THE HUNGARIAN LABOUR MARKET
REVIEW AND ANALYSIS
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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. The "In Focus" analyses are based on up–to-date results of empirical studies carried out in different fields of the Hungarian labour market. The selection criteria for the topics of these chapters were determined by the editorial board of the yearbook. Two basic principles are followed: the chosen subjects must have crucial relevance for policy making and the authors must be equipped with solid empirical evidence to produce a detailed description of social and economic developments and to reveal causality relations between the outcomes and the determinant factors.*

Experience accumulated through the publication of the previous volumes (eight in Hungarian and six in English) and their reception in Hungary and abroad confirmed that our chosen approach was valid and this gave us the stimulus to enhance both the contents and the quality of the new volumes. This volume consists of four parts.

1. Labour market trends in Hungary

The first chapter presents the main labour market trends in Hungary in 2007 which include participation, employment and unemployment rates and information on wages. It is followed by international comparative analysis using the latest available data. In 2007 fiscal austerity measures had negative effects on the GDP growth rate which continues to fall behind regional trends. The slow expansion of the economy was accompanied by a slight decrease in the employment rate, mainly due to employment cuts in the public sector. Below-EU-average participation and employment rates remain the main feature of the Hungarian labour market. The scarcity of employment opportunities for the under-educated part of the population is the main reason for the overall lag in employment. Participation and employment rates of the youngest cohorts and the participation rate of persons aged 55-64 are especially low by

* 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. Each volume can be downloaded from the homepage of the Institute of Economics. – HAS: http://econ.core.hu/english/pub/mt.html

international comparison. The reason for the latter phenomenon is that the proportion of retired persons in this group is unjustifiably high. Gender related differences in activity and employment rates have been rising somewhat. In 2007, net real wages decreased both in the public and the private sector, across almost all industries and regions.

2. In Focus – welfare provisions and labour supply

The second part of this volume presents analyses of the labour supply implications of welfare provisions. The primary function of social welfare programmes is to redistribute income to achieve a well-defined social objective or to correct market failures. As an unintended side effect, however, some welfare measures act as a disincentive to work. This volume reviews the major welfare programmes in Hungary with the explicit aim of identifying the ways in which they affect labour supply.

There are compelling reasons for paying particular attention to the labour supply effects of welfare provisions. In Hungary, only 57 per cent of the population aged 15 to 64 years are in employment, while the average employment rate is 64 per cent in the EU 27 member states and is over 70 per cent in the Scandinavian countries. Welfare payments contribute greatly to the persistence of a low equilibrium characterized by a low overall employment rate and a high tax burden of social security contributions. Generous welfare spending necessitates high taxes, which, in turn, curbs economic performance. Long-term unemployment or inactivity among the working-age population leads to long-term poverty, social exclusion and poverty transfer from generation to generation. A vicious circle is thus set in motion in as much as these social disadvantages generate the need for ever-increasing welfare spending.

The first chapter of Part 2 reviews the relationship between the labour market and the welfare system, the theoretical labour supply impact of various welfare programmes, and the factors that may hinder the elimination of disincentives in the current system. Chapters 2 to 5 investigate the labour supply effects of four types of benefits: parental leave benefits, means tested unemployment assistance, disability pension and old-age pension. Chapter 6 illustrates the possibility of reducing disincentives through the example of the British *Pathways to Work* scheme. The success of this scheme is not only due to its carefully designed structure but also to the way it was introduced: a carefully constructed process, where the first pilots were followed by a gradual expansion of the programme with a thorough impact assessment – and correction, if necessary – after each step.

The six main chapters of Part 2 are supplemented by several short sections: these scrutinize social effects other than those associated with labour supply and raise questions regarding the success of welfare programmes in fulfilling their primary functions.

3. The Legal and Institutional Environment of the Hungarian Labour Market

The first part of this chapter presents an evaluation of the impact of active labour market programmes in the period 2001-2006. It is based on official documents and statistical analyses. It gives an overview of trends on spending in active labour market programmes, describes the changes in the number and personal characteristics of participants in active labour market programmes and additionally covers a regional analysis at county level. It is followed by an evaluation of the most important active labour market schemes such as public work, wage subsidy, training, young entrants' schemes and business start-up subsidies.

The second part of this chapter summarizes the main changes in labour market policies and institutions after 2007. It is the reform of the system of employment promotion that we consider to be the most important step. The organisational structure of the Public Employment Service has also changed: the tasks of the Budapest and county labour centres were transferred to the newly established regional centres. Organizational changes also affected the rehabilitation system. The National Institute for Rehabilitation and Social Assessment was assigned to carry out comprehensive rehabilitation procedures.

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, together with some international comparisons. Labour market developments broken down to regional level are also included. This chapter offers especially rich information on social welfare in Hungary.

* * *

The publication of this volume was supported by the National Employment Foundation. Editors are grateful to numerous experts from the Institute of Economics HAS, Central Statistical Office, National Employment Service, Corvinus University of Budapest, Central European University, Ministry of Social Policy and Labour, and the Ministry of Finance for their valuable contributions, comments and suggestions.

LABOUR MARKET TRENDS IN HUNGARY, 2007

JÚLIA VARGA

INTRODUCTION

Bringing down the large budget and current account deficit were the primary aims of the newly elected Hungarian government in 2006 and 2007. The large fiscal deficit of the country is unsustainable and the government has embarked on a four-year consolidation programme of financial restraint. The immediate revenue increases and spending cuts slowed down growth which is falling behind regional growth trends. In 2006 the GDP growth rate decreased from 4.9 per cent in the first quarter of the year to 3.2 per cent in the fourth quarter. The tendency has continued in 2007 when the growth rate was 2.8 per cent in the first quarter, 1.4 per cent if the second, 1.1 per cent in the third and 0.7 in the fourth *(KSH, 2007d)*. The declining growth rate was accompanied by a slight decrease in the employment rate mainly due to employment cuts in the public sector. At the same time the rate of unemployment remained at 7.1 per cent. In this chapter we present the main labour market trends in Hungary in 2007: the participation, employment, and unemployment rates. We also provide information on wages. In addition we discuss how Hungary performs compared internationally in participation, employment and unemployment using data for 2006 (the latest available international data). This analysis simply presents the most important changes but does not discuss in detail the reasons for, or effects of, those changes.

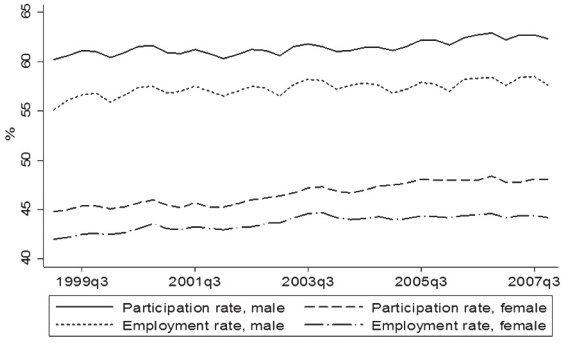
1. PARTICIPATION, EMPLOYMENT, UNEMPLOYMENT

A low participation rate is still the main characteristic of the Hungarian labour market. Of the 7,719 thousand people in the 15–74 year old age cohort 4,238 thousand were active in 2007 which corresponds to a 54.9 per cent participation rate. The participation rate of men in 2007 was 62.5 and the participation rate of women was 48 per cent *(Figure 1)*.

During 2005/2006 there was a minor 0.6 percentage points increase in the participation rate which was partly due to the increase in the number of employed persons. From the befinning of 2006 to the end of 2007 the participation rate decreased by 0.1 percentage points. The number of employed persons increased by 29 thousand in 2006 and decreased by 4 thousand in 2007. The employment rate of men was 58 per cent in 2007 and 48 per cent for

women. The Hungarian activity and employment rate are both still very low if we compare them internationally. In 2006 the activity rate of 15–64 year olds lagged behind the EU15 average by 8.7, the EU19 average by 7.7 and the OECD average by 5.3 percentage points. The corresponding fallback in the employment rate was 7. 3, 6.1 and 5.6 percentage points *(OECD, 2007)*.

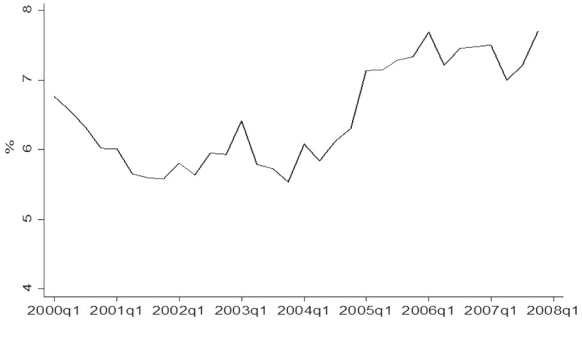
Figure 1: Labour force participation rate and employment rate by gender, 1999–2007



Source: CSO LFS.

In 2006 the number of unemployed persons was about 13 thousand higher than in the previous year, the rate of unemployment also increased by 0.3 percentage points. The increase in the unemployment rate was 1.1 percentage points. In 2007 the number of unemployed remained at 164 thousand with unemployment rate decreasing from 7.2 to 7.1 per cent (*Figure 2*).

Figure 2: Unemployment rate, 2000–2007 (%)



Source: CSO LFS.

Despite the rising trend in the unemployment level the Hungarian unemployment rate is still moderate compared internationally. In 2006 the unemployment rate of the 15–64 year old group was 0.9 percentage points lower than the EU15 average, 1.5 percentage points lower than the EU19 average and 1.3

percentage points higher than the OECD average *(OECD, 2007)*. Nevertheless the relatively low unemployment rates are partly due to the abandonment of job search by the non-employed which was facilitated by the welfare system. Disability pensions and a variety of early retirement schemes absorbed a large proportion of those individuals leaving the labour force. In the 45 to 60 age group over 40 per cent of the non-employed receive disability benefit. The generous family support system, primarily the maternity leave options, have an important impact in the participation rates of women. Women's inactivity rates are more than 80 per cent for households with at least one child aged below three years *(Bálint and Köllő, 2007)*.

The duration of unemployment in Hungary is lengthy. In 2006 only 4.3 per cent of the unemployed succeeded in finding a job within 1 month following their job loss. In 2007 this share was somewhat larger and 4.5 per cent of the unemployed found employment within 1 month. But the proportion of those looking for a job for more than one year increased between 2006 and 2007 from 41.2 per cent to 44.1 per cent *(Table 1)*.

Table 1: Length of unemployment

Length of unemployment in months	2006		2007	
	Unemployed (thousand)	Percentage	Unemployed (thousand)	Percentage
Less than 1 month	13.3	4.3	13.8	4.5
1–3	50.7	16.3	49.4	16.2
4–6	48.3	15.7	44.3	14.6
7–12	69.3	22.5	62.8	20.6
13–18	41.5	13.5	43.3	14.2
19–24	26.6	8.6	26.0	8.5
25 months or more	58.8	19.1	64.9	21.4
Total	308.5	100.0	304.5	100.0

Source: CSO.

2. LABOUR FORCE PARTICIPATION BY DIFFERENT CRITERIA

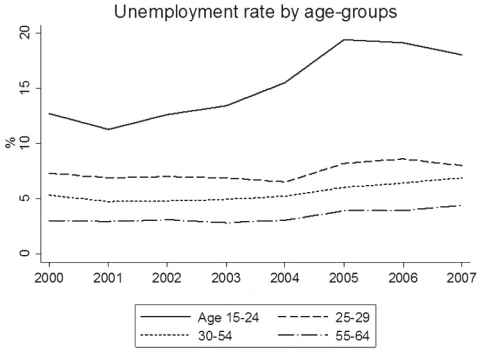
2.1. Differences by age group

Between 2001 and 2005 the youth unemployment rate was growing, but the growth in the unemployment rate of the youngest age group (the section of the population aged between 15 and 24) stopped in 2005 and in 2006 and 2007 there was a very slight decline (Figure 3).

The unemployment rate of those seeking employment for the first time decreased by 0.3 percentage points in 2006 and by 0.9 percentage points in 2007. The unemployment rate of those aged between 25–29 also decreased in 2007 by 0.2 percentage points. The unemployment rate of the youngest age cohorts is strongly influenced by changes in the participation rate among

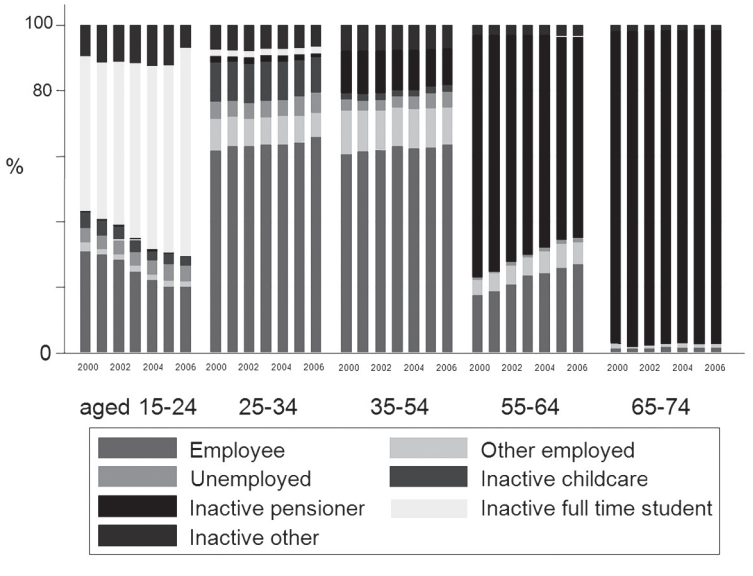
them which in turn is mainly determined by changes in the share of full time students. We look at this in more detail in the following section. Nevertheless in 2006 and 2007 not only the unemployment rate but the number of unemployed persons also decreased in the youngest age cohort. In 2006 the number of unemployed decreased by 2 thousand, in 2007 by 6.5 thousand. No significant changes in the unemployment rate of the other age cohorts could be observed in 2007.

Figure 3: Unemployment rate by age groups



Source: CSO LFS.

Figure 4: Distribution of the 15–74 year old age cohort by activity categories by age-groups, 2000–2006 (%)



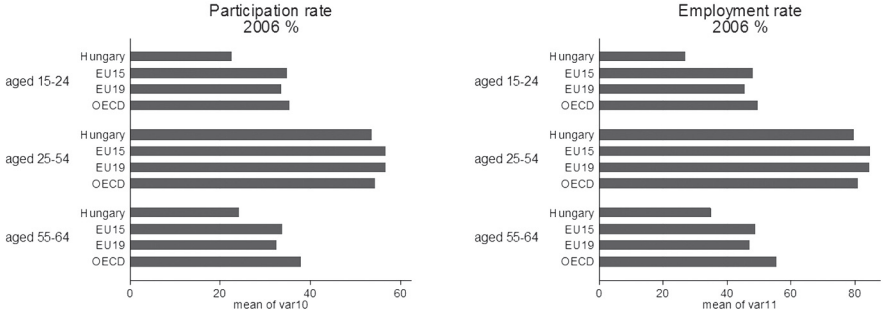
Source: CSO LFS.

Figure 4 shows changes in the distribution of the different age groups by labour market status between 2000 and 2006. The distribution of the youngest age group (aged 15–24) and that of persons aged 55–64 has changed to a greater extent during this period.* While the participation rate for the 15–24 age group has been falling, the rate for the older groups has been rising steadily.

The share of the employed in the 55–64 year old age group has increased year on year and the proportion of pensioners within that group has decreased. The share of the employed (employee and self-employed) increased from 22.2 to 33.5 per cent between 2000 and 2006 and the proportion of pensioners decreased from 74.2 to 61.5 per cent.

This change can be attributed to changes in the pension eligibility age. For men the age of eligibility has been raised from 60 to 62 years and for women the pension eligibility age increased from 56 to 59 years over the period 1998–2003 and will be increased to 62 years by the end of 2009. Nevertheless in spite of these changes the effective retirement age in Hungary is still the second lowest among OECD countries with the average effective retirement age being less than 60 for both men and women.

Figure 5: Labour force participation rates and employment rates by age-groups in Hungary and the EU and OECD averages, 2006 (%)



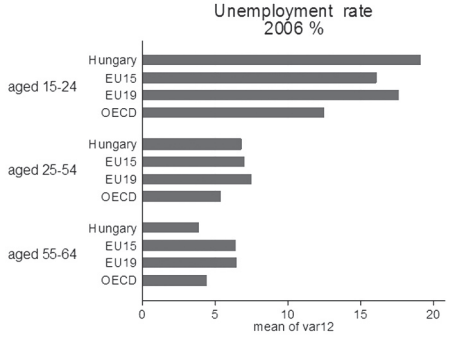
Source: OECD Employment Outlook, 2007.

The employment rate of persons aged 55–64 is still very low by international comparison *(Figure 5)*. It lags behind the EU15 average by more than 10 percentage points and behind the EU19 average by about 10 percentage points. The lag is even higher in the activity rate. The activity rate of the section of the Hungarian population aged between 55–64 was 34.9 per cent in 2006 while the EU15 average was 48.8 per cent, the EU19 average 46.6 per cent and the OECD average 53 per cent *(OECD, 2007)*. The unemployment rate of the elderly is smaller in Hungary than the EU or OECD average *(Figure 6)*. It would appear that the reason for this phenomenon is that the proportion of pensioners from that group is still very high. Those who lose their jobs or who are earmarked for job loss are still able to quit the labour market

* Based on calculations of Mónika Bálint from the CSO Labour Force Surveys.

with the help of early retirement schemes or disability schemes and very few of them are seeking fresh employment.

Figure 6: Unemployment rate by age-groups in Hungary and the EU15, EU19 and OECD averages, 2006 (%)



Source: OECD Employment Outlook, 2007.

Among the youngest group (aged 15–24) the share of employed persons decreased by more than 10 percentage points – from 33.5 to 21.3 per cent in the six year period between 2000 and 2006. During the same period the share of the unemployed decreased from 4.8 to 2.7 per cent among 15–24 year olds, and the proportion of those who are inactive because of child-care decreased from 4.7 to 2.7 per cent. The share of those who are inactive because they are in full time study increased from 46.6 to 63.3 per cent *(Figure 4*). Post 2000 the increase in the share of full time students among the youngest age group was the consequence of the lengthening of the duration of studies and not the further increase in the participation rates in upper secondary and tertiary education. Some changes in upper secondary education after 2000 led to this consequence. In vocational training schools (szakiskola) the duration of studies was extended from 3 to 4 years. The extended programmes started in 1998, so the first cohorts who were studying for 4 years finished their studies in 2002. In vocational secondary schools (szakközépiskola) and general secondary schools (gimnázium) some schools also extended their programmes from four to five years. *Table 2* shows the age distribution of students at the time of obtaining a vocational qualification in vocational schools (szakiskola) and in vocational secondary schools (szakközépiskola) in 2001 and 2006. In 2001 39 per cent of students in vocational schools acquired a qualification before the age of 19, in 2006 only 14.1 per cent of them did. In vocational secondary schools changes were not as pronounced. The share of those students obtaining a qualification before the age of 19 decreased from 72 to 59 per cent.

Between 2000 and 2007 in the youngest age group (15–24 years old) the most important reason for the decline in the activity rate was that because of the extension of upper secondary programmes students spend more years in

school and in part this is the reason for the increasing unemployment rate of this age group. As the number of the active population is sharply declining among 15–24 years old because most of those aged 15–24 are still studying so increasingly only the less able enter the labour market in this age group – those who drop out of education. Thus the rise in the unemployment rate and the decline in the employment rate are partly caused by the growing selection.

Table 2: Age distribution of students at time of obtaining vocational qualification 2001 and 2006 (%)

	Vocational qualification			
	With secondary school leaving examination		Without secondary school leaving examination	
Age	2001	2006	2001	2006
17–19	71.8	59.4	38.8	14.0
20–22	23.3	34.3	47.2	61.9
23–	4.9	6.0	14.0	24.1
Total	100.0	100.0	100.0	100.0

Source: KIR-STAT school data-base.

By international comparison the participation and employment rate of the 15–24 year old population is very low *(Figure 5),* and from 2004 the unemployment rate of those seeking their first job is higher than the EU and OECD average. The activity rate of the Hungarian 15–24 year old age cohort lags behind the EU15 and the OECD average by 20 percentage points. from the EU19 average by almost 20 percentage points. There is a very similar lag behind the EU and OECD averages in employment rates. In 2006 the unemployment rate of the 15–24 year old age cohort was 3 percentage points higher than the EU15, 2 percentage points higher than the EU19 average and almost 7 percentage points higher than the OECD average *(OECD, 2007)*.

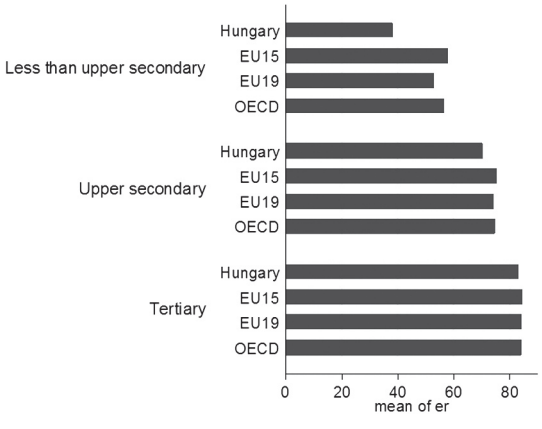
The reason for the low activity rate is that very few students find a job – at least for statistical observation – during their studies and very few of them come onto the labour market. Among the 15–24 years old group those active on the labour market are mainly the ones who haven't succeeded in attaining an upper secondary qualification – the ones who have dropped out of secondary education. Their labour market prospects are very poor because they are lacking experience and qualification. These young people will be present on the labour market for a very long time so improving the possibility of employment for them can be regarded as important for improving overall activity and the employment rate in Hungary

2.2. Differences by educational attainment

The labour market prospects of persons who have attained less than upper secondary education is still very unfavourable in Hungary and one of the most

important reasons for the overall lag in employment is the poor employment possibilities of the undereducated. In 2005 the employment rate of those whose educational attainment is less than upper secondary education was 38.1 per cent which lags behind the EU15 average by almost 20 percentage points, the EU19 average by 14 percentage points and the OECD average by 18 percentage points. The employment rate of those who have attained an upper secondary qualification was 70.4 per cent which was smaller by about 4–5 percentage points than the EU and OECD averages. The employment rate of those whose highest educational attainment is tertiary education was 83 per cent which lags behind the EU and OECD averages by only 1–2 percentage points *(Figure 7)*.

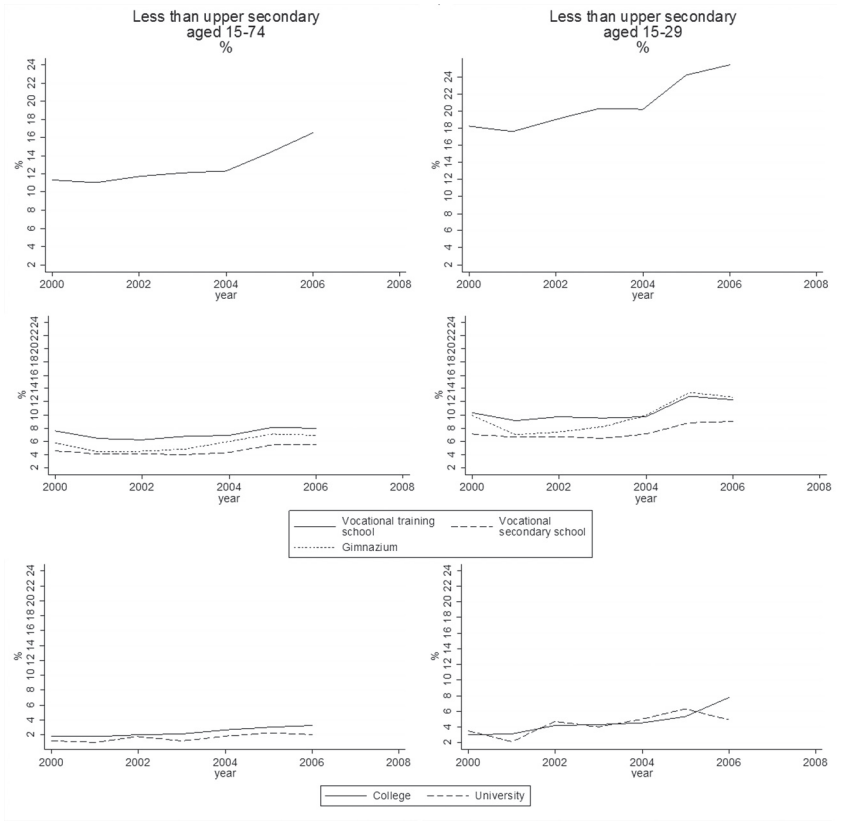
Figure 7: Employment rates by educational attainment in Hungary and the EU15, EU19 and OECD averages, persons aged 25–64, 2006 (%)



Source: OECD Employment Outlook, 2007.

In 2006 and 2007 there was a further decrease in the employment rate of persons who have less than upper secondary education. In 2006, 29.1 per cent of those aged 15–64 with lower secondary education (általános iskola) and only 9.3 per cent of persons whose educational attainment was less than lower secondary education were employed *(KSH, 2007a)*. *Figure 8* shows changes of unemployment by educational attainment for persons aged 15–74 and also for those aged 15–29 at the beginning of their working life. For the 15–74 years old population the unemployment rates decreased slightly for all educational groups (by 0.2–0.3 percentage points) but for those who had not attained upper secondary education. Between 2005 and 2006 the unemployment rate of those whose highest educational qualification is less then upper secondary increased by more then 2 percentage points from 14.3 to 16.5 per cent.

Figure 8: Unemployment rate by educational attainment, persons aged 15–74 and aged 15–29, 2000–2006 (%)



Source: CSO LFS.

Youth unemployment rates are higher for all educational groups than the unemployment rates of the population as a whole. This is a general phenomenon in all countries as the transition from school to work necessitates a longer period for job-searching, also job loss occurs more frequently than in older ages. Nevertheless the differences in the changes of unemployment rates between the younger and older age cohorts in the same educational group may reflect changes in the labour market value of a given education.

The largest difference between the youth unemployment rate and the unemployment rate of the population as a whole can be observed for those whose educational attainment is less than upper secondary level. After 2004 there was a further sharp increase in the unemployment rate of the undereducated and for those aged 15–29 with less than a upper secondary education the unemployment rate exceeded 25 per cent. The extremely bad labour market opportunities for low skilled workers in Hungary have reasons that are complex. High minimum wages reduces the employment opportunities for them. In

Hungary unskilled labour can easily be substituted by capital in the situation where its relative price increases, as empirical results show *(Kertesi–Köllö, 2002)*. Another important factor is the chronic unsolved problem of transportation in a great number of Hungarian villages. These villages are home to many of those with only a low level of education. A considerable proportion of unemployment in Hungary derives from the fact that the wage offered for poorly educated people living in areas with inadequate transport facilities does not cover the costs of the daily commute – not even from a distance of 20–25 kilometres *(Köllő, 1997; Kertesi, 2000)*. Last but not least an important reason for the unfavourable labour market prospects of the young undereducated is that the Hungarian educational system at lower secondary level does not provide even the minimum skills required by the economy.

The unemployment rate of young vocational training school (szakiskola) and general secondary school (gimnázium) graduates has declined to a small extent (by 0.5 and 0.7 percentage points correspondingly), while the unemployment rate of vocational secondary graduates increased by 0.2 percentage points *(KSH, 2007b)*. As for those with a tertiary education embarking on a career the trends from 2004 are diverse for both college and university graduates. Until 2004 there was a small increase in unemployment rates for university and college graduates, but in 2006 the unemployment rate of university graduates decreased from 6.3 to 4.9 per cent while the unemployment rate of those with a college education first starting on a career increased further – to around 8 per cent. These changes suggest that from the growing supply of higher education graduates employers prefer the more educated university graduates and do not support the opinion common in Hungary that higher education expansion has led to the over-education of university graduates. (It is worth mentioning, that with only 20 per cent of the population having received a tertiary qualification Hungary has one of the lowest proportions of highly educated people in this age-group among the OECD countries. The OECD average was 32 per cent in 2006.) *(OECD, 2007.)*

2.3. Differences by gender

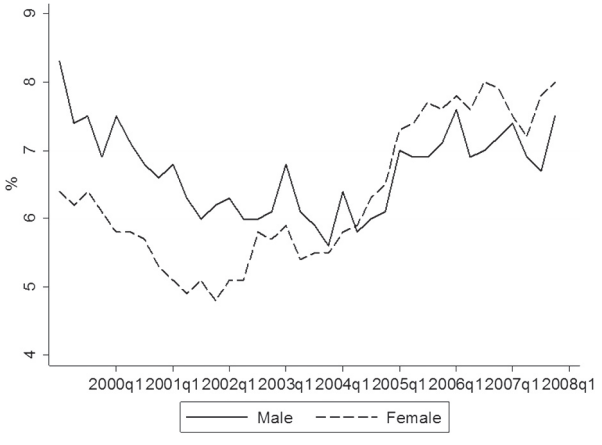
Differences in activity and employment rate by gender have been rising slightly. The activity rate of men aged 15–74 increased from 61.7 to 62.5 per cent between 2005 and 2007 and the activity rate of women increased from 47.8 to 48 per cent during the same period. The employment rate of men increased from 57.4 per cent to 58 per cent in 2006 and did not change in 2007, while the employment rate of women increased from 44.2 to 44.3 per cent between 2005 and 2007

As the activity and employment rate of women is much lower in EU and OECD countries than that of men the lag behind EU and OECD averages is higher for Hungarian men than women. The activity rate of Hungarian men

lags behind the EU15 average by 11 percentage points and that of Hungarian women by 9 percentage points. The fallback in the employment rate is 10 and 7 percentage points correspondingly *(OECD, 2007)*.

Until 2004 the unemployment rate of women was smaller than that of men. Since the second quarter of 2003 the unemployment rate of women was constantly rising. In 2004 it reached that of men and from 2005 the unemployment rate of women exceeds the rate of men *(Figure 9)*. The worsening of women's employment possibilities is connected with employment cuts in the public sector. The number of employed declined year on year from 2004 and as women are represented to a larger extent in the public sector than men, women were more affected by lay offs in the public sector.

Figure 9: Unemployment rates by gender, 2000–2007



Source: CSO LFS.

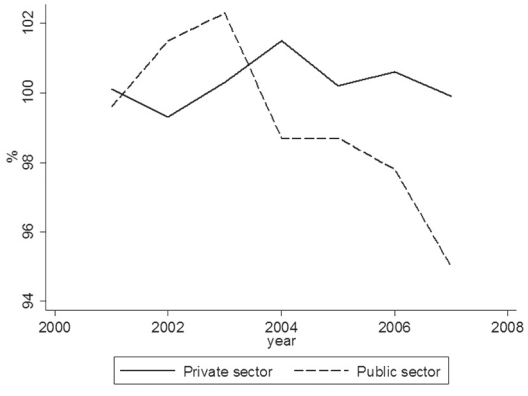
2.4. Sectoral breakdown

From 2004 the share of public employment among all the employed decreased year on year. In 2006 the number of employed in the public sector decreased by 17 thousand and in 2007 by 40 thousand which corresponds to a 2.2 and 5 percentage points decrease. In the private sector the number of employed increased by 11 thousand in 2006 and decreased by 1.6 thousand in 2007 which corresponds to a 1.6 percentage points increase and 0.1 percentage points decrease.

In 2006 in all branches of the public sector (public administration, education, health care) the numbers of employed decreased. In 2007 a very similar tendency could be observed the number of employed in all branches of the public sector decreased, but in education increased. This can largely be explained by the fiscal consolidation program, which includes an employment cut and a wage freeze in the public sector, The decrease in 2007 was 13 per-

centage points in public administration, while the number of employed in education increased by 6.5 percentage points in the same year. There is some anecdotal evidence that the latter phenomenon can partly be explained by local governments' proceedings in the course of which they simply reclassified an element of local administration jobs as education jobs thus reducing the apparent number of those employed in administration and increasing the number employed in education.

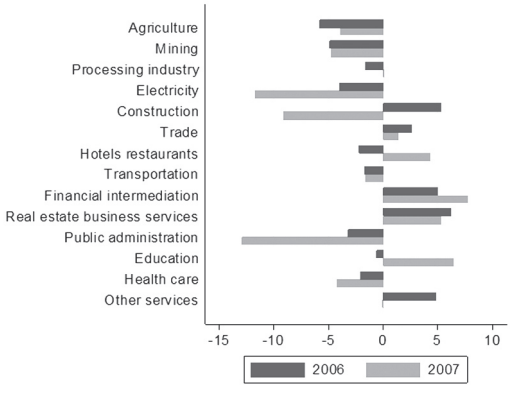
Figure 10: Growth rate of employment in the public and private sector, 2001–2007



Source: CSO LFS.

The greatest increase in employment occurred in financial intermediation – by 0.7 percentage points while in the real estate business service the increase was by more than 5 percentage points. In hotels and restaurants the increase was 4.3 percentage points *(Figure 11)*. The largest decrease in employment could be observed in construction (9 percentage points).

Figure 11: Changes in the number of employed by industry, 2006, 2007 (%)

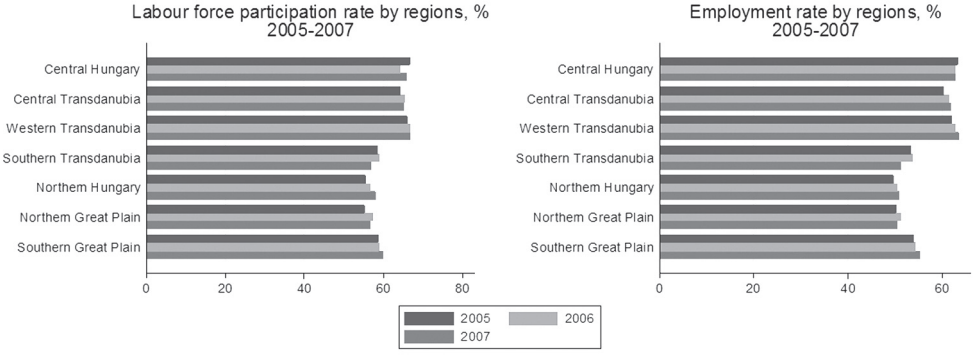


Source: CSO Stadat data.

2.5. Regional differences

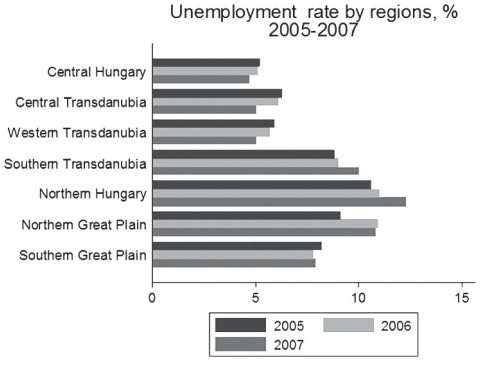
Regional differences in activity, employment and unemployment rates are high in Hungary. The participation and employment rate is relatively high in Central Hungary, Central Transdanubia and Western Transdanubia and low in Northern Hungary, the Northern Great Plain, Southern Transdanubia and the Southern Great Plain. In 2007 after some years of decreasing the differences once again increased. The activity rate increased in the relatively high performing regions and decreased in the low performing ones. The same was true for changes in employment rates. The exceptions were the Southern Great Plain and Northern Hungary which are low employment regions but where both the activity and the employment rate increased in 2007 but only by only by, at most, one percentage point.

Figure 12: Labour force participation rate and employment rate by regions, 2005–2007 (%)



Source: CSO 2005; 2006b, 2007.

Figure 13: Unemployment rate by regions, 2005–2007 (%)



Source: CSO Stadat data.

The increase in the differences in the unemployment rates by regions was much higher both in 2006 and in 2007. The unemployment rates in all high

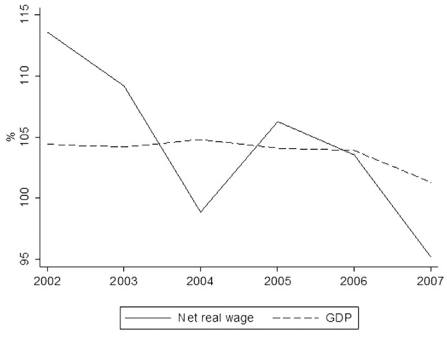
employment regions decreased in both years and increased in all low employment regions. By 2007 in Central Hungary – the best performing – the unemployment rate has decreased to 4.7 per cent while in the worst performing region, Northern Hungary, it has reached 12.3 per cent.

Changes in regional differences show that the strong polarization of the country continued in 2007 and that the government's efforts to level out the differences have not yet succeeded.

3. WAGES

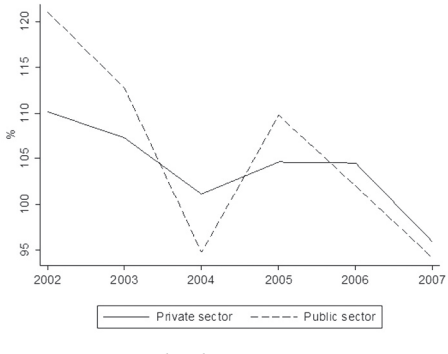
The average gross wage of full time employees was 185 thousand HUF in 2007; the average net wage was 114 thousand HUF. The average gross wage of full-time employees in the private sector was 162 thousand HUF and 174 HUF in the public sector and the average net wage 111 thousand HUF and 124 thousand HUF correspondingly. *Figure 14* shows the growth rate of net real wages nationwide and the growth rate of the GDP between 2002 and 2007. *Figure 15* displays the growth rate of net real wages separately for the private and the public sector.

Figure 14: Change of net real wage and GDP, 2002–2007 (%)



Source: CSO Stadat data.

Figure 15: Change in the net real wage in the public and private sector, 2002–2007 (%)

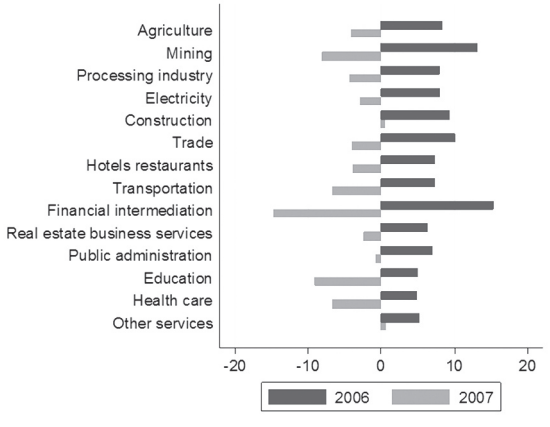


Source: CSO Stadat data.

The growth rate of net real wages was much higher in 2002 and 2003 than the growth rate of the GDP which was due mainly to wage rises in the public sector. In 2004 net real wages decreased as a consequence of a wage freeze in the public sector. But in the following year wages rose again because net real wages in the public sector increased – by about 10 per cent. This was the consequence of a political decision as the government could not risk maintaining a wage freeze in the public sector while parliamentary elections were approaching. In 2006 the growth rate of net real wages was smaller than the growth rate of the GDP. The former was 3.5 the latter 3.9 per cent and in 2007 net real wages decreased both in the public and in the private sector.

In 2006 net real wages increased in all industries. In the public sector the increase was small. In health care less than 1 per cent, in education 1 and in public administration 3 per cent. Net real wages showed the largest increase in financial intermediation. In 2007 net real wages decreased in almost all industries. The greatest increase was in net real wages in 2006 the greatest decrease could be observed in 2007.

Figure 16: Changes in net real wages by industry, 2006, 2007 (%)



Source: CSO Stadat data.

Table 3 displays monthly net wages by region between 2005 and 2007. Raw wage differences are high in Hungary and the gap between regions hasn't narrowed significantly over recent years. Net wages are the highest in Central Hungary and the lowest in the Southern Great Plain. In 2007 monthly net wages increased the most in Southern Transdanubia, but the increase was much similar across regions.

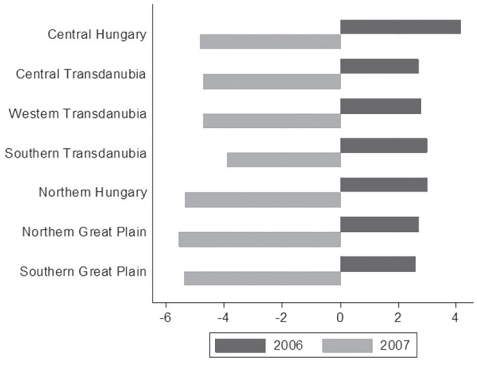
In real terms wages decreased in all regions, the smallest decrease being observed in Southern Transdanubia. The decrease of net real wages for high performing regions (Central Hungary, Central and Western Transdanubia) was smaller.

Table 3: Monthly net wages by region, 2005–2007

	2005		2006		2007	
	HUF	previous year = 100	HUF	previous year = 100	HUF	previous year = 100
Central Hungary	118,430	109.7	128,189	108.2	131,847	102.8
Central Transdanubia	95,961	109.5	102,379	106.7	105,445	102.9
Western Tansdanubia	93,860	109.7	100,282	106.8	103,240	102.9
Southern Transdanubia	91,121	110.2	97,494	107.0	101,201	103.8
Northern Hungary	91,908	110.6	98,380	107.0	100,590	102.2
Northern Great Plain	88,827	110.9	94,800	106.7	96,726	102.0
Southern Great Plain	88,686	109.8	94,534	106.6	96,683	102.2

Source: CSO.

Figure 17: Growth of real net wage by regions, 2006, 2007 (%)



Source: CSO Stadat data.

REFERENCES

BÁLINT MÓNIKA – KÖLLŐ JÁNOS (2007) *Munkaerőpiaci Tükör 2007*. MTA KTI-OFA.

KERTESI G. (2000) Ingázás a falusi Magyarországon (egy megoldatlan probléma). *Közgazdasági Szemle*, No. 10.

KERTESI G. – KÖLLŐ J. (2002) Labour demand with heterogenous labour imputs after the transition in Hungary, 1992–1999. *Budapest Working Papers on the Labour Market*, No. 5.

KÖLLŐ, J. (1997) A napi ingázás feltételei és a helyi munkanélküliség Magyarországon. *Esély,* No. 2.

KSH (2006b) A KSH jelenti. *Gazdaság és társadalom*, No. 12.

KSH (2006) *Főbb munkaügyi folyamatok. 2005. január – 2006. december*. KSH, 2006. március.

KSH (2007) *Munkaerőpiaci helyzetkép 2006*. Budapest, KSH.

KSH (2007b) *Főbb munkaügyi folyamatok. 2006. január – 2006. december*. KSH, 2007. április.

KSH (2007c) *A fiatalok munkaerőpiaci helyzete. Munkaerőfelmérés 2006. IV. negyedévi kiegészítő felvétele alapján*. Budapest, KSH.

KSH (2007d) *Magyarország 2006*. Budapest, KSH.

OECD (2007) *Employment Outlook, 2007*. OECD.

IN FOCUS

SOCIAL WELFARE AND LABOUR SUPPLY

Edited by
ÁGOTA SCHARLE
ZSOMBOR CSERES-GERGELY

1. SOCIAL WELFARE PROVISION, LABOUR SUPPLY EFFECTS AND POLICY MAKING

ZSOMBOR CSERES-GERGELY & ÁGOTA SCHARLE

The primary function of social welfare programmes is to redistribute incomes in the service of some social objective – such as the protection of certain basic human rights –, or to correct market failures. Pension or unemployment insurance, for instance, could not function, or would not function well under pure market conditions, which justifies state intervention.

The effectiveness of welfare provisions in reducing income inequalities has been investigated by several studies in Hungary, using a wide array of data sources and research methodology. Their conclusions are not equivocal but all of these studies reveal some inefficiencies in the system (see for instance *Darvas & Tausz, 2002; Ferge & Tausz, 2002; Havasi, 2005; Lelkes, 2006b; Szalai, 2007; Tóth, 1997, 2005)*, which suggests that the welfare system in general – and some elements in particular – does not fulfil its primary function adequately.

Welfare programmes function well provided that they reach the groups they are intended to support, increase their welfare and do this in an efficient manner, i.e., if they do not reduce total welfare more than absolutely necessary. Thus a social transfer, for instance, functions well if those in need have access to it, and only those have access to it; they are given as much as they really need; the costs of identifying those in need are kept at a minimum; and the labour supply of recipients does not decrease to any great extent. That is, if the social transfer accomplishes its primary goal while keeping its direct costs as well as its indirect costs at a minimum.

Let us call attention at this point to the difference between *efficiency* and classic *utilitarianism,* the latter of which implies no redistribution. The reason why one should be concerned with efficiency is that it can increase the resources to be redistributed. This does not imply that one should take a utilitarian approach to the *distribution* of resources and consequently object to providing support to the poor on grounds of solidarity. On the contrary: the efficient allocation of public money makes it possible to give more to those in need.

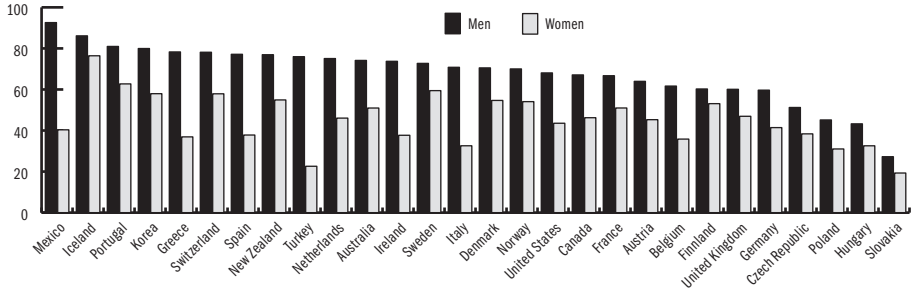
Unintended side effects of social assistance reduce overall welfare and may in the long run constitute a burden which endangers the sustainability of the system and may also reduce the subjective (non-material) well-being of welfare recipients. The indirect costs of social transfers include consequences such as the recipient of the transfer feeling humiliated or deciding to delay

job search or not seeking to enter employment at all so as not to lose eligibility. It also constitutes a cost if a prolonged period of staying at home results in a heavier reduction in work capacity than would otherwise be expected or if the children in the household never see their parents go to work with the problem consequently being passed on to the next generation.

This volume looks into the indirect costs of major types of social support. Specifically, the focus is on the indirect costs arising from the labour supply effects of transfers: their magnitude and possible ways of mitigating them.

There are compelling reasons for paying distinguished attention to labour supply effects. In Hungary, 57 per cent of the population aged 15 to 64 years are in employment, while the average employment rate is 64 per cent in the EU 27 member states and over 70 per cent in Scandinavian countries. Only Poland fares worse than Hungary among the former socialist EU members (with 54.5 per cent of 15 to 64 year-olds at work). Employment in Hungary started decreasing slowly in 1980 and plummeted between 1990 and 1993, reaching its lowest level at 52.4 per cent in 1996. The situation subsequently started improving but the 58 per cent employment rate measured in 1992 has still not been achieved 15 years on. *Figure 1.1* also shows that the employment gap is especially large for the low educated.

Figure 1.1: Employment rate for those with less than upper secondary education, 2004



Source: OECD Education at a Glance, 2004.

GDP has increased by 1 to 5 per cent a year since 1994 but the employment rate did not start rising until after 1996, and its subsequent average annual growth has remained below 1 per cent. Close to a quarter of the working-age population live on some kind of social benefit; the majority of recipients are inactive and most of them remain absent from the labour market for extended periods or permanently. These simple facts indicate that the welfare system has offered a superficial solution to the labour market shock of the regime change and has only alleviated social tensions.

The consequences are grave and far-reaching. Welfare payments, in combination with the wider system of redistribution, contribute greatly to the persistence of a low equilibrium characterized by a low employment rate and high

burden of taxes and contributions. High tax rates curb economic performance and thus impede economic growth. Long-term unemployment or inactivity among the working-age population in turn leads to long-term poverty, the propagation of poverty from generation to generation, social exclusion and a high risk of old-age poverty. And thus the vicious circle closes, in as much as these social disadvantages generate the need for further welfare spending.

Chapters 2 to 5 of this volume investigate the labour supply effects of four types of benefit: parental leave benefits, means tested unemployment assistance, disability pension and old-age pension. The labour market tensions accompanying the regime change did not only create new forms of support – which is natural to some extent, since unemployment benefit, for instance, is specifically targeted at relieving them – but also altered existing welfare programmes to assume similar functions. When a welfare programme does not, or does not exclusively fulfill the role it was originally created for, costly side-effects can be expected: this issue is discussed in the chapters on disability pension and parental leave benefits. Unemployment benefit also constitutes a major form of support but will not be discussed here for the simple reason that a number of very thorough studies have recently been published on the subject (see, for instance, the "In Focus" section of 2001 volume of The Hungarian Labour Market or *Bódis et al* [2005]). The chapters of this volume are supplemented by short sections: these scrutinize social effects other than those associated with labour supply and questions regarding the success of welfare programmes in fulfilling their primary functions.

The rest of this chapter gives an overview of the relationship between the labour market and welfare programmes and discusses issues concerning the welfare system as a whole. We shall review the consequences that the various welfare programmes are in theory expected to have for labour supply and outline the causes which may interfere with efforts to eliminate the disincentives buried in the current system. Finally, we shall summarise the results of the remaining chapters and the conclusions derived from them.

1.1. Who is inactive and who receives welfare payments?

Although welfare payments tend to reduce labour supply, employment probabilities are jointly determined by supply and demand. Aggregate figures cannot reveal causal relationships as they reflect not only the impact of provisions but also the composition of welfare recipients. The overview that follows, therefore, has the simple goal of describing the groups of workers which may in principle be the target of policies to boost employment.

Table 1.1 shows the distribution of the population aged 25 to 64 years – around five and a half million people – according to labour market status and welfare transfer based on the 2006 labour force survey of the Hungarian Statistical Office (CSO). The two largest groups are that of people in employ-

ment not receiving transfers and that of inactive pensioners. The third largest group, far below the previous groups in size, is that of inactive people not receiving transfers, who are immediately followed by the group of inactive people receiving some kind of parental leave benefit. The table also reveals that the transfers investigated in this volume are the most significant ones and that inactivity is higher among transfer recipients, except among those receiving unemployment benefit.

Table 1.1: The distribution of the population aged 25 to 64 years according to transfer and labour market status, 2006 (%)

	Employed	Unemployed	Inactive	Total
No transfer	62.4	2.5	5.2	70.1
Unemployment benefit	0.0	1.0	0.5	1.6
Social assistance	0.0	0.7	0.6	1.3
Parental leave benefits (gyed, gyes, gyet)	0.3	0.1	4.0	4.5
Pension	2.5	0.2	19.3	22.0
Other transfer	0.1	0.0	0.4	0.5
Total	65.3	4.5	30.1	100.0

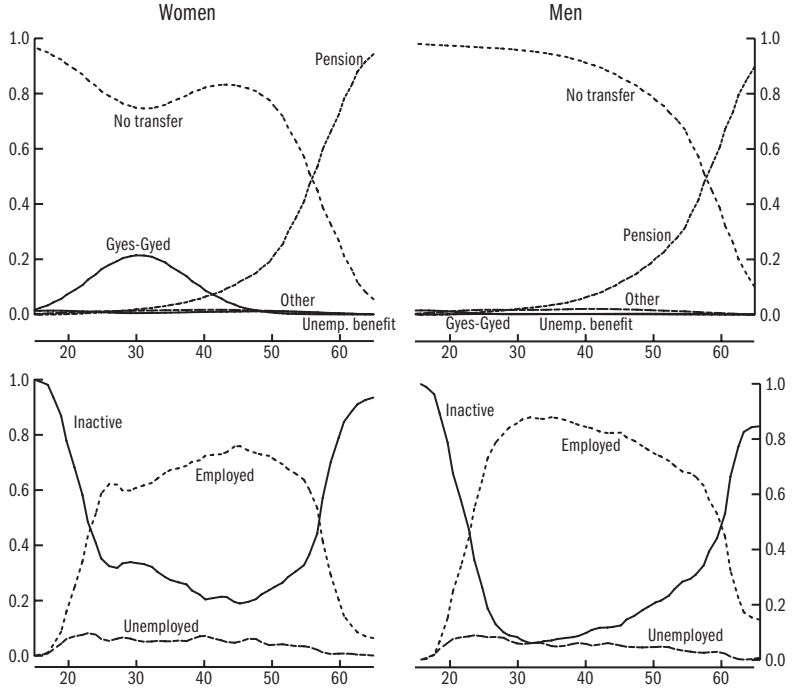
Notes: A worker is classified here, and in what follows, as unemployed with reference to the ILO definition: if he or she actively seeks employment and is available to start work within the next two weeks. The three main parental leave benefits include an insurance based benefit (gyed), a flat rate benefit (gyes) and an extended paid leave (gyet). See *Table 1.5* for more detail.

Source: Authors' calculations based on data provided by the CSO labour force survey, weighted by the CSO weights.

Participation in individual welfare programmes is of course related to stages in the life cycle: the years of education, followed by the period of activity (work and child raising), and finally the period of retirement. Economic activity status and transfer status therefore differ according to age and sex: these relationships are clearly displayed in *Figure 1.2*.

The relationship of activity, transfer status and age cannot all be shown in a two-dimensional figure; the strong effects of age can be clearly seen, however, by comparing the four parts of the figure. The first notable feature is the development of men's and women's employment rates. Both curves peak at around the age of forty, with a higher top value for men than for women. This is despite the fact that the great majority of women have at least one child at an earlier stage in their lives, which delays their careers – and thus the peak of their careers – in time and that the retirement age is still three years higher for men compared to women in 2006. What this suggests is that men are less active than women – not in absolute terms but relative to their circumstances. The data on women clearly show that their relatively lower level of economic activity at earlier stages of their lives coincides with the period of parental leave. We can also see that the increasing incidence of inactivity from about the age of 45 is accompanied by a sharp fall in unemployment for both sexes.

Figure 1.2: Economic activity by sex, transfer status and age



Note: Age in the week of observation, measured in years.
Source: Authors' calculations based on individual level data provided by the CSO labour force survey, weighted by the CSO weights.

We have seen in *Table 1.1* that over half of the unemployed population does not receive unemployment benefit. The figures further reveal that primarily younger age groups are affected: the likelihood of unemployment is highest among 30 to 40 year olds, while benefits (most people in the "other" transfer category are on unemployment benefit) have a high incidence among people over 40. The proportion of job seekers quickly decreases with age over the age of 40 – the majority of those who receive unemployment benefit but are in fact inactive are found in this group.

Looking at economic activity and transfer status as a function of educational attainment, we find that those with less than upper secondary education are especially disadvantaged with respect to labour market prospects *(Table 1.2)*. Barely half of the people in this group are in employment, a fifth of them receive some form of pension-like support and a tenth of them are unemployed.

Finally, let us examine mobility between labour market states. Are the same people stuck in each status over time or is it that different people are entering unemployment or inactivity at different time periods? The data in *Table 1.3* indicate a low likelihood of exit from employment or from inactivity with pension-type support not subject to strict re-assessment procedures. We find significant and approximately equal degrees of mobility among the unemployed

and among people claiming means tested social assistance but their destinations differ greatly. While the clear majority of those leaving unemployed status enter employment, almost half of those leaving the social assistance programme become inactive with no social transfers (none recorded by the LFS).

Table 1.2: Activity and transfer status by level of education for people aged 25 to 64 in Hungary, 2006 (%)

	Activity and transfer status							
Education	Working	Unemployed	Inactive + SA	Inactive + PLB	Inactive + Pension	Inactive, other transfer	Inactive, no transfer	Total
Primary or less	47.7	8.9	2.3	6.5	21.0	1.0	12.5	100.0
Lower secondary	73.9	5.9	0.5	4.0	10.0	0.5	5.2	100.0
Upper secondary	77.9	4.0	0.2	5.1	6.4	0.3	6.1	100.0
Higher education	87.5	2.0	0.0	5.0	2.4	0.0	3.0	100.0
Total	72.7	5.2	0.7	5.0	9.6	0.4	6.4	100.0

SA = Social assistance, PLB = Parental leave benefits (gyes, gyed, gyet).
Source: Authors' calculations based on data provided by the CSO labour force survey, weighted by the original CSO weights.

Table 1.3: Distribution of status changes according to combined activity and transfer status over two consecutive quarters of 2006 (%, relative to a given initial status)

	Activity in second period							
Activity in first period	Working	Unemployed	Inactive + SA	Inactive + PLB	Inactive + Pension	Inactive, other transfer	Inactive, no transfer	Total
Working	98.4	0.8	0.1	0.3	0.1	0.0	0.4	100.0
Unemployed	14.1	79.8	0.7	0.4	0.3	0.2	4.5	100.0
Inactive + SA	10.1	8.2	64.3	0.0	0.1	0.9	16.3	100.0
Inactive + Family	3.6	0.8	0.0	94.0	0.0	0.2	1.5	100.0
Inactive + Pension	1.7	0.6	0.0	0.0	97.3	0.1	0.2	100.0
Inactive + other transfer	0.8	0.1	0.0	0.4	0.1	97.8	0.8	100.0
Inactive + no transfer	6.8	4.8	2.1	1.5	0.3	0.5	84.0	100.0

SA = Social assistance, Family = Parental leave benefits (gyes, gyed, gyet).
Source: Authors' calculations based on data provided by the CSO labour force survey. Stock-flow consistent weights as in *Cseres-Gergely* (2007) and *Frazis et al* (2005). Respondents entering or leaving the sample were disregarded. Total percentages may differ from 100 for this reason.

1.2. Main welfare programmes

The welfare system of Hungary affects a substantial proportion of the working-age population and distributes a significant proportion of the GDP. As shown in *Table 1.4*, the coverage of main welfare programmes (including pension but excluding health care, education and benefits in kind) is extensive both in terms of GDP and the share of the population affected, with pension transfers being the largest category over the whole period. This in part simply reflects the chosen age frame, i.e., population aged up to 64 years, which is five or three years over the statutory retirement age, but the ranking of the transfers would remain the same were the upper age limit a few years lower.

Table 1.4: Major welfare programmes in Hungary in proportion to population size and expenditure, 1990–2005

	Percentage of population over 15			Total expenditure relative to GDP		
Year	Unemployment benefit and social assistance	Pension and pension-type transfers	Parental leave benefits	Unemployment benefit and social assistance	Pension and pension-type transfers	Parental leave benefits
1990	1.08	30.57	3.03	0.02	9.67	0.64
1995	4.77	36.14	3.63	0.78	10.37	0.66
2000	3.83	37.27	3.60	0.48	9.08	0.51
2005	2.97	35.64	3.47	0.50	10.40	0.57

Note: Social assistance does not include regular child protection benefit (rgyt).
Source: CSO Yearbook of Welfare Statistics 2005; The Hungarian Labour Market 2006, Institute of Economics, Hungarian Academy of Sciences.

These main welfare programmes – with the exception of the means tested social assistance (replacing the previous unemployment assistance scheme in 2000) – are universal or insurance-based – as in the case of unemployment benefit, maternity benefit (Gyed) and pension. The current regulations relevant to labour supply are summarised in *Table 1.5*.[1] All major benefits are cash benefits and, with the exception of the social assistance, grant a monthly income that is stable in time. The value of social assistance depends on household income and may change depending on other incomes (e.g., labour incomes) of household members.

1 The table includes secondary effects as well. The health contribution allowance for pensioners, for instance, belongs to this category, as it does not follow directly from pensioner status (i.e., from the regulations on pensions) but it follows from the tax treatment of pensioners' incomes. The Regular Child Protection Benefit (which was abolished in 2005) and the lump sum Child Benefits are not shown in the table. The former had an effect similar to that of unemployment assistance, while the latter is similar to Gyes in its effect except that more families are involved, as Child Benefit is paid until the child reaches the age of 20.

