement unemployment benefit were replaced by a single scheme, *the job-search allowance.*

Table 1 gives an overview of the income replacement compensation for the unemployed and the distribution of recipients by type of provisions. Data shows that while *at the beginning of the 1990s approximately a quarter of those registered as unemployed with the Public Employment Service were without financial support, this has currently increased to one in three.* The majority of clients received contribution-based benefit initially, but their share, i.e. people receiving unemployment benefit or job-search payment, was already less than 50% in 2005. From 2007 – in addition to the unemployment benefit that was being phased out – the contribution-based schemes are the job search benefit and the entrepreneurial benefit. Only 35.1% of the registered unemployed were claiming these.

Table 1: Average number of people claiming unemployment compensation, by type of provisions, 1992–2007

	Distribution of claimants at the end of the year (%)									
Provisions	1992	1994	1998	2000	2001	2003	2004	2005	2006	2007
Unemployment benefit	86.6	34.8	40.8	44.8	51.1	45.4	43.8	42.0	5.8	0.1
Young entrants' unemployment allowance	5.3	7.4	–	–	–	–	–	–	–	–
Income replacement allowance	8.1	45.6	45.5	36.9	10.8	0.8	0.3	–	–	–
Regular social assistance	–	–	–	13.2	34.8	48.4	47.9	49.1	48.3	51.0
Advance pension	0.0	12.1	13.2	2.2	0.3	–	–	–	–	–
Pre-retirement unemployment benefit	–	–	0.5	2.9	3.0	2.7	2.3	2.0	1.5	0.6
Job search payment	–	–	–	–	–	2.7	5.7	6.9	1.0	–
Job-search benefit	–	–	–	–	–	–	–	–	29.7	34.3
Job-search allowance	–	–	–	–	–	–	–	–	13.6	13.3
Entrepreneurial benefit	–	–	–	–	–	–	–	–	0.1	0.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
% of registered unemployed who do not receive any compensation	22.6	26.2	26.1	29.5	33.5	33.6	33.5	33.8	35.9	35.6

Source: Calculations based on data from Employment and Social Office.

1. Contribution-based entrepreneurial benefit

From January 1, 2005 the self-employed and full time partners in enterprises also became part of the unemployment insurance system. As a result, from 2006 they qualify for *entrepreneurial benefit* if;

– they are out of work;
– they have worked at least 365 days as self-employed or as a partner in an enterprise over the four years prior to becoming unemployed, and paid entrepreneurial contribution regularly (that is 4% of the income subject to the health insurance contribution);
– they are not eligible for incapacity or accident-related disability pension, or are not receiving sick-pay;
– they are registered as jobseekers with the local job centre and have not been offered a suitable job.

Unemployment insurance for the self-employed

The amount of the entrepreneurial benefit is calculated on the basis of the income which has served as the base for the entrepreneurial contribution. For this purpose the income of the last calendar year is taken into account in which the unemployed person paid the contribution for at least 6 months within a total period of four years prior to becoming unemployed. If there is no such calendar year, the amount of the benefit is calculated on the basis of the statutory minimum wage in the calendar year prior to becoming unemployed. The level of income on which the entrepreneurial contribution is actually paid is set according to the records of the Tax and Financial Control Administration (APEH).

The rate of the entrepreneurial benefit is 65% of the monthly average income defined as above. The monthly minimum of the entrepreneurial benefit is equal to 90% of the old-age minimum pension (HUF 25,650 in 2008).[1] The maximum amount is set at the double of this, namely 180% of the old-age minimum pension (HUF 51,300/month). The benefit is paid for a maximum of 270 days; one day of eligibility corresponding to five days of contribution.

2. Reform of the system of unemployment compensation

From November 1, 2005 the various types of unemployment provisions were replaced by a range of job-search support schemes that are available only for *jobseekers*; *people who want to return to work, are actively seeking work and who are doing their best to find a job.*

2.1. Contribution-based job-search benefit

The contribution-based unemployment benefit was replaced by the *job-search benefit*. The eligibility conditions, reflecting a mixed-approach with contribution-based and social welfare elements, were designed to encourage return to work. To this end the amount of the benefit decreases based on the length of time spent out of work.

1 At the time of publication the exchange rate of the Euro was 1 EUR = 298 HUF.

Unemployed becoming jobseekers

The job-search benefit can be claimed by jobseekers who were employed for at least 365 days within a period of four years prior to losing their job. As entitlement to one day of benefit requires five days in work, *the shortest period during which the job-search benefit can be paid is 73 days* (in comparison, previously the shortest period was 40 days with 200 days in work). *The longest time for which one can receive job-search benefit remains at 270 days (Table 2). The rate of the job-search benefit is 60 percent of the average earning on which the contribution was paid. The maximum and minimum amounts* were decoupled from the old-age minimum pension and *linked to the national minimum wage.*

Table 2: Eligibility conditions for job-search benefit

Introduction of job-search benefit	Employment history	Entitlement period		Waiting period	
		Minimum	Maximum	Voluntary departure	Redundancy
November 1, 2005	At least 365 days within 4 years of becoming unemployed	73 days	270 days	3 months	N/A

The benefit is paid in two phases *(Table 3).*

– In phase one, which is *half of the entitlement period, but not more than 91 days, the rate of the job-search benefit is 60% of the recipient's previous average earnings*, with a fixed minimum and maximum. *The minimum amount is equal to 60% of the statutory minimum wage, while the maximum is the double of this.*
– *The duration of phase two is the number of the remaining entitlement days*, but not longer than 179 days. The benefit during this phase is a *fixed amount of 60% of the minimum wage.* (If the jobseeker's eligible monthly average earning was lower than the minimum benefit, then the amount of the benefit paid equals to the average earning in both phases).

Table 3: General rules for calculating the amount of job-search benefit

Rate		Duration of Phase 1	Formula to calculate the average earning	Amount	
Phase 1	Phase 2			Minimum	Maximum
60% of previous average earnings	60% of the minimum wage (HUF 41,400 in 2008)	Half of the entitlement period, but not more than 91 days	The average earnings in the four quarters before becoming unemployed	60% of the minimum wage (HUF 41,400 in 2008)	120% of the minimum wage (HUF 82,800 in 2008)

Active job-seeking is a key requirement in order to qualify for the benefit. This is *set out in an agreement between the jobseeker and the local job office*. In this document the two parties set out a sequence of activities that help the individual to return to work. An important part of this is the individual's concentrated efforts to find a job. *If the jobseeker fails to comply with the*

provisions of the job-search agreement for reasons attributable to him/her, the payment of the benefit must be terminated.

Issues regarding the bonus payment for successful jobseekers

The bonus payment for successful jobseekers was introduced to encourage people to return to work as quickly as possible. *Jobseekers qualify for this bonus payment if they take up a full-time, or part-time – at least four hours a day – job under a permanent contract before their eligibility to job-search allowance ends. If they stay in work for a certain time, they can claim 50% of their remaining benefit entitlement to be paid as a lump-sum.* This case should be regarded as if the individual had been receiving the benefit for the whole entitlement period (and therefore will have no entitlement left). The rationale behind the introduction of the bonus was to encourage people on job search benefit to return to work as quickly as possible. In practice, however there were a number of issues. Clients are put off most of all by the termination of the entitlement. People are terrified of losing their job and they try to keep a "last resort". In this case it means a longer entitlement for job search benefit should they need it again. Another common issue is that employers do not register new workers on the same day when they cancel their registration with the job centre. As a result there is no continuity in their status as required by the eligibility conditions of this scheme. Furthermore, most employers hire new workers under a fixed-term contract of employment, and even though they might get a permanent contract later, they do not qualify for the payment. And although the bonus can also be paid to individuals who change their jobs, there is often a gap between jobs.

The job-search benefit creates entitlement to social security benefits, and thus – like the unemployment benefit – is subject to health insurance and pension contributions paid jointly by the authorities and the individual.

2.2. Job-search allowance

During the reform policy-makers aimed to ensure that no group of unemployed people are worse off under the new system; and any reduction in the average daily assistance was compensated by a longer entitlement period. Therefore a new form of assistance, the *job-search allowance* was introduced for those who:

– are no longer eligible for job-search benefit;
– are close to pensionable age;
– or due to changes in the eligibility conditions, do not qualify for job-search benefit.

Multi-purpose job search allowance

The allowance is a fixed sum equal to *40% of the statutory minimum wage* which was HUF 27,600/month in November 2008. It creates an entitlement to social insurance benefits, thus the benefit is subject to health insurance and pension contributions paid by the authorities and the individual.

The main features of eligibility conditions and payment of the job-search allowance are summarised below *(Table 4)*.

1. The introduction of the job-search payment on July 1, 2003 aimed to promote a longer and closer cooperation with the job centre. One of the eligibility conditions was closer cooperation during the entitlement period. The job-search ayment had to be adjusted to the new regime of job-search allowance, while preserving those features that worked. One of these for example is that active job-seeking is expected from the beginning of unemployment and not only following a longer period of claiming passive assistance. In the new system indeed, engagement in active job search is one of the main conditions of eligibility.

Therefore jobseekers can claim job-search allowance if they *received job search benefit for at least 180 days, they are no longer entitled to it and they have not yet been able to find a job.* The allowance can be *paid for up to 90 days, or in the case of jobseekers aged 50 years and over, for up to 180 days.*

2. Other potential recipients of the job-search allowance are people who had been eligible for 40 days of unemployment benefit with 200 days in employment under the old rules before November 2005 but because of the new eligibility conditions that require at least 365 days in employment, they do not qualify for job search benefit. However, they *can claim job-search allowance if they have spent between at least 200 but less than 365 days in employment in the four years prior to their unemployment.* The benefit is also *paid for 90 days* in their case.

3. The *pre-retirement unemployment benefit was kept* with identical eligibility and payment conditions. (The rate has increased: previously it was 80% of the old-age minimum pension and now it is 40% of the statutory minimum wage). However, it has a new name: under the term *job-search allowance* it has been integrated into the general job-search support scheme. The benefit can be paid – as in the previous scheme – until the individual reaches the national pension age, but only for a maximum of five years.

Table 4: Main features of the job-search allowance

Eligibility	Rate	Entitlement
1. For persons who have been entitled to at least 180 days of job-search benefit, no longer eligible however have not yet found a job.	40 percent of the statutory minimum wage	90 days, for persons aged over 50 180 days
2. Jobseekers who have spent between 200 and 364 days in employment during the 4 years before becoming unemployed.	40 percent of the statutory minimum wage	90 days
3. Persons who were eligible for pre-retirement unemployment benefit before November 1, 2005.	40 percent of the statutory minimum wage	Until reaching national pension age, but no longer than 5 years

Paid work is not permitted while claiming job-search allowance with the exception of casual work. The payment of their allowance is suspended for the duration of temporary employment. Casual work is also permitted for people who receive job-search benefit. However, in this case the income from casual work is not taken into account for the payment of their benefit.

2.3 Registration as a jobseeker with the Public Employment Service

Customers of the Public Employment Service who satisfy the following criteria are considered *jobseekers:*

– have the capacity and ability to work, and are available for work
– are not in full-time education, and
– not entitled to an old-age pension, and
– are currently out of work, other than temporary work, and are not engaged in any other income-earning activity, and
– are cooperating with the public employment service in order to find a job, and
– are willing to accept any suitable job offers, and
– are registered as a jobseeker by the public employment service.

The registration is initiated by the client who submits the appropriate registration form in the local office of the job centre. If the individual meets the registration criteria, they must sign a *job-search agreement. The agreement is a document that sets out how the individual participates and cooperates in intensive job-seeking.*

What is in a job-search agreement?

Progress and compliance with the terms and conditions of the job-search agreement is evaluated jointly by the individual and an adviser of the local office of the job centre on a *regular basis* at *personal meetings*. The job-search agreement *can be modified* or amended by mutual agreement of the individual and the job office if:

1. Due to any change in the *circumstances,* the jobseeker *can no longer comply* with the terms and conditions of the agreement, or
2. the jobseeker wishes to modify the *means and methods of job-seeking* indicated in the document.

It is a *requirement* to sign a job-search agreement when *it is made necessary and justified* by the particular circumstances of the *cooperation requirement*. In other words, when the jobseeker receives any financial support related to unemployment, that is:

– claiming *job-search benefit or allowance*, or
– receiving *regular social assistance* and is required to co-operate with the local job centre in the framework of the reintegration programme.

3. Regular Social Assistance

Unemployed people who are no longer eligible for job-search support and those receiving it but are in need can claim regular social assistance (RSA) from the local government. *Regular social assistance can be paid to people of working age who are not in work or receive job-search support and do not have sufficient income for living.* Low income was defined where the per capita monthly income in the claimant's family was below 80% of the old-age minimum pension and they had no capital (savings and property) over a certain value. The amount of the regular social assistance for people with disabilities was 80% of the old-age minimum pension, and 70% for non-employed people before July 1, 2006. The benefit was a top-up on the individual's income to 70% of the old-age minimum pension.

From regular social assistance to family support

After 1st July 2006 the system of regular social assistance transformed into a so-called *family-centred assistance*, the sum of which is calculated with the help of *"consumption unit"*, which shows the structure of the family. Instead of a fixed amount, the support depends on the income of the family. The income of the family is supplemented to 90 % of the minimum old-age pension per consumption unit. The system is based on the "one family-one benefit" principle.

The calculation of social assistance:
SA= (0.9 × minimum old age pension × consumption unit) – household income

The *consumption unit* is as follows:

The first adult: 1.0 (+ 0.2, if he/she is a single parent)
Spouse or partner: 0.9
First and second child: 0.8
Third and other children: 0.7
Disabled child: 1.0 (if there are disabled and non-disabled children, the first non-disabled child counts 0.8).
If the first adult or the spouse (partner) is receiving disability benefit, they count 1.0+0.2, or 0.9+0.2.

Since 1st January 2007, the amount of the social assistance is limited: the maximum amount is the net minimum wage, 53,915 HUF in 2007.

In addition to income, there are other eligibility criteria. Benefit can be paid only to people who are not in work, are actively seeking work and are not eligible for contribution-based job-search benefit. People can qualify if they are no longer entitled to job-search benefit or have been cooperating with the local government or the job centre in seeking work for at least one year prior to applying for benefit. Benefit-recipients must be actively seeking work and if they are offered a suitable job they must take it. They must also take part in *a reintegration programme* that involves *regular contact with the local job*

office. In addition they have to participate in the *community service organised by the local government*.

Two-thirds of people receiving regular social assistance live in Northern Hungary and Northern Great Plain regions (Table 5).

Table 5: Number of people receiving regular social assistance, by regions in 2007

Region	Persons
North-Hungary	51,523
North Great Plain	55,224
South-Transdanubia	26,659
South Great Plain	24,571
Central Transdanubia and Central Hungary together	26,815
Total	184,792

Source: *MoSAL* (2008*b*).

To *promote the employment of people receiving RSA* two important measures were taken. One is the rule that the assistance should be paid in full if the recipient is in casual work. And second, if the person receiving RSA takes up a job, *the assistance will be withdrawn gradually:* in the first three months of employment 50% and in the following three months 25% of the RSA will be paid. This rule does not apply for people in subsidised work schemes.

The experiences of local governments suggest that the family income-based approach to regular social assistance has a negative impact on the availability for work of people who receive larger sums of supports (this is illustrated by two examples in the box).

Example 1

Let us consider a family of five where both the father and the mother are out of work. Their total income is the family allowance paid for the three children, which is HUF 48,000/month. The family income limit in their case is HUF 107,730 minus HUF 48,000 = HUF 59,730. This is the amount of RSA they are entitled to. However in this case the upper ceiling is applied which is the net statutory minimum wage: HUF 56,190. The family is also eligible for *housing support* because of their low income. This is HUF 7,900/month and is granted on a yearly basis. The children are entitled to regular child protection allowance. In addition up to fifth grade they are entitled to free school meals, twice a year additional financial support and free school books. The value of school meals is approximately HUF 152/child/day which adds up to around HUF 9,120 (excl. VAT) monthly. Social assistance recipients are entitled to health care. The non-employed partner can claim a full waiver on health care contribution which has a value of HUF 4,350.

In summary, the total sum of regular social benefits each month is the following: 56,190+7,900+9,120+4,350=HUF 77,560+HUF 48,000 family allowance. For this monthly income the family need do nothing but submit a claim to local government and occasionally turn up at the local job office and family support service. HUF 77,560 is considerably more than the minimum wage and therefore it does not provide any incentive to take up work. In addition casual work is allowed while on benefit. The special assistance (school books, the lump-sum child protec-

tion allowance in July and June) add up to approximately HUF 78,000 each year, which means HUF 6,600/month.

If one of the family members started to work on the statutory minimum wage, the other partner would be eligible for only HUF 3,450 as social assistance.

Example 2

The impact of the RSA is illustrated on the example of a family of two adults, both of them out of work. The family income limit in their case is HUF 48,735 and because they have no other income, they are entitled to the full sum. They are also eligible for HUF 4,700 housing support, and the partner can claim a full health care contribution waiver which has a value of HUF 4,350. The total sum of these is HUF 57,785/month. If one of them took up work on the minimum wage, they would be no longer eligible for regular social assistance.
Source: *Molnárné* (2008).

The new rules of the RSA stirred up strong emotions at places where people in non-supported jobs have to work for very low wages and often they have to pay for their commuting expenses as well. The local government of Monok in Borsod-Abaúj-Zemplén county adopted a local regulation in response to this justified discontent. This required that for each 5,000 Forints of social assistance, recipients must do 8 hours of community public work (*Joób*, 2008). Other local governments followed this example. The ombudsman for human rights issued a statement on June 26, 2008 arguing that this practice was unlawful because people are entitled to RSA and if they work they should receive a wage. The high share of the Roma population among those claiming RSA might also imply the risk of discrimination. He therefore called on the mayors of the localities concerned to annul the regulations in question. He went on to suggest that Government should review the framework of public work to ensure that it fulfils its purpose in promoting employment.

Is community employment the way to work?

The Ministry of Social Affairs and Labour prepared a proposal to address these issues in the system of regular social assistance. The *"Pathway to Work"* programme was considerably amended as a result of the responses received during public consultation. It was passed by the Parliament at the end of 2008, and the bill entered into force in early 2009. The key points are that among the 200 thousand people claiming RSA, those capable of work should be offered paid work. People under 35 years who have not completed lower secondary education would be required to finish school.

Unemployed people capable of work are required to cooperate with the employment service in seeking employment. If neither the employment service nor the local government can offer them work, they are entitled to a so-called *community employment replacement support* that is equal to the amount of statutory minimum pension. Around half of the RSA recipients will be in this group. The other half because of their age, health condition or individual life circumstances are not considered capable of work. They will continue to

be eligible for regular social assistance, for which they are required to cooperate with the family support service.

Local governments are responsible to arrange work for the first group. To this end, in cooperation with the employment service they are required to prepare a community employment plan by January 31 each year. In addition, the Start Region Card will be introduced in most disadvantaged areas that will exempt employers from paying social security contribution for three years after hiring people receiving community employment replacement support.

4. Experiences of the implementation of new rules

The reform of the unemployment compensation was not without impact. *Table 6 shows that the share of those actively seeking a job among the recipients of unemployment compensation increased significantly: from 49.8 percent to 61.8 percent among men, and from 46 percent to 58.1 percent among women.* More closely, among those receiving the contribution-based job search benefit the share of people actively seeking a job increased from 56.1 percent to 66.4 percent. However *this increase was even higher among women, nearly 15 percentage points!* There were significant changes among people receiving regular social assistance as well (the same figure increased from 40.4 to 55.4 percent), however there was no difference between men and women.

Table 6: Active jobseekers* and passive unemployed among the recipients of unemployment compensation**

Recipients of unemployment compensation	1992			1997			2004			2007		
	men	women	total	men	women	total	men	women	total	men	women	total
Recipients of unemployment benefit										**Recipients of job-search benefit**		
Active jobseeker	75	68	72	62.7	54.4	59.2	62.5	50.4	56.1	68.2	64.7	66.4
Passive unemployed	13	11	12	6.2	5.3	5.8	14.5	10.0	12.1	9.7	8.6	9.1
Recipients of income replacement allowance										**Recipients of job-search allowance**		
Active jobseeker				52.2	46.9	50.1	55.4	53.8	54.6	54.2	43.5	47.2
Passive unemployed				17.2	11.5	15.0	23.2	10.9	17.6	3.3	3.7	3.6
Recipients of regular social assistance												
Active jobseeker							40.6	40.1	40.4	57.2	53.2	55.4
Passive unemployed							35.5	23.6	30.6	24.4	20.9	22.8
Total												
Active jobseeker	75	68	72	57.1	50.7	54.5	49.8	46.0	48.0	61.8	58.1	60.0
Passive unemployed	13	11	12	12.0	8.4	10.5	26.8	16.1	21.8	17.6	14.1	15.9

* Only those recipients of unemployment assistance can be considered unemployed who have actively sought work in the last four weeks and are available to start work in the next two weeks. Active job search is defined as inquiring about job vacancies from public or private employment agencies, directly from employers or from friends and relatives.

**Passive unemployed are people who would like to work but they are discouraged from job-seeking because of their perceived lack of opportunities.

Source: own figures based on data from the Labour Force Survey, CSO.

Only the proportion of people claiming job search allowance dropped significantly, probably because the share of older people close to pensionable age is higher among that group and they are not required to actively look for a job. The fact that 35% of the recipients of the contribution-based benefit returned to work before the end of the entitlement period, as opposed to 25% in the previous system, also suggests that the new scheme provides better incentives to work.

While 37% of men and approximately 40% of women classified as unemployed by the Labour Force Survey did not receive any support in 1992, the same figure increased to 64 percent among men and 66.4 percent among women by 2003. As *Table 7* shows *the reform of the unemployment and social benefits regimes had a significant impact on this.* As a result the coverage of people classified as unemployed according to the ILO criteria[2] increased from one third to 40% by 2007, and there were no gender differences.

2 According to the International Labour Organisation (ILO) the definition of unemployed people is the following:
– during the week of the statistical survey have not had paid employment of at least one hour or are without a job;
– have actively sought work in the last four weeks;
– and are available to start work in the next two weeks.

Table 7: Coverage level of jobseekers, 1992–2007 (%)

Beneficiaries	1992*	1993	1994	1995	1996	1998	2000	2001	2002	2003	2004	2007
Men												
Unemployment benefit	63.0	55.3	36.0	26.0	22.2	21.3	16.7	17.5	16.3	18.9	15.7	
Unemployment allowance for young entrants		2.7	2.9	3.1	2.2							
Job search benefit												19.2
Income replacement allowance		7.2	17.5	23.1	24.0	22.8	17.5	5.7	3.0	2.1	2.3	
Job-search allowance												0.7
Regular social assistance								13.7	16.7	15.0	15.1	20.4
Total recipients	63.0	65.3	56.3	52.2	48.4	44.1	34.2	36.9	36.0	36.0	33.1	40.3
Women												
Unemployment benefit	60.2	51.5	36.0	27.8	26.4	24.2	17.9	19.6	19.4	18.3	17.0	
Unemployment allowance for young entrants		3.5	3.4	2.4	1.5							
Job search benefit												20.9
Income replacement allowance		5.4	13.5	18.6	18.7	22.9	15.0	6.3	2.7	2.7	2.4	
Job-search allowance												2.0
Regular social assistance								9.4	11.7	12.6	12.4	17.1
Total recipients	60.2	60.3	52.9	48.7	46.6	47.1	32.9	35.3	33.8	33.6	31.8	40.0
Total												
Unemployment benefit	61.9	53.9	36.0	26.7	23.8	22.4	17.1	18.3	17.6	18.6	16.3	
Unemployment allowance for young entrants		3.0	3.0	2.8	2.0							
Job search benefit												20.0
Income replacement allowance		6.5	16.0	21.4	21.9	22.8	16.5	5.9	2.8	2.4	2.3	
Job-search allowance												1.3
Regular social assistance								12.1	14.6	13.9	13.8	18.8
Total recipients	61.9	63.4	55.0	50.9	47.7	45.2	33.6	36.3	35.0	34.9	32.4	40.1

* Including people claiming young entrant's unemployment allowance.
Source: Calculations based on data from the Labour Force Survey, CSO.

II. ACTIVE LABOUR MARKET SCHEMES, SERVICES AND PROGRAMMES

Section 1 of Article 5 of Act IV of 1991 (Employment Act) declares that *employment services and employment promoting subsidies* should be the primary means of solving, managing and mitigating tensions in the labour market, as well as preventing, reducing and alleviating the negative effects of unemployment. Employment subsidies are usually referred to as active labour market schemes because they aim to prevent unemployment or help people to return to work as quickly as possible. The administration of active labour market schemes including accepting claims, making payments and monitoring is the responsibility of the local offices of job centres funded by the *Decentralised Employment Sub-Fund (DESF) of the Labour Market Fund (LMF).*[3] The different types of support, their conditions and scope of eligibility are set out in this Act. In general, *there is no guaranteed entitlement to active labour market schemes – in contrast to passive assistance – neither for employers nor unemployed people even if they meet the eligibility criteria laid down in the Act.*

This chapter gives an overview of active labour market schemes in Hungary including their implementation, eligibility criteria and patterns of take-up. The discussion of policies focuses on so-called *normative schemes*, namely those listed in the Employment Act and funded from the Decentralised Employment Sub-Fund. These involve a decreasing number of people (see *Table 9* below). In 2001 there were nearly 105,000 people receiving support from active labour market policy measures. This number was just over 50,000 in 2007, which represents a 50% drop. It should be noted however, that besides the ALMPs listed in the Employment Act, *there are social insurance contribution discounts and tax discounts* linked to the employment or training of jobseekers and other disadvantaged or disabled people regulated elsewhere.[4] These schemes have proliferated recently. Furthermore the European Social Fund (ESF) should also be mentioned here. The ESF supports – under strict administrative conditions – integrated employment programmes mainly implemented under the aegis of partnerships led by voluntary organisations or the Public Employment Service.

Without ALMPs the unemployment rate would be 1.2 percentage points higher

In 2001 on average 2.6% of the economically active population participated in active labour market schemes and programmes, in 2007 only 1.2% *(Table 8)*. This leads to two conclusions. On the one hand, the unemployment rate would have been proportionately higher had jobless or redundant workers not benefited from preventive or active labour market programmes. On the other hand, the role of active labour market schemes in mitigating labour market tensions diminished in a period when unemployment started to rise. This aggravated tensions in the labour market instead of alleviating them by exerting an anti-cyclical effect on labour market processes.

3 The detailed eligibility conditions relevant to ALMPs are published in the Ministry of Labour regulation no. 6/1996 (VII. 16) on employment aid and aid to mitigate the effects of employment crises.

4 For example acts on personal income tax, corporate or health care contribution.

Table 8: Unemployment rate, activation rate and the share of ALMP-participants within the labour force

Year	Activation rate*	ALMP participants within the labour force (%)**	Unemployment rate calculated on the basis of registered unemployed***
2001	19.4	2.6	8.9
2002	20.0	2.1	8.4
2003	19.8	2.1	8.3
2004	16.7	1.8	8.7
2005	14.9	1.7	9.4
2006	13.8	1.5	10.0
2007	10.2	1.2	9.7

* The number of people in ALMPs divided by the sum of the same figure and the number of registered unemployed.
** The number of people in ALMPs compared to the number of the economically active population on January 1 of the previous year.
*** Unemployment rate calculated using the number of registered unemployed in January of the given year.
Source: Employment and Social Office, Labour Force Survey, CSO and Workforce Survey, CSO.

In summary, active labour market schemes provided training or employment opportunities to a diminishing share of actual or potential unemployed people in the given period. The so-called *activation rate* which compares the number of participants in ALMPs with the sum of ALMP participants and the number of registered unemployed, *stood around 20% in the early 2000s, then fell to 16.7% by 2004, 14.9% by 2005, 13.8% in 2006 and 10.2% in 2007.*

Unemployed people can participate in ALMPs for shorter or longer periods. Therefore, the real number of participants in a given scheme is considerably higher than the yearly average. The *total number of participants* is the accumulated number of people who participated in an ALMP for at least a day during a given period. *Table 10* presents information on this. *The table shows that the total number of participants dropped by over 40 percent between 2001–2007.*

The total number of participants in ALMPs was three times the average number of participants in the observed period. The specific proportions were heavily influenced by the length of support. When resources started to shrink, counties responded by cutting down the length of time and amount of support.

Table 9: Average number and distribution of participants in ALMPs, 2001–2007

ALMPs	2001	2002	2003	2004	2005	2006	2007*
Participants (persons)							
Labour-market training	27,187	23,410	25,044	17,919	11,838	13,040	11,925
Public work	23,185	17,751	17,534	14,235	15,790	12,953	12,259
Wage subsidy	26,547	21,693	20,439	18,909	18,417	16,935	17,042
Job-creation aid**	6,943	1,708	1,270	2,717	2,742	2,588	1,441
Business start-up subsidy	1,616	1,269	1,250	953	1,137	799	859
Reimbursement of commuting/travel costs	3,483	3,294	3,088	2,112	1,836	1,448	871
Schemes for young entrants	7,094	6,827	7,686	7,908	8,086	7,884	2,950
Support for self-employment	5,142	5,204	4,642	3,963	3,111	2,393	1,749
Safeguarding jobs***	156	2,209	3,419	2,923	4,284	2,219	889
Assumption of contributions	3,399	3,116	3,878	3,324	3,821	1,871	317
Part-time work	–	–	–	357	584	561	145
Teleworking	–	–	–	–	–	–	205
Labour cost subsidy	–	–	–	–	–	–	221
Total	104,752	86,481	88,250	75,320	71,646	62,691	50,873
Previous year = 100	101.0	82.6	102.1	85.3	95.1	87.5	81.2
Distribution (%)							
Labour-market training	26.0	27.1	28.3	23.8	16.5	20.8	23.3
Public work	22.2	20.5	19.8	18.9	22.0	20.7	24.1
Wage subsidy	25.3	25.1	23.1	25.1	25.7	27.0	33.5
Job-creation aid**	6.6	2.0	1.4	3.6	3.8	4.1	2.8
Business start-up subsidy	1.5	1.5	1.4	1.3	1.6	1.3	1.7
Reimbursement of commuting/travel costs	3.3	3.5	3.5	2.8	2.6	2.3	1.7
Schemes for young entrants	6.8	7.9	8.7	10.5	11.3	12.6	5.8
Support for self-employment	4.9	6.0	5.3	5.3	4.3	3.8	3.4
Safeguarding jobs***	0.2	2.6	3.9	3.9	6.0	3.5	1.7
Assumption of contributions	3.2	3.8	4.6	4.4	5.3	3.0	0.6
Part-time work	–	–	–	0.4	0.9	0.9	0.6
Teleworking	–	–	–	–	–	–	0.4
Labour cost subsidy	–	–	–	–	–	–	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* Combined figures for schemes that are being phased out and newly introduced in 2007.
** For job creation aid the figures indicate the number of job vacancies (created and) filled during the year.
*** This scheme started in 2002. A different scheme that ran under the identical name was abolished in 2001 due to very low take-up.
Source: Employment Office.

Table 10: Total numbers of participants and their distribution by active measures, 2001–2007

ALMPs	2001	2002	2003	2004	2005	2006	2007
Participants (persons)							
Labour-market training	91,519	82,835	82,895	59,894	43,725	47,141	41,816
Public work	80,742	84,498	76,892	63,998	79,429	66,403	63,098
Wage subsidy	48,089	40,838	41,064	36,313	37,708	33,150	43,501
Job-creation aid**	9,086	6,452	4,595	4,710	3,816	3,325	1,875
Business start-up subsidy	5,016	4,326	4,011	3,225	3,394	2,736	4,861
Reimbursement of commuting/travel costs	9,356	9,774	7,495	5,517	5,015	3,910	2,461
Schemes for young entrants	16,758	16,108	17,551	17,527	18,206	17,976	–
Support for self-employment	6,025	6,138	5,493	4,689	4,086	2,941	–
Safeguarding jobs***	653	12,634	12,668	10,698	13,703	7,390	3,843
Assumption of contributions	9,702	10,008	11,883	10,092	10,753	6,552	–
Support for intensive job-search	–	100	109	64	64	–	–
Part-time employment	–	–	–	791	1,285	1,253	–
Total	276,946	273,711	264,656	217,518	221,184	192,777	161,455
Previous year = 100	94.0	98.8	96.7	82.2	101.7	87.2	83.8
Distribution (%)							
Labour-market training	33.0	30.2	31.3	27.5	19.8	24.5	25.9
Public work	29.1	30.8	29.1	29.4	35.9	34.4	39.1
Wage subsidy	17.4	14.9	15.5	16.7	17.0	17.2	26.9
Job-creation aid**	3.3	2.4	1.7	2.2	1.7	1.7	1.2
Business start-up subsidy	1.8	1.6	1.5	1.5	1.5	1.4	3.0
Reimbursement of commuting/travel costs	3.3	3.6	2.8	2.5	2.3	2.0	1.5
Schemes for young entrants	6.1	5.9	6.6	8.1	8.2	9.3	–
Support for self-employment	2.3	2.4	2.1	2.2	1.8	1.5	–
Safeguarding jobs***	0.2	4.6	4.8	4.9	6.2	3.8	2.4
Assumption of contributions	3.5	3.6	4.5	4.6	4.9	3.4	–
Support for intensive job-search	–	–	–	–	–	–	–
Part-time employment	–	–	–	0.4	0.6	0.6	–
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* Total numbers include everybody who participated in the given scheme within a certain period, even if only for a day.
** For job creation aid the figures indicate the number of job vacancies (created and) filled during the year.
*** This scheme started in 2002. A different scheme that ran under the identical name was abolished in 2001 due to very low take-up.
Source: Employment Office.

1. Labour market training

Labour market training aims to provide jobseekers and people at risk of unemployment with sought-after skills and knowledge to help them return to work or keep their job. The training can lead to a formal vocational qualification, provide the necessary skills for a specific job or strengthen skills to improve performance in their current job. The importance of training is highlighted by the fact that the majority of registered jobseekers do not have sought-after qualifications which is a key cause of long-term employment.

Job centres organise and run labour market training programmes in accordance with the objectives of their yearly training plans and relevant regulations [e.g. Act IV of 1991, 6/1996. (VII. 16.) Ministry of Labour decree, Act CI of 2001 and other relevant provisions]. Yearly training plans are based on reported labour demand, data from previous years and proposals by local offices and councils. If funding comes from more than one source for training, funding is allocated by target groups.[5]

Regional job centres support the labour market training of:

– jobseekers;
– young persons aged under 25 years – graduates under 30 years – who do not qualify for job-search support after leaving school;
– people receiving different types of parental benefits or carer's support;
– people claiming rehabilitation allowance;
– workers who will become redundant within a year and where the employer has given written notice of this to the employee and the employment service;
– those who take part in a community employment scheme;
– people who are employed but need training to stay in work.

The Labour Market Fund can support training in the following categories:

– vocational training as defined by the Vocational Education and Training Act;
– training in basic skills necessary in order to start vocational education or training;
– job search skills and career advice;
– language training for people who already have vocational qualifications;
– driver training for road vehicles.

It should be mentioned here that besides labour market training, *life-long learning* is key for finding and staying in work. The framework of life-long learning was created by the *Adult Training Act* adopted at the end of 2001.[6] In-company training also has a key role in preventing unemployment and improving the adaptability of workers. To promote in-company training, companies are permitted to spend one third (0.5 percent out of 1.5 percent contribution) of their vocational training contribution on the training of their own employees.[7] Micro- and small enterprises can spend 60% of the gross contribution on the training of workers. The revenue of the Vocational Education and Training Fund from vocational training contributions was HUF 33 billion, out of which more than HUF 6 billion was spent by companies on the training of their own workforce. This sum is increasing year by year, however it should be considerably more because the participation rate in adult education is well below the EU average – in Hungary 3.2 percent of men and 4.5 percent of women participated in some form of training or continuing education – which impacts negatively on the competitiveness of the country.

5 For example the money from the decentralised Employment Sub-Fund of the Labour Market Fund (LMP training budget) earmarked for training is used by the regional training centre. Measure 1.1.2 of the Social Renewal Operational Programme supports the vocational training of disadvantaged people. The New Path Programme provides re-training for people made redundant in the public sector.

6 The institutional structure of adult education is made up of the Adult Training Council, adult training institutions, the Adult Training Accreditation Board responsible for the accreditation of courses and institutions, and the National Institute for Adult Training. A first accredited vocational qualification is fully subsidised by the state, however people with disabilities can participate free of charge in general, language and vocational training. Moreover people aged over 50 can do a second NVQ free of charge or subsidised by the state.

7 The vocational education and training contribution can be used for the training of a company's own workforce (for up to 33% of the full amount), or transferred directly to vocational education and training schools (for up to70% of the total contribution) or universities (for up to 35% of the total sum).

Programmes financed by the European Social Fund, such as the *Take a step forward!*[8] or the programme for people made redundant in the public sector (*New Path Programme*) and training programmes organised by the regional training centres such as the Social Renewal Operational Programme etc. have had an increasing role more recently.

Unemployed people have two options as regards starting training or education: following the approval of the job centre 1) they can either enrol in one of the training courses offered by the job centre, or 2) find an accredited training course offered by an accredited training institution. The first is the *collective training* (recommended) and the latter is the *individual training* (approved) (*Table 11*). In 2007, 85 percent of training courses were recommended courses offered by job centres. Sixty-nine percent of participants received RNVQ (Register of National Vocational Qualifications) certificates in these. In non-RNVQ skills training more people – 24.4% – are in approved than in recommended courses. Among people in approved training courses the rate of participants in language training is 4.5 percentage points higher than among those in recommended training.

Table 11: Participation in different types of training among the non-employed, 2007

Training programmes	Recommended training		Approved training		Total	
	persons	%	persons	%	persons	%
RNVQ course	22,909	69.1	3,806	65.2	26,715	68.6
Non-RNVQ course	6,224	18.8	1,419	24.3	7,643	19.6
Language course	4,001	12.1	609	10.5	4,610	11.8
Total	33,134	100.0	5,834	100.0	38,968	100.0

Source: *ESO* (2008).

The distribution of labour-market training participants by gender was characterised by a *relatively higher share of women*: in 2007 56.3% were women. More younger people take part in training: *60.4% were aged under 25 years. 23.4% of training participants had completed no more than lower secondary education*, 23.2% had lower secondary vocational qualification, 39.8% had upper secondary education and 9.1% had higher education (ESO, 2008, p. 27).

There are two types of financial assistance for training participants: *income supplement and living allowance*. In addition, training-related expenses can also be reimbursed. Living allowance is paid for people who are claiming job search benefit when they start the training. The allowance is paid during the whole duration of the course, while job-search benefit is suspended. People who are not claiming job search benefit might be awarded living allowance on a case-by-case basis.

The rate of the living allowance is equal to the national minimum wage (the minimum wage was 69,000 Forints in 2008). It can be awarded only to peo-

8 In the 15 months after January 2006 more than 15,000 people were involved in the first phase of the "Take a step forward!" programme. 62% of them were out of work. The second phase of the programme started in the autumn of 2008 with a budget for the training of more than 22,000 adults.

Living allowance = minimum wage

ple in a recommended (collective) or approved (individual) *full-time training course of at least 20 hours a week*. People claiming parental benefits and carer's support only qualify for a reimbursement of training expenses. They are permitted to participate in courses of not more than 20 hours a week. This provision was made when this was the upper limit of part-time employment without losing eligibility for the assistance. At present claimants of child care benefit are even allowed to work full time. This should be applied to participation in labour market training as well.

The training of workers is usually initiated by the employer. In this case, assistance might be given on a discretionary basis towards the training expenses and participants might qualify for an *income supplement* to compensate for any loss of earnings during the course. The rate is up to the difference between average earnings and the earnings while in training.

The other important component of training-related expenses is the *course fee*. For *recommended* (collective) training courses the full fee is reimbursed, for *approved* (individual) training the rate is typically 70–100 percent. Sometimes, for people aged above 45 years, the reimbursement rate is 100%, however for younger people it is only 50%. In addition to the above, training participants can qualify for the full or partial reimbursement of travel, accommodation and food expenses. According to the Adult Training Act the *Labour Market Fund can contribute only to training courses by accredited adult training institutions.*

Within the total spending on training, income replacement benefit made up one third and the reimbursement of course fees represented around 60 percent of total costs. Over the longer run, the share of the living allowance is increasing as a result of higher rates of job search benefit and other benefits for certain groups. The most marked change happened in 2007 when the rate of living allowance increased from 60 percent to 100% of the national minimum wage. The rationale behind this was that Programme 1.1 in the Human Resources Development Operational Programme (HRDOP) had already paid the higher rate equivalent to the national minimum wage to participants before 2007. Although that did not qualify for pension, it created great discontent among those who participated in similar training courses funded by the decentralised Employment Sub-Fund.