Table 1.5: Regulations on major social welfare programmes

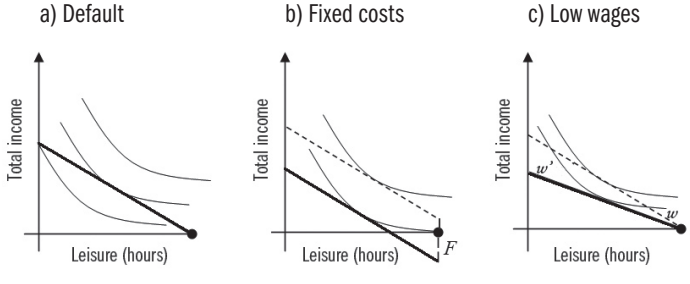
Programme	Can be claimed while in employment?	Tax allowances
Gyed: paid to families with children up to the age of two, in proportion with previous wages.	no	
Gyes: flat rate, may be claimed by families with children up to the age of three.	yes (after child reaches the age of 1)	yes (lower health insurance contribution)
Gyet: support for parents raising three or more children, where the youngest child is eight or younger.	yes (4 hours a day)	
Unemployment/job seekers' allowance: Entitlement is tied to registration and regular contact with the job centre. Maximum period of claim is 91 + 179 days.	no (availability for work must be proved)*	
Social assistance: means tested income support for the long-term unemployed.	no (availability for work must be proved)*	
Disability pension	yes	
Old-age pension	yes	yes (lower health contribution and personal income tax)

* Claimants are required to accept suitable job offers or community work as proof of availability for work. Support may be denied if the claimant does not co-operate.

1.3. The effects of welfare programmes on labour supply

According to the standard model of economics, a worker will consider two questions in deciding whether, and how much, he or she should work: one is the income to be expected as the return for a given number of hours of work and the other is the subjective value of leisure as compared to the value of consumption.[2] If the worker takes on employment, the income thus earned can be used for consumption but the worker will have less free time. The limits of consumption are determined by the amount of wages earned and the amount of income from other sources. In most cases the resulting constraints leave several viable options, so that a person can choose the one best suited to their individual preferences, i.e., their personal assessment of the relative utility of free time and consumption. The individual in the model strives to maximize utility, i.e., to find the point on the margin of his or her possibilities where utility cannot be further increased by increasing either consumption or leisure time. *Figure 1.3a* displays the default situation: the curves show individual preferences, while the straight line represents the budget constraint determined by the given market wage.

Figure 1.3: Consumption and labour supply trade-off
a) in the default case, b) with fixed costs and c) with a wage disadvantage



Labour supply decisions and the negative effects of welfare programmes on labour supply are plotted in *Figure 1.3*. A precise formal mathematical description is also given below but we shall attempt to discuss each figure in simple language accessible to readers unfamiliar with economic theory. The worker is characterised in the formal model as an individual seeking the optimal combination of labour and consumption. Let us define this preference as a well-behaved utility function $U(C, l)$ which is to be maximised by the individual given a budget constraint $N + w(T - l) = C$, where N is non-labour income, w is the wage, T is the total available time, l is leisure time and C is consumption. A basic welfare programme provides income $B = G - t(wH + N)$, where B is the net benefit, G is the minimum income guarantee, t is the tax rate and H is the number of hours spent working. If we add G to the left side of the budget constraint and simplify the equation we get disposable income

2 The description of the labour supply decision is based on *Moffitt's* (2002) chapter in the Handbook of Public Economics, a classic piece of the vast literature on the subject. Empirical estimates on labour supply in Hungary are summarised in *Galasi* (2003).

$w(1 - t)H + G - tN = Y$. The tax rate reduces both labour income and non-labour income. The tax rate on labour income also modifies the relative values of consumption and leisure time: since the net wages gained from the same amount of work are reduced, the income lost by spending time not working (i.e., the value of leisure time) will also be lower.

Figures 1.3 to 1.5 display labour supply choices in three scenarios where no welfare benefit is received and under six scenarios of different welfare programmes. It is useful to consider these simplified situations and the labour supply effects they are expected to induce because each of the welfare programmes under scrutiny in this volume either directly corresponds to one of these simple cases or can be constructed by combining some of them. *Figure 1.3* shows three variations on labour supply with no welfare support: the default case, the effect of fixed costs discouraging labour supply and the effect of low productivity. Part *a)* displays the budget constraint line and three indifference curves. Unearned income is assumed to be zero here for the sake of simplicity. The budget constraint shows the substitution rate between leisure time and consumption given the wages: the slope of the line is defined as $w(1 - t)$, i.e., higher wages result in a steeper constraint, while lower wages give a flatter line. The indifference curves represent individual preferences, that is, the individual's relative assessment of the utility of leisure time and that of consumption. Curves further away from the origin indicate increasingly higher levels of utility. The point of optimization is where the indifference curve meets the budget constraint: it is this point that provides the greatest level of utility for the individual under the given circumstances.

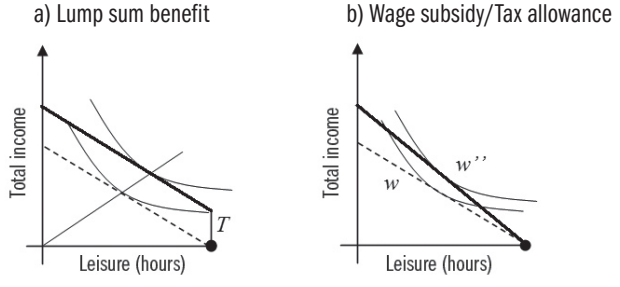
Part *b)* in *Figure 1.3* shows a scenario where the worker earns a wage corresponding to the market value of his/her abilities (training, age, etc.) but has to bear a fixed cost, independent of hours worked. Such fixed costs may include travel expenses, clothing, or child care costs. This cost is represented by F: the budget line shifts downwards by this amount. The cost has the consequence that labour supply will not be worth the worker's while below a certain number of hours of work because his/her income gain might be reduced to a point where it becomes negative, which is clearly worse than zero. Under these circumstances part time employment with average market wages, for instance, will not be profitable. We can see that a significant amount of work is needed simply to cover the fixed expenses and it is not worth working unless these costs can be paid.

The scenario in Part *c)* of *Figure 1.3* assumes no significant costs of labour supply but the individual's wage w' is below the market wage (w). This situation characterises those whose productivity is below average (due to their education, skills or state of health). Labour supply does not necessarily decrease in this case (unless some cost or other income acts as a disincentive) but the level of income gained from work may be very low. A situation where

the above problems add up is not only conceivable but is in fact frequently observed: uneducated people living in isolated rural communities in disadvantaged geographical regions is an example.

Both of the above problems may be counterbalanced by providing welfare support on grounds of solidarity and efficiency. The first solution is to grant a benefit of a fixed amount in the form of, say, a travel allowance. A solution of this kind is shown in Part *a)* in *Figure 1.4*, where *T* stands for a lump sum, unconditional transfer. The transfer shifts the budget constraint upwards, thus the individual in the model will work less (have more leisure time) and spend more.

Figure 1.4: The decision to work with a fixed amount benefit and with wage subsidy



The second way of providing support is wage subsidy or equivalent tax allowance, intended to compensate for low productivity. This is shown as *w''* in Part *b)* of *Figure 1.4*. The labour income of the recipient may increase as a result. A significant difference between the two scenarios is that a wage subsidy decreases labour supply to a lesser extent than an unconditional transfer, if at all.

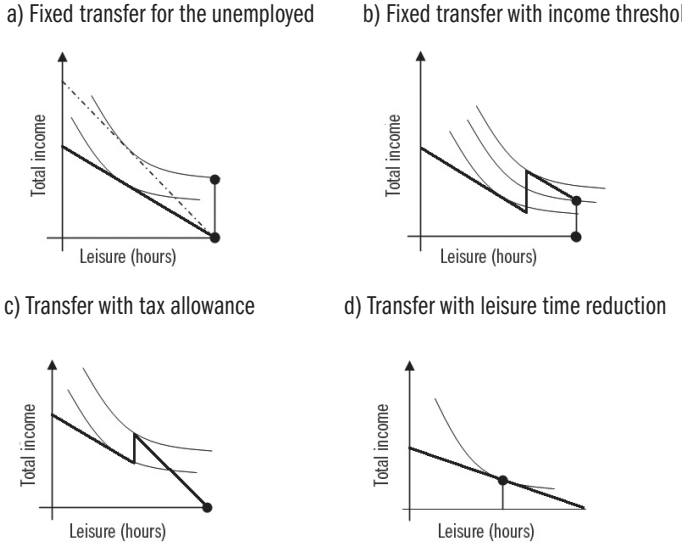
Part *a)* in *Figure 1.5* displays a welfare programme which provides support conditional on unemployment. Even short-term employment results in loss of eligibility and leaves labour wage as the sole income. Holding preferences and wages constant, the individual in our model will choose not to work and will only reconsider his/her decision if wages increase substantially. Should this be the case, labour supply will be nevertheless reduced compared to the default, unsupported situation.

The programme presented in part *b)* of *Figure 1.5* allows employment but eligibility is *dependent on income level*. This results in a high marginal tax rate on the extra income at point l^* – a few hours of increase in labour supply effects an almost fifty per cent reduction in income in our example. Since this threshold typically sets in at a low income level, the individual in the model will fall into a poverty trap. Although in employment, s/he works short hours and therefore earns little.

The third solution is a *tax allowance* with *an upper limit of income* for eligibility (Part *c)* in *Figure 1.4*). This method also generates a trap, which is

different in its details, but essentially the same as before. At the point where the worker ceases to be eligible, his/her disposable income suddenly drops, which has the effect of discouraging small increases in labour supply.

Figure 1.5: Consumption – labour supply trade-off with conditional welfare programmes



A fourth solution consists in tightening the conditions on *eligibility*.[3] These regulations ensure that support is given only to those in genuine need: unemployment benefit, for instance, is granted only to those who are genuinely unemployed (that is, who are seeking employment and are available for work) and are willing to co-operate with the employment services in an effort to find employment. Unemployment benefit may thus be conditional on active job search or regular visits to the job centre, and failure to comply may draw sanctions (such as the suspension of the benefit). This is illustrated in Part *d)* of *Figure 1.5*. The eligibility condition essentially has the effect of increasing the cost of claiming benefit by reducing leisure time: the programme effectively constrains the availability of free time while providing support. Given the recipient's competences and wage structures, the level of time burden can be set such that it reduces utility by exactly the same amount as the cash support increases it. Since the availability of leisure time and income will in this case be similar to a situation where the individual works, there will be no disincentive to labour supply.

The same indifference curve is used throughout our examples; that is, the levels of utility assigned to free time and consumption by the individual are the same in each of the models. In real life, there may be significant variation across individual preferences and thus the effects of the same welfare pro-

3 This is not the same as the *rules of entitlement*, which specify the set of hardships which are intended to be alleviated by a given welfare programme: e.g. that the claimant has exhausted insured unemployment benefit but has not found work.

gramme on individual worker's labour supply may vary greatly. These effects cannot be assessed on the basis of theoretical arguments: empirical research is needed to investigate labour supply effects based on data on workers affected by the programme.

In real life, the labour supply effects of welfare programmes are influenced by several factors which cannot be modelled in our simple theoretical framework. Most of these deviations come from the facts that the effects of this decision extend beyond the current period and that people other than the transfer recipient are also affected.

1. Rather than make separate decisions, couples often plan their labour supply together with consideration, for instance, to their preferences in sharing housework or because they wish to spend their leisure time together.

2. As a general rule, means testing considers per capita income within the household. Unemployment assistance affects the budget constraint of the entire household and it may reduce not only the recipient's but also other household members' labour supply.

3. The basic model cannot account for the long-term security of a given job or the costs of reapplying for the benefit – which is an important issue with regard to unemployment benefit and social assistance.

4. The model also disregards the rehabilitation services accompanying disability pension and unemployment assistance programmes, which are important in that they may increase the level of subsequently expected earnings.

5. With respect to programmes targeting families with children, the model needs to be enhanced by taking an additional preference parameter into consideration: the fact that parents regard the well-being of their children as a priority as well.

6. With regard to old-age pension, the neglected time factor and the irreversibility of welfare participation introduce significant deviation from the basic model. Because of its irreversibility, pension constitutes a welfare programme which covers a significantly longer period and gives more security than other types of support. As long as the long-term income received in retirement is not accompanied by any disadvantages, early exit may be a sensible choice even if the decision seems irrational in view of the immediate costs. The regulations on pensions, however, forbid or sanction labour supply in retirement in several countries, which make it costly to supply labour while receiving a pension *(OECD, 2005)*. The significance of irreversibility follows from the importance of the time factor. While simple models of entering the pension programme can be constructed as a series of static decisions, these decisions are not independent of time, the accumulation of entitlement or the effects of earnings on the amount of pension received. As a result, strategies concerning the timing of retirement affect labour supply *preceding* the period of retirement as well as human capital investment.

Finally, we need to point out that the considerations listed above concern labour supply in general and are not restricted to formal (reported) employment. The chapter on disability pensions briefly returns to this issue but, on the whole, we assume that the choice between black labour and formal employment is not governed by welfare programmes but by a willingness to avoid risk taking, the social acceptability of black labour and the risks and costs of being caught. Thus, while black labour is undoubtedly a problem that calls for a lot of attention, it is not of pivotal significance in the context of welfare programmes.

1.4. The causes of low efficiency in the welfare system and possible directions for reform

In response to the initiative of policy experts, crisis situations and the persistent calls of international organisations, some attempts have been made to reduce disincentives and financing pressures in the welfare system, such as the repeated tightening of entitlement conditions on unemployment benefit, the introduction of compulsory community work, or the pension reform of 1997. The reforms implemented so far, however, have not addressed all of the problems and have proved to be largely unsuccessful or even detrimental.

Existing regulations, the functioning of institutions and procedures of decision making in many respects still reflect the forced choices of the regime change or even earlier patterns from before the transition. Risking the charges of superficiality and subjectivity, we shall sketch the major aspects of this unfortunate inheritance, since the feasibility of the strategies recommended in the chapters of this volume is heavily dependent on these surviving institutional conditions.

The current shortcomings of the welfare system follow from distortions in both the setting of objectives and in errors of implementation. The process of identifying targets of social policy may be influenced by a number of factors diverting it from the social optimum. The strongest of these influences is inertia, sometimes called the *status quo* bias, which comes from a tendency of decision makers and voters to perceive the losses resulting from changing the system to be higher than either the costs of no change or the expected gains of change.

Even those would often object to reforms who could otherwise hope to benefit from them, for the simple reason that they are not aware of the actual costs of the welfare system and consequently underestimate how much would be saved by the change. This fiscal illusion was likely to be cultivated by the complex Hungarian taxation system and the myth of cost-free welfare provision *(Csontos, 1995)*.[4] Furthermore, the regime change magnified the uncertainties of future expectations: people could not predict the precise consequences of any individual reform, let alone the outcome of a complete

4 The theoretical discussion in *Csontos* (1995) was followed by an empirical study of fiscal illusions: see *Cserne* (2001) for results and the ensuing debate.

overhaul, in relation to their personal circumstances, which created a barrier to co-operation between groups which could in principle profit from the reforms *(Köllő & Nacsa, 2005, p. 9)*.

Besides information and cognitive barriers, individual interests also exert an especially strong distorting influence. Reforms aimed at enhancing efficiency involve measures eliminating expenses not justified by either productivity or need, which offends the interests of all those who have in some way profited from these. Former beneficiaries are many, since pre-transition welfare redistribution exceeded national income and access to privileges depended as much on loyalty, party connections and good luck as on genuine merit or need *(Hankiss, 1986, p. 46; Kornai, 1983)*.

The phenomenon that competing political parties attach the highest priority to the preferences of the median voter and thus tend to rate the interests of the middle classes higher than those of the poor is, far from being unique to Hungary, by now a classic tenet in the literature on democratic political systems *(Downs, 1957)*. But this effect is augmented by the pre-war middle classes' reviving reflexes of self-defence[5] and by the impatience and selfishness engendered in Hungarian society by the dysfunctions of the previous regime.[6]

In an effort to avoid an escalation of political tensions, the Hungarian government of the regime change tried to compensate those on the losing side. This effort, however, was guided by political rather than economic considerations (which is not unique to Hungary either), and compensation thus tended to reflect the number, political voice, and self-organising skills of the losers, rather than their needs. The gap between the actual loss and compensation was further widened by two other factors: *1.* the practice inherited from the Kádár era where the needs of social groups are assessed by methods that make allowances for group interests rather than in an open bargaining process and *2.* the poor bargaining power of certain groups of losers following precisely from this practice.

A further source of errors is that policy makers often opt for a less than perfect *means* to achieve their objectives. This can also be traced back to the previous regime: the distorted role perception of politicians that implies control over choosing the means (not only the objectives) and a culture of political regulation which attempts to shape and patch the system to suit presumed needs on the basis of inside information rather than derive rules from models construed with reference to interests and aims openly negotiated in public fora. The single minded focus of politicians on increasing gross output is conserved in the practice of the government acting on the advice of macroeconomists concerning issues which require expertise in micro-economics or sociology. Finally, it is equally important that Hungarian state administration has been barely touched by the change of government style observed in

5 "... the debased upper and middle classes put all their efforts into maintaining their old standards and their separate sense of class" – wrote István Bibó in 1947 *(Bibó, 1990, p. 65.)*. See *Wittenberg* (1997) on the reality and measurability of continuity.

6 *Hankiss* (1986) argues that the lack of trust (social capital) essential for the proper functioning of collective norms engenders selfishness, the supression or dysfunction of local democracy and of the rules of social interaction gives rise to mistrust, while excessive economic and political centralization leads to "individualism beyond control".

most countries in Western Europe, where the emphasis of decision making has shifted from expert opinion towards empirical evidence and impact analyses and where accountability and transparency are seen as the key to government legitimacy and success *(Verheijen, 2006)*.

The occasional reform intitative can easily run aground either on the weak autonomy of institutions inherited from centralized administration or on the absence of horizontal co-operation. Also, civil society and the media do not appear to be powerful or autonomous enough to provide sufficient impetus for change.

What the government can do

Relatively little funds would be needed to ease the barriers created by the insufficiency of information. Several thorough evaluations of the costs of delaying reform have been made by international organizations: the government could gain support for the reforms by the widespread dissemination of these results. Fiscal illusions could be dispelled by publishing easy to follow information on budget revenues and expenditures on a regular basis.

The task of improving the availability of expert advice is undoubtedly more difficult – as it may offend interests and sensitivities – but not impossible: more micro-economists and sociologists are needed among government advisors, and evidence-based policy making should be introduced. It could be fruitful to reform the recruitment, motivation and evaluation system applying to the body of civil servants, the first difficult steps of which have already been taken.

What social policy can do

Perhaps the most practicable step for social policy is to monitor results. It is somewhat more difficult – because it requires more complex action and a longer period of adjustment – to improve horizontal co-operation within the government administration, to develop a system of output-oriented incentives in regulations and to build an expert knowledge and information base necessary for evidence-based decision making. Until this is achieved, it is difficult to imagine how politicians could relinquish the illusion of infallibility and assume responsibility for correcting mistakes.

No single, unified solution is likely to exist for individual problems. It is generally true, however, that a policy can only succeed in the long term if it can rely on mechanisms that systematically ensure that the goals can be achieved. This is contingent on a clear statement of the objectives and the regular measuring and monitoring of the results – making results available for scrutiny by academic communities and civil society.

1.5. Brief summary of the conclusions of the analysis of labour supply effects

The remaining chapters of "In Focus" look at the main welfare programmes in Hungary with the aim of highlighting problems affecting the labour market.

Chapter 2 explores the labour supply effects of parental leave benefits using individual level data. Although it is often hailed as an achievement, the current support system is very costly and it allows paid absence from work for a substantially longer period than is usual in the western world. While there is no convincing evidence for the positive effects of an average absence of four or five years on either fertility or the development of the child, the system keeps the employment rate of mothers at a very low level – as a forced choice, in some cases. The receipt of parental leave benefits has increased over the past 15 years. There is a growing number of participants with no previous work experience and poor levels of education, while the likelihood of employment among Gyes or Gyet recipients has fallen. Women who work while receiving parental leave benefits earn less than their peers. These facts suggest that the human capital of women is substantially devalued over the years spent raising children, which is an important and previously neglected factor in evaluating the social utility of parental leave benefits. A policy allowing a more balanced choice between family and work would be one which offers a cash benefit financing a shorter period of staying at home and provides more work related support (child care voucher, travel allowance, retraining opportunities), possibly supplemented with subsidies supporting flexible working hours for parents returning from Gyes.

The results of the study on unemployment assistance discussed in Chapter 3 indicate that this programme appears to function in practice as income support for the long-term unemployed, and neither the activation rules nor the community work schemes attached to the programme achieve their goal of encouraging re-employment. This could be improved by introducing radical changes in four areas: eligibility conditions should be defined more precisely and enforced with greater rigour; the incentives of organizations administering the programme should be realigned too in such a way as to reward efforts to help the unemployed return to the primary labour market and discourage the provision of transfers; capacity building to provide the necessary range of rehabilitation and social services. The fourth component of the reform is the division of the programme into two schemes: a means tested income support for those unable to work (with no work test), and an unemployment assistance including availability tests and rehabilitation services for the long-term unemployed.

Chapter 4 is concerned with disability pension and investigates the explanatory value of labour market causes in the rapid rise in the incidence of

disability pension claims. An analysis of county level aggregate data indicate that a high incidence of claims is not restricted to regions with poor health indicators but also occurs in counties with relatively low employment rates and more opportunities for informal employment. The recently amended regulations on disability pension still fail to provide appropriate incentives to rehabilitation and returning to work. The incentives could be improved by introducing three essential changes. First, the maximum rate of cash benefit claimable without rehabilitation attempts or before the statutory retirement age should be significantly smaller than the expected rate of old-age pension. Second, a wide range of efficient rehabilitation services should be available to help those who would like to regain their work capacity. Third, the organisation providing the services should profit from encouraging the claimant to choose rehabilitation over pension.

Chapter 5 examines the motivations behind claiming old-age or disability pension with the objective of quantifying the effects of incentives of a material nature. Disability pension and old-age pension are taken together as, while clearly not equivalent, they are sufficiently similar from the perspective of labour supply incentives. The investigation is based on individual level data, which allows a longitudinal analysis of the behaviour and income positions of people under observation. Using income expected as a pensioner and income expected as a non-pensioner in an econometric model of the decision to retire, it is found that those who can expect a higher than average income in retirement and a lower than average income without retirement are more likely to choose to retire – this also holds for people below retirement age and is independent of the length of time left until retirement age. The results suggest that low-income groups find a way to escape the challenges of the labour market and we have evidence that the pension programme functions as some kind of automatic and permanent labour market refuge. Changing this practice will require not only the tightening of pension rules but also an increased awareness of labour supply effects and appropriate measures to reduce these effects.

A possible strategy is presented in the final chapter of this volume through an example from abroad. The programme *Pathways to Work* is targeted at increasing employment among workers with reduced work capacity and has proved to be highly successful in Great Britain. The chapter shows that the success of the programme is not only due to its carefully designed structure but also to the way it was introduced: a carefully constructed process, where the first pilots were followed by gradual expansion with thorough impact assessment – and correction, if necessary – after each step. The chapter closes by describing some of the barriers to the successful implementation of policies in the Hungarian welfare system.

WELFARE RECIPIENTS' SATISFACTION WITH THEIR LIVES AND INCOME POSITION[7]

GYÖRGY MOLNÁR & ZSUZSA KAPITÁNY

The primary goal of welfare provision is to secure subsistence for people with no access or substantially reduced access to market incomes. This may be supplemented by the objective to improve access to employment and other assets necessary for wellbeing, or to promote equal opportunities. In short, welfare programmes provide both income (and thus consumption) and security. They improve an individual's prospects but may also cause dependence, especially if the support is only accessible to those who are unemployed. Also, means tested benefits may be perceived as humiliating.

As these factors have an impact on the subjective wellbeing of welfare participants, an analysis of their perceptions of their lives can provide indirect evidence as to the success of the programmes.

Wellbeing and satisfaction (especially satisfaction with one's financial situation) are related to income, but it is not the level of income but its – actual or subjectively perceived – relative value that is decisive, i.e., the actual or perceived difference between an individual's income and the incomes of other people or his/her previous income *(Molnár & Kapitány, 2006)*. Subjective wellbeing is also determined by several other factors which lend themselves to measurement with greater or lesser ease.[8] Factors which are easy to measure include family structure, education, health and labour market status. More elusive, nevertheless significant factors are financial circumstances, expectations for the future, security, prestige, social relationships and self-fulfilment. Also difficult to measure is whether an individual finds pleasure in work activities or whether a welfare recipient perceives the support as humiliating.

Satisfaction may be viewed as corresponding to the utility function of the simple labour supply model discussed in Chapter 1 of this volume: what the individual seeks to maximise.[9] The model is augmented here by considering sources of utility other than leisure time and consumption, such as social relationships, security, self-fulfilment and other subjective factors which may enhance an individual's wellbeing.

This section discusses some factors affecting the subjective wellbeing of welfare recipients based on *Molnár & Kapitány*'s (2006) results. Our data, as in the reference paper, come from the Household Budget Survey of the Hungarian Statistical Office.

Table K1.1 shows the average values of subjective wellbeing for groups of people with different sources of income. Unemployed people, disability pension recipients, people living on casual labour incomes and welfare participants are far more dissatisfied with their financial circumstances and their lives in general compared to other groups.[10]

The average values in *Table K1.1* reflect the combined effects of labour market status, welfare provision and differences in group composition. To isolate the various effects, a logistic regression model was used to control for age, education, health status and level of income (or mobility): the results are displayed in *Table K1.2*.

7 This section is based on research by György Molnár and Zsuzsa Kapitány supported by the EU-COMPPRESS (HPSE-CT-2002-00149) programme. For further details of the data and the analysis, see *Molnár & Kapitány* (2006).

8 The strength of these effects is dependent on an individual's personal values, see *Lelkes* (2006a) for estimations based on Hungarian data, which show, for instance, that religious beliefs decrease the utility attached to income.

9 There is a large literature on the issue; see, for instance, *Frey & Stutzer* (1999), (2002), *Layard* (2005), *Senik* (2005).

10 The category of unemployed status used here is based on self-declaration, i.e. it does not correspond to the ILO definition because the necessary information is not all available due to the structure of the Household Budget Survey. The category of unemployed people with no support includes those who do not receive any kind of welfare support and consider themselves to be unemployed (rather than home-makers, for instance). The classification is based on the status reported at the point of data collection each month; note that often the same person is sometimes unemployed and sometimes engaged in casual labour over the year, so that the two categories are very close to each other.

Table K1.1: Average satisfaction with financial circumstances and life according to activity status, in order of level of satisfaction with financial situation (N = 3398)

	Satisfaction	
Activity	Financial situation	Life
Pensioner in employment	2.96	2.97
Student	2.78	3.24
Employed, self-employed	2.63	2.86
Old-age pensioner	2.63	2.77
Other inactive	2.36	2.68
Widow's or orphan's pension recipient	2.36	2.57
Receiving parental leave benefit (gyes, gyed, gyet)	2.22	2.59
Unemployed on insured benefit	2.13	2.65
Disability pension recipient	2.09	2.43
Casual labourer	1.96	1.73
Unemployed with no support	1.85	1.98
Unemployed on means tested benefit	1.65	1.86
Receiving nursing benefit* or other benefit	1.46	1.75

Notes: The following questions were asked: "How satisfied or dissatisfied would you say you are with your life on the whole?" and "How satisfied or dissatisfied would you say you are with the financial situation of your household?" Average values were calculated by assigning values on a scale of 1 (very dissatisfied) to 5 (very satisfied) to respondents' answers.

* A cash benefit available to those looking after an ailing family member.

Table K1.2: Financial and general satisfaction in Hungary in 2002 (ordered logit estimation with objective variables, N = 3398)

	Financial	General
Activity	Satisfaction	
Casual labourer	–1.06 (0.30)**	–2.06 (0.27)**
Other welfare participant or nursing benefit recipient	–1.40 (0.42)**	–1.30 (0.39)**
Unemployed with no support	–1.10 (0.38)**	–1.38 (0.35)**
Unemployed on means tested benefit	–0.87 (0.24)**	–1.15 (0.28)**
Unemployed on insured benefit	–0.30 (0.49)	0.11 (0.42)
Disability pension recipient	–0.51 (0.18)**	–0.28 (0.18)
Adult family members of people with marginal activity status[a]	–0.55 (0.17)**	–0.61 (0.15)**
In 2nd or 3rd income quintile in 2002	0.92 (0.18)**	0.51 (0.17)**
In 4th income quintile	1.00 (0.21)**	0.59 (0.19)**
In 9th income decile	1.36 (0.26)**	0.68 (0.23)**
In 19th income ventile	1.98 (0.29)**	1.32 (0.30)**
In 20th income ventile	2.32 (0.38)**	1.84 (0.32)**
Young (18–39 years)	0.54 (0.12)**	0.65 (0.13)**
Elderly (55 years and over)	0.54 (0.12)**	0.48 (0.12)**
Student (in full-time higher education)	0.32 (0.28)	1.16 (0.25)**
Completed university degree	0.39 (0.15)*	0.67 (0.15)**
Couple in household (married or co-habiting)	0.37 (0.12)**	0.42 (0.12)**
Child aged 0–3 years in household	–0.71 (0.22)**	–0.46 (0.21)*
Person with long-term health condition in household	–0.27 (0.12)*	–0.28 (0.12)*
Pseudo *R*2	0.09	0.086

* Coefficient significant at 5 per cent level, ** coefficient significant at 1 per cent level.

[a] Adult members of households that include a casual labourer or a member receiving disability pension or social benefit, who themselves do not belong to any of these groups. Reference groups: employed, in the poorest income quintile, middle aged (40–54 years).

Note: The equations included variables of wealth and mobility, which are not shown above. Standard errors of robust estimates clustered for households are shown in brackets.

The coefficient of welfare programmes only shows subjective effects in this estimation: those of relative security, income ambitions (relative to previous income and to the incomes of others), a feeling of being stigmatised, idleness and future hopes. As the stigma effect does not apply to insurance-based welfare participation and there is likely to be less motivation to supply labour, so the effects of these factors mainly reflect the value of security and ambitions.

We shall focus on the results which are important with respect to the success of welfare programmes. As can be seen in *Table K1.1*, people in relatively low income groups are less satisfied with their financial situation and with their lives in general, which corresponds to our expectations. Controlling for income (and some other variables), certain welfare programmes cease to have a significant effect on contentment: the satisfaction of people receiving old-age pension or parental leave benefits do not differ significantly from that of the employed. This suggests that the security offered by old-age and widows/orphans' pension or parental leave benefits compensate for low income as well as for the loss of the possible subjective utility of labour supply. People receiving disability pension are on the whole as satisfied with their lives as old-age pensioners and working people but are less satisfied with their financial circumstances (with the effects of poor health controlled for). However, if we look at the subgroup of people on disability pension who presumably chose disabled status to escape unemployment rather than due to poor health, we find a perceptibly lower level of satisfaction with life as well.[11]

That welfare participation is perceived to be stigmatised is indicated by the finding that in contrast to insured benefit, means tested benefit has a stronger negative effect on general satisfaction than on financial satisfaction. The negative perceptions of people on subsistence benefit are not only related to the stigma, however, but presumably to their insecure prospects as well, since the groups most similar to them, unemployed people with no support and people doing casual work, report the lowest levels of satisfaction.

The satisfaction index of casual workers, unsupported unemployed people, means tested benefit recipients and people on other benefits continues to remain the lowest even after controlling for the level of income: we believe that this result is related to the insecurity of their status. People on unemployment benefit do not display this effect, which suggests that insecurity increases and future hopes decline with the duration of unemployment.

The results therefore indicate that long-term unemployment or insecure employment prospects create a position where the growth of personal welfare is greatly hampered. In other words, it is a situation where there are strong constraints to maximising utility, and welfare support is not the best but the least bad solution: given their education, skills, age and health status, living on welfare support is not an option but a forced choice for the majority of people.

Our results also provide indirect evidence for the hypothesis that the majority of unemployed people and disability pension or means tested benefit recipients are not motivated by a prospect of ancillary black labour in claiming welfare support. If black labour income had a substantially greater weight for this group compared to the unreported incomes of other social groups, and if it could counter-balance the negative effects of unemployment (or quasi unemployment), there would be no significant difference between levels of satisfaction. Our conclusions are further supported by the fact that lower satisfaction also applies to other adult members of these households.

11 The relatively small sample size and the scarcity of information on health status do not allow for more specific conclusions.

2. THE LABOUR SUPPLY EFFECTS OF MATERNITY BENEFITS

MÓNIKA BÁLINT & JÁNOS KÖLLŐ

On returning from their regular yearly visit to Hungary in May 2007, the OECD delegation made a recommendation on the reform of the Hungarian maternity leave system and its implications for the labour market. The recommendation was expressly rejected by the Minister of Finance in the name of the Hungarian government. The firm reaction was unusual in the general context of Western practice and it was downright astonishing in the specific context of this issue considering the statistical data on which the recommendations were based. As shown by the OECD Family Database,[12] a) Hungary spends more than any other member country on benefits supporting parents staying at home with young children, measured by the amount of benefit per child as a proportion of GDP per capita. Hungary spends three times as much as the OECD average, almost twice as much as Austria and one and a half times as much as Sweden. b) A very low proportion of children under the age of 3 attend childcare institutions (similarly to children in Eastern and Southern Europe, Turkey and Mexico). The generosity of provisions is also reflected in low employment rates. c) While the employment rate of *women* is only slightly behind the OECD average,[13] that of *mothers* is lower than in any other member country. d) The Hungarian rate of employment among mothers with *children aged 0–2 years* is the lowest in the OECD and the rate among mothers with *children aged 3–5 years* is the second lowest (after Slovakia). Hungary also has the largest gap between the employment rate of mothers with children of 0–2 years of age and that of mothers with (their youngest) child aged 6–16 years.[14]

It is unlikely that the firm rejection by the Minister was motivated by professional convictions or that any expert on family policy would consider the current family support system to be an exceptionally efficient and extremely promising solution to the problem of balancing the objectives of population policy, child welfare and employment policy which deserves a financial investment two or three times greater than what is usual in the West. The family support system is a legacy from the Kádár era and its major reforms after the regime change (1995, 1999–2000) were clearly motivated by ideological considerations, as convincingly argued by *Ignits & Kapitány* (2006) and *Szakolczai* (2005). None of the interested parties – including those in favour of

12 OECD Family Database 2007, http://www.oecd.org./dataoecd/46/13.

13 It is substantially higher than in Southern Europe but significantly lower than in Western Europe.

14 See Figures PF7.2, PF11.1., LMF2.1. and LMF2.2. in the OECD database for statements a) to d).

regarding child benefits as a social transfer, those who prefer to view it as a means to supporting reproduction and families, those who are engaged in the practice of pragmatic policy making (nor the authors of this chapter) – have a good idea or, indeed, even a rough idea of the effects of this unique system has on population growth, child welfare or the labour market: whether family benefits paid in cash increase fertility, whether raising children in their 3rd or 4th year of life at home has additional benefits – beyond those offered by nursery schools – with respect to their cognitive and emotional development or what individual and social consequences may be expected from the mother's prolonged absence from the labour force (which is *a forced choice* to some extent as the provision of day care in nursery schools has greatly declined). These questions could not, and still cannot, be investigated – with a few exceptions – because no data have been available.

This chapter looks at the system from the perspective of the labour market; population and child welfare issues will only be discussed briefly.

2.1. The effects of family support schemes

A simple visual inspection of the time series data on *fertility* gives the impression that the introduction of the universal flat rate parental leave benefit (Gyes, 1967) and later, the insurance-based benefit (Gyed, 1984, 2000) acted as incentives to childbirth *(Tárkányi 2006)* or, at least, had an effect on the timing of childbirths.[15] *Ignits & Kapitány* (2006, p. 388) argue that "there is well-founded empirical evidence indicating that both general transfers and income support compensating for loss of income have a positive effect on fertility." This claim would, however, be difficult to defend in front of a researcher specialising in the cause and effect analysis of time series data. A "visual inspection" cannot tell whether there is a cause and effect relationship behind the correlation between measures of family policy and fertility or they are both explained by some common factor (e.g., good economic prospects have a positive effect on birth rates and create resources for ambitious measures of population policy at the same time, while the threat of a recession leads to the postponement of childbearing and also to a tighter budget). Neither can a visual inspection tell whether the effects of measures of population policy are statistically significant or robust.

More reliable conclusions may be drawn from econometric analyses. The Granger cause analysis of macro-time series in *Gábos* (2003) and *Gábos, Gál & Kézdi* (2005) indicate a statistically significant long-term positive effect on birth rate: a one per cent increase in *cash* benefits has led to an increase of 0.2–0.25 per cent in total fertility in Hungary over the past four decades. This result is important but not decisive since direct evidence could only be provided by an analysis of the effects on *completed* fertility, which is awaiting further research.[16]

15 Even demographers themselves are divided as to the question of whether family support had an enduring or only a transient effect on fertility. The latter opinion later "... became independent of its professional roots, lost its support among demographers but continues to pop up in places today. Its current supporters – most of whom are not demographers – often use this practical argument to implicitly call the legitimacy of the pronatalist population policy itself into question while avoiding open ideological conflicts." *(Ignits & Kapitány, 2006, p. 388.)* We shall here refrain from ideological criticism and present strictly methodological doubts only.

16 The indicator of total fertility rate captures the number of births per reproductive woman in a given year, while the indicator of completed fertility rate shows the number of children born to a woman up to the end of reproductive life. The Gábos–Gál–Kézdi model uses the immediate effect on total fertility and the effects appearing with a one year lag to draw conclusions as to long term effects.

The magnitude of the effect indicated by the model also suggests that the results should be treated with caution: it would follow from the estimated elasticity that the current birth rate of 1.3 children would not increase further than 1.6 even if the cash benefits were doubled in value.

Furthermore, there is – of course – no way of judging whether another benefit of shorter duration or of a different kind would have had the same impact on fertility. It is not the case that birth rates can solely be encouraged by schemes financing a prolonged absence from the labour market. Sweden, for instance, successfully achieved a turn in demographic trends by implementing a policy of precisely the opposite nature: it focuses on supporting *working women* in child raising by providing a carefully planned network of childcare facilities, introducing the requirement to share home childcare between the parents (a condition of claiming child benefit), supporting individuals rather than families and emphasising the equality of the sexes (rather than the traditional roles of wives and mothers) in public communications *(Hoem, 2005)*.[17]

The impact of mother and child support on *child development* has not been investigated by quantitative empirical research in Hungary. The international experiences are summarised in the literature review by Dóra Benedek in the next section of this volume. The studies discussed there as well as other related studies highlight the risks of returning to work too early. This problem concerns the United States first of all, where around a third of mothers with young children return to work *within three months* of childbirth. This contrasts with the practice in developed European countries (Germany, Sweden, the United Kingdom), where barely five per cent of mothers enter employment after such a short period of maternity leave *(Berger, Hill & Waldfogel, 2005)*. Research results suggest, on the other hand, that the negative effect of returning to work on the cognitive development and the emotional stability of children is substantially reduced if the parent enters *flexible* or *part-time* employment after the child has reached *one to one and a half years* of age or even earlier. There are no quantitative studies, however, on how the well-being of children or mothers is influenced by the exceptionally long leave characteristic of the Hungarian family support system (and in the absence of systems similar to the one in Hungary, there can be no such studies).[18] In Hungary, only 14 per cent of mothers with children *in their third year of life* are in employment and this ratio still remains below 45 per cent among mothers with their youngest children *in their fourth year of life* (average figures for 1993–2005 from the labour force survey of the Hungarian Statistical Office [CSO]). Although there is no consensus among professionals with respect to the "optimum" duration of staying at home with the child *(Herczog, 2007)*, available data and expert opinions both suggest that the positive marginal effect of the third and fourth years spent at home on the development of the

17 These include symbolic gestures – those which are not motivated by financial reasons but are meant to emphasise the equality of the sexes – such as the elimination of the institution of widow's pension.

18 The full-time equivalent parental leave (the number of weeks multiplied by the replacement rate) is highest in Hungary among the OECD countries. See Figure PF7.1./C in the OECD database cited above. The Hungarian system of maternity leave is closest to the one in Romania.

child is *much* smaller than that of the first two years. The returns to professional institutional care are at the same time *much* higher in this period than in the child's earlier years.[19]

The accurate assessment of *labour supply effects* would require a survey recording the child's date of birth; whether the mother was in employment prior to birth; if so, the date of leaving employment; the type of support received by the mother or the father and the period of receipt; the date when the claimant returned to work; if the parent has not returned to work, the reasons for this decision and the current activities of the parent; whether the parent returned to the same job he or she left before birth; how much they earned before and after the leave; who took care of the child while the parent was on maternity leave and thereafter, and so on. Decision makers and researchers in a mature democracy would probably find it difficult to believe – but it is true: *not one survey of this kind has been made in the forty years of operation of the parental leave system annually serving a quarter of a million people.* The Hungarian budget has conferred approximately a hundred and twenty million monthly maternity leave transfers amounting to thousands of billions of Hungarian forints but has failed to allocate, say, fifteen million forints for a survey allowing researchers to carry out an impact analysis. The cost would be roughly equivalent to the amount of maternity leave benefit paid *every hour*.

The analysis presented below is based on the labour force survey data of the Hungarian Statistical Office (CSO). The survey was designed to assess labour market participation and its applicability to a study on maternity leave is therefore limited.[20] It is difficult to establish with reasonable accuracy whom each child belongs to in a given family and with which child a parent is staying at home. Answers to questions on the type of parental leave benefit received (Gyes, Gyed or Gyet) are obviously imprecise. There is no information on the starting date of benefit receipt. The year and month of leaving the last employment before the survey is recorded rather than the date of leaving the last job before child birth. The sample is also too small for our purposes and there are several other problems. Nevertheless, we believe that, given our current complete collective ignorance, even the limited information supplied by the labour force survey may prove to be useful.

2.2. Parental leave benefit as a labour market institution

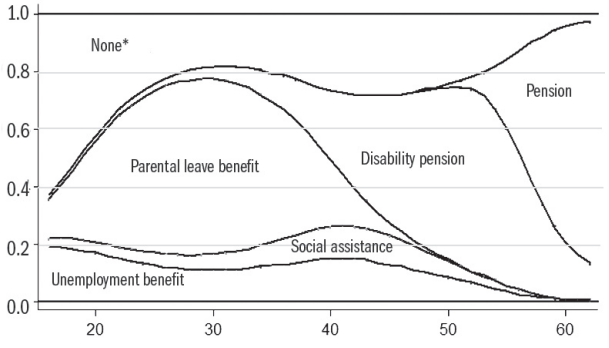
The flat rate benefit (Gyes), the insurance based benefit (Gyed) and the extended paid leave (Gyet) are not simply schemes to assist parents in child raising but constitute by far the most significant form of support for inactive women under the age of 40. This is shown in *Figure 2.1*, which displays the distribution of the non-employed (unemployed or inactive) female population across various mutually exclusive social transfers as a function of age in 2003. It can be seen

19 "... from approximately 18 months of age, children need social interaction with peers as well as professional care from an adult teacher. The reason being, that learning and development processes require support and, occasionally, guidance, which need to be given by a trained teacher. This cannot be provided by parental care, love and attention," write *Bass, Darvas & Szomor* (2007) in their as yet unpublished study.

20 This statement does not apply to occasional complementary surveys targeting mothers with young children, which provide information on labour supply *intentions* and labour market *expectations*. The complementary surveys have given rise to a series of detailed analyses: *Lakatos* (1996), *Frey* (2001, 2002). These, however, cannot replace research on maternity pay claims and actual labour market consequences.

that maternity leave – and later disability pension – is a far more significant form of support than unemployment benefit or unemployment assistance.

Figure 2.1: Non-employed women aged between 15 and 62 by transfer receipt and age



* Respondents in this category may have received other types of support not recorded in the LFS.

Note: Curves in the figure were smoothed by using a multinomial logit function with support type on the left hand side (six outcomes) and age and squared age on the right hand side.

Source: Based on CSO LFS of 2003 last quarter.

The well known disincentive effects of unemployment benefit come into play in the case of paid maternity leave as well. The returns to caring for a child at home immediately after birth obviously exceed the benefits expected from employment but the joy, contentment and financial advantages associated with staying at home to raise a child gradually diminish with time. A generous system of maternity leave delays the point in time where the utility of remaining at home equals the utility of returning to work for a mother previously "habituated to employment."

The optimum period of receiving maternity benefit depends not only on the amount and duration of benefit entitlement but also on factors influencing the returns to work: wages, the fixed costs of employment and non-material benefits of employment. The net benefit to employment is also reduced by factors such as insecurity over the employer's attitude towards any absences due to child sickness; worries about whether the mother risks her job by returning "too early"; doubts over the employer's general attitude towards mothers with young children. Assistance may also be provided to mothers by reducing the costs of returning to work: in the form of nursery schools, home care, travel subsidies and income support. It is important to recognise that the types of support available both to parents staying at home and to working parents (such as family allowance, childcare assistance, child protection assistance and Gyes since 2006) enhance the value of *staying at home*: similarly to other non-labour incomes, they reduce the optimum supply of hours of work.

As far as we are aware, empirical studies on the labour market impact of maternity leave systems allowing prolonged paid absence – in accordance with expectations – uniformly find a negative effect in the sense that relatively longer and more generous maternity leave schemes result in longer absences from the labour market. In kind provisions – typically allaying the costs of employment – are expected to exert the opposite effect and international comparative data corroborate this expectation: while cash benefits reduce labour market participation, benefits in kind increase it *(Scharle, 2007)*.

Cash benefits may also have *positive effects on the labour market* which are difficult to measure empirically. Similarly to other types of unemployment benefit, it is justified to ask whether parental leave benefits improve the quality of match between employer and employee: through allowing workers to devote more time and effort to job search, benefits have the effect of crowding out less productive jobs *(Mortensen–Pissarides, 1999; Acemoglu–Shimer, 1999; Pissarides, 2000)*. As we shall see, however, in Hungary, mothers returning to work after Gyes receive significantly lower wages than other workers with similar observable characteristics (and this still holds when endogenous selection is taken into account). We therefore believe that the *negative* effects of the amortisation of human capital outweigh the *positive* effects of a (potentially) longer job search period on productivity and wages.

The Hungarian system of maternity leave was first introduced with the aim of giving mothers the option of a long period of economic inactivity. The frequent changes to the system primarily affected coverage rather than the conditions of receipt. Gyed has always been tied to employment before childbirth but the entitlement regulations on Gyes and Gyet have been modified on a number of occasions. The most important changes occurring within the period under study are summarised in *Table 2.1* (based on Table 2 in *Ignits–Kapitány*, 2006).

The Bokros austerity package tightened entitlement by abolishing Gyed and introducing means testing for Gyes on the one hand, and substantially extended entitlement by revoking the requirement of employment before childbirth. Over the period from 1996 to 1998, the government essentially treated maternity leave as a *social assistance scheme*. The Orbán administration first made entitlement to Gyes and Gyet universal (1999) and later re-introduced the insurance based Gyed (2000). These rules of entitlement have been left untouched by the current socialist-liberal coalition which came into power in 2002.

Recent government administrations have at the same time tried to ease the tension of the forced choice between employment and staying at home. Employment while claiming Gyed has always been ruled out but part-time employment has been permitted – since 1990 – for Gyes recipients after the child has reached the age of 18 months. The prohibition on full-time employ-

ment has also been gradually relaxed: working full-time from home has been permitted since 1999 and in January, 2006 all restrictions on employment were lifted. The latter measure has eliminated Gyes in an economic sense, as the family allowance and Gyes are now only differentiated in a legal sense, and thus the reform has effectively created a front-loaded family allowance, which provides more generous support up to child's third birthday than in subsequent years. The only remaining schemes specifically targeted at financing a temporary absence from the labour force are Gyed and the childbirth benefit (which is not investigated here).

Table 2.1: Rules of entitlement to Gyes, Gyed and Gyet between 1992–2005

Year	Gyed	Gyes	Gyet	Regime*
1992	*I*	*I*	–	1
1993	*I*	*I*	*I, T*	1
1994	*I*	*I*	*I, T*	1
1995	*I*	*I*	*I, T*	1
1996	–	*T*	*I, T*	2
1997	–	*T*	*I, T*	2
1998	–	*T*	*I, T*	2
1999	–	*U*	*U*	3
2000	*I*	*U*	*U*	4
2001	*I*	*U*	*U*	4
2002	*I*	*U*	*U*	4
2003	*I*	*U*	*U*	4
2004	*I*	*U*	*U*	4
2005	*I*	*U*	*U*	4

I: insurance based (tied to employment before childbirth); *T:* means tested; *U:* universal; –: not applicable.

* The period under study is divided into four sub periods of substantially different systems – indicated in the last column of the table – which we refer to as regimes.

As was mentioned before, unfortunately no appropriate data are, or have ever been, available allowing the individual assessment of the effects of the above changes in regulations. The following sections therefore have far less than that to offer. Using the crude data of the CSO labour force survey, we draw attention to the fact that as a result of changes in regulations, maternity leave claims have become ever greater in number and ever longer in duration over the period from 1993 up to the present. The number of claimants with low levels of education and no work experience has multiplied. The current system of maternity leave is only partially designed to support a temporary absence from the labour market. An increasingly smaller portion of claimants earn an income through work regardless of the changes in regulations to encourage labour supply. A prolonged – over four and a half years on average – absence from work is accompanied by a substantial loss in human capital for those having close ties to the labour market. The length of the actual period of ma-

ternity leave is heavily influenced by the labour market prospects of women with young children and the costs of employment. This suggests that a reduction in the costs could have the effect of shortening claim periods and thus decreasing losses generated by prolonged economic inactivity.

2.3. Childcare transfers in the labour force survey of the Hungarian Statistical Office

A great advantage of the labour force survey over administrative data is that it provides information on the whole population, not only claimants, and provides detailed information on respondents and their environments. The sample analysed here includes women aged 15 to 40 years who were observed in the CSO labour force survey from 1993 to 2005. Each individual is included in a maximum of six waves of the survey, i.e., an individual may be followed for 18 months at the most. The panel comprises 678,420 quarterly observations of a total of 102,737 individuals *(see Table 2.2)*. For each respondent we have information on her age, level of education, marital status, place of residence, labour market status and whether she received Gyes, Gyed or Gyet in the given quarter of the year. The number and ages of children living in the household were established in an indirect way. The structure of the panel allows us to establish whether the respondent quit the maternity leave system between quarter t and quarter $t + 1$ and whether she entered employment after quitting. We have investigated three questions: the *take-up* of maternity benefits, *work activities* in parallel with benefit receipt and the *return to work* after maternity leave (Gyes).

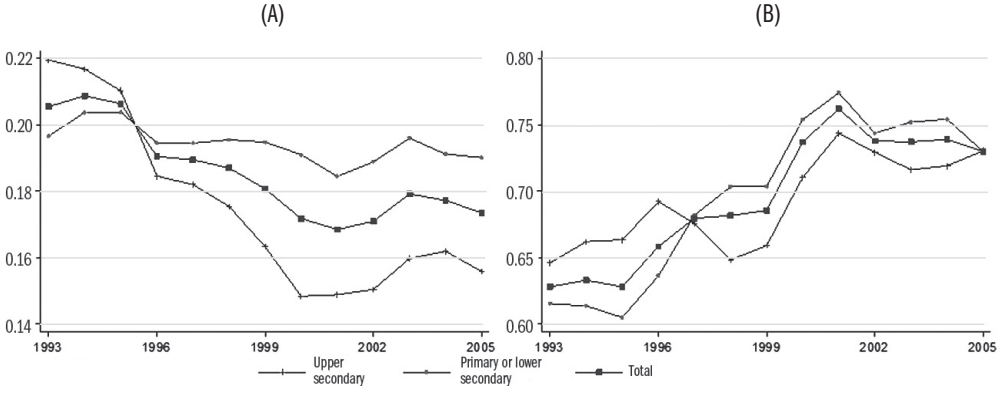
Table 2.2: Quarterly observations of women aged 15–40 years in the CSO labour force survey

Year of observation	Receives Gyes, Gyed or Gyet		Total
	No	Yes	
1993	38,636	6,065	44,701
1994	36,494	5,939	42,433
1995	39,979	7,066	47,045
1996	38,778	6,669	45,447
1997	37,275	6,551	43,826
1998	51,006	9,224	60,230
1999	50,762	8,833	59,595
2000	47,969	8,819	56,788
2001	47,222	8,782	56,004
2002	46,556	8,358	54,914
2003	50,500	9,481	59,981
2004	46,418	8,850	55,268
2005	44,088	8,100	52,188
Total	575,683	102,737	678,420

Take-up

The proportion of *women* living with children under the age of four among the *female population* aged 15–40 years sharply decreased between 1993 and 2005. This proportion is around 16 per cent among women with a secondary or higher education and around 19 per cent among women with lower levels of education; the corresponding figure is just over 17 per cent for the total population *(Figure 2.2)*. The ratio of mothers receiving maternity benefit steadily increased within this group, from about 65 to 75 per cent. The increase was particularly steep after the introduction of the Bokros package and then again following the changes in regulations introduced by the Orbán administration at the turn of the millennium. The Bokros package resulted in a large scale increase in the number of women with weak ties to the labour market and low incomes entering the system (the resulting expansion exceeded the decline caused by the abolishment of Gyed and the introduction of means testing for Gyes). The subsequent re-introduction of Gyed and the cancellation of means testing led to another spell of increase in the proportion of claimants. While the use of the maternity leave system was most frequent among educated women before 1995, between 1995 and 2004 the proportion of claimants was highest among women with less than secondary education. The effects of the tighter regulations of the Bokros package and the relaxed regulations of the Orbán reforms can be clearly recognised in the curve representing the *educated section* of the population.

Figure 2.2: Proportion of women with children aged 0–4 years to all women aged 15–40 years (panel A), and the proportion of those receiving Gyes, Gyed or Gyet within that group (panel B)



While there is only a small difference between women with various levels of education in the likelihood of using the system of maternity leave, there are substantial differences in the type of benefit claimed. This phenomenon is illustrated in *Table 2.3* showing the average figures for the current system beginning with 2000.

Table 2.3: Distribution of maternity benefit recipients by benefit type, 2000–2005

	Youngest child					
	under 12 months of age		between 12 and 23 months		between 24 and 35 months	
	Educational level*					
	high	low	high	low	high	low
Gyed**	59.8	32.7	52.7	29.5	16.6	10.4
Gyes	38.3	63.3	45.6	66.5	80.7	84.5
Gyet	1.9	4.1	1.7	4.0	2.7	5.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Receives maternity benefit***	80.4	81.2	92.1	88.8	82.6	84.2

* Highly educated: secondary or higher education.

** Gyed may be claimed up to the child's second birthday. There may be two reasons explaining figures larger than zero for families with the youngest child in his or her third year of life. First, the person interviewed (who was not the target person in around half of the cases) may not have had the correct information on the type of support received. Second, if the parent received the transfer for the maximum period of entitlement, it may be the case that although the child had reached his or her second birthday at the time of the interview, the last Gyed payment was transferred within the observation period.

*** Among mothers caring for children of the given age. The lower proportion of maternity leave in the first year relative to the second year is presumably related to the relatively high number of mothers receiving childbirth benefit (which is mutually exclusive with maternity leave benefits).

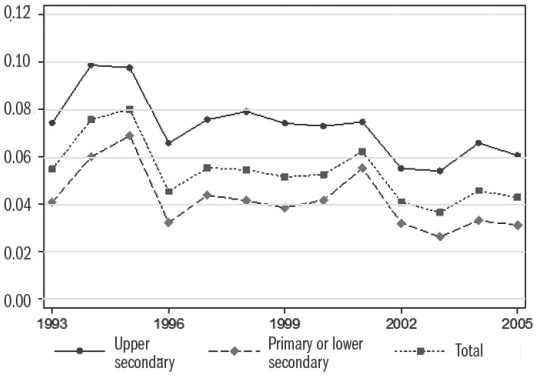
Mothers with secondary education are approximately as likely to use maternity leave as mothers with less than secondary education but while well over half of women in the former group receive Gyed, which is a large sum proportional to their previous wages, less than a third of the uneducated group are in the same position. The difference only disappears after the Gyed period, when the child enters his or her third year of life. The likelihood of maternity leave use is still 83–84 per cent at this point.

Work while on maternity leave

Gyes and Gyet allow simultaneous part-time work and even full-time work (observing certain conditions from 1999 and without any restrictions in the case of Gyes since 2006). The CSO labour force survey, however, records not only legal, formal (reported) employment but also unreported labour, which constitutes around 15–20 per cent of total employment recorded in the labour force survey *(Augusztinovics & Köllő, 2007, Köllő, 2007)*. The proportion of women in paid employment as defined by the ILO and the OECD among the users of the maternity leave system has clearly decreased since 1993, from around 6 to 4 per cent. This is shown in *Figure 2.3* displaying the proportion of mothers in paid employment while claiming maternity pay (those who received support in the quarter of the observation and in the following quar-

ter). The proportion of the employed decreased both among women with low levels of education and among women with high levels of education. The likelihood of employment was twice as high among women with secondary or higher education as it was among women with primary or vocational education throughout the period.

Figure 2.3: Proportion of maternity benefit recipients in paid employment 1993–2005



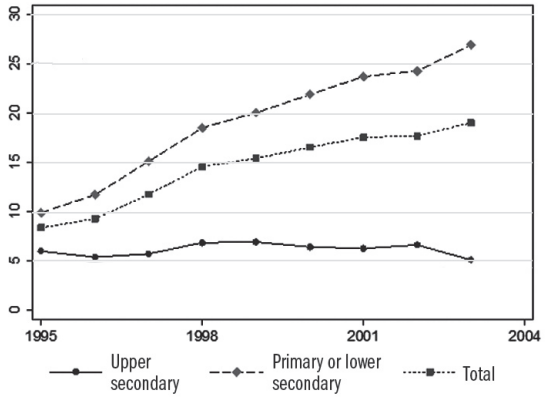
Note: Excluding those who worked in parallel with maternity leave in quarter *t* but left the support system in quarter *t* + 1 while continuing to work. It may be the case in this situation that the formal Gyes period was over by the time the mother started work but payment was received later. This does not qualify as working in parallel with maternity leave but as employment following maternity leave.

The proportion of women with no work experience before childbirth steadily increased over the studied period, which is no doubt a major factor in the declining trend of employment after childbirth. We are not in a position, however, to give detailed evidence of this process because the survey question asking whether the respondent previously worked refers to labour market status *prior to the interview* rather than *prior to childbirth* and only people who are inactive *at the time of the interview* are asked that question. Furthermore, data from before 1995 and data from after 2003 cannot be compared to data from the period in between. *Figure 2.4* shows the development of the ratio of mothers with no work experience before childbirth as a function of the level of education within the period from 1995 to 2003.

The proportion of those with no previous job remained low at 5–7 per cent among women with secondary or higher education but it rose from 10 per cent to almost 30 per cent among women with less than secondary education; this accounts for the fact that the overall likelihood of inactivity approached 20 per cent at the end of the period. It is no longer the case that the system of maternity leave is unequivocally a means of allowing women to temporarily stay *away from employment*. It undoubtedly continues to have that effect

among educated populations but its role in supporting young women with low levels of education who have never participated in the labour force has become increasingly stronger.[21]

Figure 2.4: Proportion of mothers who have never had a paid job, 1995–2003



Note: Inactive mothers in receipt of maternity pay at the time of the interview = 100.