"Training to make ends meet"

According to current rules, *the rate of assistance for all participants in labour market training, regardless of the source of funding is the national minimum wage, and time spent in training contributes towards pension years.* Feedback from job centres suggests that some jobseekers choose to undertake training to secure a living. The increased rate of assistance makes it more attractive for jobseekers to participate in training. This trend is further enhanced by the restrictions of social insurance, and the contribution towards pension can also be a further incentive to people near the retirement

age. Many registered customers apply for training even if the qualification will not significantly improve their chances on the labour market. The other important issue is that the employment service can offer training to fewer people from its budget. Finally the price of training courses has also increased because they are no longer selected through tendering and lower cost is not the main selection criterion.

The *Take one step forward! II* ran out of money before the end of the programme because it was so oversubscribed as a result of the training assistance paid at the level of the national minimum wage. The assistance was paid to students after 150 contact hours in order to motivate people – the long-term unemployed, inactive population who had only lower secondary education, the majority of whom are Roma – to participate in training. Although the delays in the payment of the benefit caused problem on a number of occasions, the Programme launched last autumn with a total budget of HUF 10.6 billion had to be suspended because it ran out of money. (HVG, 2008, p. 92). The fact that the living allowance and the regular social assistance could be paid together provoked discontent, particularly in smaller localities. Local governments argued that training participants are not eligible for the regular social assistance, because they do not have to pay for the training and they also receive financial support.

In summary it can be concluded that increasing the rate of living allowance achieved its aim to increase willingness to participate in training. Demand for training has soared but this was not followed by an increase in training places because the budget has not grown proportionately with the income replacement assistance. It remains to be seen whether the growth in the average cost of training will also improve the effectiveness of training as measured by the relevant job finding rates.

2. Wage subsidies for the long term unemployed

Wage subsidies for the long term unemployed aim to encourage employers to retain workers who have integrated into the workplace after the subsidy ends – by offsetting the higher cost of hiring and training and the lower productivity of long term unemployed people. The conditions of the subsidy changed significantly after January 1, 2007. Earlier rules were confusing because similar wage subsidies – often overlapping – were available in various active labour market schemes of the Employment Act. This situation was also inconsistent with the EU principles and had to be brought in line with the Community rules.

The new wage subsidies system also aims to promote the employment of disadvantaged people and help those groups who face the most serious challenges in the labour market. The difference in comparison to the earlier system is that the criteria of labour market disadvantage are defined according

to Commission regulation (EC) No 2204/2002/EC. Subsidy can be granted to employers for employing workers who satisfy the criteria of the *Commission regulation*.[9] According to this Commission regulation, a *disadvantaged jobseeker* is any person who:

– has not attained an upper secondary educational qualification or its equivalent, or
– is older than 50 years when taking up employment, or
– is a young entrant under the age of 25 years, or
– has a disability,[10] or
– has been registered as unemployed with the PES for 12 of the previous 16 months, or six of the previous eight months in the case of persons under 25, or
– is a lone parent looking after a child or children under the age of 18, or
– has been receiving maternity or parental benefit or carer's support within the previous 12 months, or
– has spent time in a penal institution within the previous 12 months.

Table 12 shows that more than 20,000 people claimed wage subsidies available since 2007, out of which 95 percent were disadvantaged and 5 percent had a disability. One individual from every ten of the beneficiaries was a person with low education and nearly one fifth was aged over 50. The proportion of young people is also significant; a quarter of the beneficiaries were young entrants aged under 25.

Table 12: People in jobs supported by employment promotion schemes, 2007

Categories of beneficiaries	Persons	Distribution (%)
Jobseeker with lower secondary education at most	2,321	11.2
Jobseeker aged 50 years or over	3,785	18.4
Jobseeker aged under 25 years	5,183	25.1
Jobseeker in long-term unemployment	7,088	34.4
Jobseeker, lone parent with at least one child aged under 18 years	588	2.9
People returning to work after parental leave or caring for a family member	534	2.6
Jobseeker in police custody or detention	26	0.1
Disadvantaged jobseekers, total	19,525	94.7
Employee (aged 50 years of over)	64	0.3
Employee (with lower secondary education or lower)	10	0.0
Disadvantaged employees, total	74	0.3
Jobseekers with a disability	1,027	5.0
Total	20,626	100.0

Source: *ESO* (2008).

After January 1, 2007 the subsidy – 50% of the wage and contributions for subsidised workers and 60% for disabled workers – had to be awarded for 12 months. Setting the subsidy-period at 12 months limited the autonomy of the local job centres in allocating funding for active measures from the decentral-

9 With the introduction of the new system the old employment promotion schemes were abolished (including the higher rate of wage subsidy for persons aged 45 years and over and the assumption of employment-related contributions including the higher rates for jobseekers aged over 50 years and people leaving prisons on probation). In addition, the support for part-time employment, the assumption of wage costs for vocational rehabilitation, work experience scheme of young entrants and the subsidy for temporary agency work were also ceased as individual schemes.

10 For the purpose of qualifying for wage subsidy jobseekers are considered disabled:

– if the loss of their work capacity – as assessed by the National Rehabilitation and Social Assessment Institute (ORSAI) – is at 40% or more, or

– they have not been assessed by the ORSAI but according to the opinion of the occupational health service their employment prospects are significantly worsened by their physical or mental impairment.

ised Employment Sub-Fund and reduced the effectiveness of labour market interventions. The same criticism was put forward regarding the standardisation of aid intensity. To address this, there was *another change in the conditions of the wage subsidy on January 1, 2008*. According to this the subsidised period can be shorter than one year. However the employer should, in this case too, retain the worker for a minimum of 12 months. The intensity of the subsidy can also be lower than 50 or 60 percent of the labour costs. These rates have only been *the upper ceiling* of the subsidy since January 1, 2008.[11]

A further condition is that the employer has not made workers redundant in similar posts within the previous six months and commits not to do so while claiming the subsidy.

The wage subsidy scheme includes support towards the retention of workers – safeguarding jobs. In accordance with the EU rules on *de minimis* state aid (see Box 2) employers can be granted subsidy to retain a *disadvantaged person (worker)* who is *threatened by redundancy*, namely a person who:

- becomes redundant for reasons within the normal scope of business activities of the employer, or whose fixed-term work contract ends within 90 days; or
- is aged above 50 years when the new employment contract starts; or
- has not attained upper secondary education; except in the case when the parties sign a contract of employment within 60 days from the end of the previous contract.

11 Act CLXXIX of 2007 on the amendment of certain labour legislation; EA amendment: article 16.

General information on *de minimis* state aid*

According to Section 1 of Article 87 of the Treaty establishing the European Community any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall, insofar as it affects trade between Member States, be incompatible with the common market.

The European Commission controls state aid granted to enterprises by Member States and the creation of new aid schemes or the modification of existing ones must be notified to and authorised by the Commission. In Hungary the State Aid Monitoring Office in the Ministry of Finance is responsible for the notification of state aid.

Certain aid schemes are not subject to the notification requirement, including *de minimis* state aid schemes because their amounts are considered to be small enough not to distort competition. The list of *de minimis* state aid schemes are set out in national legislation.

The ceiling for the aid covered by the *de minimis* rule is in general EUR 200,000 (cash grant equivalent) over any three fiscal year period. This amount is lowered to EUR 100,000 in the road transport sector.

* As of January 1, 2007 *de minimis* state aid is regulated by COMMISSION REGULATION (EC) No 1998/2006 of 15 December 2006 on the application of Articles 87 and 88 of the Treaty to *de minimis* aid.

3. Community employment

From the point of view of employment policy, community public works schemes have the following purposes: to
– increase the number of job vacancies offered by the job centres;
– test the work-readiness of jobless people;
– provide income to those who are no longer eligible for unemployment assistance;
– in the absence of other opportunities, provide a possibility to earn entitlement to unemployment assistance and pension;
– provide a job opportunity for those who have no chance of finding a normal (non-supported) job; and
– give the opportunity to gain work experience and in this way improve the job prospects of the individual.

Employers who hire unemployed people to carry out community public works can claim back 70% of their direct labour expenses if they do not get payment for the work carried out. In public work schemes two types of projects can be supported: on the one hand those projects which undertake the mandatory task of local governments, and on the other hand those that carry out non-mandatory tasks with direct relevance for the local community. Contributing only 30% of the costs to the project can still be difficult for the more deprived local governments and regional labour councils can decide to increase the rate of funding from the decentralised Employment Sub-Fund to *90%* for these local governments. If the source of funding is the central budget of the Labour Market Fund, the Management Committee of the Labour Market Fund can also set this rate at 90% for a period of 2 years.

Community public works projects can only employ *registered jobseekers placed by the employment service*, and under a contract of employment. Employment should be *additional,* meaning that the headcount should increase in comparison to the previous month. *The maximum duration of employment in community public works for a jobless person is 1 year.* This can be repeated within 2 years if the person at the time of placement is not eligible for job-search (unemployment, entrepreneurial) benefits.

The employment of jobseekers aged over 45 years can be subsidised for up to 1.5 years and jobseekers aged over 50 years for up to 2 years in public work projects in the field of health and social care, culture, education or the protection of the environment. If Roma people are employed in a community public work project, it is not required to increase the headcount. The rate of the subsidy in this case can be up to 90% of the direct labour cost for a period of up to 2 years.

The following costs are eligible in community public work projects: wage and contributions, work wear and protective clothing, tools and equip-

ment, and transportation of workers and the costs of additional management tasks.

There are significantly more men than women in community public works projects. The share of young people aged under 25 years is considerably lower than in total unemployment. In contrast the participation of people aged over 50 years is on the rise. *The majority of people in community public works have lower secondary or less education.* For them this type of employment is really the last resort to have a regular paid job. As a result of low educational attainment, most people in community public work projects perform tasks related to local community infrastructure that require low qualifications. *Most of them (76.6%) still carried out work related to community infrastructure in 2007.* Structures were also unchanged in other types of jobs.

This is partly why the concept of community public work was heavily criticised, most markedly by Gábor Kertesi. Kertesi argued that public work is not suitable to help Roma or other people in extreme poverty to emerge from the underbelly of society. "It gives them jobs but the social context surrounding it – on purpose or not – is such, that in the longer term it consolidates the inner characteristics and external relations that recreate their need for help. Roma people – and others – who live in poverty suffer most because of the lack of regular earnings and the income they live on depends on others; they are vulnerable in their relations with the authorities, and the jobs they do are considered inferior in local communities. The types of welfare employment exactly reflect these patterns: they offer *random* and short term jobs; consolidate *dependency on benefits*; increase *vulnerability* towards public authorities; and force people into jobs according to negative stereotypes that are *humiliating*. (...) What would be the alternative? Meaningful projects that promote social integration – if managed well – will help people out of the hopeless existence in the underbelly of society." (Kertesi, 2005, p. 191, Italics in original.)

Other two types of community employment: community service work and public works

The stated aim of public work[12] is to promote development and renovation projects, especially in the fields of infrastructure-development and protection of the environment, and the provision of public services in regions lagging behind that are suitable to reduce territorial disparities and unemployment by offering job opportunities for the unemployed and those who are no longer eligible for assistance. Funding is available upon submission of a proposal, mostly from the state budget.

From the perspective of employment policy employment in public works has the following purposes: to

– involve people who have adequate experience or training and are ready to work in on-the-job training, combining training and work;
– offer a "larger-scale" solution in local areas where local governments are the only employers;

12 – 199/2008. (VIII. 4.) Government Regulation on support for public works projects.

– promote corporate social responsibility towards the problem of unemployment (cooperation, financial contribution);
– promote coordination and cooperation of local governments to tackle unemployment at the level of micro regions;

In public works projects at least 40% of the workforce has to be claiming regular social benefit since 2008.

Community service work is regulated by the Social Act. This provides that local governments *organise employment* to improve the labour market situation of jobless people. This can be either public work, community public work or community service work (referred to as "employment organised by the local government" below). The duration of this is at least 30 days, except if it casual work with the log book where the relevant rules apply. The maximum duration of uninterrupted employment is 12 months in community service works.

Around 15,000 people were employed in public works projects in 2007

Local governments can claim support to organise community service projects. The rate of this is set each year in the Budget of the Republic of Hungary. The funding is ring-fenced and can only be used to organise community service projects. If not all local governments use their funding, the remaining money can be reallocated to local governments needing extra funding.

There were on average 16,650 people in community service projects each month in 2007

The *Pathway to Work* programme starting in 2009 offers community employment to people claiming regular social assistance who are able and willing to work. One of the sources of funding will be the community public works budget of local governments that will be reallocated to community service projects. Community public works projects can only receive support if they are implemented by voluntary organisations. Local governments can hire 3,000 people whose job will be to organise community employment projects. Local governments in cooperation with the local job office must prepare a community employment plan. Some have expressed concerns regarding the viability of this scheme because experiences so far suggest the community employment rarely leads to jobs on the open labour market.

4. Business start-up subsidies for the unemployed

Before January 1, 2007 business start-up was supported by two schemes: the business start-up scheme for unemployed persons and the self-employment scheme. The two schemes were merged into a new scheme which currently provides:

– a subsidy of up to 3 million Forints either as interest-free *credit or non-repayable grant*, and
– a monthly allowance of up to the national minimum wage for a period of no longer than six months, regardless of eligibility for job-search benefit.

The two components can be granted separately or together. Persons are eligible for the business start-up subsidy if:

– they have been registered as unemployed with the Public Employment Service for at least 3 months,
– and they become either self-employed or set up a business.

The beneficiary of the scheme is the individual jobseeker and it is therefore not considered state aid according to EU regulation. To be eligible for the interest-free credit the beneficiary jobseeker must provide at least 20% own contribution to the total cost of capital investment and have adequate collateral (e.g. capital, bank guarantee) for the repayment of the credit.

Table 13: People receiving different types of business start-up subsidies, 2007

Schemes	Participants (persons)	Distribution (%)
Payment of national minimum wage for up to 6 months	2,111	91.0
Payment of national minimum wage for up to 6 months + loan for capital investment of up to HUF 3 million	51	2.2
Payment of national minimum wage for up to 6 months + grant for capital investment of up to HUF 3 million	30	1.3
Loan for capital investment of up to HUF 3 million	24	1.0
Grant for capital investment of up to HUF 3 million	105	4.5
Total beneficiaries	2,321	100.0

Source: *ESO* (2008) p. 29.

5. Incentives for the employers of people with disabilities[13]

According to section 41/A of the Employment Act employers must pay a rehabilitation contribution to promote the vocational rehabilitation of people with disabilities (its rate was HUF 164,400/person in 2008) if they have more than 20 employees and the percentage of disabled workers among them is less than 5%. The contribution must be paid quarterly and in advance, based on quarterly workforce statistics.

5.1. Main elements of the system promoting the employment of workers with disabilities

As of November 2006, a new element in the system of vocational rehabilitation is the *accreditation* of companies employing workers with disabilities.[14] This consists of the work-focused assessment of the company, and it includes the assessment of any divisions and subdivisions for which accreditation is sought. The accreditation licence can be issued for a different period at each of the three assessment levels: (1) basic licence (valid for 5 years), (2) rehabilitation licence (valid for 3 years), (3) advanced licence (valid for 2 years). The latter entitles the company to use the title *"sheltered organisation"*. Employers who have been awarded a temporary advance licence because they fulfil the basic criteria of the advance licence and will fulfil all criteria within one year can use the same title (the temporary licence can be issued for up to one year).

13 This section is based on information from Mrs. Lechner (2008)

14 Regulations: 176/2005. (IX. 2.) Government Regulation; 14/2005. (IX. 2.) Ministry of Employment and Labour Regulation: 26/2005. (XII. 27.) Ministry of Employment and Labour Regulation; for detailed information see: www.afsz.hu.

The accreditation of employers of workers with disabilities

All employers – as defined by the Labour Code – regardless of the number of employees can seek accreditation at any level with two specific restrictions related to the number of workers:

1. If the average number of disabled workers during the three months prior to application is 20 or more and their percentage in the workforce is at least 40% or more, only employers that have the "*rehabilitation company"* or "*sheltered company"* title can claim the wage subsidy.

2. The *advanced (and temporary)* licence can only be awarded to employers who have at least 50 workers and at least 50% of them have less than 50% partial work capacity. Accreditation is carried out by divisions. Public authorities and divisions for subsidised vocational therapy cannot be accredited. Accreditation is carried out by the Employment and Social Office with the participation of rehabilitation experts.

Employers who previously had been receiving higher rates of subsidy already had strong incentives to get the advanced licence in 2006 (they could claim certain types of assistance only if they had this licence). Employers claiming all other types of subsidies are required to have an accreditation licence since July 1, 2007.

5.2. Support to employers

1. Support to the long-term employment of disabled workers: on January 1, 2006 a new system of wage subsidies entered into force which has both *normative and optional* components.[15]

Normative component: the wage subsidy for vocational rehabilitation covers 40–100% of the labour costs of workers with disabilities. Employers can claim this if they employ workers with a partial work capacity of less than 50 percent or an impairment affecting the whole body, assessed by the National Institute of Medical Experts (Országos Orvosszakértői Intézet, OOSZI) or by the National Institute of Rehabilitation and Social Experts (ORSZI); they create adequate workplace conditions, comply with labour and health and safety regulations, and hold a valid accreditation licence (subsidy can be claimed for as few as one employee).

Optional component: it is possible to obtain reimbursement for the salary of personal assistants at the workplace[16] pro-rata based on the time spent in assisting the individual in work (people who provide social, mental health or health care support are not eligible here).

2. *Wage subsidy for the employment (finding a job, integration in the workplace) of registered jobseekers with partial work capacity.* [Employment Act Article 16; 6/1996. (VII. 16.) MoL Regulation Article 11]: see Section 2.2. for eligibility conditions.

3. *Wage subsidies for disadvantaged jobseekers* that are available for employers of people in certain life situations (young entrants, people caring for

15 The legal framework of this system is set out in 177/2005. (IX. 2.) Government Regulation and 15/2005. (IX. 2.) MoEL Regulation.

16 Workplace personal assistants are individuals who are employed by the employer of the disabled worker to provide direct job-related assistance or coaching to the individual (but does not include performing the job itself).

children or immediate family members, people aged over 50 years or people with low education) *can also be claimed for the employment of jobseekers with partial work capacity in these groups, regardless of the level of their work capacity.*[17] These can be claimed with the Start Cards which will be discussed later.

4. *Capital investment aid for the employment of people with partial work capacity*: this scheme is part of the system of employment aids and promotes the employment of people with disabilities by contributing to capital investment.[18]

Employers can receive funding for the creation of jobs for people with disabilities with the condition that these jobs are safeguarded over a certain period (employment obligation). Funding is allocated through open competition from the Rehabilitation Sub-Fund of the Labour Market Fund. Furthermore, assistance is available:

a) for the adaptation of existing production and service facilities to the needs of disabled workers,

b) for the purchase or adaptation of equipment and instruments to the needs of disabled workers,

c) for the renovation or refurbishment of the workplace and equipment to accommodate the needs of disabled workers,

d) for investment that creates, upgrades or develops jobs for people with disabilities, contributes towards the building of new facilities, renovation or the refurbishment of existing buildings in order to expand them or make them safer, or contributes towards the purchase, and transformation, or increases the safety of equipment.

Employers who meet the criteria receive the assistance for *workplace inclusion* [points a-c)] according to the rules of *de minimis* state aid. Aid towards vocational rehabilitation [point d)] is awarded according to the relevant EU rules on employment aid for sheltered companies. Aid for the creation of new jobs within both schemes can only be given for workers with less than 50% work capacity. Aid can be *repayable* and *non-repayable* or the *combination of both.*

In 2007 a total of 2,300 jobs were subsidised from the Rehabilitation Fund; 38.7% of these were new jobs for vocational rehabilitation.

5. *The possibility of preferential treatment of certain employers of workers with disabilities in public procurement:*[19] As of January 1, 2007 under certain conditions set out by the law there is a possibility or an obligation to limit the scope of potential suppliers, contractors or service providers to sheltered companies where more than 50 percent of the workforce has partial work capacity, or companies that provide vocational rehabilitation for the users of social care institutions and where more than 50 percent of the employees have a disability. This should clearly appear in the call for tenders.

17 Act CXXIII of 2004 on promoting the employment of young entrants, unemployed people age over 50, people returning to work after caring for a child or a family member and on graduate work placements; 31/2005. (IX. 29.) Ministry of Finance Regulation on the conditions of use of the Start Card, claiming the reduced contribution rates and the detailed rules of financial reporting.

18 – 6/1996. (VII. 16.) Ministry of Labour Regulation on assistance to promote employment and instruments to tackle employment crises provided from the Labour Market Fund.

19 Act CXXIX of 2003 on public procurement, article 17/A; 302/2006. (XII. 23.) Government Regulation on the conditions of preferential treatment of sheltered companies in public procurement.

6. *Subsidies for collective vocational rehabilitation:* This is a scheme of the Ministry of Social Affairs and Labour that gives sheltered companies compensation for their expenses and non-profit companies employing people who cannot be employed in the open labour market compensation for rehabilitation-related expenses (the call for proposals and the list of beneficiaries is available at the website of the MoSAL: http://www.szmm.gov.hu).[20]

From July 2006 *service users of social care institutions*[21] can be involved in two forms of employment: *the therapeutic residential employment and vocational therapy,* and *vocational rehabilitation* (under a fixed-term contract of employment) – jointly referred to as institutional employment. Institutions can use external companies in the vocational rehabilitation of service users.

5.3. Incentives for employees

The conditions of employment of people claiming disability pension and accident-related disability pension effective on December 31, 2007 remained unchanged in 2008. However different rules apply for new claims (disability pension, accident-related disability pension and rehabilitation allowance) approved in 2008. The most important features are (besides the fact that claimants can earn a wage of up to the national minimum wage):

– the number of hours, or the requirement that the number of hours worked is less than before the impairment of work capacity, is no longer an eligibility criteria for the disability pension;
– when calculating the disposable income, all earnings should be taken into account after which pension contributions must be paid, disregarding the upper ceiling. This includes income taxed at the 15% rate of the simplified income tax rate (all types of employment contracts for employees and self-employed must be taken into account);
– the earnings limit is 90% of the average wage used for calculating the rate of the pension, which should be compared to the *net sum* of earnings, i.e. the income less the amount of social security contributions.

From 2009 these new rules apply to all claims of disability pension, accident-related disability pension and rehabilitation allowance in Group III submitted by people of working age (those who have not yet reached the applicable pension age). At the same time, the earnings limits for claims in Groups I-II will be abolished.

6. Support for job creation

Aid for job creation can be granted in two main forms in accordance with Community legislation after January 1, 2007:

a) as regional support separately or together for any of the following: cost of investment in material and non-material assets, and labour costs of the jobs directly created by the investment project, or

20 – 177/2005.(IX.2) Government Regulation;15/2005.(IX.2.) Ministry of Employment and Labour Regulation

21 Social care institutions include all day care and residential care services. Working time in vocational therapy is up to 4 hours/day and 20 hours/week; in vocational rehabilitation up to 8 hours/day and 40 hours/week.

b) as employment support for labour costs of the jobs directly created by the investment project.

The aid is awarded from the centralised budget of the Employment Sub-Fund of the Labour Market Fund. The decision concerning the funding of projects is made by the Minister based on a proposal by the Management Committee of the Labour Market Fund.

Grants for job creation aim to generate new jobs while safeguarding existing ones. The amount of the grant is up to HUF 800,000 per new job. On top of this sum additional funding is available – from the regional job centres – for any or all of the following criteria:

– if the investment takes place in an area classified as disadvantaged in any of the following categories: regional development, socio-economic and infrastructural development, and employment, or in regions with labour market disadvantages an additional HUF 200,000 can be granted for each new job;
– if the vacancies created as a result of the investment are filled with jobseekers registered with the public employment service, an additional HUF 200,000 can be awarded;
– if the vacancies are filled with Roma workers an extra HUF 100,000 can be granted.

In total, projects might receive a grant of up to HUF 1.3 million per new job if they satisfy all of the above criteria. The upper limit of the grant available for each project is 80 million Forints, for projects in regions classified by the Ministry of Social Affairs and Labour as disadvantaged 160 million Forints. The amount of the grant can be increased by up to an extra 100 million HUF if the project creates more than 300 new jobs and taking into account the employment situation of the area where the investment takes place.

In 2007 1.92 billion Forints supported the creation of 2,400 new jobs. 60% of them were filled by jobseekers, 72 people were of Roma ethnic background (MoSAL, 2007, p 1).

The investment aid scheme for the creation of high-value-added jobs of the Ministry of Social Affairs and Labour supports projects involving relatively low levels of capital expenditure and a high volume of new jobs that are filled by qualified staff with higher education, mostly recent graduates. Businesses can receive a contribution towards their personnel expenditure associated with the expansion of their workforce.

Small- and medium-sized enterprises are required to safeguard jobs created for young entrants, registered jobseekers or workers threatened by redundancy for two years, other businesses for three years.

In 2007 14 businesses received a total of HUF 318 million in grants that contributed to the creation of 400 new jobs (*MoSAL*, 2007, p 4).

As regards *job creation aid for large projects* the following eligibility criteria apply:

– the grant is awarded on a case-by-case basis by the Government from the Budget for Investment Promotion;
– the project must take place in a disadvantaged or most disadvantaged area listed in relevant legislation;
– must create at least 500 new jobs – or 200 in the most disadvantaged areas;
– at least 50% of the newly created jobs – 30% in the most disadvantaged areas – must be filled by registered jobseekers.

The size of grants is

– if at least 500 new jobs are created: 260 million Forints,
– if at least 300 new jobs are created: 160 million Forints,
– if at least 200 new jobs are created: 80 million Forints.

In 2007 a total sum of 1.64 billion Forints was awarded in job creation aid to large investment projects. This supported the creation of nearly 1,500 new jobs (*MoSAL,* 2007, p 5)

Aid for the creation of teleworking jobs: The MoSAL continues its programme to promote the spread of teleworking. The scheme provides a wage subsidy and funding for the purchase of equipment and training for companies and public authorities creating teleworking opportunities. In 2007 779 new telework positions were created with assistance from the MoSAL, and the funding is available for 600 new jobs in 2008 (MoSAL, 2007, p. 13)

7. Commuting and travel subsidies

The aim of *commuting and travel subsidies* is to compensate the cost of commuting to work and thus reduce territorial disparities on the labour market and strengthen the opportunities of people living in small settlements in the competition for jobs. The travel assistance scheme reimburses the justified and reasonable travel expenses of jobseekers and young entrants on public transport and arising in relation to job search. It is granted by the job centre on an individual basis.

The commuting scheme covers – fully or partly – the statutory share of commuting expenses covered by the employer and/or the employee for up to 1 year in the case of hiring new workers who have been unemployed for at least six months (three months in the case of young entrants).

The subsidy can be given for shared transportation as well, if the total time spent on commuting exceeds 2 hours per day. The maximum rate of the subsidy is equal to the employer's statutory contribution rate towards the cost of the bus pass between the home of the worker and the workplace. The subsidy can be awarded for a maximum of one year.

In 2007 a total of 2,500 people received some form of contribution towards commuting or travel expenses. Most people, two thirds of the beneficiaries, received assistance from the commuting scheme, and only 88 workers received assistance for shared transportation (*MoSAL,* 2008*a*, 36. o.)

Employers typically use the commuting subsidies together with wage subsidies, especially where they cannot recruit locals. The share of the total and average number of beneficiaries of this scheme within the total is minimal: it was 3% in 2001 and dropped to 2% in 2006.

8. Reduction of contributions to promote the employment of disadvantaged people

The Start Programme introduced on October 1, 2005 covers all young entrants under the age of 25 years – under 30 years for graduates – who finished (or interrupted) their studies and enter their first job.[22] Their employers are eligible for support *during a period of 2 years*. The subsidy is a universal discount on the compulsory contributions paid by employers. As a result, the employer pays a reduced rate of 15% as a contribution to the wage in the first year, and 25% in the second year. *The discount can be used for wages of up to 150% of the minimum wage for new entrants under 25 years, or in the case of under-30-graduates for up to 200% of the national minimum wage.*

Start-card for young people

Eighty-eight thousand Start Cards were issued to young entrants between October 1, 2005 and the end of June 2008. More than 80 percent of the cardholders found lawful employment. In 2007 23.3% of businesses employed young people with a Start Card; the same figure was only 20% in 2006. Start Card holders were most frequently employed in the transport and telecommunication sectors (34.5%). Export-oriented companies were more likely to employ a young entrant with a Start Card (43%) which represented a sharp increase from previous year's less than 20% in the same category.

We can assume that these companies – that do not need to be subsidised by the state – hired young people who had marketable skills and knowledge, and who would easily have found work without any support. It is also likely that the universal subsidy is concentrated in regions, sectors and businesses with relatively strong job creation capacities. Therefore this scheme might increase rather than reduce inequalities.

From July 1, 2007 new schemes were added to the Start family with the aim of:

– helping disadvantaged persons to enter or return to the labour market,
– increasing employment in the target group,
– encouraging companies to employ disadvantaged workers,
– creating incentives for companies for the lawful employment of workers.

In the Start Plus scheme[23] the following target groups are entitled to a reduction on the contributions payable by employers:

22 Act LXXIII of 2005 on promoting the employment of young entrants, unemployed People aged 50 years and over and people returning to work after caring for a child or a family member, and on the amendment of Act CXXIII on the graduate work placement scheme. The Act was adopted on June 27, 2005 and entered into force on October 1, 2005.

23 Act XIV of 2007 on promoting the employment of young entrants, unemployed people aged 50 years and over and people returning to work after caring for a child or a family member, and on the amendment of Act CXXIII on the graduate work placement scheme. The Act was adopted on March 12, 2007 and entered into force on July 1, 2007.

Start-plus Card

– persons who wish to return to work within one year after claiming parental benefits or carer's support,
– persons claiming child care benefit taking up work after the 1st birthday of the child (provided they have not been on leave from their employer),
– long-term jobseekers who have been registered with the PES for 12 of the previous 16 months (or six of the previous eight months in the case of persons under 25).

Employers hiring workers from any of these categories are entitled to the same discounts as employers of young entrants with the Start Card. Therefore, they are exempt from the fixed-sum health care contribution (1,950 Forints/month) and they pay a reduced rate of 15% in the first year and 25% in the second year on eligible wage instead of 32% normally payable by employers. From mid-2007 until mid-2008 11,200 people claimed the Start-plus Card.

Start-extra Card

Long-term job seekers can apply for a Start Extra Card if:

– they are aged 50 years or over, or
– regardless of their age, they have a low level of education (lower secondary).

Employers hiring workers from any of these categories are exempt from all public contributions in the first year and in the second year they pay only 15% of the gross wage of the worker.

Between June 2007 and June 2008 5,000 people used the Start-extra Card (press conference by *Mr. Gabor Simon* state secretary of MoSAL on Start Cards on September 2, 2008).

Table 14: Discounts for employers in the Start schemes

	Start Scheme (young entrants)	Start-plus (parents returning to work, long-term jobseekers)	Start-extra (older persons, persons with low education)	Start-region (people claiming of community employment replacement support)
Fixed-sum health care contribution (1,950 Forints)	Exempt for two years	Exempt for two years	Exempt for two years	Exempt for three years
Contributions on the gross wage of the employee (3% employers contribution, 29% SI contribution)	1st year: 15% 2nd: 25%	1st year: 15% 2nd: 25%	1st year: exempt 2nd: 15%	Exempt for three years if increases headcount

Start-region

The *Start-region scheme* was introduced on January 1, 2009 to encourage companies to employ people claiming community employment replacement support in the most disadvantaged regions. The target group of the new scheme largely overlaps with that of the Start-extra; the Start-region is an addition to

that by including claimants of community employment replacement support in the 47 most disadvantaged small regions. Employers must hire workers from this category to fill job vacancies on a permanent basis and jobs must be safeguarded for at least the duration of the support. In this case, the full waiver of contribution provided by the Start-extra Card extends from 1 to 3 years.

Table 14 summarises the discounts available for employers in the framework of the Start schemes.

9. The employment of casual workers with the work log book

The log book for casual workers was introduced in 1997 to allow for an administration-free employment by private households. This turns short-term, temporary jobs into regular employment giving entitlement to health care, pension and unemployment benefit. Contributions are paid in the form of a *contributions stamp*.[24]

Some of the reasons for the introduction of the log book for casual workers were:

– regularisation of undeclared employment,
– bringing domestic and other casual jobs into the mainstream of the jobs market,
– provide lawful job opportunities for unemployed people,
– help employers to satisfy labour demand for ad hoc jobs.

Originally only private households, smallholders and self-employed entrepreneurs were allowed to employ casual workers with the log book. This limited the take-up of this measure. Between 1997 and 1999 only 11,000 casual work log books were issued. This was mainly due to the fact that the price of the contribution stamp was almost as much as the wage itself, and it was considered very expensive. To promote the spread of the casual work log book, the possibility of its use was extended to the whole business and public sectors in 2000. In 2002 the rate of the contribution stamp was halved and provided a further discount of 50% for the employment of registered unemployed. The yearly limit of temporary work was increased from 120 to 200 days in 2005. And at the same time a new regulation allowed private households to reclaim 75% of the value of the contributions stamp as a tax return on their personal income tax. As a result the number of casual worker log books issued to individuals has doubled each year since 2003 and currently it stands around one million. In seasonal sectors casual employment is more common, particularly in tourism and agriculture. Around half of companies in tourism and 40% of companies in agriculture fill their seasonal jobs with casual workers using the log book. At the level of the national economy, over one fifth of the companies employed workers with the casual work log book. Hungarian-owned companies are twice as likely (24%) to have casual work-

24 The detailed rules are set out in Act LXXIV of 1997 on employment with the casual work log book and the simplified payment of social insurance contribution.

ers than foreign companies (13%). In 2007 companies employed on average 12.8% more casual workers than their regular workforce.

There are approximately 300,000 people doing casual work with the log book on average 20 days a year

Due to the variety of discounts, it is now cheaper to employ workers with the casual work log book than with a regular employment contract. The following example that compares the monthly cost associated with the two types of employment illustrates this well. With a daily wage of 3,000 Forints and 900 Forints/day contribution stamp the labour cost associated with 20 days of work is 78,000 Forints/worker. The same under a regular employment contract – taking the national minimum wage – would be 69,000 Forints + 24,030 Forints social security contributions = 93,030 Forints. The difference is 15,030 Forints/month in favour of the casual employment. As a consequence many fixed term, seasonal employment contracts are converted into casual work using the log book. However, there are also other negative consequences, such as:

– terminating regular employment contracts and working with the casual work log book without claiming job search benefit;
– it discourages people claiming regular social assistance to take up a regular job because they would lose their eligibility. They can anyway achieve a higher income doing temporary work with the log book which does not affect eligibility;
– the administration of the casual work log book is increasingly complicated and puts an enormous burden on the Public Employment Service that carries out the registration of casual workers with the social insurance authorities.
– although the original aim was to promote the regularisation of undeclared work, casual work achieves the opposite. This is also encouraged by current regulations that stipulate: "for casual work of less than 5 days, the stamps might be put in the log book on the last day of employment".

The year 2008 was devoted to the preparation of a legislative amendment that might bring about changes in the coming year (*MoSAL-MoF*, 2008). The most important changes are:

– the scope of organisations that can employ workers with the casual work log book will be limited to private household, non-profit organisations working for the public interest and for seasonal work in agriculture – they can continue to use the more favourable conditions;
– for all other employers the same conditions apply for casual workers as for regular employment;
– the Hungarian Tax and Financial Control Administration will be responsible for the administration of casual work;
– the registration of casual workers will be carried out electronically.

10. Employment services

According to the Employment Act employment services include:
– the provision of information on vacancies and jobs;
– job, career, job-search, vocational rehabilitation and local (area) employment guidance;
– job brokerage.

The contents of these are defined by the regulation on employment services in 2000[25] which also defines provision requirements. The regulation basically lists those services that are delivered to customers by the regional job centres and the local job offices. In addition, the regulation also allows the purchase of certain services from external providers to increase availability. A novelty is that regional training centres and the Employment and Social Office also directly deliver services. The employment services are available *free of charge* to unemployed people, employers and employees.

10.1. Labour-market services listed in the Employment Act

In this section I give an overview of the content of labour-market services listed in the Employment Act.

Provision of information on vacancies and jobs. This aims to help people find jobs and fill job vacancies. It can take place on its own or as part of a personal consultation with a job advisor, a job fair or job brokerage. It includes information on professions, training opportunities in the local area, the employment situation of the small region, county and region, the characteristics of local labour supply and demand, available financial assistance – wage subsidies and unemployment-related assistance, and labour legislation.

Job advice. It aims to explore the individual barriers that keep people out of work and help to create a plan to overcome them and find work.

Careers advice. Aims to support individuals in identifying career options that suit their interests, skills and personality, and also takes into account labour demand. *Careers advice is available for a new career or a career change.*

Career guidance helps people to identify a career choice and the necessary training, taking into account the demand on the labour market.

Career change advice helps people to identify new career options – jobs and training opportunities – either because their current career does not suit their personality or skills, or there are no job vacancies.

Job-search advice. Aims to help people who want to work but lack the skills and knowledge necessary for job-search to find a job. The types of job-search advice are:
– individual job-search advice;
– training in job-search skills;

25 – 30/2000. (IX. 15.) Ministry of Economy Regulation on employment services and their financing. This regulation was amended by 6/2008. (IV. 23.) Ministry of Social Affairs and Labour Regulation on the amendment on certain employment-related ministerial regulations that entered into force on April 26, 2008. The most important changes were the following::
– mentoring was included among the services;
– new rates of assistance for the providers of employment services,
– new rate of income replacement for people using employment services.

– jobseekers' club (the Jobseeker's Club is a regular group session for jobseekers to help participants find work).

Vocational rehabilitation advice. Aims to support people with partial work capacity who need a career change to identify options in their vocational rehabilitation by providing information on jobs, careers advice, counselling and job-search advice.

Counselling. Careers, job-search and rehabilitation advice can be combined with counselling if it is necessary for the success of the process. Counselling aims to help people to identify and deal with personal and life-style issues that prevent them from finding work. Counselling can take the form of:
– individual counselling sessions;
– group counselling sessions;
– structured group activities;
– as part of the assessment of interests, values and personality;
– as part of career awareness training.

Mentoring. The job centre can offer mentoring to jobseekers or other customers if after a personal consultation it appears that the individual needs mentoring to fulfil the obligations towards the employment service or integrate into a workplace. Mentoring combines the role of an advocate and a personal assistant. The mentor (a member of staff/advocate who is knowledgeable in the given sector) provides support to the customer in achieving long-term personal professional and career plans (job-search, choosing and obtaining the right qualification, integration in the workplace, retaining the job and career advancement). The mentor provides information, motivates and supports the individual in building and maintaining connections and networks.

Local (area) employment advice. By providing professional and technical assistance it aims to improve the employment situation of the local area, promote cooperation of actors in the local economy, mitigate tensions in the labour market, promote entrepreneurship and create job vacancies.

10.2. Job brokerage

The most effective way of matching labour demand and supply is job brokerage that includes a variety of activities. Job brokerage is carried out by the local offices of the employment service in cooperation with registered jobseekers, other customers and employers offering job vacancies.

As part of the job brokerage:
– an adviser of the job office explores the career expectations, the employment history and the possible barriers (education, vocational qualification, previous jobs, experience, place of residence, work capacity) of the jobseeker at a personal consultation and provides information on the available job vacancies with emphasis on the location, type of employment, working hours and available salary.

– if there are barriers to work readiness, the advisor directs the customer to the appropriate service,
– the job office liaises with employers who offer job vacancies to jobseekers, and
– puts employers and jobseekers into contact in order to fill job vacancies and help people into work.

Job brokerage can be provided for *individuals and groups*.

In job brokerage it is illegal to:

– recruit people who cannot be legally employed (e.g. minors) into work,
– advertise non-existent job vacancies or recruit workers for employers affected by strike action,
– advertise jobs to customers that are not fully legal, and
– recruit people for employers who do not comply with employment regulations and fail to provide adequate work conditions.

Before the Employment Act entered into force in Hungary employers were required to register all job vacancies. This requirement was abolished in 1991. As a result the number of registered job vacancies halved. Therefore *the requirement to register job vacancies was introduced again in 1992*. Nevertheless, the volume of registered job vacancies continues to be low in comparison with the total number of jobless people – between 10–15%.

Employers must notify the employment service:

a) of any job vacancy to be filled under a contract of employment,
b) of other vacancies specified by the regulation on the employment of foreign nationals in Hungary, to be filled under a contract of employment or any other contract where an individual undertakes to perform personally any work.
c) Employers can use the job brokerage service to advertise other job vacancies that are not required to be reported to the employment service.