The declining trend of work activities in parallel with maternity leave – which might seem surprising at first sight given that restrictions on employment were gradually relaxed over the period – is probably explained by the growing proportion of those with weak ties to the labour market. Factors that may have contributed to this process include the diminishing significance of the second economy in the traditional sense and of micro-businesses with low start-up costs which could be based in a residential building (second-hand clothes shops, small garage shops selling wine by the litre, etc.).

It must be noted that over the entire period 60 per cent of respondents reported "very irregular" hours of work or less than 40 hours of work per week, while the remaining 40 per cent reported full-time employment. This distribution remained essentially constant throughout the period from 1993 to 2005. In view of the regulations in effect over the studied period, the 40 per cent likelihood of full-time employment seems to be unexpectedly high and the finding that the proportion of mothers in full-time employment did not increase following the changes in regulations in 1999 is also surprising. We do not have an explanation for this phenomenon.

Exit from the maternity leave system, return to work

The major indicators of the process of quitting the maternity leave system are summarised in *Table 2.4*. An average six weeks[22] after quitting the benefit, over half were in employment and the proportion of part-time workers was substantially lower after quitting the system than at the time of maternity leave. On average, ten per cent of those quitting were unemployed and slightly

21 The average age of maternity pay claimants with no work experience before childbirth was 24 years for the entire period in contrast with the overall average age of 28 years.

22 If the respondent received maternity pay in quarter t but not in quarter $t + 1$, it is reasonable to assume that the period of maternity leave terminated halfway between the two dates.

over a third were inactive in the period between 1993 and 2005. The average length of the period between the respondent's last employment and the date of quitting the maternity leave system was 4.7 years between 1997 and 2005. (No data are available for the period before 1997.) The absence from the labour market was shortest among women entering full-time employment (3.7 years) and longest among women becoming inactive (5.5 years). The period of absence was 5.3 years for mothers with two children, 7.5 years for mothers with three children and 10.8 years for mothers with four children. Only 12 per cent of mothers quit the system before the child's second birthday and 59 per cent quit before the child's third birthday.[23]

Table 2.4: Exit from the maternity leave system as a function of educational attainment

	Total	Level of education	
		high	low
1. Status after quitting, 1993–2005		**(%)**	
Full-time employment	47.8	60.8	37.6
Part-time employment	5.5	7.1	4.3
Unemployment	10.1	7.8	12.0
Inactivity	36.6	24.3	46.1
Total	100.0	100.0	100.0
2. The period between last employment and quitting, 1997–2005			
Status after quitting*			
Full-time employment	3.7 (2.4)	3.3 (1.8)	4.2 (2.9)
Part-time employment	4.5 (3.9)	5.6 (4.7)**	3.4 (2.4)**
Unemployment	4.8 (3.2)	4.0 (2.1)	5.1 (3.5)
Inactivity	5.5 (4.7)	4.3 (3.0)	6.1 (4.2)
Total	4.7 (3.4)	3.8 (2.6)	5.3 (3.8)
3. Age of youngest child at the time of quitting, 1993–2005		**(%)**	
Up to 11 months	4.3	4.6	4.1
12 to 23 months	8.2	10.1	6.6
24 to 35 months	46.9	49.4	44.8
36 to 47 months	33.0	30.6	35.2
4 years or older	7.6	5.4	9.2
Total	100.0	100.0	100.0
4. The period between last employment and quitting, 1997–2005			
Number of children aged 0–7 in household***			
One	3.7 (2.7)	3.2 (1.9)	4.2 (3.0)
Two	5.3 (2.5)	4.6 (2.2)	5.9 (2.6)
Three	7.5 (3.8)	6.3 (0.8)	7.9 (4.3)
Four	10.8 (0.7)	–	10.8 (0.7)

* Average number of years, s.d. in brackets.
** Fewer than fifty observations.

Let us now turn to the duration of labour market absence in cases where the mother *started work at the time of quitting the maternity leave system*. Exit

23 We put the date of quitting at a date *after the child's third birthday* if the mother stayed in the system for the full period of entitlement, until the child's third birthday, and started work sometime in the following quarter. The *period between two employment spells* includes pregnancy leave and the period of childbirth benefit as well as unemployment or inactivity prior to childbirth. The different types of absence cannot be distinguished.

probabilities are estimated with the help of a binary choice model based on a pooled sample of data for the years 1993–2005, where exit probabilities are dependent on personal and environmental characteristics, the ages of children, time and the system of maternity leave in effect at the time of the child's birth (the latter information is shown in the last column of *Table 2.1* above).

A few comments of a technical nature are in place before we discuss the results of our estimations *(Table 2.5)*. A methodologically correct analysis of exit probabilities would require information on the duration of maternity leave and whether entitlement had expired at the time of quitting; labour market status should be recorded after a uniform, pre-specified period of time from the date of quitting; and a sufficient number of observations should be available to compute estimates for each year, benefit regime and benefit type. In the absence of necessary data, our model measures the period of time spent among the at-risk population by the age of the child. In the following estimates, observations where the respondent became unemployed or inactive after quitting are treated as censored, i.e., of an unknown outcome. This is because the time period between quitting and the date of the interview was in several cases too short to be reasonably satisfied that the *lack* of employment should be viewed as permanent. The analysis was also performed applying multinomial logit and probit models (outcomes: respondent stayed on maternity leave, quit and found a job, quit and did not find a job), yielding qualitatively the same results as in the binary model.

The estimation is based on a pooled sample for 1993–2005 because the number of observed exits is not large enough. Our attempt to separate the time trend from the effect of the benefit regime is based on the assumption that the reforms broke up a smooth trend reflecting labour market developments and pushed the appropriate sections of the function upward or downward.[24]

Finally, the very small values appearing in the column of marginal effects may be deceptive: the mean value of the dependent variable of the model, the exit probability is 0.015 and the marginal effects estimated by the model are to be interpreted relative to that very low value. A marginal effect of 0.0075 estimated for a binary variable, for instance, means that a change in the given variable (from 0 to 1) increases exit probabilities by *half*.

What do the results tell us about quitting the maternity leave system in general (first and second columns) and about quitting the childcare support scheme of Gyes in particular (third and fourth columns)? The re-employment probabilities of the youngest and oldest age cohorts are lower than those of the intermediate age cohort among the population between 15 and 40 years of age. The exit probabilities of women with primary education, vocational training and secondary education are, respectively, 0.9, 0.6 and 0.4 per cent lower that those of women with higher education (2.8 per cent per quarter on average during the period). The probability of exit is highest when the youngest child

24 Models assuming linear, quadratic and other kinds of time trends yielded similar parameters for the benefit regimes. *Table 2.5* shows the results of the model assuming a linear trend.

is in his or her fourth year of life and declines steeply with the increase in the number of children aged 0–7 years living with the family. With the effects of the children's ages controlled for, exit probabilities are lower for Gyed than they are for Gyes. Estimates on the exit from the maternity leave system and specifically on the exit from the flat rate Gyes yield essentially the same results.

Table 2.5: Estimation of exit to employment probabilities (binary probit)

	Gyes–Gyed–Gyet		Gyes only		Gyes-Gyed-Gyet	
	Marginal effects	Z***	Marginal effects	Z***	Mean	s.d.
Age	0.00119	2.42	0.00189	2.56	28.13	5.026
Age squared	–0.00001	–2.32	–0.00002	–2.39		
Level of education						
0–8 years of primary education	–0.00894	–12.75	–0.01194	–11.31	0.3231	
Lower secondary education	–0.0055	–8.62	–0.00678	–7.09	0.2893	
Upper secondary education	–0.00355	–5.66	–0.00451	–4.79	0.2887	
Number of children aged 0–7 years in household	–0.00323	–7.36	–0.00421	–6.60	1.440	
Age of youngest child						
Up to 11 months	–0.01108	–15.47	–0.01363	–11.89	0.2096	
12 to 23 months	–0.0098	–18.60	–0.01464	–15.89	0.3157	
24 to 35 months	0.00849	10.78	0.01026	9.99	0.1010	
36 to 47 months	–0.003	–4.82	–0.00729	–6.19	0.1027	
The house/flat is shared by more than one households	0.00284	2.85	0.00389	2.71	0.0736	
Local labour market and facilities						
Rate of registered unemployment*	–0.02734	–5.16	–0.0402	–5.32	0.0870	0.0566
Good transport*	0.00365	2.89	0.00368	2.06	0.1287	
Nursery schools/a thousand inhabitants	0.01010	2.92	0.01405	2.75	0.0393	0.0632
Permanent population	–0.00001	–2.12	–0.00001	–1.54	150.8	462.1
Budapest	0.05085	1.93	0.04040	1.31	0.0733	0.2606
Type of support scheme						
Gyes	0.00932	10.01			0.5831	
Gyed	0.00816	5.88			0.3004	
Linear time trend (years)	0.0005	3.14	0.00067	2.49	1999	
System of maternity leave						
1996–1998: gyed: –, gyes: *T*, gyet: *I, T*	–0.00408	–4.80	–0.00557	–4.23	0.2475	
1999: gyed: –, gyes: *U*, gyet: *U*	–0.00459	–4.63	–0.00600	–3.88	0.0845	
2000–2005: gyed: *I,* gyes: *U,* gyet: *U*	–0.00478	–3.32	–0.00567	–2.50	0.3562	
Observed exit probability	0.01518	0.02103				
Estimated exit probability at sample mean	0.00696	0.00903				
Number of observations	95,524	55,705				
Number of quits	1450	1171				
Pseudo-R^2	0.1359	0.1367				

At-risk population: received maternity benefit in quarter *t*. Dependent variable: 1 = respondent quit maternity leave and worked in quarter $t + 1$; 0 = respondent received maternity pay in quarter $t + 1$.
Censored = respondent quit maternity leave but did not work in quarter $t + 1$ or left the labour force survey.
I: insurance based (conditional on employment before childbirth), *T:* means tested, *U:* universal, –: not applicable. Reference categories: higher education, child aged 3, gyet, first regime (1993-95).
* Registered unemployed/working age population. ** There are at least four urban centres within 50 km that can be reached via public transport between 5.30 and 7.30 a.m. at a cost of 4000 HUF/month (at 1993 price levels), data for 1993, source: Köllő (1997). *** St errors are adjusted for the correlation between observations for the same individual.

Exit probabilities would have increased with time if the changes in regulations had not exerted their influence in the opposite direction. The average exit probability of those who entered the system at the time of the Bokros package were 0.4 per cent lower than the chances of those who entered earlier. The situation further deteriorated with the implementation of the reforms of the Orbán administration although this "deterioration" is probably a surface phenomenon: it is not the result of the system encouraging the same population of women to remain on maternity leave for longer in 2005 than they did in 1993 but reflects the fact that the new rules of entitlement had the effect of shifting the composition of claimants – towards populations with relatively weaker ties to the labour market.

The most important information from the point of view of social policy is carried by the factors indicative of the *costs* of returning to work and securing daytime childcare. *The absence from the labour force is shorter if the place of residence is shared by more than one household; if the local unemployment rate is low; if local transport facilities are well-developed; and if there are one or more nursery schools in the local area.* These relationships continue to hold when the effects of settlement size are controlled for, which suggests that the length of maternity leave is reduced when the costs of job search and employment are lower.

2.4. Returning from maternity leave and loss of income

The loss of income resulting from time spent on maternity leave is estimated from data provided in the sample of April to June, 2001 of the labour force survey, which includes details of labour income. The sample is restricted to men and women under the age of 46 who had worked for a maximum of one year in their current job. What we are interested in is the size of the gap between the earnings of women who had been on maternity leave a year before observation and the earnings of other women and men in the first year of employment. The sample size is small: the number of women who had received Gyes a year before is 2216, 1085 of whom had left the Gyes scheme by the time of the observation. The total number of new earners is 3204, 1467 of whom are women and 144 were returning to work from Gyes. The reliability of the data on wages is somewhat compromised by the circumstance that respondents could choose to give information on either net or gross wages. It is evident that high income groups were more likely to report gross wages than net wages and that the conversion between gross and net wage performed by the CSO is not entirely accurate. We introduce a dummy variable (gross wage reported = 1) to correct for this inaccuracy. Other than that, the usual variables used in wage equations (level of education, labour market experience, local labour market and firm characteristics) are included in the model.[25]

25 Functions applying to the population aged 15–40 years included only a linear term in labour market experience since this age group is at the rising section of the age-wage curve. Dependent variable: the logarithm of monthly gross earnings.

A comparison of estimates for all new entrants to young mothers shows the wage disadvantage of those re-employed after quitting maternity benefit to be around 8 to 10 per cent (compare parameters for non-gyes and gyes entrants in the first and second column in *Table 2.6.*). Since we do not have any information on the duration of maternity leave,[26] the estimate of wage disadvantage applies to a maternity leave of *average* length and to the time of *returning to work*. Since workers are not selected at random from the total population, estimates were also computed on a sample of non-student respondents aged 15–46 years applying the Heckman model, which takes unobservable effects into account. The wage disadvantage of women returning from Gyes amounts to 10 per cent in this estimate.

26 There is information only of the length of the current employment spells and not of previous spells.

Table 2.6: The gross wage disadvantage of women returning from Gyes in April–June 2001 based on the CSO labour force survey – Regressions

	Sample and method of estimation		
	new entrants[a]	new entrants with young children[b]	people aged 15–46 not in education
Variable	OLS	OLS	Heckman[c]
Education (years)	0.0634 (17.4)	0.0497 (8.94)	0.0722 (57.8)
Imputed labour market experience (years)	0.0252 (3.04)	0.0229 (1.12)	0.0063 (15.66)
Tenure in current job (years)	–	–	0.0064 (14.38)
Female who was not on maternity leave a year before	–0.0786 (4.58)	–0.1200 (4.48)	–0.1435 (26.62)
Female who was on maternity leave a year before	–0.1669 (4.44)	–0.1963 (5.30)	–0.2524 (11.22)
Female with children aged 0–7 years	–0.0218 (1.15)	–	–
Male with children aged 0–7 years	0.0431 (2.13)	–	–
Highly varied working hours	0.6003 (6.98)	0.7592 (5.74)	0.5622 (24.82)
Weekly hours of work in main job (hours)	0.0153 (8.37)	0.0204 (8.23)	0.0133 (28.18)
Local unemployment rate (log)	–0.1317 (11.52)	–0.1343 (5.97)	–0.0931 (21.49)
Budapest	0.0175 (0.49)	–0.0268 (0.43)	–
Trade union present at work place	0.0502 (2.59)	0.0444 (1.24)	0.0646 (11.29)
Employed by small business ($L < 50$)	–0.0482 (2.50)	–0.0621 (1.55)	–0.0832 (11.25)
Gross wage reported	0.1358 (10.24)	0.1466 (5.86)	0.1517 (31.36)
Dummy variables of branch (10 items)	yes	yes	yes
Number of respondents	3115	797	32,072
Number of working respondents	3115	797	14,697
R^2	0.3450	0.4088	..
ρ (Standard Error)			0.693 (0.018)
σ (Standard Error)			0.343 (0.004)

Dependent variable: logarithm of gross monthly wage.

[a] Respondent entered employment in the current or the previous year.

[b] Respondent entered in the current or the previous year and has children aged 0–7 years in the household.

[c] The variables of the selection equation: male with young child, female with young child, spouse in employment, four dummy variables of marital status, dummy variable of vocational education, squared imputed labour market experience, 20 dummy variables for the counties.

This 8–10 per cent disadvantage in wages (after an average absence of 3.7 years) almost exactly equals the estimated returns to the same amount of

work experience: 9.3 and 8.5 per cent based on the coefficients of imputed labour market experience. This loss of income corresponds to the returns to 1.5 years of education; it is twice as much as the amount of income gained from the presence of a trade union and also twice as much as the wage disadvantage of workers employed by small businesses. Approximately one hour of extra work per day would be needed to compensate for the loss of income (see the parameter of hours of work). These results suggest that the wage disadvantage must be regarded as substantial.

2.5. Conclusions

The system of maternity leave is only partly designed to support a temporary absence from the labour market. Disregarding the intermezzo of the Bokros package, the system has remained what it was before 1990 for educated women with labour market experience: the most generous cash support system (financing absence from work) in the developed world. The majority of women with secondary and higher education receive a generous benefit proportional to previous earnings for two years and over 80 per cent of these women remain on maternity leave with the Gyes scheme for an additional year. The system also fulfils functions of welfare and unemployment support among those with weak ties to the labour market and/or with poor labour market prospects.

Taking the conclusions of previous studies and the results of our analyses into account, we are in agreement with the criticisms voiced by the OECD and other international organisations.[27] The system of maternity leave has developed in an *ad hoc* manner through a series of modifications motivated by political and ideological considerations, without any factual discussion of its objectives, costs, benefits, or overall coherence. The current system provides an incentive for working women to leave the labour market for a (from the point of view of child welfare unnecessarily) prolonged period of time, while it fails to offer appropriate assistance to women with poor labour market prospects in returning to work or entering the labour force for the first time.

So far as the first group is concerned, the results reinforce the hypothesis that the length of maternity leave could be shortened and the loss of human capital resulting from labour market absence could be mitigated by reducing the costs of entering employment, expanding daycare facilities for children and implementing schemes targeted at improving labour market prospects. The situation of those with good labour market prospects (and taxpayers) could be improved by a system which finances absence for a somewhat shorter period of time and offers assistance in entering employment (daycare voucher, travel allowance, retraining schemes) in the third year of the child's life, possibly in combination with subsidies supporting flexible working hours for parents returning from maternity leave – from the resources saved by the withdraw-

27 The views of the World Bank (2007) are in accord with the OECD (2007): "Hungary has the most complex system, with a plethora of fragmented benefits and programs, many of which have no connection with each other."

al of cash benefits. An allowance system – available both to mothers and fathers – compensating employers for lost working days due to child sickness is also worth considering in place of a general wage subsidy. The reallocation of resources to schemes facilitating employment would offer a *choice* for women who are now compelled to stay at home for several years because of the lack of childcare facilities even though they do not wish to give up their careers. An efficient solution would be one where the capacity of daycare institutions for 2 to 4 year old children (nursery schools, family-run daycare, kindergartens) is substantially expanded and the quality of childcare is improved on the one hand and the availability of employment allowing flexible working hours is increased on the other.

The lack of facilities is not the only feature of the current system that encourages or even forces a prolonged maternity leave. The system gives rise to *practices* further hindering mothers' return to the labour market. The Hungarian system of maternity leave is, in principle, job-protected but the regulations are difficult to enforce given the actual duration of the leave: after nearly 5 years the workplace may have closed down or been restructured, or the job requirements may have changed substantially. Older children of mothers on maternity leave with a younger child are often refused nursery or occasionally even pre-school places on the grounds that the "mother is on maternity leave, anyway".

So far as the other group of claimants is concerned, we have seen that the proportion of women on maternity leave with no previous employment has doubled, while the corresponding proportion among women with low levels of education has tripled. For them, and for those living in isolated villages with high unemployment rates, maternity leave is not a system of support for staying at home temporarily but a form of unemployment or welfare benefit – increasingly so as the children grow older. We believe that their options are far from ideal. A cash benefit which is not tied to any sort of effort to find employment – and which cannot offer services enhancing labour market prospects since claimants are not registered as unemployed[28] – constitutes yet another item in the line of institutions encouraging absence from the labour market.

28 Only 2 to 3 per cent of women on maternity leave are registered with local job centres as unemployed although, as we have seen, over 10 per cent are unemployed and almost 40 per cent are inactive when they leave the system (and it may be assumed that an unknown but not negligible proportion remain jobless in the long term).

THE EFFECTS OF MATERNAL EMPLOYMENT AFTER CHILDBIRTH ON THE CHILD'S DEVELOPMENT

DÓRA BENEDEK

A substantial proportion of developed countries maintain some sort of welfare system for parents after childbirth, but there is no consensus as to the optimum period of parental leave. According to one view, centrally regulated parental leave curbs employers' freedom of decision and consequently impairs women's employment prospects. Others argue, however, that an early return to work is detrimental to the child's development.

Studies investigating the reasons behind low activity rates among women – such as Chapter 2 of this volume – usually come to the conclusion that mothers' employment chances deteriorate in proportion to the length of staying at home. The mother's employment, however, affects her child, since institutional childcare facilities (nursery schools or kindergartens) and parental care at home are likely to have different effects on the child's cognitive and emotional development and thus on his or her subsequent achievements. These considerations have led international organisations to encourage the expansion of maternity and child care provisions. The OECD, for instance, emphasises that individual care is the most beneficial form of childcare in the first year of life, and the countries of the European Union are required to offer statutory parental leave of at least three months *(OECD, 2006)*.

The only way of reconciling the two opposing views is to conduct a detailed analysis of both the labour market effects and the effects on children's development. The timing of the mother's return to work, the flexibility and length of working hours and the choice of daycare (parent, other relative, trained nurse or institution) could all have an impact on the child's development – and may either decrease or increase the benefits of labour supply.

This section gives an overview of empirical results shedding light on the effects of the mother returning to work after childbirth and those of daycare options for children between 0 to 3 years of age on the child's development.

In one of the earliest analyses of the relationship between type of daycare and child development, *Ruhm* (1998) finds that infant and child mortality is lowest in countries where longer parental leave is granted. Ruhm analysed aggregate data from nine OECD countries over the period between 1969 and 1994 to investigate the relationship between length of statutory parental leave and child health. Child health was measured by birth weight and mortality indicators, and a difference-in-differences method was used to estimate the effects of the length of parental leave controlling for country specific effects. The main conclusion of the study is that extending the period of parental leave significantly reduces the probability of death: an additional 10 weeks of leave reduces infant and child mortality by 1.6–2.6 per cent under various model specifications. A possible reason suggested by Ruhm is that mothers staying at home are more likely to breastfeed their children. The author estimates the costs and concludes that parental leave is a highly cost-effective means of improving child health. *Tanaka* (2005) uses a similar method of analysis and finds that only paid parental leave has these positive consequences, as unpaid leave is probably left unused by parents.

Aggregate data, however, are not suitable for the analysis of individual level relationships, such as the effects of the time spent at home by the mother on the cognitive development and future achievements of the child. The first studies based on individual data – typically from the United States – found negative effects, i.e., the mother's early return to work had a negative impact on the cognitive and social/behavioural development of the child, especially if the mother worked full-time in the first year *(Gregg & Waldfogel, 2005)*. These analyses, however, did not take the exact *timing* of the return

to work into consideration. The main reason for this is that the social welfare system of the United States grants 12 weeks of paid parental leave and research on the effects of maternal employment has focused on entry to employment after exhausting benefit entitlement.

Waldfogel et al (2002) looked at data from the US *National Longitudinal Survey of Youth* to follow the cognitive development of children of different social groups up to the age of 7 or 8 as indicated by five different measures. The authors find that white children whose mothers entered employment before their first birthday had significantly poorer developmental outcomes by the end of this relatively long period, but the effect was not significant for African American or Hispanic children. A further finding of the study is that the negative effect was much smaller for mothers who worked part-time (up to 20 hours a week) in the first year compared to mothers in full-time employment.

Looking at long-term effects, *Ruhm* (2004) finds that the mother's early return to work has no significant effects on secondary school achievements, which means that there is a possibility that the negative effects shown by other studies are transient. Ruhm also points out that although labour supply in the first year has an adverse effect on the development of the child, this is counter-balanced by employment in the second and third years. Also, while early employment may be detrimental, families where the mother does not work at all become disadvantaged in the long term.

The welfare system of the United Kingdom is somewhat closer to the Hungarian programme, as it is considerably more generous than the US system: mothers are entitled to six months of paid and a further six months of unpaid leave after childbirth. As a result, only 8 per cent of new mothers return to work within three months of childbirth in the UK, while the corresponding figure is 40 per cent for the US *(Gregg et al, 2005)*. *Gregg et al* used a highly detailed database of children born in Avon in the 1990s *(Avon Longitudinal Study of Parents and Children)* to investigate whether previous findings would be replicated given a more generous welfare programme and broader availability of part-time work. The children's development was assessed at the age of 4–5 years and 6–7 years with respect to reading, writing, maths and language skills, and at the age of 7 years with respect to reading, spelling and word formation skills. Mothers were classified according to when they entered employment within three years of childbirth and whether they had part-time (less than 30 hours a week) or full-time employment 21 months after childbirth. If someone other than the mother looked after the child, types of daycare provision were classified as follows: *1* unpaid informal care (partner, grandparent, other relative, friend or neighbour), *2* paid individual care arrangements (for instance trained nanny, nurse, etc.), and *3* paid group care (nursery school, for instance). The effects of observed personal and household factors were controlled for in the model estimations.

The main conclusion of the study is that the mother's full-time employment before the child reached 18 months of age has an adverse effect on the child's development and the effect is usually significant but not large.[29] Part-time employment within 18 months and full-time employment after 18 months has no negative impact on the child's development. The observed negative effect varies across social groups. It is negligible for mothers with the lowest educational attainment, since – as the authors suggest –the difference in the quality of maternal care as opposed to other care arrangements is smallest, and the mother's earnings are relatively more important in this case. At the other end of the scale, the gap in child development outcomes attributed to maternal employment is largest

29 Using a similar method of analysis on data from Canada, *Ram et al* (2004) find that although early employment has a negative effect on the child's development, this only holds for verbal indicators and does not appear in maths skills.

for mothers with the highest educational attainment. A further important result of the analysis is that the negative effect only appears if mainly unpaid, untrained, informal childcare provision (e.g., grandparents or friends) was used as a substitute for the mother's care. Where the child received trained care, the mother's labour supply had no adverse effects on his or her development.

Neidell (2000) looked into patterns in non-cognitive development (e.g., deviant behaviour, self-confidence, motivation). With individual differences controlled for, the author finds that time spent with the mother in the first year of the child's life has a positive effect on the child's development, while time spent together after the second year of life has no notable effects.[30] Interestingly, the mother staying at home over the second year of the child's life tends to have a negative effect on the child's non-cognitive abilities. Neidell proposes the explanation that establishing social relationships becomes an increasingly important part of the child's life after his/her first birthday and spending time with peers rather than parents may facilitate this process. In his analysis of the *Behavior Problems Index, Ruhm* (2005) finds no long-term negative relationship between the mother's early return to work and the child's non-cognitive development.

The common conclusion emerging from the various studies is that the mother's labour supply only presents a risk under certain circumstances and these circumstances can be precluded with the help of carefully planned regulations. It is beneficial for the child if the parent does not work or works part-time up to the first birthday of the child, but in addition to longer statutory parental leave, the developmental disadvantage of children can be reduced by providing flexible working conditions and part-time employment opportunities and by ensuring that trained childcare is accessible to parents.

30 This refers to time spent together during the day on weekdays and not to extreme cases where the mother does not spend time with the child at all.

3. LABOUR SUPPLY EFFECTS OF UNEMPLOYMENT ASSISTANCE

RÉKA FIRLE, ÁGOTA SCHARLE & PÉTER ANDRÁS SZABÓ

Unemployment assistance is the only major transfer available to unemployed people who are no longer entitled to insured unemployment benefit. It is paid to over 150 thousand people on average, which makes it the laregest cash transfer subject to means testing in Hungary. In this chapter we first present an overview of the results of Hungarian and international empirical studies on the labour supply effects of unemployment benefit programmes, and following this we investigate whether there is empirical evidence for the theoretical prediction that unemployment assistance has a negative impact on labour supply.[31]

3.1. Development of the unemployment assistance programme from 2000 to 2006

Regulations on the provisions for the unemployed were tightened repeatedly and substantially during the 1990s. As part of these measures, the means tested unemployment assistance was phased out starting in May 2000 and was replaced by a less generous means tested scheme called "regular social assistance". The new scheme was assigned a dual function: first, it has become the last resort for those not eligible for any other kind of support and secondly it provides welfare support and rehabilitation services for the long-term unemployed. The entitlement conditions of the programme are formulated to include both target groups but the eligibility conditions unequivocally specify proof of availability for work and active job search.

Entitlement conditions and the cash value of the benefit

Act III of 1993 on social administration and welfare declares that as of May 2000 those persons are entitled to social assistance who have poor health or who are unemployed, and have no other means of subsistence. The regulations in effect until April 2006 stated that the benefit could be granted if the claimant's monthly income did not exceed 70 per cent of the minimum pension rate, the family's monthly income per person did not exceed 80 per cent of the minimum pension rate and neither the claimant nor his or her family had any savings. The amount of the social assistance is based on a top-

31 *Firle & Szabó* (2007) gives the details of our calculations and extends the analysis to the targeting policy of the unemployment assistance programme.

up rule that brings the claimant's personal income up to 70 per cent of the minimum old-age pension rate.

The regulations were amended with effect from April 1st 2006. The twofold condition on (family and personal) income was replaced by a system where entitlement and the amount of benefit were determined on the basis of monthly equivalent income[32] in the family. An unemployed worker is eligible for social assistance if the family's equivalent income is below 90 per cent of the minimum pension rate. The amount of benefit tops up equivalent income to 90 per cent of the minimum pension rate. Entitlement and the amount of social assistance are determined by local governments and it is in their discretion to grant a sum higher than the minimum rate specified by the regulations.

Entitlement conditions

Similarly to other support programmes for the unemployed, the claimant must present proof of active labour market status to qualify for social assistance. Eligibility is granted if the claimant co-operates with the local job centre *for 1 year preceding the claim* and *for the entire duration of the claim*. An amendment in 2005 relaxed the previous conditions by adding a provison that proof of only three months rather than 1 year of co-operation must be provided by those who claim social assistance following a period of receiving nursing allowance, maternity benefit, income support for the mildly disabled or other social support.

The rules of co-operation are specified by the local government and it is usually the responsibility of the local job centre to enforce compliance with the rules. Co-operation is initiated by registering the claimant with the local labour office where a programme of integration is worked out which is to be agreed by both parties. The programme specifies frequency of contact with the job centre (usually a visit every 4–12 weeks) and the rules of accepting any suitable job offer or participation in education or training schemes. Failure to keep appointments and the rejection of job or training opportunities may be penalised – for instance by the reduction of the benefit or its temporary suspension – but the enforcement of sanctions varies greatly between individual centres.[33]

One of the objectives of the social assistance programme is to encourage return to work. In addition to uninterrupted co-operation with the labour office, the programme of rehabilitation therefore involves participation in a 30 day community work scheme organized by the local government. This requirement, on the one hand, filters out claimants who are only unemployed on paper and those who are not willing or able to work or are engaged in black labour while in receipt of the benefit. On the other hand, it helps claimants to readjust to a lifestyle of regular work and moderates loss of working capacity (which is usually a corollary of long-term inactivity).

32 The equivalence scale assigns a unit weight to the head of the household and smaller weights to other members of the family, accounting for the fact that household expenses (e.g., utility bills) do not increase in exact proportion with family size. The Hungarian system assigns a weight of 0.9 to a spouse or cohabiting adult; 0.8 to each of the first and second children; and 0.7 to any other children.

33 For a detailed discussion of the administration of unemployment benefits, see *Koltayné* (2002).

Community labour is organised by the local government or the job centre and in most cases it is their responsibility to decide who should participate. A central government subsidy of 70 to 100 per cent may be claimed to fund charity or community work programmes and any remaining costs are financed from local government sources. In most settlements, community workers are assigned to unskilled jobs, such as the maintenance of public places (parks, ditches or bus stops). Other, less frequent assignments may include tasks in social or health services (these are approved by the regulations as of 2003).

The number of people on benefit

Changes in the number of people on social assistance *(Table 3.1)* clearly reflect the amendment of regulations in May 2000. This is when the old unemployment compensation scheme was abolished and social assistance remained the only option for those who had used up their entitlement of unemployment benefit. The number of recipients rose especially sharply in 2001 – although it also showed a major increase in 2000 – as the entitlement period of the old unemployment assistance scheme had expired for the last claimants.

Table 3.1: Number of people receiving social assistance between 1999 and 2005

Year	Number of claims	Average number of recipients	total expense in proportion to total welfare expenditure	Average monthly value per person	
				Nominal value (HUF)	Real value* (1999 = 100)
1999	22,305	34,480	0.14	10,588	100.0
2000	66,426	47,154	0.18	11,056	95.1
2001	126,213	94,779	0.37	13,019	102.5
2002	130,181	125,894	0.46	14,650	109.6
2003	121,324	138,127	0.46	15,010	107.2
2004	127,172	144,853	0.47	15,864	106.1
2005	130,995	158,565	0.47	16,991	109.7

* Based on the average annual consumer price index.

Note: The data include people claiming benefit on grounds of poor health in addition to unemployed claimants. The former group constitutes around 5 to 7 per cent of the population on benefit.

Source: CSO Yearbooks of Welfare Statistics, 2001–2005.

3.2. Labour supply effects of the social assistance programme

The effects of the social assistance programme on labour supply show a similar pattern to the trap situation presented in Chapter 1 (Part *a)* in *Figure 1.5*). Since its value is lower than that of unemployment benefit, the disincentive effect is smaller, but the reduction in labour supply may apply not only to the claimant but also to other adult members of the household due to the income threshold. The latter effect is similar to that observed in the case of income-tested transfers (which do not exclude employment) but without the trap: as

the hours of labour supply increase, the worker's income remains higher than his/her wages for a while although the difference between wage and income gradually decreases (unlike in Part *b)* of *Figure 1.5*, the transfer does not cease abruptly). People receiving social assistance are required to co-operate with the job centre and may be expected to participate in community work: these requirements may encourage labour supply.

The results of international (mostly American) empirical studies tend to suggest that welfare programmes similar to the Hungarian social assistance scheme have a negative or a neutral effect on labour supply. Multivariate estimates relying on individual level data in the United States also find a slightly negative effect in their analysis of in-kind benefits tied to an income threshold (food stamps and health services). *Moffitt* (2003), reviewing American results, concludes that if no means-tested welfare programmes were available, the number of labour hours supplied by welfare participants would increase by 10 to 50 per cent.

The negative effects of welfare benefits on labour supply are confirmed by analyses of the labour market effects of the American welfare reform of 1996. As part of the reform, they set strict job search requirements as a condition of unemployment benefit receipt, set a limit to benefit duration at a maximum of five years and introduced in-work benefits to strengthen financial incentives. The reform – beyond the overall improvement in the economy observed in the late 1990s – increased the labour supply of people previously relying on benefits by 32 to 50 per cent and their rate of employment by 28 to 35 per cent *(Bloom & Michalopoulus, 2001; Ellwood, 2000)*.

There are few studies of the work disincentive effects of means tested unemployment benefit programmes in Eastern and Central Europe and most of these are comparisons with the effects of insurance-based benefits. *Terrel & Sorm* (1998) and *Micklewright & Nagy* (1998) analysed Czech and Hungarian data respectively to investigate changes in the likelihood of re-employment or in the duration of unemployment following an individual's transfer from insured unemployment benefit to social assistance. Their results indicate that the likelihood of re-employment increases as the expiry date of the unemployment benefit approaches, which more likely reflects the disincentive effects of unemployment benefit (possibly relative to the effects of social assistance) rather than that of the assistance programme. The absolute effects of a social assistance programme specifically targeting unemployed people are discussed by *Terrel, Erbenova & Sorm* (1998). The authors analysed data from the Czech labour force survey and found a significant negative labour supply effect but only among families with more than one child, who were entitled to a substantially higher social benefit than other families.

In one of the first empirical studies in the Hungarian literature,[34] *Micklewright & Nagy* (1998) estimated a duration model based on a longitudinal

34 The relevant Hungarian literature is reviewed by *Bódis et al* (2005).

survey.[35] The results show no significant effect of social assistance on labour market participation; that is, no disincentive effect could be observed. The authors conclude that "cutting benefit rates would not significantly boost the labour supply of unemployed workers". (p. 423.)

Köllő (2001) investigated changes in the labour market chances of unemployed people receiving unemployment benefit between 1994 and 2000. The results show that the likelihood of employment was higher in 2001 than it had been seven years earlier, although the observed improvement was much more modest than suggested by the official statistics. Also, the relative employment chances of participants living in disadvantaged regions substantially deteriorated over the period, especially with respect to people with upper secondary or higher education. The size of the difference between unemployment compensation and previous income did not have an effect on the probability of entering employment, which calls into question the appropriateness of targeting policies solely on labour supply (by reducing benefit rates and raising the minimum wage).

Galasi & Nagy (2003) looked into the effects of the restructuring of welfare programmes available to unemployed people who were not eligible for unemployment benefit that took place in 2000. The study sought to find out to what extent the transfer from the old unemployment assistance to the new social assistance programme altered take-up and re-employment probabilities. The authors conducted a follow-up survey on two groups: those who exhausted their entitlement to unemployment benefit in April 2000 and those whose entitlement ended in May 2000. The group that lost entitlement to unemployment benefit in April 2000 entered the old unemployment assistance scheme, while a month later, the other group "only" had access to social assistance. The results show that fewer people applied for social assistance and fewer claims were granted than under the previous unemployment compensation programme. Also, while lower benefit rates and loss of entitlement accelerated re-employment rates, the welfare of those who could not find employment was reduced.

Fazekas (2002) investigated the welfare administration at local governments following the abolition of the unemployment assistance programme and found a higher take-up in regions with higher unemployment rates and a lower take-up in regions where the community work requirement (the availability for work test) was enforced with greater rigour.

The incentive effects of the eligibility conditions on unemployment benefit were measured by *Bódis, Micklewright & Nagy* (2004) in an experiment carried out at the job centres of six counties. The study randomly assigned unemployed people on benefit to either of two groups: the members of the test group were subjected to more rigorous supervision by the labour office than the members of the control group. Although the results show a higher

35 The sample included unemployed people entering the support scheme in April or May 1994 who had 11 to 12 months of entitlement. Respondents were monitored until they started work or for a period of 3 to 4months after the expiry of their entitlement.

likelihood of employment among the test group, the difference only reaches statistical significance among women aged 30 or older. The likelihood of re-employment among older women is sensitive to marital status and the local unemployment rate: married women are 60 per cent more likely to find employment, and the employment advantage of the test group over the control group substantially decreases with the unemployment rate (and almost completely disappears at an unemployment rate of 8 per cent).

Strikingly little information is available on the efficiency of public works schemes and other experimental programmes intended to encourage labour supply funded by the National Labour Foundation (OFA) and other sources. *Galasi, Lázár & Nagy* (2003) find that participants of public works schemes are less likely to find employment than the participants of other active labour market programmes (start-up allowance for entrepreneurs, wage subsidy or training) but this result is in part explained by the composition of the group (lower education levels and higher participation in income support programmes among the former group). Most studies publish raw employment rates only, on the basis of which the effects of the programme cannot be separated from group composition or environmental factors.[36] A survey by the Hungarian State Audit Office (ÁSZ) conducted in 2001 at 95 local governments and job centres concluded that no reliable data were available on the efficiency of public works schemes, while sporadic reports indicate a very low (1.3 per cent) re-employment rate *(ÁSZ, 2002)*. Teréz Laky's analysis also points to the conclusion that while community work was introduced as a temporary resort, it has become the only job opportunity for the uneducated long-term unemployed *(Laky, 2005)*.

3.3. The labour supply effects of social assistance and public works programmes

In addition to the amount of benefit received and the requirement of job search, the labour supply of welfare participants is determined by several other factors, such as the range of available job offers, the fixed costs of employment and various personal circumstances (self-confidence, health, family commitments, etc.) that affect participation and expected earnings. The impact of a welfare programme can only be measured accurately if the effects of other factors are controlled for, which requires individual level data. The individual level analysis of regular population surveys (of the CSO) or administrative databases has some limitations as well, as these only collect easily measurable data on personal circumstances (such as age and education) and usually record the events of only one period or a few consecutive periods.

Keeping these constraints in mind, the following sections investigate whether social assistance has an impact on the likelihood of entering employment. The task requires a data source where the individual's labour market status

36 Data on the efficiency of certain public works schemes are published by e.g., *Orsovai, Palotai & Pálinkó* (2000), *Szabó & Bokor* (2006) and *Tamási* (2005). For a discussion of the methodology of measuring results see *Kézdi* (2004).

and welfare benefit status are recorded at several points in time. Our analysis uses panel data from the quarterly reports of the CSO Labour Force Survey from 2001 to 2004, where the benefit status and the labour market status of each individual can be followed over time.

The effects of social assistance and public works schemes on the probability of entering employment were estimated in two different models. Both models were constructed for a population of unemployed people of an active age who were capable of work and excluded people not seeking employment due to poor health, incapacity, studies or because they were caring for a family member. People employed on public works programmes were regarded as unemployed if they reported receiving social assistance. The final sample included in the panel consists of 15,844 persons.

Over the four years under analysis, on average almost 19 per cent of unemployed people found employment in the next quarter, while only 9.5 per cent of welfare recipients and 11 per cent of those hired for some public works programme found an unsubsidised job after 3 months.

A multivariate analysis was carried out to reveal how much of the raw proportions is explained by the benefit or community work itself, controlling for observable variation in environmental and personal characteristics.[37] Two estimates were made: the probability of exiting the welfare programme was first measured relative to the total population of unemployed people available for work, and second, relative to the group of people who had just exhausted their unemployment benefit entitlement.

Social assistance substantially reduced the likelihood of re-employment for both groups. Among the broader group, the benefit decreased the labour market prospects of both men and women in the next quarter by around 20 per cent. The effect was even stronger among people with expiring entitlement: the probability of entering employment was 75 per cent lower among men and 85 per cent lower among women on benefit compared to people not receiving benefit. Welfare participants accordingly stayed longer in unemployment: they were out of work approximately 2 years (7 quarters) longer on average than those not participating in the welfare programme. Public works schemes also had an adverse effect on labour supply: it reduced the likelihood of employment in the next quarter by 50 per cent among all unemployed men and by 30 per cent among all unemployed women.

The probability of entering employment among the unemployed

Table 3.2 displays the effects estimated for each sex. The estimates indicate that, controlling for other observed factors, people on benefit and those employed on public works jobs are less likely to find non-subsidised employment in the next quarter compared to the inactive or unemployed population available for work and not in receipt of welfare benefit.

37 People on benefit and people engaged in public works may differ from the group of non-workers along dimensions which are not recorded in the CSO Labour Force Survey (e.g., motivation). We here assume that the group of people who had just exhausted their unemployment benefit entitlement is less divergent in this respect and our results will be less likely to be distorted by errors due to unobserved factors.

Table 3.2: Average partial effects on the labour supply of unemployed women and men*

	Men		Women	
Exit	Average partial effect	p	Average partial effect	p
Social assistance	*–0.0679*	*0.000*	*–0.0530*	*0.000*
Public works	*–0.0932*	*0.000*	*–0.0631*	*0.000*
Active labour market programme	*–0.0615*	*0.006*	*–0.0615*	*0.000*
Unemployment assistance for people approaching retirement age	*–0.0865*	*0.000*	*–0.0957*	*0.005*
Unemployment benefit	*–0.0326*	*0.000*	*–0.0231*	*0.003*
Spouse works	*0.0777*	*0.000*	–0.0021	0.678
Nobody works in household	*–0.0535*	*0.000*	*–0.0467*	*0.000*
One person works in household	*–0.0229*	*0.002*	*–0.0145*	*0.038*
No children	*–0.0267*	*0.000*	*–0.0235*	*0.000*
Large family	*–0.0381*	*0.000*	*–0.0706*	*0.000*
Young child (under 8)	*0.0358*	*0.000*	*–0.0846*	*0.000*
Reservation wage (thousand HUF)	*–0.0012*	*0.000*	*–0.000002*	*0.000*
Aged 25–34 years	*0.0332*	*0.000*	*0.0435*	*0.000*
Aged 35–54 years	*0.0245*	*0.003*	*0.0816*	*0.000*
Aged 55–62 years (excluding pensioners)	*–0.0384*	*0.000*	*–0.0328*	*0.003*
2–3 year vocational training	*0.0823*	*0.000*	*0.0673*	*0.000*
Upper secondary education	*0.1077*	*0.000*	*0.1053*	*0.000*
Higher education	*0.3147*	*0.000*	*0.3393*	*0.000*
Months registered as unemployed	*–0.0054*	*0.000*	*–0.0058*	*0.000*
Months registered as unemployed (squared)	*0.00004*	*0.000*	*0.00004*	*0.000*
In full time education a year ago	*–0.0295*	*0.012*	–0.0226	0.105
On military service a year ago	0.0136	0.476	–0.0809	0.278
Home-maker a year ago	*–0.0694*	*0.012*	–0.0241	0.101
Maternity leave a year ago	*–0.1191*	*0.000*	*0.0394*	*0.004*
Other inactive a year ago	*–0.0239*	*0.039*	0.0101	0.543
Unemployment rate in county	*–0.5837*	*0.004*	0.2597	0.228
Central Hungary	*–0.0578*	*0.000*	*–0.0383*	*0.000*
Southwest Hungary	0.0114	0.304	–0.0172	0.107
Northeast Hungary	0.0108	0.338	–0.0067	0.489
Southeast Hungary	0.0157	0.125	–0.0121	0.178
Northern region	–0.0045	0.698	*–0.0175*	*0.095*
1st quarter	*0.0517*	*0.000*	0.0056	0.464
3rd quarter	*0.0691*	*0.000*	*0.1324*	*0.000*
2001	*–0.0535*	*0.000*	–0.0136	0.195
2002	*–0.0403*	*0.000*	–0.0023	0.822
Number of observations	22,153		22,082	
Pseudo R^2	0.1015		0.1404	

* Average partial effects are computed by averaging the (partial) effects of a given variable. The probability of entering employment for men, for instance, is 6.8 percentage point lower than the likelihood for the total sample.

Note: Probit regression with robust standard errors. The dependent variable was employment (exit). Variables significant at the 10 per cent level are printed in italics. Reference groups: members of households with 2 or more people at work, house-

holds with one or more children over the age of 8, people aged 18 to 24, 8 years of primary school or less, in employment one year before, and Mid-West Hungary.
Source: Authors' calculations based on the CSO Labour Force Surveys of 2001 to 2004.

Social assistance reduces the probability of employment on average by 5.3 percentage points for women, and by 6.8 percentage points for man. Women employed on public works jobs are 6.3 percentage points less likely to find unsubsidised employment in the next quarter and the corresponding figure is 9.3 percentage points for men. Given that the overall likelihood of finding employment is 18.7 per cent, the above results constitute a strong effect: employment prospects are reduced by 30 to 50 per cent.[38]

We cannot be certain, however, that it is indeed the work disincentive effects of the benefit and public works programmes that these figures reflect. In theory, an increase in the amount of benefit is expected to be accompanied by an increased disincentive effect. Contrasting with that, we estimated the effect of unemployment benefit to be smaller than that of social assistance, even though the former is higher in amount. This suggests that the parameter estimates on social assistance may not only capture the disincentive effect of the transfer but could also be sensitive to other, unobserved characteristics specific to social assistance recipients. These may include ambition, assertiveness, self-confidence, social connections or poor health, which are not recorded in our data but are known to influence the probability of employment. Studies based on in-depth interviews reveal that long-term unemployment – even with a secure family background – generates a feeling of hopelessness and personal and family tensions *(Simonyi, 1995; Jahoda, Lazarsfeld & Zeisel, 2002)*. Also, a significantly more pronounced deterioration can be observed in the health of people out of work for an extended period compared to other labour market groups *(Tardos, 1998)*, which can further reduce the chances of employment. The actual work disincentive effects of social assistance and public works programmes may thus be lower than our estimates if we allow for unobserved factors of this kind.

The estimated effect of age – measured by age group dummies in the model – corresponds to expectations: returning to the labour market is most difficult for non-employed people over the age of 55, compared to the reemployment probabilities of prime age workers (aged 35 to 54), the size of the negative effect equals that of social assistance for men, and is twice as large for women (6.2 and 11.4 percentage points respectively).[39] Employment chances substantially increase with educational attainment for both sexes and show a decline with the duration of unemployment. Having a young child in the family affects the behaviour of men and women differently: there is a positive effect on the labour supply of men, which is half as strong as the effect of social assistance, while women in these families are less likely to re-enter employment and the effect is one and a half times as large as that of benefit receipt.

38 Unemployment assistance reduces the likelihood of employment to 18.34 – 5.3 = 13.04 per cent for women and to 18.98 – 6.8 = 12.18 per cent for men, which is a reduction of 30 and 35 per cent respectively. Public works programmes reduce the chances of re-employment to 18.34 – 6.3 = 12.04 per cent for women and to 18.98 – 9.3 = 9.85 per cent for men, which amounts to a reduction of 35 and 50 per cent respectively.

39 Men aged 25–34 are 3.3 per cent more likely to start work compared to men under 24, which means that their employment chances are 3.3 + 3.8 = 7.1 per cent higher than those of men over 55. The corresponding figure is 6.2 per cent for men aged 35–54. Compared to women over 55, the probability of employment is 7.5 per cent higher among women aged 25–34 and 11.4 per cent higher among women aged 35–54.

The probability of entering employment and duration of unemployment following the exhaustion of unemployment benefit entitlement

The above estimates may be distorted by the fact that previous work history and the duration of unemployment are disregarded in the model. For this reason, a modified model of the effects of the welfare programme was constructed *(Table 3.3)*. Conditional probabilities of employment (hazard rates) are expressed here as a function of observed personal characteristics of unemployed people and duration of unemployment *within the observed period*. Estimates are computed only for those who exhausted their unemployment benefit entitlement within the observed period, assuming that they constitute a relatively homogeneous group with respect to work history and labour market attachment. Estimates based on variously specified duration models yielded very similar results.[40]

Compared to the total sample of the non-employed working age population, the probability of re-employment within 3 months is far lower among those who just exhausted unemployment benefit: it is 8 per cent among men and 6 per cent among women, compared to an average of 19 per cent for the non-employed.

The effects of public works schemes cannot be estimated for this group as none of the participants (51 out of 1053 men and 31 out of 607 women) entered non-subsidised employment over the observed period. The effects of social assistance, however, are statistically significant and negative: men receiving benefit are 5.9, and women on benefit are 5.6 percentage points less likely to start work compared to people not receiving benefit, controlling for the length of time elapsed since the expiry of benefit entitlement. The size of the effect must be interpreted in the context that the average probability of employment in the next quarter is 7.9 per cent among men and 6.5 per cent among women. That is, the re-employment probability of those receiving social assistance is 75 per cent smaller for men, and 85 per cent smaller for women compared to non-recipients.[41]

Although to a lesser extent, selection effects in this group are still a valid concern, with the possible consequence that parameter estimates reflect the effects of unobserved factors beyond those of welfare participation.

The variables of the duration model show fewer significant effects. One explanation may be the substantially smaller sample size or the greater homogeneity of the group. In contrast with education and household type, age has a significant effect on the probability of employment: compared to people over the age of 55, younger men are 7–10, and younger women are 4–8 percentage points more likely to find work. The length of unemployment and, among men, the local unemployment rate have a negative effect on the probability of employment.

40 Discrete and continuous time-duration, parametric and non-parametric models. Here we publish Jenkins estimates, which is an estimation method using a discrete time-duration model and a logit function.

41 The probability of employment among men on benefit is 7.9 – 5.9 = 2 per cent, and among women on benefit it is 6.5 – 5.5 = 1 per cent in the next quarter.

Table 3.3: The (conditional) probability of employment, average marginal effects

Employment	Men		Women	
	Average partial effect	p	Average partial effect	p
Social assistance	*-0.0596*	*0.005*	-0.0557	0.077
Public works	-	-	-	-
Spouse or partner works	0.0236	0.209	-0.0027	0.891
Young child in the household	0.0109	0.560	-0.0011	0.967
Aged 18-24 years	*0.0990*	*0.088*	0.0827	0.000
Aged 25-34 years	0.0676	0.171	0.0647	0.000
Aged 35-54 years	*0.0790*	*0.085*	0.0406	0.000
Primary education	0.0152	0.666	0.0123	0.784
Lower secondary (vocational)	0.0321	0.433	0.0077	0.878
Upper secondary (general)	-	-	-0.0159	0.709
Upper secondary (vocational)	0.0422	0.368	0.0425	0.494
Months registered as unemployed	*-0.0111*	*0.000*	-0.0104	0.002
Months registered as unemployed (squared)	*0.0001*	*0.000*	0.0001	0.000
Local unemployment rate	*-0.2678*	*0.017*	-0.2318	0.159
Time elapsed since expiry of unemployment benefit entitlement				
2nd quarter	*-0.1976*	*0.010*	-0.5727	0.000
3rd quarter	*-0.1597*	*0.003*	-0.3593	0.000
4th quarter	*-0.1266*	*0.000*	-	-
5th quarter	*-0.1190*	*0.002*	-0.3512	0.000
2001	*0.0981*	*0.064*	0.1438	0.066
2002	*0.0633*	*0.068*	0.0957	0.066
2003	-0.0048	0.924	0.0564	0.461
1st quarter (calendar time)	0.0014	0.953	-0.0506	0.080
2nd quarter(calendar time)	0.0072	0.730	0.0153	0.539
3rd quarter (calendar time)	*-0.0299*	*0.095*	-0.0174	0.459
Number of observations	1023		607	
Prob > χ^2:	0.000		0.000	

Note: Logit estimation, with employment as dependent variable. Variables statistically significant at 10 per cent level are printed in italics. Reference groups: aged 55–62, incomplete primary education, the year 2004, the fourth quarter (of calendar time), and the first quarter following expiry of unemployment benefit entitlement.

Source: Authors' calculations based on the CSO Labour Force Surveys of 2001 to 2004.

Using the above presented conditional probabilities, one may compute the average duration of unemployment after the exhaustion of insured benefit entitlement. Adding this to the length of unemployment prior to exhaustion yields the total duration of unemployment since the last job *(Table 3.4)*. Results indicate that among unemployed people with recently expired entitlement, those receiving social assistance remain without jobs for an average of six quarters (18 months) longer than non-recipients.

Table 3.4: Average duration of unemployment (quarters)

Receives social assistance	Average	Standard error	N
No	9.8	5.96	567
Yes	16.2	7.24	355
Total	12.2	7.19	922

Source: Authors' calculations based on the Labour Force Surveys of 2001 to 2004.

3.4. Ways to improve the employment prospects of welfare recipients

In our analysis of data from the CSO Labour Force Surveys of 2001 to 2004 we find that unemployed people receiving social assistance and those employed on public works projects are both less likely to find unsubsidised employment compared to other unemployed or inactive populations. People on benefit are 30 to 35 per cent less likely to find employment and they remain unemployed for almost two years longer on average than people not receiving benefit. This outcome, however, may in part be explained by unobserved characteristics. The results also suggest that this type of benefit tends to function in practice as income support for the long-term unemployed and neither the availability conditions nor the work test element of public works programmes achieve the intended effect of encouraging re-employment.

Although the effects of unobserved personal characteristics cannot be reliably controlled for, the results unequivocally point to the conclusion that social assistance and related public works schemes keep a sizable group of poorly educated unemployed people in a helpless and hopeless state with a prolonged period of poor employment chances and insecure incomes.

We believe that it is not a lack of good will, but deficiencies in the regulations and the malfunction of the broad institutional environment that have given rise to this situation. The solution would involve the radical reform of the current regulations in four areas.

1. The first task is to amend eligibility conditions. Regulations should clearly specify sanctions for refusal to cooperate, leaving room for considerations of equity (e.g. by allowing temporary suspension in place of termination) and clearly prescribe the responsible body and the procedures of enforcement. It must be ensured that the bodies responsible for enforcement have an interest in and adequate administrative staff for enforcing eligibility conditions. This approach has brought substantial success in some EU countries – *Scharle* (2002) gives a brief overview of these initiatives and their outcomes.

2. The second task is to create incentives for the institutions (local governments) responsible for administering the assistance scheme to give a priority to re-employment in the open labour market. As long as the costs of providing transfers are the same or lower than those of activation services, the local

government will be inclined to choose the former, so that they can please the claimant and also spare the hassle of organising public works projects. One way to correct incentives is to set the rate of subsidies from the central government in proportion to the degree of activation exerted by each programme. Thus, the share of government financing should be lowest for social assistance schemes, and highest for active labour market programmes that facilitate re-employment in non-subsidised jobs. This would not necessarily imply a reduction in public funds available for activation programmes but would change the share of central versus local resources.

3. The above measures can only lead to success if the responsible bodies have the necessary expertise and tools to promote employment. This raises two additional requirements: first, the availability of experts who are able to identify personal characteristics that may impede re-employment (poor social or cognitive skills, family problems, etc.) and to select the services best suited to removing or reducing any such obstacle. This may be feasible at the level of the 174 small regions (LAU1), since some measures have already been taken to build expert capacities in local public employment services *(Busch, 2006)*. Second, an appropriate range of quality services must be available to local governments – some relevant international experiences are discussed through an example in Chapter 6 of this volume. This may also require opening the market of employment services to non-profit or for-profit providers.

4. The fourth task is to separate the two functions of the social assistance scheme. There will always be people among those in need of support who cannot work temporarily or permanently. Both a commitment to human rights and social solidarity call for a solution that grants these groups access to some kind of support providing for basic needs. This is also essential for eligibility conditions to be enforceable, since – fortunately – there will always be compassionate officials who are reluctant to enforce sanctions when they are aware that the claimant may not expect help from any other source.

ADMINISTRATION AND IMPACT OF PUBLIC WORKS PROGRAMMES

PÉTER ANDRÁS SZABÓ

At present there are three public works programmes for unemployed people.[42] *Scheme A* was introduced in 1991: it is organised by job centres and usually involves community services provided by local governments (cleaning public parks, ditches, etc.) As of 2000, Scheme *A* was extended to include any task that "affects the local population or municipality." 50 to 70 per cent of all costs (as of 2002, 90 per cent if Roma workers or people over the age 45 are employed) are covered by the central budget, financed from the Labour Market Fund. County labour offices are authorised to allocate the budget *(Laky, 2005)*.

Scheme B was introduced in 2000; organised by local government and serves as a work test for unemployed people claiming social assistance. The local government may claim 90 per cent of social assistance from the central budget. Workers on the scheme may be assigned to any local government task.

Scheme C was started in 1996, with the objective of using nationwide or regional projects (flood safety and emergency, clearing public areas of allergenic vegetation, forestation tasks) to create job opportunities for the unemployed. Tenders are invited by the Public Works Council and the work activity itself is organised by local governments or participating public utility companies (waterworks, forestry, national parks, etc.). 60 per cent of Public Utility Programmes are financed by the central government budget, the rest is funded by the contracted provider (7 per cent) or other, regional or local sources *(FMM, 2006)*. Table K3.1 shows the number of participants in the various public employment schemes and their costs.

As set out by the regulations, Schemes A and B are intended to encourage employment rehabilitation and a return to the primary labour market. Surveys on the administration and efficiency of the schemes were carried out in Budapest in 1999 *(Orsovai, Palotai & Pálinkó, 2000)* and in four counties in 2001 *(Fazekas, 2001)*, and the Hungarian Audit Office assessed the public works projects of 95 local governments in the same year *(ÁSZ, 2002)*. The results of these surveys and administrative data on return to work following long-term unemployment agree in their conclusion that public works schemes have done little to reduce long-term employment. *Orsovai, Palotai & Pálinkó* (2000) find that 28 per cent of workers hired on public works projects move back and forth between active and passive labour market programmes, and *Kertesi* (2004) argues that it is precisely these schemes which are responsible for large groups of untrained Roma workers being trapped in a situation with no way out: spending years in badly paid and insecure jobs alternating with social assistance.[43]

According to data from the Labour Force Survey of 2003–2004, the proportion of workers returning to public works schemes is estimated at 37 per cent *(Table K3.2)*. The preliminary results of a research project of the Hungarian Institute of Economics led by Gyula Nagy in the summer of 2007 indicate that the situation has not changed over recent years. Local governments tend to offer temporary employment rather than work opportunities that facilitate rehabilitation and improve labour market chances.