Advertised job vacancies are valid for a period of up to 60 days, however this can be extended before the expiry of that period.

The job offices will advertise the job vacancies of an employer if:

– they are notified to the employment service,
– the employer asks for the service, and
– receives jobseekers applying for the job vacancy with the job brokerage form of the job office, and
– registers the outcome of the application on the form.

If the employer gives permission to advertise the job vacancy, it will appear on the network of the European Employment Service (EURES) and will be open for citizens of the European Economic Area and their family members.

10.3. New services

The services of the Public Employment Service are constantly evolving and their range is expanding with new services. For both employers and jobseekers new technologies provide new opportunities: IT systems (online assistance, call centre, on-screen information, digital text, DVD etc.) are widely available and there is access to self-service facilities and on-line databases (such as www.afsz.hu, a cv and job bank, e-career etc.)

Mental health and vocational health services. These include services that improve the physical appearance of jobseekers (these are necessary when the physical appearance and status of customers is a barrier to finding a job because it makes a bad impression on potential employers). *For people with disabilities these services might be part of the vocational rehabilitation plan* (for example access to washing facilities for homeless people, dental treatment, hairdresser or a small budget to buy clothes for people on a low income).

Since the new regulation came into effect, not only did the range of service become more diverse but also the organisational framework expanded. The country-wide networks of *Career Guidance Advisors (Foglalkoztatási Információs Tanácsadók, FIT) and Vocational Rehabilitation Information Centres (Rehabilitációs Információs Centrum, RIC)*, and different events (education and job fairs, open days) improved access to information. Career fairs are also very important.

Career fairs. At career fairs visitors can receive thematic information on the jobs market, education and training institutions, and obtain an insight into their life. These events aim to provide guidance for people in their career choice and promote a better match between career choices and labour demand. Career fairs give an overview of the available training opportunities, including accredited courses and non-formal training, and job placements with the participation of sectoral chambers and employers.

11. Labour market programmes

Four fifth of the registered jobseekers are not new but returning customers of the employment service. Their problems are unlikely to be solved in a single active labour-market scheme. A combination of labour-market measures or especially participation in a labour market programme is necessary to address their complex problems. Labour market programmes were introduced in the Employment Act on February 1, 2000. They are defined as follows: "[The] Labour Market Fund can support the implementation of programmes that aim to achieve local employment objectives, influence the local employment situation and promote the employment of people disadvantaged in the labour market... [These] programmes can combine employment services and financial assistance."

This actually refers to labour market services listed in the Employment Act and its implementing regulation, and the subsidies paid from the Employment and Rehabilitation sub-funds of the Labour Market Fund. With regard to subsidies provided within the programmes, certain conditions specified in the Employment and its implementing regulations can be *disregarded*. For example:

– the target group of the programme can be involved in all programme components regardless of their individual eligibility,
– subsidies can be paid during the whole programme period,
– with regard to subsidies for community public works, the duration of the programme is relevant; therefore there is no time limit.

Before each programme, a *Programme Plan* must be drawn up. This must define the following criteria:

– the scope of people the programme aims to help in the labour market (target group),
– local areas where the programme is implemented,
– the labour market services and employment assistance schemes included in the programme (programme components), how they are combined and the rationale behind it,
– eligibility conditions to take part in the programme or its components,
– the list of individuals and organisations involved in the implementation,
– the duration of the programme (up to 3 years),
– the expected outcomes of the programme and its components, frequency and method of evaluation,
– the total budget of the programme including the cost of labour market services and financial assistance and the operational costs (management, publicity, monitoring, evaluation etc.),
– eligibility might be limited to participation in certain programme components (and not all of them).

Labour market programmes can be countrywide or regional. The decision about countrywide labour market programmes is made by the Minister for Social Affairs and Labour following a consultation with the Management Committee of the Labour Market Fund. Regional labour market programmes are based on the decision of the directors general of job centres following consultation with employment councils. The employment service tenders out the design and implementation of labour market programmes. Bids must present the planned structure, implementation and monitoring of the programme and define eligibility for each programme component. Ten percent of the programme's cost is retained and paid only after the successful closure and approval of programme outcomes.

The Employment Act stipulates that from January 1, 2007 onwards the reimbursement of labour costs – wage and contributions – is only possible in

community public work projects and in the wage subsidy schemes presented above. Given that community public works has only a relatively minor share in employment and wage subsidies can only be given for the employment of disadvantaged people for up to 12 months and at the rate of 50–60% of the labour cost, the viability of these programmes was questioned. Because the EU rules must be applied it is not possible to support companies that employ programme participants over 3 years, or, if the participants are not disadvantaged, it is not possible at all.

Therefore in 2007 a new active measure was introduced: *the wage cost subsidy*. This scheme is only available as part of a labour market programme and allows a reimbursement of up to 100% of the wage cost for a maximum of 3 years. Taking into consideration that the implementation of the programmes would be very difficult without professional management, the *new scheme* – besides contributing to the labour cost of participants – *can also pay the labour cost of the programme management staff*.[26]

III. GOVERNANCE AND FINANCING OF THE HUNGARIAN EMPLOYMENT POLICY

1. The governance structure of employment policy

Within the Hungarian governmental structure the *Ministry of Social Affairs and Labour* (MoSAL) is responsible for employment policy. The Ministry was set up in 2006 with a very diverse portfolio. I will not discuss here responsibilities related to social affairs. With regard to employment, the main task of the Ministry of Social Affairs and Labour is to create the conditions necessary for an effective and fair management of human capital, including adult education, mitigating tensions in the labour market, promoting equal opportunities, social dialogue and the consultation of employers and workers.

The Ministry prepares the employment policy of the Government and makes recommendations for extending employment opportunities. It designs the *system of unemployment assistance, active labour market policies and programmes* to assist people facing disadvantages in the labour market into employment. The Minister is responsible for the *wage policy*, including setting the national minimum wage. The Ministry has an important role in *workplace safety*; it prepares legislation relating to safety at work, including working conditions, equipment and protective equipment. The Ministry is responsible for the coordination of different governmental policies promoting *equal opportunities*. It designs training and employment programmes to *help people with disabilities into employment*. In promoting equal opportunities it pays special attention to improving the employment situation of the *Roma population*. To achieve this, the Ministry works in partnership with Roma rights and advocacy organisations.

26 If the recipient of the subsidy is a business organisation, the *de minimis* rules should be applied.

The Ministry is also responsible for *vocational education and training*, the rules of vocational examinations and setting the allowance rate for apprenticeship students. These tasks are carried out in partnership with the Minister of Education. It also has a significant role in promoting *Life Long Learning*, including the design of adult education and labour-market training programmes and the financing of adult education institutions.

The Minister is responsible for the implementation of *social dialogue*, takes part in relevant sectoral dialogue, and acts as the representative of the Government in national social dialogue. It also follows labour disputes and conflicts and provides help to solve them. It *liaises with the voluntary sector* on behalf of the Government and supports their participation in the delivery of public services.

It drafts and codifies new legislation: The Ministry drafts proposals for laws and other legislation within its portfolio for the Government.

The Ministry of Social Affairs and Labour is responsible for the strategic management and regulation of the entire employment system: Through the Employment and Social Affair Office as middle-management body the Ministry oversees the *Public Employment Service*, including the regional job centres and training centres. It supervises the *Hungarian Labour Inspectorate and the National Institute of Vocational and Adult Education*. The management and implementation of EU funds is the responsibility of the *ESF National Programme Managing Office* (ESF Office, ESZA Kht.) which came under the supervision of the MoSAL in January 2007. The ESF Office is responsible for the complete and efficient use of available funds, the implementation of Community regulations, a transparent management and the regular monitoring and evaluation of the programme. The *National Employment Foundation* also has a prominent role in achieving the aims of the Ministry and also helps the implementation of the *European Social Fund* in Hungary.

In addition to the Government, *local governments, employers, current and potential employees and their organisations* work together to extend employment opportunities and prevent unemployment and alleviate its negative consequences.

Local governments – besides mainstreaming employment in their decisions – are also directly involved in providing public work opportunities for the unemployed, and – according to the Act III of 1993 on social administration and assistance – they also promote the employment of people eligible for regular social benefit. From next year they will also be required to prepare public work plans and organise public work for people claiming social benefits who are required to work.

Employers:

– take part in labour dialogue through their associations;

– help the work of the employment service by reporting to the local job office job vacancies and when these vacancies are filled, at the latest by the time of hiring someone to the vacancy; moreover
– support the system of unemployment assistance by paying a contribution.

Employees:
– also take part in the labour dialogue through their representatives;
– if they become unemployed they cooperate with the employment service and potential employers in order to find new employment, they consider the job and training opportunities offered to them and they actively search for jobs.
– pay contributions to ensure eligibility for unemployment assistance.

The Public Employment Service (PES) is made up of an intermediary management body, the Employment and Social Office, and 7 regional job centres with 174 local offices. In addition the 9 *regional training centres* are also part of the PES.

The tasks of the PES are:
– collecting and providing information on labour market trends, forecasting change and providing guidance to school operating authorities with regard to the courses offered and admission quotas;
– collating job vacancies and providing timely and professional job brokerage to satisfy the labour demand of employers;
– providing tailor-made training, wage, job-creation and other assistance and services to jobseekers; supporting the vocational rehabilitation of people with disabilities;
– starting targeted programmes to support the training, employment, workplace integration etc. of the most disadvantaged in the labour market – older people, women returning to work, young entrants, Roma people.;
– dealing with employment crises, tackling problems in the labour market arising from major redundancies;
– providing assistance to eligible jobseekers who are struggling to find work;
– issuing work permits for the employment of foreign nationals in Hungary;
– organising labour-market training, taking part in the re-training of the unemployed and promoting the adaptability of the workforce to changing demand;
– taking part in the effective implementation of the European Social Fund;
– operating the international job-matching service of the European Employment Agency (EURES network), provide information to customers on job opportunities and placements abroad including country-specific information;
– operating a web-portal to increase the availability of labour market, training and employment information.

The *Employment and Social Office* is a public body under the direction of the Ministry of Social Affairs and Labour, with its own financial management rights. The Employment and Social Office is responsible for the professional management of the regional job centres, provides guidance on the implementation of employment policies, supports the training of staff and also has executive functions. In addition to employment and labour related affairs, the tasks of the Office also include certain social, child welfare and child protection issues, responsibilities related to rehabilitation and the employment of people with disabilities, and also some tasks related to the management of the institutions of social dialogue.

The *regional job centre* is comprised of the headquarters and local offices. The *headquarters* manage and supervise its local offices, carry out the tasks delegated to them in the field of employment rehabilitation of disabled jobseekers, decide on the use of the decentralised budget of the Employment Sub-Fund of the LMF allocated to the region, administer allowances and benefits to jobseekers and oversee the operation of the benefit and service system.

The regional job centres and their seats:
– Central Hungary Regional Job Centre, Budapest
– South Great Plain Regional Job Centre, Békéscsaba,
– North Great Plain Regional Job Centre, Nyíregyháza,
– North-Hungary Regional Job Centre, Miskolc,
– South Transdanubia Regional Job Centre, Pécs,
– Central Transdanubia Regional Job Centre, Székesfehérvár,
– West Transdanubia Regional Job Centre, Szombathely.

The *offices* register jobseekers in their catchment area, award job search allowance job search benefit and self-employed allowance, and decide about employment subsidies.

Some offices are appointed by law in each region to deliver certain services that are not available in other offices. These offices:
– manage the network of services,
– have a rehabilitation task force,
– take part in the delivery of vocational rehabilitation services to people with disabilities.

2. The system of financing labour market policies

After the entry into force of the Employment Act, labour market expenditure was financed by two funds: the *Solidarity Fund of the Unemployed (SF*) and the *Employment Fund (EF).* In terms of finances, the two funds were completely separate until 1996 when – together with other financial sources – they were brought together in the *Labour Market Fund (LMF).*[27] The different sub-funds however, have remained relatively independent. The revenues of the Labour Market Fund for the direct assistance of the employed

27 This is a ring-fenced budget created by the merger of the Solidarity Fund for the Unemployed, the Employment Fund, the Vocational Training Fund, the Rehabilitation Fund and the Wage Guarantee Fund.

come from the contributions of employers and employees. *Table 15* gives an overview of these rates.[28]

Table 15: Changes in the rates of employers' and employees' contributions (%)

Employees' contribution		Employers' contribution	
Period	%	Period	%
Between July 1 and December 31, 1991	0.5	Between July 1 and December 31, 1991	1.5
Between January 1 and December 31, 1992	1.0	Between January 1 and December 31, 1992	5.0
Between January 1, 1993 and March 31, 1994	2.0	Between January 1 and December 31, 1993	7.0
Between January 1, 1994 and December 31, 2002	1.5	Between January 1 and March 31, 1994	7.2
Between January 1, 2003 and August 31, 2006	1.0	Between April 1 and December 31 1994	5.0
From September 1, 2006	1.5	Between January 1, 1995 and January 31, 1998	4.5
		Between February 1 and June 30, 1998	4.2
		Between July 1 and December 31, 1998	4.0
		From January 1, 1999	3.0

Table 16 gives an overview of expenditure on unemployment assistance by the main categories in 2007. Figures show that nearly 200 billion Forints were spent on tackling unemployment. This is less than 1% of the GDP, roughly half of the EU average.

Passive assistance had a larger share than *active labour market policies* in the employment budget; the share of expenditures on active labour market policies, services and programmes was 40 percent in 2007. *An increasing part* of the Employment Sub-Fund, which finances active LM policies as well, is allocated to the *central budget*: while in 2000 its share was 12.3%, in 2007 it was 23.8%. The Management Committee (MC) of the Labour Market Fund decides about the allocation of the central budget of the Employment Sub-Fund including its objectives and amounts. The same body approves the budget of the *Decentralised Employment Sub-Fund* allocated to the regional job centres, including the size and the set of indicators used as allocation criteria. This is intended to cover the cost of active labour market policies managed by the local offices.

The size of the decentralised Employment Fund has hardly exceeded that of the previous year, despite inflation and more importantly the significantly higher cost of employment subsidies. As a result this budget helped fewer unemployed people back to the labour market and saved less jobs affected by the risk of redundancy.

28 As of January 1, 2005, the self-employed and full time partners of certain business corporations are also eligible for a contribution-based job-search allowance (Self-Employed Allowance). They are required to pay unemployment contribution which is 4% of the income after which they pay the health care contribution.

Table 16: Labour market expenditures in 2007

Categories	Billion Forints
A) Income replacement	
Job search benefit + SI + HCC	89.2
Entrepreneurial benefit + SI + HCC	1.3
Management and travel	1.0
Total	91.5
B) PES operating costs and development	22.7
C) Active LM policies	75.2
1. Employment Sub-Fund	45.0
2. Training budget	5.3
3. NEF programmes	2.1
4. Public work	7.3
5. Co-financing of EU programmes	9.7
6. Discount on contributions and repayments	5.8
Total spending (A+B+C)	189.4
% of GDP	0.75
Distribution of expenditure (total = 100):	
Passive assistance	48.3
PES	12.0
Active LM policies	39.7
Distribution of employment and training budgets	
Central budget	10.7
Decentralised budget of the employment fund	34.3
Employment Sub-Fund total	45.0
Training budget*	5.3
Total	50.3
Employment Sub-Fund	
Central budget (%)	23.8
Decentralised budget of the employment fund (%)	76.2

SI = social insurance contribution
HCC = fixed-sum health care contribution
* Budget earmarked for the statutory tasks – training and other services – of regional training centres.
Source: Fund Management Department, MoSAL 2008.

3. Labour dialogue

Social partners have an institutionalised role in supporting the implementation of policies to prevent unemployment and promote work.

3.1. High-level forums of interest reconciliation

The Employment Act in 1991 delegated labour dialogue to the Labour Market Committee (LMC) of the Interest Reconciliation Council (IRC).[29] This body, made up of the representatives of the employees, employers and the Government, received a mandate:

29 The Interest Reconciliation Council (IRC) is a national-level tripartite forum with the representatives of employees, employers and the Government. The scope of its activities covers all work-related issues, including fundamental economic policy questions regarding the redistribution of income. Labour dialogue has been operational in Hungary for nearly 20 years. The Interest Reconciliation Council established in 1990 provided a forum for articulating and coordinating the interests of the Government, the employers and the workers. It had an instrumental role in ensuring that the socio-economic transition took place without any major conflicts. The organisation was renewed in 2002 and changed its name from Interest Reconciliation Council to National Interest Reconciliation Council. Since then it has provided the official platform for labour dialogue between the Government and the social partners (national organisations of workers and employers).

– to decide about the main principles and guidelines regarding the allocation of the Employment Fund, and follow-up their implementation;
– be consulted on any employment-related legislative proposals;
– allocate funding from the Employment Sub-Fund for the creation of voluntary organisations in the field of employment;
– review proposed labour-market programmes;
– give an opinion on the performance of the employment service, and order reports from its director general, and
– evaluate the experiences of the implementation of Employment and Solidarity funds.

After the creation of the Labour Market Fund in 1996 significant organisational changes took place in national labour dialogue. The tripartite National Labour Market Council was created with three members on each side: employers, workers and the Government. The employers' and employees' side of the Interest Reconciliation Council delegated the members to the respective sides, who were then appointed by the Minister of Labour. The rationale behind this change was to ensure *personal accountability in the decision making*. The competences of the National Labour Market Council and the Labour Market Committee were divided as follows: The Government consulted the representatives of employers and workers on employment issues of national importance in *the Labour Market Committee of the IRC*. The Committee:
– was consulted on the proposed budget of the Labour Market Fund and allocation between sub funds;
– gave its opinion on any legislative proposals related to employment; and
– scrutinised the activity of the National Labour Market Council each year.

The task of the *National Labour Market Council* was:

a) to decide:
– on the size and allocation principles of the central and decentralised budgets of the county job centres;
– reallocation of the budget between the sub funds, and
– reallocation of the decentralised employment budget between counties;

b) make proposals:
– for new employment and training programmes and support for voluntary organisations;
– for the budget of the Labour Market Fund;

c) give its opinion on the proposed case-by-case decisions of the Minister of Labour;

d) evaluate the use of the Labour Market Fund on a yearly basis;

e) obtain reports from the director general of the National Job Centre.

Changes in labour dialogue *degraded the institutional system from a decision-making to a consultative forum*. Social partners strongly opposed this.

As a result, an agreement was drawn up between the Government and the social partners in the summer of 1996. In this agreement the Government committed itself to establish a *system of self-governance* for the management of the Labour Market Fund. The regulations on the tasks of IRC were amended accordingly. Its competences regarding the budget of the Labour Market Fund and its allocation between the sub funds were abolished, and its legal consultative role was limited to employment-related legislative proposals. At the same time it had a prominent role in the establishment and work of the *Management Committee of the Labour Market Fund*.

At the end of 1996 the National Labour Market Council was dissolved and it was replaced by the Management Committee of the Labour Market Fund from January 1, 1997. The Committee had competences regarding the use of the budgets of the Labour Market Fund.

2002 saw the renewal of the National Interest Reconciliation Council (NIRC). The Government continued to use this forum to consult the national representatives of employers and workers in employment issues of national importance. In its consultative role, the NIRC:

– gives opinion on legislative proposals with direct relevance to employment;
– approves the yearly reports of the Management Committee of the Labour Market Fund;
– appoints the members of the Management Committee of the Labour Market Fund from the candidates delegated by its member organisations of employers and workers, and makes recommendations to recall them.

The Management Committee of the Labour Market Fund is a self-governed tripartite body made up of representatives of the employers' and workers' associations and the Government. It was established by the Employment Act. The Management Committee of the Labour Market Fund, by exercising the competences conferred on it by the Employment Act, aims to reduce unemployment and relieve tensions in the labour market through the management and monitoring of the Labour Market Fund.

Each side of the Committee has 6 members, altogether 18 members, who are delegated by the employers associations, trade unions and the Government. The members are appointed and recalled by the Minister.

3.2. Meso-level social dialogue in the labour councils

The meso-level forums of social dialogue were the *county labour councils*. The tripartite bodies were created in 1991 with representatives of employers, workers and county governments (with at least 3 members on each side). However, only the representatives of the county governments were elected to the post by the general assembly of the county (or Budapest) and the general assemblies of cities in the given county. This created a unique structure in

which the different levels of labour dialogue were not linked. As a result the macro and meso levels of labour dialogue were disjointed.

This situation changed following the *reorganisation of county labour councils on the basis of the principles of self-governance by the end of 1996*. The composition of labour councils was brought into line with the Management Committee of the Labour Market Fund. Another change in comparison to earlier regulations was that the number of members was limited to a maximum of 6 on each side. Also, membership was not guaranteed but members on each side were delegated or elected by the relevant organisations, and appointed and recalled by the director of the county's job centre. Secretarial support to councils was provided by job centres.

Labour councils are the local forums for social dialogue on assistance to employment, labour-market training and vocational rehabilitation. Their members are appointed for a 4-year period. Their competences changed several times during the years, but after the entry into force of the Employment Act they have remained the same: to

– decide on the allocation principles and the allocation between different measures of the county's LMF Employment Sub-Fund budget;
– monitor the use of the country's decentralised Labour Market Fund budget;
– initiate and give an opinion on short- and long-term programmes aimed at improving the employment situation in the given county and monitor their implementation;
– give an opinion on the operation of the county's employment service and receive reports from its director. They also have the right to be consulted on the appointment of job centre directors.

Following the regional restructuring of the PES, *the Employment Act* also *amended the rules on previous county (Budapest) labour councils with effect from January 1, 2007.* It ordered the setting up of seven labour councils linked to the jurisdiction of the seven regional job centres. The secretarial tasks of the regional labour councils are carried out by regional job centres.

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STATISTICAL DATA

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Data Sources

FSzH	NESO [National Employment and Social Office]
FSzH BT	NESO Wage Survey
FSzH REG	NESO Unemployment Register (since 2006: Jobseekers' Register)
FSzH SREG	NESO Unemployment Benefit Register (since 2006: Jobseekers' Benefit Register)
FSzH PROG	NESO Short-term Labour Market Projection Survey
KSH	Table compiled from regular CSO-publications [Central Statistical Office]
KSH IMS	CSO institution-based labour statistics
KSH MEF	CSO Labour Force Survey
KSH MEM	CSO Labour Force Account
MC	Microcensus
MNB	Hungarian National Bank
NSZ	Population Census
NYUFIG	Pension Administration
OM STAT	Ministry of Education, Educational Statistics
TB	Social Security Records

Table 1.1: Basic economic indicators

Year	GDP*	Industrial production*	Import	Export	Real earnings*	Employ-ment*	Consumer price index*	Unemploy-ment rate
1989	100.7	95.0	100.3	101.1	99.7	98.2	117.0	...
1990	96.5	90.7	95.9	94.8	94.3	97.2	128.9	...
1991	88.1	81.6	95.1	105.5	93.0	92.6	135.0	...
1992	96.9	84.2	101.0	92.4	98.6	90.3	123.0	9.8
1993	99.4	103.9	86.9	120.9	96.1	93.8	122.5	11.9
1994	102.9	109.7	116.6	114.5	107.2	98.0	118.8	10.7
1995	101.5	104.6	108.4	96.1	87.8	98.1	128.2	10.2
1996	101.3	103.2	104.6	105.5	95.0	99.1	123.6	9.9
1997	104.6	111.1	129.9	126.4	104.9	100.1	118.3	8.7
1998	104.9	112.5	122.1	124.9	103.6	101.4	114.3	7.8
1999	104.2	110.4	115.9	114.3	102.5	103.2	110.0	7.0
2000	105.2	118.1	121.7	120.8	101.5	101.0	109.8	6.4
2001	103.8	103.6	107.7	104.0	106.4	100.3	109.2	5.7
2002	103.5	102.8	105.9	105.1	113.6	100.1	105.3	5.8
2003	102.9	106.4	109.1	110.1	109.2	101.3	104.7	5.9
2004	104.6	107.4	118.4	115.2	98.9	99.4	106.8	6.1
2005	104.1	107.0	111.5	106.1	106.3	100.0	103.6	7.2
2006	103.9	109.9	118.0	114.4	103.5	100.7	103.9	7.5
2007	101.1	108.2	115.8	111.4	95.2	99.9	108.0	7.4

* Previous year = 100

Source: Employment: 1989–1991: KSH MEM; 1992–: KSH MEF. Other data: KSH.

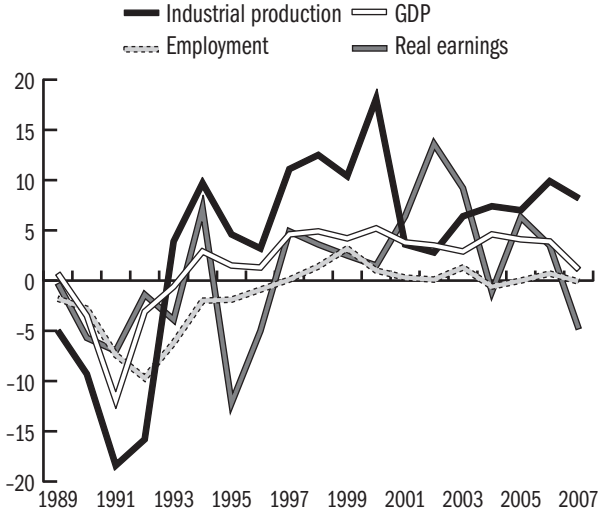


Figure 1.1: Annual changes of basic economic indicators

Table 2.1: Population*

Year	In thousands	1992 = 100	Annual changes	Population age 15–64	Dependency rate	
					Total[1]	Old age[2]
					population	
1980	10,709	103.6	–	6,500.0	0.54	0.21
1989	10,421	100.8	–	...	0.51	0.20
1990	10,375	100.4	–0.2	6,870.4	0.51	0.20
1991	10,373	100.0	0.0	6,909.5	0.50	0.20
1992	10,374	100.0	0.0	6,940.2	0.49	0.20
1993	10,365	99.9	–0.1	6,965.8	0.49	0.20
1994	10,350	99.8	–0.1	6,978.2	0.48	0.21
1995	10,337	99.6	–0.1	6,986.9	0.48	0.21
1996	10,321	99.5	–0.1	6,984.2	0.48	0.21
1997	10,301	99.3	–0.2	6,986.3	0.47	0.21
1998	10,280	99.1	–0.2	6,980.0	0.47	0.21
1999	10,253	98.8	–0.3	6,969.6	0.47	0.21
2000	10,221	98.5	–0.3	6,961.3	0.47	0.21
2001	10,200	98.3	–0.2	6,963.3	0.46	0.22
2002	10,175	98.1	–0.2	6,962.8	0.46	0.22
2003	10,142	97.8	–0.3	6,949.4	0.46	0.22
2004	10,117	97.5	–0.3	6,943.5	0.46	0.23
2005	10,098	97.3	–0.2	6,949.4	0.45	0.23
2006	10,077	97.1	–0.2	6,943.5	0.45	0.23
2007	10,066	97.0	–0.1	6,931.3	0.45	0.23
2008	10,045	96.8	–0.2	6,912.7	0.45	0.24

* January 1st.
[1] (population age 0–14 + 65 and above) / (population age 15–64)
[2] (population age 65 and above) / (population age 15–64)
Note: Recalculated on the basis of Population Census 2001.
Source: KSH.

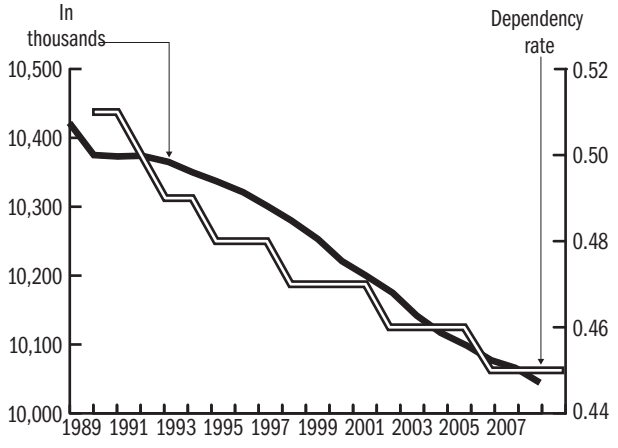


Figure 2.1: Population on 1st January, dependency rate

Table 2.2: Population by age groups – in thousands*

Year	0–14	15–24	25–54	55–64	65+	Total
	years old					
1980	2,341.2	1,464.4	4,399.8	1,054.7	1,449.4	10,709.5
1990	2,130.5	1,445.5	4,231.4	1,193.5	1,373.9	10,374.8
1991	2,068.0	1,510.3	4,223.1	1,176.0	1,395.7	10,373.2
1992	2,018.7	1,558.1	4,222.6	1,159.4	1,414.7	10,373.6
1993	1,972.3	1,587.0	4,230.4	1,148.5	1,426.9	10,365.0
1994	1,929.6	1,601.5	4,240.6	1,136.2	1,442.2	10,350.0
1995	1,891.7	1,610.1	4,250.6	1,126.2	1,458.0	10,336.7
1996	1,858.8	1,609.7	4,253.6	1,120.8	1,478.3	10,321.2
1997	1,824.4	1,607.2	4,260.3	1,118.9	1,490.5	10,301.2
1998	1,792.8	1,593.0	4,262.6	1,124.4	1,506.9	10,279.7
1999	1,762.4	1,573.2	4,268.5	1,127.9	1,521.4	10,253.4
2000	1,729.2	1,526.5	4,291.4	1,143.4	1,531.1	10,221.6
2001	1,692.0	1,480.1	4,338.5	1,144.7	1,545.0	10,200.3
2002	1,660.1	1,436.9	4,378.0	1,147.9	1,551.9	10,174.9
2003	1,633.7	1,392.5	4,390.8	1,166.1	1,559.2	10,142.4
2004	1,606.1	1,355.0	4,401.6	1,186.9	1,567.1	10,116.7
2005	1,579.7	1,322.0	4,409.1	1,209.2	1,577.6	10,097.6
2006	1,553.5	1,302.0	4,399.8	1,230.0	1,590.7	10,076.6
2007	1,529.7	1,285.9	4,393.9	1,251.5	1,605.1	10,066.1
2008	1,508.8	1,273.3	4,377.1	1,262.3	1,623.9	10,045.4

* January 1st. Recalculated on the basis of Population Census 2001.
Source: KSH.

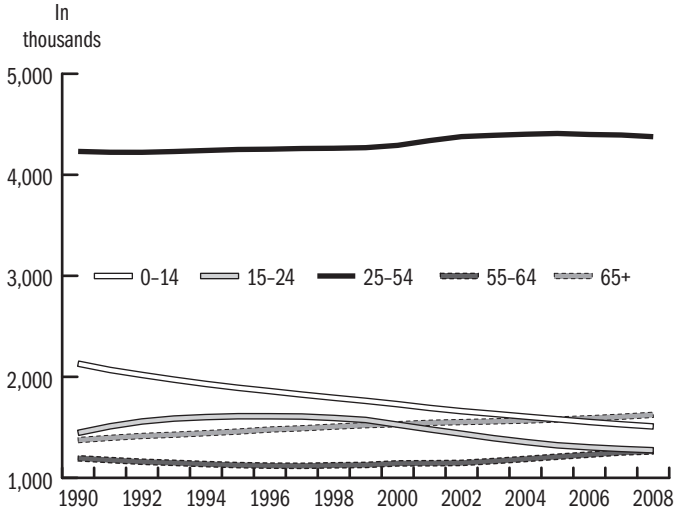


Figure 2.2: Population by age groups

Table 2.3: Male population by age groups – in thousands*

Year	0–14	15–24	25–59	60–64	65+	Total
	years old					
1980	1,205.4	749.9	2,475.6	170.5	587.3	5,188.7
1990	1,090.4	740.3	2,366.9	259.9	527.5	4,984.9
1993	1,008.7	812.2	2,349.0	253.9	542.5	4,966.3
1994	986.8	819.9	2,350.3	250.5	546.0	4,953.4
1995	967.4	824.0	2,353.3	246.1	550.8	4,941.6
1996	950.5	823.7	2,358.3	239.5	557.2	4,929.2
1997	933.0	822.4	2,366.2	233.9	560.5	4,916.0
1998	916.8	815.4	2,375.5	229.3	564.7	4,901.8
1999	901.5	805.0	2,383.2	226.1	568.6	4,884.4
2000	885.0	780.9	2,403.8	224.8	570.8	4,865.2
2001	865.7	757.0	2,425.2	228.9	574.2	4,851.0
2002	850.1	733.9	2,446.1	233.0	573.8	4,837.0
2003	836.8	711.3	2,456.5	239.9	574.0	4,818.5
2004	823.0	691.9	2,470.3	244.4	574.5	4,804.1
2005	809.5	674.6	2,480.0	252.2	576.8	4,793.1
2006	796.7	664.0	2,493.7	249.3	580.9	4,784.6
2007	784.5	655.4	2,503.7	249.4	586.1	4,779.1
2008	773.9	649.2	2,501.3	252.5	592.8	4,769.6

* See: Table 2.2.
Source: KSH.

Table 2.4: Female population by age groups – in thousands*

Year	0–14	15–24	25–54	55–59	60+	Total
	years old					
1980	1,135.8	714.5	2,232.8	365.3	1,072.4	5,520.8
1990	1,040.1	705.2	2,144.4	327.6	1,172.5	5,389.9
1993	963.6	774.8	2,141.2	314.4	1,204.7	5,398.7
1994	942.8	781.6	2,146.2	313.1	1,212.9	5,396.6
1995	924.4	786.2	2,151.0	312.6	1,221.0	5,395.1
1996	908.3	786.0	2,152.4	316.4	1,228.8	5,392.0
1997	891.4	784.8	2,155.6	318.3	1,235.1	5,385.3
1998	876.0	777.6	2,156.0	324.4	1,243.9	5,378.0
1999	861.0	768.2	2,159.3	326.7	1,253.8	5,369.0
2000	844.3	745.6	2,170.5	334.8	1,261.3	5,356.5
2001	826.3	723.1	2,193.4	330.4	1,276.1	5,349.3
2002	810.0	703.0	2,211.6	328.6	1,284.7	5,337.9
2003	796.9	681.2	2,217.4	330.7	1,297.8	5,323.9
2004	783.1	663.1	2,220.8	338.5	1,307.1	5,312.6
2005	770.2	647.4	2,221.9	341.7	1,323.1	5,304.3
2006	756.8	638.6	2,213.0	356.6	1,327.0	5,292.0
2007	745.1	630.6	2,206.8	369.6	1,335.0	5,287.1
2008	734.9	624.1	2,194.5	373.2	1349.1	5,275.8

* See: Table 2.2.
Source: KSH.

Table 3.1: Labour force participation of the population above 14 years*

Year	Population of male 15–59 and female 15–54								Population of male above 59 and female above 54			
			Inactive									
	Em-ployed	Unem-ployed	Pen-sioner	Full time student	On child care leave	Other inactive	Inactive total	Total	Em-ployed	Unem-ployed	Pensioner, other inactive	Total
1980	4,887.9	0.0	300.8	370.1	259.0	339.7	1,269.6	6,157.5	570.3	0.0	1,632.1	2,202.4
1990	4,534.3	62.4	284.3	548.9	249.7	297.5	1,380.4	5,977.1	345.7	0.0	1,944.9	2,290.6
1991	4,270.5	253.3	335.6	578.2	259.8	317.1	1,490.7	6,014.5	249.5	0.0	2,045.2	2,294.7
1992	3,898.4	434.9	392.7	620.0	262.1	435.9	1,710.7	6,044.0	184.3	9.8	2,101.7	2,295.8
1993	3,689.5	502.6	437.5	683.9	270.5	480.1	1,872.0	6,064.1	137.5	16.3	2,141.2	2,295.0
1994	3,633.1	437.4	476.5	708.2	280.9	540.7	2,006.3	6,076.8	118.4	11.9	2,163.8	2,294.1
1995	3,571.3	410.0	495.2	723.4	285.3	596.1	2,100.0	6,081.3	107.5	6.4	2,180.6	2,294.5
1996	3,546.1	394.0	512.7	740.0	289.2	599.4	2,141.2	6,081.3	102.1	6.1	2,184.6	2,292.8
1997	3,549.5	342.5	542.9	752.0	289.0	599.9	2,183.8	6,075.8	96.9	6.3	2,189.0	2,292.2
1998	3,608.5	305.5	588.8	697.0	295.5	565.7	2,147.0	6,061.0	89.3	7.5	2,197.6	2,294.4
1999	3,701.0	283.3	534.7	675.6	295.3	549.8	2,055.4	6,039.6	110.4	1.4	2,185.2	2,297.0
2000	3,745.9	261.4	517.9	721.7	281.4	571.4	2,092.4	6,099.7	130.3	2.3	2,268.0	2,400.6
2001	3,742.6	231.7	516.3	717.9	286.6	601.6	2,122.4	6,096.7	140.7	2.4	2,271.8	2,414.9
2002	3,719.6	235.7	507.1	738.3	286.8	593.0	2,125.2	6,080.5	164.1	3.2	2,263.9	2,431.2
2003	3,719.0	239.6	485.0	730.7	286.9	595.0	2,097.6	6,056.2	202.9	4.9	2,245.6	2,453.4
2004	3,663.1	247.2	480.5	739.8	282.4	622.4	2,125.1	6,035.4	237.3	5.7	2,236.1	2,479.1
2005	3,653.9	296.0	449.7	740.8	278.6	590.3	2,059.4	6,009.3	247.6	7.9	2,258.3	2,513.8
2006	3,679.6	308.8	432.9	810.9	270.0	500.7	2,014.5	6,002.9	250.5	8.4	2,268.0	2,526.9
2007	3,676.6	303.7	426.8	832.6	267.2	475.8	2,002.4	5,982.7	249.5	8.2	2,296.1	2,553.8

* In thousands. Annual average figures.

Note: Till 1999 updated figure based on 1990 population census since 2000 based on 2001 population census. 'Employed' includes conscripts and working pensioner. Data on students for 1995–2003 have been estimated using projected population weights. 'Other inactive' is a residual category.

Source: Pensioners: 1980–91: NYUFIG, 1992–: KSH MEF. Child care recipients: TB. Unemployment: 1990–91: FSzH REG, 1992–: KSH MEF.

Table 3.2: Labour force participation of the population above 14 years – males*

Year	Population of male 15–59								Population of male 60 and above			
			Inactive									
	Em-ployed	Unem-ployed	Pen-sioner	Full time student	On child care leave	Other inactive	Inactive total	Total	Em-ployed	Unem-ployed	Pensioner, other inactive	Total
1980	2,750.5	0.0	173.8	196.3	0.0	99.1	469.2	3,219.7	265.3	0.0	491.8	757.1
1990	2,524.3	37.9	188.4	284.2	1.2	80.3	554.1	3,116.3	123.7	0.0	665.5	789.2
1991	2,351.6	150.3	218.7	296.5	1.5	115.0	631.7	3,133.6	90.4	0.0	700.7	791.1
1992	2,153.1	263.2	252.0	302.4	1.7	174.8	730.9	3,147.2	65.1	3.2	722.1	790.4
1993	2,029.1	311.5	263.2	346.9	2.0	203.3	815.4	3,156.0	47.9	4.5	735.7	788.1
1994	2,013.4	270.0	277.6	357.1	3.7	239.6	878.0	3,161.4	41.6	3.8	740.0	785.4
1995	2,012.5	259.3	282.2	367.4	4.9	237.8	892.3	3,164.1	37.1	2.1	742.6	781.8
1996	2,007.4	242.4	291.9	372.8	3.3	248.3	916.3	3,166.1	28.9	1.3	746.3	776.5
1997	2,018.0	212.2	306.0	377.6	1.5	251.6	936.7	3,166.9	25.5	1.9	743.5	770.9
1998	2,015.5	186.5	345.4	350.4	1.0	264.2	961.0	3,163.0	26.2	2.8	737.3	766.3
1999	2,068.4	170.3	312.7	338.8	4.2	261.5	917.2	3,155.9	34.7	0.4	727.2	762.3
2000	2,086.0	158.2	315.2	358.2	4.1	261.7	939.2	3,183.4	39.8	0.7	758.8	799.3
2001	2,087.6	141.6	311.0	353.4	4.3	283.2	951.9	3,181.1	41.1	0.9	763.0	805.0
2002	2,080.4	137.3	307.5	370.3	5.0	273.4	956.2	3,173.9	45.2	0.7	764.4	810.3
2003	2,073.5	137.6	293.6	367.9	4.3	288.1	953.9	3,165.0	53.0	0.9	762.5	816.4
2004	2,052.7	136.2	293.5	371.2	4.6	300.2	969.5	3,158.4	64.6	0.6	758.8	824.0
2005	2,050.7	158.2	278.8	375.4	5.8	288.8	948.8	3,157.7	65.4	0.9	763.9	830.2
2006	2,076.5	163.6	268.1	404.1	7.0	239.3	918.5	3,158.4	60.5	1.0	770.9	832.8
2007	2,082.6	163.2	267.7	412.3	3.8	225.2	909.0	3,154.8	60.4	1.0	779.0	840.4

* See: Table 3.1.