Public works schemes – far from fulfilling their original functions – are also used as a supplemen-

42 The Hungarian titles are "Közhasznú" (Type A), "Közcélú" (Type B), and "Közmunka" (Type C).

43 According to data in the Roma survey of 2003, barely 30 per cent of the working-age Roma population is employed and the job loss and job entry rates are around 25 to 30 per cent among Roma people, compared to a rate of below 10 per cent among unskilled non-Roma workers *(Kertesi, 2004)*.

tary source of financing municipal activities. The gradual extension of activities eligible for central government financing, the flexibility of the regulations and the almost complete absence of supervision allows larger municipalities to have their basic tasks and other tasks that do not strictly serve the community performed by public workers *(ÁSZ, 2002)*. The Audit Office survey recorded a case, for instance, where teaching assistants in a Veszprém county primary school were employed on a Scheme B project from the start of the school year in September through to its end in June and were put on unemployment benefit for the summer holiday – in full compliance with current regulations. Another example is the district council in Budapest which was brought into the media spotlight for employing a gypsy band for merry making and labelling them as community workers.

Table K3.1: Costs and participants of public works schemes (2002 and 2005)

	Number of participants (thousand people)		Public costs (billion HUF)	
	2002	2005	2002	2005
Scheme A*	22	22	11.9	12.8
Scheme B*	12	17	9.4	14.4
Scheme C**	14	15	5.6	7.1
Social assistance**	113	159	22.1	32.3

* Monthly average. ** Annual average.
Note: Hungarian GDP was HUF 22,000 billion in 2005.
Sources: National Employment Service CSO, Finance Ministry, Ministry for Work and Welfare.

Table K3.2: Participation patterns among public works employees, 2004 (%)

	Number of observed quarters			
	3+	4+	5+	6+
Staying on scheme	28	21	18	17
Moving on and off	37	48	52	57
Exit from scheme	35	31	30	26
Total	100	100	100	100
Observations	98	75	50	23

Notes: Data were taken from Quarter I 2003 to Quarter II 2004 in the CSO Labour Force Survey. Those people were included who did not participate in public works schemes in the first quarter of 2003 but entered a scheme in the next quarter and were observed for at least 3–6 quarters. The Labour Survey records considerably fewer public workers than suggested by administrative data. Assuming that the majority of workers employed in these schemes by local governments for extended periods consider themselves to be "proper" employees, the above results overestimate the proportion of people moving on and off the programme.
Source: Author's calculations based on the CSO Labour Force Survey of 2003–2004.

The explanation for the use of Scheme B in ways which are far removed from the original intentions is that local governments are not motivated and not appropriately prepared for organising public works programmes that offer rehabilitation. Smaller settlements lack institutions which could arrange public employment schemes *(Fazekas, 2001)*. The Audit Office report *(ÁSZ, 2002)* reveals that local governments rarely have an employment policy of any sort: only three out the 95

municipalities reviewed had a regular report on the employment situation and an action plan for necessary interventions.

Scheme A projects run by job centres have not proved to be any more successful in improving employment prospects, which suggests that lack of expertise cannot be the main reason behind the problems. The main causes are more likely to be found in the fact that neither the monitoring system, nor the financing arrangements create incentives to improve the employment chances of community workers. Monitoring is the responsibility of job centres but they have insufficient resources to cover this task as well as their expanding range of other functions. As a result, monitoring activities are limited to the audit of financial accounts: it is often left unchecked, for instance, whether or not all workers report for work and the job centre may not even know the number of workers registered with the local government *(ÁSZ, 2002)*.

Although the Ministry is aware of the poor efficiency of the schemes, it appears to have resigned itself to the situation. The recommendations of 2002 of the Audit Office concerning the assessment of programme results and the improvement of their efficiency were discarded by the Ministry for Employment on the grounds that "the most important function of public works schemes is to provide employment opportunities as a last resort for unemployed workers who would otherwise find no jobs." *(ÁSZ, 2002)*.

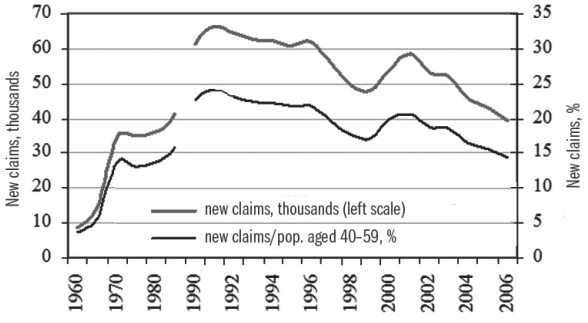
The situation is not entirely hopeless, however, since a number of initiatives have been launched which could succeed in improving long-term employment chances even in multiply disadvantaged regions struggling with an unskilled workforce, scarce capital and isolation. An initiative of this kind is the Cserehát programme launched in 2005 with support from the government and the United Nations. The programme seeks solutions which depart from traditional standardised development projects controlled by an external authority, and rests, instead, on the involvement of local partners. Important elements of the programme are first, that it targets small regions rather than single towns or villages and second, it relies on a collaboration of non-profit, private and public sector agents. It is based on the principle that a programme can only be successful if it relies on the participation of local stakeholders, if it is they who select the solutions best suited for themselves and if external resources and professional support needed for implementation is made available to them. As a first step, the Cserehát Programme Office surveyed local development partners and project ideas. Based on this they provided support to local actors, mostly from disadvantaged municipalities, to develop proposals for some large scale projects that may successfully bid for EU funds as they become available between 2007 and 2013. The first results of the programme were presented at a conference in May 2007, where the organisers reported that a network of around 2500 active local development partners had been created from a hundred settlements in their small region in the first year following the launch *(Cserehát, 2007)*.

4. A LABOUR MARKET EXPLANATION FOR THE RISE IN DISABILITY CLAIMS

ÁGOTA SCHARLE

The number of people under retirement age in receipt of disability pensions stood at 233,000 in 1990, grew by one and a half by 1996 and doubled by 2003. This process started well before the regime change. Annual inflow into disability pension had been stable at around 10,000 up to the mid-1960s, and then rapidly increased in two waves, so that by 1991 over 60,000 new disability pension claims were granted a year. With the effect of population ageing controlled for, we still see sudden surges in the late 1960s and towards the end of the 1980s (*Figure 4.1* shows the number of new disability pension claimants relative to the total number of people aged between 40 and 59). The total number of new applications has increased more rapidly and displayed greater fluctuations than the number of successful claims *(Figure 4.2)*.

Figure 4.1: New disability pension claims, 1960–2006

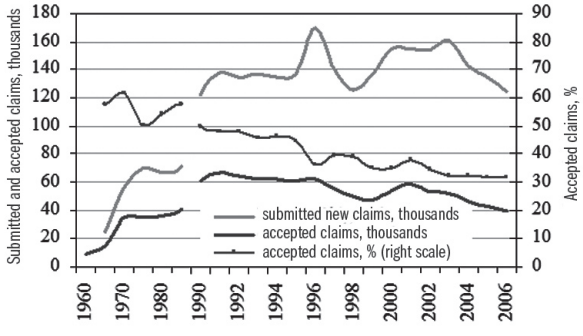


Source: 1960–1990: CSO Yearbooks of Health Statistics and data supplied by the Hungarian Rehabilitation and Social Assistance Office (ORSZI); 1991–2006: Yearbook of statistics of the Central Administration of Pension of Insurance (ONYF). Up to 1990, new claims are as reported by medical experts, and ONYF records thereafter. The former includes all claims filed during the year, the latter exlcudes pending claims.

The upsurge in disability pension claims starting in the mid-1960s was accompanied by a clear and substantial decline in the general health of the population. The situation was different in the late 1980s: the previous declining trend seemed to be reversing. Although the indicators of mortality

only showed improvement from 1993 onwards *(Sándor, 2003)*, *Pauka and Tóth* (2003) affirm that negative health trends had come to a halt earlier than that. The proportion of people living with severe disabilities was stable in pre-retirement age groups between 1980 and 1994 and the self-rated health status of the population showed improvement.[44] These data suggest that factors other than state of health must have also contributed to the changes in disability pension claims. Although at the beginning of the regime change, a generous pension policy could be justified by rational political arguments *(Vanhuysse, 2004)*, it has imposed heavy costs both on society and on the individual. The majority of middle-aged pensioners leave the labour market permanently, which means they do not pay social contributions, while their pensions burden the social insurance fund. These pensioners lose most of their social connections with the workplace and may live for many years in idleness and sometimes isolation. We are not aware of any attempts to compare these costs to the benefits brought by the fact that the political regime was changed peacefully and the transition to a market economy could proceed relatively quickly with no major social resistance. The costs are undoubtedly significant and, even more importantly, we continue to bear the burden today, since current disability pension schemes have retained most of the retirement incentives introduced 15 years ago.

Figure 4.2: Submitted and accepted claims for disability pension, 1960–2006



Source: See Figure 4.1.

4.1. Alternative explanations for the increasing trend in disability claims

The regime change involved several processes which could have induced an increase in disability pension claims, such as the decline in employment rates – including the employment of unskilled workers –, the expansion of the informal economy, changes in pension policies (the alternation of lenient and stringent periods) and finally changes in the quality of rehabilitation services.

44 *Pauka and Tóth* (2003) compare a thorough medical survey of 1980 (Complex National Morbidity Survey, Komov) with a self-rated health survey from 1994 and the demographic survey entitled "Turning Points of our Lives" of 2001. The latter two surveys show improving trends for both sexes in the age groups of 40–49 years and especially 50–59 years.

The sudden and steep decline in the employment rate of unskilled workers and the rapid rise in returns to education are well documented facts. Multivariate analyses of wages and productivity by *Kertesi and Köllő* (1997), *Kézdi and Köllő* (2000) and *Kézdi* (2004) find that the wage premium on secondary education and higher education increased greatly at the time of the regime change. Older workers were found to be disadvantaged not only due to their low educational levels but also because of their age in the first few years after the regime change *(Kertesi and Köllő, 2002)*. Low levels of education are also accompanied by an increased risk of poor health *(Tahin, Jeges and Lampek, 2000; Remák, Gál and Németh, 2006)*, which is partly related to physically more demanding work activities and partly to lifestyle.[45]

The informal economy continued to expand after the regime change, although its structure had changed. *Lackó* (2000) and *Semjén and Tóth* (2002) claim that the size of the hidden economy showed a decrease after 1993 owing mostly to growing foreign capital investment. Data collected by *Sik* (2000) from local governments indicate however that the incidence of black labour was still on the increase in the second half of the 1990s. The study also reveals that illegal employment is significantly more frequent in towns than in smaller settlements and – in contrast with the east-west divide in economic development – the incidence of black labour separates northern regions from southern regions.

While it is widely assumed that pensioners supplemented their incomes by taking up informal jobs, there is little empirical evidence supporting this claim. Studying entries into retirement observed in the CSO household budget survey, *Cseres Gergely* (2005) finds that the net incomes of retiring members of a typical family decrease by about a quarter: pensions and their favourable tax treatment largely compensate for the loss of wages. Retirement does not affect the incomes of partners living with the pensioners, the overall incomes of the households therefore do not decrease dramatically. This could be one explanation for the fact that new sources of income or temporary employment (or changes in consumption indicative of new income) rarely appear in the year following retirement.

A number of sociographic analyses have described family-run farming activities, which provide a means of subsistence for unskilled rural populations excluded from the labour market *(Simonyi 1995, Laki, 1997, Rácz, 2003)*. *Harcsa, Kovách and Szelényi* (1998) observe that, in contrast to rapidly developing specialised large-scale farms, family-run home farms tend to produce for their own consumption rather than for market sale and supplement this with other, typically social, incomes. This practice is not without precedent: *Gábor and Galasi* (1985) and *Oros–Schindele* (1977) show that pensioners, wives (official homemakers) and unpaid family helpers performed most of the work on home farms at the time of the communist regime.

45 *Józan* (2001) argues that the high level of mortality is primarily explained by lifestyle, specifically, by unhealthy diets (in addition to smoking, alcoholism and lack of physical exercise). A lesser role is attributed to the quality of health services and the harmful effects of the environment.

Act II of 1975, currently in effect, states that people with a 67 per cent reduction in their work capacity are entitled to disability pension provided that no improvement is expected in their condition within a year.[46] The entitlement ceases if the claimant recovers and/or his or her income approaches the level at which it was before the onset of disability. The amount of pension is determined with reference to previous income, similarly to old age pension: at 25 years of service, it equals the amount of old age pension, with additional compensation for a total impairment of health. The entitlement to disability pension does not cease when retirement age is reached, the claimant continues to receive the disability pension.

Vanhuysse (2004) argues that the lenient pension policy introduced in order to forestall social discontent or resistance at the time of the regime change was a rational political decision and social insurance institutions were therefore willing to co-operate in granting early pensions to workers facing insecure prospects of employment (see also *Gere, 1997*). In view of the increasing burden on the budget, however, international organisations recommended the tightening of conditions of entitlement as early as the beginning of the 1990s.[47] The regulations on disability pensions were first tightened in 1997–1998 with the aim to ensure that disability pensions were paid in accordance with the claimant's actual state of health. The new act was put into practice in January 1998, when disability pensions ceased to be granted on a permanent basis and some of the previously acquired entitlements were also reassessed as temporary. Temporary entitlement was tied to more frequent medical assessment than before. Disability pension thus became a less secure source of income as a result of the new regulations. No further reforms were introduced until 2006, however, and the share of disability pensions has increased in early retirement as the statutory age of retirement had been raised and the conditions on claiming old age pension before the standard retirement age become more restricted. Furthermore, as discussed in the next section, the conditions of the medical assessment of a possible reduction in work capacity have in effect steadily deteriorated over the years.

Assistance in the labour market rehabilitation of unemployed people with reduced work capacity is provided by job centres in the form of advice and subsidies to employers. Current regulations place labour market rehabilitation mostly in the hands of accredited, heavily subsidised sheltered workshops and factories. Most county level job centres operate a rehabilitation information service. The government has also financed pilot projects on increasing co-operation between job centres and non-profit organisations in providing rehabilitation services. The few studies performed so far indicate that the rehabilitation activities of firms providing sheltered employment tend to be firm-specific and training or services facilitating the return to the open labour market are rare *(Krolify, 2004)*. There is considerable regional variation in the

46 Additional conditions include minimum years of service and a fall in earnings by at least 20 per cent as a result of the disability. The required minimum years of service are determined with respect to age and range from 2 to 20 years.

47 The 1995 World Bank report on Hungary, for instance, recommended tighter regulations on disability pensions as the most efficient means to reduce social insurance fund deficits in the short term provided that a substantial proportion of workers thus excluded from the disability pension scheme found employment in the formal labour market.

quality and efficiency of rehabilitation services provided by job centres and average results remain poor *(Gere, 2000; OSI, 2005; FRSZ, 2006)*. A recent government decree of August 2007 on disability policy[48] sets the objective of developing rehabilitation services to facilitate open labour market participation by the end of 2009 and preparing job centre staff for performing associated tasks by the end of 2010. Services provided by non-profit organisations are more successful but are not widely accessible – partly due to their limited capacity and partly because of short term financing arrangements, which increase financial insecurity *(FRSZ, 2006)*.[49]

The above factors contributing to disability pension claims affect the Roma population of Hungary even more severely, with the various factors reinforcing each other. *Kertesi* (2000) analyses detailed work histories from the Roma survey of 1993–1994 and finds that the proportion of pensioners had already significantly increased in the period from 1984 to 1989 among the older Roma population (men aged 45–54 and women aged 45–49). The Roma survey of 2003 showed no signs of trend reversal at the end of the millennium. The incidence of early retirement among the Roma has now been stabilised: the proportion of pensioners below the statutory retirement age remains around 9 per cent among men and 8 per cent among women *(Kertesi, 2004)*.

The general health of the Roma population is poorer than the national average *(Mladovsky, 2007, Kósa et al, 2007)* partly because a greater proportion of Roma work in occupations causing health damage *(Kertesi, 2000)* and partly due to the fact that health care services are less accessible to the Roma population because of their disadvantaged position in terms of place of residence, financial circumstances and, on occasion, ethnic discrimination *(Gyukits, 2000)*.

In his analysis of labour market chances, *Kertesi* (2000) concludes that early retirement was a dominant form of exclusion from the labour force, which is explained by low levels of education and poor health on the one hand and by labour market discrimination against the Roma on the other.[50]

The expansion and stabilisation of government financed public works schemes has led to an increase in the instability in Roma employment rather than facilitating return to the primary labour market, which indicates the failure of the current approach to rehabilitation services *(Kertesi, 2004)*. This is reflected in the striking gap between transition rates: while the average annual exit and entry rates are under 10 per cent for the Hungarian population with low levels of education, the corresponding rates are around 25 to 30 per cent for the Roma minority.

It does not follow from the above however, that the incidence of disability claims is specifically a problem of the Roma: the scale of the problem is far too large to be explained by a decline of the employment rate in the Roma population. The number of people receiving disability pension under retirement age was over 460,000 in 2003, while *Kertesi's* (2004) data suggest that

48 Government Decree 1062 of 2007 (August 7.) on the preparations for the implementation of the new National Disability Programme for the period 2007–2010.

49 The Salva Vita Foundation, established in 1993, is one of the most successful non-profit organisations, which provides extensive services to assist the open labour market participation of workers with altered work capacity and which has made efforts to propagate its methods across the country since 2001. (*OSI,* 2005 and www.salvavita.hu).

50 *Otlakán* (2007) has measured employer discrimination using an experimental method based on job advertisements. The results show that 10 per cent of Roma applicants were explicitely rejected and 18 per cent got some reaction from the employer suggestive of discrimination.

the number of Roma pensionerss under retirement age was at most 50,000 in the same year.

4.2. The effect of demographic and labour market factors on disability claims

Labour market factors may mostly affect *applications* for disability pension since claims are evaluated with reference to the state of health, i.e., the number of new claimants in receipt of disability pensions should in theory reflect the decline in the state of health only. We can isolate the two effects by analysing the data on filed applications. As no individual level data are available on applications,[51] our analysis is based on county level panel data. 18 counties are included in the panel,[52] with ten observations between 1996 and 2005 for each. Estimates have been computed in various model specifications, only one of which will be discussed here.

The estimates were computed using a random effects model with the assumption that unobserved characteristics are independent of the effects of observed variables. The dependent variable is the number of submitted disability pension claims relative to the size of the adult population. State of health is measured as the proportion of people aged 40 to 59 years and as the number of visits to the family practitioner relative to the size of the population. Labour market conditions are characterised in terms of the employment rate of the population aged 15 to 74 years as indicated by the labour survey data of the Hungarian Statistical Office and in terms of the share of the Roma population (computed after *Hablicsek* [2000] based on the census of 1990 and the 1993–1994 Roma survey). The size of the informal economy is measured as the proportion of people living in cities: a low share of the urban population indicates a possibility of home farming while a high share indicates opportunities for black labour. This U-shaped relationship is captured by two variables: the linear term (share of urban population) measures the effects of home farming and the quadratic term (share of urban population squared) measures the effects of black labour. The effects of regulations are signalled by sudden and large deviations from the long term trend in the number of claims observed around the date of a change in rules. What we are interested in is whether the observed leaps were associated with poor health or with poor labour market prospects, i.e., which group was most motivated to file a claim fearing that they would not be able to do so following the changes in regulations. This is indicated by the interaction between the state of health or employment rate and the years from 1996 to 1998. The results summarised in *Table 4.1* correspond to our expectations.

These results indicate that the relative number of disability pension applications is significantly affected by labour market conditions in addition to factors related to the state of health. Relatively more applications are submit-

51 Population surveys only register accepted claims while administrative data, where all applications are shown, do not indicate labour market status – it has not yet been possible to link the two sources of information at the individual level.

52 The Hungarian Pension Insurance Authority publish annual statistics on claims and evaluations initiated or completed in the given year. This source merges data from Budapest and the surrounding Pest county, and therefore both were excluded from our analysis. The incidence of claims shows a substantial degree of dispersion but the difference between the minimum and the maximum values displays a decreasing tendency: the number of claims in proportion to the size of the population was 3.7 times higher in the eastern county of Szabolcs than in the western county of Győr-Moson-Sopron in 1996, while the ratio for Tolna county was barely twice as high as the ratio for Fejér county in 2006.

ted in counties with lower employment rates and where black employment is more accessible. A high share of the Roma population tends to dampen the negative effect of good labour market conditions on disability claims, suggesting that the Roma minority are disadvantaged due to their places of residence as well as discrimination.

Table 4.1: Health and labour market causes of disability pension claims

	Coefficient	Standard Error	P > z
40–59 years of age	0.069	0.048	0.154
Poor health	3.907	1.118	0.000
Poor health/higher ed.	–0.399	0.165	0.015
Poor health × Roma	–0.399	0.082	0.000
Employment rate	–0.022	0.009	0.021
Employment rate × Roma	0.007	0.001	0.000
Urban population	–0.129	0.051	0.012
Urban population squared	0.204	0.085	0.017
Poor health × 1996	3.474	0.674	0.000
Poor health × 1997	1.252	0.614	0.041
Poor health × 1998	–0.582	0.109	0.000
Employment rate × 1996	–0.030	0.007	0.000
Employment rate × 1997	–0.015	0.006	0.012
Constant	0.017	0.016	0.272
R^2 within	0.553		
between	0.396		
overall	0.422		
Wald $\chi 2$ (df.)	194.08 (13)		
$\sigma(u)$	0.0034		
$\sigma(e)$	0.0016		
ρ	0.8308		
prob>$\chi 2$	0.0		

Observations = 180.

4.3. The relationship between state of health and receipt of disability pension

Individual level data allow us to investigate the effectiveness of disability pension claim evaluations in filtering out applications submitted for reasons related to labour market prospects. Data for the first and the second quarters of 2002 from the labour force survey of the Hungarian Statistical Office are linked to identify individuals who were granted disability pension in the second quarter but not in the first quarter of the year. The data for the second quarter include additional information on state of health. The estimation is carried out in two steps: first we estimate the likelihood of being in employment and predict a probability of employment for each individual.[53] In the second step we use this predicted probability as an indicator of labour mar-

53 This estimate uses age, level of education, state of health and regional unemployment rate as explanatory factors.

ket prospects and estimate its effects on receiving a disability pension. The results of the second step are shown in *Table 4.2*.

Table 4.2: Probability of entry into disability pension

	Coefficient	Standard Error	t	P > t
Employment prospects	–1.49	1.08	–1.38	0.17
Limb or back problem	1.19	0.19	6.16	0.00
Mental illness	0.76	0.32	2.38	0.02
Heart or lung disease	1.16	0.20	5.87	0.00
Other problem	1.21	0.22	5.56	0.00
Years in employment	–0.01	0.01	–1.04	0.30
Constant	–1.69	1.08	–1.57	0.12

Probit estimates, Number of observations = 17,079, LR χ 2(6) = 90.68; Prob > χ2 = 0, Log likelihood: –224.724 4; Pseudo R2 = 0.1679.

With the effects of health controlled for, poorer employment prospects increase an individual's chances of receiving a disability pension. The effect is not statistically significant but this could be due to the relatively small number of observed entries into disability pension status in the sample.

Multivariate models analysing the entire pensioner population – and using a larger sample size – show similar and statistically significant effects. *Cseres Gergely* (2005) investigates the probability of changes in labour market status in the period between 1993 and 2002. The author finds that the likelihood of retirement increases with poorer health (measured by sickness payments) while it significantly decreases with expected earnings. *Köllő and Nacsa* (2006) estimate the likelihood of pension receipt for men aged 44–62 years and women aged 44–58 years using the 2000 Q4 CSO labour force survey. According to their results, the probability of a man retiring five years before the statutory retirement age was 37 per cent for the entire sample, ranging from 18 per cent in the region with the best labour market conditions to 56 per cent in the region with the worst employment prospects. The likelihood of pension receipt was higher for the low educated and for people living in low-wage small regions.

4.4. Alternative approaches to easing labour market tensions

It is safe to conclude then that the rising incidence of disability pension receipt was largely a consequence of labour market tensions and it served to ease that tension. This raises the question of whether the government could turn to alternative solutions for soothing labour market disruptions without imposing lasting negative effects on the budget, the competitiveness of the country and lives of the workers affected.

The task is twofold: on the one hand, the current system needs to be restructured in order to reduce incentives to leave the labour market permanently and

on the other hand, alternative solutions need to be offered to those with low chances of finding secure jobs in the primary labour market. A number of Western European governments have faced a similar problem and starting from the 1990s, some have implemented policy measures which appear to be viable.

British, Danish, Dutch and Swedish experiences suggest that the solution has three key components. The first two components are aimed at reducing incentives: tighter regulations on eligibility conditions and a reduction in benefit amounts. The third component offers an alternative: active labour market policies or social services which enhance productivity and employment prospects.

The tightening of eligibility conditions involves the requirement that the claimant should make efforts to regain work capacity and re-enter the labour force and failure to do so will lead to the suspension or reduction of the disability benefit. The job centre provides continuous assistance in these efforts and at the same time monitors progress: they offer individual rehabilitation services and job opportunities but impose sanctions if co-operation is refused.

The amount of potentially available benefit is reduced by making access to the full pension amount conditional on previous participation in a series of rehabilitation attempts. The income gained on retirement is also lowered as the risks associated with fraudulent claims are increased by improving the efficiency of detecting abuse and applying stricter sanctions both for doctors and applicants. In addition, in the case of Hungary, old-age pensions received at early retirement should be substantially lowered as compared to the amount of regular old-age pensions (at least until the statutory age of retirement is reached).

The alternative offered is the improvement of employment prospects. This task requires a wide range of effective rehabilitation services, from among which the personal adviser assigned to the claimant can select the services deemed most appropriate. These are funded by the public employment service but may be operated by non-profit or for-profit private organisations. This scheme may be supplemented by a system of income support which compensates for the expected drop in earnings resulting from the reduction in work capacity and by communication tools mitigating labour market discrimination or information gaps.

The British "Pathways to Work" programme discussed in detail in Chapter 6 of this volume is a good example of such an approach. In a nutshell, the programme requires claimants of a disability pension to attend monthly interviews starting within 8 weeks following the filing of their claim, they are assigned to a personal advisor who offers job opportunities and recommends a programme of maintaining the applicant's physical and emotional condition. Participants who enter into employment are entitled to a small wage subsidy covering travel costs and incurred clothing expenses and are assigned to a mentor who helps them with any problems that may arise. The scheme is fairly expensive but has proved to be very successful: employment rates among

disability pension claimants increased by a quarter over a period of one and a half years in regions where the scheme was introduced.

The reform of July 2007 of Hungarian regulations on disability pension was prepared in the spirit of the approach discussed above but it focuses on just one of the three components, that of improving employment prospects, and leaves incentives essentially untouched. The new regulations prescribe a detailed assessment of the state of health and the remaining work capacity of the claimant and health-related, social and labour market rehabilitation services are offered in accordance with the results of the assessment. The claimant receives rehabilitation benefit for the duration of the rehabilitation programme but for no longer than three years. The amount of benefit given is, however, effectively the same as the amount of disability pension. The new regulations state that the claimant is required to co-operate with the local job centre but do not give precise details of the sanctions applied in case of refusal to actively participate.

Disincentives to labour market participation could be reduced within the new framework as well by tightening sanctions and by reducing income gains. One way to do this would be to adjust the amount and the taxation of rehabilitation benefits to match those of unemployment benefits rather than disability pensions. Also, the pension received before retirement age could be substantially lower in value (in proportion to the missing number of years of service) than old-age pension. The likelihood of detecting benefit fraud should also be enhanced in order to lower the pontential income gains from claiming benefit.[54] As long as the probability of disclosure is low, disability pension in combination with black labour remains the most lucrative option.

The new regulations take the first important step towards the improvement of employment prospects by focussing on the assessment of remaining work capacity rather than on health impairment. The next step is to make a well-informed choice of the necessary rehabilitation services and to assure the quality and efficiency of these services. Some steps have already been taken towards this goal: a large scale pilot has been carried out to introduce a simple screening tool at job centres (see *Busch, 2006*) and a number of smaller projects have been launched in the framework of the National Labour Foundation (OFA) or the EQUAL Initiative of the EU to develop and use various rehabilitation services (e.g., *FRSZ, 2006*). For the successful operation of public employment services, these experimental programmes should be systematically assessed to identify best practices and the conditions for nation-wide implementation. Programmes that pass both tests should than be systematically introduced. A similar intention is expressed in the government decree of August, 2007 mentioned above, which prescribes that a system of basic and social rehabilitation services should be developed by June, 2008 in order to facilitate access to the employment rehabilitation scheme.[55]

54 A claimant is considered to abuse the scheme if he or she obtains a medical report certifying a greater reduction in work capacity than is justified by his or her state of health, if the claimant works in the shadow economy or fails to notify the authorities of received wages (in excess of the limit specified by the regulations).

55 Government Decree 1062 of 2007 (August 7.) on the preparations for the implementation of the new National Disability Programme for the period 2007–2010.

ASSESSING WORK CAPABILITY

FERENC JUHÁSZ

Disability pension claims are submitted for evaluation to the claimant's local pension insurance authority. Claims must be supported by a medical diagnosis of disability and proof of the number of years of service. The local GP or the specialist who issues the diagnosis usually attaches to the claim their detailed opinion and some documentation of the health condition. Based on this information, a panel of medical experts examines the claimant and issues a medical certificate/assessment.

Currently there are almost 70 such panels involved in the assessment of disability pension claims operating under the supervision of six regional centres and one in the capital city (the seven county centres have been reorganised into six regional centres).[56] Up until the late 1990s, decent professional conditions were secured: a panel was made up of two physicians, the typical medical assessment lasted 45 minutes and a second round of assessments (following an appeal) lasted 50 to 60 minutes on average. Panels had access to various kinds of specialist advice from contracted or – mainly in Budapest – full-time specialists, as well as to diagnostic tools, x-ray facilities and medical laboratories. Tools and equipment later became increasingly difficult to access, while the number of disability claimants substantially increased. While expert capacities have not expanded, work load has considerably increased: the case load increased to 10 to 15 patients per day for each physician and in some cases now claims are assessed on the basis of written documentation only.

The assessment centre in Budapest currently employs 140 to 150 specialists carrying out around 300 to 330 thousand examinations each year. Appeal cases are assessed by a panel of two senior physicians. For initial claims the physical examination of the patient may be done by one doctor only, but the written assessment has to be made by a team of two experts. An examination session usually lasts approximately 30 minutes, while in the Netherlands, for instance, the average length of an examination is 3 to 3 and a half hours.

Panels issue assessments on claims for 21 different types of welfare provision and receive patients referred to them by any of 12 different authorities and organisations. The majority of assessments are requested in connection with new disability pension claims or disability pension claim revisions. The medical assessment always sets a date for the next reassessment in view of the patient's health condition. Reassessment is typically prescribed at two or three year intervals.

In the assessment process, the panel collates the relevant medical records, arranges them in chronological order and according to the type of condition, quickly scans the details (in about 10 minutes) and finally, makes a record of the information supporting their assessment.

The documentation supporting a claim always includes a referral issued by the local GP or specialist. These referrals describe all health conditions for which the claimant has been treated or which have been diagnosed, but in most cases only 15 to 20 per cent of these documents contain information of any value to the panel. A typical file includes dozens of often contradictory, occasionally untruthful reports and documents compiled in an *ad hoc* manner. No information is provided on the claimant's

56 The central administration of specialist assessment services, named the Institute of Medical Expert Services, was overseen by the Hungarian Health Insurance Fund (OEP) up to the end of 2006. Currently it is under the supervision of the Ministry of Welfare and Employment. When a claim is made for the new employment rehabilitation benefit introduced in July 2007 to encourage return to work, the claimant's unimpaired work capabilities and social circumstances are also assessed in addition to the state of health. The institute responsible for the central administration of assessment was renamed to reflect the new function and is now called the Institute of Rehabilitation and Social Expert Services (ORSZI).

current or previous occupations, employment history, education, or living conditions.

The health condition of a substantial proportion of referred claimants is not properly investigated, their treatment is far from comprehensive and only around 10 per cent of them have had access to medical rehabilitation. Most claims do not include a recommendation by a rehabilitation expert, nor the assessment of an occupational health expert.

For claimants in an acute phase of their condition at the time of the consultation (e.g. immediately after an operation and before going through rehabilitation procedures), the loss of work capacity cannot be appropriately determined, since the patient is not in a stable state. Nevertheless, the physician must make a decision as to the extent of the reduction in the patient's work capacity if the claimant has no other income and could not have his or her basic needs covered for the duration of the rehabilitation. The decision on the patient's work capacity is made for at most one year in this situation.

Claimants can request to have their work capacity evaluated on the basis of documents – certified by the local GP or specialist – on grounds of health problems. This usually occurs in cases of severe disability. If the information submitted with the claim is not sufficient for the issuing of the medical certificate/assessment, the expert panel may request further examination results or, if justified, can request to see the patient for examination. In certain cases the patient may be visited by the physician in their home. A claim can only be rejected on the basis of a face-to-face examination, with the exception of some claims for mental disability benefit and certain international cases.

The physical examination of the claimant is carried out using traditional medical equipment (phonendoscope, reflex hammer, ECG). This suits the minimum requirements concerning the availability of equipment in an outpatient clinic but is insufficient to assess unimpaired or restorable capabilities. Until recently medical panels did not use the International Classification of Functioning and Disability (ICF) standards in making their assessment and the reduction in work capacity was evaluated in accordance with guidelines issued in 1989. Assessments/certificates issued by the medical panel usually include suggestions for rehabilitation but do not specify concrete procedures leading to rehabilitation or to facilitate employability. Recommendations for rehabilitation mostly involve negative or prohibitive statements (such as "patient cannot work standing up," "patient cannot perform tasks requiring sustained walking," etc.). In summary, current practice tends to focus on health problems rather than the functional capabilities of the claimant.

5. INCENTIVE EFFECTS IN THE PENSION SYSTEM OF HUNGARY

ZSOMBOR CSERES-GERGELY

Pension (and disability or old-age pension by themselves) constitutes the highest expenditure in the budget among all welfare programmes. This holds for every country with a developed welfare system, not only for Hungary. The issue of pensions is a major concern of an army of economists – starting with the question of optimal regulations through to the analysis of unintended effects reaching beyond old-age support. A number of researchers have investigated the pension programme of Hungary on the basis of aggregate data and theoretical constructions (see for instance, *Augusztinovics, 2000; Augusztinovics et al, 2002; Simonovits, 2006*). We are not aware, however, of analyses using individual level data which are aimed at isolating the effects of incentives arising from the nature of the system from the effects of individual traits. This chapter undertakes to fill this gap with the help of a simple empirical model of the decision to retire. Data collected on individuals in two consecutive periods will be used to examine the effects of the accessibility of pensions, the size of the difference between incomes expected from a pensioner and a non-pensioner status, and other individual factors on the decision to claim a pension.

The question of the decision to retire deserves special attention: following its relative consolidation in 1997, the pension fund is once again struggling with serious problems of balance over the long run. According to estimates by *Burniaux, Duval & Jaumotte* (2004), the effective (including disability pension participation) retirement age of Hungarian men is the lowest after Luxembourg among the EU countries. *Vanhuysse* (2006) explicates and substantiates the hypothesis described by *Gere* (1997) that there are definite socio-political objectives behind the rapid expansion of the pension programme. The process of political and economic transition gave rise to a situation where former socialist countries had to face significant political risks as they prepared for privatization. The restructuring or, in several cases, total closure of state owned companies led to a complete loss of security among the often unskilled workforce on such a large scale which, as indicated by historical experiences, tends to lead to major discontent, demonstrations and other forms of protest. That this essentially did not happen in the former socialist countries is undoubtedly due to the fact that the governments had largely anticipated this danger and found effective methods of forestalling it. It must be this strategic

social policy, argues *Vanhuysse* (2006), that has led to a situation in Hungary and Poland where the increase in the expenses of the pension programme exceeds population ageing by far and pensioners are granted a financial status far above that of the poor strata of society.

In its pure form, the pension system is an insurance service made compulsory. As long as the condition of payment to the social security system over a given period of time is met, it provides life-long cash support from the time when the "loss event" of attaining a pre-defined age occurs. The intended effect of pension, then, is to secure a fixed, guaranteed income to the insured party after a certain age.

If participation in the pension programme was only tied to the age requirement and stringent rules applied with no exceptions, we would "only" need to face the problem of defining eligibility conditions and the pension rate. In practice, however, most pension systems allow for several exceptions. The Hungarian system includes many of these, such as a provision that the statutory age limit may be relaxed if certain conditions are met provided that the claimant agrees to a lower pension rate. Conversely, a higher pension rate may be attained by delaying retirement. Also, the old-age pension programme makes exceptions in the case of occupations classified as having outstandingly high health risk factors and on the basis of other social considerations: these allow a preferential retirement age without a reduction in pension rate. Thirdly, other, highly similar programmes are available in parallel with the old-age pension scheme: these include pensions for widowed or orphaned people and disability pension. With respect to labour supply effects, disability pension is the most significant type of welfare in this group.

In contrast with other countries, participation in the disability pension programme usually means permanent absence from the labour market in Hungary.[57] For this reason, our analysis treats disability and old age pensions as parts of a coherent welfare programme with two, formally distinct components: their accessibility and entitlement conditions differ but the pension rates are determined in effectively the same way. With respect to labour supply effects, the most important feature of the pension system is the incentive system which is embodied in the regulations specifying eligibility and the amount of pension to be paid. With reference to the categories discussed in Chapter 1 of this volume, this is a secure transfer of a predetermined amount [see ***Figure 1.4a)***] which substantially enhances the financial circumstances of the recipient (the payment almost always ensures "a decent living standard," assuming a complete absence of labour activities and taking the needs of an elderly person who owns his or her home). This outcome has an unequivocal negative effect on labour supply, since the pension grants an income necessary for subsistence without the need to work or in combination with part-time employment. If the availability of part-time work is limited, complete inactivity is the (second) best choice.

57 The number of exits not due to death is so low that it is not included in the annals of the Hungarian Central Administration of National Pension Insurance (ONYF). According to the Health Annual of 1981, the combined proportion of exits due to death, rehabilitation or other causes is 5 to 6 per cent *(KSH, 1981)*.

The simple model and figures in Chapter 1, however, cannot show all the effects of the system. If the programme allows early entry at the cost of certain financial sacrifices, the promise of a secure income will have an effect before the start of entitlement, not only following it. The attractiveness of the offer depends on the expected utility of the pensioner and non-pensioner status, which can be characterised by three factors: the ratio of the pension to labour income (substitution rate), the security of obtaining and retaining either type of income, and the possible use of available leisure time. Let us consider the following simple examples as an illustration.

If no major changes occur in the individuals' life courses – i.e., people who are successful in the labour market have always been successful, and those who are unsuccessful have always been unsuccessful –, the substitution rate will be roughly the same for different people (regardless of the number of years taken into consideration in calculating the pension). If, however, someone is hit by adversity at a given point in life – loses a previously secure job, for instance, and the chances of finding a job in the labour market with an income comparable to his/her earlier income are close to zero –, the substitution rate may be above average. The availability of this option encourages early retirement even if labour supply is possible. When there are significant obstacles to employment, however, pension remains the only source of income and the effect will be multiplied.

For our second example, let us assume that the worker is in employment but expects to lose his/her job shortly. The worker also knows that job seeking will require some effort and will have an uncertain outcome. The worker's income has not yet changed but its future availability is highly insecure. This threat alone makes pension an attractive option.

Finally, let us consider a worker who has worked in a windowless office with neon tube lighting for 30 years, has permanent backache and overstressed eyes. This is a person who enjoys gardening and being outdoors and has no significant financial commitments. Retirement will be quite an attractive option for this worker, even if it means financial sacrifices.

While even these simple examples involve more than one factor, it is quite conceivable that these effects are accumulated. Our imaginary worker has been sitting in a dark office or standing in an assembly line for years, their low, but so far sufficient, wages are about to be lost because of privatization or the sale of the business. The worker's specialised training means that only unskilled work would be accessible to them in the village and they would be in competition with young and far more capable workers. All our worker needs to do is get a certificate of disability to secure a decent living. This would not only guarantee an income, but would also allow the worker to help their daughter, who would like to commute to the town 80 miles away but has a two year old child to care for. The story could be further coloured in various ways, including a threat of losing the job, the difficulty of employment and other factors.

Our imagination, however, does not tell us anything about the weights of the individual factors in making the decision. To measure that, we need a large number of observations and multivariate methods of estimation.

5.1. Data

To estimate the factors influencing a pension claim, we need a database which supplies information on income as well as data on individual circumstances. Only one such large database is available in Hungary, the Household Budget Survey, for which data have been collected by the Hungarian Central Statistical Office (CSO) for several decades and which has been made available in a virtually unchanged format commencing with the years following the regime change up to the present day. Households participating in the survey supply data every year on their incomes and expenditures for the given year and for a single month of the year,[58] as well as on various demographic and other traits. Data on people living in the same household can be linked and the details of individual household members can be included with individual traits.

In addition, the panel allows data to be linked over time as well as within a given year. One third of the households in the sample is replaced each year, with the result that (in theory) each household can be followed for three years. Since however people move or, more frequently, drop out, the number of households and individuals that can be linked in practice is smaller than theoretically possible – this phenomenon and the details of linking are described by György Molnár, the person responsible for developing the panel data *(Molnár, 2005)*. In an attempt to counter-balance the loss of data due to drop-out for the present analysis, two periods were linked in so-called stacked panels, which were then ordered "successively" such that the first and the second periods of each pair could be treated the same way, as if data were collected during the same time period. The procedure was carried out for each start year between 1993 and 2000 with the exception of 1995, where this was not possible. The method has the consequence that the time of individual observations is "lost," which we attempt to compensate for by including effects typical of the given years and some characteristics of the environment which vary over time (such as regional employment rate). Income measured in cash is expressed in terms of its value in 2001 for the same reason. After linking the data, people claiming and receiving pension in a given year are identified as those who did not have a pension income in the first period but had one in the next period.[59]

5.2. Differences between pensioners and non-pensioners

The decision to retire depends on the relative weights of the advantages and disadvantages of pensioner and non-pensioner status. It is assumed to be a genuine decision, although – some may rightly object – there may be no al-

58 With the exception of food expenditure, which only appears in monthly data.

59 This working definition of start of retirement is clearly not perfect and, although it is suitable for our purposes, it cannot be used to enumerate people entering retirement in the given period. Since in theory there is no seasonal effect in retirement, people may enter the pension programme in any month of the year. If, however, people are only observed in one month of the year, the odds of someone retiring without the change being observed is exactly 0.5 (the month of retirement is smaller than the month of the observation). The fact that half of the retiring events are left unobserved may be a significant loss, but unfortunately, we have no other option. The main reason for this is that a method of almost complete capture would require the use of yearly income data, which would not allow us to determine pensioner and non-pensioner incomes over the entire period with reasonable accuracy.

ternative to retirement under the given circumstances due to various pressures. Strictly speaking, it is the different forces of the various constraints which are investigated in this case. Financial incentives are important, but of course not the only factors that contribute to the level of welfare that may be attained in either of the two situations. Other considerations include first of all the temporal distance from retirement age, as well as leisure activities and family commitments.

If we are to estimate the probability of pensioner status (i.e., the effects of individual factors on the probability of an arbitrarily selected person being retired), we can use cross-section data from a given period. The probability of pensioner *status* (the state, being part of the stock), however, may deviate substantially at a given point of time from the probability of entering retirement (the change, being part of the flow). Since, however, in most cases only cross-section data are available, for reasons of comparability, we shall first use a simple model with cross-section data to investigate the effects of individual factors on someone being retired or not. The set of independent variables used in the equations includes the usual human capital type variables and also others which may have an effect on labour market success due to different conditions on regional labour markets.

Table 5.1: Estimate of the probability of pensioner status among people aged 25–64 based on cross-section data (average marginal effects from probit regression)

Explanatory variable	(1)	(2)	(3)	(4)
Activity rate of region of residence (%)		–1.043*** (0.17)	–0.846*** (0.17)	–0.342** (0.15)
Activity rate of region of residence squared		0.761*** (0.16)	0.612*** (0.16)	0.238* (0.14)
Education: vocational training			0.00216 (0.0058)	0.0283*** (0.0042)
Education: upper secondary			–0.0333*** (0.0059)	0.0237*** (0.0047)
Education: higher education			–0.0844*** (0.0057)	0.00152 (0.0054)
Female			–0.0512*** (0.0025)	–0.0390*** (0.0021)
Partner is retired			0.0893*** (0.0032)	0.0691*** (0.0027)
Working				–0.311*** (0.0034)
N	113,348	112,854	112,854	112,854
R^2	0.461	0.472	0.496	0.645
Control variables not shown	+ control variables of distance from retirement age	+ control variables of distance from retirement age, region, settlement type and year	+ control variables of distance from retirement age, region, settlement type and year	+ control variables of distance from retirement age, region, settlement type and year

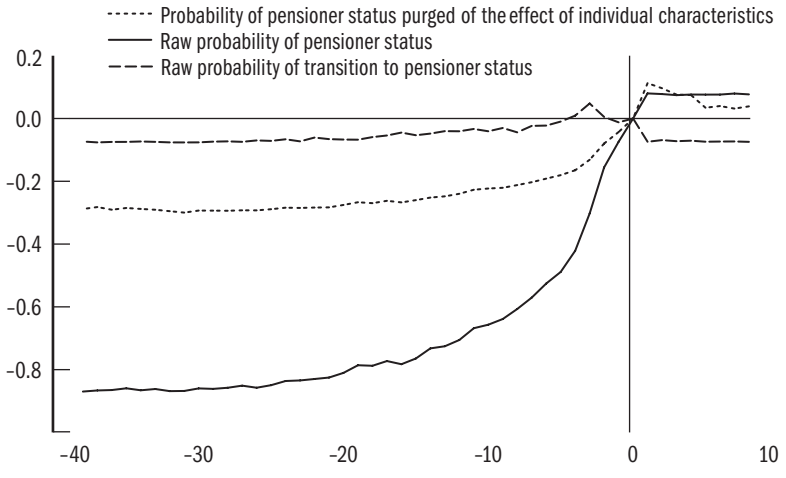
Robust standard errors corrected for arbitrary heteroscedasticity and the recurrence of observation units (clustering) are given in brackets.
*** $p<0.01$, ** $p < 0.05$, * $p < 0.1$.

The estimates over the observations of every person between the ages of 25 and 64 in the sample are shown in *Table 5.1* using four different specifications.

The figures in the table indicate the magnitude of change in the probability of an arbitrarily selected person being retired due to a change in a given variable, independently of the effects of every other observed trait. Column (2), for instance, shows that given a group of people of the same age, the same educational attainment and living in regions with similar unemployment rates, the probability of being retired is 8 per cent lower for a female member of the group than it is for a male member. Individual effects appear independently of each other. Thus, the effect of temporal distance from retirement age, for instance, is not mixed with the effects of educational differences in the composition of various age cohorts.

It is clear that the distance from retirement age is perhaps the most important indicator that distinguishes pensioners from non-pensioners. The exponentially rising curve alone (shown in *Figure 5.1*) accounts for 46 per cent of variability in pensioner status. To achieve the greatest possible flexibility, this curve was estimated with a non-parametric method (using a different indicator variable for each distance in number of years). As it is highly space-consuming to display the results in a table, this information is not shown in the data columns of *Table 5.1*, although it was included in each estimation. The outcome of this estimation alone can be seen in *Figure 5.1*. The variable has such a strong explanatory power that the model's success in predicting retirement only improves by one percentage point if we add the variables of local activity rate, region, settlement type and year of observation (see Column [2] in the table). Including the variables of education, sex and partner's activity in the model has a more significant but still moderate effect (Column [3]). The results indicate that relatively highly educated people and women are less likely to be pensioners, similarly to those who live in a region with better employment prospects or whose partners are not pensioners. The observed effects of these factors correspond to our expectations to some extent, since employment prospects are related to training, and partners or spouses often synchronize their retirement. It may come as a surprise, however, that women are less likely to be pensioners than men. The explanation is that although the statutory retirement age is lower for women (which should increase the odds), there is a lower incidence of disability pension among women compared to men (which decreases the odds) and there is a large number of untrained women, the effects of which are captured by the inclusion of the variable of education. With these effects controlled for, the probability of pensioner status is reduced. A major change can be observed with the inclusion of individuals' employment status (Column [4]): working people are less likely to be pensioners compared to non-working people. Now we are in a much better position than before to explain pensioner status; it is not clear, however, what was first: the pension or the lack of employment.

Figure 5.1: Probabilities of pensioner status and retirement as a function of the number of years left until retirement age (differences are relative to retirement age as reference value)



Source: Author's computations based on cross-section and panel data from the HCSO Household Budget Survey.

There are two reasons why a cross-section analysis is not suitable for assessing the incentive effects of the pension programme. First, it shows the cumulative result of factors motivating retirements over a relatively long period of time (which is also influenced by deaths) and therefore it cannot provide a reliable estimate of the incentive effects of the current pension system. Secondly, it does not allow us to measure the effects of considerations arising before the decision to retire is made (which is our main concern). To measure that, panel data are needed and flows rather than status need to be observed.

The results of a simple estimation concerning entry into retirement are shown in *Table 5.2*. In the simplest model, only the factor of temporal distance from retirement age is included as a variable predicting the probability of entering retirement. Similarly to the cross-section estimation, the effects of this factor are only shown in *Figure 5.1*, together with the raw cross-section probability of retirement. Although the explanatory power of the model using panel data is smaller (accounting for around 6 per cent of variability), the curve displays an exponential shape similarly to the raw cross-section data and corresponding to our expectations based on the standard duration model.[60] A notable difference between the two curves is that while the probability of pensioner status based on stocks peaks at retirement age, the raw probability of entering retirement based on flows peaks three years before, at exactly the point when early retirement becomes available without any penalties. The determinants of entering retirement are added to the model gradually.

60 Note that we do not expect equivalence: the two curves could only be equivalent under highly exceptional circumstances.

Table 5.2: Estimate of the probability of entering retirement among people aged 25–64 years based on panel data (average marginal effects from probit regression)

	25–64 year old						40–64 year old
Explanatory variable	(1)	(2)	(3)	(4)	(5)	(6)	(6)
Activity rate		–0.0242	–0.0193	–0.0238	–0.0439*	–0.0418*	–0.0669
		(0.015)	(0.015)	(0.015)	(0.023)	(0.022)	(0.041)
Education: vocational training			–0.00191	–0.00415	–0.00232	0.0335*	0.0484
			(0.0035)	(0.0036)	(0.0079)	(0.019)	(0.033)
Education: upper secondary			–0.00740**	–0.00911***	–0.00409	0.0611	0.0733
			(0.0035)	(0.0035)	(0.0078)	(0.045)	(0.065)
Education: higher education			–0.00941**	–0.0121***	–0.00459	0.169	0.133
			(0.0037)	(0.0034)	(0.0082)	(0.14)	(0.16)
Female			–0.00732***	–0.00804***	–0.0230***	0.0915	0.0619
			(0.0017)	(0.0017)	(0.0028)	(0.10)	(0.12)
Partner is retired			0.00703***	0.0215***	0.0296***	0.0240***	0.0311***
			(0.0020)	(0.0022)	(0.0034)	(0.0032)	(0.0054)
Partner is retiring				0.142***	0.168***	0.140***	0.121***
				(0.010)	(0.015)	(0.014)	(0.018)
On sick leave in base period				0.0377***	0.0313***	0.0289***	0.0426***
				(0.0040)	(0.0039)	(0.0037)	(0.0065)
Net income (log)					–0.159***	–0.157***	–0.275***
					(0.049)	(0.045)	(0.094)
Net income (log) squared					0.00652***	0.00684***	0.0119***
					(0.0023)	(0.0021)	(0.0044)
Work experience (years, potential)						0.00726**	–0.00528
						(0.0034)	(0.0071)
Work experience squared						0.0000	0.000194***
						(0.000019)	(0.000059)
Net income (log) × female						–0.00535	–0.00482
						(0.0049)	(0.0091)
Number of years before retirement age						–0.000795	–0.0132**
						(0.0032)	(0.0056)
Number of years before retirement age squared						0.000151***	0.000652***
						(0.000020)	(0.000074)
Over retirement age						–0.0126	–0.0360***
						(0.012)	(0.013)
Working				0.0184***			
				(0.0025)			
N	45,385	45,385	45,385	45,385	21,264	20,834	10,298
R^2	0.064	0.072	0.076	0.14	0.23	0.223	0.195

Each equation includes the control variables of year, region and settlement type, which are not shown here. With the exception of the last two, each estimation includes a row with the indicator variable measuring the difference between age and retirement age, i.e., people's temporal "distance" from the effective retirement age. The final equation also includes year indicators which interact with income.

Robust standard errors corrected for arbitrary heteroscedasticity and the recurrence of observation units (clustering) are given in brackets.

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$.

The explanatory value of the model is substantially improved when individual traits are added which capture temporal changes and motivations predicting the decision – this is shown in Columns (2)–(4) in the table. Factors in this group include sick leave status in the first period of observation, which approximates health status, the partner entering retirement and the net income received over the first period. Since labour income will also be taken into account in later analyses, the models shown in Columns (5)–(6) use the sub-sample of people in employment. Disregarding the fact that the effect of education disappears, the results are qualitatively similar to our previous findings. The effect of education is replaced by a highly significant effect of income. The last column shows a re-estimation of model (6) where the finding that the incidence of entering retirement displays a steep increase from the age of 40 is taken into account and the sample is reduced to people in the age cohort of 40 to 64 years. The results indicate that the effects of most of the variables are highly similar to those observed before. One exception is work experience, which displays a linear effect for this age group.

5.3. A more complete model estimation of entering retirement

Our previous models do not reveal the effects of the income that may be attained under pensioner or non-pensioner status. Although some of the variables have an indirect effect on income, their combined indirect effects on rate of income cannot be determined and cannot be isolated from their direct effects. In this section the model is modified to address this problem.[61] Since the estimation hinges on the observation of labour income in the first period, only those people are analysed who worked at the time.[62]

The estimation procedure needs to bypass the problem that pensions remain unobserved for people who work in the second period, while wages remain unobserved for people who enter retirement. The final model measuring the relationship between expected income and the decision to retire is therefore built in three steps. First, the income expected without entering retirement is estimated – this will be primarily, but not exclusively, labour income. The estimation is based on the section of the population who are not retired. Second, the level of income expected after retiring is estimated on the basis of the data on people who are observed to enter the pension programme. The two income estimates together cover the population of people in employment in the first period of observation and indicate how much income each of them can expect as a function of the decision whether to retire or not. These values can then be included in the equation explaining the decision.

Estimation of income in the second period as a non-pensioner

Table 5.3 lists the results of classic Mincer wage equations augmented by the income measured in the previous period. It is an important difference compared

61 The modification is motivated by the option value model of *Stock & Wise* (1988). The option value model describes the decision to retire made at a given point as a decision which takes future costs and gains into account in addition to immediate consequences. At each point, the decision maker considers the immediate and all future gains of retiring. If the gains are greatest in the present, the individual will retire, if greater gains are expected in the future, he or she will wait. The estimation is greatly simplified by the assumption that retiring is typically accompanied by inactivity and both are irreversible once the decision has been made. One of the important consequences of the Stock & Wise model is that if this condition is satisfied, the incomes expected in retirement and outside of retirement can be used directly in the estimation. *Lumisdale, Stock & Wise* (1990) demonstrate that if motivations are specified with sufficient detail, the model can be built using a simple econometric procedure, binary probit estimation. Our circumstances unfortunately do not allow specifications at the required level and we are not in a position to use Stock & Wise's procedure directly. To be able to regard our equation as an estimation of the option value model, we must assume that the income expected in the next period is indicative of all successive future periods. In this case, an expectation of higher pension means that the total income of the entire pensioner period is expected to be higher than the total income of the entire non-pensioner period.

62 Also, based on the data displayed in *Figure 5.1*, the group under analysis was restricted to people over 40 years of age – the upper age limit of 64 years was kept.

to the estimation of earnings that although the majority of pensioners work as employees, a lot of them also receive income from other sources, which supplements or substitutes for labour income. These include casual payments, second jobs, premia and even unemployment benefit. As these are taken into account in predicting income, the result is a good approximation of the income to be expected in the next period corrected for the risk of changing status. Similarly to the Mincer equations, our equation shows the impact of education on wages but with the parameter of delayed income assigned the value of 0.7, it is the *growth* of income rather than its *level* that we predict (subtracting 0.7 times the income expected in the next period from both sides of the equation, the relevant element is cancelled on the right and we get an outcome variable approximating the growth of income on the left). A notable result is that the coefficient of the delayed income is rather small, which to a large extent can be attributed to our decision to include every possible activity status to estimate the income of the second period rather than only people in employment.

Table 5.3: Net personal income expected in the second period without pension (monthly, log) as a function of individual traits – sample: people aged 40–64 years working in the first period

Explanatory variable	Heckman	OLS
Net monthly income (log) in first period	0.707*** (0.017)	0.699*** (0.020)
Work experience (years, potential)	0.0144 (0.014)	0.00454 (0.013)
Work experience squared	–0.000313 (0.00023)	–0.000109 (0.00022)
Education: vocational training	0.0813 (0.053)	0.102 (0.082)
Education: upper secondary	0.181*** (0.055)	0.204** (0.084)
Education: higher education	0.288*** (0.059)	0.318*** (0.085)
Female	–0.0593*** (0.014)	–0.0563*** (0.015)
Local activity rate	0.273** (0.13)	0.254** (0.11)
Constant	2.702*** (0.29)	2.909*** (0.28)
Lambda	0.165** (0.079)	
N	10,062	9474
R^2	.	0.27

Both equations include the control variables of year, region and settlement type, not shown here.

Robust standard errors corrected for arbitrary heteroscedasticity and the recurrence of observation units (clustering) are given in brackets.

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$.

A shortcoming of the simple estimation using the method of least squares (OLS, second column) is that it disregards the possibility that a pensioner may not become a pensioner at random, but under some pressure where factors determining future success play a major role. If this is the case, there may be factors which have not been observed but have an impact both on expected income and on labour market success. What we have in mind are traits such as creativity, motivation, assertiveness or communication skills. Our model corrects for the effects of these features using *Heckman's* (1979) two step

method. The first data column of the table shows the corrected values. The effect to be corrected for is measured by the "lambda" variable; the importance of the correction is indicated by its level of significance.

Estimation of income in the second period as a pensioner

The equation predicting future pension is formally similar to the labour income equation. Here, however, pension is the function of personal income, which is a relationship that approximates the formula used to compute pensions. The degressive nature of the pension formula is to be captured by income squared in addition to income, while differences assumed to hold between women and men mainly in the number of years of work are captured by allowing the effects of income to differ between the sexes. The estimation allows us to predict what income could be expected by people who delay retirement if they chose to retire.

Table 5.4: Net personal income expected in retirement in the second period (monthly, log) as a function of individual traits – sample: people aged 40–64 years working in the first period

Explanatory variable	Heckman	OLS
Net monthly income (log)	–1.003 (0.91)	–1.383* (0.71)
Net income (log) squared	0.0677 (0.043)	0.0853** (0.034)
Net income (log) × female	–0.00953** (0.0044)	–0.00844** (0.0038)
Work experience (years, potential)	0.0305 (0.034)	0.0183 (0.022)
Work experience squared	–0.000544 (0.00051)	–0.000243 (0.00032)
Constant	13.17*** (4.78)	15.08*** (3.66)
Lambda	–0.127* (0.066)	
N	10,298	588
R^2	..	0.19

Both equations include the control variables of year, region and settlement type, not shown here.
Robust standard errors corrected for arbitrary heteroscedasticity and the recurrence of observation units (clustering) are given in brackets.
*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$.