Table 3.3: Labour force participation of the population above 14 years – females*

	Population of female 15–54								Population of female 55 and above			
			Inactive									
Year	Em-ployed	Unem-ployed	Pen-sioner	Full time student	On child care leave	Other inactive	Inactive total	Total	Em-ployed	Unem-ployed	Pensioner, other inactive	Total
1980	2,137.4	0.0	127.0	173.8	259.0	240.6	800.4	2,937.8	305.0	0.0	1,140.3	1,445.3
1990	2,010.0	24.5	95.8	264.7	248.5	217.3	826.3	2,860.8	222.0	0.0	1,279.4	1,501.4
1991	1,918.9	103.1	116.9	281.8	258.3	201.9	858.9	2,880.9	159.1	0.0	1,344.5	1,503.6
1992	1,745.3	171.7	140.8	317.6	260.4	261.1	979.9	2,896.9	119.2	6.6	1,379.6	1,505.4
1993	1,660.4	191.1	174.3	337.0	268.5	276.8	1,056.6	2,908.1	89.6	11.8	1,405.5	1,506.9
1994	1,619.7	167.4	198.9	351.1	277.2	301.1	1,128.3	2,915.4	76.8	8.1	1,423.8	1,508.7
1995	1,558.8	150.7	213.0	356.0	280.4	358.3	1,207.7	2,917.2	70.4	4.3	1,438.0	1,512.7
1996	1,538.7	151.6	220.7	367.2	285.9	351.1	1,224.9	2,915.2	73.2	4.8	1,438.3	1,516.3
1997	1,531.5	130.3	236.9	374.4	287.5	348.3	1,247.1	2,908.9	71.4	4.4	1,445.3	1,521.1
1998	1,593.0	119.0	243.4	346.6	294.5	301.5	1,186.0	2,898.0	63.1	4.7	1,460.3	1,528.1
1999	1,632.6	113.0	222.0	336.8	291.1	288.3	1,138.2	2,883.8	75.8	1.0	1,458.0	1,534.8
2000	1,659.9	103.2	202.7	363.5	277.3	309.7	1,153.2	2,916.3	90.5	1.6	1,509.2	1,601.3
2001	1,655.0	90.1	205.3	364.5	282.3	318.3	1,170.4	2,915.5	99.6	1.5	1,508.8	1,609.9
2002	1,639.2	98.4	199.6	368.0	281.8	319.6	1,169.0	2,906.6	118.9	2.5	1,499.5	1,620.9
2003	1,645.6	102.0	191.4	362.8	282.6	306.9	1,143.7	2,891.2	149.9	4.0	1,483.2	1,637.1
2004	1,610.2	111.0	186.8	368.6	277.8	322.2	1,155.4	2,876.6	172.8	5.1	1,477.3	1,655.2
2005	1,603.2	137.8	170.9	365.4	272.8	301.5	1,110.6	2,851.6	182.2	7.0	1,494.4	1,683.6
2006	1,603.1	144.8	164.8	406.8	263.0	262.0	1,096.6	2,844.5	189.6	7.4	1,497.1	1,694.1
2007	1,594.0	140.5	159.1	420.3	263.4	250.6	1,093.4	2,827.9	189.1	7.2	1,517.1	1,713.4

* See: Table 3.1.

Table 3.4: Labour force participation of the population above 14 years – per cent

Year	Population of male 15–59 and female 15–54								Population of male above 59 and female above 54			
			Inactive									
	Em-ployed	Unem-ployed	Pen-sioner	Full time student	On child care leave	Other inactive	Inactive total	Total	Em-ployed	Unem-ployed	Pensioner, other inactive	Total
1980	79.4	0.0	4.9	6.0	4.2	5.5	20.6	100.0	25.9	0.0	74.1	100.0
1990	75.9	1.0	4.8	9.2	4.2	5.0	23.1	100.0	15.1	0.0	84.9	100.0
1995	58.7	6.7	8.1	11.9	4.7	9.8	34.5	100.0	4.7	0.3	95.0	100.0
1996	58.3	6.5	8.4	12.2	4.8	9.9	35.2	100.0	4.5	0.3	95.3	100.0
1997	58.4	5.6	8.9	12.4	4.8	9.9	35.9	100.0	4.2	0.3	95.5	100.0
1998	59.5	5.0	9.7	11.5	4.9	9.3	35.4	100.0	3.9	0.3	95.8	100.0
1999	61.3	4.7	8.9	11.2	4.9	9.1	34.0	100.0	4.8	0.1	95.1	100.0
2000	61.4	4.3	8.5	11.8	4.6	9.4	34.3	100.0	5.4	0.1	94.5	100.0
2001	61.4	3.8	8.5	11.8	4.7	9.9	34.8	100.0	5.8	0.1	94.1	100.0
2002	61.2	3.9	8.3	12.1	4.7	9.8	35.0	100.0	6.7	0.1	93.1	100.0
2003	61.4	4.0	8.0	12.1	4.7	9.8	34.6	100.0	8.3	0.2	91.5	100.0
2004	60.7	4.1	8.0	12.3	4.7	10.3	35.2	100.0	9.6	0.2	90.2	100.0
2005	60.8	4.9	7.5	12.3	4.6	9.8	34.3	100.0	9.8	0.3	89.8	100.0
2006	61.3	5.1	7.2	13.5	4.5	8.3	33.6	100.0	9.9	0.3	89.8	100.0
2007	61.5	5.1	7.1	13.9	4.5	8.0	33.5	100.0	9.8	0.3	89.9	100.0

Source: Pensioners: 1980–91: NYUFIG, 1992–: KSH MEF. Child care recipients: TB. Unemployment: 1990–91: FSzH REG, 1992–: KSH MEF.

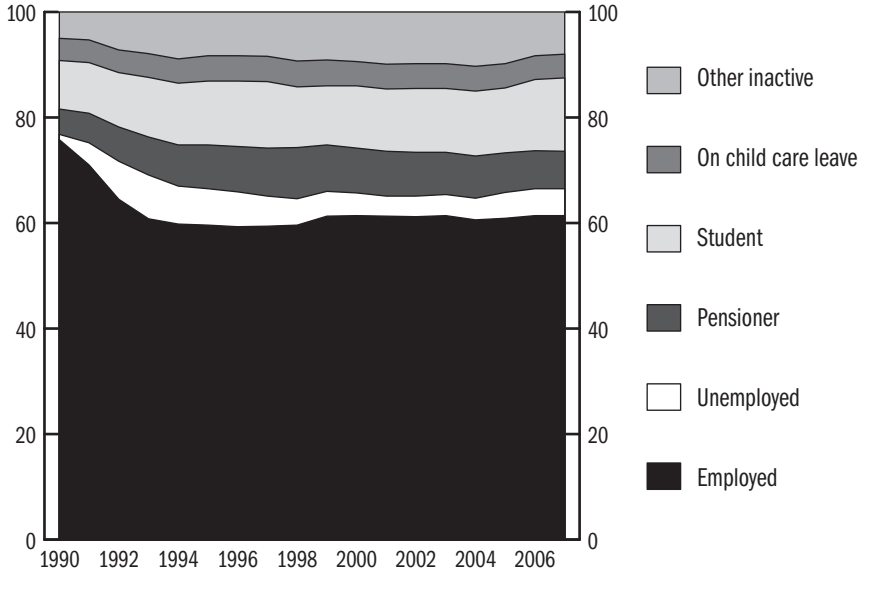


Figure 3.1: Labour force participation of population of male 15–59 and female 15–54

Table 3.5: Labour force participation of the population above 14 years – males, percent

Year	Population of male 15–59								Population of male 60 and above			
			Inactive									
	Em-ployed	Unem-ployed	Pen-sioner	Full time student	On child care leave	Other inactive	Inactive total	Total	Em-ployed	Unem-ployed	Pensioner, other inactive	Total
1980	85.4	0.0	5.4	6.1	0.0	3.1	14.6	100.0	35.0	0.0	65.0	100.0
1990	81.0	1.2	6.0	9.1	0.0	2.6	17.8	100.0	15.7	0.0	84.3	100.0
1995	63.6	8.2	8.9	11.6	0.2	7.5	28.2	100.0	4.7	0.3	95.0	100.0
1996	63.4	7.7	9.2	11.8	0.1	7.8	28.9	100.0	3.7	0.2	96.1	100.0
1997	63.7	6.7	9.7	11.9	0.0	7.9	29.6	100.0	3.3	0.2	96.4	100.0
1998	63.7	5.9	10.9	11.1	0.0	8.4	30.4	100.0	3.4	0.4	96.2	100.0
1999	65.5	5.4	9.9	10.7	0.1	8.3	29.1	100.0	4.6	0.1	95.4	100.0
2000	65.5	5.0	9.9	11.3	0.1	8.2	29.5	100.0	5.0	0.1	94.9	100.0
2001	65.6	4.5	9.8	11.1	0.1	8.9	29.9	100.0	5.1	0.1	94.8	100.0
2002	65.5	4.3	9.7	11.7	0.2	8.6	30.1	100.0	5.6	0.1	94.3	100.0
2003	65.5	4.3	9.3	11.6	0.1	9.1	30.1	100.0	6.5	0.1	93.4	100.0
2004	65.0	4.3	9.3	11.8	0.1	9.5	30.7	100.0	7.8	0.1	92.1	100.0
2005	64.9	5.0	8.8	11.9	0.2	9.1	30.0	100.0	7.9	0.1	92.0	100.0
2006	65.7	5.2	8.5	12.8	0.2	7.6	29.1	100.0	7.3	0.1	92.6	100.0
2007	66.0	5.2	8.5	13.1	0.1	7.1	28.8	100.0	7.2	0.1	92.7	100.0

Source: Pensioners: 1980–91: NYUFIG, 1992–: KSH MEF. Child care recipients: TB. Unemployment: 1990–91: FSzH REG, 1992–: KSH MEF.

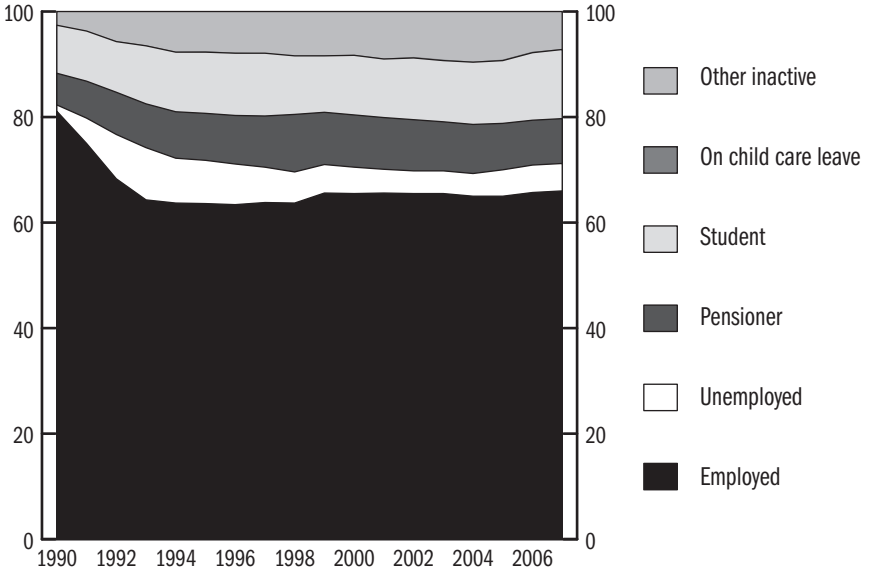


Figure 3.2: Labour force participation of population of **male 15–59**

Table 3.6: Labour force participation of the population above 14 years – females, per cent

Year	Population of female 15–54								Population of female 55 and above			
			Inactive									
	Em-ployed	Unem-ployed	Pen-sioner	Full time student	On child care leave	Other inactive	Inactive total	Total	Em-ployed	Unem-ployed	Pensioner, other inactive	Total
1980	72.8	0.0	4.3	5.9	8.8	8.2	27.2	100.0	21.1	0.0	78.9	100.0
1990	70.3	0.9	3.3	9.3	8.7	7.6	28.9	100.0	14.8	0.0	85.2	100.0
1995	53.4	5.2	7.3	12.2	9.6	12.3	41.4	100.0	4.7	0.3	95.1	100.0
1996	52.8	5.2	7.6	12.6	9.8	12.0	42.0	100.0	4.8	0.3	94.9	100.0
1997	52.6	4.5	8.1	12.9	9.9	12.0	42.9	100.0	4.7	0.3	95.0	100.0
1998	55.0	4.1	8.4	12.0	10.2	10.4	40.9	100.0	4.1	0.3	95.6	100.0
1999	56.6	3.9	7.7	11.7	10.1	10.0	39.5	100.0	4.9	0.1	95.0	100.0
2000	56.9	3.5	7.0	12.5	9.5	10.6	39.5	100.0	5.7	0.1	94.2	100.0
2001	56.8	3.1	7.0	12.5	9.7	10.9	40.1	100.0	6.2	0.1	93.7	100.0
2002	56.4	3.4	6.9	12.7	9.7	11.0	40.2	100.0	7.3	0.2	92.5	100.0
2003	56.9	3.5	6.6	12.5	9.8	10.6	39.6	100.0	9.2	0.2	90.6	100.0
2004	56.0	3.9	6.5	12.8	9.7	11.2	40.2	100.0	10.4	0.3	89.3	100.0
2005	56.2	4.8	6.0	12.8	9.6	10.6	38.9	100.0	10.8	0.4	88.8	100.0
2006	56.4	5.1	5.8	14.3	9.2	9.2	38.6	100.0	11.2	0.4	88.4	100.0
2007	56.4	5.0	5.6	14.9	9.3	8.9	38.7	100.0	11.0	0.4	88.6	100.0

Source: Pensioners: 1980–91: NYUFIG, 1992–: KSH MEF. Child care recipients: TB. Unemployment: 1990–91: FSzH REG, 1992–: KSH MEF.

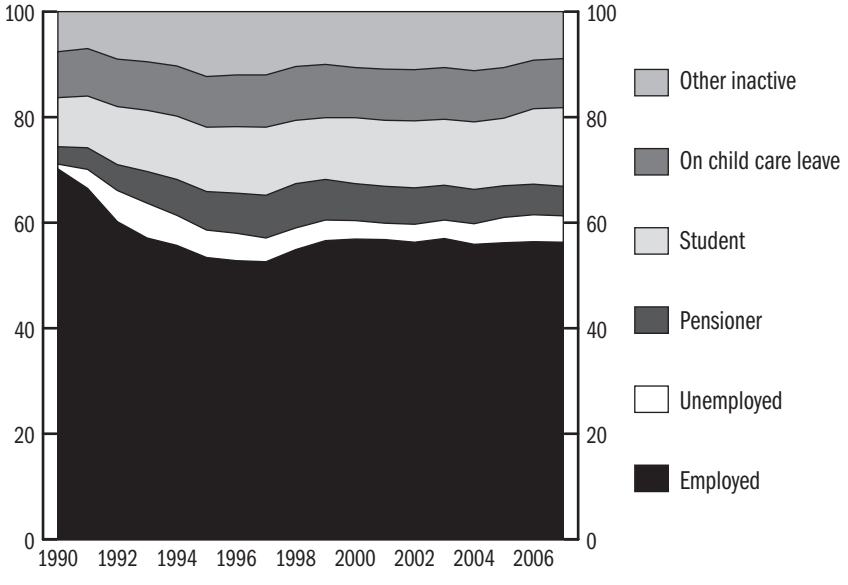


Figure 3.3: Labour force participation of population at female 15–54

Table 3.7: Population between 15–64 by labour market status (self-categorized) – in thousands

	2000	2001	2001*	2002[a]	2003[a]	2004[a]	2005[a]	2006[a]	2007[a]
Total									
In work	3,778.9	3,804.1	3,827.4	3,827.1	3,843.6	3,834.4	3,852.2	3,864.1	3,857.2
Unemployed	448.1	411.6	414.5	410.4	431.8	451.0	488.2	468.1	448.3
Student; pupils	749.9	716.4	739.9	763.1	767.7	783.8	792.0	847.8	870.4
Pensioner	991.8	968.9	990.8	940.4	856.4	800.3	755.6	617.8	568.6
Disabled	223.8	245.4	251.0	284.4	338.3	370.4	359.7	520.4	560.3
On child care leave	272.4	280.1	272.3	278.3	281.7	274.7	272.4	273.5	279.7
Dependent	165.9	168.9	170.7	160.4	181.7	133.3	134.6	116.1	111.9
Out of work for other reason	133.6	181.8	184.7	185.7	181.7	178.4	160.0	108.0	103.3
Total	6,764.4	6,777.2	6,851.3	6,849.8	6,836.3	6,826.3	6,814.7	6,815.8	6,799.7
Males									
In work	2,075.4	2,091.8	2,089.5	2,090.2	2,087.3	2,082.8	2,088.3	2,105.0	2,108.9
Unemployed	270.4	255.7	255.2	239.3	244.2	247.7	265.2	251.6	241.9
Student; pupils	371.4	353.0	363.6	380.9	383.7	391.1	398.5	418.9	430.2
Pensioner	388.6	377.3	386.3	368.1	337.4	322.5	304.5	236.0	205.2
Disabled	120.4	133.1	134.2	148.1	169.9	184.5	178.7	250.4	269.9
On child care leave	3.8	4.0	4.0	4.9	4.7	4.9	6.1	5.5	4.1
Dependent	5.3	6.3	6.3	5.1	5.3	6.0	7.0	5.8	6.6
Out of work for other reason	77.6	99.9	100.8	101.2	97.5	89.6	80.1	54.9	52.1
Total	3,312.9	3,321.1	3,339.9	3,337.8	3,330.0	3,329.1	3,328.4	3,328.1	3,318.9
Females									
In work	1,703.5	1,712.3	1,737.9	1,736.9	1,756.3	1,751.6	1,763.9	1,759.1	1,748.3
Unemployed	177.7	155.9	159.3	171.1	187.6	203.3	223.0	216.5	206.4
Student; pupils	378.5	363.4	376.3	382.2	384.0	392.7	393.5	428.9	440.2
Pensioner	603.2	591.6	604.5	572.3	519.0	477.8	451.1	381.8	363.4
Disabled	103.4	112.3	116.8	136.3	168.4	185.9	181.0	270.0	290.4
On child care leave	268.6	276.1	268.3	273.4	277.0	269.8	266.3	268.0	275.6
Dependent	160.6	162.6	164.4	155.3	129.8	127.3	127.6	110.3	105.3
Out of work for other reason	56.0	81.9	83.9	84.5	84.2	88.8	79.9	53.1	51.2
Total	3,451.5	3,456.1	3,511.4	3,512.0	3,506.3	3,497.2	3,486.3	3,487.7	3,480.8

[a] Marked data are reweighted on the basis of the 2001 Population Census. 2001 serves as a "Janus year".
Source: KSH MEF.

Table 3.8: Population aged 15–64 by labour market status [self-categorised], percentage

	2000	2001	2001*	2002[a]	2003[a]	2004[a]	2005[a]	2006[a]	2007[a]
Total									
In work	55.9	56.1	55.9	55.9	56.2	56.2	56.5	56.7	56.7
Unemployed	6.6	6.1	6.0	6.0	6.3	6.6	7.2	6.9	6.6
Student; pupils	11.1	10.6	10.8	11.1	11.2	11.5	11.6	12.4	12.8
Pensioner	14.7	14.3	14.5	13.7	12.5	11.7	11.1	9.1	8.4
Disabled	3.3	3.6	3.7	4.2	4.9	5.4	5.3	7.6	8.2
On child care leave	4.0	4.1	4.0	4.1	4.1	4.0	4.0	4.0	4.1
Dependent	2.5	2.5	2.5	2.3	2.0	2.0	2.0	1.7	1.6
Out of work for other reason	2.0	2.7	2.7	2.7	2.7	2.6	2.3	1.6	1.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Males									
In work	62.6	63.0	62.6	62.6	62.7	62.6	62.7	63.2	63.5
Unemployed	8.2	7.7	7.6	7.2	7.3	7.4	8.0	7.6	7.3
Student; pupils	11.2	10.6	10.9	11.4	11.5	11.7	12	12.6	13.0
Pensioner	11.7	11.4	11.6	11.0	10.1	9.7	9.1	7.1	6.2
Disabled	3.6	4.0	4.0	4.4	5.1	5.5	5.4	7.5	8.1
On child care leave	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1
Dependent	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Out of work for other reason	2.3	3.0	3.0	3.0	2.9	2.7	2.4	1.6	1.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Females									
In work	49.4	49.5	49.5	49.5	50.1	50.1	50.6	50.4	50.2
Unemployed	5.1	4.5	4.5	4.9	5.4	5.8	6.4	6.2	5.9
Student; pupils	11.0	10.5	10.7	10.9	11.0	11.2	11.3	12.3	12.6
Pensioner	17.5	17.1	17.2	16.3	14.8	13.7	12.9	10.9	10.4
Disabled	3.0	3.2	3.3	3.9	4.8	5.3	5.2	7.7	8.3
On child care leave	7.8	8.0	7.6	7.8	7.9	7.7	7.6	7.7	7.9
Dependent	4.7	4.7	4.7	4.4	3.7	3.6	3.7	3.2	3.0
Out of work for other reason	1.6	2.4	2.4	2.4	2.4	2.5	2.3	1.5	1.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[a] See: Table 3.7.
Source: KSH MEF.

Table 4.1: Employed

Year	1000 prs	1992 = 100	Annual changes	Employment ratio[1]
1980	5,458.2	133.7	...	65.3
1990	4,880.0	119.5	...	59.0
1991	4,520.0	110.7	–7.4	54.4
1992	4,082.7	100.0	–9.7	49.0
1993	3,827.0	93.7	–6.3	45.8
1994	3,751.5	91.9	–2.0	44.8
1995	3,678.8	90.1	–1.9	43.9
1996	3,648.2	89.4	–0.8	43.6
1997	3,646.4	89.3	0.0	43.6
1998	3,697.8	90.6	1.4	44.3
1999	3,811.4	93.4	3.1	45.7
2000	3,849.1	94.3	1.0	46.2
2001	3,859.5	94.5	0.3	...
2001[a]	3,883.3	95.1	0.3	45.6
2002[a]	3,883.7	95.1	0.0	45.6
2003[a]	3,921.9	96.1	1.2	46.2
2004[a]	3,900.4	95.5	–0.5	45.8
2005[a]	3,901.5	95.6	0.0	45.7
2006[a]	3,930.1	96.3	0.7	46.0
2007[a]	3,926.2	96.2	0.0	46.0

[1] Percent of the population above 14 year.
[a] See: Table 3.7.
Source: 1980–91: KSH MEM, 1992–: KSH MEF.

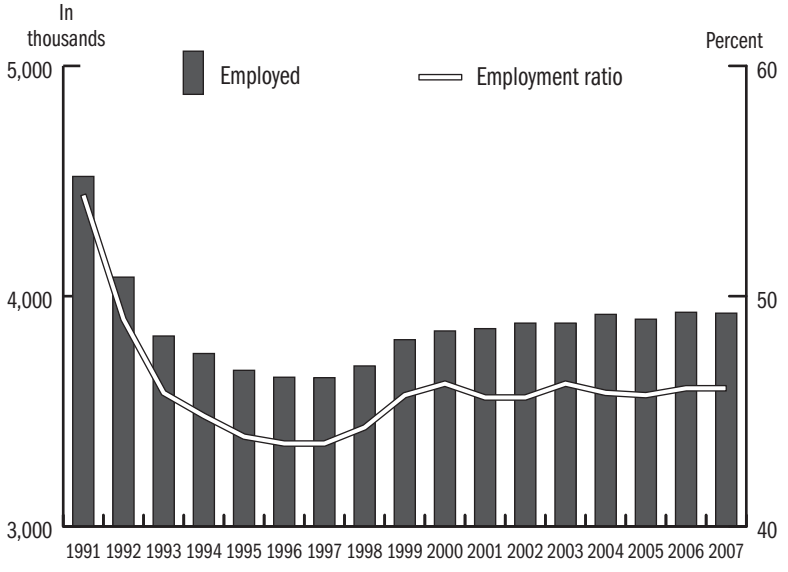


Figure 4.1: Employed

Table 4.2: Employment by gender

Year	Males		Females		Share of females (%)
	1000 prs	1992 = 100	1000 prs	1992 = 100	
1980	3,015.8	136.0	2,442.4	131.0	44.7
1990	2,648.0	119.4	2,232.0	119.7	45.7
1991	2,442.0	110.1	2,078.0	111.5	46.0
1992	2,218.2	100.0	1,864.5	100.0	45.7
1993	2,077.0	93.6	1,750.0	93.9	45.7
1994	2,055.0	92.6	1,696.5	91	45.2
1995	2,049.6	92.4	1,629.2	87.4	44.3
1996	2,036.3	91.8	1,611.9	86.5	44.2
1997	2,043.5	92.1	1,602.9	86.0	44.0
1998	2,041.7	92.0	1,656.1	88.8	44.8
1999	2,103.1	94.8	1,708.4	91.6	44.8
2000	2,122.4	95.7	1,726.7	92.6	44.9
2001	2,130.6	96.1	1,728.9	92.7	44.8
2001[a]	2,128.7	96.0	1,754.6	94.1	45.2
2002[a]	2,125.6	95.8	1,758.1	94.3	45.3
2003[a]	2,126.5	95.6	1,795.4	96.2	45.8
2004[a]	2,117.3	95.5	1,783.1	95.6	45.7
2005[a]	2,116.1	95.4	1,785.4	95.8	45.8
2006[a]	2,137.4	96.4	1,792.7	96.1	45.6
2007[a]	2,143.0	96.6	1783.2	95.6	45.5

[a] See: Table 3.7.

Source: 1980–91: KSH MEM, 1992–: KSH MEF.

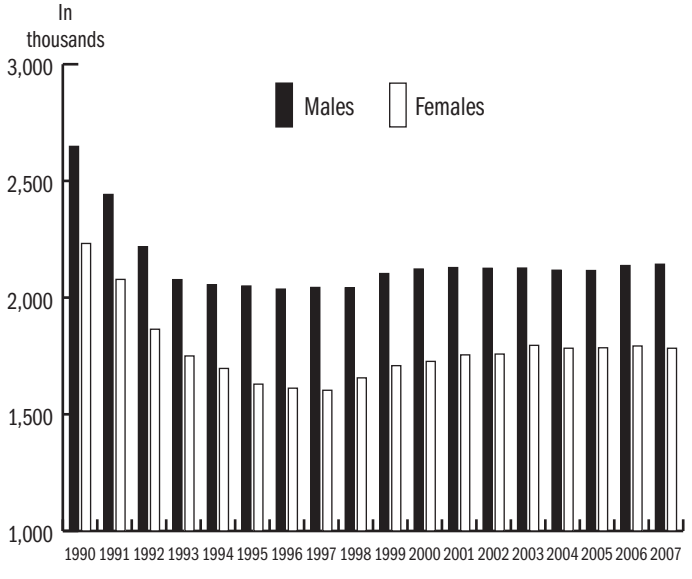


Figure 4.2: Employment by gender

Table 4.3: Composition of the employed by age groups – males, percent

Year	15–19	20–24	25–49	50–54	55–59	60+	Total
	years old						
1980	5.1	12.6	55.4	10.2	8.0	8.7	100.0
1990	5.0	10.8	64.1	8.6	6.8	4.7	100.0
1993	2.9	11.1	68.3	9.2	6.1	2.3	100.0
1994	2.9	11.3	68.7	9.5	5.5	2.0	100.0
1995	2.8	11.3	68.8	9.7	5.6	1.8	100.0
1996	2.5	11.6	69.3	9.6	5.6	1.4	100.0
1997	2.3	12.3	68.9	9.9	5.4	1.2	100.0
1998	2.3	13.4	67.6	10.3	5.1	1.3	100.0
1999	1.9	13.2	67.1	10.5	5.6	1.6	100.0
2000	1.5	12.4	67.3	10.6	6.4	1.8	100.0
2001	1.1	10.9	68.3	11.0	6.9	1.8	100.0
2001[a]	1.2	10.4	68.6	11.1	6.7	2.0	100.0
2002[a]	0.9	9.4	69.4	11.3	6.9	2.1	100.0
2003[a]	0.7	8.6	69.1	11.8	7.3	2.5	100.0
2004[a]	0.7	7.4	69.5	12.0	7.3	3.0	100.0
2005[a]	0.6	6.8	68.9	12.7	7.9	3.1	100.0
2006[a]	0.6	6.6	68.5	13.0	8.4	2.9	100.0
2007[a]	0.5	6.5	68.7	13.0	8.5	2.8	100.0

[a] See: Table 3.7.
Source: 1980–91: Census based estimates. 1992– : KSH MEF.

Table 4.4: Composition of the employed by age groups – females, percent

Year	15–19	20–24	25–49	50–54	55+	Total
	years old					
1980	5.3	9.7	61.8	10.7	12.5	100.0
1990	5.2	8.6	66.2	10.0	10.0	100.0
1993	3.3	9.9	71.4	10.3	5.1	100.0
1994	3.2	10.2	71.8	10.4	4.5	100.0
1995	2.7	10.2	72.2	10.6	4.3	100.0
1996	2.4	9.9	72.2	11.0	4.5	100.0
1997	2.0	10.8	72.2	10.5	4.5	100.0
1998	2.3	12.2	71.2	10.5	3.8	100.0
1999	1.7	12.1	70.2	11.6	4.4	100.0
2000	1.4	11.1	69.6	12.7	5.2	100.0
2001	1.1	10.1	70.0	13.0	5.8	100.0
2001[a]	1.1	9.6	70.5	13.1	5.7	100.0
2002[a]	0.8	9.2	69.4	13.8	6.8	100.0
2003[a]	0.5	8.2	68.8	14.0	8.5	100.0
2004[a]	0.5	7.1	68.2	14.6	9.7	100.0
2005[a]	0.4	6.4	67.6	15.4	10.2	100.0
2006[a]	0.4	6.1	66.8	16.2	10.6	100.0
2007[a]	0.3	5.8	67.3	16.0	10.6	100.0

[a] See: Table 3.7.
Source: 1980–91: Census based estimates. 1992– : KSH MEF.

Table 4.5: Composition of the employed by level of education – males, percent

Year	8 grades of primary school or less	Vocational school	Secondary school	College, University	Total
1980	40.8	32.3	18.2	8.7	100.0
1990	37.6	30.5	20.1	11.8	100.0
1995	21.3	38.5	25.5	14.7	100.0
1996	20.2	39.3	25.3	15.2	100.0
1997	20.1	39.4	26.5	14.1	100.0
1998	20.3	39.4	25.7	14.7	100.0
1999	16.8	41.5	26.8	14.9	100.0
2000	16.1	41.6	26.7	15.6	100.0
2001	15.7	42.7	26.0	15.6	100.0
2001[a]	15.6	42.8	26.0	15.6	100.0
2002[a]	14.6	43.2	26.4	15.8	100.0
2003[a]	14.0	41.3	27.7	17.0	100.0
2004[a]	13.0	40.4	28.0	18.6	100.0
2005[a]	13.0	40.8	27.7	18.5	100.0
2006[a]	12.3	40.8	28.3	18.6	100.0
2007[a]	11.8	40.8	28.7	18.7	100.0

[a] See: Table 3.7.
Source: 1980–91: Census based estimates. 1992– : KSH MEF. Since 1999 slight changes carried out in the categorisation system.

Table 4.6: Composition of the employed by level of education – females, percent

Year	8 grades of primary school or less	Vocational school	Secondary school	College, University	Total
1980	53.1	12.3	27.5	7.2	100.0
1990	43.4	13.4	31.4	11.8	100.0
1995	26.5	20.1	37.1	16.3	100.0
1996	25.6	19.6	37.3	17.6	100.0
1997	25.1	20.6	37.9	16.4	100.0
1998	23.6	20.2	38.2	18.0	100.0
1999	20.6	20.3	40.6	18.5	100.0
2000	19.1	20.9	40.8	19.2	100.0
2001	19.0	21.2	40.4	19.4	100.0
2001[a]	19.1	21.3	40.3	19.3	100.0
2002[a]	18.5	21.5	40.2	19.8	100.0
2003[a]	16.4	21.5	40.9	21.2	100.0
2004[a]	15.9	20.5	40.2	23.4	100.0
2005[a]	15.4	20.2	40.0	24.4	100.0
2006[a]	14.3	20.7	40.1	24.9	100.0
2007[a]	13.6	21.2	40.1	25.1	100.0

[a] See: Table 3.7.
Source: 1980–91: Census based estimates. 1992– : KSH MEF.

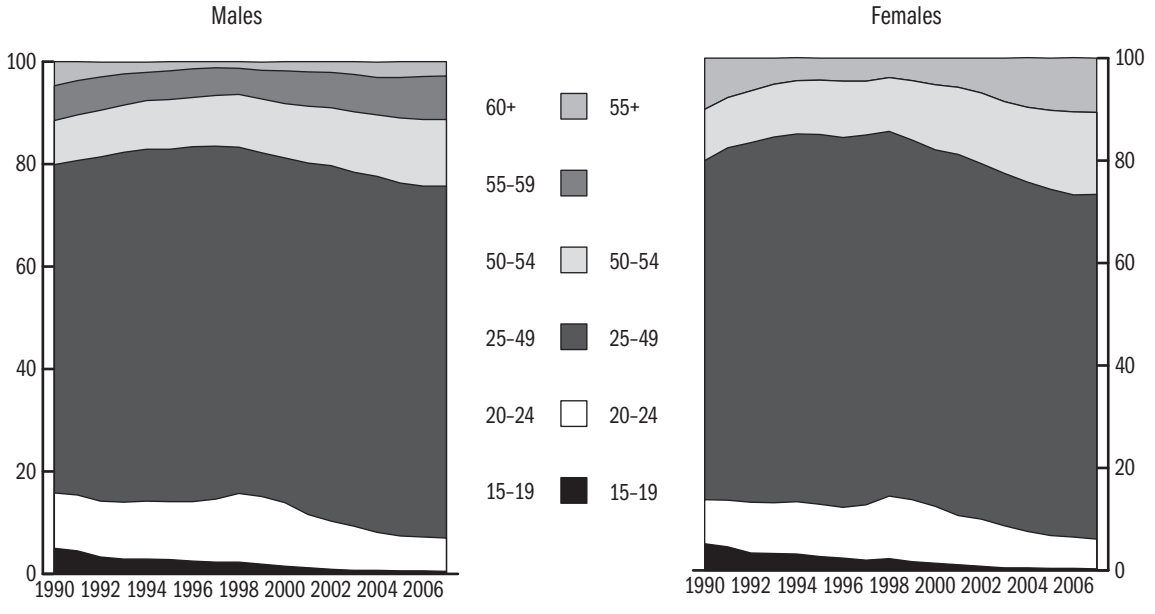


Figure 4.3: Employed by age, percent

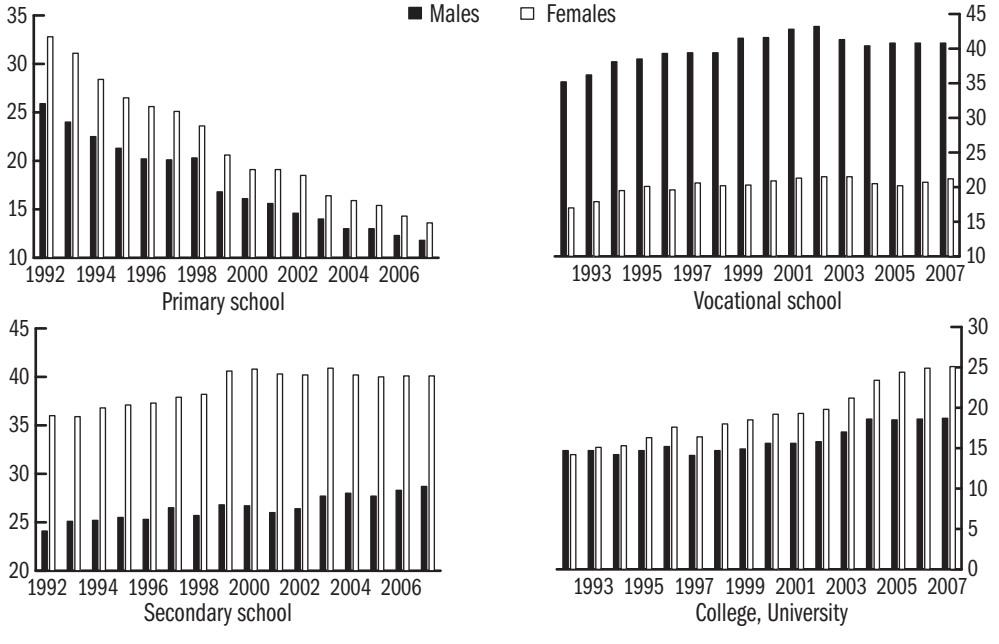


Figure 4.4: Employed by level of education and gender, percent

Table 4.7: Employed by employment status – in thousands

Year	Employees	Member of cooperatives	Member of other partnerships	Self-employed and assisting family members	Total
1994	3,045.2	103.3	174.7	369.3	3,692.5
1995	2,978.9	84.2	167.9	391.8	3,622.8
1996	2,961.2	79.0	151.8	413.1	3,605.1
1997	2,989.7	68.9	137.4	414.3	3,610.3
1998	3,088.5	55.8	132.5	397.9	3,674.7
1999	3,201.3	42.5	111.8	435.9	3,791.5
2000	3,255.5	37.1	129.4	407.1	3,829.1
2001	3,296.3	30.7	119.1	398.4	3,844.5
2001[a]	3,313.6	31.4	118.9	404.4	3,868.3
2002[a]	3,337.2	22.5	109.9	401.0	3,870.6
2003[a]	3,399.2	8.6	114.7	399.4	3,921.9
2004[a]	3,347.8	8.1	136.6	407.8	3,900.3
2005[a]	3,367.3	5.8	146.7	381.7	3,901.5
2006[a]	3,431.4	4.8	126.7	367.2	3,930.1
2007[a]	3,439.7	4.4	123.2	358.9	3,926.2

[a] See: Table 3.7.
Note: Conscripts are excluded.
Source: 1980–91: KSH MEM, 1992–: KSH MEF.

Table 4.8: Composition by employment status – per cent

Year	Employees	Member of cooperatives	Member of other partnerships	Self-employed and assisting family members	Total
1994	82.5	2.8	4.7	10.0	100.0
1995	82.2	2.3	4.6	10.8	100.0
1996	82.1	2.2	4.2	11.5	100.0
1997	82.8	1.9	3.8	11.5	100.0
1998	84.0	1.5	3.6	10.8	100.0
1999	84.4	1.1	2.9	11.5	100.0
2000	85.0	1.0	3.4	10.6	100.0
2001	85.7	0.8	3.1	10.4	100.0
2001[a]	85.7	0.8	3.1	10.5	100.0
2002[a]	86.2	0.6	2.8	10.4	100.0
2003[a]	86.7	0.2	2.8	10.3	100.0
2004[a]	85.8	0.2	3.5	10.5	100.0
2005[a]	86.3	0.1	3.8	9.8	100.0
2006[a]	87.3	0.1	3.2	9.4	100.0
2007[a]	87.6	0.1	3.1	9.2	100.0

[a] See: Table 3.7.
Note: Conscripts are excluded.
Source: 1980–91: KSH MEM, 1992–: KSH MEF.

Table 4.9: Employees* by industry, percent

Industry	1980	1990	1995	2000	2001[a]	2002[a]	2003[a]	2004[a]	2005[a]	2006[a]	2007[a]
Agriculture	18.0	15.8	6.9	5.2	4.9	4.8	4.4	4.1	3.8	3.7	3.7
Mining and quarrying	2.2	1.8	1.0	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Manufacturing	29.2	29.5	24.3	25.9	26.5	26.4	25.2	24.4	23.6	23.3	23.5
Electricity; gas; steam; water supply	2.9	3.0	2.9	2.3	2.3	2.1	1.9	1.8	1.8	1.9	1.8
Construction	7.0	5.9	5.5	6.4	6.5	6.4	7.0	7.3	7.6	7.7	7.8
Wholesale and retail trade	8.7	8.9	10.7	13.0	13.1	13.1	13.2	13.1	14.3	14.0	14.2
Hotels and restaurants	2.3	2.4	2.9	3.2	3.5	3.4	3.4	3.6	3.9	3.9	3.9
Transport; storage; communication	7.4	6.7	8.6	8.3	8.3	8.1	7.8	7.7	7.4	7.9	7.9
Financial intermediation	1.1	1.4	2.5	2.2	2.1	2.0	1.9	2.1	2.1	2.0	2.1
Real estate; renting; business activities	3.2	2.9	3.4	5.0	5.4	5.5	6.1	6.5	6.6	6.7	6.9
Public administration and defence; compulsory social security	4.0	5.6	9.6	8.1	7.9	8.1	8.4	8.5	8.4	8.4	8.0
Education	6.0	7.1	10.1	9.1	8.9	9.1	9.2	9.4	9.0	8.9	8.7
Health and social work	5.3	5.5	6.9	6.8	6.6	6.7	7.3	7.4	7.2	7.3	7.1
Other	2.7	3.4	4.7	3.9	3.7	3.7	3.8	3.7	3.9	3.9	4.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* Includes members of cooperatives and partnerships.
[a] See: Table 3.7.
Source: 1980 –1990: Census based estimates. 1992–: KSH MEF.

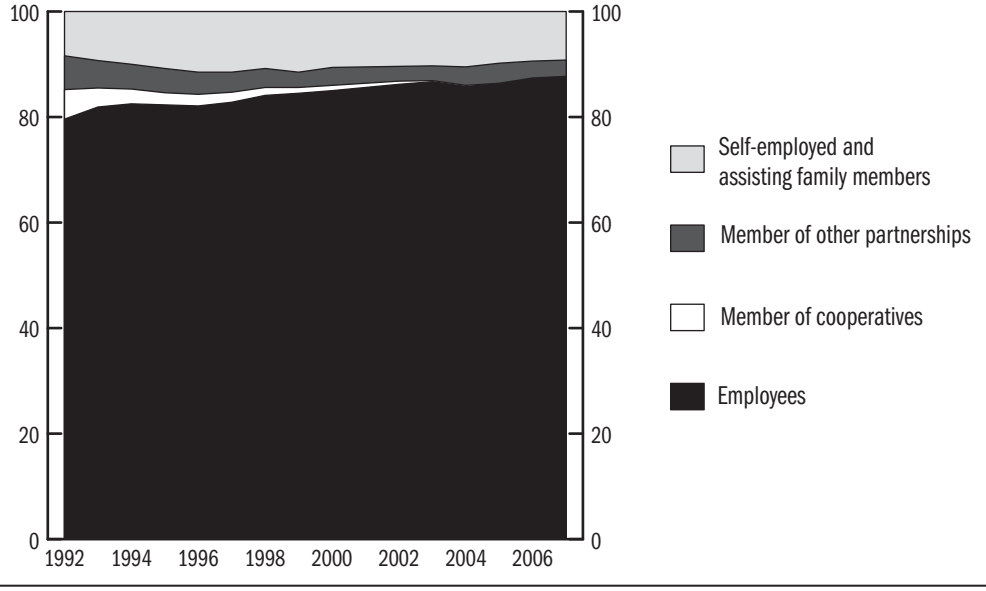


Figure 4.5: Ratio of employees, members of cooperatives, members of other partnerships, self-employed and assisting family members, percent

Table 4.10: Employees of the corporate sector by firm size, percent

Year	Less than 20	20–49	50–249	250–999	1000 and more
	number of employees				
1998	8.2	5.8	25.1	26.4	34.4
2000	20.2	7.0	23.5	22.5	26.8
2002	21.6	14.0	21.5	20.1	22.9
2003	23.0	15.3	20.5	19.3	21.8
2004	23.6	14.8	21.3	18.3	22.0
2005	27.0	15.0	20.5	17.5	20.0
2006	15.7	10.7	25.7	24.3	23.6
2007	25.2	14.2	20.0	18.4	22.2

Note: 1998–1999: firms employing 10 or more workers; 2000–: firms employing 5 or more workers.
Source: FSzH BT.

Table 4.11: Employees of the corporate sector by the share of foreign ownership, percent

Foreign ownership	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
100%	14.4	17.1	17.5	19.0	17.7	16.5	17.7	18.6	19.0	19.4
Majority	13.9	13.5	11.7	11.0	9.2	8.8	7.8	8.5	7.5	7.4
Minority	7.6	6.0	5.3	4.9	3.6	3.9	3.8	3.1	2.2	2.9
0%	64.1	63.4	65.5	65.1	69.5	70.8	70.7	69.8	71.3	70.3

Note: 1998–1999: firms employing 10 or more workers; 2000–: firms employing 5 or more workers.
Source: FSzH BT.

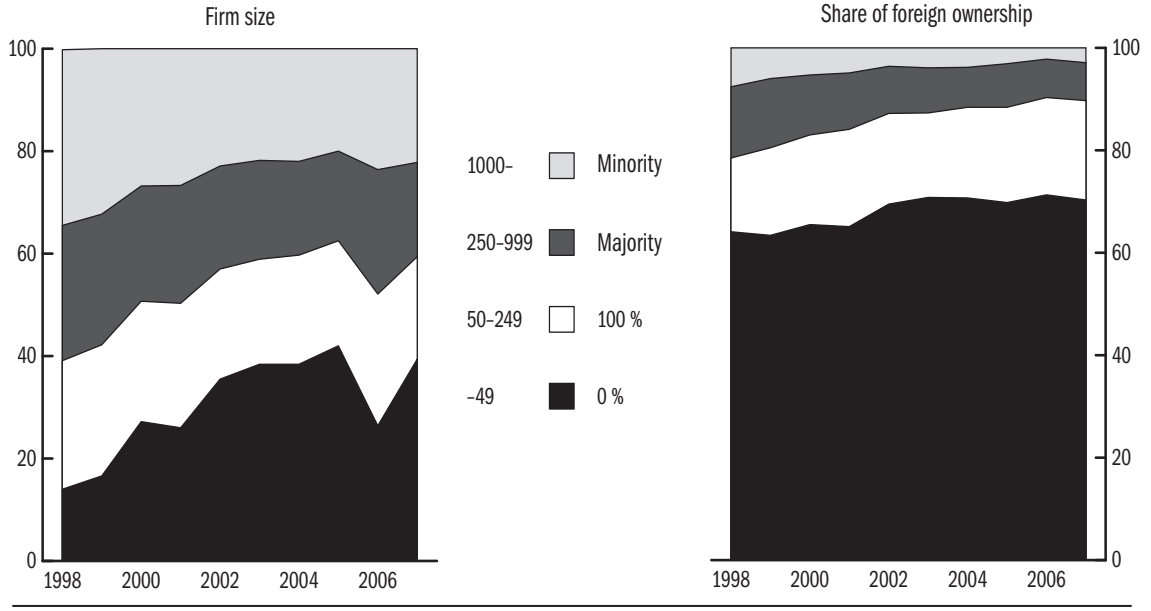


Figure 4.6: Employees of the corporate sector by firm size and by the share of foreign ownership

Table 4.12: Employment rate of population aged 15–74 , by age group, males

Year	15–19	20–24	25–49	50–54	55–59	60–74	Total
1992	14.6	64.7	82.8	71.8	48.7	13.0	58.9
1998	11.4	59.9	78.8	66.0	38.3	5.7	54.4
1999	10.6	60.3	80.5	69.0	44.0	6.1	56.2
2000	8.4	58.9	80.9	69.6	49.6	6.7	56.8
2001[a]	7.9	56.7	81.6	68.2	51.3	7.0	57.1
2002[a]	5.6	53.1	81.9	68.6	52.8	7.6	57.1
2003[a]	4.8	51.8	82.2	69.7	55.2	8.9	57.6
2004[a]	4.5	46.5	82.7	69.7	54.0	10.8	57.5
2005[a]	4.0	43.6	82.5	70.1	56.6	10.9	57.4
2006[a]	4.2	43.9	83.3	70.3	58.6	10.2	58.0
2007[a]	3.7	43.8	83.7	70.7	58.2	10.0	58.0

[a] See: Table 3.7.
Source: KSH MEF.

Table 4.13: Employment rate of population aged 15–74 by age group, females

Year	15–19	20–24	25–49	50–54	55–59	60–74	Total
1992	16.0	54.0	72.2	58.4	18.2	7.5	46.6
1998	10.7	47.5	66.3	52.3	13.6	2.5	41.0
1999	8.7	48.1	67.3	59.4	16.2	2.8	42.3
2000	8.0	45.9	67.8	62.5	20.0	2.8	43.0
2001[a]	6.3	44.2	68.0	62.1	23.2	2.8	43.1
2002[a]	4.3	44.2	67.0	64.0	28.3	3.1	43.3
2003[a]	3.1	41.9	67.8	65.8	35.1	3.9	44.3
2004[a]	2.7	37.4	67.2	66.0	39.8	4.5	44.1
2005[a]	2.6	34.7	67.4	66.6	41.7	4.3	44.2
2006[a]	2.5	33.9	67.5	67.9	42.6	4.2	44.4
2007[a]	2.1	32.5	67.8	68.3	40.0	4.9	44.3

[a] See: Table 3.7.
Source: KSH MEF.

Table 4.14: Employment rate of population aged 15–74 by level of education, males

Year	8 grades of primary school or less	Vocational school	Secondary school	College, University	Total
1993	30.4	75.6	68.0	79.6	54.9
1998	28.2	75.1	63.4	75.7	54.4
1999	26.7	76.4	64.9	77.4	56.2
2000	26.5	77.0	64.5	77.5	56.8
2001[a]	26.4	77.3	63.8	78.4	57.1
2002[a]	25.4	77.1	63.6	78.2	57.1
2003[a]	25.8	76.1	64.0	78.4	57.6
2004[a]	24.8	75.2	63.6	79.2	57.5
2005[a]	25.1	74.1	63.3	78.9	57.4
2006[a]	24.9	74.7	63.8	77.5	58.0
2007[a]	24.8	74.0	63.3	77.6	58.0

[a] See: Table 3.7.
Source: KSH MEF.

Table 4.15: Employment rate of population aged 15–74 by level of education, females

Year	8 grades of primary school or less	Vocational school	Secondary school	College, University	Total
1993	24.9	64.9	61.8	76.7	43.5
1998	20.2	60.4	55.2	73.1	41.0
1999	19.6	60.8	56.3	73.1	42.3
2000	19.2	60.8	56.3	73.5	43.0
2001[a]	19.4	60.5	56.0	74.4	43.1
2002[a]	19.3	60.1	55.2	74.3	43.3
2003[a]	18.8	59.0	55.8	74.4	44.3
2004[a]	18.4	58.1	54.5	74.3	44.1
2005[a]	18.3	57.0	54.0	74.8	44.2
2006[a]	17.9	57.5	53.5	73.0	44.4
2007[a]	17.5	56.9	52.9	71.0	44.3

[a] See: Table 3.7.
Source: KSH MEF.

Table 5.1: Unemployment rate by age and gender and percent of long term unemployed

Year	Unemployment rate			Of which: 15–24 ages	Share of long term unemployed[1]
	males	females	together		
1992	10.7	8.7	9.8	17.5	...
1993	13.2	10.4	11.9	21.3	...
1994	11.8	9.4	10.7	19.4	43.2
1995	11.3	8.7	10.2	18.6	50.6
1996	10.7	8.8	9.9	17.9	54.4
1997	9.5	7.8	8.7	15.9	51.3
1998	8.5	7.0	7.8	13.4	48.8
1999	7.5	6.3	7.0	12.4	49.5
2000	7.0	5.6	6.4	12.1	49.1
2001	6.3	5.0	5.7	10.8	46.7
2001[a]	6.3	5.0	5.7	10.9	46.7
2002[a]	6.1	5.4	5.8	12.3	44.9
2003[a]	6.1	5.6	5.9	13.4	43.9
2004[a]	6.1	6.1	6.1	15.5	45.0
2005[a]	7.0	7.5	7.2	19.4	46.2
2006[a]	7.2	7.8	7.5	19.1	46.8
2007[a]	7.1	7.6	7.4	18.0	48.2

[1] Long term unemployed = 12 or more months without job.
[a] See: Table 3.7.
Source: KSH MEF.

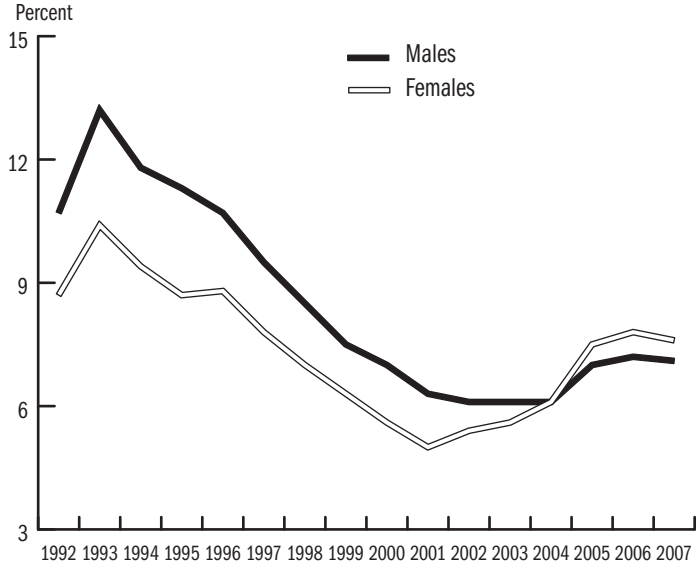


Figure 5.1: Unemployment rates by gender

Table 5.2: Composition of the unemployed by level of education, females

Year	8 grades of primary school or less	Vocational school	Secondary school	College, University	Total
1993	45.8	22.6	27.4	4.2	100.0
1994	44.4	23.1	29.4	3.1	100.0
1995	41.0	24.3	29.7	5.0	100.0
1996	38.2	24.9	31.6	5.4	100.0
1997	44.2	23.2	28.4	4.2	100.0
1998	41.6	22.7	31.4	4.3	100.0
1999	36.2	26.2	33.8	3.8	100.0
2000	31.8	28.2	35.0	5.0	100.0
2001	33.3	28.2	32.5	6.1	100.0
2001[a]	33.7	28.0	32.2	6.1	100.0
2002[a]	33.2	26.0	32.2	8.5	100.0
2003[a]	32.7	28.3	32.0	7.0	100.0
2004[a]	27.8	27.4	34.2	10.6	100.0
2005[a]	28.2	27.1	35.2	9.5	100.0
2006[a]	31.5	27.5	32.5	8.5	100.0
2007[a]	31.2	26.6	31.7	10.5	100.0

[a] See: Table 3.7.
Source: KSH MEF.

Table 5.3: Composition of the unemployed by level of education, males

Year	8 grades of primary school or less	Vocational school	Secondary school	College, University	Total
1993	39.0	40.8	17.3	2.8	100.0
1994	37.3	42.7	15.8	4.3	100.0
1995	37.7	44.0	14.7	3.6	100.0
1996	37.6	44.0	15.1	3.3	100.0
1997	38.9	43.7	15.4	2.0	100.0
1998	37.4	42.0	17.2	3.4	100.0
1999	34.5	45.3	17.4	2.8	100.0
2000	32.9	45.8	17.9	3.4	100.0
2001	36.8	42.9	17.4	2.9	100.0
2001[a]	36.5	43.2	17.5	2.8	100.0
2002[a]	36.7	43.3	16.7	3.3	100.0
2003[a]	34.0	44.7	17.2	4.1	100.0
2004[a]	33.9	42.6	18.6	4.9	100.0
2005[a]	32.1	43.1	19.0	5.8	100.0
2006[a]	33.4	40.0	20.0	6.6	100.0
2007[a]	34.9	38.8	20.3	6.0	100.0

[a] See: Table 3.7.
Source: KSH MEF.

Table 5.4: The number of unemployed* by duration of job search, in thousands

Year	1–4 [<1]	5–14 [1–3]	15–26 [4–6]	27–51 [7–11]	52 [12]	53–78 [13–18]	79–104 [19–24]	105– [>24]	Total
	Length of job search, weeks [month]								
1992	43.9	90.9	96.4	110.7	10.6	41.7	38.4	–	432.6
1993	36.2	74.8	87.9	120.5	14.7	75.1	83.7	–	492.9
1994	30.5	56.5	65.0	91.9	8.4	63.0	73.8	40.4	429.5
1995	23.0	51.0	56.5	69.4	20.2	57.2	34.3	93.2	404.8
1996	19.9	46.4	49.3	61.5	18.2	56.1	37.1	100.2	388.7
1997	16.1	43.7	45.9	54.4	15.7	44.5	31.1	77.3	328.7
1998	12.9	44.2	44.5	45.7	16.0	39.0	27.6	63.5	293.4
1999	15.4	44.1	38.8	46.0	13.2	38.1	26.8	62.3	284.7
2000	16.7	38.5	35.1	42.8	12.7	36.9	23.6	55.4	261.3
2001	14.7	36.9	33.1	38.3	11.3	31.4	20.9	44.1	230.7
2001[a]	14.9	37.0	33.2	38.6	11.5	31.6	20.9	44.2	231.9
2002[a]	15.5	39.4	34.8	40.7	11.6	32.7	19.8	42.5	237.0
2003[a]	15.9	42.1	38.9	42.0	14.5	27.6	17.6	43.0	241.6
2004[a]	13.0	42.0	39.9	41.8	13.5	33.4	19.6	47.2	250.4
2005[a]	14.8	48.9	44.1	51.3	14.1	41.0	27.4	54.3	295.9
2006[a]	13.3	50.7	48.3	51.9	17.4	41.5	26.6	58.8	308.5
2007[a]	13.8	49.4	44.3	50.1	12.7	43.3	26.0	64.9	304.5

* Without those unemployed who will get a new job within 30 days; since 2003: within 90 days.
[a] See: Table 3.7.
Source: KSH MEF.

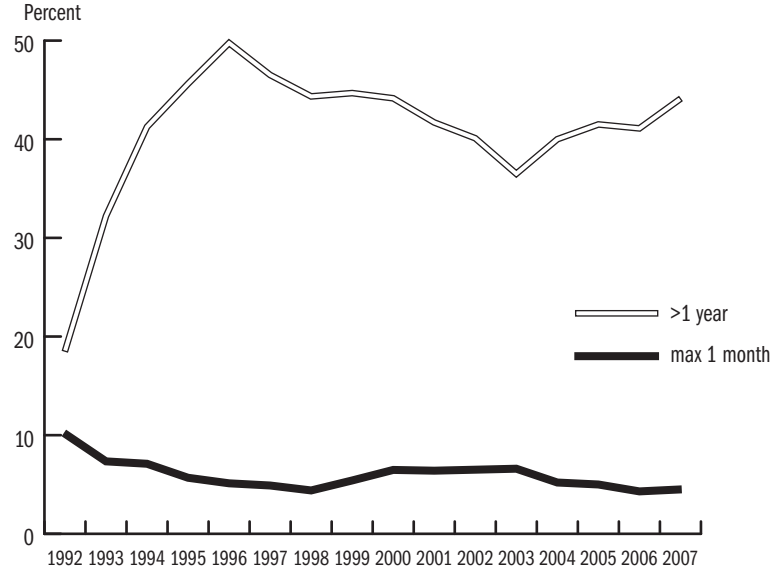
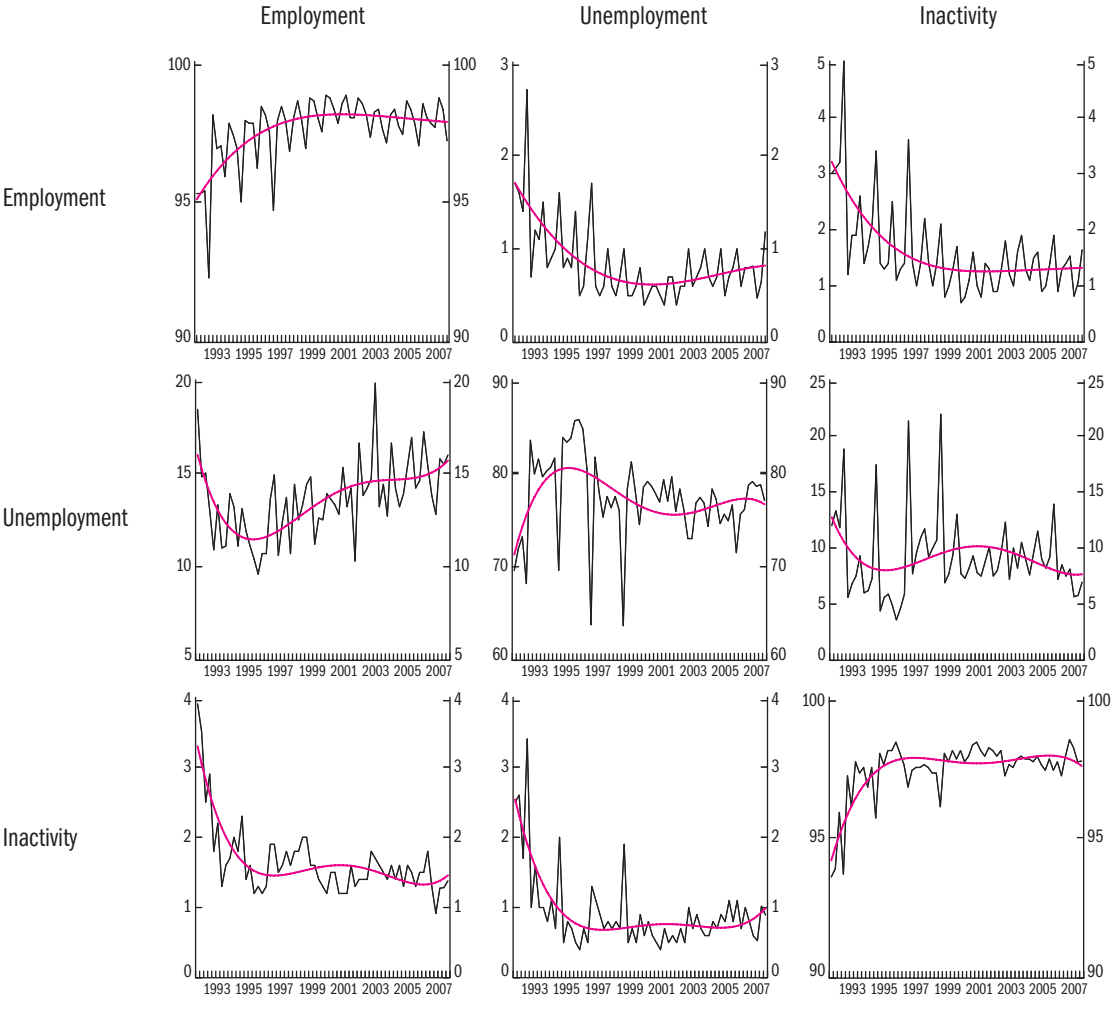


Figure 5.2: The distribution of unemployed by duration of job search, percent

Figure 5.3: Quarterly flows between labour market status, population between 15–74 years



The data refer to 15–74 aged cohorts observed in the LFS in two consecutive quarters.
Red curves: smoothed with fourth degree polinomial.
Source: KSH MEF.

Table 5.5: Registered unemployed (since 2006 registered jobseekers) and LFS unemployment

Year	Registered unemployed/ jobseekers		LFS unemployed, total		LFS unemployed, age 15–24	
	in thousands	rate in %	in thousands	rate in %	in thousands	rate in %
1990	47.7	–	...	...	...	...
1991	227.3	4.1	...	...	...	...
1992	557.0	10.3	444.2	9.8	120.0	17.5
1993	671.8	12.9	518.9	11.9	141.3	21.3
1994	568.4	11.3	451.2	10.7	124.7	19.4
1995	507.7	10.6	416.5	10.2	114.3	18.6
1996	500.6	11.0	400.1	9.9	106.3	17.9
1997	470.1	10.5	348.8	8.7	95.8	15.9
1998	423.1	9.5	313.0	7.8	87.6	13.4
1999	409.5	9.7	284.7	7.0	78.6	12.4
2000	390.5	9.3	262.5	6.4	70.7	12.1
2001	364.1	8.5	232.9	5.7	55.7	10.8
2002	344.7	8.0	238.8	5.8	56.5	12.3
2003	357.2	8.3	244.5	5.9	54.9	13.4
2004	375.9	8.7	252.9	6.1	55.9	15.5
2005	409.9	9.4	303.9	7.2	66.9	19.4
2006	393.5	9.0	316.8	7.5	64.1	19.1
2007	426.9	9.7	311.9	7.4	57.6	18.0

Note: For the rate of registered unemployed/jobseekers the denominator is the economically active population in the previous year (from the Labour Force Account – KSH MEM).

Source: Registered unemployed/jobseekers: FSzH REG; LFS unemployed: KSH MEF.

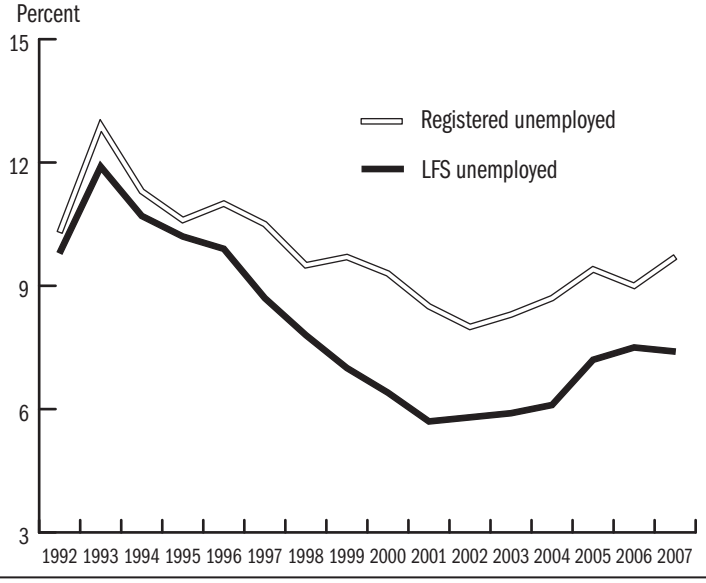


Figure 5.4: Registered and LFS unemployment rates

Table 5.6: Registered unemployed/jobseekers by economic activity as observed in the LFS

Year	Employed	Unemployed	Inactive	Total
1992	5.1	71.6	23.3	100.0
1993	10.0	63.6	26.4	100.0
1994	14.4	54.5	31.1	100.0
1995	11.8	53.7	34.5	100.0
1996	13.7	51.8	34.5	100.0
1997	18.7	44.1	37.2	100.0
1998	24.8	35.1	40.1	100.0
1999	6.7	55.8	37.5	100.0
2000	4.7	54.3	41.0	100.0
2001	6.5	45.2	48.3	100.0
2002[a]	4.4	47.4	48.2	100.0
2003[a]	9.4	44.1	46.5	100.0
2004[a]	3.0	53.5	43.5	100.0
2005[a]	2.3	59.7	38.0	100.0
2006[a]	3.9	58.7	37.5	100.0
2007[a]	3.7	62.6	33.7	100.0

[a] See: Table 3.7.

Note: The data refer to the population observed as unemployed/jobseekers in the LFS. Since 1999 serious methodology changes: people whose last contact with employment office was more then two months before the interview were excluded.

Source: KSH MEF.

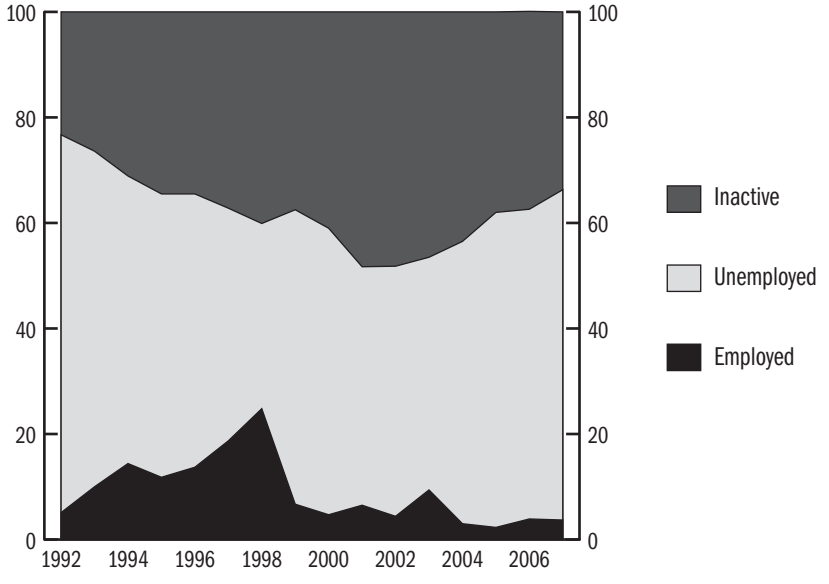


Figure 5.5: Registered unemployed/jobseekers by economic activity

Table 5.7: Selected time series of registered unemployment (jobseekers), yearly averages, in thousands, percent

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Registered unemployed/ jobseekers	507.7	500.6	470.1	423.1	409.5	390.5	364.1	344.7	357.2	375.9	409.9	393.5	426.9
Of which:													
School-leavers	54.5	46.2	42.4	32.5	29.9	26.0	26.8	28.5	31.3	33.8	40.9	38.7	40.4
Non school-leavers	453.2	454.4	427.7	390.6	379.6	364.4	337.4	316.2	325.9	342.2	369.1	354.7	386.5
Male	293.8	284.1	267.1	233.4	221.4	209.7	196.4	184.6	188.0	193.3	210.4	200.9	219.9
Female	213.8	216.5	203.0	189.7	188.1	180.8	167.7	160.1	169.2	182.6	199.5	192.5	207.0
25 years old and younger	134.2	124.0	105.8	89.9	85.4	79.1	75.6	71.1	71.6	71.4	78.9	75.8	80.3
Manual workers	414.3	407.4	386.3	349.0	336.8	321.2	302.0	286.3	296.2	308.5	336.2	321.9	..
Non Manual workers	93.4	93.2	83.8	74.1	72.7	69.3	62.1	58.4	61.0	67.4	73.7	71.6	..
Unemployment/jobseekers benefit recipients	182.8	171.7	141.7	130.7	140.7	131.7	119.2	114.9	120.0	124.0	134.4	130.6	134.6
Unemployment/jobseekers assistance recipients	210.0	211.3	201.3	182.2	148.6	143.5	131.2	113.4	116.2	120.4	133.4	121.8	133.0
Unemployment rate	10.6	11.0	10.5	9.5	9.7	9.3	8.5	8.0	8.3	8.7	9.4	9.0	9.7
Shares within registered unemployed													
School-leavers	10.7	9.2	9.0	7.7	7.3	6.7	7.3	8.3	8.8	9.0	10.0	9.8	9.5
Male	57.9	56.7	56.8	55.2	54.1	53.7	53.9	53.5	52.6	51.4	51.3	51.1	51.5
25 years old and younger	26.4	24.8	22.5	21.3	20.9	20.3	20.8	20.6	20.0	19.0	19.2	16.5	18.8
Manual workers	81.6	81.4	82.2	82.5	82.3	82.2	82.9	83.1	82.9	82.1	82.0	81.8	..
Flows													
Inflow to the Register	45.7	52.8	56.1	55.4	57.2	54.1	57.0	56.0	54.8	57.8	60.7	50.8	51.4
Of which: school-leavers	8.0	7.5	9.2	9.8	9.3	8.0	7.8	7.8	7.7	7.6	8.2	7.0	6.2
Outflow from the Register	47.6	54.3	57.3	60.4	57.2	56.8	59.4	55.8	53.5	54.4	59.8	51.4	48.4
Of which: school-leavers	8.5	8.9	9.0	11.0	9.4	8.2	7.7	7.5	7.6	7.1	7.9	7.1	6.0

Source: FSzH REG and FSZH SREG.

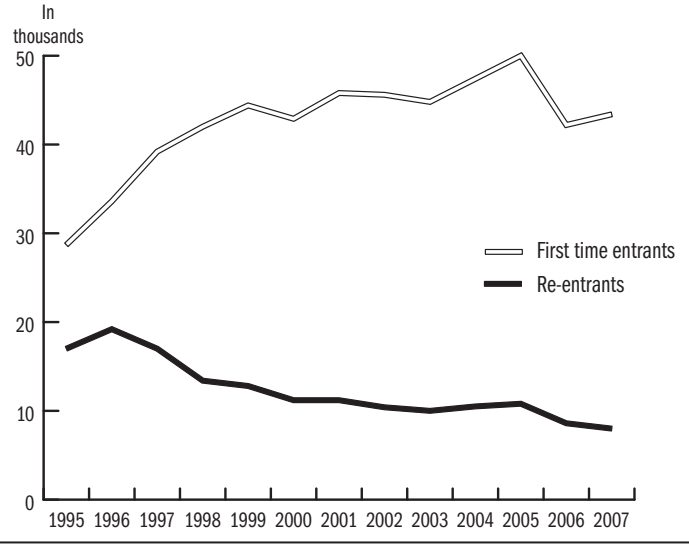


Figure 5.6: Entrants to the unemployment (jobseekers') register, in thousands

Table 5.8: Monthly entrants to the unemployment/jobseekers' register* – in thousands

	January	February	March	April	May	June	July	August	September	Oktober	November	December	Monthly average
1997													
First time entrants	18.1	20.7	15.3	13.6	13.7	20.6	27.2	17.6	18.3	13.6	14.5	10.5	17.0
Re-entrants	56.7	47.5	36.3	32.5	30.0	32.5	34.3	32.5	36.9	36.9	47.5	46.5	39.2
Together	74.8	68.3	51.6	46.1	43.7	53.1	61.4	50.1	55.2	50.5	62.0	57.0	56.1
1998													
First time entrants	13.8	14.9	11.8	10.4	10.6	12.2	21.9	15.1	15.7	12.9	12.2	9.2	13.4
Re-entrants	58.9	46.3	39.1	35.0	35.5	32.9	36.1	34.6	38.4	44.4	50.9	52.0	42.0
Together	72.7	61.2	50.9	45.3	46.1	45.1	58.0	49.7	54.1	57.3	63.1	61.1	55.4
1999													
First time entrants	12.7	12.5	11.1	10.2	10.3	10.6	21.0	14.7	16.9	12.3	11.6	9.8	12.8
Re-entrants	59.7	47.2	42.4	39.8	38.7	35.9	40.2	39.8	42.5	43.3	49.6	53.9	44.4
Together	72.4	59.6	53.5	50.0	48.9	46.5	61.2	54.5	59.4	55.7	61.1	63.7	57.2
2000													
First time entrants	11.9	12.0	9.9	9.7	7.4	9.6	18.1	12.3	14.9	10.7	9.6	8.8	11.2
Re-entrants	57.4	46.3	39.9	39.2	32.0	37.9	41.1	35.0	42.9	43.4	45.8	53.9	42.9
Together	69.3	58.3	49.8	48.9	39.4	47.5	59.2	47.3	57.8	54.1	55.4	62.7	54.1
2001													
First time entrants	11.2	12.9	9.9	9.7	8.3	10.9	15.8	11.5	15.9	10.6	9.6	8.7	11.2
Re-entrants	57.5	53.7	42.0	42.9	38.5	42.3	52.7	22.9	46.6	45.8	46.1	57.7	45.8
Together	68.7	66.6	51.9	52.6	46.8	53.2	68.5	34.4	62.5	56.4	55.7	66.4	57.0
2002													
First time entrants	9.9	12.5	8.9	8.2	7.2	9.9	15.1	11.6	14.0	9.6	9.6	7.7	10.4
Re-entrants	54.3	57.4	42.0	41.0	39.4	40.9	42.3	39.5	45.2	43.6	48.1	54.3	45.6
Together	64.2	69.9	50.9	49.2	46.6	50.8	57.4	51.1	59.2	53.2	57.7	62.0	56.0
2003													
First time entrants	9.1	12.4	9.5	8.3	7.5	9.1	15.0	11.3	12.6	9.3	9.2	7.1	10.0
Re-entrants	56.7	51.3	43.9	38.3	37.6	37.6	42.6	40.4	43.7	42.9	48.8	53.3	44.8
Together	65.8	63.7	53.4	46.6	45.1	46.7	57.6	51.7	56.3	52.2	58.0	60.4	54.8
2004													
First time entrants	10.2	11.8	9.3	8.3	7.7	8.5	16.9	11.6	12.9	10.6	9.6	8.5	10.5
Re-entrants	55.7	52.5	44.6	41.7	41.7	38.2	46.3	41.6	46.3	49.4	52.6	57.5	47.3
Together	65.9	64.3	53.9	50.0	49.4	46.7	63.2	53.2	59.2	60.0	62.2	66.0	57.8
2005													
First time entrants	10.6	11.0	9.2	9.6	8.0	10.5	19.1	12.7	13.9	10.6	7.5	7.2	10.8
Re-entrants	62.1	53.3	45.0	47.9	42.7	44.9	50.7	46.0	51.6	53.4	46.5	54.1	50.0
Together	72.7	64.3	54.2	57.5	50.7	55.4	69.8	58.7	65.5	64.0	54.0	61.3	60.7
2006													
First time entrants	8.6	9.6	7.7	6.9	5.6	8.2	15.1	9.0	11.1	8.2	6.8	6.5	8.6
Re-entrants	53.8	43.4	36.0	33.5	29.9	35.9	50.1	36.2	43.9	44.4	43.8	54.9	42.2
Together	62.4	53.0	43.7	40.4	35.5	44.1	65.2	45.2	55.0	52.6	50.6	61.4	50.8
2007													
First time entrants	7.8	9.0	6.4	6.9	5.3	7.8	14.1	8.8	10.1	7.2	6.0	6.4	8.0
Re-entrants	58.3	49.3	37.7	35.7	30.4	37.3	43.6	36.0	44.8	44.1	42.9	61.1	43.4
Together	66.1	58.3	44.1	42.6	35.7	45.1	57.7	44.8	54.9	51.3	48.9	67.5	51.4

* Since 2006 it is called Jobseekers' Register instead of Unemployment Register.
Source: FSzH REG.

Table 5.9: Benefit recepients and participation in active labour market programs

Year	Benefit and assistance recipients	Regular social allowance	UA for school-leavers	Do not receive provision	Public work	Retraining	Wage subsidy	Other pro-grammes	Total
1995									
In thousands	150.8	192.9	26.3	109.1	21.7	20.4	10.9	64.7	596.8
Per cent	25.3	32.3	4.4	18.3	3.6	3.4	1.8	10.8	100.0
1996									
In thousands	145.4	218.5	2.6	127.8	38.5	20.6	16.4	74.5	644.3
Per cent	22.6	33.9	0.4	19.8	6.0	3.2	2.5	11.6	100.0
1997									
In thousands	134.1	193.5	0.1	121.8	38.9	25.1	29.7	95.7	638.9
Per cent	21.0	30.3	0.0	19.1	6.1	3.9	4.6	15.0	100.0
1998									
In thousands	123.9	158.6	0.1	109.4	37.4	24.5	30.9	86.7	571.5
Per cent	21.7	27.7	0.0	19.1	6.5	4.3	5.4	15.2	100.0
1999									
In thousands	135.5	146.7	0.0	107.1	35.7	28.0	31.1	60.6	544.7
Per cent	24.9	26.9	0.0	19.7	6.6	5.1	5.7	11.1	100.0
2000									
In thousands	117.0	139.7[a]	0.0	106.5	26.7	25.3	27.5	73.5	516.2
Per cent	22.7	27.1	0.0	20.6	5.2	4.9	5.3	14.2	100.0
2001									
In thousands	111.8	113.2	0.0	105.2	29.0	30.0	25.8	37.2	452.2
Per cent	24.7	25.0	0.0	23.3	6.4	6.6	5.7	8.2	100.0
2002									
In thousands	104.8	107.6	–	115.3	21.6	23.5	21.2	32.8	426.8
Per cent	24.6	25.2	–	27.0	5.1	5.5	5.0	7.7	100.0
2003									
In thousands	105.1[b]	109.5	–	125.0	21.2	22.5	20.1	36.6	440
Per cent	23.9	24.9	–	28.4	4.8	5.1	4.6	8.3	100.0
2004									
In thousands	117.4	118.4	–	132.3	16.8	12.6	16.8	28.5	442.8
Per cent	26.5	26.7		29.9	3.8	2.8	3.8	6.4	100.0
2005									
In thousands	125.6	127.8	–	140.2	21.5	14.7	20.8	31.0	481.6
Per cent	26.1	26.5		29.1	4.5	3.1	4.3	6.4	100.0
2006									
In thousands	117.7	112.9	–	146.4	16.6	12.3	14.6	13.8	434.3
Per cent	27.1	26.0	–	33.7	3.8	2.8	3.4	3.2	100.0
2007									
In thousands	128.0	133.1	–	151.8	12.3	10.8	17.0	10.8	463.8
Per cent	27.6	28.7	–	32.7	2.7	2.3	3.7	2.3	100.0

[a] Together with the number of regular social allowance recipients.

[b] Recipients of job search assistance benefit included.

Note: October. The percentage ratios refer to the combined number of the registered unemployed and program participants.