As we can see in *Table 5.4*, the equation once again has a moderate explanatory power, and the effect of net income does not appear to be statistically significant. One reason is that one of the variables not shown here which captures those effects of net income that vary between years is highly significant. Another reason is the strong significance of the lambda variable, which captures selection bias and shows a strong correlation with net income. It is clear, however, that although the results of the estimation where there is no correction for unobserved effects (OLS in the second data column) are qualitatively similar, the parameters of the key variables are greater, as we expected. A somewhat surprising result is that the quadratic term indicates growth rather than degression[63] – we have no explanation for this phenomenon.

63 The apparent negative effect is due to the fact that the data points are on the ascending part of the function.

Estimation of the decision to retire as a function of expected income

With the pensioner and non-pensioner incomes expected in the next year available for each person observed, their effects can be directly estimated. Variables previously included as an indication of income type (such as education) are now replaced by the estimated values of incomes and only those variables remain in the model which exclusively affect retirement – partner's retirement status, partner's transition to pensioner status, sick leave in the first period and distance from retirement age. The results of the estimation are shown in *Table 5.5*, corrected and uncorrected as before. Similarly to previous results, we can see that there is no substantial difference between the estimated effects, although the results of the model controlling for selection effects are more pronounced, which is, again, what we expect considering the effects of unobserved factors.

Table 5.5: Average effect of income incentives on the probability of entering the pension programme – sample: people aged 40–64 years working in the first period

Explanatory variable	Heckman	OLS
Net monthly income if working (predicted, log)	–0.134*** (0.022)	–0.115*** (0.017)
Net monthly income if retired (predicted, log)	0.186*** (0.038)	0.161*** (0.030)
Partner is retired	0.0292*** (0.0053)	0.0292*** (0.0053)
Partner starts retirement	0.123*** (0.018)	0.123*** (0.018)
On sick leave in the base period	0.0416*** (0.0065)	0.0415*** (0.0065)
Number of years before retirement age	–0.0234*** (0.0015)	–0.0223*** (0.0015)
Number of years before retirement age^2	0.000815*** (0.000067)	0.000796*** (0.000067)
Over retirement age	–0.0169 (0.018)	–0.0200 (0.017)
N	10,298	10,298
R^2	..	..

Structural probit estimation. Each equation includes the control variables of year, region and settlement type, not shown here.
Robust standard errors corrected for arbitrary heteroscedasticity and the recurrence of observation units (clustering) are given in brackets.
*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$.

The above estimation indicates that the financial incentives have a significant effect. A one per cent increase in expected non-pensioner income decreases the probability of entering retirement by 0.11–0.13 percentage points, while a similar increase in pension income increases it by 0.16–0.18 percentage points. As before, having a retired or retiring partner also increases the probability of entering retirement, by 3 and 12 percentage points respectively. Considering that the raw proportion of people entering retirement is around 6 per cent in the sample, this effect appears to be fairly important. The probability of entering retirement continues to increase with a decrease in the temporal distance from retirement age, independently of other factors.

What is the interpretation of the results? Two strong conclusions of practical relevance can be drawn. *1.* The number of years left before retirement age is reached and the respective incomes that can be expected as a pensioner and a

non-pensioner both have a strong impact on the decision to retire. The higher the income that can be expected in retirement, the more likely it is that pensioner status will be the chosen option and the higher the income expected from work, the less likely it is. Since the values of the two coefficients are not substantially different, we would get similar results if we replaced incomes by a single variable: the substitution rate of pension. In this case, the results indicate that retirement becomes an increasingly attractive option as the substitution rate increases, i.e., as pension income becomes a better substitute for labour income. *2.* Besides individual traits, unobserved factors presumably related to labour market success also have an effect on retirement. These skills increase the expected non-pensioner income and reduce the probability of retiring. If the goal of economic policy is to delay average retirement age, the impact of expected income and personal skills needs to be considered.

Let us start with skills. In many countries, adult education is an active labour market intervention aimed at improving employment chances, but there are indications that these programmes are moderately efficient (at least in comparison with programmes enhancing human capital at a younger age, as argued by *Carneiro & Heckman* (2003) for instance). *Köllő* (2006) finds that the most pressing problem of people who have difficulty adjusting to the labour market is a lack of basic skills of literacy and other skills needed to absorb and process information. While this conclusion may well hold for our data as well, in the absence of accurate measurements, we can only speculate. This important issue can only be settled on the basis of targeted data collection focussing on the relationship between skills and retirement.

Among politicians and economists alike, a general consensus appears to emerge now that given the phenomena of population ageing and improving life chances, raising retirement age is inevitable. The results of the analysis indicate that raising the age of retirement is an efficient tool. It must be emphasized, however, that we do not know either the indirect effects of a delayed retirement age on the labour market success of affected people or its direct effects on other economic actors. The investigation of these is a research question, while the assistance of people in disadvantaged situations is the task of social policy.

Finally, a discussion of possible ways of regulating expected pension incomes is in place. A sensible policy would not aim at reducing the incomes of people entering the pension programme at or after retirement age. This would in fact be diffidult to do in a fully or at least partially insurance based pension system. Reducing the level of pension income attainable before retirement age is reached is, however, all the more important. One method may be to lower pensions granted before retirement age to a greater extent than previously, or reduce the probability of access to early pensions. We have seen in Chapter 4 of this volume that there is a fairly wide margin of freedom to do that, especially with respect to disability pensions.

CHANGING CONDITIONS OF EARLY RETIREMENT

MÁRIA AUGUSZTINOVICS & JÁNOS KÖLLŐ

Over the few years immediately before and after the regime change, large numbers of people chose early retirement as an escape from imminent or expected job loss. The incidence of early retirement remained high after the transitional recession, despite the gradual rise in the statutory retirement age and the abolishment of the special early pension scheme previously introduced to ease labour market tensions. To illustrate the orders of magnitude: of the cohort born between 1945 and 1959, 23 per cent had retired by 2005 – when they were 46 to 60 years old. Within this cohort, the ratio of pensioners was only 8 per cent among graduates, 20 per cent among people with secondary education and 35 per cent among people who had only completed 8 years of primary education.

The chapters discussing disability pension and early retirement have shown that an important factor to consider is that the pension programme provided a relatively high and secure income compared to potential – insecure – wages. The choice of early retirement was not constrained by "penalty" deductions in the old-age pension scheme and in the case of disability pensions was facilitated by the – well documented – tacit consideration of poor labour market prospects in the evaluation of claims.

Over the next few years, the conditions impacting choice between employment and early retirement are expected to change profoundly, quite independently of changes in early retirement rules or in disability assessment procedures. The available (imperfect and incomplete) data suggest that large groups of people will be unable to obtain sufficient years of service required for a pension by the time they reach retirement age. Or, if the current requirement of 20 years of accumulated service were lifted they could expect a pension so small in amount that it would not present an attractive alternative to incomes offered by casual labour or welfare benefit programmes. This is a new phenomenon in the pension system and, in a broader sense, in the entire system of social transfers.

The analysis of administrative data in *Augusztinovics and Köllő* (2007) indicates that, in the first five years of the new millennium, each year about 37 to 40 per cent of the cohorts born between 1945 and 1950 failed to have accumulated the service time required for pension eligibility as specified by the current regulations. The ratio is somewhat lower, at 32 per cent, when considering the total of the five year period, owing to the fact that people move between eligible and non-eligible status. As the degree of mobility is practically unknown however, and predictions on the future always contain some uncertainty, it is difficult to estimate the number of people who will not obtain pension eligibility. According to a cautious estimate with very broad margins, there will be 250 to 500 thousand people over the next decade and a half who will not attain pension eligibility by the time they reach retirement age because they will fail to meet the requirement of 20 years service. Taking the median of the top and the bottom values of the estimated range, around a third of the population will fail to be eligible potentially reaching 50 per cent among people with only primary education. People in this subgroup are not only threatened by the prospect that they will not be able to retire if they wish to, but can also expect very low pension rates of barely 40 per cent of the average pension of university or college graduates.

These circumstances will gradually reduce the role of the old-age pension scheme in social and unemployment assistance aquired over the past twenty years, since they block the escape route precisely for those with the worst employment prospects. While the long years of service accumulated – by almost everyone – over the period of socialism

held the door open well after the end of the full employment era, it will soon be shut by the persistenly low employment rate and low wage rates of uneducated workers.

The trend described above will put unprecedented pressure on the disability pension programme. However, tightening the regulations on disability pension claim evaluation cannot solve *this* problem by itself; it can at best steer claimants who are denied employment and old-age pension towards other welfare programmes. What is needed, instead, is a rehabilitation programme of the kind presented in Chapter 6 of this volume – and a race against time. These developments also make it imperative to make a decision on how the old-age pension scheme should handle those not attaining eligibility or only to very low pensions: whether they should be granted a basic or minimum pension or be provided for by an old-age welfare programme outside the pension system.

6. EVIDENCE-BASED SOCIAL POLICY: AN EXAMPLE OF A WORK INCENTIVE PROGRAMME

ÁGOTA SCHARLE[64]

The number of people receiving disability pension has almost tripled since the 1970s, reaching a proportion of 7.5 per cent of the working-age population in 2001. With the decline of heavy industry, the proportion of people on disability pension is twice the national average in regions with scarce job opportunities and much of this group have permanently left the labour market. The government has made substantial progress in reducing unemployment and welfare dependence but the labour market prospects of people on disability pension have not improved.

The above summary of the situation in Great Britain may sound familiar to Hungarian readers. This chapter describes the reaction of the British government to the challenge of such a situation as an example of the implementation of evidence based policy making. The final section of the chapter points out some lessons for Hungarian policy making, highlighting some bottlenecks and promising initiatives as well.

6.1. Good governance and evidence based policy making

The cooperation between government decision makers and researchers has a long history in Great Britain, and the Labour government taking power in 1997 under Tony Blair's leadership has placed an even greater emphasis on this cooperation. In its modernisation programme announced in 1999, the government pledged to be "forward-looking in developing policies to deliver outcomes that matter, not simply reacting to short-term pressures" *(Cabinet, 1999)*. Evidence-based policy making was highlighted as one of the most important tools in achieving this goal *(Davies, Nutley & Walter, 2003)*.

The task of improving government efficiency has recently received increasing attention in the European Union, at international organisations and in certain countries.[65] *Better Regulation* initiatives are especially strong in Britain, Ireland and the Scandinavian countries. The common element in the initiatives ranging from cutting red tape through to introducing systematic impact analyses is that they seek methods for improving efficiency and attempt to integrate these into the daily practice of policy making.

64 *Zsombor Cseres-Gergely* contributed to the writing of this chapter.

65 At an international conference in June 2007, the representatives of the European Committee, the OECD, the World Bank and the UN issued a common statement, where they call for governments to support the propagation of an evidence based culture of policy making in every aspect and state that transparent and responsible policy making makes a substantial contribution to the growth of welfare *(Istanbul..., 2007)*.

In Britain, the need for change and the modernising agenda were outlined in two reports published by the Cabinet Office in 1999 *(Bullock, Mountford & Stanley, 2001)*. The report on *Professional Policy Making for the Twenty-First Century* identified nine core features of modern policy making: outward looking, innovative and creative, forward looking, evidence-based, inclusive, joined up, learns lessons, evaluates and reviews *(Cabinet, 1999)*. An efficient process of policy making involves the regular and systematic assessment of delivery, the recognition and dissemination of implications for policy, and the correction of existing measures as needed. Every effort is made throughout the process to rely on the most accurate evidence available: facts and research findings and the opinions of professional organisations and stake-holders. Finally, co-operation between government institutions is sought from the start of the policy making process through to its delivery.

Evidence-based policy making was given an especially strong emphasis in the British modernisation programme. New units and working groups were set up under the supervision of the Cabinet Office, The Treasury, the Audit Office and the Economic and Social Research Council and commissioned to develop various areas of organisational culture and expert capacities. Training programmes were organised for government experts and politicians, a nationwide publicity campaign was launched to raise awareness and support for evidence-based policy making, and new forms of cross-departmental collaboration between working groups, secondment of specialist staff and collaboration with external experts were introduced. A resource and management centre was established to co-ordinate the collaboration between academic research centres engaged in developing management tools. These initiatives were strengthened by legislation and the requirement to support government decisions by evidence and make background studies publicly available is systematically enforced in government policy making *(Bullock, Mountford & Stanley, 2001)*.

6.2. The British *Pathways to Work* programme

The implementation and success of the new approach to governance is aptly illustrated by the launch of *Pathways to Work* in 2002, a new programme aimed at helping unemployed people with reduced work capacity to return to work. The success of the scheme rests on its carefully designed structure as well as on the method of its introduction, where the first pilots were followed by gradual expansion and thorough impact assessment after each step, with corrections made as necessary.

The Green Paper – problems, proposals and consultation

Plans for the *Pathways to Work* programme were published in a green paper by the UK Department for Work and Pensions *(DWP, 2002)*. The green paper

surveyed the labour market participation of the population living with reduced work capacity, reviewed the experiences of the existing New Deal scheme for disabled people and concluded that it had brought no major improvement in comparison with other programmes, as the employment rate of the target group had not increased significantly. The last chapter of the paper outlined a proposal for a programme which was expected to improve results.

The new government coming into power in 1997 introduced a range of welfare to work schemes targeted at various groups in 1998. On top of general active labour market programmes, three measures were introduced to encourage the re-employment of people with reduced work capacity:

1. people making a claim for incapacity benefit are required to attend an interview where employment opportunities are discussed; the interview is repeated at least every three years;

2. people actively seeking work are assisted by job brokers who specialise in disabled workers;

3. people over 50 entering long-term part-time or full-time employment are eligible for additional financial support for a year, also available to participants of training programmes for a month.

The Green Paper of 2002 found that while the overall employment rate increased and unemployment decreased from 1999 to 2000, there was an increase in the number of people on incapacity benefit, claimants stayed on welfare for an average of eight years[66] and most of them did not work during this period. The evaluation of the operation of the employment programme led to the conclusion that although people with impaired health conditions received more help than previously, this was not sufficiently focused or sufficiently intensive.

Standard job centre services are sufficient for the average unemployed going through a rough phase in their career but people applying for incapacity benefit have more specific needs. Health problems are usually accompanied by other impediments: low educational attainment and a lack or insufficiency of basic skills (such as literacy, communication, adaptation). These cases require personalised assistance that first helps to compensate for these missing skills and then helps to acquire them. Assistance needs to be supplemented by close supervision: one of the most frequently absent skills is in fact motivation itself, which can be encouraged by a requirement of regular checks and by financial incentives.

The first programme introduced in 1998 needed to be amended in a number of ways: the three year interval of mandatory interviews proved to be too long, the staff at job centres were not appropriately trained to deal with customers with special needs, job brokers did not have sufficient information on appropriate job opportunities, the different schemes were not suitably integrated and failed to cover the entire range of problems that came up. The

66 The work capacity of claimants is reviewed every three years and permanent entitlement is granted in very rare cases.

2002 Budget allocated supplementary resources to piloting new methods in an effort to correct these deficiencies.

The Green Paper was published on the DWP web site on 20th November 2002 and the proposal was open to public debate until 10th February 2003. Several professional and interest groups commented on the paper – its reception was on the whole positive. The Department published its response in June 2003 summarising the main reactions and explaining how the original proposal was to be modified to accommodate the new suggestions *(DWP, 2003)*.

The structure of the new programme

The new programme outlined in the *Pathways to Work Green Paper* consisted of four main elements: *1.* claimants attend interviews and a screening tool is used to determine whether they need the special service provided by the programme; *2.* those who do are required to attend further work focused interviews to discuss an action plan of return to work activity; *3.* the service most suited to the needs of the claimant is selected from a wide range of programmes aimed at improving employability and labour prospects; and finally *4.* people returning to work are given improved financial incentives *(Riddell, Banks & Tinklin, 2005)*.

The new programme was built on the existing scheme introduced in 1998 and necessary changes were decided on the basis of previous programme evaluations. Most of the modifications involved the administrative procedures, the timing of services and the improvement of collaboration between the various experts involved.

The work capacity and health of claimants are assessed in a series of tests usually taking 12 weeks before a decision is made on their entitlement. Eligible claimants who are found capable of work attend a work-focused interview within eight weeks after making the claim.

The first work-focused interview is thus held two months into the programme rather than at the time of making the claim: this ensures that participants' attention is not occupied by the outcome of their claim and thus they can better concentrate on job search. The capability assessment is spread over a number of sessions to allow the activity programme to proceed on the basis of interim results. Claimants had previously had to wait six months for the results of the capability assessment and had not been able to start seeking employment during this period.

Clients complete a questionnaire at the first interview: their replies are evaluated by a computer programme that estimates the client's prospects of finding employment within a year without special assistance. Those with low employment chances are required to attend follow-up interviews, while others have access to further services on a voluntary basis. A series of five follow-up

sessions are held, one every four weeks, where the client's progress in returning to work is discussed.

The screening tool helps identify the appropriate target group of the services: people with little chance of return to the labour market without special support and encouragement are given more attention. The purpose of having more frequent interviews is twofold: first, the sessions help identify and address the obstacles to work faced by claimants and second, they serve as a test of availability for work. Attendance is mandatory and failure to comply is sanctioned by a reduction in benefit.

New clients of the welfare provision are assigned to the same personal adviser for the entire duration of the programme. Advisers help select the services which are best suited to helping the client return to work. These are grouped into 16 packages, each targeting a life event or problem commonly hindering re-employment and may include work trials, internet access, job interview skills training, vocational retraining, lifestyle advice and other support. A new Condition Management Programme has been developed for people living with disabilities: these 6 to 13 week programmes help claimants manage the physical symptoms of their health condition or disability (such as pain).

Unemployment and incapacity benefits are administered by the same institution, *Jobcentre Plus,* which has an extended range of functions, but several services are contracted out to non-profit or for-profit organisations. Staff receive training in identifying the complex problems of workers with reduced work capacity and in selecting the services best suited to them.

Financial incentives are enhanced by offering a small return-to work credit for one year (40 pounds per week, which is 20 per cent of the minimum wage, in the form of a tax credit) to people who enter employment of at least 16 hours per week if their earnings are below 15,000 pounds per year (one and a half times the minimum wage). People participating in work-focused rehabilitation programmes can be given financial support of 20 pounds per week (to compensate for travel costs, for instance). The tax credit is paid in cash directly by the job centre rather than as a refund from the tax authority.

Programme pilots, evaluation and roll out

The first pilots of the *Pathways to Work* programme were launched in October 2003 in three job centre districts with local unemployment rates substantially higher than the country average (Derbyshire, Renfrewshire and Bridgend all used to be industrial areas). At pilot job centres, programme participation was compulsory for new claimants and existing incapacity benefit recipients could join on a voluntary basis. The programme was subsequently rolled out to further districts. Four new districts joined in April 2004, and the next expansion was implemented in February 2005, when the programme was extended to all incapacity benefit claimants in the pilot districts. Another four

areas joined in October 2005 and in January 2006 the programme was extended to all highly disadvantaged districts (the bottom third of all districts in terms of unemployment rates).

19 million pounds were invested in the experiment in its first year and 47 million in its second. The latter figure corresponds to 0.3 per cent of all budget expenditure spent in connection with people with reduced working capacity *(House of Commons, 2006)*.

In her reply to a House of Commons interpellation, the Secretary of State for Work and Pensions said in June 2007 that the programme was active in 40 per cent of job centre districts *(Flint, 2007)*. Further roll out is planned to be implemented through contracting private sector and non-profit organisations. The contracts are tendered in two waves: the services of the programme will be available in a further 15 districts by the end of 2007 and in the remaining 16 districts by April 2008. Contracts had been signed with six private sector providers by September 2007. Participation in the programme is voluntary for existing provision recipients and mandatory for new claimants. Trials of compulsory participation for everyone were started in 2007 in seven districts.

The DWP regularly surveys the operation of the programme and assesses outcomes with the help of a purpose built evaluation database. The database contains data from various administrative sources: Jobcentre Plus data on registered unemployed people and on the participants of active labour market programmes, data from the registry of people on welfare benefits, data from the screening procedure, and data on the clients of the old (but still available) incapacity benefit scheme. The database records information on every client of the programme and their participation can be followed at all phases of the procedure.

Most of the programme evaluation is undertaken by a consortium of independent research centres. The first evaluation used qualitative methods of assessment and was conducted by researchers from the *National Centre for Social Research (NatCen)* at the beginning of 2004 *(Dickens, Mowlam & Woodfield, 2004)*. Its main purpose was to provide rapid feedback on the experiences of the first phase of the experiment (the first three pilot districts) and to identify problems in implementation. The evaluation involved interviews with job centre staff, external experts participating in the pilots and clients. Apart from their experience with the programme, respondents were also asked for suggestions as to what could be improved and how. This formed the basis of recommendations to amend the programme with respect to the training of personal advisers, avoiding staff overload, the quality of the screening tool and the coherence of work availability requirements and supportive services.

A second wave of evaluations was prepared by three research centres in collaboration and used a longitudinal panel survey design to analyse the behaviour of participants (clients) of the pilot programme *(Corden, Nice & Sainsbury, 2005)*. These investigated attitudes towards the new services and the compulsory interviews and assessed claimants use of the range of services provided. The data was then used to evaluate the impact of the programme on employment chances and to identify areas where amendments were needed.

A total of 11 surveys were conducted using different methodologies between 2004 and 2007: the first qualitative interviews were followed by quantitative data collection on a larger sample and the administrative data of the Department were analysed. The pilots were launched in several districts and at different times, which made it easier to isolate external influences from the effects of the programme *(Blyth, 2007)*.

The evaluations covered every component of the programme and several factors that may have influenced outcomes. They covered the various medical examinations, the screening tool, the effects of withholding the benefit, employment difficulties specific to older people, adult education opportunities for people with learning difficulties, the ambitions and attitudes of older people, attitudes towards disability, the functioning of integrated service provision, the costs and benefits of motivating non-profit service providers, the experiences of the return-to work tax credit administered by Jobcentre Plus, methods of paying pensioners' benefit entitlements, moves between sick leave and work, the relationship between employers and people with long-term health conditions and potentials for self-employment.

The latest evaluation report was completed in June 2007 on the basis of a questionnaire survey and administrative data *(Bewley, Dorsett & Haile, 2007)*. The results of the multivariate analysis indicate that one and a half years into the programme the proportion of clients successfully returning to work increased by 7.4 per cent. The number of people exiting the programme increased by 6.3 percentage points in the first six months but this effect diminished to 1.5 percentage points after one and a half years. The probability of employment primarily increased among the group who had left the scheme. The programme reduced the incidence of health impairment seriously limiting clients' ability to carry out everyday activities by 10.8 percentage points.

Publicity and professional networks

The UK Department for Work and Pensions publishes the entire text and a summary of up to four pages of every completed report on its website (http://www.dwp.gov.uk), by both internal and external researchers. In addition, a separate report on *Pathways to Work* summarising existing evaluations and results has also been published *(Blyth, 2007)*. The results of programme evaluations have also been published by researchers in working papers and jour-

nal articles. The studies are available to download from the web pages of the Department and the research centres involved. Wide publicity serves several purposes. First, it allows the government and the scientific community to have access to the body of knowledge emerging from the research results and to the conclusions and lessons learnt from the exercise. Second, it encourages researchers to keep to high quality standards in their analyses. Finally, by publishing brief summaries accessible to the media and to a wider audience, the Department can gain or enhance public support for its goals and policies.

To ensure high standards and enduring co-operation, research is commissioned from experts carefully selected through competition and research contracts are signed for several years. The Department established a research procurement framework to allow the straightforward and uniform handling of commissioned external research activities. The framework ensures that minor research projects need not be individually handled in the public procurement process. The research contract system further allows the Department to support the activities of research centres in certain cases. This practice has the advantage that with long-term collaboration, the supported organisation gains better insight into the needs of the Department. It also carries the risk, however, that support may be difficult to withdraw should the changing needs of the Department require the expertise of other research centres. According to the head of the Social Research Division, this type of co-operation is successful provided that it is limited to well-defined research activities *(Bridgwood, 2003)*.

The heads of units responsible for commissioning research usually have direct experience of research institutions: one of the senior research officers at the Social Research Division, for instance, held previous positions at the Institute for Employment Studies of Sussex University and the Social Survey Methodology Unit at the Office for National Statistics and worked on policy evaluation methodology at the Cabinet Office.

The Department itself also employs researchers and encourages the secondment of its employees to conduct research at academic or other research centres *(Bridgwood, 2003)*. The DWP in turn admits researchers and experts from other government departments or research centres on secondment. The separate research unit of the Department provides services concerning measurement, methodology and analysis for the entire organisation. The unit is responsible for the research budget of the Department and supervises dozens of external research projects in parallel. The Department not only commissions secondary analyses and small-scale surveys but also participates in major endeavours, such as the English Longitudinal Survey of Ageing (ELSA), where tens of thousands of respondents are involved.

6.3. Lessons for practices in Hungary

The majority of experts and decision makers involved in the formulation of employment policy in Hungary have a thorough knowledge of their fields and are committed to build an efficient welfare system which provides social security and encourages labour supply at the same time. They seek to ensure that job centres offer quality services and are open to using the results of academic research – the very existence of this volume being the perfect proof. The web pages of the Ministry of Welfare and Employment and the Hungarian Employment Agency publish a growing body of up-to-date and relevant information; the National Employment Fund (OFA) finances innovative experimental projects. The Ministry maintains an in-house research centre, finances policy-relevant research activities and regularly invites researchers to participate in the policy making process.

However, the impact of employment policy has been very limited in the past 15 years and has failed to bring substantial improvement in the activity rate. One of the main reasons appears to be the inattention to four functions which – as exemplified by the British model – are essential for efficient policy making. Efficient policy making is based on evidence, is able to learn, evaluates and revises. It evaluates results, identifies mistakes, makes the experiences available to others, tries new, better solutions and improves existing ones.

Each of the individual components of a model of learning-based policy making appears somewhere in Hungarian social policy but they are not integrated into a unified whole. In the current practice of government policy making, ex-ante impact analyses are usually formal or completely missing and policy outcomes are not regularly monitored *(OECD, 2007b; Kovácsy, 2005)*.[67] The impact of active and passive labour market programmes is not assessed regularly, programmes that prove to be unsuccessful are not removed from the system *(Gere & Szellő, 2006)*. Experimental projects are either not subjected to a review process where the best tools could be identified or, if assessments are made, their results are not easily accessible to stakeholders and programmes that prove to be successful are not rolled out on a national scale *(FRSZ, 2006)*. Monitoring and evaluation reports are either completely inaccessible to the public or are published sporadically, on the websites of different institutions or in other difficult-to-reach formats.

The new system of rehabilitation services and provisions for unemployed people with reduced work capacity also includes several features which have proved to be successful in the British *Pathways* programme. An assessment procedure focusing on unimpaired capacities is available and there is some expertise and experience available in job centres concerning screening tools, the special services required by clients with reduced work capacity and methods for successful workplace rehabilitation *(Juhász, 2004; Busch, 2006; Dávid,*

67 Improving government efficiency has been on the government's agenda and as of 2005, the Justice Department and the Public Administration Reform Committee has expert groups and divisions which are assigned the task of maintaining high standards of law making and propagating better governance. The requirement of impact assessment and evaluation receives special emphasis in the *New Hungary* development plan. These initiatives, however, have so far had little practical impact.

Móricz & Szauer, 2007). There are also good examples of collaboration between job centres, local governments and non-profit service providers *(HEFOP, 2005; Progress, 2005; FRSZ, 2006)*. A framework for collecting data that would allow precise measurements and the methodology of evaluation are also available *(Kézdi, 2004)*.

The British experiences suggest that three further steps are needed for success. First, the outcomes of completed pilot schemes and existing nationwide programmes should be systematically assessed and evaluated, in order to identify best practices and also the factors that contribute to the success or failure of the various schemes. The results should be summarised in a publicly available report and offered to professional groups for consultation. In the second step, a new system of provisions can be outlined, building on the comments and suggestions that emerged in the consultations. The new scheme should integrate the isolated initiatives into a unified system which takes the client from the point of claiming benefit, through the screening procedure, to in-work mentoring, and should encourage lasting return to the labour market. The third step is to plan the pilot and evaluation procedures of the new scheme and then the national roll-out of the system corrected in accordance with the results of the evaluation. At this stage the Ministry would also need to collect data, regularly assess the working of the scheme, commission researchers to evaluate the results and regularly publish results on its website. The European Union allocates ample resources to projects of this type, thus we hope that Hungarian policy makers will soon take these steps leading to success.

REFERENCES

ÁBRAHÁM, ÁRPÁD AND KERTESI, GÁBOR (1998) Regional unemployment rate differentials in Hungary 1990–1995: The changing role of race and human capital. In: HALPERN, L. AND WYPLOSZ, CH. (eds) *Hungary: Towards a market economy.* Cambridge University Press, Cambridge, pp. 351–376.

ACEMOGLU, D. AND SHIMER, R. (1999) Efficient unemployment insurance. *Journal of Political Economy*, Vol. 107. No. 5. pp. 893–928.

ÁSZ (2002) A foglalkoztatást elősegítő támogatások felhasználásának ellenőrzése. Az Állami Számvevőszék 0226. számú jelentése. [Monitoring the use of employment subsidies. Report No. 0226 of the State Audit Office.] Budapest, July 2002.

AUGUSZTINOVICS, MÁRIA (ed) (2000) *Körkép reform után. Tanulmányok a nyugdíjrendszerről*. [After the reforms. Studies on the pension system.] Budapest, Közgazdasági Szemle Alapítvány.

AUGUSZTINOVICS, MÁRIA et al (2002) The Hungarian Pension System Before and After the 1998 Reform. In Fultz, E. (ed) *Pension Reform in Central and Eastern Europe*. Budapest, ILO.

AUGUSZTINOVICS, MÁRIA AND KÖLLŐ, JÁNOS (2007) Munkapiaci pálya és nyugdíj [Employment history and pension], 1970–2020. *Közgazdasági Szemle*, No. 6. pp. 529–559.

BASS, LÁSZLÓ, DARVAS, ÁGNES AND SZOMOR, ÉVA (2007) *Gyermeknevelési szabadságok és gyermekintézmények. Mi a jó a gyermekeknek, mit szeretnének a szülők?* [Parental leave and child care facilities. What is best for children, what do parents want?] Budapest, MTA Institute of Economics. [Manuscript.]

BAUM, C. L. (2004) The Long-Term Effects of Early and Recent Maternal Employment on a Child's Academic Achievement. *Journal of Family Issues*, Vol. 25, No. 1, pp. 29–60.

BERGER, L. M., HILL, J. AND WALDFOGEL, J. (2005) Maternity leave, early maternal employment and child health and development in the US. *The Economic Journal*, 115. (February), F29–F47.

BEWLEY, H., DORSETT, R. AND HAILE, G. (2007) *The impact of Pathways to Work*. Department for Work and Pensions Research Report, No. 435, June 14.

BIBÓ, ISTVÁN (1990) *Különbség*. [Difference.] Budapest, Európai Protestáns Magyar Szabadegyetem.

BLOOM, D. AND MICHALOPOULUS, C. (2001) *How Welfare and Work Policies Affect Employment and Income. A Synthesis of Research. Manpower Demonstration Research Corporation*. New York–Oakland.

BLYTH, B. (2007) *Pathways to work performance summary*. DWP. http://www.dwp.gov.uk/asd/workingage/pathways2work/pathways_perf_0507.pdf.

BÓDIS, LAJOS, GALASI, PÉTER, MICKLEWRIGHT, JOHN AND NAGY, GYULA (2005) *Munkanélküli-ellátás és hatásvizsgálatai Magyarországon*. [Unemployment benefits and their effects in Hungary.] KTI Books, No. 3. Budapest, MTA KTI.

BOZÓKI, ANDRÁS (1993) Racionalizálható-e a csoda? Könyvek a rendszerváltásról. [Can one rationalize a miracle? Books on the regime change.] *Politikatudományi Szemle*, Vol. 2 No. 3 pp. 165–188.

BÖRSCH-SUPAN, A., KOHNZ, S. AND SCHNABEL, R. (2001) *Micro Modelling of Retirement Decisions in Germany*. [Manuscript.]

BRIDGWOOD, A (2003) Commissioning Research in SRA News. *Social Research Association*, November, pp. 6–7.

BULLOCK, H., MOUNTFORD, J. AND STANLEY, R. (2001) *Better Policy-Making*. Policy Studies Directorate, Centre for Management and Policy Studies, Cabinet Office, London. 2001 November. http://www.policyhub.gov.uk/docs/betterpolicymaking.pdf.

BURNIAUX, J., DUVAL, R. AND JAUMOTTE, F. (2004) *Coping with Ageing: A Dynamic Approach to Quantify the Impact of Alternative Policy Options on Future Labour Supply in OECD Countries*. OECD Economics Department Working Papers, No. 371. OECD Publishing.

BUSCH, IRÉN (2006) Az ügyfelek kategorizálásának előrehaladása az ország kísérleti kirendeltségein. [Progress with using a screening tool at selected job centres in Hungary.] *Munkaügyi Szemle*, No. 7–8 pp. 63–65.

CABINET (1999) *Professional policy making for the twenty first century*. Report by the Strategic Policy Making Team, Cabinet Office, London, September. http://www.policyhub.gov.uk/docs/profpolicymaking.pdf.

CABINET (1999a) *Modernising Government. White Paper*. London, The Stationery Office. http://www.cabinet-office.gov.uk/moderngov/whtpaper

CARNEIRO, P. AND HECKMAN, J. (2003) *Human Capital Policy*. NBER Working Paper, 9495.

CORDEN, A., NICE, K. AND SAINSBURY, R. (2005) Incapacity Benefit Reforms Pilot. Findings from a longitudinal panel of clients. *Research Report*, No. 259, July

2005. http://www.dwp.gov.uk/asd/asd5/rports2005-2006/rrep259.pdf.

CSEREHÁT (2007) *A Kisközösségek sikerei a Cserehátон*. [The achievements of Cserehát settlements] Conference Proceedings, Budapest, May 11, 2007, www.cserehat.hu.

CSERES-GERGELY, ZSOMBOR (2005) *Inactive middle-aged people and households: incentives and constraints*. Ministry of Finance Working Papers, 13, May.

CSERES-GERGELY, ZSOMBOR (2007) *A magyarországi munkapiac a rendszerváltás utáni 15 évben – stilizált tények áramlási adatok alapján*. [The Hungarian labour market in the 15 years following the regime change – stylized facts, flow data] Budapest, MTA KTI. [Manuscript.]

CSERNE, PÉTER (2001) Csontos László: Ismeretelmélet, társadalomelmélet, társadalomkutatás. [László Csontos: Epistemology, social theory and research.] *Szociológiai Szemle*, No. 2. pp. 113–119.

CSONTOS, LÁSZLÓ (1995) Fiskális illúziók, döntéselmélet és az államháztartási rendszer reformja. [Fiscal illusions, decision theory and the reform of the central budget.] *Közgazdasági Szemle*, No. 12. pp. 1118–1135.

DARVAS, ÁGNES AND TAUSZ, KATALIN (2002) A gyermekek szegénysége. [Child poverty.] *Szociológiai Szemle*, No. 4. pp. 95–120.

DÁVID, ANDREA, MÓRICZ, RITA AND SZAUER, CSILLA (2007) *Ígéretes gyakorlatok. Foglalkozási rehabilitációs példák Magyarországon*. [Promising practices. Employment rehabilitation in Hungary.] Budapest, Fogyatékosok Esélye Közalapítvány.

DAVIES H., NUTLEY, S. AND WALTER, I. (2003) *Evidence based policy and practice: cross sector lessons from the UK*. ESRC UK Centre for Evidence Based Policy and Practice. Queen Mary, University of London, Working Paper, No. 9.

DICKENS, S., MOWLAM, A. AND WOODFIELD, K. (2004) *Incapacity Benefit Reforms. Early findings from qualitative research*. National Centre for Social Research. September 2004. http://www.dwp.gov.uk/jad/2004/202rep.pdf.

DOWNS, A. (1957) *The Economic Theory of Democracy*. New York, Harper.

DWP (2002) *Pathways to Work. Helping people into employment*. Department for Work and Pensions, HMSO 2002, London. http://www.dwp.gov.uk/consultations/consult/2002/pathways/pathways.pdf.

DWP (2003) *Pathways to work. Helping people into employment. The Government's response and action plan*. London, Department for Work and Pensions, June.

DWP (2006) *Green paper. A new delivery of Pathways to Work (focusing on Incapacity Benefit recipients)*. London, Department for Work and Pensions.

ELLWOOD, D. T. (2000) Anti-poverty policy for families in the next century: from welfare to work – and worries. *Journal of Economic Perspective*, Vol. 14. No. 1. pp. 187–198.

FAZEKAS, KÁROLY (2001) *Az aktív korú állástalanok rendszeres szociális segélyezésével és közcélú foglalkoztatásával kapcsolatos önkormányzati tapasztalatok*. [Municipal social assistance programmes and public work schemes for the active-age jobless.] Budapesti Munkagazdaságtani Füzetek, BWP No. 09.

FAZEKAS, KÁROLY (2002) *A tartós munkanélküliek rendszeres szociális segélyezése és önkormányzati közfoglalkoztatása Magyarországon, 2000–2001*. [Social assistence and municipal public work schemes for the long-term unemployed in Hungary, 2000–2001.] Budapesti Munkagazdaságtani Füzetek, BWP No. 6.

FERGE, ZSUZSA AND TAUSZ, KATALIN (2002) Social Security in Hungary – a Balance Sheet after Twelve Years. *Social Policy and Administration*, Vol. 36. No. 2. pp. 176–199.

FIRLE, RÉKA AND SZABÓ, PÉTER ANDRÁS (2007) *Targeting and labour supply effect of the Regular Social Assistance*. Working Papers in Public Finance No. 18.

FLINT, C. (2007) *Secretary of State Caroline Flint's reply to Mr Clappison's interpellation*. July 23, 2007: Column 733W: http://www.publications.parliament.uk/pa/cm200607/cmhansrd/cm070723/text/70723w0021.htm.

FMM (2006) *Esély és értékteremtés közmunka programokkal 2006 – átfogó értékelés*. [Public works programmes as a means of increasing opportunities and welfare in 2006 – a comprehensive evaluation] Budapest, Ministry for Labour.

FRAZIS, H. J., ROBINSON, E. L., EVANS, T. D. AND DUFF, M. A. (2005) Estimating gross flows consistent with stocks in the CPS. *Monthly Labor Review*, Vol. 128 No. 9. pp. 3–9.

FREY, MÁRIA (2001) *A nők munkapiaci helyzete*. [Women and the labour market] Budapest, Central Statistical Office, January, p. 39.

FREY, MÁRIA (2002) *A gyermeknevelési támogatásokat igénybe vevő és a családi okból inaktív személyek foglalkoztatásának lehetőségei és akadályai*. Összefoglaló a HU9918-13 PHARE-program keretében végzett statisztikai kutatás zárótanulmányából. [The employment prospects of people who participate in family support schemes or are inactive for family reasons. Summary of the final report of the HU9918-13 PHARE quantitative research project.] Budapest.

FREY, B. S. AND STUTZER, A. (1999) Measuring Preferences by Subjective Well-being. *Journal of Institutional and Theoretical Economics*, 155 pp. 755–778.

FREY, B. S. AND STUTZER, A. (2002) What Can Economists Learn from Happiness Research? *Journal of Economic Literature*, Vol. 40. No. 2. pp. 402–435.

FRSZ (2006) *Hungarian Research report on people with disability and employees with changed capacity for work*.

October 16, 2006. Szombathely, Foglalkozási Rehabilitációs Szolgálat.

GÁBOR, R. ISTVÁN AND GALASI, PÉTER (1985) Second Economy, State and Labour Market. in: GALASI P. – SZIRÁCZKI GY. (eds) *Labour Market and Second Economy in Hungary*. Campus Verlag, Frankfurt-New York, pp. 122–132.

GÁBOS, ANDRÁS (2003) A családtámogatási rendszer termékenységi hatásai – kutatási eredmények magyar adatokon [The fertility effects of the family support system – research results based on Hungarian data], In: GÁL RÓBERT IVÁN (ed) *Apák és fiúk és unokák*. [Fathers, sons and grandsons.] Budapest, Osiris, pp. 66–83.

GÁBOS, ANDRÁS, GÁL, RÓBERT IVÁN AND KÉZDI, GÁBOR (2005) *Fertility effects of the pension system and other intergenerational transfers*. Paper prepared for the 5th International Workshop of the Project on Intergenerational Equity (PIE), Tokyo, March 10–12.

GALASI, PÉTER (ed) (2003) Labour – The Supply Side. In Focus. In: FAZEKAS KÁROLY (ed) *The Hungarian Labour Market*. Budapest, MTA KTI.

GALASI, PÉTER, LÁZÁR, GYÖRGY AND NAGY GYULA (2003) *Az aktív foglalkoztatáspolitikai programok eredményességét meghatározó tényezők*. [Factors determining the success of active labour market programmes.] Budapest, OFA Kht.

GALASI, PÉTER AND NAGY, GYULA (2003) A munkanélküli-ellátás változásainak hatása a munkanélküliek segélyezésére és elhelyezkedésére. [The effect of changes in the unemployment benefit system on take-up and reemployment probabilities.] *Közgazdasági Szemle*, 7–8 pp. 608–634.

GERE, ILONA (1997) A nyugdíjazás mint a munkanélküliség megelőzésének, levezetésének eszköze. [Pensions as a means to reducing unemployment.] *Munkaügyi Szemle*, Vol 41. No. 10. pp. 13–16.

GERE, ILONA (2000) *A megváltozott munkaképességű emberek bekapcsolása a munka világába*. [Employment rehabilitation for people with reduced work capacity.] Ministry of Welfare and Family Affairs, Budapest. [Manuscript.]

GERE, ILONA AND SZELLŐ, JÁNOS (2006) A foglalkoztatási rehabilitáció fejlesztésének iránya és eszközrendszere, II. rész. [Directions of development and tools of employment rehabilitation programmes. Part II.] *Munkaügyi Szemle*, November, pp. 31–35.

GREGG, P. AND WALDFOGEL, J. (2005) Symposium on Parental Leave, Early Maternal Employment, and Child Outcomes. Introduction. *Economic Journal,* 115. February, F1–F6.

GREGG, P., WASHBROOK, E., PROPPER, C. AND BURGESS, S. (2005) The Effects of a Mother's Return to Work Decision on Child Development in the UK. *Economic Journal*, 115. February, F48–F80.

GYUKITS, GYÖRGY (2000) A romák egészségügyi ellátásának szociális háttere [The social background of health care services for the Roma population.] In: HORVÁTH ÁGOTA, LANDAU EDIT AND SZALAI JÚLIA (eds) *Cigánynak születni*. [Roma by birth.] Budapest, Új Mandátum, pp. 471–489.

HABLICSEK, LÁSZLÓ (2000) Kísérlet a roma népesség előreszámítására 2050-ig [An attempt at Roma population projection up to the year 2050.] In: HORVÁTH ÁGOTA, LANDAU EDIT AND SZALAI JÚLIA (eds) *Cigánynak születni*. [Roma by birth.] Budapest, Új Mandátum, pp. 243–276.

HANKISS, ELEMÉR (1986) *Diagnózisok, 2*. [Diagnoses, 2.] Budapest, Magvető.

HARCSA, ISTVÁN, KOVÁCH, IMRE AND SZELÉNYI, IVÁN (1998) Price of privatization in Hungarian agriculture. In: IVÁN SZELÉNYI (ed) *Privatizing the Land*, London, Routledge, 1998, pp. 235–7.

HAVASI, ÉVA (2005) A transzferjövedelmek szerepe a szegénység csökkentésében. [The role of social transfers in reducing poverty.] *Esély*, No. 4. pp. 66–86.

HECKMAN, J. (1979) Sample Selection Bias as a Specification Error. *Econometrica*, Vol. 47. No. 1. pp. 152–161.

HEFOP (2005) A társadalmi beilleszkedés elősegítése a szociális területen dolgozó szakemberek képzésével, valamint a szociális és munkaügyi szolgáltatások együttműködési modelljének kidolgozásával című, Az Európai Szociális Alapból finanszírozott HEFOP 2.2.2-05/1. számú központi program. [Training social workers and developing a model of co-operation between social and employmet services in an effort to assist social rehabilitation. Programme No. HEFOP 2.2.2-05/1 funded by the European Social Fund.] Budapest, Szociálpolitikai és Munkaügyi Intézet–Foglalkoztatási és Szociális Hivatal. https://www.szmi.hu/kozpontiprogram/.

HERCZOG, MÁRIA (2007) *A koragyermekkori nevelés*. Az oktatási és gyermekesély-kerekasztal számára készült tanulmány, [Early years child care. Paper for the education and child welfare round table] http://magyarorszagholnap.hu.

HOEM, J. M. (2005) *Why does Sweden have such high fertility?* Max Planck-Institut für Demografische Forschung, MDIPR Working Paper, 2005–009. Berlin, April.

IGNITS, GYÖRGYI AND KAPITÁNY, BALÁZS (2006) A családtámogatások alakulása: célok és eszközök. [Family support schemes: objectives and tools.] *Demográfia*, Vol. 49. No. 4. pp. 383–401.

ISTANBUL... (2007) Istanbul Declaration. Issued by international organisations participating in *Measuring the Progress of Societies: World Forum on Statistics, Knowledge and Policy* (European Commission, OECD, Organisation of the Islamic Conference, Unit-

ed Nations, United Nations Development Programme, World Bank). Istanbul, June 30.

JAHODA, M., LAZARSFELD, P. F. AND ZEISEL, H. (2002) *Marienthal: The Sociography of an Unemployed Community*. New Jersey, Transaction Publishers.

JÓZAN, PÉTER (2001) *A századvég népesedési viszonyai és a századelő valószínű demográfiai forgatókönyve Magyarországon*. [Population at the end of the 20th century and demographic expectations for the beginning of the 21st.] Nemzeti Kutatási és Technológiai Hivatal, Budapest.

JUHÁSZ, FERENC (ed) (2004) *Irányelvek a funkcióképesség, a fogyatékosság és a megváltozott munkaképesség véleményezéséhez*. [Guidelines for assessing disability and work capacity.] Egészségügyi, Szociális és Családügyi Minisztérium–Országos Egészségpénztár, Budapest

KERTESI, GÁBOR (2000) A cigány foglalkoztatás leépülése és szerkezeti átalakulása 1984 és 1994 között. [The decline and restructurig of Roma employment between 1984 and 1994.] *Közgazdasági Szemle*, No. 5. pp. 406–443.

KERTESI, GÁBOR (2004) *The employment of the Roma: Evidence from Hungary*. Budapest Working Papers on the Labour Market, BWP 2004/01.

KERTESI, GÁBOR AND KÖLLŐ, JÁNOS (1997) Reálbérek és kereseti egyenlőtlenségek, 1986–1996, bérszerkezet átalakulása Magyarországon, I. rész. [Real wages and earnings inequalites, 1986–1996, changes in the wage structure in Hungary. Part I.] *Közgazdasági Szemle*, No. 7–8. pp. 612–634.

KERTESI, GÁBOR AND KÖLLŐ, JÁNOS (2002) *Labour Demand with Heterogeneous Labour Inputs after the Transition in Hungary, 1992–1999 – and the Potential Consequences of the Increase of Minimum Wage in 2001 and 2002*. Budapest Working Papers on the Labour Market, BWP No. 05.

KÉZDI, GÁBOR (2004) *Az aktív foglalkoztatáspolitikai programok hatásvizsgálatának módszertani kérdései*. [Methods of evaluating the success of active labour market programmes.] Budapesti Munkagazdaságtani Füzetek, BWP No. 02.

KÉZDI, GÁBOR (2005) Education and earnings. In: Varga Júlia (ed) *The Hungarian Labour Market 2004*. Budapest, MTA KTI–OFA, pp. 31–49.

KÉZDI, GÁBOR AND KÖLLŐ, JÁNOS (2000) Életkor szerinti kereseti arányok a rendszerváltás előtt és után. [Earnings ratios by age before and after the regime change.] In: KIRÁLY JÚLIA, SIMONOVITS ANDRÁS AND SZÁZ JÁNOS (eds) *Racionalitás és méltányosság*. [Reason and equity] Budapest, Közgazdasági Szemle Alapítvány.

KOLTAYNÉ KÓRÓDI, TÜNDE (2002) Eligibility Requirements for the Unemployment Insurance Benefit. In: FAZEKAS KÁROLY (ed) *The Hungarian Labour Market 2001*. Budapest, MTA Közgazdaságtudományi Kutatóközpont–Országos Foglalkoztatási Közalapítvány, pp. 181–186.

KORNAI, JÁNOS (1983) *Ellentmondások és dilemmák*. [Contradictions and dilemmas.] Budapest, Magvető.

KÓSA, ZSIGMOND, SZÉLES, GYÖRGY, KARDOS, LÁSZLÓ, KÓSA, KAROLINA, et al. (2007) A Comparative Health Survey of the Inhabitants of Roma Settlements in Hungary. *American Journal of Public Health*, Vol. 97. No. 5. pp. 853–859.

KOVÁCSY, ZSOMBOR (2005) *The occurrence and quality of information on impact assessments in proposals to the government on draft acts in Hungary*. [Manuscript.]

KÖLLŐ, JÁNOS (2001) *A járadékos munkanélküliek álláskilátásai 1994 és 2001 tavaszán*. [Re-employment chances of unemployment benefit recipients in the spring of 1994 and 2001.] Budapesti Munkagazdaságtani füzetek, BWP No. 07.

KÖLLŐ, JÁNOS (2006) *Workplace Literacy Requirements and Unskilled Employment in East-Central and Western Europe – Evidence from the International Adult Literacy Survey (IALS)*. Budapest Working Papers on the Labour Market, BWP No. 07.

KÖLLŐ, JÁNOS (2007) *Leszakadók – Kétkezi munka és munkanélküliség a rendszerváltás után*. [Left behind – Manual labour and unemployment after the regime change.] Budapest, MTA Közgazdasági Intézet. [Manuscript.]

KÖLLŐ, JÁNOS AND NACSA, BEÁTA (2005) F*lexibility and Security in the Labour Market: Hungary's Experience*. ILO Flexicurity papers 2004/2. Budapest, International Labour Office.

KROLIFY (2004) A célszervezetek körében készült kérdőíves felmérés eredményei. Empirikus elemzés az Országos Foglalkoztatási Közalapítvány megbízásából. [The results of a questionnaire survey among sheltered workshops. Empirical analysis commissioned by the Hungarian Employment Fund.] Krolify Vélemény- és Szervezetkutató intézet, October.

KSH (1981) *Egészségstatisztikai évkönyv*. [Health Statistics Bulletin]. Budapest, CSO.

LACKÓ, MÁRIA (2000) *Egy rázós szektor: a rejtett gazdaság és hatásai a poszt-szocialista országokban háztartásiáram-felhasználásra épülő becslések alapján*. [A tricky sector: the hidden economy and its effects in post-socialist countries. An analysis of household electricity consumption.] Budapest, TÁRKI–KTI. [Research report.]

LAKATOS, JUDIT (1996) Visszatérés a munkaerőpiacra a gyermekgondozási idő letelte után. [Returning to the labour market after parental leave.] *Statisztikai Szemle*, Vol. 74. No. 7.

LAKI, LÁSZLÓ (1997) A háztájizás tegnap és ma. [Home farming – past and present.] *Szociológiai Szemle*, No. 1. pp. 39–63.

LAKY, TERÉZ (2005) Munkahely-teremtési támogatások. [Job creation schemes.] In: Köllő János (ed) *A magyar foglalkoztatáspolitika átfogó értékelése az Európai Foglalkoztatási Stratégia kontextusában, az elmúlt öt év tapasztalatai alapján*. [Hungarian employment policy in the context of the European Employment Strategy: the experiences of the past 5 years.] KTI–SZMM Report Chapter 5, pp. 61–67.

LAYARD, R. (2005) *Happiness. Lessons from a New Science*. London, Allen Lane (Penguin Books), p. 310.

LELKES, ORSOLYA (2006a) Tasting Freedom: Happiness, religion and economic transition. *Journal of Economic Behavior and Organization*. Elsevier, vol. 59(2), pp. 173–194

LELKES, ORSOLYA (2006b) *Social Exclusion in Central-Eastern Europe. Concept, Measurement and Policy Interventions*. Working Paper, European Centre for Social Welfare Policy and Research, Vienna, and International Labour Office, Geneva.

LUMISDALE, R. L., STOCK, J. H. AND WISE, D. A. (1990) *Three models of retirement: computational complexity versus predictive validity*. NBER Working Paper, No. 3558.

MICKLEWRIGHT, J. AND NAGY, GYULA (1996) *A follow-up survey of unemployment insurance exhausters in Hungary*. Economics Working Papers eco96/08, European University Institute.

MICKLEWRIGHT, J. AND NAGY, GYULA (1999) Living standards and incentives in transition: the implications of UI exhaustion in Hungary. *Journal of Economics*. Elsevier, vol. 73(3), pp. 297–319.

MICKLEWRIGHT, J. AND NAGY, GYULA (2005) *Job Search Monitoring and Unemployment Duration in Hungary: Evidence from a Randomised Control Trial*. Budapest Working Papers on the Labour Market, BWP No. 09.

MLADOVSKY, P. (2007) *To what extent are Roma disadvantaged in terms of health and access to health care? What policies have been introduced to foster health and social inclusion?* Research Note for the European Commission, DG Employment and Social Affairs.

MOFFITT, R. A. (2002) Welfare Programs and Labour Supply. In: AUERBACH A. J. AND M. FELDSTEIN (eds) *Handbook of Public Economics*. Amsterdam.

MOFFITT, R. A. (ed) (2003) *Means-tested welfare programs in the US*. Chicago, University of Chicago Press–NBER.

MOLNÁR, GYÖRGY (2005) Az adatállomány és a rotációs panel. [Data and the rotation panel.] In: KAPITÁNY ZSUZSA, MOLNÁR GYÖRGY AND VIRÁG ILDIKÓ (eds) *Háztartások a tudás- és munkapiacon*. [Households on the knowledge and labour markets.] Budapest, MTA KTI. KTI Könyvek, No. 2.

MOLNÁR, GYÖRGY AND KAPITÁNY, ZSUZSA (2006) Mobilitás, bizonytalanság és szubjektív jóllét Magyarországon. [Mobility, insecurity and subjective well-being in Hungary.] *Közgazdasági Szemle,* Vol. 53. No. 10. pp. 845–872.

MORTENSEN, D. AND PISSARIDES, C. (1999) Unemployment responses to skill-biased shocks. *Economic Journal,* 109. pp. 242–265.

NEIDELL, M. J. (2000) *Early Parental Time Investments in Children's Human Capital Development. Effects of Time in the First Year on Cognitive and Non-cognitive Outcomes*. Working Paper, No. 806. Los Angeles, University of California.

OECD (2005) *Pensions at a Glance. Public Policies Across OECD Countries*. Paris, OECD.

OECD (2006) *Starting Strong II. Early Childhood Education and Care*. Paris, OECD.

OECD (2007*a*) Economic Survey of Hungary 2007: Improving reconciliation between work and family, available at http://oecd,org/document/29/.

OECD (2007*b*) *Regulatory management capacities of member states of the European Union that joined the union on 1 May 2004*. SIGMA Paper, No. 42.

OROS, IVÁN AND SCHINDELE, MIKLÓS (1977) Időmérleg a háztáji és kisegítő gazdaságokban. [Time budget on home farms and ancillary farms.] *Statisztikai Szemle*, No. 8–9.

ORSOVAI, SZILVIA, PALOTAI, ILONA AND PÁLINKÓ, ÉVA (2000) A közhasznú munka haszna. [The utility of public work schemes] *Munkaügyi Szemle,* No. 12. pp. 37–43.

OSI (2005) *Rights of People with Intellectual Disabilities. Access to Education and Employment, Monitoring Report: Hungary*. Budapest, Open Society Institute.

OTLAKÁN, KRISZTIÁN (2007) Diszkriminálnak-e a hazai munkáltatók? [Do Hungarian employers discriminate?] I–II. *Munkaügyi Szemle,* March, pp. 25–28; and April, pp. 32–36.

PARLAMENT (2006) *Costs of Pathways to work and resources for the reform programme*. Select Committee on Work and Pensions. Third Report, May 6.

PAUKA, TIBOR AND TÓTH, ILDIKÓ (2003) A magyar népesség egészségi állapotának változásai 1979 és 2001 között a morbiditási adatok tükrében. [Changes in the health of the Hungarian population between 1979 and 2001: Morbidity data.] Budapest, CSO.

PISSARIDES, C. (2000) *Equilibrium unemployment theory*. Cambridge, Mass. MIT Press.

PROGRESS (2005) *Az EQUAL közösségi kezdeményezés magyarországi programjának folyamatos értékelése. Értékelési jelentés*. [Monitoring the progress of the EQUAL community programme in Hungary. Evaluation report.] Budapest, Progress Consult.

RÁCZ, KATA (2003) Elhúzódó átmenet. A megélhetési stratégiák változása Kálmánházán. [Lengthy transition. Changes in subsistence strategies in the village of Kálmánháza.] *Szociológiai Szemle,* No. 1. pp. 100–117.

RAM, B., ABADA, T. AND HOU, F. (2004) *The Effects of Early Maternal Employment on Children's Cognitive Outcomes: The Canadian Experience*. Paper presented at the annual meeting of the Population Association of America, Boston, April 1–3.

REMÁK, EDIT, GÁL, RÓBERT IVÁN AND NÉMETH, RENÁTA (2006) *Health and morbidity in the accession countries. Country report – Hungary*. ENEPRI Research Report, No. 28, November.

RIDDELL, S., BANKS, P. AND TINKLIN, T. (2005) *Disability and Employment in Scotland: A Review of the Evidence Base*. Edinburgh, Scottish Executive Social Research.

RUHM, C. (1998) *Parental leave and child health*. NBER Workin Paper, No. 6554.

RUHM, C. (2005) *Maternal Employment and Adolescent Development*. IZA Discussion Paper, No. 1673.

SÁNDOR, JÁNOS (2004) *Mortalitás. Népegészségügyi jelentés. Szakértői változat*. [Mortality: Population health report. Expert's version.] Budapest, Johan Béla Epidemiológiai Központ.

SCHARLE, ÁGOTA (2002) Eligibility Criteria for Unemployment Benefits in Advanced Countries. In: FAZEKAS KÁROLY (ed) *The Hungarian Labour Market*. Budapest, MTA KTI, pp. 147–150.

SCHARLE, ÁGOTA (2007) The effect of welfare provisions on female labour supply in Central and Eastern Europe. *Journal of Comparative Policy Analysis,* No. 9. pp. 157–174.

SEMJÉN, ANDRÁS AND TÓTH, ISTVÁN JÁNOS (2002) *Unofficial economic activities and fiscal discipline in Hungary as mirrored in the consecutive enterprise surveys on tax behaviour*. MT–DP. No. 11.

SENIK, C. (2005) Income Distribution and Well-being: What Can We Learn from Subjective Data? *Journal of Economic Surveys,* Vol. 19. No. 1. pp. 43–63.

SIK, ENDRE (2000) *Kgst-piacok és feketemunka – Magyarország 1999. Elemzések a rejtett gazdaság magyarországi szerepéről, 2*. [COMECON markets and black labour – Hungary, 1999. Studies on the role of the hidden economy in Hungary.] Budapest, MTA KTI.

SIMONOVITS, ANDRÁS (2008) The pay-as-you-go system and the permanent reform: the first pillar. Chapter 4. In: GÁL, RÓBERT IVÁN, IWASAKI, I. AND SZÉMAN, ZSUZSA (eds) *Assessing Intergenerational Equity*. Budapest, Akadémiai Kiadó.

SIMONYI, ÁGNES (1995) Munka nélkül. [Out of work.] *Szociológiai Szemle,* No. 1. pp. 55–70.

STOCK, J. H. AND WISE, D. A. (1988) *Pensions, the option-value of work and retirement*. NBER Working Paper, No. 2686.

SZABÓ, JÓZSEF AND BOKOR, SÁNDOR (2006) "Zsilip" képzési és foglalkoztatási program. A hátrányos helyzetű csoportok reintegrációjának elősegítése. [The "Ecluse" training and employment programme. The reintegration of disadvantaged groups.] *Munkaügyi Szemle,* No. 5. pp. 31–34.

SZAKOLCZAI, GYÖRGY (2005) A rendszerváltás és a politikai váltógazdaság demográfiai hatásai, [The demographic effects of the regime change and the succession of short-lived policies.] *Demográfia,* Vol. 48. No. 3–4. pp. 254–279.

SZALAI, JÚLIA (2007) *Nincs két ország? Társadalmi küzdelmek az állami (túl)elosztásért a rendszerváltás utáni Magyarországon*. [Two countries? Fights for central (over)redistribution following the regime change in Hungary.] Budapest, Osiris.

TAHIN, TAMÁS, JEGES, SÁRA AND LAMPEK, KINGA (2000) Az iskolai végzettség és az egészségi állapot változása követéses vizsgálat alapján. [A longitudinal study of education and health.] *Demográfia,* No. 43. pp. 305–334.

TAMÁSI, ILDIKÓ (2005) Az 50 éven felüli munkanélküliek elhelyezkedésének elősegítése. Központi munkaerőpiaci program Nógrád megyében. [Helping unemployed people over the age of 50 return to work. A central labour market programme in Nógrád county.] *Munkaügyi Szemle,* No. 9. pp. 43–45.

TANAKA, S. (2005) Parental Leave and Child Health Across OECD Countries. *The Economic Journal,* 115. February, F7–F28.

TARDOS, KATALIN (1998) A tartós munkanélküliek egészségromlása. [Health decline in long-term unemployment.] In: Hanák Katalin and Neményi Mária (eds) *Szociológia – emberközelben*. [Sociology with a human touch.] Budapest, Új Mandátum.

TÁRKÁNYI, ÁKOS (2002) A családpolitika változásának hatásai a termékenységre Közép-Európában. [The fertility effects of changes in family support policy in Central Europe.] *Demográfia,* Vol. 45. No. 1. pp. 48–79.

TERREL, K., ERBENOVA, M. AND SORM, V. (1998) Work incentive and other effects of social assistance and unemployment benefit policy in the Czech Republic. *Empirical Economics,* Vol. 23. No. 1–2. pp. 87–120.

TERREL, K. AND SORM, V. (1998) *Labor market policies and unemployment in the Czech Republic*. Working Papers, No. 216. William Davidson Institute, University of Michigan.

TÓTH, ISTVÁN GYÖRGY (1997) Evaluating Hungarian Incomes Inequalities. The role of labor markets and

social policies. *Acta Oeconomica,* Vol. 48. No. 3–4. pp. 415–445.

TÓTH, ISTVÁN GYÖRGY (2005) *Jövedelemeloszlás. Gazdasági rendszerváltozástól az uniós csatlakozásig.* [Income distribution: From the economic regime change to EU accession.] Budapest, Századvég Kiadó.

VANHUYSSE, P. (2004) The pensioner booms in post-communist Hungary and Poland: Political sociology perspectives. *International Journal of Sociology and Social Policy,* Vol. 24. No. 1–2. pp. 86 – 102.

VANHUYSSE, P. (2006) *Divide and Pacify: Strategic Social Policies and Political Protests in Post-Communist Democracies*. Budapest, CEU Press.

VERHEIJEN, T. (2006) *EU-8 Administrative Capacity in the New Member States: The Limits of Innovation?* Report Number: 36930-GLB. Washington, The World Bank.

WALDFOGEL, J., HAN, W. AND BROOKS-GUNN, J. (2002) The effects of early maternal employment on child cognitive development. *Demography,* Vol. 39. No. 2. pp. 369–392.

WITTENBERG, J. (1997) Rethinking Political Continuity in East Central Europe. In: *Perspectives on Political and Economic Transitions after Communism*. Columbia University Graduate Student Conference, February 28–March 1. Institute on East Central Europe, New York.

WORLD BANK (2007) *Social assistance in Central Europe and the Baltic States*. Discussion Draft for Consultation and Comment. Washington, The World Bank.

EVALUATION OF ACTIVE LABOUR MARKET PROGRAMMES BETWEEN 2001–2006 AND THE MAIN CHANGES IN 2007

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From January 1, 2007 the system of active labour market programmes has undergone fundamental change. Therefore it is justified to overview the experiences of the system between 2001–2006. The first part of the current paper summarizes the findings of a related study[1] and the second part presents the changes introduced in 2007.

1. THE IMPACT OF ACTIVE LABOUR MARKET PROGRAMMES (ALMPs), 2001–2006

This chapter presents an evaluation of the impact of active labour market programmes in the period between 2001–2006. It is based on existing information sources, official documents and statistical analyses.

It should be noted in advance that the active labour market programmes in this analysis include instruments defined by the Employment Act and administered by the county job centres (until the end of 2006), such as labour market training, wage subsidy, business start-up subsidies for the unemployed, public work etc. These were the dominant schemes to tackle unemployment in the nineties, however their relevance has been diminishing since 2000 when new labour market services and programmes were introduced that are better designed than these individual measures to help alleviate the complex problems of the long-term unemployed and inactive people. However, even the basic information is lacking to assess the impact of labour market services, and complex labour market programmes are so diverse that even if they were evaluated, general conclusions could not be drawn.

In addition to the Employment Act, other acts (on personal income tax, corporate and capital return tax, health care contribution) also grant reduced contributions and tax reliefs that are related to the employment and training of job seekers, disadvantaged people, and people with a disability. Linked to the Start Card, universal contribution reductions are also available from the Labour Market Fund as of November 2005.

Further, in the early 2000s the pre-accession funds of the European Union and later the European Social Fund became available. These funds support integrated employment programmes implemented by non-profit partnerships or the Public Employment Service. The large number of programmes helped

1 Under the title "Impact analyses of active labour market schemes between 2001–2006.", the study was elaborated in the Institute for Social Policy and Labour, in June 2007. The authors of the study were the researchers of the Institute: Dorottya Boda, Ilona Dögei, Mária Frey (project manager), Ilona Gere, Péter Mód and Péter Simon.

many disadvantaged people to return to the labour market, to an extent that the different organizations were almost competing for participants.

As a result an unmanageably large variety and often overlapping arrangements emerged over the recent years that aimed to prevent unemployment and help the return to the labour market. However, their information base did not develop to an extent that would allow a comprehensive evaluation of the impact of the full range of training and employment policies. For the time being evaluation is only possible in the case of individual ALMPs.

First of all, changes in active labour market spending will be addressed. Then the trends in the total and average number of beneficiaries will be presented, exploring the relationship between unemployment rates and participation in ALMPs by county. Finally, I will evaluate the most important active labour market programmes, namely labour market training, public work, wage subsidy, measures supporting young entrants and business start-up subsidies for the unemployed.

1.1. Trends in ALMPs spending

The Labour Market Fund (LMF) has been the source of funding for passive and active labour market policies since January 1, 1996. Its main, though, not only, source of revenue are the contributions paid by employers and employees. Its rate for employers has been set at 3 per cent of the gross wage paid to the employer since January 1, 1999. Employees pay 1.5 per cent of their gross wage since September 1, 2006 (previously it had been 1 per cent). The amount of money collected in this way substantially exceeds the amount paid out for benefits (low level subsidy for a limited number of unemployed people) and tightly controlled spending on ALMPs.

The labour market budget increased by nearly 50 per cent between 2000-2006

Table 1 gives an overview of unemployment-related spending broken down by main categories in the period of 2000–2006. Measures were categorized as "active" or "passive" based on their scope. Passive measures include both contribution-based benefits and allowances such as the income-replacement allowance that is currently being phased out or the regular social welfare allowance paid by local governments and financed from the LMF. Among the ALMPs community service work – organised by the municipalities for regular social assistance recipients – can also be found, as well as all other LMF-funded measures that serve to prevent unemployment or assist in the return to work.

The share of the labour market budget in the GDP remained about one per cent

Figures reveal that the labour market budget increased by nearly 50 per cent between 2000–2006, however its share in the GDP remained around one per cent – that is approximately half of the EU Member States' average. The share of active measures, services and programmes within the labour market budget fluctuated: it was 28.4 per cent in 2000, 40.8 per cent in 2002, 33.7 per cent in 2004 and 38.9 per cent in 2006.

Table 1: Labour market budget and its use, 2000–2006 (thousand million Forints)[a]

Categories	2000	2001	2002	2003	2004	2005	2006
A) Wage replacement benefits							
Unemployment benefit + SI + HCC	55.2	53.2	60.8	65.2	70.8	77.4	16.0
Job-search benefit	–	–	–	–	–	–	67.3
PRUA + SI + HCC	1.3	1.8	1.8	1.8	1.6	1.7	1.2
Pre-pension	4.6	1.0	–	–	–	–	–
Support promoting job search + SI + HCC	–	–	–	0.8	5.0	6.8	–
Administration and travel costs reimbursement	0.6	0.6	0.6	0.6	0.8	0.8	0.9
Total	61.7	56.6	63.2	68.4	78.2	86.7	85.5
B) Income-replacement allowance	18.9	8.5	1.4	0.2	0.1	–	–
C) Social welfare allowance paid by local governments	6.8	29.1	37.4	32.5	36.3	29.3	30.0
1. RSA	1.8	17.3	21.5	18.5	20.2	14.3	15.0
2. Community service work	3.8	10.5	14.6	13.0	15.1	14.0	14.0
3. Administration	1.2	1.3	1.3	1.0	1.0	1.0	1.0
D) Running costs and development of PES	12.2	14.8	17.6	21.8	21.8	21.7	22.5
E) Active measures	34.2	45.3	57.7	53.5	46.3	55.5	64.9
1. Employment Sub-Fund	31.6	41.9	54.1	48.9	42.9	46.8	49.2*
2. Ministry of Economy targeted scheme	2.6	3.4	3.6	–	–	–	–
3. Adult training	–	–	–	4.6	1.5	3.1	4.2
4. Public work, non-profit organisations	–	–	–	–	1.9	0.3	3.9
5. EU funding	–	–	–	–	–	4.6	5.9
6. Discounts and rebates on contributions						0.7	1.7
Total spending (A + B + C + D + E)	133.8	154.3	177.3	176.4	182.7	193.2	202.9
Share of GDP	1.02	1.01	1.03	0.9	0.9	0.9	0.9
Total Spending = 100 %; share of:							
Passive measures (A + B + C1 + C3)	62.5	54.2	49.3	49.9	54.4	52.8	50.0
PES	9.1	9.6	9.9	12.4	11.9	11.2	11.1
Active measures (C2 + E)	28.4	36.2	40.8	37.7	33.7	36.0	38.9
From the employment and training budget							
Centralised ES budget	3.9	7.0**	18.6**	10.6	8.4	10.1	10.8
Decentralised ES budget	27.7	34.9	35.5	38.3	34.5	36.7	38.4*
Total ES budget	31.6	41.9	54.1	48.9	42.9	46.8	49.2
Ministry of Economy job creation scheme	2.6	3.4	3.6	–	–	–	–
Adult training budget	–	–	–	4.6	1.5	3.1	4.2
Total	34.2	45.3	57.7	53.5	44.4	49.9	53.4
From ES budget							
Centralised budget (%)	12.3	16.7	34.4	21.7	19.6	21.6	22.0
Decentralised (%)	87.7	83.3	65.6	78.3	80.4	78.4	78.0

[a] Forint (HUF) is the Hungarian currency, 1 Euro = 250 forints.

* 5,000 Forints million were used from the Employment Sub-Fund for the new funding arrangements of regional training centres in 2006.

** An ad hoc support was included among the active measures in 2001 and 2002 that compensated employers for the additional costs of the minimum wage increase. This amounted to 2,000 million Forints in 2001 and 15,000 million Forints in 2002. It was funded from the central budget of the Employment Sub-Fund.

Abbreviations: PES = Public Employment Service, ES = Employment Sub-Fund, PRUA = Pre-retirement Unemployment Allowance, HCC = Health-care Contribution, RSA = Regular Social Allowance for the Non-employed, SI = Social Insurance.

Source: Labour Market Fund Management Department, Ministry of Social Affairs and Labour.

The Employment Sub-Fund available directly for the employment offices decreased

It has already been pointed out that the number of labour-market interventions falling outside the scope of the Employment Act is increasing, and as a consequence the share of the Employment Sub-Fund within the broader active labour market measures is shrinking. It stood at 88.6 per cent in 2000, but it was only 79.8 per cent in 2006. The other clear trend is the increasing share of the central budget within the Employment Sub-Fund: 12.3 per cent in 2000 and 22 per cent in 2006. This centralisation was most marked in 2002 when 15,000 million Forints were spent on compensating the additional costs of employers in labour intensive sectors arising from the increase in the statutory minimum wage. Since 2003 a substantial share of the Employment Sub-Fund has been spent on job-creation schemes that were re-incorporated in the Employment Act.

1.2. Changes in the total and average number of participants in ALMPs

The total and average number of participants in ALMPs decreased siginficantly

Table 2 shows that on average 2.6 per cent of the economically active population benefited from different individual active labour market policies in 2001. In 2006 this figure was only 1.5 per cent. This leads to two conclusions. On the one hand, the unemployment rate would have been proportionately higher had jobless or redundant workers not received preventive or active support. On the other hand, the role of active policies in mitigating labour market tensions decreased in a period when unemployment started to grow. This aggravated tensions on the labour market instead of alleviating them by exerting an anti-cyclical effect on labour market processes.

Table 2: Unemployment rate, activation rate and the share of ALMP-participants within the economically active population

Year	Activation rate* (%)	Participation in ALMPs** (as % of economically active population)	Unemployment rate based on the number 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

* The number of beneficiaries of ALMPs divided by the sum of the same number and the number of registered unemployed.

** The number of beneficiaries of ALMPs divided by the number of economically active population as of the previous year January 1.

*** Unemployment rate based on official registration data in January of each year.

Source: Employment and Social Office, Labour Market Survey by the Central Statistical Office, Labour Force Indicators by the Central Statistical Office.

Therefore, statutory active labour market policies reached a diminishing share of actual or potential unemployed in the period studied. The so-called *activation rate*, that compares the number of participants in ALMPs with the sum increased by the number of registered unemployed, stood around 20 per cent in the early 2000s, then fell to *16.7 by 2004, 14.9 by 2005 and 13.8 per cent in 2006*.

The statutory active labour market policies reduced the number of unemployed persons to a falling extent year by year: in 2001 the average number of participants in ALMPs was nearly 105 thousand, this figure did not reach 63 thousand in 2006 which indicates a *40-per cent decline (Table 3)*.

Table 3: The average number and distribution of active measure beneficiaries, 2001–2006

Active labour market measures	2001	2002	2003	2004	2005	2006
Participants (persons)						
Labour market training	27,187	23,410	25,044	17,919	11,838	13,040
Public work	23,185	17,751	17,534	14,235	15,790	12,953
Wage subsidy	26,547	21,693	20,439	18,909	18,417	16,935
Job-creation schemes*	6,943	1,708	1,270	2,717	2,742	2,588
Support for business start-up	1,616	1,269	1,250	953	1,137	799
Contribution to commuting costs	3,483	3,294	3,088	2,112	1,836	1,448
Schemes for new entrants	7,094	6,827	7,686	7,908	8,086	7,884
Subsidy for self-employment	5,142	5,204	4,642	3,963	3,111	2,393
Job-protection schemes**	156	2,209	3,419	2,923	4,284	2,219
Contribution assumption	3,399	3,116	3,878	3,324	3,821	1,871
Support for intensive job-search	–	–	10	2	2	–
Subsidy for part-time employment	–	–	–	357	584	561
Total	104,752	86,481	88,260	75,233	71,648	62,691
Increase from previous year (previous year = 100)	101.0	82.6	102.1	85.3	95.1	87.5
Distribution (%)						
Labour market training	26.0	27.1	28.3	23.8	16.5	20.8
Public work	22.2	20.5	19.8	18.9	22.0	20.7
Wage subsidy	25.3	25.1	23.1	25.1	25.7	27.0
Job-creation schemes*	6.6	2.0	1.4	3.6	3.8	4.1
Support for business start-up	1.5	1.5	1.4	1.3	1.6	1.3
Contribution to commuting costs	3.3	3.5	3.5	2.8	2.6	2.3
Schemes for new entrants	6.8	7.9	8.7	10.5	11.3	12.6
Subsidy for self-employment	4.9	6.0	5.3	5.3	4.3	3.8
Job-protection schemes**	0.2	2.6	3.9	3.9	6.0	3.5
Contribution assumption	3.2	3.8	4.6	4.4	5.3	3.0
Support for intensive job-search	–		–	–	–	–
Subsidy for part-time employment	–			0.4	0.9	0.9
Total	100.0	100.0	100.0	100.0	100.0	100.0

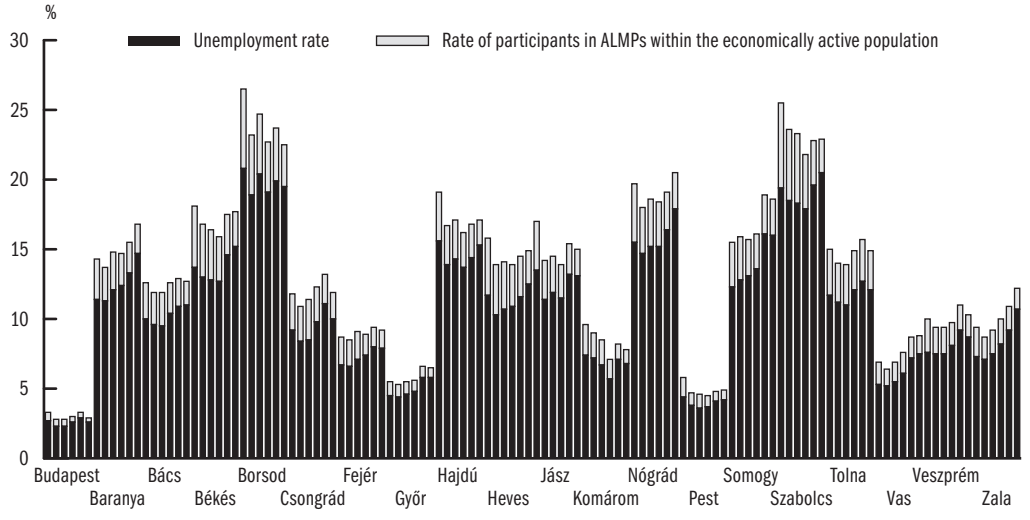
* The number of participants in job-creation schemes indicates the number of newly created and filled jobs (in accordance with relevant labour regulations) during the year.
** The scheme was re-designed in 2002. In the earlier version in 2001 participation was very low.
Source: Employment Office

1.3. The relationship between unemployment rates and participation in ALMPs at the level of counties

The share of participants in ALMPs within the economically active population is higher in counties with higher unemployment rates, and vice versa

Given that the main criteria in allocating the decentralised budget of the Employment Sub-Fund are unemployment and labour market indicators, it is expected that *the share of participants in ALMPs within the economically active population is higher in counties with higher unemployment rates, and vice versa (Figure 1).* In the period studied the unemployment rate in most counties showed a slight downward trend, which was followed by a decline in the relative share of active measure participants. However this trend also continued when unemployment started to increase, even though its opposite would have been necessary.

Figure 1: Number of ALMP-participants, rate of participants in ALMPs within the economically active population, 2001–2006



Unemployed people can participate in ALMPs for shorter and longer periods. Therefore, the real number of participants in a given measure is considerably higher than the yearly average. The total number of participants includes everybody who benefited from ALMPs for at least a day in a given period. *Table 4* presents information on this. This shows that *the total number of beneficiaries decreased by 30 per cent between 2001–2006.*

The total number of beneficiaries 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 4: Total number* and distribution of participants in ALMPs, 2001–2006

Active labour market measures	2001	2002	2003	2004	2005	2006
Participants (persons)						
Labour market training	91,519	82,835	82,895	59,894	43,725	47,141
Public work	80,742	84,498	76,892	63,998	79,429	66,403
Wage subsidy	48,089	40,838	41,064	36,313	37,708	33,150
Job-creation schemes**	9,086	6,452	4,595	4710	3,816	3,325
Support for business start-up	5,016	4,326	4,011	3,225	3,394	2,736
Contribution to commuting costs	9,356	9,774	7,495	5,517	5,015	3,910
Schemes for new entrants	16,758	16,108	17,551	17,527	18,206	17,976
Subsidy for self-employment	6,025	6,138	5,493	4,689	4,086	2,941
Job-protection schemes***	653	12,634	12,668	10,698	13,703	7,390
SI contributions assumption	9,702	10,008	11,883	10,092	10,753	6,552
Support for intensive job-search	–	100	109	64	64	–
Subsidy for part-time employment	–	–	–	791	1,285	1,253
Total	276,946	273,711	264,656	217,518	221,184	192,777
Increase from previous year (previous year = 100)	94.0	98.8	96.7	82.2	101.7	87.2
Distribution (%)						
Labour market training	33.0	30.2	31.3	27.5	19.8	24.5
Public work	29.1	30.8	29.1	29.4	35.9	34.5
Wage subsidy	17.4	14.9	15.5	16.7	17.0	17.2
Job-creation schemes**	3.3	2.4	1.7	2.2	1.7	1.7
Support for business start-up	1.8	1.6	1.5	1.5	1.5	1.4
Contribution to commuting costs	3.3	3.6	2.8	2.5	2.3	2.0
Schemes for new entrants	6.1	5.9	6.6	8.1	8.2	9.3
Subsidy for self-employment	2.3	2.4	2.1	2.2	1.8	1.5
Job-protection schemes***	0.2	4.6	4.8	4.9	6.2	3.8
SI contributions assumption	3.5	3.6	4.5	4.6	4.9	3.4
Support for intensive job-search	–	–	–	–	–	–
Subsidy for part-time employment	–	–	–	0.4	0.7	0.7
Total	100.0	100.0	100.0	100.0	100.0	100.0

* The total number includes all those who participated in active policies at least for a day in the given period.
** The number of participants in job-creation schemes indicates the number of newly created and filled jobs (in accordance with relevant labour regulations) during the year.
*** The scheme was re-designed in 2002. In the earlier version in 2001 participation was very low.
Source: Employment Office.

Table 5 explores whether there is a *relationship between the unemployment rate and the relative importance of different ALMPs in the management of labour market tensions at the level of counties.* To this end I took the average figures from 2001–2006 and ranked the distribution of participants in ALMPs by county. Counties are also ranked by their unemployment rate in an increasing order.

Table 5: Relationship between distribution of participants in ALMPs and unemployment rate based on the number of registered unemployed, averages of 2001–2006 ranked according to unemployment rate in increasing order

	Participants in						
	Training	Public work	Wage subsidy*	Business start-up subsidy**	Young entrants' scheme	Other measures	Unemployment rate
County	as % of the total number of beneficiaries of ALMPs						
1. Budapest	*39.9*	34.5	*11.6*	*5.5*	*2.5*	6.0	2.6
2. Pest	30.5	46.2	*10.2*	4.3	*2.3*	6.5	4.0
3. Győr-Moson-Sopron	*39.2*	23.5	21.1	*7.5*	5.2	3.5	5.0
4. Vas	*52.9*	*7.9*	*10.6*	*8.7*	5.1	14.8	6.1
5. Komárom-Esztergom	34.8	29.5	18.5	*5.6*	10.1	1.5	6.8
6. Fejér	36.9	21.6	25.9	4.2	3.8	7.0	7.3
7. Veszprém	35.1	24.5	22.3	4.0	3.1	11.0	8.1
8. Zala	*41.6*	*16.2*	16.6	5.2	2.6	17.8	8.3
9. Csongrád	36.4	17.1	26.7	4.0	9.1	6.7	9.5
10. Bács-Kiskun	34.1	22.8	20.1	5.5	9.9	7.6	10.2
11. Heves	27.7	21.6	25.6	3.8	7.9	13.4	11.3
12. Tolna	24.7	19.3	25.9	5.1	11.3	13.7	11.8
13. Jász-Nagykun-Szolnok	29.7	27.5	16.7	3.7	8.8	13.6	12.4
14. Baranya	32.2	22.5	27.7	1.9	6.6	9.1	12.5
15. Békés	25.3	34.1	21.1	3.7	7.9	7.9	13.7
16. Somogy	*24.0*	*34.9*	17.3	3.4	4.3	16.1	14.0
17. Hajdú-Bihar	30.8	23.4	18.3	3.8	*11.7*	12.0	14.5
18. Nógrád	*17.4*	30.0	22.0	3.2	*10.3*	17.1	15.8
19. Szabolcs-Szatmár-Bereg	*19.7*	*42.3*	15.5	*1.3*	*9.5*	11.7	19.0
20. Borsod-Abaúj-Zemplén	*14.4*	*45.2*	18.0	*1.7*	7.7	13.0	19.8
Total	27.5	31.5	19.3	3.6	7.4	10.7	8.9

* Including contribution to the expenses of commuting.
** Including self-employment subsidy.
Source: Own calculation based on data from the Employment Office.

The table highlights the active labour market policies that were administered everywhere and during the whole period. The measures that have a minor impact on the labour market were grouped under the category "Other measures". The two different business start-up schemes for unemployed people were merged and so were the wage subsidy and the contribution to the expenses of commuting because most counties paid these together in the period observed. It should also be mentioned that many counties spend increasing sums of money on complex labour market programmes. Their beneficiaries however do not appear separately in the statistics but under the beneficiaries of the statutory ALMPs.

In *Table 5* figures appear in italics if there is a *significant* – positive or negative – *correlation between unemployment and the distribution of beneficiaries in ALMPs*.

What conclusions can be drawn from the data?

– *Training* is provided most in counties with a relatively favourable labour market situation (Vas County, Budapest, Győr-Moson-Sopron). It is considerably less prominent in counties where there is less demand for labour (Somogy, Nógrád, Szabolcs, Borsod-Abaúj-Zemplén) – acknowledging and understanding that training does not guarantee success in finding a job.

– *Public work* is intended to be a "last resort" in areas and for people who cannot find employment on the jobs market. This is partly supported by the examples of Somogy, Szabolcs-Szatmár-Bereg and Borsod-Abaúj-Zemplén counties; although its opposite is also true in Vas and Zala counties. However, it is difficult to explain why the percentage of participants in public work is highest in Pest County which has the second lowest unemployment rate. Furthermore, the above-average share of participants in Budapest is also somewhat puzzling.

– It has been mentioned that *wage subsidy and contribution to commuting expenses* were merged because these were awarded together by job centres during most of the observed period. These measures are typically most used by counties that rank in the middle by unemployment rate (Baranya, Csongrád, Heves, Tolna, and Fejér). It also stands out that the share of people receiving wage subsidy is lowest in Budapest, Pest and Vas counties. In Vas County apparently training receives priority; however in Budapest and Pest this measure could replace public work.

– *Business start-up schemes* can generally be seen as rather marginal, however their share in the total is closely correlated with the labour market situation. The low proportion of jobless persons in a county might be a sign of a prosperous local economy and a healthy demand that gives a chance to a small number of unemployed persons to become independent and create their own jobs. Counties with the lowest unemployment rates – Vas, Győr-Moson-Sopron and Komárom-Esztergom – and Budapest spent an above-average amount on this measure. On the contrary, in Borsod-Abaúj-Zemplén and Szabolcs-Szatmár-Bereg counties there was hardly any uptake. This suggests that the majority of unemployed people did not consider that this measure provided adequate support for starting an own business.

– As regards programmes for young entrants, it is suggested that most young people could find a job without subsidy in counties with a better labour market situation (such as Budapest and Pest). However young entrants' schemes made up a considerable share of active policies in counties such as Szabolcs, Hajdú-Bihar and Nógrád where unemployment was higher.

Table 6 shows a significant correlation with unemployment rate. Support for young entrants and other measures increase when unemployment rate increases (positive correlation), training and business start-up subsidies decrease when unemployment grows (negative correlation). There is a positive

correlation between training and business start-up subsidies; there is a negative relationship between training and public work, training and support for young entrants, and business start-up subsidies and public work.

Table 6: Unemployment rate significant correlations

	Training	Public work	Wage subsidy	Business start-up	Young entrants	Other	Unemployment rate	Mean	Std. deviation
Training	1							31.37	9.07
Public work	–0.673**	1						27.23	9.96
Wage subsidy	–0.209	–0.312	1					16.90	4.28
Business start-up subsidy	0.794**	–0.570**	–0.214	1				4.31	1.79
Support for young entrants	–0.459*	–0.064	0.377	–0.241	1			6.99	3.14
Other measures	–0.276	–0.246	–0.013	–0.311	0.092	1		13.26	5.27
Unemployment rate	–0.808**	0.331	0.171	–0.749**	0.588**	0.531*	1	10.64	4.73

** Significant at 0.01 level, * significant at 0.05 level.

In conclusion: counties with persistently high unemployment between 2001–2006 put most emphasis on public work and the support of young entrants among the active labour market policies. Business start-up schemes were not very popular, nor realistic. Counties were wary of enrolling people in training programmes without the later prospect of finding a job. This leads to disappointment at the individual level and a waste of public money at the societal level. At the other extreme are counties with a vibrant jobs market, relatively high employment and low unemployment rates. These counties gave a prominent role to labour market training to ensure adequate supply for the changing demands of the jobs market. Young entrants with good qualifications could find jobs without any support. The employment of disadvantaged young entrants and adults was supported by wage subsidies paid to their employers. The share of unemployed people who received support to start their own business was above the average. Public work was by-and-large limited to those who could not find any other employment.

1.4. Evaluation of main active labour market schemes

Four measures had a central role in preventing and mitigating unemployment: *labour market training, public work, wage subsidy and schemes supporting the employment of young entrants.*

1.4.1. Labour market training

Labour market training

If there is adequate labour-demand, this is one of the most important active labour market measures able to improve the employability of unemployed persons and increase their chances of finding a job. However, in the absence of demand for labour, training might become futile. This diminishes efficiency and nor is it advantageous from the perspective of the individual.

The average number of participants in labour market training halved (decreased from 27,000 to 13,000), and the total number reduced (from 91,000 to 47,000) in 2001–2006. Nevertheless, according to the average number of participants this was the active measure that reached the most unemployed people – with the exception of the year 2005.

As regards the selection of participants, it emerges that *mostly those were involved in training who were likely to succeed based on their previous education and who had good chances of finding a job after the completion of the course.* Nevertheless the share of those who required enhanced efforts and resource input (both by themselves and their instructors) to improve in terms of employability was fairly high, especially in the recommended training courses. It should also be kept in mind that besides the decentralised Employment Sub-Fund budget, other sources also supported training programmes.[2]

According to *Table 7 job finding rates of unemployed persons leaving training programmes did not reach 50 per cent* in any of the years between 2001–2005. Training organised for workers proved to be the most effective: on average 9 out of 10 participants succeeded in staying in their job. However this type of training concerned only one tenth of the beneficiaries of training.

Table 7: Job finding rates after completing labour market training*

Year	Recommended training	Approved training	Total training for unemployed persons	Training for workers
2001	45.4	49.3	47.0	94.2
2002	43.3	45.8	44.4	92.7
2003	43.0	46.0	44.4	93.3
2004	45.5	45.6	45.5	92.1
2005	43.8	51.4	46.2	90.4

* The proportion of those in employment in the third month after completing training.
Source: Monitoring data by the Employment and Social Office.

Table 8: Proportion of training-related jobs in total jobs

Form of training	2001	2002	2003	2004	2005
Recommended	82.2	80.7	79.9	80.2	78.4
Approved	86.5	84.6	82.0	81.9	81.3
Training of workers	98.3	96.8	98.4	99.0	99.6

Source: Monitoring data by the Employment and Social Office.

A decreasing proportion (recently around 80 per cent) *of unemployed people taking up employment after labour market training could use the new knowledge and skills in the job.* The rate is similar for both recommended and approved training programmes. It can be seen as clearly negative that one fifth of the beneficiaries of these programmes financed by the decentralised labour market budgets found jobs where the new knowledge and skills were not necessary. This suggests that a fairly large number of people who probably

2 For example Programmes 1.1 and "Take a step forward!" in the Human Resources Development Programme. The second had 14,000 participants, half of them jobless persons with only primary education, in the 15 months between January 2006 and March 2007.

would be able to find a job anyway because they have marketable knowledge, also take part in labour market training.

1.4.2. Public work

Public work

Public work has been the most extensively used active labour market measure with the highest spending. It involved nearly *81,000 people in 2001 which reduced to 66,000 by 2006*. However it still constituted more than one third (34 per cent) of the (total) number of participants in ALMPs.

From the perspective of tackling long-term unemployment, public work has the positive effect of providing regular employment – even if it is only for a limited period – for those who otherwise had no chance of finding jobs on the open market. On the negative side however, public work requires very significant funding each year but hardly has any lasting impact in helping participants to find regular, non-subsidised jobs. At the end of public work programmes only a very small proportion, 1–1.5 per cent of workers stay with the same employer without any subsidy.[3] Another factor that prevents the continued employment of public workers is that this measure is largely *trapped by local interests and conflicts*.

As a result of low educational attainment, most people in public work programmes perform tasks related to community infrastructure that require low qualifications. Initially, employers offered only manual jobs in maintenance and provision of community services that required a low education level or none at all.

However, with time the proportion of those employed in jobs that demand higher skills increased, for example in social and health care, education, auxiliary activities in school and preservation of the cultural heritage. The amendment of Employment Act as of February 1, 2000 also contributed to the broadening of activities. In order to increase the number of participants involved by local governments the amendment expanded the scope of activities eligible for support in public work programmes to include not only core services but also *optional council services*. Nevertheless the majority (77–80 per cent) still worked on the maintenance of community infrastructure in the period observed. Structures became rigid in the case of other activities as well *(Table 9)*.

Besides job-finding rates, a *cost-benefit assessment* was also carried out to evaluate public work *(Table 10)*. Our starting point was that when *a jobless person on unemployment-related benefits* enters a public work programme and stops receiving the benefit that constitutes a saving and the contributions and taxes paid on the income constitute revenue. Calculations indicate that when public work replaces an average benefit, the gains from terminating unemployment cover 72.3 % of its cost. In the case of minimum benefit, this ratio is two thirds.

3 This figure only shows the proportion of those who move into non-supported jobs with the same employer.

Table 9: The distribution of public workers according to types of activities and rate of continued employment (%)

Type of activity	2001	2002	2003	2004	2005	2006
Community infrastructure	77.7	77.6	78.9	77.3	80.4	76.6
Health and social care	7.1	6.9	6.9	7.6	6.1	7.2
Culture and education	4.4	4.6	4.3	4.7	4.1	5.3
Other	10.8	10.9	9.9	10.4	9.4	10.9
Total	100.0	100.0	100.0	100.0	100.0	100.0
Continued employment	1.5	1.8	1.4	1.3	0.9	1.1

Source: Employment and Social Office.

Table 10: Comparison of monthly expenditure on public work and unemployment in 2006

Expense categories	Forint/person/month	
1. Expenditure of public work		
Wage	62,500	
Social Insurance contribution (29 %)	18,125	
Fixed-sum health-care contribution	1,950	
Employer's contribution (3 %)	1,875	
Overheads	10,000	
Total	94,450	
	Average benefit	Minimum benefit
2. Savings from public work		
Job-search benefit	43,500	37,500
Social Insurance contribution (29 %)	12,615	10,875
Health-care contribution	1,875	1,875
Total	57,990	50,250
3. Additional revenue from public work		
29 % of the difference between the wage and the benefit	5,510	6,960
The difference between the 12.5 % SI contribution paid by employees on their wage and the 8.5 % SI contribution on job-search benefit.	4,115	4,625
1 % employee contribution on wage	625	625
Total	10,250	12,210
4. Total saving and additional revenue	68,240	62,460
5. Amount compared to total cost of public work (%)	72.3	66.0

There are further quantifiable and non-quantifiable gains in addition to the above. The first includes the value created by public work and the increased purchasing power of the higher income and its impact on job creation. Among the non-quantifiable gains psychological factors can be mentioned, such as reducing the feeling of uselessness, exclusion, uncertainty, and the avoiding of possible deviant behaviours.

If conditions are similar to the above example, it can be argued that the saving on the cost of unemployment is more than enough to cover the cost of public work. However, the problem is that it is less than a quarter of the

participants in public work programmes who give up their job-search benefit for public work. For all the others, who received social assistance or nothing before entering in public work, the saving mentioned has not been realised, or was a lot more limited.

1.4.3. Wage subsidy

Wage subsidy

Based on the number of beneficiaries wage subsidy was the third most important active labour market measure. It helped 48,000 people in 2001 and 33,000 people in 2006 to find work. The share of beneficiaries within the total number of participants in ALMPs was between 15–17 per cent. Nevertheless as regards the average number of participants, wage subsidy has had the largest share of beneficiaries with over 25 per cent since 2004.

Table 11: Participants in wage subsidy schemes

Indicator	2001	2002	2003	2004	2005
Number of people completing the programme, persons	16,470	17,711	19,196	17,612	15,539
Response ratio	75.0	76.6	75.4	75.4	75.5
In employment at follow-up, %	59.7	62.9	62.0	64.6	62.6

Source: Monitoring data of the Employment and Social Office.

According to follow-up studies *60–65 per cent of people from wage subsidy schemes are employed by the same employer 3 months following the end of the required employment period*.[4] The rate of people who are awarded a permanent contract markedly decreased from the 70 per cent observed in the mid-1990s. This is explained by changes in the composition of beneficiaries; a move towards more difficult-to-place unemployed people who were increasingly the explicit target group of these programmes.

The follow-up studies explored the views of employers on whether the subsidy administered by the county job centres had helped them to pursue their objectives *(Table 12)*.

Table 12: Employers' view on the role of wage subsidy (%)

Without the subsidy:	2001	2002	2002	2004	2005
– would have also hired the unemployed person	24.2	19.4	20.3	20.2	19.5
– would have hired fewer unemployed persons	13.1	12.6	9.4	9.1	9.4
– would have postponed hiring	39.7	41.7	42.5	43.8	41.9
– would have not hired anybody	23.0	26.2	27.7	26.9	29.2

Source: Monitoring data of the Employment and Social Office.

20–25 per cent of employers responded that they would have hired new workers even in the absence of a wage subsidy. This is the so-called deadweight loss that reduces the total net benefit of the scheme. Fortunately however, the share of the employers who did not really need the subsidy within the total

4 Employers can only report on people who still work for them at follow-up. However, it is quite likely that some people who leave wage subsidy programmes find jobs with other employers.

take-up has been declining over time. A more careful selection of beneficiaries might help to avoid this practice that takes away much needed resources from others.

Besides its clear benefits and outcomes, the main problem with wage subsidy was that most employers picked the best and most willing people from among the long-term unemployed, often with the silent approval of the job centres. They also used subsidy to employ these people while the more disadvantaged unemployed remained on the register – and their relative disadvantages increased even further.

1.4.4. Young entrants' schemes

Young entrants' schemes

Young entrants' schemes had a fairly stable average number of participants that increased from 7 to 8 thousand. This made up 6.8 per cent of the total average participation in 2001, and increased to 12.6 per cent in 2006. This increase was largely the result of a decline in the total number of participants in ALMPs.

From the two schemes, *the work experience scheme clearly seems more successful (Table 13). The employment subsidy scheme had a very low uptake* because its amount was not proportionate to the requirements and administrative burden. Further, the number of businesses that can afford to employ their apprentices is very low and also not many businesses are willing to give apprentice contracts to their apprentices. (Although it would be important!)

Table 13: Results of follow-up evaluations of young entrants' schemes

	Work experience scheme		Employment subsidy	
Year	Number of people completing the programme	In employment at follow-up (%)	Number of people completing the programme	In employment at follow-up (%)
2001	5,752	64.5	369	71.6
2002	6,516	67.0	128	78.4
2003	5,779	66.1	231	78.2
2004	6,860	66.5	179	71.5
2005	6,317	66.8	173	70.9

Source: Employment and Social Office.

In the work experience scheme two *thirds of young entrants were still in the job* three months after the end of the required employment period. The same rate in the other scheme *among young apprentices was over 70 per cent.*

1.4.5. Business start-up subsidy

Business start-up subsidy

Only 1.3–1.6 per cent of the average number of participants in ALMPs applied for and received support for setting up a business. This meant approximately 1,600 persons in 2001 but that halved by 2006. The total number of benefi-

ciaries was similarly low. The business survival rate at 3 months after the end of the subsidy was distinctly high, around 90 per cent *(Table 14)*.[5]

Table 14: Indicators of business start-up schemes

Category	2001	2002	2003	2004	2005
Number of people completing the programme, thousand	3.4	3.1	2.9	2.4	2.3
Response rate	68.2	68.6	68.2	67.4	67.8
Business survival rate at follow-up	89.2	90.7	89.6	90.7	89.5
Number of employees per operating business at follow up	0.3	0.2	0.3	0.3	0.3

Source: Employment and Social Office.

Nearly half of the entrepreneurs said they would have postponed setting-up a business in the absence of the subsidy, and this share has consistently increased. This suggests that the main impact of the subsidy was that it brought forward the decision to start a business. Moreover, *more than a quarter of the entrepreneurs saw no other possibility otherthan this subsidy to get out of unemployment.* The combined share of these two groups of over 75 per cent in the total number of participants is not at all a bad result. Nevertheless, a quarter of the beneficiaries would have started a business even in the absence of support from the employment service. Considering the amount of subsidy and the possible alternatives this was not a considerable deadweight loss.

Another finding of the evaluation shows that the support for business start-up is only enough for the self-employment of unemployed persons. The majority of businesses have no employees, indeed the average number of employees was 0.2–0.3 in the period observed.

The average and total number of people in self-employment schemes also fell significantly in the period studied; the first from 5,100 to 2,400, the second from 6 to under 3 thousand. There is no further information on the composition of beneficiaries, characteristics of businesses and the impact of the policy.

1.5. Other labour market measures

Some measures completely lack information other than the number of participants and total spending. Their labour market impact has not been studied before.

The reimbursement of employment-related contributions was introduced in 1997 to encourage employers to hire people on income-replacement allowance. When the income-replacement allowance was phased out in 2000, the scope of the measure was extended to all unemployed persons. Originally the subsidy included full or partial reimbursement of health-care, pension, and unemployment contributions, and later the fixed-sum health care contribution. The take-up of this measure was not high, however it had an important role because the requirements were not as strict as in the case of wage subsidy

5 However, the short time period is probably not adequate to give a valid feedback on business survival rates.

(for example no continued employment was required). Therefore it could be used for shorter, seasonal employment. This encouraged businesses – especially in agriculture – to regularise short term employment.

The number of people who benefited from the reimbursement of contributions was over 10,000 until 2005. This represented around 5 per cent of the total number of participants in ALMPs. In 2006 the total and average number of participants nearly halved because the measure was replaced by a new, universal contribution reduction scheme administered by the Tax and Financial Control Administration Office. The shortcoming of this is that it does not give priority to disadvantaged people and thus might also increase regional labour market disparities because businesses in better-off regions might take up this universal subsidy for contributions disproportionately and there are no mechanisms to prevent this.

The subsidy for part-time employment was introduced on January 1, 2003 for businesses that hired a new worker who:
– had been unemployed for at least three months;
– received carer's allowance;
– or had at least one child aged under 14 years in their household.

This subsidy partly overlapped with the wage subsidy in terms of its scope and requirements. Its take-up was marginal due to a lack of interest from employers. Neither them, nor the workers seemed to recognise the potential benefits of part-time work.

The aim of mobility 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 allowance compensates for the justified and reasonable travel expenses on public transport of job seekers and young entrants arising in relation to job search. The allowance covers – fully or partly – the statutory share of commuting expenses of employers and employees 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). Subsidy can be given for shared transportation as well, if the total time spent on commuting by the individuals would exceed 2 hours per day.

Employers typically use the commuting allowance together with wage subsidies, especially where they cannot recruit locals. The share of the average and total number of beneficiaries of this scheme within the total is minimal: it was 3 per cent in 2001 shrinking to 2 per cent in 2006.

The decentralised budget of the Labour Market Fund did not give *aid for job creation*. Job creation aid was financed by the central budget and awarded by the Governing Board of the Labour Market Fund.

Aid could also be granted to employers by job centres in order to avoid redundancy and *retain workers*. It was non-repayable and covered up to 25–75

per cent of the wage and contributions of employees threatened by redundancy for up to 1 year. The employer was obligated to keep the worker after the subsidised period for at least the length of that period.

Experience suggests that it was very difficult to judge whether management and liquidity problems were real. Any applicant with adequate experience could create the impression of temporary financial difficulties that would lead to the redundancy of workers without the aid. Further, decisions were also influenced by lobbyists, and subjective and superficial factors. Certainly it looks good in the statistics that with fairly limited sums (and often reduced compared to the original claim) dozens or hundreds of redundancies could be prevented and jobs "saved". In reality, in most cases this would also have happened without the subsidy. Or also quite frequently despite the subsidy businesses went bankrupt and all jobs were lost.

2. CHANGES IN LABOUR MARKET POLICIES AND INSTITUTIONS AFTER 2007

The most far reaching change in 2007 was the reform of the system of employment promotion. The organisational structure of Public Employment Service also changed: the tasks of the Budapest and county job centres were transferred to the new regional job centres. Also a new rehabilitation system was introduced. The National Institute for Rehabilitation and Social Assessment was established to carry out the comprehensive rehabilitation procedure. The section below gives an overview of these changes.

2.1. Reform of the system of employment promotion[6]

Employment subsidies and the rules of other active labour market schemes had to be reviewed and amended in order to:
– ensure further harmonisation with Community legislation,
– improve transparency of the system,
– eliminate overlapping subsidies, and
– enhance the efficiency of employment promotion.

The following subsidies were changed or amended:
– reimbursement/discount on wage and SI-contributions (wage subsidy),
– business start-up schemes,
– labour-market training,
– labour market programmes, and
– subsidy for job creation.

2.1.1. Wage subsidy

Prior to January 1, 2007 employers could receive different discount rates on wage and SI-contributions for a variety of target groups. This is the measure

6 The Parliament adopted Act CXIII of 2006 on the amendment of Act IV of 1991 on the Promotion of Employment and Provision for Unemployment on December 11, 2006. The new act entered into force on January 1, 2007. The amendment mainly concerned the conditions of employment subsidies. Also Ministry of Labour regulation 6/1996 (VII. 16.) on employment subsidies and crises measures from the Labour Market Fund had to be brought into line with the act. Its amendment took place on February 17, 2007.

that underwent most fundamental changes. Previous subsidies were either merged into the new scheme, or abolished.

New regulation of wage subsidy

The aim of wage subsidy is to support the employment of disadvantaged persons. *Commission regulation (EC) No 2204/2002/EC* defines the concept of disadvantaged worker and the categories of disadvantaged workers. Employers[7] hiring disadvantaged workers from any of the categories defined in the community regulation are eligible for employment support.

According to the regulation, a disadvantaged jobseeker[8] 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,[9] 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, child-care related or carer's benefits within the previous 12 months, or
– has spent time in a penal institution within the previous 12 months.

Employers can also be awarded aid *if they commit themselves to keeping 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 expires within 90 days, and
– is older than 50 years when the new employment term starts, or
– has not attained upper secondary education, and
– the parties do not sign a work contract within 60 days from the end of the previous contract.

Employers can be awarded a wage subsidy to support the employment of disadvantaged workers if the following conditions are fulfilled:

– the employment of the disadvantaged worker receiving subsidy shall be maintained for at least 12 months (employment obligation), and
– similar posts have not fallen vacant as a result of redundancy within the previous six months, and
– the post shall not become vacant as a result of the mutual agreement of the employer and the employee (i.e. voluntary departure etc).

Employers can be awarded a wage subsidy of up to 50 per cent of total wage costs for disadvantaged workers or 60 per cent for disabled workers for a period of 12 months following recruitment.[10]

7 *Employer*: as defined in Paragraph 58, section (5), point c*)* of the Employment Act.

8 According to Paragraph 58, section (5), point *d)* of the Employment Act.

9 Point e) of Government regulation 177/2005. (IX. 2.)

10 According to point b of Article 5 (3) of Commission regulation (EC) No. 2204/2002 workers must be entitled to continuous employment for a minimum of 12 months, which is most likely if subsidy is received for the whole of this period. The regulation can be interpreted that workers are entitled to 12 month subsidised employment.

First impressions on the labour market impact of the new regulation

According to the rules on the cumulation of subsidy,[11] *the ceiling of the wage subsidy* – combined with subsidies from any other community or national sources – cannot exceed:

– 100 per cent of the total wage cost of workers in any given period (i.e. month, year etc.), and
– the equivalent of 5 million Euros in any 3-year-period.

After the introduction of the new wage subsidy scheme as of January 1, 2007, the following schemes were:

a) merged into the new scheme
– employment promotion including:
  – the higher rate of wage subsidy for workers older than 45 years,
– reimbursement of contributions, including the higher rates for:
  – jobseekers aged over 50 years, and
  – people leaving prison or on probation,
– support for part-time employment,
– assumption of wage costs for vocational rehabilitation, and
– work experience schemes for young entrants.

b) abolished
– employment promotion scheme for young entrants,[12]
– employment promotion scheme for temporary agency work,[13]

c) support to avoid redundancy can be granted in accordance with de minimis rules.[14]

The merger, simplification and flexibilisation of different wage subsidy schemes have been an important step towards modernisation; the creation of a simpler and more transparent system of employment promotion. The previous system had already become excessively complicated as a result of a series of amendments.

– On the positive side it can be highlighted that *the concept of disadvantaged person was given a precise definition, in line with previous practice.*
– The harmonisation of aid intensity is good for transparency. However its shortcoming is that it cannot *take into account the conditions of local labour markets.* The undifferentiated system in a country where there are large territorial disparities in employment and job markets is definitely not for the best.
– Setting the period of support at 12 months has taken away the administrative discretion of the local branches of the PES. This limits their freedom in deciding about the allocation of the decentralised budget on ALMPs, and as a result reduces the efficiency of labour market interventions.
– The *same criticism can be put forward regarding the harmonisation of aid intensity.*

Due to the altered conditions, *the relative cost/person of wage subsidy has increased considerably, and the measure has become very expensive.* The

11 Support for the employment of disadvantaged workers can be awarded according to the provisions of Commission Regulation (EC) No 2204/2002 of 12 December 2002. Thus support should be awarded taking into account the rules on the cumulation of aid in articles 8(4) and 9(2).

12 The abolition of the work experience scheme was justified by the availability of other schemes such as wage subsidies and the universal eligibility for a discount on contributions within the Start Programme introduced in 2005 efficiently promotes the recruitment of young entrants.

13 Employment support for temporary agency work was made available by 31/2004. (XII. 21.) MoEL regulation. Due to the lack of interest (there were no applications in 2005) it was not justified to keep the scheme. The labour market reintegration of disadvantaged groups can be adequately promoted by other employment aid schemes as well.

14 According to Commission Regulation No 69/2001 of 12 January 2001 on the application of Articles 87 and 88 of the Treaty to *de minimis* aid, the total *de minimis* aid granted to any one enterprise shall not exceed 100,000 Euros over any period of three years. *De minimis* aid shall not be granted to the transport sector and to the activities linked to the production, processing or marketing of agriculture and fisheries products, to activities directly linked to export and activities contingent upon the use of domestic over imported goods.

same amount of funding supports considerably less disadvantaged persons (around 33–50 per cent) in finding employment. Moreover, the abolition of the employment obligation following the subsidised period erodes the guarantees of the scheme. Job centres have an increased responsibility in putting ALMPs in place that support the aims of the wage subsidy scheme and support long term employment.

2.1.2. Employment subsidies in complex labour market programmes

Labour market programmes provide targeted assistance to different groups of disadvantaged persons to enter the labour market and find a job. Programmes combine employment services and employment promotion (programme components) within a given period. Programme components can only include services and subsidy schemes that are regulated by the Employment Act or its implementing regulations.

Wage cost subsidy

From January 1, 2007 a new active measure was introduced: the wage cost subsidy. This can be used exclusively in complex labour market programmes, and it provides a sum of up to 100 per cent of the total wage costs for up to three years.

Considering that the successful implementation of complex programmes requires adequate management capacities, in the new measure ***management and staff costs are also eligible*** in addition to costs related to the target group. If the recipient of the subsidy is an enterprise, ***de minimis rules apply.***

The other new element of the scheme is the support for job creation in complex labour market programmes. This scheme can be awarded:
– not only for businesses but ***to any employer***;
– for purchase of equipment and building costs.

The wage cost subsidy is awarded by ***the authority responsible for the given complex labour market programme*** (i.e. minister, director of job centre.)

2.1.3. Subsidies for business start-up

Prior to January 1, 2007 business start-up was supported by two schemes: the business start-up scheme for unemployed persons and the self-employment scheme for unemployed persons. The first scheme supported persons who were eligible for job search benefit, except for disabled persons who were eligible regardless of their status. The scheme, in addition to a monthly sum equal to the amount of job search benefit, provided a contribution to the cost of entrepreneurship training, consultancy, mortgage and credit repayment insurance. The second scheme provided an interest-free loan of up to 3 million Forints to support self-employment.

The aim of the scheme is to promote entrepreneurship and skills, and to encourage unemployed people to set up their own business. To this end, as of

2007 the two previous measures were merged into a new scheme with slightly altered conditions. The new scheme provides:
– up to 3 million Forints interest-free *loan or non-repayable grant*, and
– a monthly allowance of up to the minimum wage for a period of no longer than six months, regardless of eligibility for job search benefit.

Complex support for job-seekers to become entrepreneurs

The beneficiary of the scheme is the individual job seeker and therefore it is not considered state aid.[15] Persons are eligible for the business start-up subsidy if they have been registered with the Public Employment Service as unemployed for at least 3 months. The recipients shall either become self-employed, set up a business or be a self-employed farmer.

The two components can be awarded separately or together. To be eligible for the interest-free loan the beneficiary job seeker must provide at least 20 per cent of their own contribution to the total cost of capital investment and adequate collateral (e.g. assets, real estate, bank guarantee) for the repayment of the loan.

2.1.4. Labour market training

To encourage participation in training *the amount of the income-replacement benefit has been raised from 60 to 100 per cent of the minimum wage.* To be eligible for the income-replacement benefit a person has to participate in an (intensive) training programme of at least 20 hours/week, offered or approved by the job centre.

New regulation of labour market training and its first experience

Training is important not only for job seekers but also for *those who are in employment in order to update their knowledge and skills in order to remain competitive on the labour market.* To this end training organised by employers remains eligible for subsidy, however *de minimis* rules should be applied.

The following schemes were merged into the new training scheme:
– universal training scheme of young job seekers,
– training allowance of disabled job seekers, and
– entrepreneurship training.

Raising the amount of income-replacement benefit to the level of the statutory minimum wage from January 1, 2007 meant that its share increased from one-third to 50 per cent within the total training cost. Increased cost means that less people can receive training from the decentralised employment funds (EF). Nonetheless, at the same time other (mainly EU-) sources have become available to finance training. The problem with these is:
–different eligibility conditions and rules apply in the different schemes (different rates),
– they are "over-regulated",
– they have complicated reporting procedures,

15 The following schemes were discontinued
– subsidy for self-employment, and
– the business start-up subsidy for disabled jobseekers with more favourable conditions was merged into the general business start-up scheme, and
– entrepreneurship training was merged into the general employment-related training scheme.
The contribution the cost of credit repayment insurance was also abolished.

– they make the total funding available for training difficult to estimate in advance,
– there is a poor IT background (important data lacking or non accessible in the system),
– the professional requirements change frequently, including the National Training Register, however new requirements are not disseminated widely,
– the lack of central guidance on new, challenging issues (such as institutional and training accreditation, public procurement).

Another problem is that according to the new rules to be eligible for income support a person must *participate in theoretical, or theoretical and practical training of at least 20 hours per week (intensive training)*. It is very difficult to comply with this requirement, and the 20 hours should be defined on the basis of the average weekly hours instead of the actual weekly hours. It is also difficult to implement the proviso only people in intensive training are eligible for training allowance.

2.1.5. Support for job creation

Previously aid schemes for job creation included loans or non-repayable grants for

a) businesses creating new jobs as part of
– regional investment and
– employment subsidy, and

b) supporting the employment of people with disabilities by
– reasonable accommodation in the workplace and
– employment rehabilitation.

Two forms of the support for job-creation

In accordance with community legislation aid for job creation can be granted in two main forms after January 1, 2007:

a) *as regional support* (according to Commission Regulation [EC] No. 1628/2006) separately or together for any of the following: cost of investment in material and non-material assets, and wage costs of the jobs directly created by the investment project, or

b) *as employment support* (according to Commission Regulation [EC] No. 2204/2002) for wage costs of the jobs directly created by the investment project.

Workers recruited to fill the jobs directly created by the investment:

a) can be any category if the support is regional support;

b) must be disadvantaged workers (i.e. young entrant, job seeker, redundant workers etc.) if the support is employment support.

In regional investment projects:

a) if support is provided for material and immaterial assets
– they must remain in the assets of the firm for at least 5 years or in the case of small- and medium-sized enterprises (SMEs) for 3 years, and

– if wage costs are not claimed, the Community rules do not require the maintenance of newly created jobs, however, according to the Hungarian rules, jobs must be maintained for at least 3 years or in the case of SMEs for 2 years.

b) if support is provided for wage costs, newly created jobs must be maintained for at least 5 years or in the case of SMEs for 3 years.

New jobs directly created by investment projects with *employment support* must be maintained for at least 3 years, or in the case of SMEs for 2 years.

The two schemes cannot be accumulated; one investment project can receive funding from only one of the schemes. Funding is allocated on the basis of an open call for projects or in the case of so-called large investment projects, *funding is awarded by the Government on a case-by-case basis and after the submission of an application.*

2.2. Regionalisation of the public employment service

From January 1, 2007 the Public Employment Service has had a new organisational structure.[16] On the one hand, the competences of the middle-management organisation, the Employment Office, were expanded to include certain social tasks. At the same time its name was changed to Employment and Social Office. On the other hand the responsibilities of the Budapest and county job centres were transferred to seven regional job centres.

2.2.1. Employment and Social Office

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. It is headed by a chief director who is appointed by the Minister responsible for social affairs and labour. 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.

2.2.2. Regional job centres

The *regional job centre* is also a public body with its own financial management rights. It is also headed by a chief director who is appointed by the Minister responsible for social affairs and labour.

The regional job centre is made up of:
– a central office, and
– local branches.

16 – 291/2006. (XII. 23.) Government regulation on the Public Employment Service, in force from January 1, 2007.

Branch offices providing labour market services

The central office performs the tasks previously carried out by the central units of former county (Budapest) job centres. The central office manages and supervises its branches, carries out the tasks delegated to it in the field of employment rehabilitation of disabled jobseekers, decides on the use of the decentralised budget of the Employment Sub-Fund of the LMF allocated to the region, pays the benefits and allowances to jobseekers and oversees the operation of the benefit and service system.

The *branches* basically perform their old tasks. They register jobseekers in their catchment area, award job search benefit, job search allowance and entrepreneurs' benefit and decide on employment support schemes.

Labour market services are performed by certain branches of the job centre listed in a separate regulation.[17] These branches:
– manage the network of services,
– have a rehabilitation task force,
– participate in the provision of employment rehabilitation services for people with disabilities.