Source: FSzH SREG and FSzH ALMP statistics.

Table 5.10: The number of registered job seekers who became employed on subsidised and non-subsidised employment by NUTS-2 level regions and gender

			2004	2005	2006	2007
Central Hungary	Subsidised employment	Female	309	336	294	230
		Male	322	358	300	250
		Together	632	694	594	480
	Non-subsidised employment	Female	1,064	1,138	1,376	1,462
		Male	873	957	1,157	1,201
		Together	1,936	2,095	2,532	2,663
Central Transdanubia	Subsidised employment	Female	332	447	402	296
		Male	374	499	459	341
		Together	707	946	861	636
	Non-subsidised employment	Female	959	1,004	1,190	1,199
		Male	987	1,037	1,252	1,214
		Together	1,946	2,040	2,442	2,413
Western Transdanubia	Subsidised employment	Female	195	266	256	155
		Male	262	343	342	232
		Together	457	609	597	387
	Non-subsidised employment	Female	858	898	1,037	1,041
		Male	936	1,052	1,159	1,134
		Together	1,793	1,950	2,196	2,175
Southern Transdanubia	Subsidised employment	Female	579	631	661	539
		Male	786	959	953	758
		Together	1,364	1,590	1,614	1,296
	Non-subsidised employment	Female	822	806	985	940
		Male	971	959	1,195	1,138
		Together	1,793	1,764	2,180	2,078
Northern Hungary	Subsidised employment	Female	1,049	1,140	1,061	941
		Male	1,625	1,844	1,628	1,282
		Together	2,674	2,983	2,688	2,223
	Non-subsidised employment	Female	880	889	1,077	971
		Male	1,289	1,329	1,580	1,439
		Together	2,169	2,218	2,657	2,410
Northern Great Plain	Subsidised employment	Female	1,039	1,143	1,114	939
		Male	1,641	1,804	1,708	1,340
		Together	2,680	2,948	2,821	2,279
	Non-subsidised employment	Female	1,123	1,165	1,378	1,398
		Male	1,544	1,669	1,993	1,983
		Together	2,666	2,833	3,372	3,381
Southern Great Plain	Subsidised employment	Female	660	714	720	636
		Male	781	945	945	799
		Together	1,441	1,658	1,664	1,436
	Non-subsidised employment	Female	1,027	1,061	1,180	1,268
		Male	1,285	1,405	1,576	1,587
		Together	2,313	2,466	2,755	2,855
Total	Subsidised employment	Female	4,163	4,677	4,507	3,736
		Male	5,791	6,751	6,333	5,001
		Together	9,954	11,428	10,840	8,737
	Non-subsidised employment	Female	6,731	6,960	8,222	8,279
		Male	7,885	8,406	9,912	9,695
		Together	14,616	15,366	18,134	17,974

Source: FSzH.

Table 5.11: Distribution of registered unemployed, unemployment benefit recipients and unemployment assistance recipients by educational attainment

Educational attainment	1995	1998	2001	2004	2005	2006	2007
Registered unemployed/jobseekers							
8 classes of primary school or less	43.6	40.9	42.3	42.7	41.8	41.5	42.8
Vocational school	34.5	36.0	34.2	32.2	32.6	32.3	31.5
Vocational secondary school	11.7	12.8	13.0	13.4	13.6	13.6	13.2
Grammar school	7.9	7.8	7.7	7.8	8.0	8.2	8.2
College diplom; BA	1.5	1.8	2.1	2.8	2.9	3.2	3.1
University diplom; MA	0.7	0.6	0.7	1.0	1.0	1.2	1.2
Together	100.0	100.0	100.0	100.0	100.0	100.0	100.0
In thousands	482.7	406.4	359.6	350.7	388.1	359.6	402.7
Unemployment benefit/jobseekers' benefit recipients[1]							
8 classes of primary school or less	36.9	32.0	29.7	28.9	28.2	25.4	25.4
Vocational school	36.6	39.5	40.7	39.2	39.3	39.5	37.4
Vocational secondary school	14.9	16.0	16.7	17.7	17.9	18.7	19.2
Grammar school	8.3	9.0	9.0	9.3	9.5	10.1	10.9
College diplom; BA	2.2	2.6	2.9	3.6	3.7	4.5	5.0
University diplom; MA	1.0	0.9	1.0	1.3	1.4	1.8	2.1
Together	100.0	100.0	100.0	100.0	100.0	100.0	100.0
In thousands	164.1	121.3	110.3	100.3	104.9	91.5	119.3
Unemployment assistance recipients[2]							
8 classes of primary school or less	56.8	50.0	55.5	61.1	60.4	60.1	60.3
Vocational school	30.6	34.3	30.0	27.6	27.8	27.7	27.1
Vocational secondary school	6.9	8.7	7.4	6.1	6.4	6.5	6.8
Grammar school	4.5	5.7	5.1	4.2	4.3	4.5	4.4
College diplom; BA	0.8	1.0	0.9	0.8	0.9	1.0	1.1
University diplom; MA	0.3	0.3	0.3	0.2	0.2	0.3	0.3
Together	100.0	100.0	100.0	100.0	100.0	100.0	100.0
In thousands	220.7	186.6	136.9	114.6	127.8	116.5	130.9

[1] 2004: Without pre-pension recipients.
[2] From 2001: Together with the recipients of regular social allowance.
Notes: On the closing date of June in each year.
Source: FSzH REG and FSzH SREG

Table 5.12: The ratio of those who are employed among the former participants of ALMPs*

Active labour market programmes	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Suggested training programmes	44.5	46.3	46.8	46.8	48.4	45.4	43.3	43.0	45.5	43.8	41.1	37.5
Accepted training programmes	50.2	51.1	51.5	50.0	52.0	49.3	45.8	46.0	45.6	51.4	50.9	47.6
Retrainig of those who are employed	92.8	90.4	94.7	94.8	94.9	94.2	92.7	93.3	92.1	90.4	92.4	92.4
Support for self-employment	90.2	88.1	91.7	90.5	89.4	89.2	90.7	89.6	90.7	89.6	86.4	87.6
Wage subsidy programmes	70.1	66.3	59.1	59.7	62.3	59.7	62.9	62.0	64.6	62.6	62.3	63.4
Work experience programmes	–	65.7	59.1	55.8	57.9	64.5	66.9	66.1	66.5	66.8	66.6	66.3
Further employment programme	–	72.1	75.1	68.5	73.8	71.6	78.4	78.2	71.5	70.9	65.0	77.5

* Three months after the end of programmes.
Source: FSzH.

Table 5.13: Outflow from the Register

Year	Total number of outflows	Of which:	
		became employed, %	benefit period expired, %
1993	580,880	32.1	n.a.
1994	485,045	27.8	n.a.
1995	370,941	27.7	n.a.
1996	408,828	24.2	58.4
1997	327,486	26.8	58.7
1998	322,496	26.5	64.5
1999	320,132	26.0	67.4
2000	325,341	28.1	64.6
2001	308,780	27.2	65.1
2002	303,288	27.6	78.7
2003	297,640	26.7	80.2
2004	308,027	27.4	64.6
2005	329,738	27.2	63.0
2006	234,273	33.2	71.7
2007	251,889	33.4	46.9

Source: FSzH.

Table 5.14: Employment ratio of former participants of ALMPs* by sex, age and education for the programmes finished in 2007, percent

	Non-employed participants			Supported self-employment[1]	Wage subsidy programme	School leavers	
	suggested training	accepted training	together			work experience programme	further employment programme
By gender							
Male	39.1	52.0	42.4	91.7	60.6	68.7	74.6
Female	36.5	43.4	37.8	84.7	65.6	64.2	86.4
By age groups							
–20	33.2	35.8	33.6	100.0	64.5	56.3	82.3
20–24	42.4	48.4	43.7	90.0	59.1	67.5	71.1
25–29	40.1	49.3	42.2	84.8	65.9	68.6	0.0
–29 together	40.1	47.4	41.7	86.6	63.1	66.3	77.5
30–34	38.4	47.4	40.6	90.8	64.8	50.0	0.0
35–39	37.5	47.6	39.6	93.2	67.2	0.0	0.0
40–44	35.6	53.2	39.1	86.7	67.6	0.0	0.0
45–49	33.2	54.9	37.4	81.3	63.4	0.0	0.0
50–54	32.3	34.7	32.8	81.8	62.5	0.0	0.0
55+	21.9	36.0	23.5	100.0	45.5	0.0	0.0
By level of education							
Less than primary school	32.9	0.0	32.9	0.0	54.2	46.2	0.0
Primary school	34.3	44.2	36.2	86.7	58.0	50.7	85.7
Vocational school for skilled workers	39.1	49.3	41.6	91.0	64.3	66.2	74.6
Vocational school	40.2	36.7	39.5	100.0	73.7	63.3	90.9
Special vocational school	37.6	48.5	39.9	81.4	66.3	65.8	80.0
Vocational secondary school	38.4	51.3	41.5	100.0	63.9	74.9	50.0
Technicians secondary school	37.9	42.1	38.7	84.1	65.1	63.1	100.0
Grammar school	39.2	58.9	43.0	87.1	63.0	66.8	0.0
College diplom	38.0	46.9	39.5	90.9	56.3	75.1	0.0
University diplom	42.9	0.0	42.9	0.0	0.0	80.0	75.0
Total	37.5	47.6	39.6	87.6	63.4	66.3	77.5

* Note: 3 months after the end of each programme.
[1] Survival rate.
Source: FSzH.

Table 5.15: The distribution of the total number of labour market training participants, percent

Groups of training participants	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Participants in suggested training	49.3	59.2	61.0	61.4	59.2	58.4	56.5	54.6	55.1	66.9	77.8	78.4
Participants in accepted training	43.3	34.9	33.8	33.4	35.1	35.7	38.5	34.5	32.4	22.0	15.7	13.7
Non-employed participants together	92.7	94.1	94.8	94.8	94.3	94.2	95.0	89.1	87.5	88.9	92.4	92.1
Of which: school-leavers	23.4	28.5	30.6	29.8	25.1	22.5	23.5	22.1	20.3	21.3	23.0	22.7
Employed participants	7.3	5.9	5.2	5.2	5.7	5.8	5.0	10.9	12.5	11.1	7.6	7.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: FSzH.

Table 5.16: The distribution of the total number of labour market training participants

Types of training	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Approved qualification	80.4	77.9	79.8	79.6	78.8	78.7	77.6	78.3	75.1	72.9	71.5	69.0
Non-approved qualification	15.8	16.0	14.4	14.7	14.7	14.0	13.6	12.6	15.0	14.5	16.9	19.9
Foreign language learning	3.8	6.1	5.7	5.7	6.5	7.3	8.8	9.1	9.9	12.6	11.5	11.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: FSzH.

Table 5.17: The distribution of those entering into the training programmes by age groups and educational level for male and female participants

	2004			2005			2006			2007		
	male	female	to-gether	male	female	to-gether	male	female	to-gether	male	female	to-gether
Total number of entrants	11,077	14,683	25,760	12,565	15,162	27,727	12,161	14,388	26,459	11764	13589	25353
Entrants by gender	43.0	57.0	100.0	45.3	54.7	100.0	45.8	54.2	100.0	46.4	53.6	100.0
Distribution by age groups												
–20	11.2	7.3	9.0	12.5	7.3	9.7	11.3	6.4	8.7	8.5	5.7	7.0
20–24	25.5	20.0	22.3	26.5	20.3	23.1	26.4	20.2	23.0	27.6	21.9	24.5
–25	36.6	27.3	31.3	39.0	27.6	32.8	37.8	26.5	31.7	36.1	27.6	31.5
25–44	48.7	59.6	54.9	46.4	57.2	52.3	46.4	56.8	52.0	46.5	55.4	51.3
45–49	8.0	7.9	7.9	6.8	8.6	7.8	6.9	8.6	7.8	7.4	8.4	8.0
50+	6.7	5.2	5.9	7.8	6.6	7.1	8.9	8.1	8.4	10.1	8.5	9.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
By level of education												
Less than primary school	2.3	1.2	1.7	3.1	1.6	2.3	1.4	1.0	1.2	2.1	1.1	1.6
Primary school	30.0	19.2	23.8	32.6	21.1	26.3	31.9	19.3	25.1	29.8	18.9	24.0
Vocational school	32.9	21.8	26.6	31.3	21.1	25.7	32.4	22.0	26.8	31.4	18.6	24.5
Vocational and technical secondary school	20.2	27.7	24.5	19.0	26.8	23.3	19.8	26.6	23.5	20.2	27.1	23.9
Grammar school	8.3	18.7	14.2	8.7	19.0	14.4	9.4	19.8	15.0	11.2	20.6	16.3
College; university	6.3	11.4	9.2	5.3	10.4	8.1	5.1	11.3	8.4	5.3	13.7	9.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: FSzH.

Table 5.18: The distribution of registered jobseekers* by educational attainment, yearly averages, percent

Educational level	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Primary school or less	40.8	40.6	40.4	41.0	42.0	42.4	42.7	42.3	41.9	42.0	42.4
Vocational school	35.6	36.0	35.7	34.9	34.1	33.5	32.9	32.3	32.4	32.1	31.5
Vocational secondary school	12.8	12.9	13.2	13.2	13.1	13.2	13.1	13.4	13.5	13.4	13.3
Grammar school	8.0	7.9	8.0	8.0	7.7	7.6	7.5	7.7	7.9	8.0	8.2
College	2.0	1.9	2.0	2.1	2.2	2.4	2.7	3.1	3.2	3.3	3.3
University	0.7	0.7	0.7	0.7	0.8	0.9	1.0	1.1	1.2	1.2	1.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* Before 2006: registered unemployed.
Source: FSzH REG.

Table 5.19: The distribution of registered jobseekers* school-leavers by educational attainment, yearly averages, percent

Educational level	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Primary school or less	20.2	23.4	25.3	26.8	31.1	33.7	34.7	35.2	36.1	38.2	40.2
Vocational school	35.7	34.1	30.9	27.8	23.7	20.6	20.4	20.2	20.5	19.7	18.0
Vocational secondary school	23.9	24.2	25.0	25.4	25.3	25.5	23.2	22.1	21.5	20.4	20.7
Grammar school	15.5	14.0	13.6	13.7	12.6	11.6	10.8	10.7	10.8	11.7	12.7
College	3.5	3.4	4.0	4.8	5.5	6.2	7.7	8.1	7.8	6.9	5.8
University	1.1	1.0	1.2	1.5	1.8	2.4	3.3	3.6	3.4	3.1	2.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* Before 2006: registered unemployed.
Source: FSzH REG.

Table 5.20: The number of registered jobseekers* – by educational attainment, yearly averages in thousands

Educational level	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Primary school or less	191.8	171.9	165.5	160.1	153.1	146.3	152.4	159.1	171.6	165.1	181.2
Vocational school	167.6	152.2	146.2	136.3	124.1	115.3	117.6	121.6	132.8	126.2	134.4
Vocational secondary school	60.3	54.8	54.0	51.7	47.8	45.6	46.9	50.3	55.4	52.6	56.6
Grammar school	37.4	33.5	32.8	31.2	28.2	26.2	27.0	29.1	32.3	31.7	35.0
College	9.5	8.1	8.2	8.4	8.1	8.3	9.7	11.5	13.0	13.0	14.2
University	3.5	2.8	2.8	2.9	2.8	3.0	3.6	4.3	4.8	44.9	5.5
Total	470.1	423.1	409.5	390.5	364.1	344.7	357.2	376.0	409.9	393.5	426.9

* Before 2006: registered unemployed.
Source: FSzH REG.

Table 5.21: The number of registered unemployed* school-leavers by educational attainment, yearly averages

Educational level	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Primary school or less	8.6	7.6	7.6	7.0	8.3	9.6	10.9	11.9	14.7	14.8	16.2
Vocational school	15.1	11.1	9.2	7.2	6.4	5.9	6.4	6.8	8.4	77.6	7.3
Vocational secondary school	10.1	7.9	7.5	6.6	6.8	7.3	7.3	7.5	8.8	7.9	8.4
Grammar school	6.6	4.5	4.1	3.6	3.4	3.3	3.4	3.6	4.4	4.6	5.1
College	1.5	1.1	1.2	1.2	1.5	1.8	2.4	2.7	3.2	2.7	2.3
University	0.5	0.3	0.4	0.4	0.5	0.7	1.0	1.2	1.4	1.2	1.0
Total	42.4	32.6	29.9	26.0	26.8	28.5	31.3	33.8	40.9	38.7	40.4

* After 2005: registered school-leaver jobseekers.
Source: FSzH REG.

Table 5.22: Unemployment rate of population aged 15–74 by level of education, males

Year	Primary school or less	Vocational school	Secondary school	College; university	Total
1993	20.3	15.0	9.7	2.9	13.5
1998	14.6	9.1	5.9	2.2	8.5
1999	14.3	8.2	5.0	1.5	7.5
2000	13.4	7.7	4.8	1.6	7.0
2001[a]	13.6	6.4	4.3	1.2	6.3
2002[a]	14.1	6.2	4.0	1.4	6.1
2003[a]	13.6	6.6	3.9	1.6	6.1
2004[a]	14.3	6.4	4.1	1.7	6.1
2005[a]	15.6	7.4	4.9	2.3	7.0
2006[a]	17.3	7.0	5.2	2.7	7.2

[a] See: Table 3.7.
Source: KSH LFS. Since 1999 slight changes carried out in the categorizations system.

Table 5.23: Unemployment rate of population aged 15–74 by level of education, females

Year	Primary school or less	Vocational school	Secondary school	College; university	Total
1993	14.6	12.8	8.1	3.2	10.4
1998	11.6	7.8	5.8	1.8	7.0
1999	10.5	8.0	5.2	1.3	6.3
2000	9.1	7.4	4.9	1.5	5.6
2001[a]	8.4	6.4	4.0	1.6	5.0
2002[a]	9.3	6.5	4.4	2.4	5.4
2003[a]	10.5	7.2	4.4	1.9	5.6
2004[a]	10.3	8.0	5.3	2.9	6.1
2005[a]	13.0	9.8	6.7	3.1	7.5
2006[a]	15.8	10.1	6.4	2.8	7.8

[a] See: Table 3.7.
Source: KSH LFS. Since 1999 slight changes carried out in the categorization system.

Table 6.1: Nominal and real earnings

Year	Gross earnings	Net earnings	Gross earnings index	Net earnings index	Consumer price index	Real earnings index
	HUF		previous year = 100%			
1989	10,571	8,165	117.9	116.9	117.2	99.7
1990	13,446	10,108	128.6	121.6	128.9	94.3
1991	17,934	12,948	130.0	125.5	135.0	93.0
1992	22,294	15,628	125.1	121.3	123.0	98.6
1993	27,173	18,397	121.9	117.7	122.5	96.1
1994	33,939	23,424	124.9	127.3	118.8	107.2
1995	38,900	25,891	116.8	112.6	128.2	87.8
1996	46,837	30,544	120.4	117.4	123.6	95.0
1997	57,270	38,145	122.3	124.1	118.3	104.9
1998	67,764	45,162	118.3	118.4	114.3	103.6
1999	77,187	50,076	116.1	112.7	110.0	102.5
2000	87,645	55,785	113.5	111.4	109.8	101.5
2001	103,553	64,913	118.0	116.2	109.2	106.4
2002	122,482	77,622	118.3	119.6	105.3	113.6
2003	137,187	88,751	112.0	114.3	104.7	109.2
2004	145,520	93,715	106.0	105.6	106.8	99.0
2005	158,343	103,149	108.8	110.1	103.6	106.3
2006	171,239	110,896	108.1	107.5	103.9	103.5
2007	185,004	114,112	108.0	102.8	108.0	95.2

Source: KSH IMS.

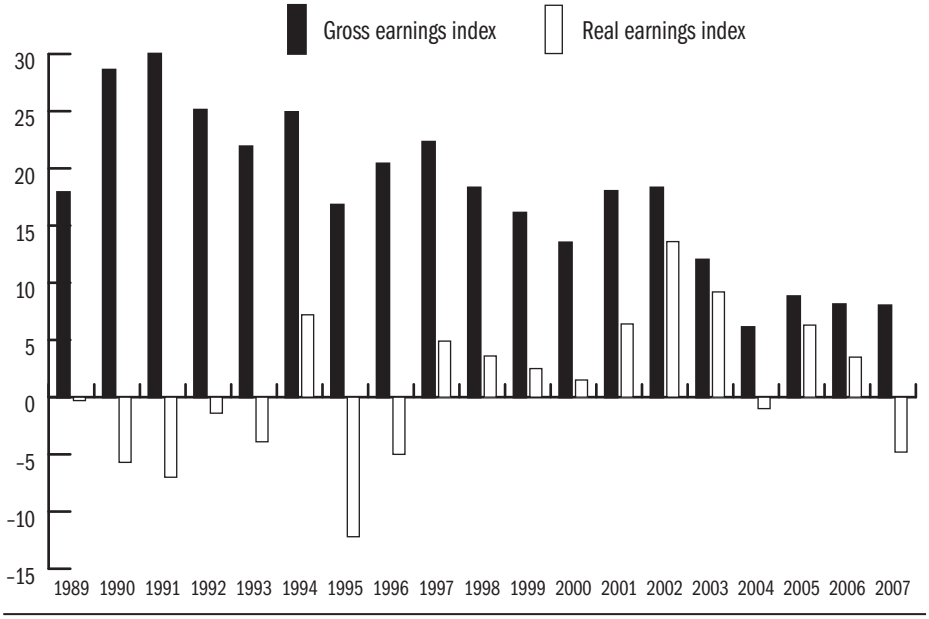


Figure 6.1: Change of gross earnings and real earnings

Table 6.2: Gross average earnings by industries – total*

Industries	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Agriculture	74.9	73.7	72.0	69.3	67.6	69.6	68.8	65.1	66.6	67.7	65.4	66.0
Mining and quarrying	128.3	134.4	125.4	124.1	128.8	122.9	113.2	108.7	111.3	117.9	113.8	108.6
Manufacturing	100.7	100.6	99.1	98.9	100.6	97.7	92.8	90.4	93.7	93.2	92.7	93.5
Electricity; gas; steam and water supply	133.5	132.2	133.3	135.4	136.4	131.0	126.9	127.0	132.1	142.9	132.4	135.4
Construction	82.0	81.9	79.9	73.5	73.3	77.0	70.4	68.4	68.5	69.2	68.6	73.5
Wholesale and retail trade	97.1	93.8	92.5	86.7	88.7	87.5	87.0	84.2	83.9	81.7	84.8	85.4
Hotels and restaurants	75.3	71.6	68.5	64.9	64.6	65.8	66.2	63.8	61.9	58.9	60.1	60.6
Transport; storage and communication	110.0	110.5	112.3	114.3	112.7	110.5	106.6	103.9	108.4	109.0	107.4	104.0
Financial intermediation	189.5	199.2	210.2	214.2	216.1	208.6	197.0	199.6	222.6	230.4	235.8	211.0
Real estate; renting; business activities	110.5	106.8	119.7	115.8	115.3	117.6	109.2	105.8	106.0	103.8	100.4	103.6
Public administration and defence; compulsory social security	114.3	114.1	111.7	120.3	118.0	127.2	137.1	131.8	126.7	130.2	130.2	137.0
Education	83.3	86.4	88.3	94.4	92.7	94.3	105.1	118.4	110.2	109.1	111.6	104.4
Health and social work	80.1	79.2	77.9	76.6	77.9	76.1	84.3	94.7	90.2	85.5	88.7	86.4
Other	102.2	95.2	94.3	92.2	91.1	88.5	91.1	94.2	94.6	95.0	91.2	97.9

* National average = 100.
Source: KHS, IMS.

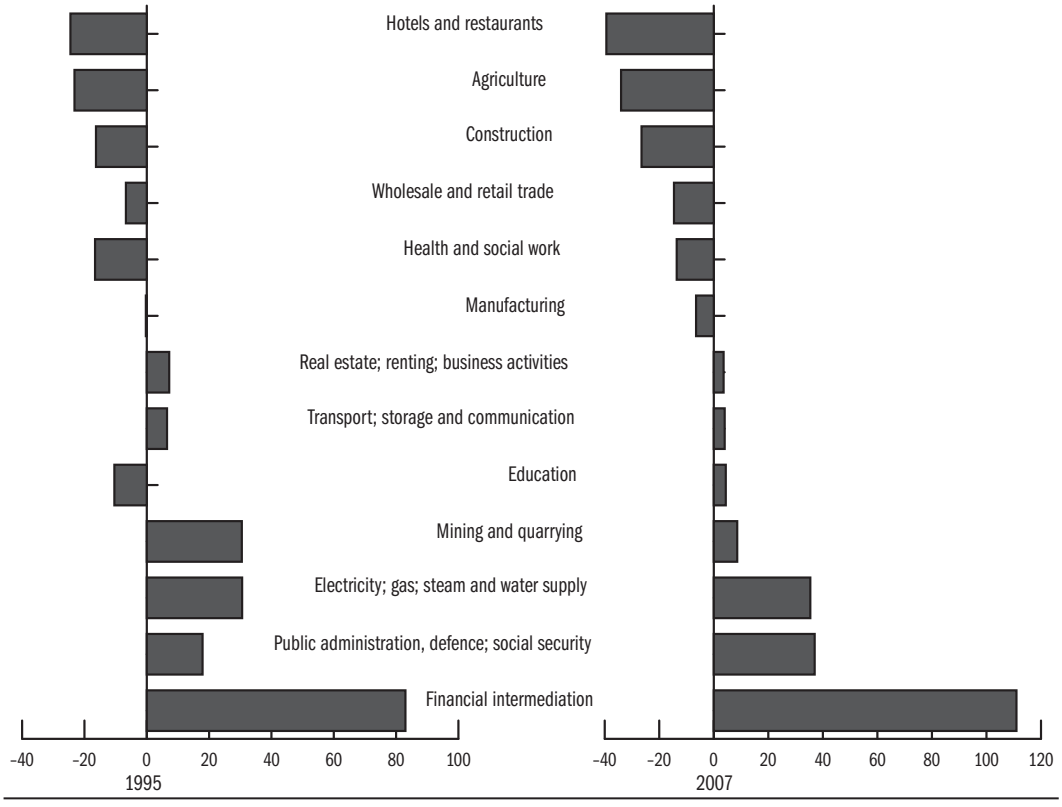


Figure 6.2: Gross earnings differences from the national average, by industry, 1995, 2007 – percent

Table 6.3: The composition of full-time employees and average earnings by gender in major branches of the economy in 2007

Industries	Males		Females		Together		Female/male earnings ratio
	Composition	Average earning	Composition	Average earning	Composition	Average earning	
	%	HUF/person, month	%	HUF/person, month	%	HUF/person, month	
Agriculture	5.0	125,949	1.5	112,865	3.3	122,994	89.6
Fishing	0.2	103,471	0.0	103,625	0.1	103,488	100.1
Mining and quarrying	0.6	173,436	0.1	165,960	0.4	172,159	95.7
Manufacturing	29.1	203,567	19.5	146,304	24.4	181,437	71.9
Electricity; gas; steam and water supply	4.2	227,393	1.2	190,179	2.8	219,216	83.6
Construction	8.2	134,235	1.0	154,835	4.7	136,363	115.3
Wholesale and retail trade	13.7	166,630	12.9	136,533	13.3	152,489	81.9
Hotels and restaurants	1.7	150,980	2.3	109,709	2.0	127,649	72.7
Transport; storage and communication	11.6	217,946	5.1	213,872	8.4	216,763	98.1
Financial intermediation	1.4	601,271	3.7	350,820	2.5	423,032	58.3
Real estate; renting; business activities	6.9	217,904	5.4	177,429	6.2	200,686	81.4
Public administration and defence; compulsory social security	5.6	260,944	14.2	206,661	9.8	222,646	79.2
Education	5.1	217,670	18.1	177,663	11.4	186,822	81.6
Health and social work	3.2	180,871	11.9	151,507	7.4	158,097	83.8
Other	3.5	179,849	3.0	162,241	3.2	172,084	90.2
Total	100.0	199,294	100.0	172,348	100.0	186,229	86.5

Source: FSzH-BT.

Table 6.4: The composition of full-time employees and average earnings in the economy by gender and level of education in 2007

Level of education	Males		Females		Together		Female/male earnings ratio
	Composition	Average earning	Composition	Average earning	Composition	Average earning	
	%	HUF/person, month	%	HUF/person, month	%	HUF/person, month	
Primary school: 0–7 classes	0.4	137,708	0.4	116,429	0.4	126,959	84.5
Finished primary school: 8 classes	12.8	118,060	15.9	102,915	14.3	109,898	87.2
Vocational school: 2 years	3.3	123,423	2.6	114,843	3.0	119,763	93.0
Vocational school: 3 years	37.5	137,879	14.6	107,956	26.4	129,853	78.3
Vocational secondary school	15.9	181,235	23.4	158,765	19.6	168,186	87.6
Technical secondary school	6.3	191,014	14.0	160,445	10.0	170,288	84.0
Grammar school	4.6	221,682	1.9	182,774	3.3	210,741	82.4
College	10.1	342,608	19.3	238,105	14.5	275,383	69.5
University	9.1	464,469	7.8	354,718	8.5	415,585	76.4
Total	100.0	199,294	100.0	172,348	100.0	186,229	86.5

Source: FSzH-BT.

Table 6.5: The composition of full-time employees and average earnings in the budgetary sector by gender and level of education in 2007

Level of education	Males		Females		Together		Female/male earnings ratio
	Composition	Average earning	Composition	Average earning	Composition	Average earning	
	%	HUF/person, month	%	HUF/person, month	%	HUF/person, month	
Primary school: 0–7 classes	0.4	142,081	0.5	129,207	0.5	131,923	90.9
Finished primary school: 8 classes	9.4	121,816	12.7	105,085	11.9	108,499	86.3
Vocational school: 2 years	1.2	131,650	1.7	130,787	1.6	130,960	99.3
Vocational school: 3 years	15.6	126,438	6.2	114,758	8.6	120,206	90.8
Vocational secondary school	13.1	176,957	21.8	158,550	19.6	161,699	89.6
Technical secondary school	7.7	161,399	13.1	150,165	11.7	152,056	93.0
Grammar school	1.7	177,700	0.8	173,040	1.0	175,020	97.4
College	23.2	257,473	32.4	215,148	30.1	223,531	83.6
University	27.6	355,064	10.8	310,066	15.1	331,107	87.3
Total	100.0	229,763	100.0	182,175	100.0	194,365	79.3

Source: FSzH-BT.

Table 6.6: The composition of full-time employees and average earnings in the competitive sector by gender and level of education in 2007

Level of education	Males		Females		Together		Female/male earnings ratio
	Composition	Average earning	Composition	Average earning	Composition	Average earning	
	%	HUF/person, month	%	HUF/person, month	%	HUF/person, month	
Primary school: 0–7 classes	0.4	136,980	0.4	102,424	0.4	124,461	74.8
Finished primary school: 8 classes	13.3	117,625	18.4	101,764	15.3	110,326	86.5
Vocational school: 2 years	3.7	122,967	3.4	108,596	3.6	117,784	88.3
Vocational school: 3 years	41.1	138,591	21.1	106,434	33.4	130,830	76.8
Vocational secondary school	16.4	181,795	24.7	158,911	19.6	170,750	87.4
Technical secondary school	6.0	197,202	14.8	167,458	9.4	179,292	84.9
Grammar school	5.1	224,116	2.8	184,929	4.2	214,216	82.5
College	7.9	383,620	9.2	300,177	8.4	348,651	78.2
University	6.1	545,530	5.5	422,636	5.8	501,688	77.5
Total	100.0	194,304	100.0	164,806	100.0	183,017	84.8

Source: FSzH-BT.

Table 6.7: Minimum wage

Date	Monthly (HUF)	Average gross earnings = 100
1992. I. 1.	8,000	35.8
1993. II. 1.	9,000	33.1
1994. II. 1.	10,500	30.9
1995. III. 1.	12,200	31.4
1996. II. 1.	14,500	31.0
1997. I. 1.	17,000	29.7
1998. I. 1.	19,500	28.8
1999. I. 1.	22,500	29.1
2000. I. 1.	25,500	29.1
2001. I. 1.	40,000	38.6
2002. I. 1.	50,000	40.8
2003. I. 1.	50,000	36.4
2004. I. 1.	53,000	37.2
2005. I. 1.	57,000	33.6
2006. I. 1.	62,500	36.5
2007. I. 1.	65,500	35.4
2008. I. 1.	69,000	34,7

Note: As of September 2002, minimum wage earners do not pay personal income tax. As a result of this measure, the net minimum wage increased by 15.9 per cent.
Source: KSH.

Table 6.8: National agreements on wage guidelines, previous year = 100*

	ÉT Recommendation		Actual indexes	
Year	Minimum	Maximum	Public sector	Corporate sector
1992	113.0	128.0	120.1	126.6
1993	110.0–113.0	125.0	114.4	125.1
1994	113.0–115.0	121.0–123.0	127.0	123.4
1995	–	–	110.7	119.7
1996	113.0	124.0	114.6	123.2
1997	114.0	122.0	123.2	121.8
1998	113.5	116.0	118.0	118.5
1999	112.0	115.0	119.2	114.8
2000	108.5	111.0	112.3	114.2
2001	...	...	122.9	116.3
2002	108.0	110.5	129.2	113.3
2003	4.5 % real wage growth		117.5	108.9
2004	107.0	108.0	100.4	109.3
2005	106.0		112.8	106.9
2006	104.0	105.0	106.4	109.3
2007	105.5	108.0	106.4	109.1

* Gross average wage increase: recommendations by the Interest Reconciliation Council (ÉT).
Source: KSH, Ministry of Social Policy and Labour.

Table 6.9: Percentage of low paid workers* by gender, age groups, level of education and industries

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
By gender														
Males	16.1	15.2	15.6	18.1	18.1	18.8	22.1	20.7	22.3	24.8	25.1	25.4	26.7	21.9
Females	25.6	24.8	26.5	25.7	25.9	26.4	26.8	25.0	22.5	21.6	22.8	22.9	21.9	21.3
By age groups														
–24	42.4	40.2	37.8	39.1	37.7	37.9	37.0	35.5	37.6	39.9	43.9	44.2	46.3	40.1
25–54	18.7	18.0	19.4	20.2	20.6	21.3	22.8	21.9	21.8	22.3	23.6	24.0	24.2	21.4
55+	11.4	10.3	11.0	11.8	12.7	17.2	19.8	18.1	16.2	15.3	16.5	16.5	16.4	15.8
By level of education														
1–8 classes of primary school	40.4	37.6	40.1	40.6	42.9	43.9	43.4	40.4	38.3	37.1	39.6	41.2	40.1	41.4
Vocational school	25.9	24.7	23.7	27.0	26.9	28.6	31.2	29.4	32.1	35.4	35.7	36.8	37.9	32.9
Secondary school	12.0	12.9	13.1	14.0	14.2	15.4	18.8	18.0	16.5	17.7	18.6	18.6	19.7	16.1
Higher education	1.9	3.1	3.2	3.0	3.4	3.2	4.7	4.7	3.6	3.5	3.9	3.8	4.3	2.5
By industries														
Agriculture	38.4	32.1	30.1	36.7	36.7	38.1	38.0	34.3	37.9	37.3	37.1	37.5	41.6	37.9
Manufacturing	18.9	16.4	15.8	18.5	18.9	18.9	20.0	19.1	19.4	25.4	24.7	22.1	24.1	20.8
Construction	23.3	23.5	26.7	32.7	32.6	36.7	42.9	41.7	44.8	49.8	51.2	50.2	55.2	43.1
Trade	30.4	31.9	31.7	36.0	37.7	36.8	42.8	41.3	44.0	49.0	49.3	51.5	49.4	40.9
Transport and communication	10.3	8.6	8.5	8.8	8.8	9.0	11.3	10.6	10.5	13.6	12.6	13.8	15.1	13.2
Finance and business services	16.4	17.9	17.0	19.9	19.9	21.1	25.3	22.6	20.7	23.1	23.9	24.6	26.2	20.9
Public administration	16.4	17.0	25.9	19.0	15.5	16.0	13.7	13.8	9.3	6.6	8.2	6.0	6.3	7.4
Education	19.0	20.6	25.6	21.7	23.2	23.8	21.5	22.6	16.0	4.8	6.9	8.8	6.1	9.0
Health	21.6	25.2	25.9	24.1	25.8	28.0	26.7	19.9	16.1	6.3	8.4	10.3	8.6	12.6
Total	20.8	19.9	21.0	21.9	22.0	22.7	24.4	22.8	22.4	23.2	24.0	24.2	24.3	21.6

* Percentage of those who earn less than 2/3 of the median earning.
Source: FSzH-BT.

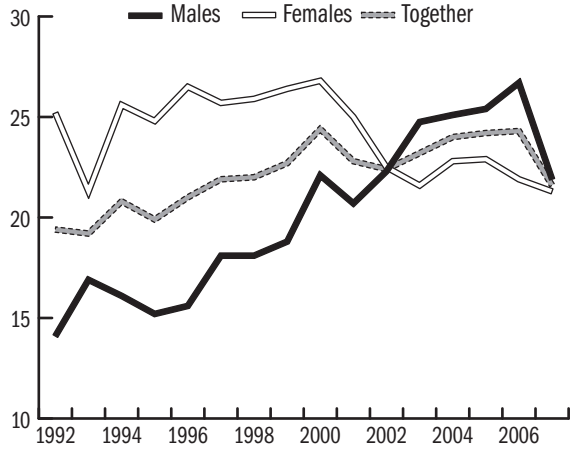


Figure 6.3: The percentage of low paid workers by gender

Table 6.10: The dispersion of gross monthly earnings by gender, ratios of deciles

	1992	1994	1996	1998	2000	2002	2004	2006	2007
Males and females together									
D9/D5	2.0	2.1	2.1	2.2	2.3	2.3	2.4	2.4	2.4
D5/D1	1.8	1.9	1.9	1.9	2.2	1.8	2.0	2.0	1.8
D9/D1	3.6	3.9	4.0	4.2	4.9	4.1	4.8	4.7	4.3
Males									
D9/D5	2.0	2.1	2.1	2.3	2.1	2.5	2.6	2.7	2.6
D5/D1	1.8	1.9	1.9	2.0	2.4	1.8	2.1	2.0	1.8
D9/D1	3.6	4.0	4.0	4.5	5.1	4.5	5.4	5.4	4.8
Females									
D9/D5	1.9	2.0	2.0	2.0	2.1	2.2	2.2	2.1	2.2
D5/D1	1.7	1.8	1.8	1.8	2.0	1.7	1.9	1.9	1.7
D9/D1	3.3	3.6	3.7	3.7	4.1	3.7	4.2	4.0	3.8

Source: FSzH-BT.

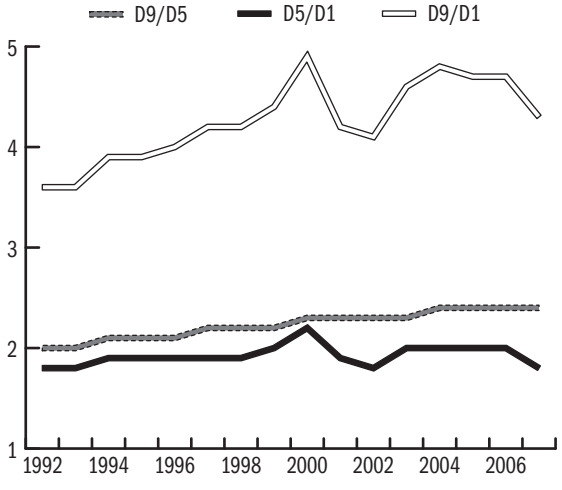


Figure 6.4: The dispersion of gross monthly earnings

Table 6.11: Average earnings in the national economy by ownership groups, broken down to manual and non-manual workers, by genders, HUF/capita/month, 2007

	Manual			Non-manual			Together		
Ownership variations	male	female	together	male	female	together	male	female	together
100 % foreign ownership	178,104	121,863	155,099	495,228	316,490	409,320	278,084	196,025	242,499
Foreign majority	212,803	132,677	190,614	561,766	350,529	453,877	341,339	266,398	312,475
Domestic majority	164,692	107,574	146,333	487,200	390,735	424,014	254,514	279,571	266,175
100% domestic ownership	123,998	95,584	116,332	267,143	184,276	222,992	155,103	136,513	148,608
Unknown	150,841	109,312	134,442	377,453	206,826	266,930	218,160	162,318	190,170
Total	139,720	105,186	129,192	357,782	232,171	290,260	194,304	164,806	183,017

Source: FSzH-BT.

Table 6.12: Average earnings of manual workers in the national economy by staff size-categories and ownership groups, HUF/capita/month, 2007

Ownership ratio	Over 1000	Between 301–100	Between 51–300	Between 21–50	Between 10–20	Between 5–9	Total
100 % foreign ownership	158,031	157,082	151,993	144,739	165,039	117,784	155,099
Foreign majority	236,955	178,218	145,677	156,122	122,731	118,670	190,614
Domestic majority	181,574	130,659	130,356	136,379	121,485	101,728	146,333
100% domestic ownership	162,103	135,243	116,442	108,303	97,992	93,165	116,332
Unknown	116,515	154,718	145,532	112,560	110,706	155,902	134,442
Total	164,066	146,714	125,974	111,973	101,130	106,504	129,192

Source: FSzH-BT.

Table 6.13: Average earnings of non-manual workers in the national economy by staff size-categories and ownership groups, HUF/capita/month, 2007

Ownership ratio	Over 1000	Between 301–100	Between 51–300	Between 21–50	Between 10–20	Between 5–9	Total
100 % foreign ownership	391,555	407,303	421,396	400,595	456,522	418,233	409,320
Foreign majority	545,315	346,887	382,833	355,483	347,319	252,110	453,877
Domestic majority	518,616	234,726	328,077	294,933	177,795	212,952	424,014
100% domestic ownership	286,638	287,899	245,326	204,026	168,954	158,129	222,992
Unknown	218,524	321,915	337,864	243,974	186,479	386,653	266,930
Total	355,767	337,331	300,783	232,775	200,766	215,191	290,260

Source: FSzH-BT.

Table 6.14: Average earnings in the national economy by staff size-categories and ownership groups, HUF/capita/month, 2007

Ownership ratio	Over 1000	Between 301–100	Between 51–300	Between 21–50	Between 10–20	Between 5–9	Total
100 % foreign ownership	232,572	234,824	246,348	257,415	323,036	282,379	242,499
Foreign majority	394,431	249,727	240,233	220,836	227,835	195,225	312,475
Domestic majority	380,998	156,433	196,530	185,541	134,571	168,156	266,175
100% domestic ownership	204,128	181,341	155,303	134,261	118,638	114,427	148,608
Unknown	169,572	204,456	231,581	148,784	147,024	228,997	190,170
Total	241,691	206,338	182,147	146,431	132,127	143,214	183,017

Source: FSzH-BT.

Table 6.15: Average monthly earnings by age in the national economy, broken down to manual and non-manual workers, by gender, HUF/capita, month, 2007

	Manual			Non-manual			Together		
Age	male	female	together	male	female	together	male	female	together
18	86,118	87,712	86,655	155,217	109,365	118,063	86,822	89,436	87,746
19	111,874	91,237	106,463	196,248	160,761	174,634	123,235	119,432	121,938
20	105,879	96,249	103,088	98,199	101,638	100,735	105,577	97,432	102,854
21	107,174	96,234	103,777	134,679	108,577	117,528	109,310	99,489	105,767
22	109,220	95,420	104,688	143,976	115,782	126,161	113,705	102,386	109,257
23	112,889	98,822	108,539	169,305	139,875	148,873	121,905	118,983	120,663
24	116,149	109,503	114,044	174,822	152,540	159,553	130,386	135,364	132,715
25	121,294	103,491	115,560	195,268	164,295	174,971	143,968	142,334	143,189
26	121,155	104,212	116,047	219,642	177,714	192,926	156,087	155,007	155,575
27	123,233	105,802	118,269	225,045	188,101	202,428	160,847	163,334	161,978
28	135,647	103,244	126,531	241,759	198,195	215,943	175,603	168,927	172,653
29	130,162	102,150	122,285	271,736	204,919	232,547	182,582	172,104	178,018
30	133,904	105,976	126,228	282,266	216,267	244,276	188,136	180,247	184,791
31	136,741	103,284	127,470	321,809	211,677	259,716	200,902	172,819	189,352
32	138,499	101,457	129,071	342,112	210,912	263,531	204,194	175,416	192,215
33	138,518	102,243	128,347	335,255	216,112	267,422	208,856	176,685	195,357
34	136,039	101,395	125,698	353,379	216,087	269,608	205,754	174,185	191,811
35	142,046	101,791	129,644	371,910	207,687	269,201	214,607	168,893	193,849
36	143,461	102,288	130,045	376,188	201,300	264,656	216,594	164,203	192,002
37	142,978	105,932	131,172	385,401	201,908	265,662	219,916	168,431	195,311
38	143,235	102,185	129,373	383,945	204,159	264,802	216,179	166,043	191,744
39	144,427	101,790	129,364	376,829	199,308	254,284	212,467	163,046	187,284
40	144,273	103,834	130,357	378,002	209,355	259,923	209,566	170,633	189,808
41	147,261	103,165	132,100	349,579	206,628	249,072	205,629	170,101	187,381
42	142,768	104,587	129,667	374,012	208,989	256,363	204,884	170,970	187,520
43	145,602	103,761	130,378	331,849	215,260	248,980	199,209	174,515	186,192
44	142,931	100,481	126,718	388,167	211,849	262,827	213,051	168,901	189,491
45	143,528	104,409	128,541	321,369	210,852	242,621	193,184	169,049	180,328
46	146,313	102,441	130,321	360,253	213,511	256,035	209,197	173,538	190,316
47	147,847	104,313	131,936	353,118	212,999	252,407	204,650	172,708	187,748
48	145,806	105,063	129,566	344,392	214,790	250,715	201,107	171,219	184,778
49	142,837	105,567	127,874	329,554	215,580	246,898	196,908	173,331	183,853
50	145,942	106,432	130,649	363,665	218,525	258,550	204,167	174,010	187,940
51	144,065	106,988	129,263	348,173	218,500	254,209	201,104	174,524	186,529
52	149,548	107,291	132,727	352,411	230,688	264,486	204,634	180,658	191,615
53	147,908	105,708	131,003	359,299	229,575	266,239	208,385	180,461	193,135
54	145,967	107,476	130,876	360,964	235,841	273,072	213,501	187,880	199,612
55	144,923	107,734	130,599	363,785	237,229	276,264	215,337	189,225	201,391
56	145,148	105,524	128,983	365,737	233,305	272,172	214,597	184,260	197,864
57	147,587	105,626	132,756	379,843	237,290	287,600	229,058	190,473	209,784
58	141,964	104,262	132,984	352,713	254,447	299,928	215,315	204,080	211,068
59	136,377	104,839	129,090	365,100	277,514	321,766	220,679	218,021	219,735
60	142,157	101,498	131,925	382,523	275,253	332,214	248,871	219,148	237,970

	Manual			Non-manual			Together		
Age	male	female	together	male	female	together	male	female	together
61	138,747	106,507	126,447	406,166	280,123	345,174	294,581	224,524	263,364
62	154,742	101,041	137,905	359,436	270,989	320,758	267,724	216,098	247,701
63	126,220	96,724	116,386	403,047	274,704	351,079	290,364	215,014	261,901
64	113,934	97,929	108,983	481,848	272,872	387,998	292,598	208,520	260,222
65	113,646	97,564	109,540	402,011	268,176	344,080	265,273	218,991	248,586
66	142,256	102,704	135,134	363,441	249,480	329,585	247,869	196,270	235,462
67	136,878	86,678	121,385	350,695	282,536	323,154	249,179	209,465	234,792
68	109,092	94,547	104,306	396,211	268,651	359,651	284,592	192,547	256,634
69	108,309	99,748	106,162	437,518	291,341	390,774	238,137	191,256	225,028
70	117,050	100,753	109,643	330,855	281,462	312,751	219,919	171,541	199,820
71	111,345	109,150	110,581	427,092	237,548	350,880	303,353	194,075	261,603
72	125,731	86,340	112,382	380,142	203,509	318,873	223,967	132,571	192,710
73	103,506	100,796	102,948	349,614	312,821	338,822	185,942	195,476	188,205
74	109,255	103,251	106,406	418,432	250,430	402,952	305,750	127,371	255,370
75	78,519	98,920	84,635	248,537	310,302	267,021	148,856	186,244	160,056
76	92,887	99,614	93,616	224,554	113,702	199,955	150,505	108,721	143,743
77	99,225	71,290	85,225	188,322	269,750	225,067	149,496	173,401	160,832
78	117,779	98,138	109,129	171,344	131,250	168,640	167,217	115,488	161,372
79	169,001	157,791	165,301	197,057	263,108	216,251	183,897	208,854	191,625
80	0	107,716	107,716	117,600	434,208	142,024	117,600	136,696	126,862
Total	138,697	103,958	126,974	333,248	212,968	254,504	199,294	172,348	186,229

Source: FSzH-BT.

Table 7.1: School leavers by level of education

Year	Primary school	Vocational school	Secondary school	College and university
1980	119,809	49,232	43,167	14,859
1989	170,891	53,724	52,573	15,699
1990	164,614	54,933	53,039	15,963
1991	158,907	59,302	54,248	16,458
1992	151,287	66,261	59,646	16,201
1993	144,200	66,342	68,607	16,223
1994	136,857	62,902	68,604	18,041
1995	122,333	57,057	70,265	20,024
1996	120,529	54,209	73,413	22,128
1997	116,708	46,868	75,564	24,411
1998	113,651	42,866	77,660	25,338
1999	114,302	38,822	73,965	27,049
2000	114,250	35,500[a]	72,200[a]	28,300[a]
2001	114,200[a]	33,500[a]	70,441	29,746
2002	113,923	26,941	69,612	30,785
2003	117,747	26,472	71,944	31,911
2004	113,179	26,620	76,669	31,633
2005	115,626	25,519	77,025	32,732
2006	114,240	24,427	76,895	29,871
2007	108,889	17,967	77,527	29,059

[a] Estimated data.

Note: Primary school: completed the 8th grade. Other levels: received certificate. Excludes special schools.

Source: OM STAT.

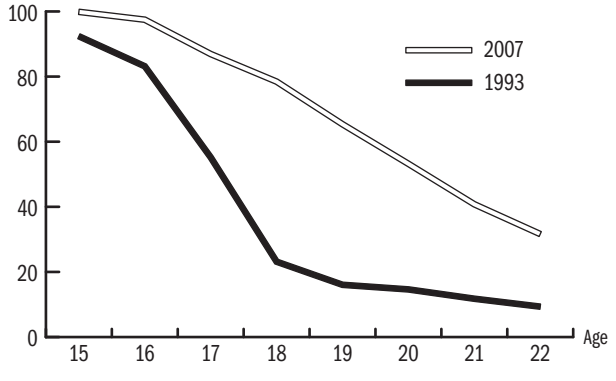


Figure 7.1: Full time students as a percentage of the different age groups

Table 7.2: Pupils/students entering the school system, by level of education

Year	Primary school	Vocational school	Secondary school	College and university
1980	171,347	60,865	57,213	17,886
1989	128,542	91,767	84,140	20,704
1990	125,665	87,932	83,939	22,662
1993	125,679	76,977	87,657	35,005
1994	126,032	77,146	87,392	37,934
1995	123,997	65,352	82,665	42,433
1996	124,554	58,822	84,773	44,698
1997	127,214	53,083	84,395	45,669
1998	125,875	39,965	86,868	48,886
1999	121,424	33,570	89,184	51,586
2000	117,000	33,900[a]	90,800[a]	54,100[a]
2001	112,144	34,210	92,393	56,709
2002	112,345	33,497	94,256	57,763
2003	114,020	33,394	92,817	59,699
2004	101,021	32,645	93,469	59,783
2005	97,810	33,114	96,181	61,898
2006	95,954	32,732	95,989	61,231
2007	98,766	31,897	92,957	55,789

[a] Estimated data.
Note: Excludes special schools.
Source: OM STAT.

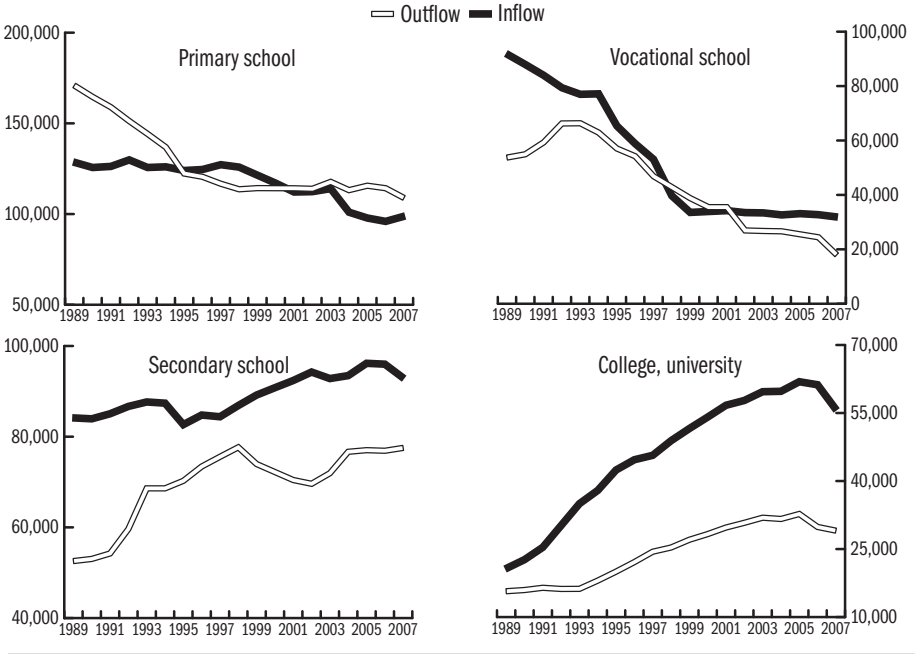


Figure 7.2: Flows of the educational system by level

Table 7.3: The number of full time pupils/students by level of education

Year	Primary school	Vocational school	Secondary school	College and university
1980/81	1,162,203	162,709	203,238	64,057
1989/90	1,183,573	213,697	273,511	72,381
1990/91	1,130,656	222,204	291,872	76,601
1993/94	1,009,416	198,859	330,586	103,713
1994/95	985,291	185,751	337,317	116,370
1995/96	974,806	172,599	349,299	129,541
1996/97	965,998	158,407	361,395	142,113
1997/98	963,997	143,911	368,645	152,889
1998/99	964,248	128,203	376,626	163,100
1999/00	960,601	117,038	386,579	171,516
2001/02	905,932	123,954	420,889	184,071
2002/03	893,261	123,341	426,384	193,155
2003/04	874,296	123,206	437,909	204,910
2004/05	854,930	123,008	438,496	212,292
2005/06	828,594	121,815	441,002	217,245
2006/07	800,635	119,520	443,166	224,616
2007/08	783,948	122,978	441,886	227,118

Note: Excludes special schools.
Source: OM STAT.

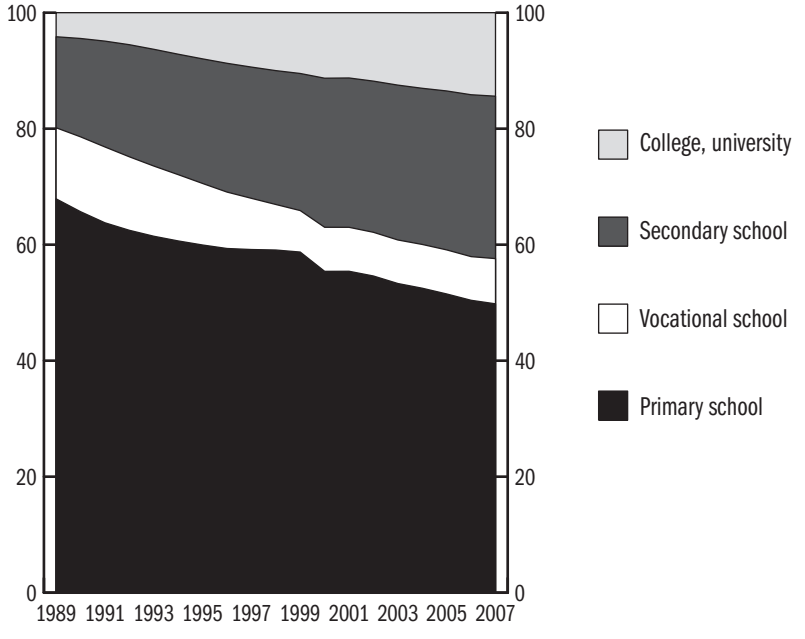


Figure 7.3: The distribution of pupils/students in the educational system

Table 7.4: The number of pupils/students not in full time by level

Year	Primary school	Vocational school	Secondary school	College and university
1980/81	15,627	–	130,332	37,109
1990/91	11,536	–	68,162	25,786
1991/92	11,724	–	66,204	23,888
1992/93	10,944	–	70,303	25,078
1993/94	8,982	–	76,335	30,243
1994/95	6,558	–	81,204	38,290
1995/96	5,205	–	75,891	50,024
1996/97	4,099	–	74,653	56,919
1997/98	3,165	–	78,292	80,768
1998/99	3,016	–	84,862	95,215
1999/00	3,146	–	88,462	107,385
2000/01	2,940	–	91,700	118,994
2001/02	2,793	2,453	95,231	129,167
2002/03	2,785	3,427	93,172	148,032
2003/04	3,190	3,216	93,322	162,037
2004/05	2,766	3,505	90,321	166,174
2005/06	2,543	4,049	89,950	163,387
2006/07	2,319	4,829	91,035	151,203
2007/08	2,245	5,874	83,008	132,273

Source: OM STAT.

Table 7.5: Number of high school applicants, full time

Year	Applied	Admitted	Admitted as a percentage of applied	Applied as a percentage of the secondary school graduates in the given year	Admitted as a percentage of the secondary school graduates in the given year
1980	33,339	14,796	44.4	77.2	34.3
1990	46,767	16,818	36.0	88.2	31.7
1991	48,911	20,338	41.6	90.2	37.5
1992	59,119	24,022	40.6	99.1	40.3
1993	71,741	28,217	39.3	104.6	41.1
1994	79,805	29,901	37.5	116.3	43.6
1995	86,548	35,081	40.5	123.2	49.9
1996	79,369	38,382	48.4	108.1	52.3
1997	81,924	40,355	49.3	108.4	53.4
1998	81,065	43,629	53.8	104.4	56.2
1999	82,815	44,538	53.8	112.0	60.2
2000	82,957	45,546	54.9	114.9	63.1
2001	84,380	49,874	59.1	119.8	70.8
2002	88,978	52,552	59.1	127.8	75.5
2003	87,110	52,703	60.5	121.1	73.3
2004	95,871	55,179	57.6	125.0	72.0
2005	91,583	52,863	57.7	118.9	68.6
2006	84,262	53,983	64.1	109.6	70.2
2007	74,849	50,941	68.1	96.5	65.7

Source: OM STAT.

Table 8.1: Registered vacancies* and registered jobseekers

Year	Number of vacancies at closing day	Number of registered jobseekers at closing date**	Vacancies per 100 registered jobseekers
1989	60,429	23,760	254.3
1990	31,228	47,739	65.4
1991	14,343	227,270	6.3
1992	21,793	556,965	3.9
1993	34,375	671,745	5.1
1994	35,569	568,366	6.3
1995	28,680	507,695	5.6
1996	38,297	500,622	7.6
1997	42,544	470,112	9.0
1998	46,624	423,121	11.0
1999	51,438	409,519	12.6
2000	50,000	390,492	12.8
2001	45,194	364,140	12.4
2002	44,603	344,715	12.9
2003	47,239	357,212	13.2
2004	48,223	375,950	12.8
2005	41,615	409,929	10.2
2006	41,677	393,465	10.6
2007	29,933	426,915	7.0

* Monthly average stock figures.
** Before 2006: registered unemployed.
Source: FSzH REG.

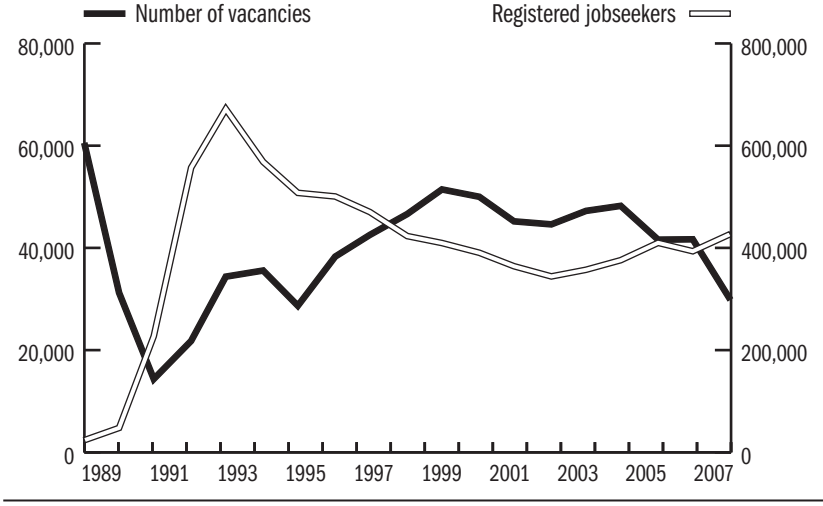


Figure 8.1: Number of registered vacancies and registered unemployed

Table 8.2: Firms intending to increase/decrease their staff*

Year		Intending to decrease	Intending to increase	Year		Intending to decrease	Intending to increase
1994	I.	24.5	29.1	2000	I.	24.4	41.0
	II.	21.0	29.7		II.	27.2	36.5
1995	I.	30.1	32.9	2001	I.	25.3	40.0
	II.	30.9	27.5		II.	28.6	32.6
1996	I.	32.9	33.3	2002	I.	25.6	39.2
	II.	29.4	30.4		II.	27.9	35.4
1997	I.	29.6	39.4	2003	I.	23.6	38.5
	II.	30.7	36.8		II.	32.1	34.3
1998	I.	23.4	42.7	2004		30.0	39.8
	II.	28.9	37.1	2005		25.3	35.0
1999	I.	25.8	39.2	2006		26.6	36.2
	II.	28.8	35.8	2007		20.4	27.0

* In the period of the next half year after the interview date, in the sample of FH PROG.
Source: FSzH PROG.

Table 8.3: Firms expecting increasing/decreasing orders*

Year		Orders		Year		Orders	
		increasing	decreasing			increasing	decreasing
1994	I.	38.7	24.8	2000	I.	38.9	18.3
	II.	45.6	21.7		II.	49.1	14.9
1995	I.	40.9	23.8	2001	I.	44.1	16.2
	II.	47.2	20.7		II.	44.4	19.1
1996	I.	39.8	24.4	2002	I.	39.5	18.8
	II.	45.5	21.0		II.	40.2	19.5
1997	I.	42.7	19.4	2003	I.	36.2	22.3
	II.	47.5	16.7		II.	49.0	13.8
1998	I.	46.1	15.2	2004		38.2	20.5
	II.	47.5	18.0	2005		n.a.	n.a.
1999	I.	38.7	21.9	2006		n.a.	n.a.
	II.	42.2	20.2	2007		n.a.	n.a.

* In the period of the next half year after the interview date, in the sample of FH PROG.
Source: FSzH PROG.

Table 8.4: Firms activating new capacities* – per cent

Year		Building only	Building and/or machinery	Total	Year		Building only	Building and/or machinery	Total
1994	I.	3.4	14.1	10.2	2000	I.	4.6	21.1	25.7
	II.	3.0	14.7	14.4		II.	4.4	23.9	28.3
1995	I.	3.6	17.7	17.5	2001	I.	4.0	21.9	25.9
	II.	4.1	17.4	17.7		II.	4.7	22.9	27.6
1996	I.	4.2	18.4	21.3	2002	I.	3.4	22.6	26.0
	II.	4.4	18.8	21.5		II.	3.3	22.8	26.1
1997	I.	3.6	20.2	22.6	2003	I.	3.4	21.9	25.3
	II.	4.2	19.5	23.2		II.	...	...	...
1998	I.	3.9	19.2	23.8	2004		5.3	30.2	35.5
	II.	4.7	21.1	23.7	2005		n.a.	n.a.	n.a.
1999	I.	4.7	20.5	25.2	2006		n.a.	n.a.	
	II.	5.2	20.9	26.1	2007		n.a.	n.a.	

* In the period of the next half year after the interview date, in the sample of FH PROG.
Source: FSzH PROG.

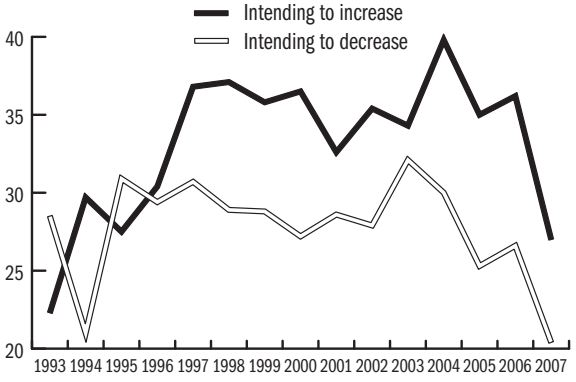


Figure 8.2: Firms intending to increase/decrease their staff

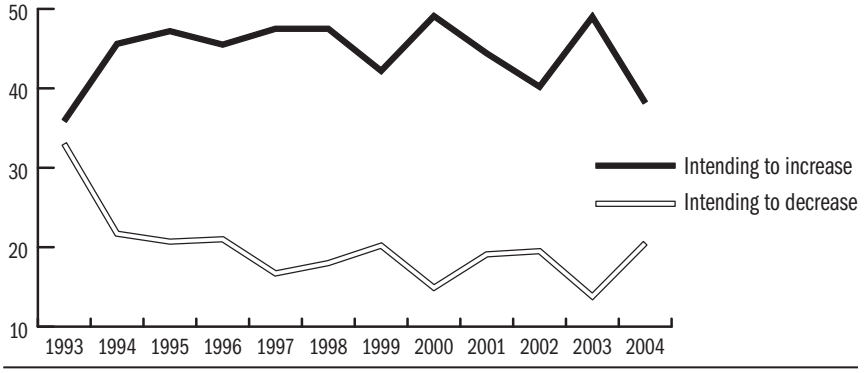


Figure 8.3: Firms expecting increasing/decreasing orders

Table 9.1: Regional inequalities: Employment rate*

Year	Central Hungary	Central Transdanubia	Western Transdanubia	Southern Transdanubia	Northern Hungary	Northern Great Plain	Southern Great Plain	Total
1992	62.3	57.7	62.0	57.2	52.2	52.5	57.9	58.0
1993	58.4	55.2	60.5	52.9	49.3	48.4	53.4	54.5
1994	57.2	54.4	59.9	52.4	47.7	47.5	53.0	53.5
1995	57.1	53.1	58.5	48.8	46.3	46.4	53.0	52.5
1996	56.8	52.7	59.3	50.3	45.7	45.6	52.8	52.4
1997	56.8	53.6	59.8	50.0	45.7	45.2	53.6	52.5
1998	57.7	56.0	61.6	51.5	46.2	46.4	54.2	53.7
1999	59.7	58.5	63.1	52.8	48.1	48.8	55.3	55.6
2000	60.5	59.2	63.4	53.5	49.4	49.0	56.0	56.3
2001	60.8	59.8	63.2	52.5	49.6	49.6	56.2	56.5
2001 [a]	60.6	59.3	63.1	52.3	49.7	49.5	55.8	56.2
2002 [a]	60.9	60.0	63.7	51.6	50.3	49.3	54.2	56.2
2003 [a]	61.7	62.3	61.9	53.4	51.2	51.6	53.2	57.0
2004 [a]	62.9	60.3	61.4	52.3	50.6	50.4	53.6	56.8
2005 [a]	63.3	60.2	62.0	53.4	49.5	50.2	53.8	56.9
2006 [a]	62.7	61.4	62.8	53.6	50.4	51.1	54.3	57.3
2007 [a]	62.7	61.8	63.4	51.2	50.8	50.5	55.2	57.3

* Age: 15–64.
[a] See: Table 3.7.
Source: KSH MEF.

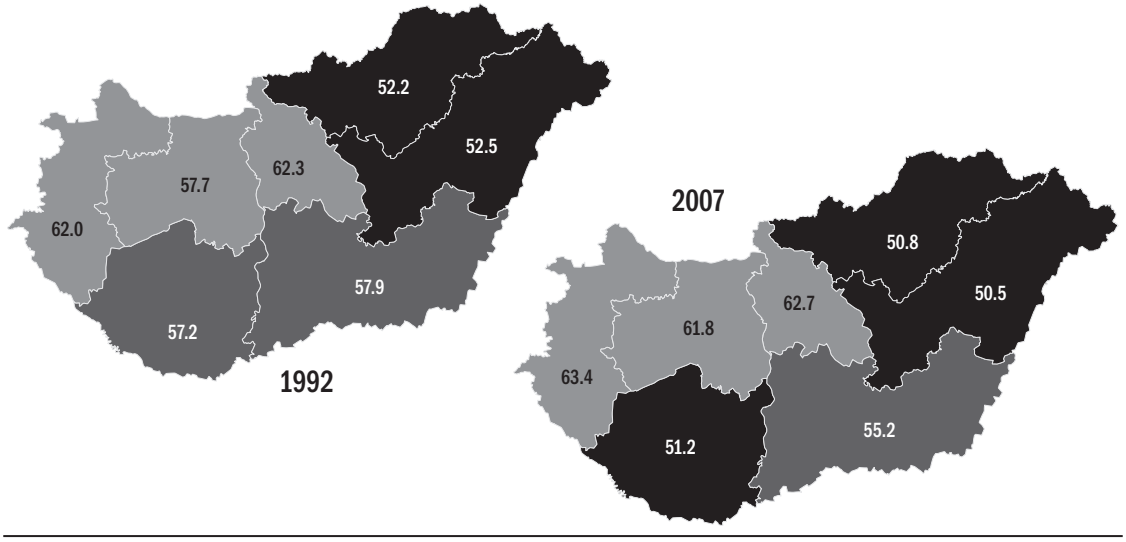


Figure 9.1: Regional inequalities: Labour force participation rates in NUTS-2 level regions

Table 9.2: Regional inequalities: LFS-based unemployment rate*

Year	Central Hungary	Central Transdanubia	Western Transdanubia	Southern Transdanubia	Northern Hungary	Northern Great Plain	Southern Great Plain	Total
1992	7.4	11.7	7.3	9.6	14.0	12.5	10.2	9.9
1993	9.9	12.6	9.0	12.8	16.1	14.8	12.4	12.1
1994	8.8	10.7	7.7	12.0	15.2	13.8	10.5	10.8
1995	7.4	11.0	6.9	12.1	16.0	13.8	9.3	10.3
1996	8.2	10.4	7.1	9.4	15.5	13.2	8.4	10.0
1997	7.0	8.1	6.0	9.9	14.0	12.0	7.3	8.8
1998	5.7	6.8	6.1	9.4	12.2	11.1	7.1	7.8
1999	5.2	6.1	4.4	8.3	11.6	10.2	5.8	7.0
2000	5.3	4.9	4.2	7.8	10.1	9.3	5.1	6.4
2001	4.3	4.3	4.2	7.8	8.5	7.8	5.4	5.7
2001 [a]	4.3	4.3	4.1	7.7	8.5	7.8	5.4	5.7
2002 [a]	3.9	5.0	4.0	7.9	8.8	7.8	6.2	5.8
2003 [a]	4.0	4.6	4.6	7.9	9.7	6.8	6.5	5.9
2004 [a]	4.5	5.6	4.6	7.3	9.7	7.2	6.3	6.1
2005 [a]	5.2	6.3	5.9	8.8	10.6	9.1	8.2	7.2
2006 [a]	5.1	6.1	5.7	9.0	11.0	10.9	7.8	7.5
2007 [a]	4.7	5.0	5.0	10.0	12.3	10.8	7.9	7.4

* Age: 15–64.
[a] See: Table 3.7.
Source: KSH MEF.

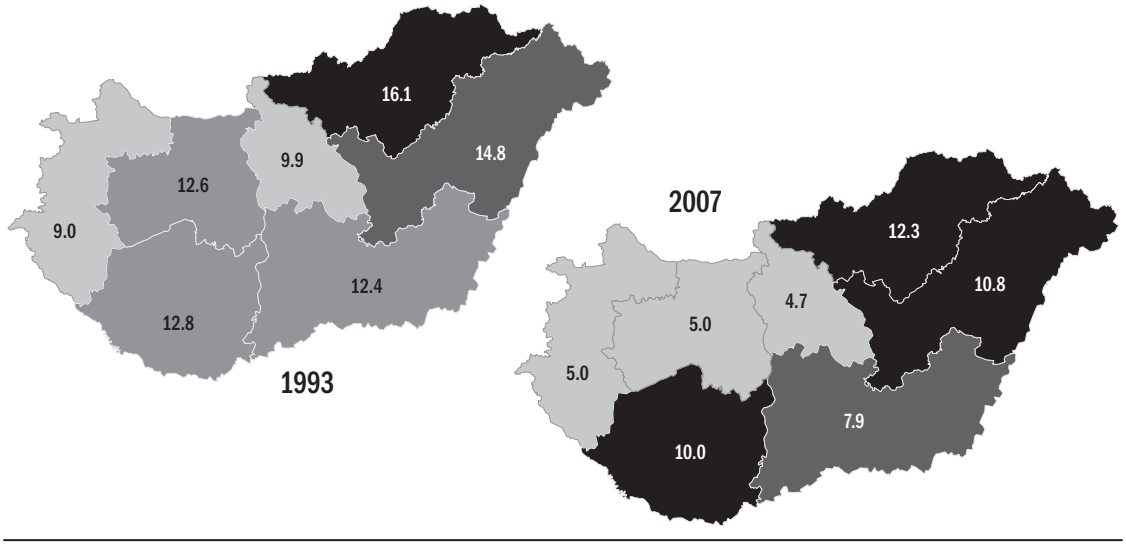


Figure 9.2: Regional inequalities: LFS-based unemployment rates in NUTS-2 level regions

Table 9.3: Regional inequalities: Registered unemployment rate*, **

Year	Central Hungary	Central Transdanubia	Western Transdanubia	Southern Transdanubia	Northern Hungary	Northern Great Plain	Southern Great Plain	Total
1991	1.7	3.7	2.8	4.8	7.0	6.5	5.2	4.1
1992	5.7	10.4	7.2	10.8	15.7	15.0	12.2	10.3
1993	8.0	12.8	9.1	13.1	19.1	18.2	14.7	12.9
1994	6.6	11.5	8.5	11.9	16.6	16.9	12.9	11.3
1995	6.3	10.6	7.6	11.7	15.6	16.1	11.5	10.6
1996	6.4	10.7	8.0	12.6	16.7	16.8	11.3	11.0
1997	5.6	9.9	7.3	13.1	16.8	16.4	11.0	10.5
1998	4.7	8.6	6.1	11.8	16.0	15.0	10.1	9.5
1999	4.5	8.7	5.9	12.1	17.1	16.1	10.4	9.7
2000	3.8	7.5	5.6	11.8	17.2	16.0	10.4	9.3
2001	3.2	6.7	5.0	11.2	16.0	14.5	9.7	8.5
2002	2.8	6.6	4.9	11.0	15.6	13.3	9.2	8.0
2003	2.8	6.7	5.2	11.7	16.2	14.1	9.7	8.3
2004	3.2	6.9	5.8	12.2	15.7	14.1	10.4	8.7
2005	3.4	7.4	6.9	13.4	16.5	15.1	11.2	9.4
2006	3.1	7.0	6.3	13.0	15.9	15.0	10.7	9.0
2007	3.5	6.9	6.3	13.6	17.6	16.6	11.7	9.7

* Since 2006: the rate of registered jobseekers.
** The denominator of the ratio is the economically active population on January 1st of the previous year. (Based on KSH MEM).
Source: FSzH REG.

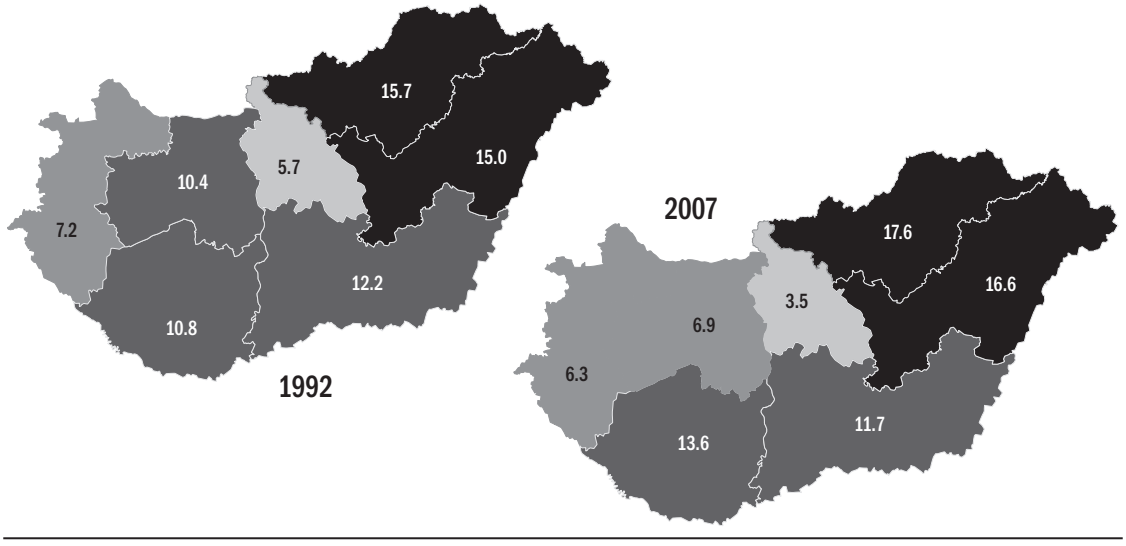


Figure 9.3: Regional inequalities: Registered unemployment rate in NUTS-2 level regions

Table 9.4: Annual average registered unemployment rate by counties

County	1990	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Budapest	0.1	5.7	5.7	4.8	4.0	3.7	3.0	2.6	2.2	2.4	2.8	2.9	2.6	3.0
Baranya	1.1	11.8	12.2	13.3	11.8	11.6	11.6	11.1	11.2	11.9	11.6	13.4	13.3	12.9
Bács-Kiskun	1.1	11.0	10.9	10.7	9.7	10.0	10.0	9.3	8.8	9.4	9.9	10.4	10.2	11.4
Békés	1.1	14.0	14.0	13.5	13.0	13.0	13.1	11.9	11.2	11.5	12.0	13.0	13.5	15.0
Borsod-Abaúj-Zemplén	2.3	16.7	18.0	19.0	17.9	19.5	20.3	19.0	19.1	19.6	18.3	18.9	18.0	19.9
Csongrád	1.0	9.9	9.3	9.2	8.1	8.5	8.6	8.3	8.1	8.5	9.7	10.7	8.8	9.2
Fejér	1.0	10.6	10.4	9.4	8.4	8.3	7.2	6.4	6.4	7.1	7.3	7.4	7.3	7.1
Győr-Moson-Sopron	0.5	6.8	7.4	6.4	5.1	4.8	4.6	4.1	4.0	4.1	4.6	5.4	4.6	4.1
Hajdú-Bihar	0.9	14.2	15.6	15.0	14.0	15.6	14.7	13.6	12.8	13.1	12.9	14.0	13.9	15.6
Heves	1.6	12.5	13.6	12.1	11.7	12.3	12.0	10.6	9.8	10.0	10.6	11.3	11.1	12.2
Jász-Nagykun-Szolnok	1.6	14.6	14.8	14.8	13.5	13.7	13.4	11.5	10.2	10.7	11.2	12.0	11.4	11.8
Komárom-Esztergom	1.0	11.3	12.0	11.4	9.8	10.1	8.3	7.0	6.7	6.0	5.8	6.8	5.8	5.4
Nógrád	2.4	16.3	17.0	16.3	15.6	16.2	14.9	14.3	13.8	14.6	14.6	16.1	16.1	17.7
Pest	0.5	7.6	7.8	7.3	6.3	6.0	5.2	4.4	3.7	3.7	3.8	4.2	3.9	4.3
Somogy	1.4	11.2	12.5	12.7	11.3	12.2	11.9	11.6	11.5	12.2	13.4	14.5	14.6	16.2
Szabolcs-Szatmár-Bereg	2.6	19.3	19.7	18.9	17.2	18.7	19.5	17.8	16.7	17.7	17.5	18.6	18.8	21.0
Tolna	1.6	12.2	13.4	13.5	12.3	12.9	11.8	11.0	10.0	10.7	11.6	11.8	10.5	11.5
Vas	0.4	7.2	7.2	6.7	5.6	5.6	5.2	4.9	4.5	5.0	6.0	6.8	6.1	6.2
Veszprém	0.9	10.0	9.9	9.2	7.9	8.2	7.2	6.9	6.6	7.0	7.3	8.0	7.7	8.0
Zala	0.8	9.2	9.8	9.2	8.1	7.7	7.2	6.5	6.4	7.0	7.4	9.3	9.0	9.3
Total	1.0	10.6	11.0	10.5	9.5	9.7	9.3	8.5	8.0	8.3	8.7	9.4	9.0	9.7

Note: See Table 9.3.
Source: FSzH REG.