2.2.3. Regional job centres and their seats

Regional job centres and regional labour councils

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.

Following the regional structure 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 election of new members is set out in Act XIX of 2007 which also amends the relevant section (Paragraph 12) of the Employment Act. The new rules entered into force on April 1, 2007, and the election of new members took place in May 2007. The secretarial tasks of the regional labour councils are carried out by regional job centres.

2.3. Reduction of compulsory contributions to promote the employment of disadvantaged people

The Start Programme launched on October 1, 2005 covers all young entrants under the age of 25 years – under 30 years for graduates of higher education – who finished (or interrupted) their studies and who take up employment for the first time.[18] Employers who hire these young entrants are eligible for a sub-

17 – 13/2007. (III. 28.) Ministry of Social Affairs and Labour regulation on the Jurisdiction of Regional Job Centres.

18 Act LXXIII of 2005 on Incentives to Promote the Employment of Young Entrants, Unemployed People Aged 50 Years and over and People Returning to Work after Child Care or Nursing, and on the Amendment of Act CXXIII on the Paid Internship Employment. The act was adopted on June 27, 2005 and entered into force on October 1, 2005.

sidy for 2 years. The subsidy is a universal discount on the compulsory contributions paid by employers. As a result, the employer pays 15 per cent as their contribution on the wage in the first year, and 25 per cent in the second year. The discount can be used for wages of up to 150 per cent of the minimum wage for new entrants under 25 years, or in the case of under-30-graduates from higher education for up to 200 per cent of the minimum wage.

From July 1, 2007 new schemes were added to the Start family with the aim of:

– helping disadvantaged persons to enter or re-enter the labour market,
– increasing employment in the target group,
– encouraging employers to recruit disadvantaged workers,
– creating incentives for employers to follow employment regulations and employ workers lawfully.

Start Plus Programme

In the Start Plus Programme[19] the following target groups are entitled to a reduction on the contributions payable by employers:

– persons who wish to return to work within one year of obtaining child care benefits or carer's allowance,
– persons receiving child care allowance taking up work after the 1st birthday of the child (provided they are not employed),
– 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).

Start Extra Programme

Employers hiring workers from any of these categories are entitled to the same discounts as employers of young entrants with the Start Card. Thus, they are exempt from the fixed-sum health care contribution (1,950 Forints/month), and the rate of their contribution on the gross wage they have to pay is 15 per cent in the first year and 25 per cent in the second year instead of the statutory 32 per cent payable by employers.

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 low educational attainment (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 have to pay only 15 per cent of the gross wage of the worker.

Table 15 summarises the discounts available for employers in the framework of Start programmes. *Table 16* presents two examples which illustrate the amount of savings available in these schemes.

19 Act XIV of 2007 on Incentives to Promote the Employment of Young Entrants, Unemployed People Aged 50 Years and over and People Returning to Work after Child Care or Nursing, and on the Amendment of Act CXXIII on the Paid Internship Employment. The act was adopted on March 12, 2007 and entered into force on July 1, 2007.

Table 15: Discounts for employers in the Start programmes

	Start Programme (young entrants)	Start Plus (parents returning to work, long-term unemployed)	Start Extra (older persons, persons with low educational level)
Fixed-sum health care contribution (1,950 Forints)	Exempt for two years	Exempt for two years	Exempt for two 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 %

Table 16.a: Employer savings on the wages of workers with secondary education or lower with a monthly wage equal to 150 % of the minimum wage, 2007 (Forint/person/year)

	Start Programme (young entrants)	Start Plus (parents returning to work, long-term unemployed)	Start Extra (older persons, persons with low educational attainment)
Contributions without discount	400,680	400,680	400,680
Contributions with discount	1st year: 176,850 2nd year: 294,750	1st year: 176,850 2nd year: 294,750	1st year: zero 2nd year: 176,850
Saving	1st year: 223,830 2 nd year: 105,930	1st year: 223,830 2nd year: 105,930	1st year: 400,680 2nd year: 223,830
Total saving	329,760	329,760	624,510

Table 16.b: Employer savings on the wages of graduate workers with a monthly salary equal to 200 % of the minimum wage, 2007 (Forint/person/year)

	Start Programme (young entrants)	Start Plus (parents returning to work, long-term unemployed)	Start Extra (older persons, persons with low educational attainment)
Contributions without discount	526,440	526,400	526,400
Contributions with discount	1st year: 235,800 2nd year: 393,000	1st year: 235,800 2nd year: 393,000	1st year: zero 2nd year: 235,800
Saving	1st year: 290,40 2nd year: 133,400	1st year: 290,640 2nd year: 133,400	1st year: 526,400 2nd year: 290,640
Total saving	424,040	424,040	817,040

Source: Information packages on Start Plus and Start Extra schemes produced by the Ministry of Social Affairs and Labour, presentation by the Minister. It can be downloaded from www.szmm.gov.hu.

2.4. Introduction of a new rehabilitation system

The number of people receiving disability pension has reached 800,000 in Hungary and has not been declining despite the fact that the number of new disability pensioners recently reduced to around 30–40 thousand persons per year. While in the old Member States of the EU 30–50 per cent of people with disabilities work, in Hungary this rate is less than 10 per cent. Although 450,000 disability pensioners are of working age, and not only do they receive disability pension, they do not pay tax or contributions either because even if they work, they typically are in undeclared jobs.

To tackle this issue Parliament adopted the Act on Rehabilitation Allowance on June 18, 2007.[20] The new legislation aims to create a new system of rehabilitation with new types of benefits and services, which helps people to return to the world of work. In the new system only those people of working age will be eligible for disability pension whose working ability cannot be restored with rehabilitation.

When the Government presented the proposal to Parliament and requested its adoption, it was argued that the new system would increase the employment of people with disabilities, reduce the share of passive benefits within the state budget and increase the share of money spent on rehabilitation. This might reduce dependency on state provision, promote equal opportunities, prevent social exclusion and create the possibility for people to return to work, become independent and achieve a better quality of life.[21]

The new system is being introduced gradually as the necessary human and physical capacities are put in place and also taking into account the limitations of the labour market. Therefore the act only makes participation in the new rehabilitation scheme (allowance and services) compulsory for people who have a good chance of returning to work and are fit for rehabilitation. Accordingly, the rules of the new rehabilitation allowance are linked to the rules on disability pension that were also reviewed and updated.

The new system is based on four pillars

The new system is based on four pillars. The first and most important pillar is the *creation of a modern assessment system* that in addition to assessing the impairment and the changes in one's working ability (in relation to the current or potential jobs available to the individual), also maps remaining skills and potentials for rehabilitation, rather than focussing on the lost abilities. This on the one hand promotes return to the labour market, and also assists the decision on eligibility by giving a more comprehensive and accurate picture of the claimants' condition. For this a new network should be set up that can, with the necessary expertise on social insurance, employment, social welfare and services carry out the assessment of needs, eligibility and evaluate the effectiveness of rehabilitation.

20 Act LXXXIV of 2007 on the Rehabilitation Allowance, in force from January 1, 2008

21 Legislative proposal No. T/2913 on the Rehabilitation Allowance, May 2007, Budapest; http://www.parlament.hu/irom/02913/02913.pdf.

The second pillar is a new allowance, the so-called rehabilitation allowance. The *rehabilitation allowance* can be awarded (instead of disability pension or accident-related disability pension) to persons whose vocational working ability has altered by at least 50 per cent due to an impairment, but they can regain the fitness to return to work. The allowance is for a fixed-term of up to 3 years. It is a contribution-based payment that is related to the previous wage and it is available to persons who have paid contributions for a certain period, are in need of rehabilitation due to a significant impairment, and are fit for rehabilitation. The allowance provides a temporary replacement income (for the duration of the rehabilitation process) to assist in the successful return to the world of work.

The third pillar is the coordinated development of medical, social and employment rehabilitation services. Each person who is considered to be fit for rehabilitation shall receive an individual rehabilitation plan and sign a cooperation agreement. This way the individual not only gains entitlement to rehabilitation services but also agrees to be bound by the terms and take part in the planned rehabilitation process.

The fourth pillar is the promotion of the employment of people with disabilities. The system of employment rehabilitation has been undergoing significant change since 2005. Important changes were introduced in the employment support of disabled workers. The previous passive aid scheme was replaced by new, active arrangements (wage subsidy, compensation of costs, support for reasonable accommodation in the workplace etc.). *The accreditation of rehabilitation enterprises has also been realised.*

2.4.1. Rehabilitation allowance

The new rules apply for rehabilitation allowance, disability allowance, disability pension and accident-related allowance claims submitted after December 31, 2007. Claimants before December 31, 2007 who reach retirement age within ten years of the submission of their claim should be awarded disability pension instead of rehabilitation allowance, however they have the possibility to opt into the new rehabilitation scheme.

Persons are eligible for rehabilitation allowance if:

– they have an impairment between 50–79 per cent, and as a result are unable to take up employment without rehabilitation, and
– they do not have a job, or their monthly wage is at least 30 per cent lower than the average earnings in the four months before the impairment, and
– are fit for rehabilitation, and
– they have a long enough contribution period, and
– they are not receiving any other social security or unemployment-related provision.

The extent of impairment and fitness for rehabilitation is assessed by a body of rehabilitation experts (a committee). The decision regarding the allowance is made by the locally competent regional pension insurance directorate. The allowance is paid by the National Pension Directorate.

The sum of the rehabilitation allowance is equal to 120 per cent of the 3rd category disability pension calculated on the basis of identical eligibility conditions. The annual increase of the rehabilitation allowance is identical to the increase of the old age pension. The allowance is subject to pension contribution and thus counts toward eligibility for pension.

The rehabilitation allowance is awarded for the duration of rehabilitation or a maximum of 3 years. If rehabilitation is not successful then the person can claim disability pension or other social provision.

The beneficiary must cooperate with the relevant organisation of the Public Employment Service. They must agree to the terms and conditions of a written rehabilitation agreement.

The rehabilitation agreement has the following elements:

– a written declaration by the beneficiary that they:
  – agree to cooperate with the PES, and
  – will accept any suitable jobs or training offered free of charge, and
– individual arrangements for job search, as well as
– the rehabilitation services provided by the Public Employment Service, and
– the frequency of meetings with the advisers of the PES and the ways of keeping in touch.

According to Government estimates 30–40 per cent of the new disability pension claimants can participate in the new scheme, which is approximately 10,000 people each year. It is expected that 40–60 per cent of them will find long-term employment.

2.4.2. Accreditation system

Businesses employing disabled workers must, since July 1, 2007,[22] be *accredited* in order to be eligible for employment support. This is basically an assessment procedure that is initiated by the firm in order to demonstrate its competence to carry out employment rehabilitation and thus be eligible for employment support. At the end of the assessment procedure businesses can be awarded basic, rehabilitation or advanced-level certificates based on the number of disabled workers and quality of rehabilitation activities. The basic certificate is valid for 5 years, the rehabilitation certificate for 3 years and the advanced-level certificate for 2 years. The latter allows the organisation to use the term "sheltered firm".

22 Legislation: 176/2005 (IX. 2.) Government Regulation, 14/2005 (IX. 2.) MoEL Regulation, 26/2005 (XII. 27.) MoEL regulation.

Accreditation is open to all employers as defined by the Labour Code regardless of the number of employees, however with the following two conditions regarding the type of certificate and the number of employees:

1. The basic certificate cannot be issued for firms where the number of disabled workers is at least 20 or more and where this represents at least 40 per cent of the total workforce.

2. The advanced-level (and provisional) certificate can only be issued to businesses with not less than 50 workers, at least 50 per cent of which are disabled.

Certain employers have been motivated to get the advanced-level certificate since 2006 (to qualify for certain subsidy schemes). However accreditation became a requirement for all employers applying for a subsidy as of July 1, 2007.

Table 17: New elements of rehabilitation of people with a disability

Accreditation of employers and subsidy schemes		Rehabilitation allowance	
Optional from January 1, 2006; compulsory after July 1, 2007		From January 1, 2008 for new claimants, as of January 1, 2009 for repeat claims	
New element	Expected impact	New element	Expected impact
– Only employers with basic, rehabilitation or advanced-level certificates accredited by the ESO are eligible to receive employment support. – Before only firms with at least 20 workers were eligible for subsidy, now even micro enterprises or small non-profit organisations can receive support. – The previous system of standard subsidies has been replaced by a differentiated system which includes wage subsidy, compensation and contribution to different costs associated with the employment and rehabilitation of disabled workers.	– As a result of more stringent conditions businesses with demonstrated competence in the employment of disabled workers are more likely to qualify for support than "mainstream" employers who might face relative disadvantage. – The number of employers might increase, however the support/worker might be lower in the case of smaller businesses than for large organisations. – Aid intensity more directly depends on the expenses of the employer, however full compensation of employment-related costs can only be awarded to employers with advanced-level certificates.	– Persons with an impairment between 50–79 per cent are eligible for rehabilitation allowance equalling 120 per cent of the disability pension for a maximum of 3 years provided they cooperate with the PES. – The new National Institute for Rehabilitation and Social Assessment assesses remaining abilities instead of loss of work ability. – The PES offers and individual rehabilitation plan (a written agreement) for persons in the rehabilitation scheme which can include training and support for business start-up, and involve independent non-profit organisations.	– As a result of rehabilitation and employment support schemes, 5–6 thousand people with disabilities might take up employment, however they lose other benefits during the rehabilitation process. – Thanks to the inclusion of work, care, social and other experts in the assessment committee, it can give a more comprehensive assessment, however it is more expensive. – It increases the chances of disabled people of returning to long-term employment, but it is not clear when failure to find a job will be considered a breach of the agreement by the disabled person. – 250 new staff will be hired by the PES.
Impact on budget			
The nominal value of total wage subsidy stays at 50 billion Forint/year, however the amount awarded to individual employers is differentiated on the basis of their certificate. Fraud is expected to decline.		60 million Forints – mainly from EU funding – will be spent on setting up the rehabilitation system. This is expected to return in 6 years from savings on disability pensions. After that the new system is expected to save 15,000 million Forints/year on present value for the state budget.	

Source: Yvette Szabó: Leszázalékolt számítás, HVG, May 26, 2007. p. 88.

2.4.3. National Institute for Rehabilitation and Social Assessment

On the basis of the National Institute for Medical Assessment, the National Institute for Rehabilitation and Social Assessment was set up as of July 2007. Its tasks include the assessment of the extent of impairment, vocational working ability, fitness for rehabilitation, and possible directions and length of rehabilitation. It carries out the assessment of disability pension claims. It provides comprehensive rehabilitation services.

3. CONCLUSION

The system of active labour market programmes has recently undergone significant changes in Hungary. This paper has given an overview of the main trends, experiences and impact of active labour market programmes between 2001–2006 and it has presented the most important changes introduced in 2007.

It has been shown that the labour market budget increased by nearly 50 per cent between 2000–2006, however its share in the GDP remained around one per cent – that is approximately half of the EU Member States' average. The share of active measures, services and programmes within the labour market budget fluctuated between 28.4 and 40.8 per cent. The number of participants of active labour market programmes shrank from 2.6 per cent in 2001 to 1.5 per cent of the economically active population in 2006.

As regards recent issues, the most important change has been the reform of the system of employment promotion in 2007, including the introduction of new rules for wage subsidies, business start-up support and other measures. These changes were partly motivated by the need for a regulatory alignment with existing EU rules, but simplification and improving the transparency of the system were also important factors. Another major change has been the launch of a new rehabilitation system and the establishment of the National Institute for Rehabilitation and Social Assessment. Finally, the Public Employment Service has been organised into regional unit instead of the previous county-based structure.

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
FSzH SREG	NESO Unemployment 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	120.8	121.7	101.5	101.0	109.8	6.4
2001	103.8	103.6	104.0	107.7	106.4	100.3	109.2	5.7
2002	103.5	102.8	105.1	105.9	113.6	100.1	105.3	5.8
2003	102.9	106.4	110.1	109.1	109.2	101.3	104.7	5.9
2004	104.6	107.4	115.2	118.4	98.9	99.4	106.8	6.1
2005	104.1	107.1	106.1	111.5	106.3	100.0	103.6	7.2
2006	103.9	110.1	112.6	116.8	103.5	100.7	103.9	7.5

* Previous year = 100

Source: Employment: 1989–1991: KSH MEM; 1992–: KSH MEF. Other data: KSH.

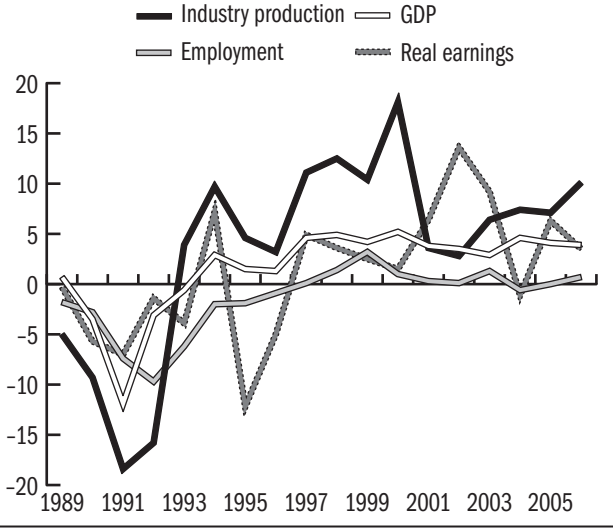


Figure 1.1: Annual changes of basic economic indicators

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

* January 1th.
[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.

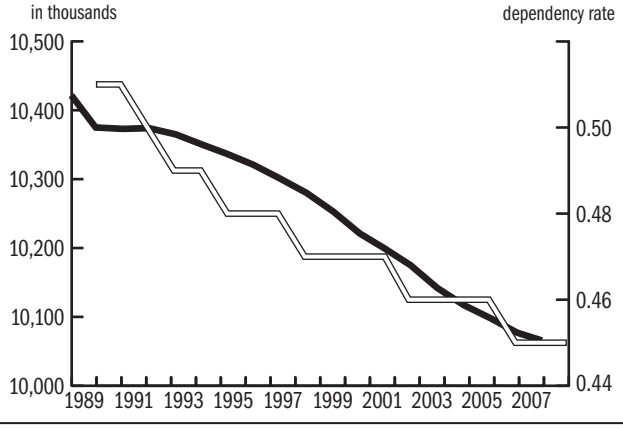


Figure 2.1: Population on 1st January, dependency rate

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

* January 1th. Recalculated on the basis of Population Census 2001.
Source: KSH.

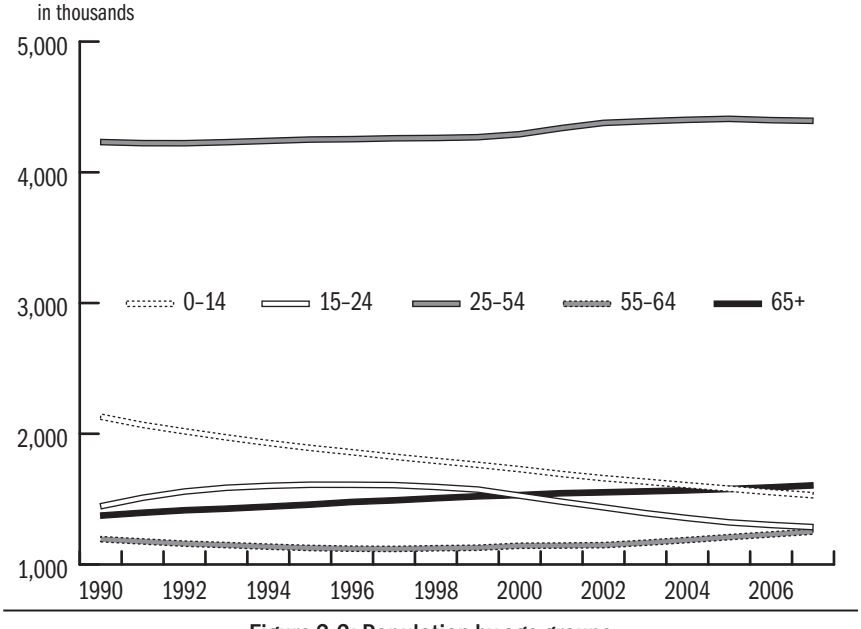


Figure 2.2: Population by age groups

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
1992	1,032.3	797.7	2,350.4	255.5	539.8	4,975.7
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

* 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
1992	986.5	760.4	2,138.1	318.1	1,194.9	5,397.9
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

* See: Table 2.2.
Source: KSH.

Table 3.1: Labour force participation of the population above 14 years*

Year	Population at male 15–59 and female 15–54								Population at 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

* 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 1995–97 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 at male 15–59								Population at 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

* See: Table 3.1.

Table 3.3: Labour force participation of the population above 14 years – females*

	Population at female 15–54								Population at 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

* See: Table 3.1.

Table 3.4: Labour force participation of the population above 14 years – per cent

Year	Population at male 15–59 and female 15–54								Population at 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

Source: Pensioners: 1980–91: NYUFIG, 1992–: KSH MEF. Child care recipients: TB. Unemployment: 1990–91: FSzH REG, 1992–: KSH MEF.

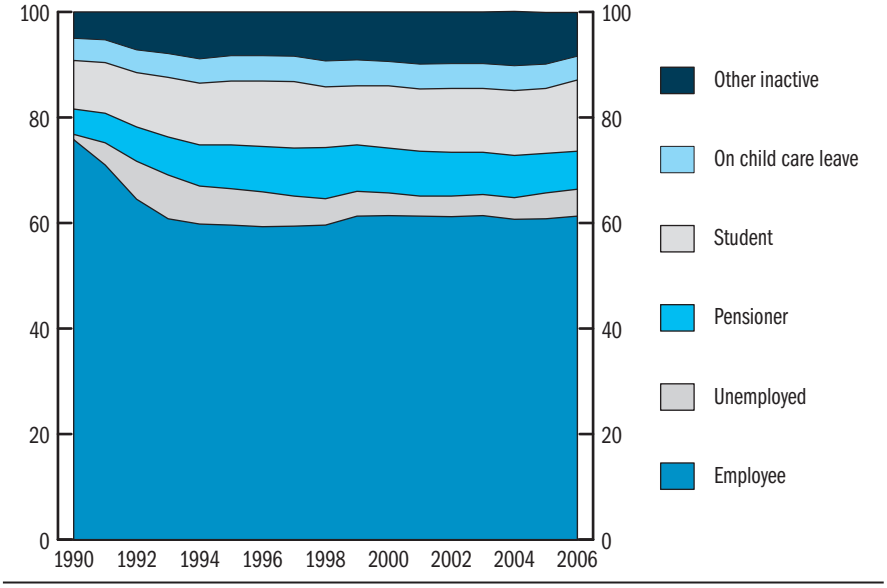


Figure 3.1: Labour force participation of population at male 15–59 and female 15–54, **total**

Table 3.5: Labour force participation of the population above 14 years – males, per cent

Year	Population at male 15–59								Population at 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

Source: Pensioners: 1980–91: NYUFIG, 1992–: KSH MEF. Child care recipients: TB. Unemployment: 1990–91: FSzH REG, 1992–: KSH MEF.

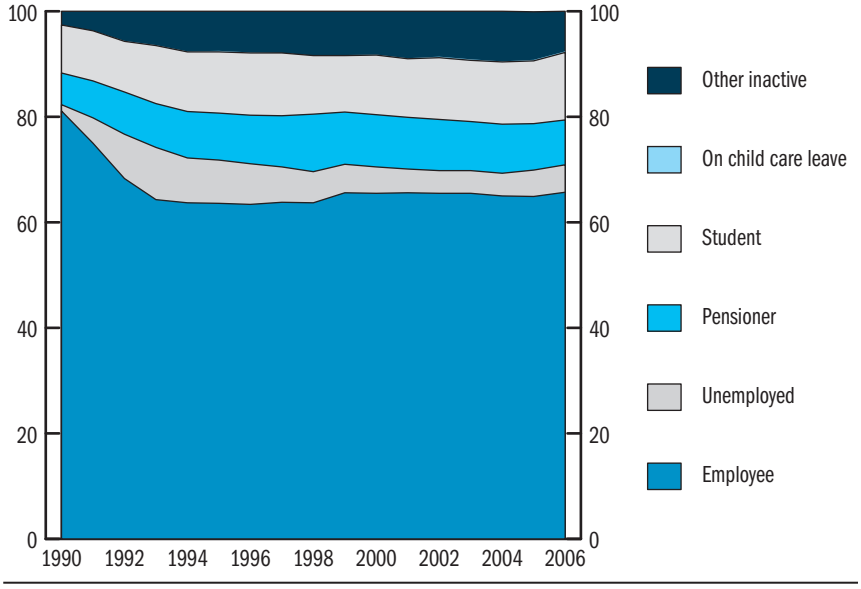


Figure 3.2: Labour force participation of population at male 15–59

Table 3.6: Labour force participation of the population above 14 years – females, per cent

Year	Population at female 15–54								Population at 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

Source: Pensioners: 1980–91: NYUFIG, 1992–: KSH MEF. Child care recipients: TB. Unemployment: 1990–91: FSzH REG, 1992–: KSH MEF.

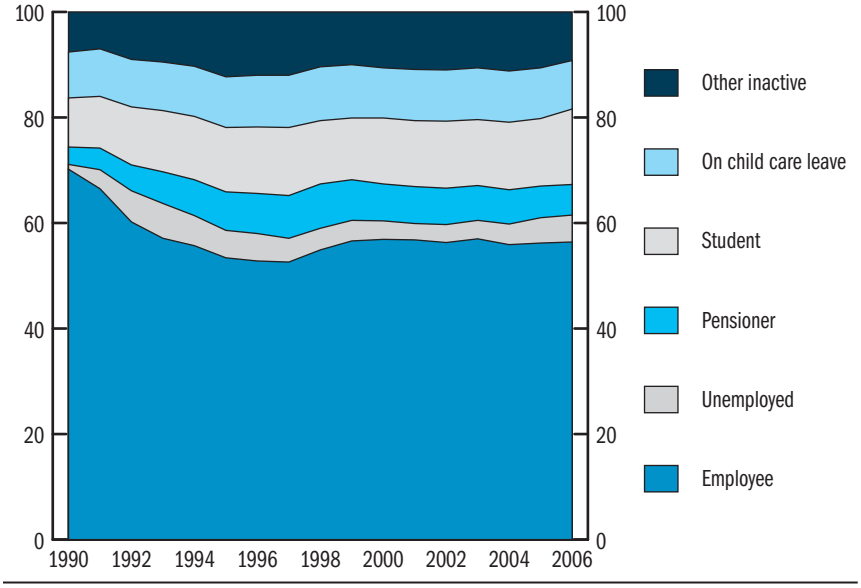


Figure 3.3: Labour force participation of population at female 15–54

Table 3.7: Population between 15–64 by labour market status (self-categorised) in thousands

	1999	2000	2001	2001[a]	2002[a]	2003[a]	2004[a]	2005[a]	2006[a]
Total									
In work	3710.8	3778.9	3804.1	3827.4	3827.1	3843.6	3834.4	3852.2	3864.1
Unemployed	473.5	448.1	411.6	414.5	410.4	431.8	451.0	488.2	468.1
Student; pupils	753.9	749.9	716.4	739.9	763.1	767.7	783.8	792.0	847.8
Pensioner	1079.7	991.8	968.9	990.8	940.4	856.4	800.3	755.6	617.8
Disabled	195.5	223.8	245.4	251.0	284.4	338.3	370.4	359.7	520.4
On child care leave	289.0	272.4	280.1	272.3	278.3	281.7	274.7	272.4	273.5
Dependent	167.5	165.9	168.9	170.7	160.4	181.7	133.3	134.6	116.1
Out of work for other reason	113.1	133.6	181.8	184.7	185.7	181.7	178.4	160.0	108.0
Total	6783.0	6764.4	6777.2	6851.3	6849.8	6836.3	6826.3	6814.7	6815.8
Males									
In work	2042.7	2075.4	2091.8	2089.5	2090.2	2087.3	2082.8	2088.3	2105.0
Unemployed	286.1	270.4	255.7	255.2	239.3	244.2	247.7	265.2	251.6
Student; pupils	375.9	371.4	353.0	363.6	380.9	383.7	391.1	398.5	418.9
Pensioner	426.4	388.6	377.3	386.3	368.1	337.4	322.5	304.5	236.0
Disabled	106.0	120.4	133.1	134.2	148.1	169.9	184.5	178.7	250.4
On child care leave	3.9	3.8	4.0	4.0	4.9	4.7	4.9	6.1	5.5
Dependent	6.5	5.3	6.3	6.3	5.1	5.3	6.0	7.0	5.8
Out of work for other reason	67.4	77.6	99.9	100.8	101.2	97.5	89.6	80.1	54.9
Total	3314.9	3312.9	3321.1	3339.9	3337.8	3330.0	3329.1	3328.4	3328.1
Females									
In work	1668.1	1703.5	1712.3	1737.9	1736.9	1756.3	1751.6	1763.9	1759.1
Unemployed	187.4	177.7	155.9	159.3	171.1	187.6	203.3	223.0	216.5
Student; pupils	378.0	378.5	363.4	376.3	382.2	384.0	392.7	393.5	428.9
Pensioner	653.3	603.2	591.6	604.5	572.3	519.0	477.8	451.1	381.8
Disabled	89.5	103.4	112.3	116.8	136.3	168.4	185.9	181.0	270.0
On child care leave	285.1	268.6	276.1	268.3	273.4	277.0	269.8	266.3	268.0
Dependent	161.0	160.6	162.6	164.4	155.3	129.8	127.3	127.6	110.3
Out of work for other reason	45.7	56.0	81.9	83.9	84.5	84.2	88.8	79.9	53.1
Total	3468.1	3451.5	3456.1	3511.4	3512.0	3506.3	3497.2	3486.3	3487.7

[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

	1999	2000	2001	2001[a]	2002[a]	2003[a]	2004[a]	2005[a]	2006[a]
Total									
In work	54.7	55.9	56.1	55.9	55.9	56.2	56.2	56.5	56.7
Unemployed	7.0	6.6	6.1	6.0	6.0	6.3	6.6	7.2	6.9
Student; pupils	11.1	11.1	10.6	10.8	11.1	11.2	11.5	11.6	12.4
Pensioner	15.9	14.7	14.3	14.5	13.7	12.5	11.7	11.1	9.1
Disabled	2.9	3.3	3.6	3.7	4.2	4.9	5.4	5.3	7.6
On child care leave	4.3	4.0	4.1	4.0	4.1	4.1	4.0	4.0	4.0
Dependent	2.5	2.5	2.5	2.5	2.3	2.0	2.0	2.0	1.7
Out of work for other reason	1.7	2.0	2.7	2.7	2.7	2.7	2.6	2.3	1.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Males									
In work	61.6	62.6	63.0	62.6	62.6	62.7	62.6	62.7	63.2
Unemployed	8.6	8.2	7.7	7.6	7.2	7.3	7.4	8.0	7.6
Student; pupils	11.3	11.2	10.6	10.9	11.4	11.5	11.7	12.0	12.6
Pensioner	12.9	11.7	11.4	11.6	11.0	10.1	9.7	9.1	7.1
Disabled	3.2	3.6	4.0	4.0	4.4	5.1	5.5	5.4	7.5
On child care leave	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
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	2.0	2.3	3.0	3.0	3.0	2.9	2.7	2.4	1.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Females									
In work	48.1	49.4	49.5	49.5	49.5	50.1	50.1	50.6	50.4
Unemployed	5.4	5.1	4.5	4.5	4.9	5.4	5.8	6.4	6.2
Student; pupils	10.9	11.0	10.5	10.7	10.9	11.0	11.2	11.3	12.3
Pensioner	18.8	17.5	17.1	17.2	16.3	14.8	13.7	12.9	10.9
Disabled	2.6	3.0	3.2	3.3	3.9	4.8	5.3	5.2	7.7
On child care leave	8.2	7.8	8.0	7.6	7.8	7.9	7.7	7.6	7.7
Dependent	4.6	4.7	4.7	4.7	4.4	3.7	3.6	3.7	3.2
Out of work for other reason	1.3	1.6	2.4	2.4	2.4	2.4	2.5	2.3	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

[1] Per cent of the population above 15 year.
[a] See: Table 3.7.
Source: 1980–91: KSH MEM, 1992–: KSH MEF.

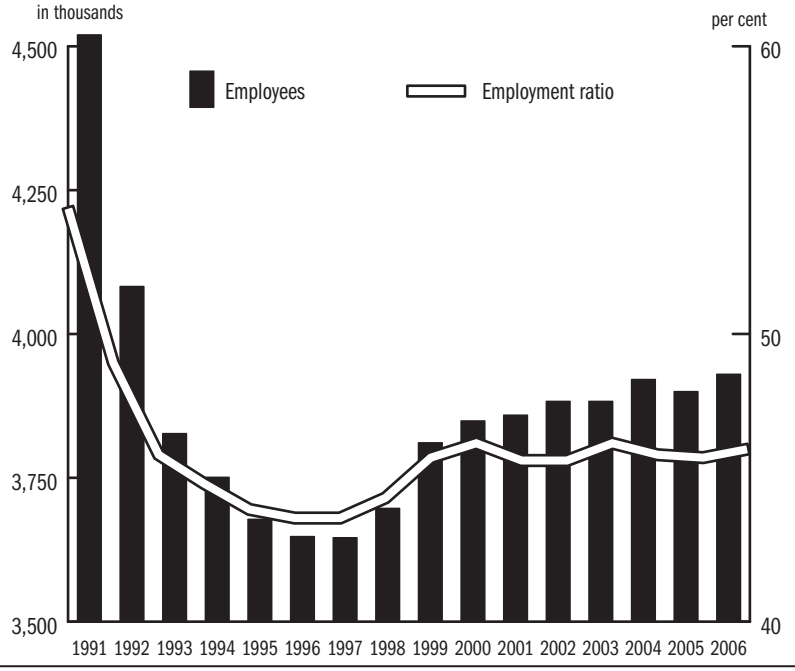


Figure 4.1: Employed

Table 4.2: Employed 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	91.0	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

[a] See: Table 3.7.
Source: 1980–91: KSH MEM, 1992–: KSH MEF.

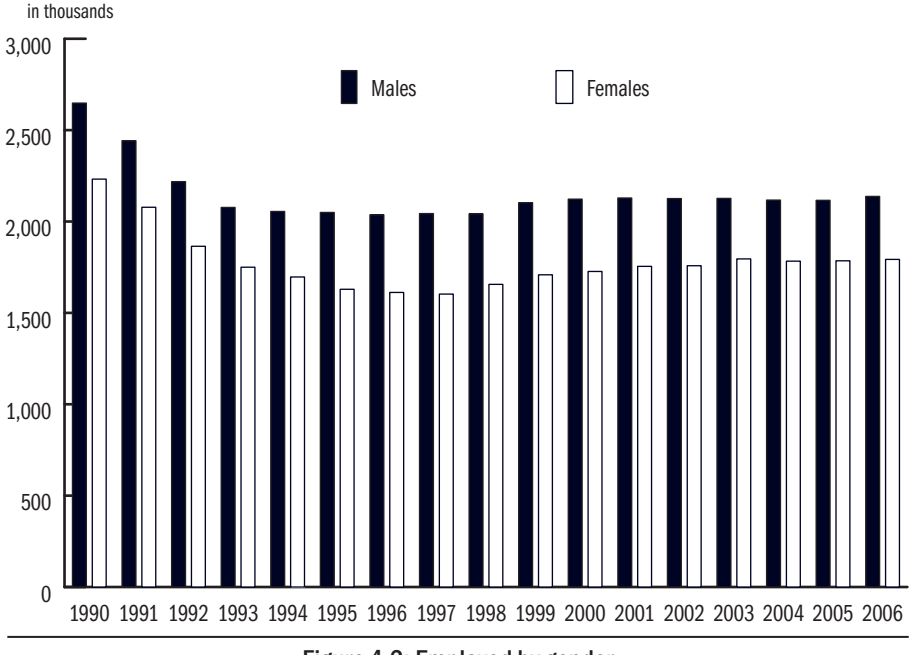


Figure 4.2: Employed by gender

Table 4.3: Composition of the employed by age groups – males, per cent

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
1991	4.5	10.9	65.3	8.9	6.7	3.7	100.0
1992	3.3	10.9	67.2	9.1	6.5	2.9	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

[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, per cent

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

[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, per cent

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
1993	24.0	36.2	25.1	14.7	100.0
1994	22.5	38.1	25.2	14.2	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

[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, per cent

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

[a] See: Table 3.7.

Source: 1980–91: Census based estimates. 1992– : KSH MEF.

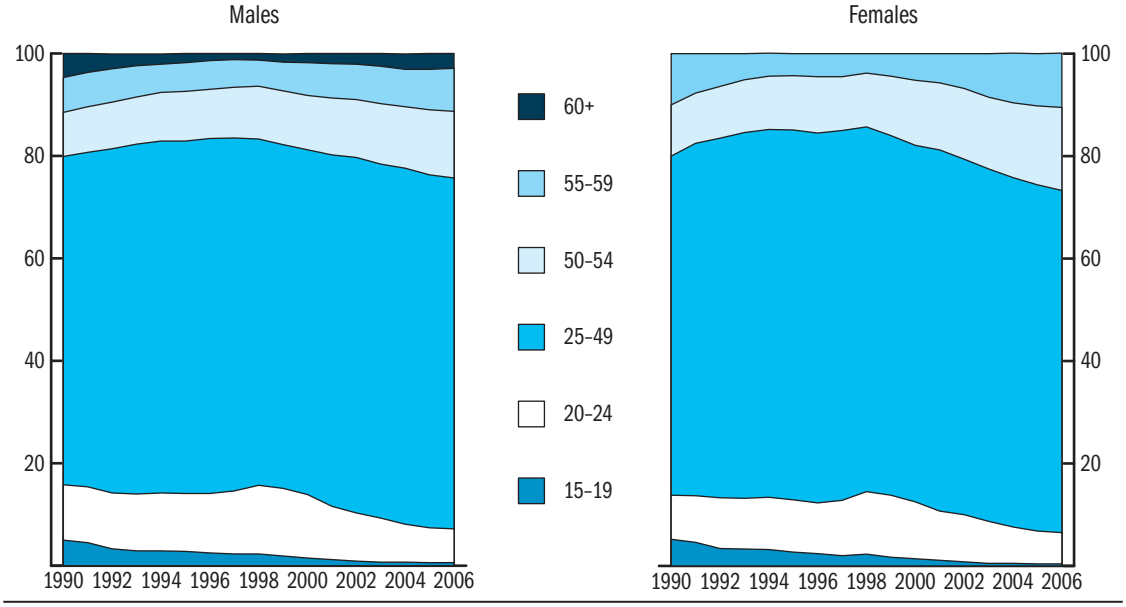


Figure 4.3: Employed by age, per cent

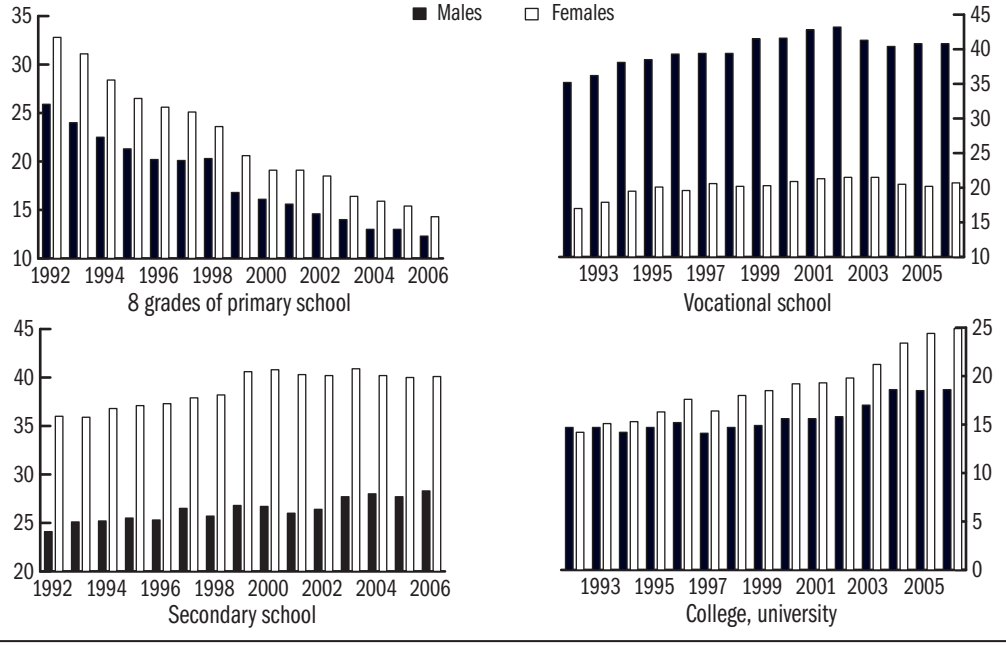


Figure 4.4: Employed by by level of education and gender, per cent

Table 4.7: Employed by status in employment

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

[a] See: Table 3.7.
Note: Conscripts are excluded.
Source: KSH MEF.

Table 4.8: Composition by status in employment – 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

[a] See: Table 3.7.
Note: Conscripts are excluded.
Source: KSH MEF.

Table 4.9: Employees* by industry, per cent

Industry	1980	1990	1995	2000	2001[a]	2002[a]	2003[a]	2004[a]	2005[a]	2006[a]
Agriculture	18.0	15.8	6.9	5.2	4.9	4.8	4.4	4.1	3.8	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
Manufacturing	29.2	29.5	24.3	25.9	26.5	26.4	25.2	24.4	23.6	23.3
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
Construction	7.0	5.9	5.5	6.4	6.5	6.4	7.0	7.3	7.6	7.7
Wholesale and retail trade	8.7	8.9	10.7	13.0	13.1	13.1	13.2	13.1	14.3	14.0
Hotels and restaurants	2.3	2.4	2.9	3.2	3.5	3.4	3.4	3.6	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
Financial intermediation	1.1	1.4	2.5	2.2	2.1	2.0	1.9	2.1	2.1	2.0
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
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
Education	6.0	7.1	10.1	9.1	8.9	9.1	9.2	9.4	9.0	8.9
Health and social work	5.3	5.5	6.9	6.8	6.6	6.7	7.3	7.4	7.2	7.3
Other	2.7	3.4	4.7	3.9	3.7	3.7	3.8	3.7	3.9	3.9
Total	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.

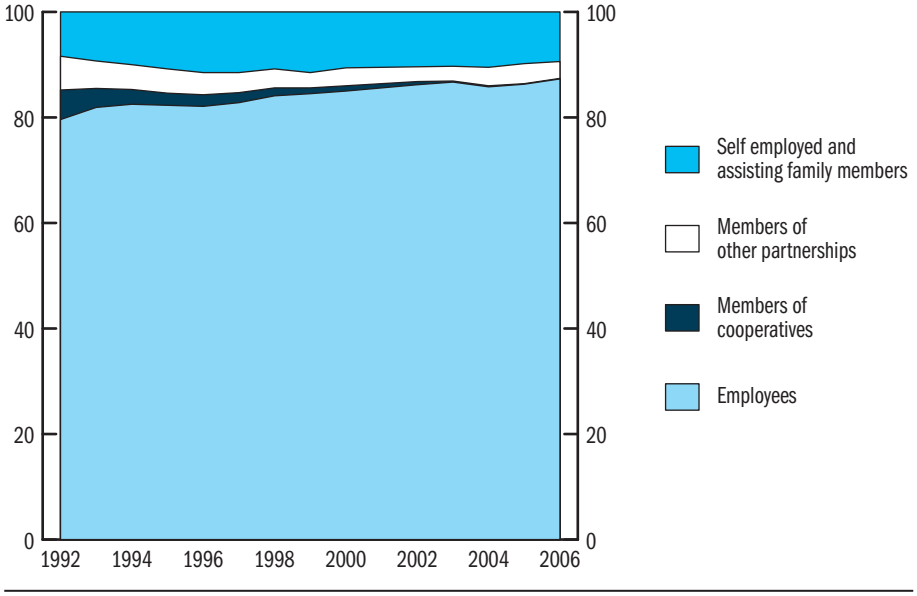


Figure 4.5: Ratio of employees, members of cooperatives, members of other partnerships, self-employed and assisting family members, per cent

Table 4.10: Employees of the corporate sector by firm size, per cent

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

Note: –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, per cent

Foreign ownership	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
100%	12.2	14.4	17.1	17.5	19.0	17.7	16.5	17.7	18.6	19.0
Majority	12.3	13.9	13.5	11.7	11.0	9.2	8.8	7.8	8.5	7.5
Minority	7.3	7.6	6.0	5.3	4.9	3.6	3.9	3.8	3.1	2.2
0%	68.2	64.1	63.4	65.5	65.1	69.5	70.8	70.7	69.8	71.3

Note: –1999: firms employing 10 or more workers; 2000: firms employing 5 or more workers.
Source: FSzH BT.

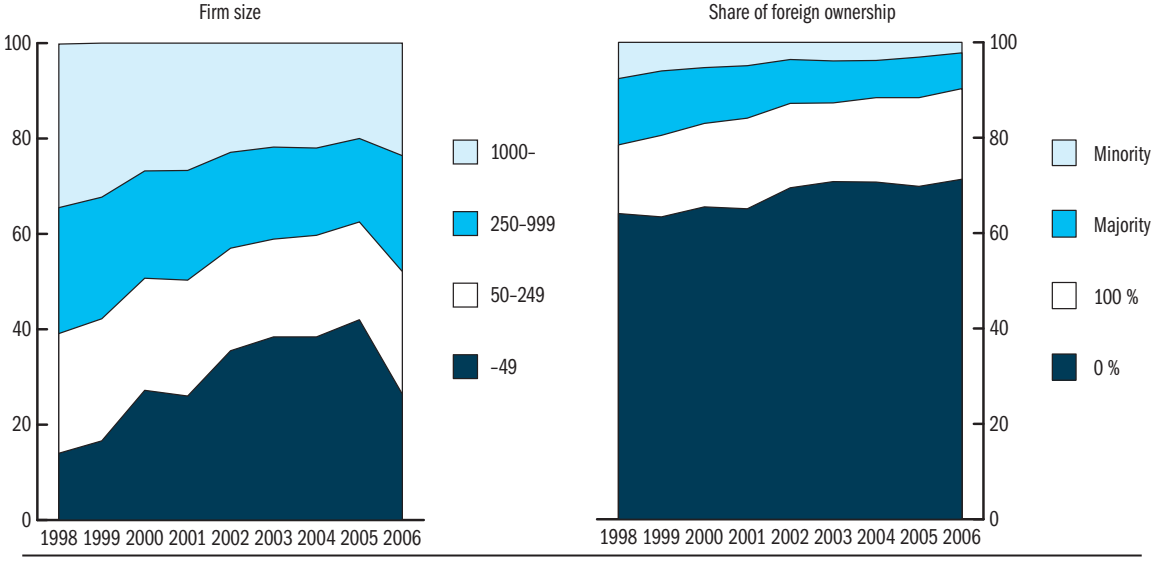


Figure 4.6: Employees of the corporate sector by firm size and by the share of foreign ownership

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

[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

[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

[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

[a] See: Table 3.7.
Source: KSH MEF.

Table 5.1: Unemployment rate by age and gender and % 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

[1] Long term unemployed = 12 or more months without job.
[a] See: Table 3.7.
Source: KSH MEF.

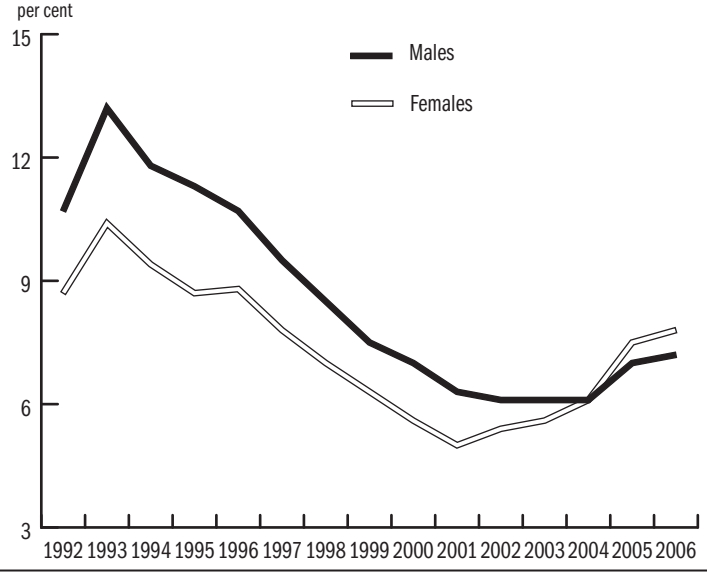


Figure 5.1: Unemployment rates by gender

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

[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

[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

* 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.

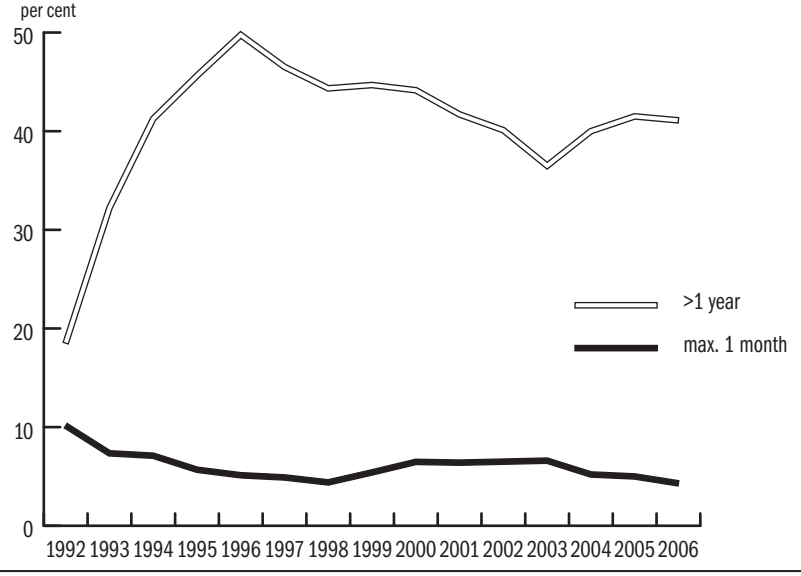
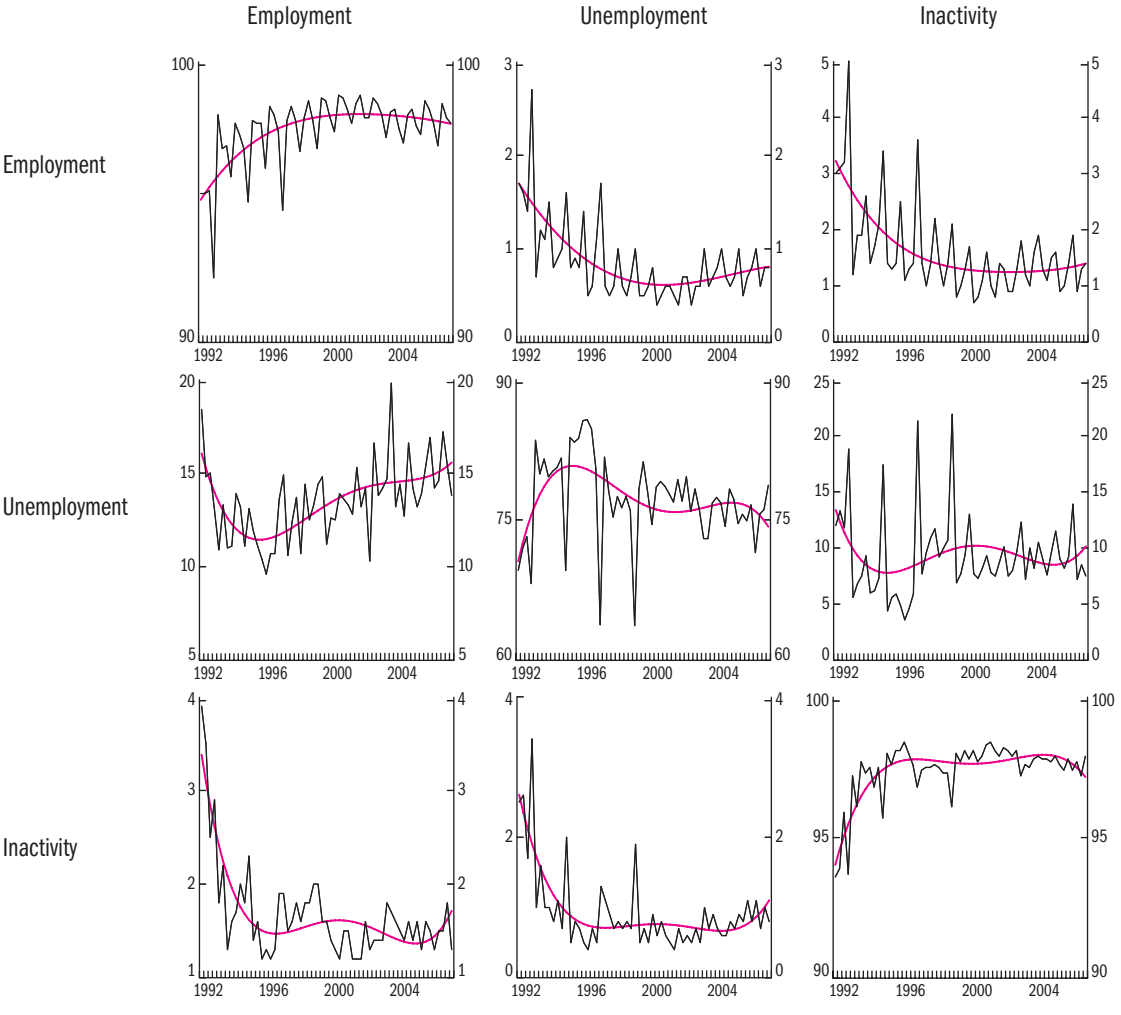


Figure 5.2: The distribution of unemployed by duration of job search, per cent

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 and LFS unemployment

Year	Registered unemployed		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

* Since 2006: registered jobseekers instead of registered unemployed.

Note: The denominator of the regitered unemployment rate is the economically active population on 1st January of the previous year, which comes from KSH MEM.

Source: Registered unemployed: FSzH REG; LFS unemployed: KSH MEF.

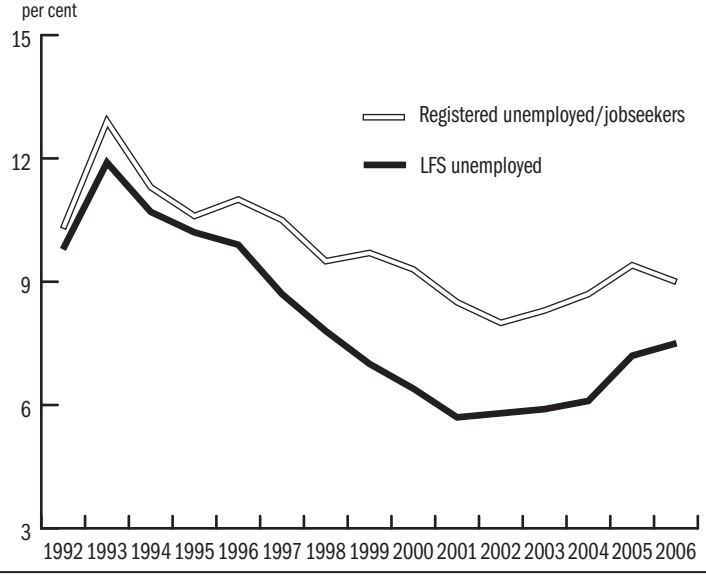


Figure 5.4: Registered and LFS, unemployment rates

Table 5.6: Registered unemployed 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

[a] See: Table 3.7.

Note: The data refer to the population observed as registered unemployed 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.

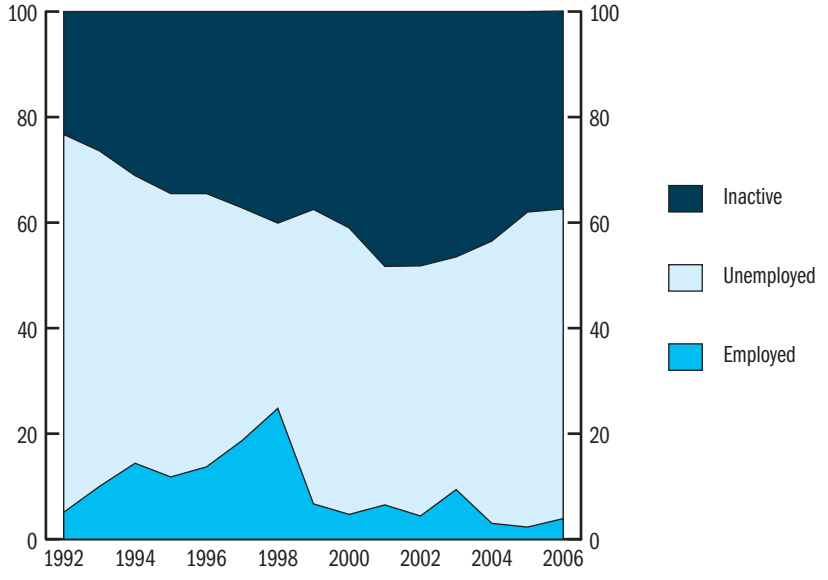


Figure 5.5: Registered unemployed by economic activity

Table 5.7: Selected time series of registered unemployment, yearly average, in thousands, per cent

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Registered unemployment	671.7	568.4	507.7	500.6	470.1	423.1	409.5	390.5	364.1	344.7	357.2	375.9	409.9	393.5
Of which:														
School-leavers	59.7	62.1	54.5	46.2	42.4	32.5	29.9	26.0	26.8	28.5	31.3	33.8	40.9	38.7
Non school-leavers	612.0	506.2	453.2	454.4	427.7	390.6	379.6	364.4	337.4	316.2	325.9	342.2	369.1	354.7
Male	395.3	333.0	293.8	284.1	267.1	233.4	221.4	209.7	196.4	184.6	188.0	193.3	210.4	200.9
Female	276.4	235.3	213.8	216.5	203.0	189.7	188.1	180.8	167.7	160.1	169.2	182.6	199.5	192.5
25 years old and younger	174.8	153.3	134.2	124.0	105.8	89.9	85.4	79.1	75.6	71.1	71.6	71.4	78.9	75.8
Manual workers	556.0	467.6	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	115.8	100.7	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 benefit recipients	404.8	228.9	182.8	171.7	141.7	130.7	140.7	131.7	119.2	114.9	120.0	124.0	134.4	117.7
Unemployment assistance recipients	89.3	190.3	210.0	211.3	201.3	182.2	148.6	143.5	131.2	113.4	116.2	120.4	133.4	112.9
Unemployment rate	12.9	11.3	10.6	11.0	10.5	9.5	9.7	9.3	8.5	8.0	8.3	8.7	9.4	9.0
Shares within registered unemployed														
School-leavers	8.9	10.9	10.7	9.2	9.0	7.7	7.3	6.7	7.3	8.3	8.8	9.0	10.0	9.8
Male	58.8	58.6	57.9	56.7	56.8	55.2	54.1	53.7	53.9	53.5	52.6	51.4	51.3	51.1
25 years old and younger	26.0	27.0	26.4	24.8	22.5	21.3	20.9	20.3	20.8	20.6	20.0	19.0	19.2	16.5
Manual workers	82.8	82.3	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	48.6	42.3	45.7	52.8	56.1	55.4	57.2	54.1	57.0	56.0	54.8	57.8	60.7	50.8
Of which: school-leavers	7.6	7.8	8.0	7.5	9.2	9.8	9.3	8.0	7.8	7.8	7.7	7.6	8.2	7.0
Outflow from the Register	51.2	51.7	47.6	54.3	57.3	60.4	57.2	56.8	59.4	55.8	53.5	54.4	59.8	60.7
Of which: school-leavers	6.6	7.9	8.5	8.9	9.0	11.0	9.4	8.2	7.7	7.5	7.6	7.1	7.9	5.1

Notes: Recipients of job search assistance benefit included. From 2001 together with regular social allowance recipients. From 2006: jobseekers' benefit, jobseekers' assistance and jobseekers' ratio.
Source: FSzH REG.