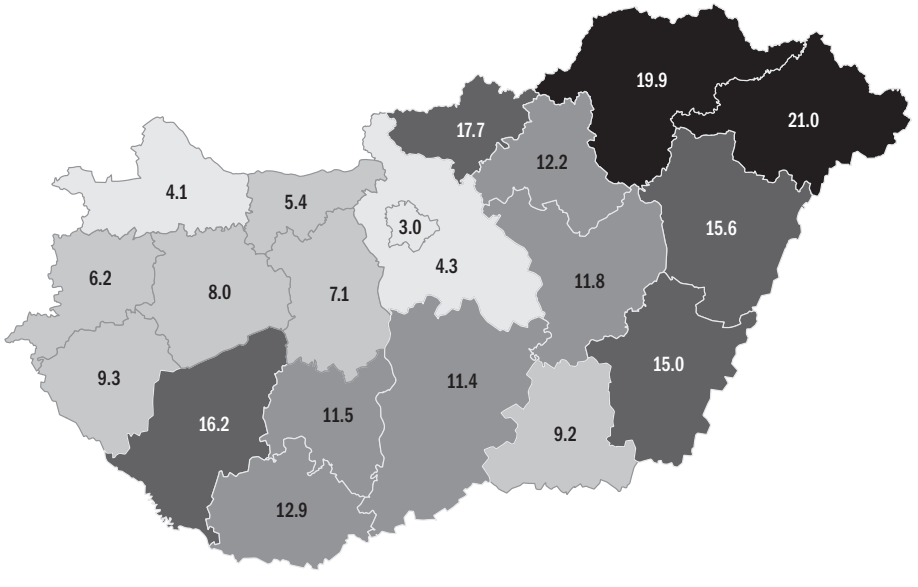


Figure 9.4: Regional inequalities: Registered unemployment rates in the counties, 2007

Table 9.5: Average monthly earnings in Budapest and the counties

County	2002		2003		2004		2005		2006		2007	
	HUF/ month	%	HUF/ month	%	HUF/ month	%	HUF/ month	%	HUF/ month	%	HUF/ month	%
Budapest	157624	134.0	180811	133.2	194981	132.5	205645	130.3	223321	130.0	244548	131.3
Baranya	100142	85.1	118218	87.1	128500	87.3	139070	88.1	149472	87.0	168774	90.6
Bács-Kiskun	97645	83.0	113129	83.3	119468	81.2	127336	80.7	139286	81.1	149952	80.5
Békés	93643	79.6	108338	79.8	118545	80.6	125766	79.7	137515	80.0	143199	76.9
Borsod-Abaúj-Zemplén	102497	87.1	119033	87.7	128793	87.5	140860	89.3	152476	88.8	162093	87.0
Csongrád	100371	85.3	118308	87.2	126550	86.0	137820	87.4	152523	88.8	165008	88.6
Fejér	119613	101.7	137704	101.4	146057	99.3	154628	98.0	168496	98.1	185529	99.6
Győr-Moson-Sopron	116470	99.0	128681	94.8	139888	95.1	152095	96.4	167533	97.5	175540	94.3
Hajdú-Bihar	98118	83.4	117859	86.8	125891	85.6	133530	84.6	146393	85.2	159963	85.9
Heves	106287	90.3	119423	88.0	130589	88.8	141968	90.0	158853	92.5	163770	87.9
Jász-Nagykun-Szolnok	100761	85.6	115301	84.9	123627	84.0	150781	95.6	156212	90.9	173491	93.2
Komárom-Esztergom	109108	92.7	125579	92.5	136754	93.0	132027	83.7	140137	81.6	144637	77.7
Nógrád	94603	80.4	110666	81.5	123329	83.8	152147	96.4	169358	98.6	175795	94.4
Pest	117276	99.7	130325	96.0	143689	97.7	127450	80.8	129117	75.2	145298	78.0
Somogy	90561	77.0	111752	82.3	116852	79.4	128536	81.5	136892	79.7	147635	79.3
Szabolcs-Szatmár-Bereg	95491	81.2	112163	82.6	122342	83.2	130974	83.0	142451	82.9	150772	81.0
Tolna	106992	90.9	122549	90.3	121340	82.5	144193	91.4	156555	91.1	152904	82.1
Vas	101461	86.2	116429	85.8	128347	87.2	137308	87.0	148443	86.4	158911	85.3
Veszprém	100040	85.0	117553	86.6	126816	86.2	135916	86.1	146346	85.2	157509	84.6
Zala	97372	82.7	114811	84.6	123491	83.9	144718	91.7	146917	85.5	151398	81.3
Total	117672	100.0	135742	100.0	147111	100.0	157770	100.0	171794	100.0	186229	100.0

Source: FSzH BT.

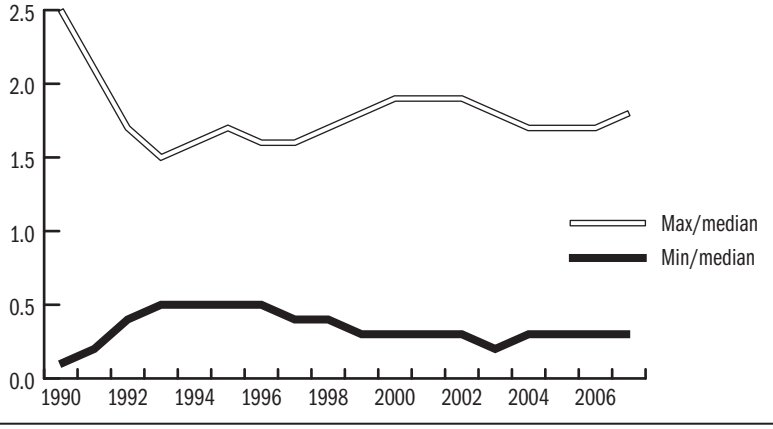


Figure 9.5: The dispersion of county level registered unemployment rates

Table 9.6: Regional inequalities: Gross monthly earnings*

Year	Central Hungary	Central Transdanubia	Western Transdanubia	Southern Transdanubia	Northern Hungary	Northern Great Plain	Southern Great Plain	Total
HUF/person/month								
1989	11,719	10,880	10,108	10,484	10,472	9,675	9,841	10,822
1992	27,172	22,174	20,975	19,899	20,704	19,563	20,047	22,465
1993	32,450	26,207	24,627	25,733	24,011	24,025	23,898	26,992
1994	43,010	34,788	32,797	31,929	31,937	31,131	31,325	35,620
1995	46,992	38,492	36,394	35,383	35,995	34,704	33,633	40,190
1996	58,154	46,632	44,569	43,015	41,439	41,222	41,208	47,559
1997	70,967	56,753	52,934	51,279	51,797	50,021	50,245	58,022
1998	86,440	68,297	64,602	60,736	60,361	58,208	58,506	69,415
1999	101,427	77,656	74,808	70,195	70,961	68,738	68,339	81,067
2000	114,637	87,078	83,668	74,412	77,714	73,858	73,591	90,338
2001	132,136	100,358	96,216	86,489	88,735	84,930	84,710	103,610
2002	149,119	110,602	106,809	98,662	102,263	98,033	97,432	117,672
2003	170,280	127,819	121,464	117,149	117,847	115,278	113,532	135,472
2004	184,039	137,168	131,943	122,868	128,435	124,075	121,661	147,111
2005	192,962	147,646	145,771	136,276	139,761	131,098	130,406	157,770
2006	212,001	157,824	156,499	144,189	152,521	142,142	143,231	171,794
2007	229,897	173,937	164,378	156,678	159,921	153,241	153,050	186,229
Per cent								
1989	108.3	100.5	93.4	96.9	96.8	89.4	90.9	100.0
1992	121.0	98.7	93.4	88.6	92.2	87.1	89.2	100.0
1993	120.2	97.1	91.2	95.3	89.0	89.0	88.5	100.0
1994	120.7	97.7	92.1	89.6	89.7	87.4	87.9	100.0
1995	116.9	95.8	90.6	88.0	89.6	86.4	83.7	100.0
1996	122.3	98.1	93.7	90.4	87.1	86.7	86.6	100.0
1997	122.3	97.8	91.2	88.4	89.3	86.2	86.6	100.0
1998	124.5	98.4	93.1	87.5	87.0	83.9	84.3	100.0
1999	125.1	95.8	92.3	86.6	87.5	84.8	84.3	100.0
2000	126.9	96.4	92.6	82.4	86.0	81.8	81.5	100.0
2001	127.5	96.9	92.9	83.8	85.6	82.0	81.8	100.0
2002	126.7	94.0	90.8	83.8	86.9	83.3	82.8	100.0
2003	125.4	94.2	89.5	86.3	86.8	84.9	83.6	100.0
2004	125.1	93.2	89.7	83.5	87.3	84.3	82.7	100.0
2005	122.3	93.6	92.4	86.4	88.6	83.1	82.7	100.0
2006	123.4	91.9	91.1	83.9	88.8	82.7	83.4	100.0
2007	123.4	93.4	88.3	84.1	85.9	82.3	82.2	100.0

* Gross monthly earnings, May.

Note: The data refer to full-time employees in the budget sector and firms employing at least 20 workers (1989–94), at least 10 workers (1995–99) and at least 5 workers (2000–), respectively.

Source: FSzH BT.

Table 9.7: Regional inequalities: Gross domestic product

Year	Central Hungary	Central Transdanubia	Western Transdanubia	Southern Transdanubia	Northern Hungary	Northern Great Plain	Southern Great Plain	Total
Thousand HUF/person/month								
1994	619	365	424	353	292	311	350	422
1995	792	494	559	442	394	386	449	544
1996	993	617	701	532	459	468	539	669
1997	1,254	801	871	641	554	569	640	830
1998	1,474	969	1,083	754	662	660	742	983
1999	1,710	1,051	1,275	859	731	707	819	1,113
2000	2,014	1,255	1,468	957	827	815	918	1,290
2001	2,311	1,372	1,539	1,074	947	965	1,031	1,458
2002	2,701	1,462	1,703	1,204	1,050	1,062	1,136	1,648
2003	2,940	1,719	2,001	1,321	1,186	1,213	1,254	1,841
2004	3,237	1,953	2,143	1,468	1,366	1,351	1,439	2,021
2005	3,564	2,056	2,169	1,517	1,439	1,390	1,483	2,185
2006	3,921	2,139	2,370	1,596	1,512	1,564	1,564	2,363
Per cent								
1994	145.6	86.4	100.7	84.0	69.6	73.9	83.3	100.0
1995	144.3	90.5	102.9	81.6	72.9	71.2	83.2	100.0
1996	146.9	91.9	105.0	80.0	69.1	70.4	81.2	100.0
1997	149.1	96.0	105.2	77.6	67.3	69.1	77.9	100.0
1998	147.8	98.1	110.5	77.2	68.0	67.7	76.3	100.0
1999	151.1	93.7	114.9	77.7	66.3	64.1	74.5	100.0
2000	152.2	97.3	113.9	74.8	64.6	63.4	71.8	100.0
2001	158.5	94.1	105.6	73.7	64.9	66.2	70.7	100.0
2002	163.9	88.7	103.4	73.0	63.7	64.4	68.9	100.0
2003	161.1	92.4	107.6	71.6	64.0	65.3	68.0	100.0
2004	157.9	95.3	104.5	71.6	66.6	65.9	70.2	100.0
2005	163.2	94.0	99.2	69.4	65.9	63.6	67.8	100.0
2006	163.1	94.1	99.3	69.4	65.9	63.6	67.9	100.0

Source: KSH.

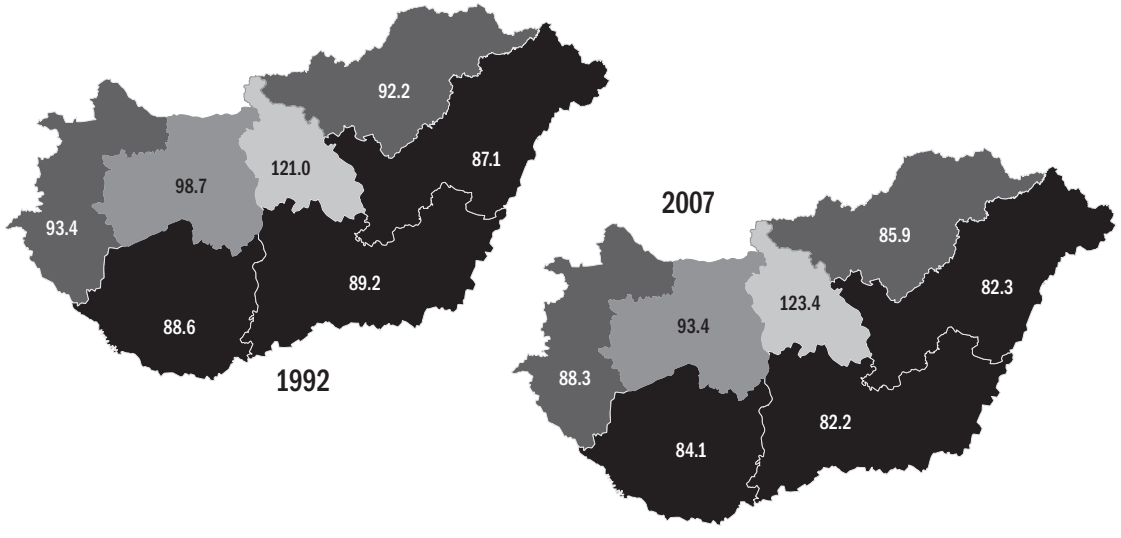


Figure 9.6: Regional inequalities: Gross monthly earnings

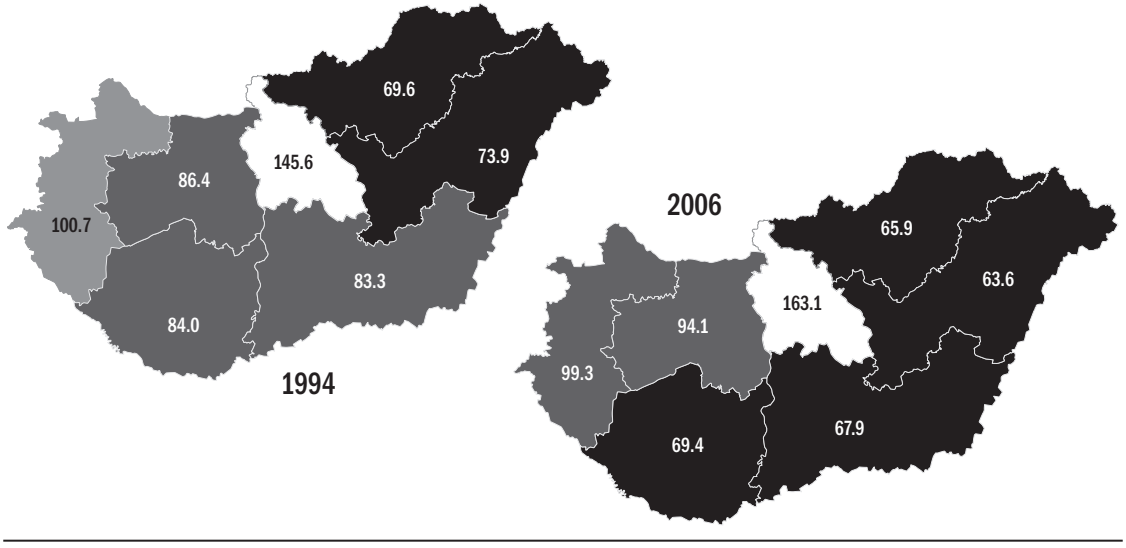


Figure 9.7: Regional inequalities: Gross domestic product

Table 10.1: Work permits issued to foreign citizens

Year	Number of workpermits issued during the year	Number of work permits valid at the last day of the year
1989	25,259	...
1990	51,946	...
1991	41,724	33,352
1992	24,621	15,727
1993	19,532	17,620
1994	24,756	20,090
1995	26,085	21,009
1996	20,296	18,763
1997	24,244	20,382
1998	26,310	22,466
1999	34,138	28,469
2000	40,203	35,014
2001	47,269	38,623
2002	49,779	42,700
2003	57,383	48,651
2004[a]	64,695	55,136
Number of registration	14,253	10,711
Number of green card certificates	285	285
2005[a]	53,324	46,391
Number of registration	18,907	15,954
Number of green card certificates	331	509

[a] After the accession of Hungary to the EU (01.05.2004.) there is no need to ask for work permits for the citizens (and their family members) from the Czech Republic, Estonia, Poland, Latvia, Lithuania, Slovakia and Slovenia, but there is a reporting obligation of the employers for registration when they start to work. The reporting obligation doesn't refer to the employment of the citizens of the UK, Ireland, Sweden, Cyprus and Malta. The citizens of the other member states of EU-15 in case of certain conditions may obtain „green card" certificate which entitles them to undertake any job in Hungary without work permissions.

Source: FSzH, based on the reports of the county Labour Centres.

Table 10.2: Employed in their present job since 0–6 months

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Hungary	8.2	8.5	6.8	7.2	6.3	6.6	7.2	6.8	7.0	6.7

Source: MEF, IV. quarterly waves.

Table 11: Strikes

Year	Number of strikes	Number of involved persons	Hours lost (in thousands)
1991	3	24,148	76
1992	4	1,010	33
1993	5	2,574	42
1994	4	31,529	229
1995[a]	7	172,048	1,708
1996	8	4,491	19
1997	5	853	15
1998	7	1,447	3
1999	5	16,685	242
2000	5	26,978	1,192
2001	6	21,128	61
2002	4	4,573	9
2003	7	10,831	19
2004	8	6,276	116
2005	11	1,425	8
2006	16	24,670	52
2007	13	64,612	189

[a] Teachers strikes number partly estimated.
Source: KSH.

Table 12.1: Employment and unemployment rate of population aged 15–64 by sex in the EU–15 and EU–25, 2007

	Employment rate			Unemployment rate		
Country	men	women	total	men	women	total
Austria	78.4	64.4	71.4	4.0	5.1	4.5
Belgium	68.7	55.3	62.0	6.7	8.5	7.5
Denmark	81.0	73.2	77.1	3.5	4.2	3.8
United Kingdom	77.5	65.5	71.5	5.7	5.0	5.4
Finland	72.1	68.5	70.3	6.6	7.3	6.9
France	69.3	60.0	64.6	7.5	8.5	8.0
Greece	74.9	47.9	61.4	5.3	12.9	8.4
Netherlands	82.2	69.6	76.0	2.8	3.7	3.2
Ireland	77.4	60.6	69.1	5.0	4.2	4.6
Luxembourg	72.3	56.1	64.2	3.6	4.7	4.1
Germany	74.7	64.0	69.4	8.7	8.8	8.7
Italy	70.7	46.6	58.7	5.0	7.9	6.2
Portugal	73.8	61.9	67.8	7.0	10.1	8.5
Spain	76.2	54.7	65.6	6.4	10.9	8.3
Sweden	76.5	71.8	74.2	6.0	6.5	6.2
EU–15	74.2	59.7	67.0	6.4	7.8	7.1
Hungary	64.0	50.9	57.3	7.2	7.7	7.4
Bulgaria	66.0	57.6	61.7	6.6	7.3	6.9
Cyprus	80.0	62.4	71.0	3.5	4.6	4.0
Czech Republic	74.8	57.3	66.1	4.3	6.8	5.4
Estonia	73.2	65.9	69.4	5.5	4.0	4.8
Poland	63.6	50.6	57.0	9.1	10.4	9.7
Latvia	72.5	64.4	68.3	6.6	5.7	6.1
Lithuania	67.9	62.2	64.9	4.4	4.4	4.4
Malta	72.9	35.7	54.6	6.0	7.6	6.5
Romania	64.8	52.8	58.8	7.6	5.7	6.8
Slovakia	68.4	53.0	60.7	9.9	12.7	11.2
Slovenia	72.7	62.6	67.8	4.1	6.0	5.0
EU–25	73.0	58.6	65.8	6.6	8.0	7.2
EU-27	72.5	58.3	65.4	6.6	7.9	7.2

Source: CIRCA.

Table 12.2: Employment composition, 2007

Country	Self employed	Part time	Fix term contr.	Service	Industry	Agriculture
Austria	19.2	21.8	9.0	65.7	22.9	11.4
Austria	14.3	22.6	8.9	67.0	27.3	5.7
Belgium	14.8	22.1	8.6	73.7	24.4	1.9
Denmark	9.1	24.1	8.7	73.8	23.2	3.0
United Kingdom	13.4	25.2	5.9	76.4	22.2	1.4
Finland	12.6	14.1	15.9	69.7	25.7	4.5
France	10.8	17.2	14.4	73.3	23.3	3.4
Greece	35.7	5.6	10.9	66.0	22.5	11.5
Netherlands	13.1	46.8	18.1	76.8	20.0	3.1
Ireland	17.2	..	7.3	67.2	27.2	5.6
Luxembourg	7.2	17.8	6.8	81.3	16.9	1.8
Germany	11.9	26.0	14.6	67.9	29.8	2.2
Italy	26.1	13.6	13.2	65.9	30.2	4.0
Portugal	24.5	12.1	22.4	57.8	30.5	11.6
Spain	17.6	11.8	31.7	66.2	29.3	4.5
Sweden	10.6	25.0	17.5	76.1	21.6	2.3
EU–15	15.7	20.9	14.8	70.2	26.3	3.5
Hungary	12.4	4.1	7.3	62.7	32.7	4.6
Bulgaria	12.4	1.7	5.2	57.0	35.5	7.5
Cyprus	20.3	7.3	13.2	73.1	22.5	4.4
Czech Republic	16.2	5.0	8.6	56.2	40.2	3.6
Estonia	8.9	8.2	2.1	60.0	35.2	4.7
Poland	23.5	9.2	28.2	54.5	30.7	14.7
Latvia	10.8	6.4	4.2	61.6	28.5	9.9
Lithuania	13.7	8.6	3.5	58.9	30.7	10.4
Malta	14.0	10.9	5.1	72.0	26.2	1.8
Romania	33.7	9.7	1.6	39.1	31.4	29.5
Slovakia	12.9	2.6	5.1	56.4	39.4	4.2
Slovenia	15.9	9.3	18.5	54.9	35.2	9.9
EU-27	16.8	18.2	14.5	66.7	27.7	5.6

Source: Eurostat (Newcronos) Labour Force Survey.

Table 12.3: Monthly statutory minimum wage rates, Full-time adult employees, aged 23+*

Country	2004			2005			2006		
	In local currency	In euros	Date effective[1]	In local currency	In euros	Date effective[1]	In local currency	In euros	Date effective[1]
Belgium		1,317.50	2004.02.		1,234	2005.06.		1,234.21	2005.06.
Bulgaria	120,leva	61	2004.01.	150	77	2005.01.	160	81.8	2006.01.
Croatia	kuna	–	–	2,080	285	2005.01.	2,080	282.23	2005.01.
Cyprus[2]	350,Cyprus pound	600	2004.06.	362	631	2005.04.	362	631.44	2005.04.
Czech Republic	6,700 koruna	211	2004.01.	7,185	238	2005.01.	7,660	263.93	2006.01.
Estonia	2,480 kroon	159	2004.01.	2,690	172	2005.01.	3,000	191.73	2006.01.
France[3]		1,154.13	2004.06.		1,217	2005.07.		1,254.28	2006.07.
Greece[4]		559	2004.09.		560	2004.09.		658	2006.04.
Hungary	53,000 forint	212	2004.01.	57,000	232	2005.01.	65,500	240.14	2007.01.
Ireland		1,213.33	2004.02.		1,326	2005.05.		1,326.00	2005.05.
Latvia	80 lats	121	2004.01.	80d	121	2004.01.	90	128.06	2006.01.
Lithuania	450 lita	130	2003.09.	550	159	2005.07.	600	173.77	2006.07.
Luxembourg[5]		1,403	2003.08.		1,467	2005.01.		1,541.00	2006.12.
Malta	233.48 lira	543	2004.01.	241.06	557	2005.01.	250.8	584.19	2006.01.
Moldova	340 leu	23	2003.07.	440	26	2004.02.	550	32.72	2005.02.
Netherlands		1,264.80	2003.07.		1,264	2003.07.		1,284.60	2006.07.
Poland	824 zloty	183	2004.01.	849	208	2005.01.	899	233.01	2006.01.
Portugal[3]		365.6	2004.01.		374	2005.01.		385.9	2006.01.
Romania	2,800,000 lei	68	2004.01.	3,300,000	91	2005.01.	338 new lei	97.07	2006.01.
Russia	600 rubles	17	2003.10.	720	19	2005.01.	1,100	32.2	2006.05.
Serbia	5,395 new dinars	73	2004.02.	5,395	73	2004.02.	8,004	96.44	2006.05.
Slovakia	6,500 koruna	163	2004.10.	6,500	163	2004.10.	7,600	205.22	2006.10.
Slovenia	117,500 tolar	484	2004.08.	122,600	514	2005.08.	125,052	521.86	2006.08.
Spain[3]		490.8	2004.06.		513	2005.01.		540.9	2006.01.
Turkey	444,150,000 lira	250	2004.07.	489 new lira	266	2005.01.	530.73	332.26	2006.01.
Ukraine	205 hryvnia	31	2003.12.	262	36	2005.01.	400	58.75	2006.09.
United Kingdom	pounds sterling						927.32	1,380.54	2006.10.

* Where official rates are expressed by the hour or week, they have been converted to monthly rates on the basis of a 40-hour week or 52-week year. Minimum wage figures exclude any 13th or 14th month payments that may be due under national legislation, custom or practice.

[1] Minimum wage levels last updated.

[2] Unmarried white collar workers only.

[3] The terms of this wage order entitle a worker to 13 or 14 monthly payments per year.

[4] Starting salary in non-unionised sectors. Increases after six months' service. Rates apply only in six occupations.

[5] Unskilled workers only.

Source: FedEE review of minimum wage rates (2004, 2005, 2006): http://www.fedee.com/minwage.html

DESCRIPTION OF THE MAIN DATA SOURCES

1. CSO Labour Force Survey – KSH MEF

The Hungarian Central Statistical Office has been conducting a new statistical survey since January 1992 – using the experience of the pilot survey carried out in 1991 – to obtain ongoing information on the labour force status of the Hungarian population. The Labour Force Survey (LFS) is a household survey which provides quarterly information on the non-institutional population aged 15–74. The aim of the survey is to observe employment and unemployment according to the international statistical recommendation based on the concepts and definitions recommended by the ILO independently from the existing national labour regulations or their changes.

In international practice, the labour force survey is a widely used statistical tool to provide simultaneous, comprehensive and systematic monitoring of employment, unemployment and underemployment. The survey techniques minimize the subjective bias in classification (since people surveyed are classified by strict criteria) and provide freedom to also consider national characteristics.

In the LFS the population surveyed is divided into two main groups according to the economic activity performed by them during the reference week:
– economically active persons (labour force) and
– economically inactive persons.

The group of economically active persons consists of those being in the labour market either as employed or unemployed during the reference week.

The definitions used in the survey follow the ILO recommendations. According to this those designated employed are persons aged 15–74 who, during the reference week:
– worked one hour or more for pay, profit or payment in kind in a job or in a business (including on a farm),
– worked one hour or more without payment in a family business or on a farm (i.e. unpaid family workers),
– had a job from which they were temporarily absent during the survey week.

Persons on child-care leave are classified according to their activity. Conscripts are considered as economically active persons, exceptions are marked in the footnotes of the table.

From the survey's point of view the activities below are not considered as work:
– work done without payment for another household or institute (voluntary work),
– building or renovating of an own house or flat,
– housework,
– work in the garden or on own land for self-consumption.

Unemployed persons are persons aged 15–74 who:
– were without work, i.e. neither had a job nor were at work (for one hour or more) in paid employment or self-employment during the reference week,
– had actively looked for work at any time in the four weeks up to the end of the reference week,
– were available for work within two weeks following the reference week or were waiting to start a new job within 30 days.

Active job search includes: contacting a public or private employment office to find a job, applying to an employer directly, inserting, reading, answering advertisements, asking friends, relatives or other methods.

The labour force (i.e. economically active population) comprises employed and unemployed persons.

Persons are defined economically inactive (i.e. not in the labour force) if they were neither employed nor unemployed, as defined.

Passive unemployed (known as "discouraged persons" according to the ILO concepts) are persons aged 15–74 who desire a job but have given up any active search for work, because they do not believe that they are able to find any.

The Labour Force Survey is based on a multi-stage stratified sample design. The stages of sampling are defined as follows: primary sampling units (PSUs) are enumeration districts (EDs) and secondary sampling units (SSUs) are dwellings in settlements with 15,000 or more inhabitants, while PSUs are settlements, SSUs are EDs and ultimate sampling units are dwellings in all other cases.

The main indicators of the labour market are representative for regions.

The LFS sample is basically a sample of dwellings, and in each sampled dwelling, labour market information is collected from each household and from each person aged 15–74 living there. For 1998, the quarterly sample contains about 32,000 households and 65,000 persons. The sample has a simple rotation pattern: any household entering the sample at some time is expected to provide labour market information for six consecutive quarters, then leaves the sample permanently. The samples of two consecutive periods tend to be less than 5/6, which would be obtained at a 100 per cent response rate.

In the LFS sample design strata are defined in terms of geographic units, size categories of settlements and area types such as city centres, outskirts, etc.

2. CSO Labour Force Accounting Census – KSH MEM

Before the publication of the Labour Force Survey the annual Labour Force Account gave a view of the total labour force in the period between the two census.

The Labour Force Account, as its name shows, is a balance-like account which compares the labour supply (human resources) to the labour demand at an ideal moment (1th January). Population is taken into account by economic activity with a differentiation between those of working age and the population outside of the working age.

Source of data: Annual labour survey on employment on 1th January of enterprises with more than 20 (later 5) employees and of all government institutions, labour force survey, census, tax records and social security records, and company registry. The number of persons employed in small enterprises having a legal entity is based on estimation. Data on unemployment comes from the registration system of the National Employment Service.

3. CSO Institution-Based Labour Statistics – KSH IMS

The source of data is the monthly (annual) institutional labour statistical survey. The survey range covers enterprises with at least 5 employees, and public and social insurance and non-profit institutions irrespective of the staff numbers of employees.

The earnings relate to the full-time employees on every occasion. The potential elements of the prevailing monthly average earnings are: basic wages, bonuses, allowances (including miner's loyalty bonus, any Széchenyi-grant), payments for time not worked, bonuses, premiums, wages and salaries for the 13th and more months.

Net average earnings are calculated by deducting from the gross average earnings the actual personal income tax, employee's social security contributions, etc., according to the actual rates (i.e. taking into account the threshold concerning the social security contribution).It does not take into account the impact of the new tax allowance related to the number of children. The personal income tax is calculated by the actual withholding rate applied by the employers when paying out monthly earnings.

The difference between the gross and the net (after-tax) income indexes depends on eventual annual changes in the tax table (tax brackets) and in the tax allowances .

The change of net real earnings is calculated from the ratio of net income index and the consumer price index in the same period.

Non-manual workers are persons with occupations classified by the ISCO-88 in major groups 1–4., manual workers are persons with occupations classified in major groups 5–9. since 1st January 1994. Census data were used for the estimation of the employment data in 1980 and 1990. The aggregate economic data are based on national account statistics,

the consumer's and producer's price statistics and industrial surveys. A detailed description of the data sources are to be found in the relevant publications of the Statistics Office.

4. Unemployment (Jobseekers') Register Database – FSzH REG

The other main source of unemployment data in Hungary – and in most of the developed countries – is the huge database containing so called administrative records which are collected monthly and include the individual data of the registered unemployed/jobseekers.

The register actually contains all jobseekers, but out of them, at a given point of time, only those are regarded as registered unemployed/jobseekers, who:

– had themselves registered with a local office of the Public Employment Service (PES) as unemployed/jobseekers (i. e. he/she has got no job but wishes to work, for which they seek assistance from the labour market organisation);
– at a point of time (on the closing day of any months), the person is not a pensioner or a full-time student, and is ready to co-operate with the local employment office in order to become employed (i. e. he/she accepts the suitable job or training offered to him/her, and keeps the appointments made with the local employment office's placement officer/counsellor/benefit administrator).

If a person included in the register is working under any subsidised employment programme on the closing day, or is a participant of a labour market training programme, or has a short-term, temporary job her/his unemployed/jobseeker status is suspended.

If the client is not willing to co-operate with the local office he/she is removed from the register of the unemployed/jobseekers.

The data – i. e. the administrative records of the register – allow not only for the identification of date related stock data but also for monitoring flows: inflows as well as outflow within a period.

Based on the records of the labour requests needs reported to the PES, the stock and flow data of vacancies are also processed and published for each month.

Furthermore, detailed monthly statistics of participation in the different active programmes, number of participants and their inflows and outflows are also prepared monthly.

The very detailed monthly statistics – in a breakdown of country, region, county, local employment office service delivery area and community – build on the secondary processing of administrative records that are generated virtually as the rather important and useful "by-products" of the accomplishment of the PES's main functions (such as placement services, payment of benefits, active programme support, etc.).

The National Employment and Social Office (and its predecessors, i. e. OMK – National Labour Centre, OMMK and OMKMK) has published the key figures of these statistics on a monthly basis since 1989. The more detailed reports which also contain data by local office service delivery area are published by the County/Metropolitan (Budapest) Labour Centres (since 2007 by the Regional Labour Centres).

The denominators of the unemployment rates calculated for the registered unemployed/jobseekers are the economically active population data published by the Central Statistical Office's labour market account (KSH MEM).

The figures of the registered unemployed/jobseekers and the registered unemployment/jobseekers rate are obviously different from the figures based on the Central Statistical Office's labour force survey. It is mainly the different conceptual approach, definition and the fundamentally different monitoring/measuring methods that account for this variance.

5. Short-Term Labour Market Projection Surveys – FSZH PROG

At the initiative and under the co-ordination of the National Employment and Social Office (and its legal predecessors), the PES conducted the so called short term labour market survey since 1991, twice a year, in March and September. The survey uses an enormous sample, it contains over 4,500 employers. Since 2004 the survey is conducted once a year, in the month of October.

The interviews focus on the companies' projections of their material and financial processes, their

development and human resource plans, and they are also asked about their concrete lay-off or recruitment plans as well as their expected need for any active labour market programmes.

The surveys are processed from bottom up, from the service delivery areas, through counties and regions to the whole country, providing useful information at all levels for the planning activities of the Public Employment Service.

The survey provides an opportunity and possibility for the regions, the counties and Budapest to analyse in greater depth (also using information from other sources) the major trends in their respective labour markets, to make preparations for tackling problems that are likely to occur in the short term, and to effectively meet the ever-changing needs of their clients.

The forecast is only one of the outputs of the survey. Further very important "by-products" include regular and personal liaison with companies, the upgraded skills of the placement officers and other administrative personnel, enhanced awareness of the local circumstances, and the adequate orientation of labour market training programmes in view of the needs identified by the surveys. One of the most important by-product is the so called Labour Market Barometer, which shows the most wanted and mostly superfluous occupations, based on the recruitment and layoff plans of the employers.

The prognosis surveys are occasionally supplemented with supplementary surveys to obtain some further useful information that can be used by researchers and the decision-makers of employment and education/training policy.

From 2005 the surveys are conducted in cooperation with the Institute for Analyses of the Economy and Entrepreneurship of the Hungarian Chamber of Industry and Commerce. Since then the main results are available on the internet also in the form of an interactive database.

6. Wage Survey Database – FSzH BT

The National Employment and Social Office (and its legal predecessors) has conducted since 1992, once a year, a representative survey to investigate individual wages and earnings. The survey uses an enormous sample and is conducted at the request of the Ministry of Social Policy and Labour (formerly: Ministry of Labour, Ministry of Social and Family Affairs).

The reference month of data collection is the month of May in each year, but for the calculation of the monthly average of irregularly paid benefits (beyond the base wage/salary), the total amount of such benefits received during the previous year is used.

In the competitive sector, they data collection initially only covered companies of over 20 persons; it was incumbent on all companies to provide information, but the sample includes only employees born on certain dates in any month of any year.

Data collection also covered companies of 10–19 since 1995, and companies of 5–9 have been covered since 2000, where the companies actually involved in data collection are selected at random (ca. 20 per cent) and the selected ones have to provide information about all their full-time employees.

Data on basic wages and earnings structure can only be retrieved from these surveys in Hungary, thus it is practically these huge, annually generated databases that can serve as the basis of the wage reconciliation negotiations conducted by the social partners.

In the budgetary sector all budgetary institutions provide information, regardless of their size, in a way that the decisive majority of the local budgetary institutions – the ones that are included in the TAKEH central payroll accounting system – provide fully comprehensive information, and the remaining budgetary institutions provide information only about their employees who were born on certain days (regarded as the sample).

Data has only been collected on the professional members of the armed forces since 1999.

Prior to 1992, such data collection took place in every third year, thus we are in possession of an enormous data base of the years of 1983, 1986 and 1989 too.

Of the employees included in the sample, the following data are available:

– the sector the employer operates in, headcount, employer's local unit, type of entity, ownership structure;

– employee's wage category, job occupation, gender, age, educational background.

Based on the huge databases which include the data by individual, the data is analysed every year in the following ways:

– Standard data analysis, as agreed upon by the social partners, used for wage reconciliation negotiations (which is received by every confederation participating in the negotiations).
– Model calculations to determine the expected impact of the rise of the minimum wage.

Analyses to meet the needs of the Wage Policy Department, Ministry of Labour, for the comparison and presentation of wage ratios (total national economy, competitive sector, budgetary sector, and also by regions and counties).

The entire database is adopted every year by the Central Statistical Office, which enables the Office to provide data also for certain international organisations, (e. g. ILO and OECD). The National Employment and Social Office also provides special analyses regularly for the OECD.

The database containing the data by individual allows for a) the analysis of data for groups of people determined by any combination of pre-set criteria, b) the comparison of basic wages and earnings, with special regard to the composition of the different groups analysed, as well as c) the analysis of the dispersion of the basic wages and earnings.

Since 2002 the survey of individual wages and earnings was substantially developed to fulfill all requirements of the EU. So from this time it serves alo for the purposes of the Structure of Earnings Survey (SES), which is obligatory for each member state in every fourth year (SES 2002 was the first and recently the database of SES 2006 was also sent to the Eurostat.)

Since 2003 the most important results of the Wage Survey are also available on the website of the Hungarian PES, since 2006 also in English (www.afsz.hu).

7. Unemployment (Jobseekers') Benefit Register – FSzH SREG

The recipients' fully comprehensive registry is made up, on the one hand, of the financial records containing the disbursed unemployment benefits (unemployment benefit, school leavers' unemployment benefit, pre-retirement unemployment benefit, jobseekers' benefit, jobseekers assistance) and, on the other hand, of the so-called master records containing the particulars of benefit recipients. This register allows for the accurate tracking of the recipients' benefit related events, the exact date of their inclusion in and removal from the system, as well as why they have been removed from it (e. g. got a job, eligibility period expired, were excluded, joined an active labour market programme, etc.)

This huge database allows for reporting for any point of time the detailed data of persons who received benefits on a given day, in a breakdown of country, region, county and local office service delivery area. In order to align these data with the closing day statistics of the registered unemployed, these monthly statistics are also completed by the 20th of each month. (Stock in the closing day.)

In addition, the monthly statistics also contain information on the number of those who were effected during the month, e.g. the number of those who have received benefits on any day of the month between the previous month's and the given month's closing day. Of course, data indicating inflows and outflows are also reported here.

It is an important and rather useful aspect from a research perspective that, in addition to the standard closing day statistics, groups defined by any criteria can be tracked in the benefit register, e. g. inflow samples can be taken of newly registered persons for different periods, and through tracking them in the registry system the benefit allocation patterns of different cohorts can be compared.

The detailed data of unemployment benefit recipients have been available from the benefit register since January 1989. The first two years had a different benefit allocation system, and the current system, which has been modified several times since then, was implemented by the Employment Act of 1991 (Act IV).

For the period of between 1991 and 1996, the register also contains the stock and flow data of the recipients of school leavers' unemployment benefit. Since 1997 the system has also contained the recipients of pre-retirement unemployment benefit. In addition to headcount data, the benefit register can

also monitor the average duration of the period of benefit allocation and the average monthly amount of the benefits allocated.

The key data regarding benefits were published by the National Employment and Social Office in the monthly periodical Labour Market Situation. In addition, time series data was published annually in the Time Series of the Unemployment Register, always covering the last six years in the form of a monthly breakdown. More recently these publications are available on the website of the Hungarian PES (www.afsz.hu).

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