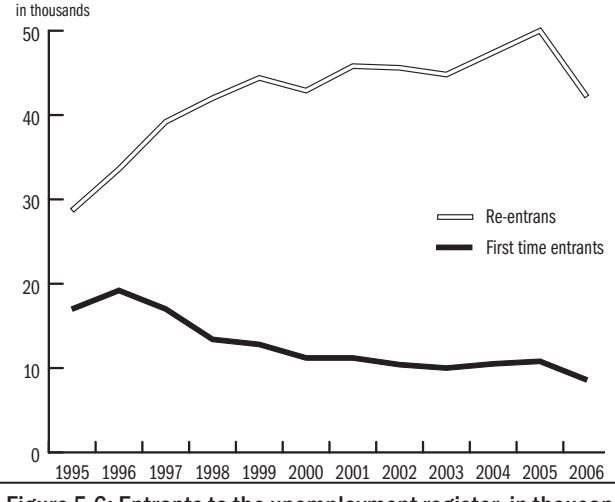


Figure 5.6: Entrants to the unemployment register, in thousands

Table 5.8: Monthly entrants to the unemployment register* – in thousands

	January	February	March	April	May	June	July	August	September	Oktober	November	December	Monthly average
1996													
First time entrants	18.6	20.3	18.3	17.0	16.2	21.8	34.7	18.5	21.6	14.6	16.2	12.7	19.2
Re-entrants	38.9	30.9	25.2	22.9	31.5	34.0	37.5	31.2	38.3	37.8	38.0	37.4	33.6
Together	57.4	51.1	43.4	40.0	47.7	55.7	72.1	49.7	59.9	52.4	54.2	50.2	52.8
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

* 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	Unemployment benefit*	Unemployment assistance**	UA for school-leavers	Do not receive provision	Public work	Retraining	Wage subsidy	Other programmes	Total
1990									
In thousands	42.5	–	–	18.6	...	...	...	...	61.0
Per cent	69.6			30.4					100.0
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	440.0
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

* Since 2006: jobseekers' benefit. ** Since 2006: jobseekers' assistance.

[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.

Table 5.10: The number of registered unemployed 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	242
		Male	322	358	300	264
		Together	632	694	594	507
	Non-subsidised employment	Female	1,064	1,138	1,376	1,437
		Male	873	957	1,157	1,214
		Together	1,936	2,095	2,532	2,651
Central Transdanubia	Subsidised employment	Female	332	447	402	326
		Male	374	499	459	382
		Together	707	946	861	707
	Non-subsidised employment	Female	959	1,004	1,190	1,213
		Male	987	1,037	1,252	1,254
		Together	1,946	2,040	2,442	2,468
Western Transdanubial	Subsidised employment	Female	195	266	256	172
		Male	262	343	342	263
		Together	457	609	597	435
	Non-subsidised employment	Female	858	898	1,037	1,028
		Male	936	1,052	1,159	1,170
		Together	1,793	1,950	2,196	2,198
Southern Transdanubia	Subsidised employment	Female	579	631	661	569
		Male	786	959	953	820
		Together	1,364	1,590	1,614	1,389
	Non-subsidised employment	Female	822	806	985	901
		Male	971	959	1,195	1,152
		Together	1,793	1,764	2,180	2,053
Northern Hungary	Subsidised employment	Female	1,049	1,140	1,061	995
		Male	1,625	1,844	1,628	1,399
		Together	2,674	2,983	2,688	2,394
	Non-subsidised employment	Female	880	889	1,077	931
		Male	1,289	1,329	1,580	1,417
		Together	2,169	2,218	2,657	2,348
Northern Great Plain	Subsidised employment	Female	1,039	1,143	1,114	1,019
		Male	1,641	1,804	1,708	1,486
		Together	2,680	2,948	2,821	2,505
	Non-subsidised employment	Female	1,123	1,165	1,378	1,413
		Male	1,544	1,669	1,993	2,053
		Together	2,666	2,833	3,372	3,466
Southern Great Plain	Subsidised employment	Female	660	714	720	687
		Male	781	945	945	876
		Together	1,441	1,658	1,664	1,563
	Non-subsidised employment	Female	1,027	1,061	1,180	1,240
		Male	1,285	1,405	1,576	1,624
		Together	2,313	2,466	2,755	2,865
Total	Subsidised employment	Female	4,163	4,677	4,507	4,011
		Male	5,791	6,751	6,333	5,490
		Together	9,954	11,428	10,840	9,501
	Non-subsidised employment	Female	6,731	6,960	8,222	8,164
		Male	7,885	8,406	9,912	9,884
		Together	14,616	15,366	18,134	18,048

* Monthly averages of the whole years, in 2007: the average of January-October.
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							
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 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. From 2006 the terms and definitions were changed, registered unemployed to registered jobseekers, unemployment benefit recipients to jobseekers' benefit recipients and unemployment assistance recipients to jobseekers' assistance recipients.

[2] 2001–: Together with the recipients of regular social allowance.

Notes: On the closing date of June in each year.

Source: FSzH.

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
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
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
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	..
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
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
Work experience programmes	–	65.7	59.1	55.8	57.9	64.5	66.9	66.1	66.5	66.8	66.6
Further employment programme	–	72.1	75.1	68.5	73.8	71.6	78.4	78.2	71.5	70.9	65.0

* 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

Source: FSzH.

Table 5.14: Employment ratio of former participants of ALMPs* by sex, age and education for the programmes finished in 2006

	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	41.5	57.3	45.3	87.2	59.0	66.7	71.2
Female	40.8	45.3	41.7	85.5	65.2	66.5	47.2
By age groups							
–20	33.4	49.0	35.5	0.0	50.0	57.7	68.7
20–24	44.0	55.5	46.7	82.7	57.5	67.8	56.1
25–29	43.6	55.1	46.5	87.3	63.4	69.2	0.0
–29 together	41.9	54.7	44.8	85.9	60.9	66.6	0.0
30–34	43.1	48.5	44.4	87.7	63.3	75.0	0.0
35–39	38.9	49.0	41.3	89.2	63.8	0.0	0.0
40–44	40.1	51.7	42.5	85.2	62.3	0.0	0.0
45–49	40.9	48.2	42.5	82.3	65.0	0.0	0.0
50–54	39.4	35.8	38.6	85.5	64.3	0.0	0.0
55+	29.9	38.7	31.2	87.0	50.9	0.0	0.0
By level of education							
Less than primary school	21.0	0.0	20.1	100.0	37.6	25.0	0.0
Primary school	35.0	41.6	36.0	86.8	53.9	51.5	0.0
Vocational school for skilled workers	43.7	51.0	45.5	86.8	62.8	62.9	64.9
Vocational school	36.2	46.2	38.0	100.0	63.0	58.9	60.0
Special vocational school	40.0	0.0	0.0	0.0	50.0	83.3	100.0
Vocational secondary school	42.8	52.8	45.5	85.7	66.0	65.6	66.7
Technicians secondary school	43.6	54.4	46.5	90.1	69.5	73.8	100.0
Grammar school	41.0	51.3	43.3	88.5	65.9	63.1	50.0
College diplom	49.8	61.7	52.1	81.9	65.6	70.9	0.0
University diplom	42.7	57.1	45.6	81.6	65.8	72.1	0.0
Total	41.1	50.9	43.3	86.4	62.3	66.6	65.0

* 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

Groups of training participants	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
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
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
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
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
Employed participants	7.3	5.9	5.2	5.2	5.7	5.8	5.0	10.9	12.5	11.1	7.6
Total	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 non-employed labour market training participants by the type of training

Types of training	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Approved qualification	80.4	77.9	79.8	79.6	78.8	78.7	77.6	78.3	75.1	72.9	71.5
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
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
Total	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

	2002			2003			2004			2005		
	male	female	to-gether	male	female	to-gether	male	female	to-gether	male	female	to-gether
Total number of entrants	17,901	27,191	45,092	11,077	14,683	25,760	12,565	15,162	27,727	12,161	14,388	26,459
Entrants by gender	39.7	60.3	100.0	43.0	57.0	100.0	45.3	54.7	100.0	45.8	54.2	100.0
Distribution by age groups												
–20	12.9	8.7	10.4	11.2	7.3	9.0	12.5	7.3	9.7	11.3	6.4	8.7
20–24	28.1	21.5	24.1	25.5	20.0	22.3	26.5	20.3	23.1	26.4	20.2	23.0
–25	41.0	30.2	34.5	36.6	27.3	31.3	39.0	27.6	32.8	37.8	26.5	31.7
25–44	47.6	59.3	54.7	48.7	59.6	54.9	46.4	57.2	52.3	46.4	56.8	52.0
45–49	6.2	6.7	6.5	8.0	7.9	7.9	6.8	8.6	7.8	6.9	8.6	7.8
50+	5.2	3.7	4.3	6.7	5.2	5.9	7.8	6.6	7.1	8.9	8.1	8.4
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	1.9	0.8	1.3	2.3	1.2	1.7	3.1	1.6	2.3	1.4	1.0	1.2
Primary school	29.0	19.2	23.1	30.0	19.2	23.8	32.6	21.1	26.3	31.9	19.3	25.1
Vocational school	33.5	22.5	26.9	32.9	21.8	26.6	31.3	21.1	25.7	32.4	22.0	26.8
Vocational and technical secondary school	21.1	28.7	25.7	20.2	27.7	24.5	19.0	26.8	23.3	19.8	26.6	23.5
Grammar school	8.8	19.9	15.5	8.3	18.7	14.2	8.7	19.0	14.4	9.4	19.8	15.0
College; university	5.6	8.9	7.6	6.3	11.4	9.2	5.3	10.4	8.1	5.1	11.3	8.4
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 unemployment by educational attainment, yearly averages

Educational level	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Primary school or less	41.2	40.8	40.6	40.4	41.0	42.0	42.4	42.7	42.3	41.9	42.0
Vocational school	35.1	35.6	36.0	35.7	34.9	34.1	33.5	32.9	32.3	32.4	32.1
Vocational secondary school	12.7	12.8	12.9	13.2	13.2	13.1	13.2	13.1	13.4	13.5	13.4
Grammar school	8.3	8.0	7.9	8.0	8.0	7.7	7.6	7.5	7.7	7.9	8.0
College	2.0	2.0	1.9	2.0	2.1	2.2	2.4	2.7	3.1	3.2	3.3
University	0.8	0.7	0.7	0.7	0.7	0.8	0.9	1.0	1.1	1.2	1.2
Total	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 5.19: The distribution of registered unemployed school-leavers by educational attainment, yearly averages

Educational level	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Primary school or less	4.6	20.2	23.4	25.3	26.8	31.1	33.7	34.7	35.2	36.1	38.2
Vocational school	41.9	35.7	34.1	30.9	27.8	23.7	20.6	20.4	20.2	20.5	19.7
Vocational secondary school	27.0	23.9	24.2	25.0	25.4	25.3	25.5	23.2	22.1	21.5	20.4
Grammar school	21.8	15.5	14.0	13.6	13.7	12.6	11.6	10.8	10.7	10.8	11.7
College	3.6	3.5	3.4	4.0	4.8	5.5	6.2	7.7	8.1	7.8	6.9
University	1.1	1.1	1.0	1.2	1.5	1.8	2.4	3.3	3.6	3.4	3.1
Total	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 5.20: The number of registered unemployed by educational attainment, yearly averages

Educational level	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Primary school or less	206,078	191,772	171,882	165,465	160,099	153,085	146,260	152,395	159,089	171,646	165,091
Vocational school	175,650	167,585	152,164	146,226	136,291	124,078	115,323	117,620	121,588	132,824	126,179
Vocational sec. school	63,470	60,332	54,765	54,034	51,702	47,845	45,614	46,927	50,344	55,369	52,586
Grammar school	41,751	37,376	33,458	32,768	31,164	28,219	26,223	26,960	29,093	32,277	31,660
College	9,887	9,529	8,061	8,194	8,360	8,149	8,324	9,740	11,538	13,025	13,006
University	3,786	3,519	2,792	2,832	2,876	2,764	2,971	3,570	4,298	4,788	4,4941
Total	500,622	470,112	423,121	409,519	390,492	364,140	344,715	357,212	375,950	409,929	393,465

Source: FSzH.

Table 5.21: The number of registered unemployed school-leavers by educational attainment, yearly averages

Educational level	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Primary school or less	2,125	8,583	7,612	7,568	6,979	8,332	9,606	10,853	11,896	14,731	14,814
Vocational school	19,361	15,147	11,111	9,241	7,249	6,355	5,894	6,372	6,833	8,362	7,7630
Vocational sec. school	12,489	10,129	7,864	7,468	6,625	6,778	7,271	7,270	7,461	8,779	7,884
Grammar school	10,086	6,590	4,548	4,078	3,566	3,366	3,310	3,375	3,606	4,428	4,552
College	1,656	1,491	1,099	1,211	1,247	1,463	1,766	2,401	2,749	3,179	2,688
University	516	461	318	361	378	469	697	1,020	1,218	1,381	1,181
Total	46,233	42,401	32,551	29,927	26,044	26,763	28,542	31,292	33,763	40,861	38,749

Note: Since 2006: registered jobseekers and registered school-leaving jobseekers.
Source: FSzH.

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: 1993–: KSH LFS. Since 1999 slight changes carried out in the categorisation 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: 1993–: KSH LFS. Since 1999 slight changes carried out in the categorisation 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

Source: KSH IMS.

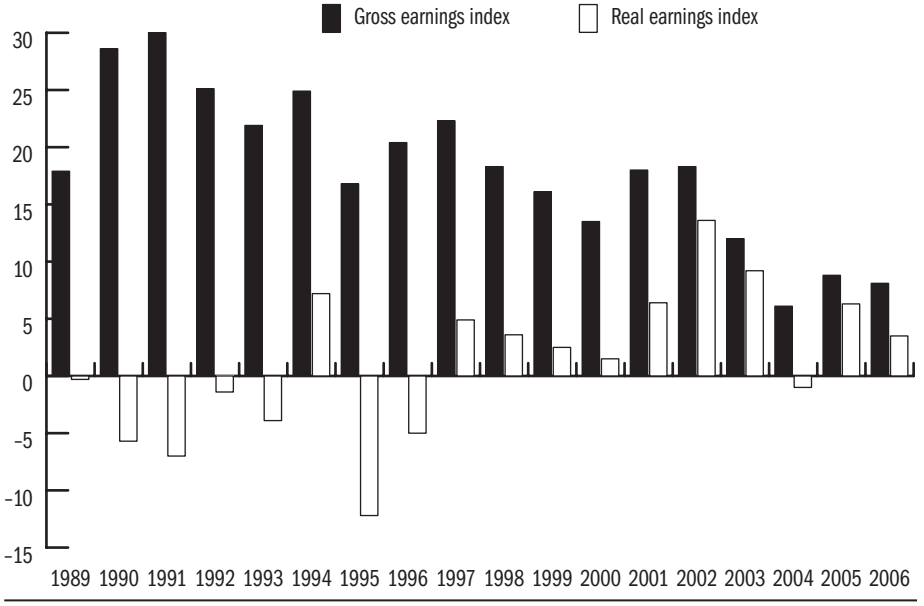


Figure 6.1: Change of gross earnings and real earnings

Table 6.2: Gross average earnings by industries – total*

Industries	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Agriculture	76.8	74.9	73.7	72.0	69.3	67.6	69.6	68.8	65.1	66.6	67.7	65.4
Mining and quarrying	130.5	128.3	134.4	125.4	124.1	128.8	122.9	113.2	108.7	111.3	117.9	113.8
Manufacturing	99.7	100.7	100.6	99.1	98.9	100.6	97.7	92.8	90.4	93.7	93.2	92.7
Electricity; gas; steam and water supply	130.6	133.5	132.2	133.3	135.4	136.4	131.0	126.9	127.0	132.1	142.9	132.4
Construction	83.7	82.0	81.9	79.9	73.5	73.3	77.0	70.4	68.4	68.5	69.2	68.6
Wholesale and retail trade	93.3	97.1	93.8	92.5	86.7	88.7	87.5	87.0	84.2	83.9	81.7	84.8
Hotels and restaurants	75.5	75.3	71.6	68.5	64.9	64.6	65.8	66.2	63.8	61.9	58.9	60.1
Transport; storage and communication	106.5	110.0	110.5	112.3	114.3	112.7	110.5	106.6	103.9	108.4	109.0	107.4
Financial intermediation	183.0	189.5	199.2	210.2	214.2	216.1	208.6	197.0	199.6	222.6	230.4	235.8
Real estate; renting; business activities	107.2	110.5	106.8	119.7	115.8	115.3	117.6	109.2	105.8	106.0	103.8	100.4
Public administration and defence; compulsory social security	117.9	114.3	114.1	111.7	120.3	118.0	127.2	137.1	131.8	126.7	130.2	130.2
Education	89.6	83.3	86.4	88.3	94.4	92.7	94.3	105.1	118.4	110.2	109.1	111.6
Health and social work	83.4	80.1	79.2	77.9	76.6	77.9	76.1	84.3	94.7	90.2	85.5	88.7
Other	102.5	102.2	95.2	94.3	92.2	91.1	88.5	91.1	94.2	94.6	95.0	91.2

* National average = 100.
Source: KHS, IMS.

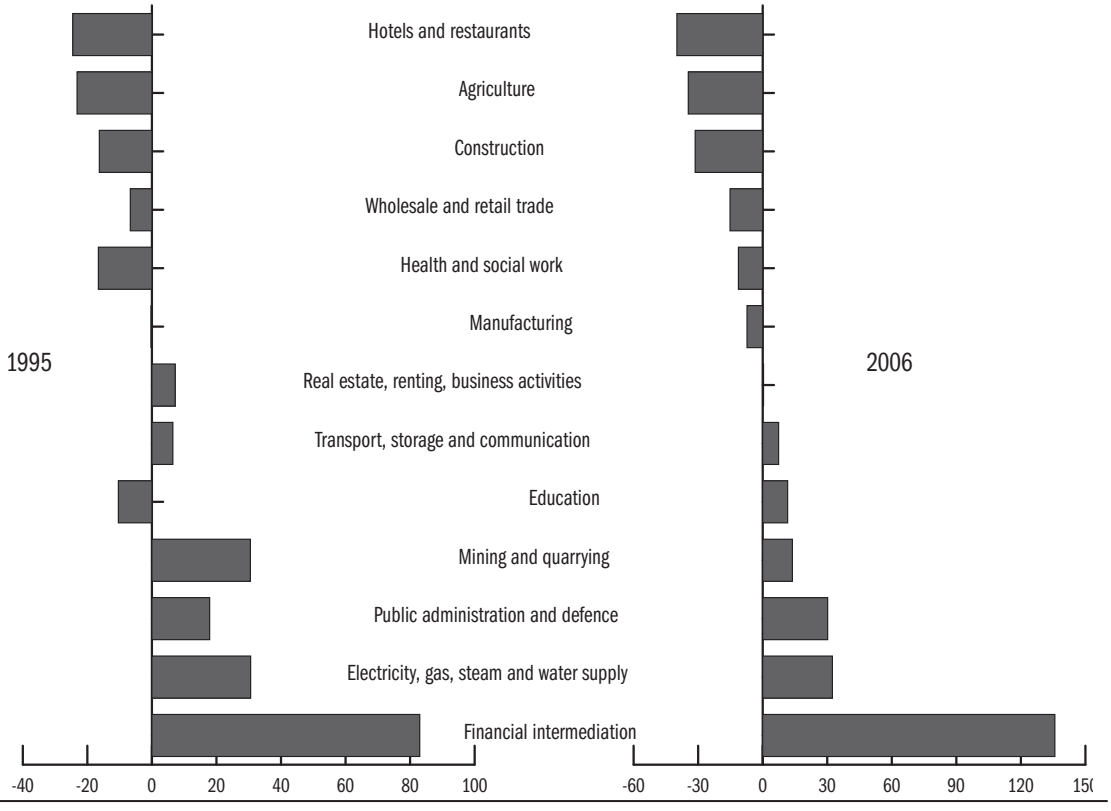


Figure 6.2: Gross earnings differences from the national average, by industry, 1995, 2006 – per cent

Table 6.3: The composition of full-time employees and average earnings by gender in major branches of the economy in 2006

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	4.8	118,116	1.5	107,528	3.2	115,591	91.0
Fishing	0.2	86,726	0.0	104,442	0.1	88,788	120.4
Mining and quarrying	0.5	159,065	0.1	164,964	0.3	159,984	103.7
Manufacturing	27.2	180,597	18.0	132,381	22.7	161,710	73.3
Electricity; gas; steam and water supply	4.6	232,052	1.5	196,207	3.1	223,406	84.6
Construction	8.6	119,401	1.1	134,153	4.9	121,064	112.4
Wholesale and retail trade	13.6	159,753	12.5	127,627	13.1	144,573	79.9
Hotels and restaurants	1.8	129,341	2.7	99,497	2.2	111,693	76.9
Transport; storage and communication	11.6	191,061	5.2	184,881	8.4	189,191	96.8
Financial intermediation	1.3	514,544	3.1	290,196	2.2	357,807	56.4
Real estate; renting; business activities	7.4	198,519	5.5	171,648	6.4	187,266	86.5
Public administration and defence; compulsory social security	6.6	243,327	15.2	201,151	10.9	214,199	82.7
Education	5.1	202,866	17.9	173,084	11.4	179,791	85.3
Health and social work	3.2	175,601	12.8	148,671	7.9	154,139	84.7
Other	3.5	156,261	2.9	149,532	3.2	153,289	95.7
Total	100.0	181,759	100.0	161,546	100.0	171,794	88.9

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 2006

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	109,795	0.4	112,336	0.4	111,091	102.3
Finished primary school: 8 classes	12.8	109,330	15.8	97,443	14.3	102,841	89.1
Vocational school: 2 years	2.9	107,691	2.6	108,055	2.7	107,859	100.3
Vocational school: 3 years	36.8	122,361	14.2	99,476	25.6	116,115	81.3
Vocational secondary school	15.8	160,924	23.7	146,721	19.7	152,490	91.2
Technical secondary school	5.0	197,003	2.1	176,177	3.5	190,994	89.4
Grammar school	6.8	171,374	14.6	147,836	10.7	155,454	86.3
College	10.1	316,555	18.8	229,443	14.4	260,423	72.5
University	9.5	425,652	7.8	328,430	8.6	382,593	77.2
Total	100.0	181,759	100.0	161,546	100.0	171,794	88.9

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 2006

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	0.5	162,571	0.6	126,168	0.6	134,924	77.6
Finished primary school: 8 classes	11.5	116,581	13.6	103,615	13.1	106,548	88.9
Vocational school: 2 years	1.4	132,018	1.8	128,471	1.7	129,220	97.3
Vocational school: 3 years	17.1	121,948	6.3	113,904	9.0	117,810	93.4
Vocational secondary school	12.5	179,627	22.3	155,913	19.8	159,746	86.8
Technical secondary school	1.7	169,283	0.7	170,927	1.0	170,195	101.0
Grammar school	7.1	160,145	13.7	149,029	12.0	150,713	93.1
College	21.9	261,604	30.5	213,397	28.3	222,967	81.6
University	26.2	345,297	10.5	303,745	14.5	322,907	88.0
Total	100.0	221,492	100.0	177,786	100.0	188,984	80.3

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 2006

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	96,273	0.3	89,912	0.4	94,155	93.4
Finished primary school: 8 classes	13.0	108,164	17.7	93,432	14.8	101,415	86.4
Vocational school: 2 years	3.2	105,782	3.2	98,628	3.2	103,004	93.2
Vocational school: 3 years	40.3	122,393	20.9	95,832	32.9	115,912	78.3
Vocational secondary school	16.4	158,341	24.9	139,775	19.6	149,307	88.3
Technical secondary school	5.6	198,538	3.2	177,186	4.7	192,898	89.2
Grammar school	6.7	173,518	15.4	146,938	10.1	157,923	84.7
College	8.0	343,933	9.0	275,341	8.4	315,613	80.1
University	6.5	484,547	5.4	368,991	6.1	444,954	76.2
Total	100.0	174,565	100.0	147,837	100.0	164,308	84.7

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	

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		

* 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

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
By gender														
Males	16.9	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
Females	21.3	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
By age groups														
–24	39.6	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
25–54	16.9	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
55+	12.7	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
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
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
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
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
By industries														
Agriculture	31.9	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
Manufacturing	16.4	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
Construction	15.7	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
Trade	25.1	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
Transport and communication	8.6	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
Finance and business services	14.2	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
Public administration	17.5	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
Education	21.2	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
Health	28.9	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
Total	19.2	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

* Percentage of those who earn less than 2/3 of the median earning.
Source: FSzH-BT.

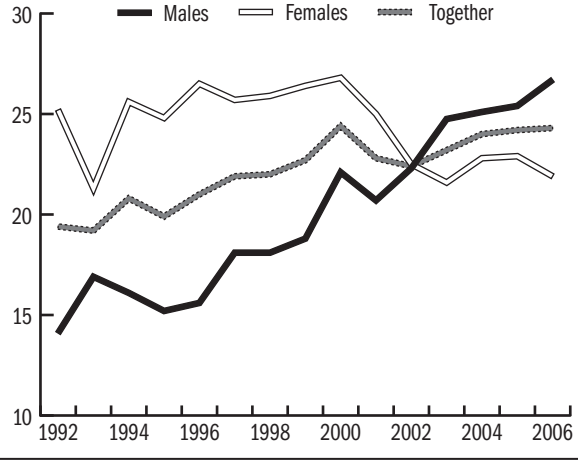


Figure 6.3: The percentage of low paid workers by gender

Table 6.10: The dispersion of gross monthly earnings by gender, ratios of decile

	1992	1994	1996	1998	2000	2002	2004	2006
Males and females together								
D9/D5	2.0	2.1	2.1	2.2	2.3	2.3	2.4	2.4
D5/D1	1.8	1.9	1.9	1.9	2.2	1.8	2.0	2.0
D9/D1	3.6	3.9	4.0	4.2	4.9	4.1	4.8	4.7
Males								
D9/D5	2.0	2.1	2.1	2.3	2.1	2.5	2.6	2.7
D5/D1	1.8	1.9	1.9	2.0	2.4	1.8	2.1	2.0
D9/D1	3.6	4.0	4.0	4.5	5.1	4.5	5.4	5.4
Females								
D9/D5	1.9	2.0	2.0	2.0	2.1	2.2	2.2	2.1
D5/D1	1.7	1.8	1.8	1.8	2.0	1.7	1.9	1.9
D9/D1	3.3	3.6	3.7	3.7	4.1	3.7	4.2	4.0

Source: FSzH-BT.

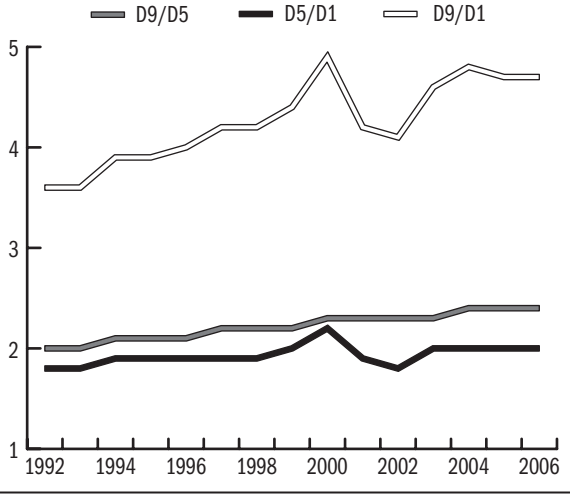


Figure 6.4: The dispersion of gross monthly earnings

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, 2006

	Manual			Non-manual			Together		
Forms of control	male	female	together	male	female	together	male	female	together
100 % foreign ownership	167,589	113,238	143,930	465,583	295,267	378,630	267,632	187,165	230,375
Foreign majority	181,016	114,566	160,362	436,121	287,671	358,998	285,117	222,416	259,122
Domestic majority	140,456	101,049	130,438	353,189	237,000	292,978	199,803	175,787	191,323
100% domestic ownership	110,057	85,133	103,104	243,124	166,078	201,988	141,880	124,152	135,456
Unknown	135,634	97,911	125,711	298,819	208,334	252,319	179,089	155,116	170,649
Total	124,095	94,558	115,024	312,353	205,772	256,217	174,565	147,838	164,308

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, 2006

Ownership ratio	Over 1000	Between 301–100	Between 51–300	Between 21–50	Between 10–20	Between 5–9	Total
100 % foreign ownership	144,469	148,112	138,641	144,707	142,788	112,388	143,930
Foreign majority	196,140	134,587	137,156	127,011	89,886	101,289	160,362
Domestic majority	145,880	131,635	126,570	103,361	111,330	87,360	130,438
100% domestic ownership	135,713	114,454	101,805	92,935	82,460	74,844	103,104
Unknown	136,232	117,984	112,414	111,539	99,565	95,480	125,711
Total	144,868	126,051	110,337	97,048	85,107	76,157	115,024

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, 2006

Ownership ratio	Over 1000	Between 301–100	Between 51–300	Between 21–50	Between 10–20	Between 5–9	Total
100 % foreign ownership	353,184	374,489	398,921	394,981	364,991	443,293	378,630
Foreign majority	372,439	368,502	350,252	315,052	245,225	225,358	358,998
Domestic majority	281,705	301,743	345,566	234,412	126,997	167,404	292,978
100% domestic ownership	246,084	250,076	197,528	157,862	150,449	140,981	201,988
Unknown	254,323	266,055	230,175	272,264	186,844	217,123	252,319
Total	295,801	298,682	252,296	189,749	174,222	172,790	256,217

Source: FSzH-BT.

Table 6.14: Average earnings in the national economy by staff size-categories and ownership groups, HUF/capita/month, 2006

Ownership ratio	Over 1000	Between 301–100	Between 51–300	Between 21–50	Between 10–20	Between 5–9	Total
100 % foreign ownership	217,608	222,358	239,258	263,479	264,476	345,591	230,375
Foreign majority	293,045	241,870	227,366	191,662	187,068	166,164	259,122
Domestic majority	193,453	188,658	213,261	170,712	116,181	130,691	191,323
100% domestic ownership	178,639	158,116	133,022	113,852	101,038	94,407	135,456
Unknown	168,941	174,621	175,907	184,154	126,670	142,082	170,649
Total	204,201	184,344	159,732	128,448	111,412	107,101	164,308

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, 2006

	Manual			Non-manual			Together		
Age	male	female	together	male	female	together	male	female	together
17	78,521	65,303	75,333	0	0	0	78,521	65,303	75,333
18	72,349	82,330	75,491	120,401	256,188	123,976	77,226	83,479	79,062
19	94,861	82,337	91,052	304,125	178,179	228,436	121,627	114,516	119,035
20	92,947	82,943	89,481	114,634	98,032	103,316	94,283	86,105	91,123
21	94,062	84,800	90,943	116,213	96,079	102,952	95,888	87,670	92,727
22	96,653	86,714	93,367	129,256	108,529	114,481	100,495	95,476	98,380
23	99,893	89,996	96,748	140,518	126,859	131,150	107,686	109,410	108,450
24	102,713	90,452	98,411	155,120	138,577	143,748	116,311	118,737	117,506
25	104,485	91,480	100,585	182,299	152,007	161,904	128,502	132,779	130,565
26	108,456	91,944	103,297	193,578	160,495	172,743	140,016	139,111	139,583
27	111,702	94,426	106,728	207,537	177,174	188,757	147,443	152,729	149,884
28	114,336	92,945	108,489	229,837	182,069	200,751	156,024	155,367	155,732
29	117,254	91,886	109,953	240,493	195,946	213,672	161,519	162,362	161,894
30	120,877	91,586	112,723	259,291	192,176	221,036	171,630	158,527	166,100
31	120,430	93,787	113,477	288,758	196,872	233,768	179,860	165,663	173,754
32	119,780	92,297	111,819	283,168	197,723	233,372	177,844	161,221	170,670
33	122,271	93,194	114,063	306,887	195,708	240,505	185,626	161,175	175,014
34	124,320	91,154	114,634	306,983	194,377	236,884	183,260	158,837	172,319
35	127,819	93,883	116,926	317,900	184,481	233,995	191,010	151,951	172,739
36	123,550	98,004	115,967	350,060	183,001	242,499	194,891	154,373	176,174
37	126,785	91,240	114,633	335,823	186,280	239,442	194,649	150,787	173,403
38	129,997	95,500	118,144	345,264	189,800	239,131	195,356	156,026	175,518
39	132,007	90,250	117,529	352,410	190,780	242,678	199,175	154,175	176,526
40	129,572	95,959	117,868	331,069	194,671	236,170	189,154	159,381	173,888
41	125,310	95,070	115,002	335,862	204,393	243,388	187,260	166,847	176,743
42	133,608	95,331	119,832	330,392	198,944	237,403	193,969	163,249	177,662
43	128,974	93,480	115,235	326,199	195,451	235,609	189,626	156,024	171,792
44	128,520	96,723	116,737	300,227	201,611	230,179	179,994	163,924	171,408
45	128,578	96,795	117,015	330,661	199,387	237,801	189,817	163,239	175,710
46	127,791	96,968	116,302	321,286	200,981	235,741	185,196	163,116	173,395
47	128,699	97,030	115,859	317,293	201,734	235,005	185,936	161,157	172,290
48	130,498	97,742	117,672	333,291	204,890	240,307	189,242	164,664	175,747
49	133,250	98,062	119,400	316,509	203,658	236,232	186,539	162,356	173,464
50	132,417	97,818	118,402	322,111	205,932	238,447	188,838	164,348	175,263
51	133,160	99,535	119,258	323,412	215,196	246,405	189,812	168,641	178,136
52	130,790	99,102	118,084	320,543	214,931	245,753	187,727	169,580	177,841
53	132,659	98,937	119,145	319,554	221,697	250,466	193,498	176,783	184,269
54	131,598	96,994	117,664	320,612	223,203	253,014	195,045	176,452	184,869
55	131,912	102,433	119,983	330,716	225,101	257,235	200,812	181,048	189,884
56	133,342	99,970	120,096	337,426	222,122	258,064	203,834	178,028	189,793
57	132,959	99,443	120,234	309,986	227,132	256,406	197,923	180,419	188,920
58	125,448	99,767	117,859	343,160	246,302	289,382	210,039	195,613	203,897
59	126,621	96,314	118,688	371,179	255,423	312,554	227,872	203,167	218,300
60	130,877	94,134	120,768	337,836	252,621	298,185	236,694	205,993	224,823

Age	Manual			Non-manual			Together		
	male	female	together	male	female	together	male	female	together
61	131,371	101,385	122,338	347,653	257,064	307,452	247,383	207,502	232,002
62	112,080	92,530	105,740	360,456	262,674	319,797	264,553	212,001	244,395
63	116,603	88,925	107,527	357,136	254,585	312,031	248,829	198,709	229,061
64	109,106	92,243	104,608	375,779	264,908	330,415	243,558	206,105	230,593
65	102,019	96,416	100,541	362,574	263,639	327,755	242,568	203,408	230,269
66	96,977	87,414	93,207	342,985	266,118	316,510	237,356	179,903	216,283
67	106,425	88,441	98,812	382,815	273,554	346,542	274,256	183,104	240,427
68	109,072	92,896	105,089	430,013	323,941	396,893	238,563	204,840	229,311
69	125,378	90,685	109,107	509,701	308,763	423,540	359,725	215,086	295,333
70	89,471	91,111	90,206	250,850	156,328	216,145	189,744	126,320	164,350
71	111,811	94,810	106,332	267,309	171,074	224,874	158,590	126,570	146,967
72	98,343	90,295	96,164	221,069	235,582	223,535	150,708	132,571	146,520
73	77,484	80,494	79,185	553,575	144,154	454,831	311,325	92,654	212,984
74	83,229	88,377	85,289	220,154	213,115	218,458	167,947	142,731	160,112
75	88,128	146,863	107,487	311,525	139,107	272,601	242,126	142,456	216,082
76	71,160	85,822	73,881	262,231	259,496	260,958	151,874	213,737	172,480
77	94,695	80,996	88,199	203,604	152,901	195,500	170,909	104,700	151,863
78	160,369	72,740	106,120	99,571	264,762	125,599	121,348	105,569	114,839
79	66,489	124,740	85,586	292,861	274,998	286,866	98,341	146,527	114,192
80	70,819	92,385	71,525	270,139	289,852	277,300	120,223	259,727	140,172
Total	123,691	95,293	113,913	301,618	199,431	234,723	181,759	161,546	171,794

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

[a] Estimated data.
Note: Primary school: completed the 8th grade. Other levels: received certificate. Excludes special schools.
Source: OM STAT.

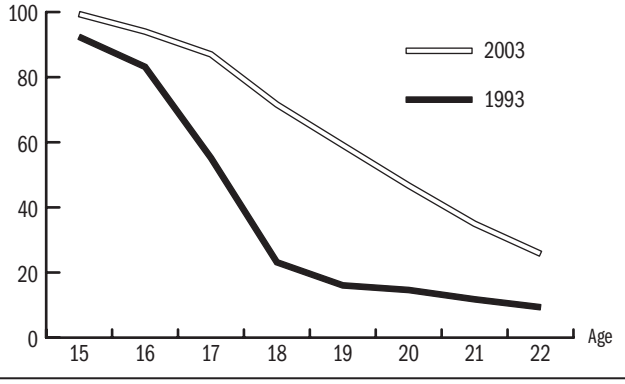


Figure 7.1: Full time studens as a percentage of the different age groups

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

[a] Estimated data.
Note: Excludes special schools.
Source: OM STAT.

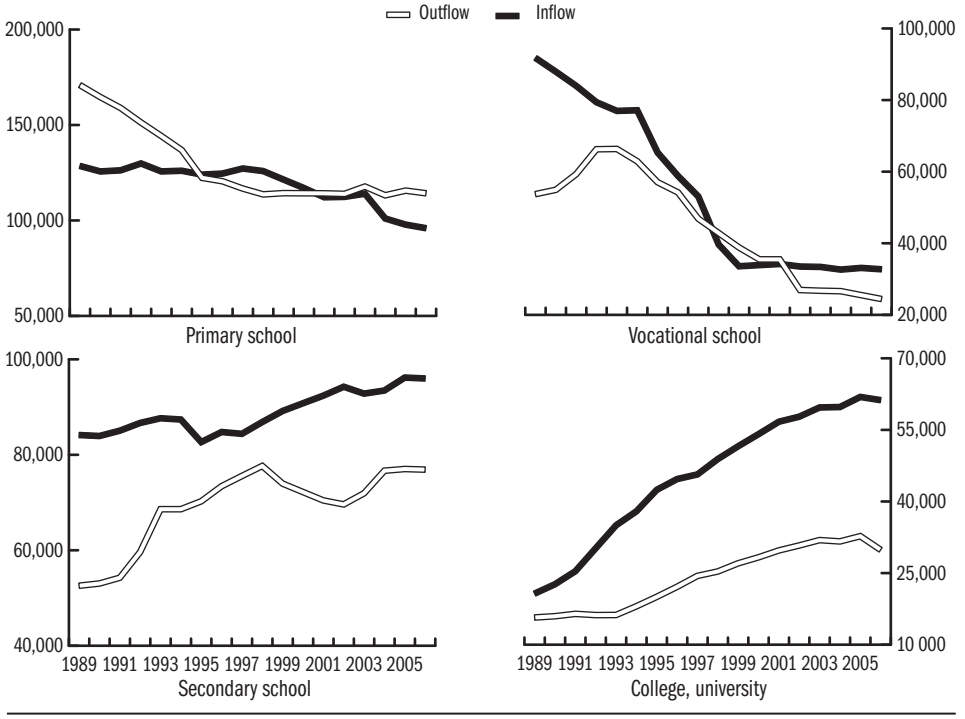


Figure 7.2: Flows of the educational system by level

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

Note: Excludes special schools.
Source: OM STAT.

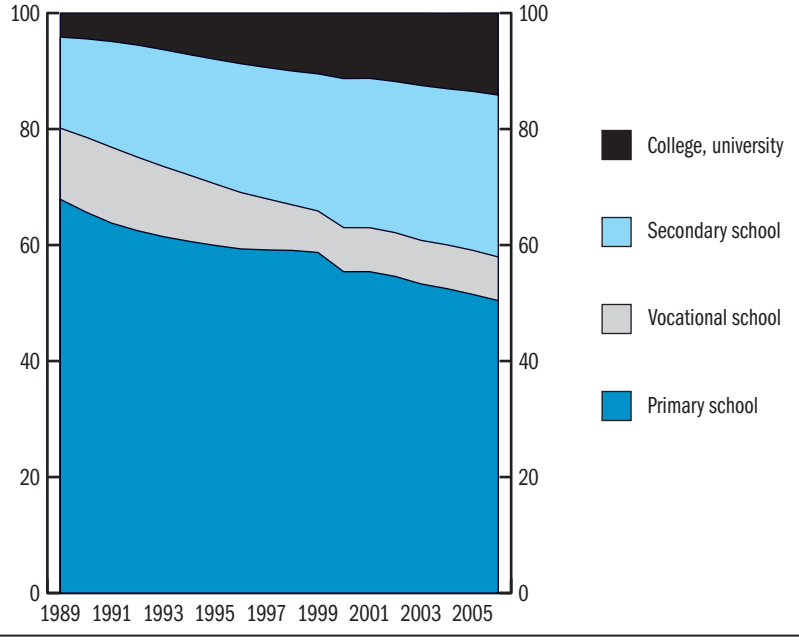


Figure 7.3: The distribution of pupils/students in the educational system

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
1989/90	13,199	–	75,581	28,487
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

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
1989	44,138	15,420	34.9	84.0	29.3
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

Source: OM STAT.

Table 8.1: Registered vacancies*

Year	Number of vacancies at closing day	Number of registered unemployed at closing date	Vacancies per 100 unemployed
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

* Monthly average stock figures.
Source: FSzH.

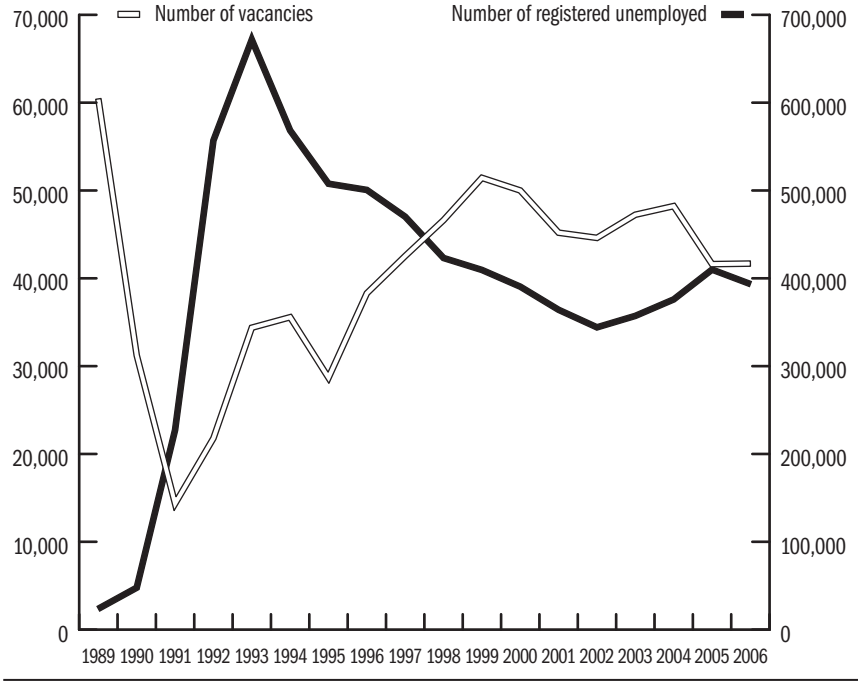


Figure 8.1: Number of registered vacancies and registered unemployed

Table 8.2: Firms intending to increase/decrease their staff*

Year		Intending to decrease	Intending to increase	Year		Intending to decrease	Intending to increase
1993	I.	34.7	23.6	1999	I.	25.8	39.2
	II.	28.5	22.3		II.	28.8	35.8
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

* 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 increasing	Orders decreasing	Year		Orders increasing	Orders decreasing
1993	I.	31.8	36.0	1999	I.	38.7	21.9
	II.	35.9	33.0		II.	42.2	20.2
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.

* See Table 8.2.

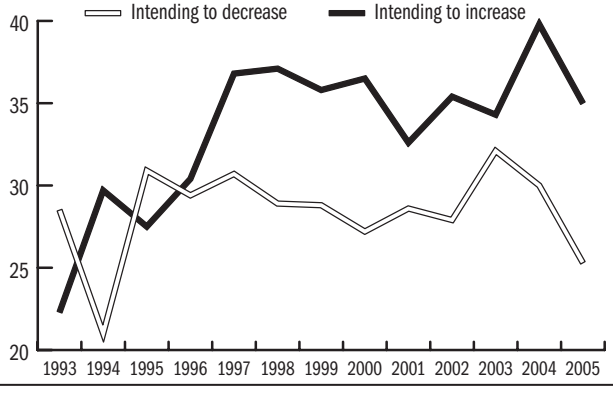


Figure 8.2: Firms intending to increase/decrease their staff

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
1992	I.	...	10.2	10.2	1999	I.	4.7	20.5	25.2
	II.	3.0	11.4	14.4		II.	5.2	20.9	26.1
1993	I.	3.4	14.1	17.5	2000	I.	4.6	21.1	25.7
	II.	3.0	14.7	17.7		II.	4.4	23.9	28.3
1994	I.	3.6	17.7	21.3	2001	I.	4.0	21.9	25.9
	II.	4.1	17.4	21.5		II.	4.7	22.9	27.6
1995	I.	4.2	18.4	22.6	2002	I.	3.4	22.6	26.0
	II.	4.4	18.8	23.2		II.	3.3	22.8	26.1
1996	I.	3.6	20.2	23.8	2003	I.	3.4	21.9	25.3
	II.	4.2	19.5	23.7		II.	...	...	...
1997	I.	3.9	19.2	23.1	2004		5.3	30.2	35.5
	II.	4.7	21.1	25.8	2005		n.a.	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.

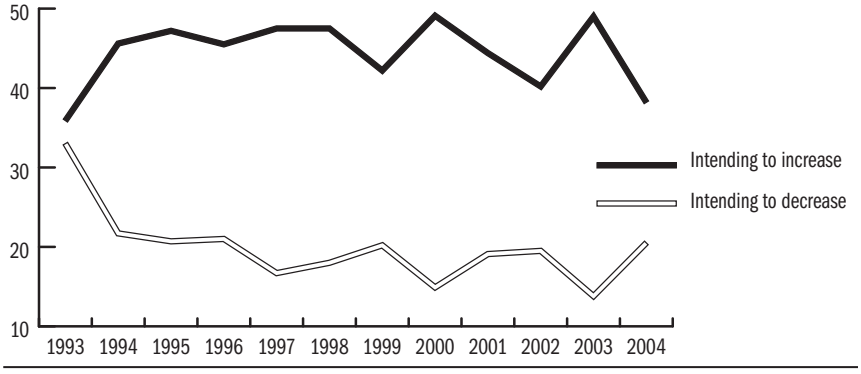


Figure 8.3: Firms expecting increasing/decreasing orders

Table 9.1: Regional inequalities: Labour force participation rates*

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

* Age: 15–64.
[a] See: Table 3.7.
Source: KSH MEF.

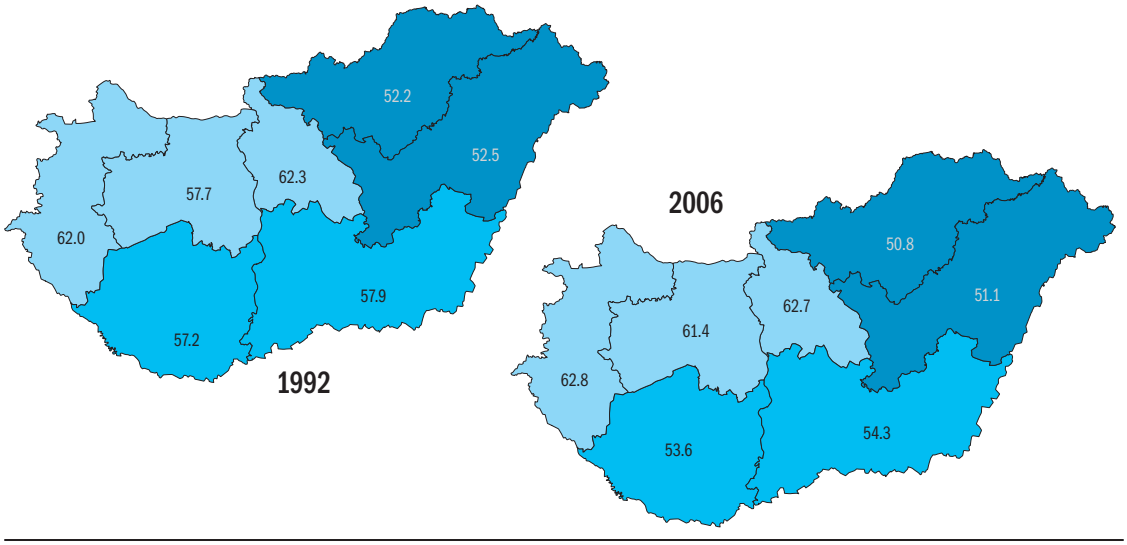


Figure 9.1: Regional inequalities: Labour force participation rates in NUTS-2 level regions

Table 9.2: Regional inequalities: 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

* Age: 15–64. Excluding conscript.
[a] See: Table 3.7.
Source: KSH MEF.

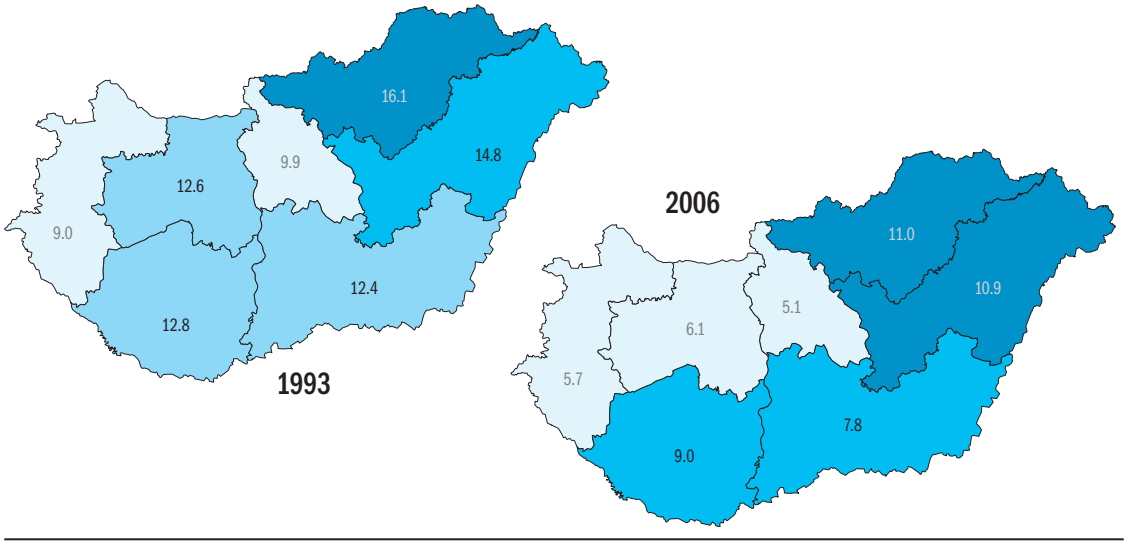


Figure 9.2: Regional inequalities: LFS-based unemployment rates in NUTS-2 level regions

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

* The denominator of the ratio is the economically active population on January 1st of the previous year. (Based on KSH MEM).
Source: FSzH REG.

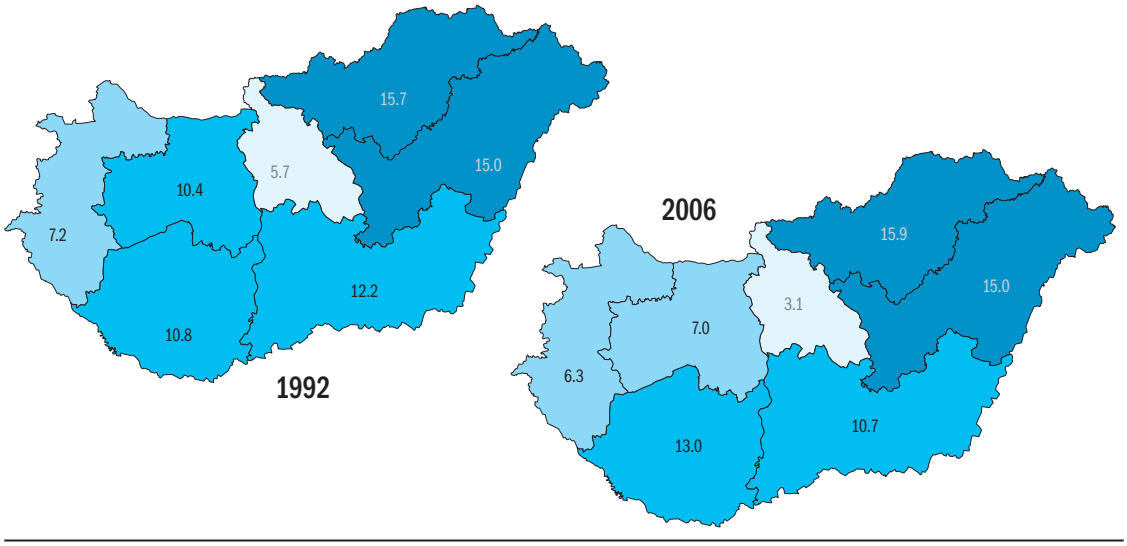


Figure 9.3: Regional inequalities: Registered unemployment rate in NUTS-2 level regions

Table 9.4: Annual average registered unemployment rate by counties

County	1990	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Budapest	0.1	6.6	5.9	5.7	5.7	4.8	4.0	3.7	3.0	2.6	2.2	2.4	2.8	2.9	2.6
Baranya	1.1	13.2	11.7	11.8	12.2	13.3	11.8	11.6	11.6	11.1	11.2	11.9	11.6	13.4	13.3
Bács-Kiskun	1.1	16.0	13.1	11.0	10.9	10.7	9.7	10.0	10.0	9.3	8.8	9.4	9.9	10.4	10.2
Békés	1.1	16.3	15.1	14.0	14.0	13.5	13.0	13.0	13.1	11.9	11.2	11.5	12.0	13.0	13.5
Borsod-Abaúj-Zemplén	2.3	20.2	17.5	16.7	18.0	19.0	17.9	19.5	20.3	19.0	19.1	19.6	18.3	18.9	18.0
Csongrád	1.0	11.7	10.8	9.9	9.3	9.2	8.1	8.5	8.6	8.3	8.1	8.5	9.7	10.7	8.8
Fejér	1.0	12.5	11.3	10.6	10.4	9.4	8.4	8.3	7.2	6.4	6.4	7.1	7.3	7.4	7.3
Győr-Moson-Sopron	0.5	8.2	7.7	6.8	7.4	6.4	5.1	4.8	4.6	4.1	4.0	4.1	4.6	5.4	4.6
Hajdú-Bihar	0.9	16.6	15.3	14.2	15.6	15.0	14.0	15.6	14.7	13.6	12.8	13.1	12.9	14.0	13.9
Heves	1.6	15.2	13.9	12.5	13.6	12.1	11.7	12.3	12.0	10.6	9.8	10.0	10.6	11.3	11.1
Jász-Nagykun-Szolnok	1.6	17.1	15.8	14.6	14.8	14.8	13.5	13.7	13.4	11.5	10.2	10.7	11.2	12.0	11.4
Komárom-Esztergom	1.0	14.4	12.6	11.3	12.0	11.4	9.8	10.1	8.3	7.0	6.7	6.0	5.8	6.8	5.8
Nógrád	2.4	21.3	17.2	16.3	17.0	16.3	15.6	16.2	14.9	14.3	13.8	14.6	14.6	16.1	16.1
Pest	0.5	11.0	8.1	7.6	7.8	7.3	6.3	6.0	5.2	4.4	3.7	3.7	3.8	4.2	3.9
Somogy	1.4	11.6	10.9	11.2	12.5	12.7	11.3	12.2	11.9	11.6	11.5	12.2	13.4	14.5	14.6
Szabolcs-Szatmár-Bereg	2.6	20.6	19.3	19.3	19.7	18.9	17.2	18.7	19.5	17.8	16.7	17.7	17.5	18.6	18.8
Tolna	1.6	14.7	13.4	12.2	13.4	13.5	12.3	12.9	11.8	11.0	10.0	10.7	11.6	11.8	10.5
Vas	0.4	9.1	8.3	7.2	7.2	6.7	5.6	5.6	5.2	4.9	4.5	5.0	6.0	6.8	6.1
Veszprém	0.9	11.9	10.9	10.0	9.9	9.2	7.9	8.2	7.2	6.9	6.6	7.0	7.3	8.0	7.7
Zala	0.8	10.3	9.8	9.2	9.8	9.2	8.1	7.7	7.2	6.5	6.4	7.0	7.4	9.3	9.0
Total	1.0	12.9	11.3	10.6	11.0	10.5	9.5	9.7	9.3	8.5	8.0	8.3	8.7	9.4	9.0

Note: See Table 9.3.
Source: FSzH REG.

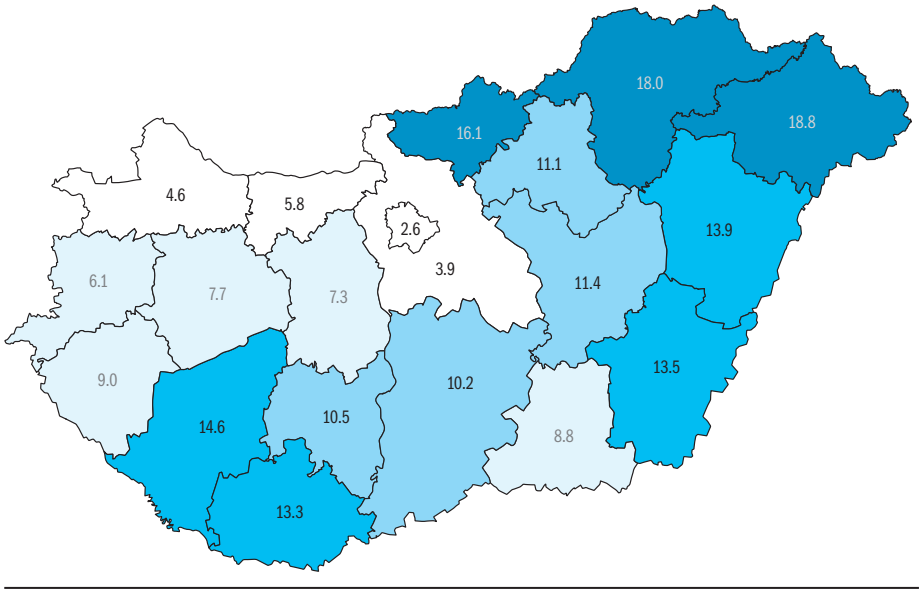


Figure 9.4: Regional inequalities: Registered unemployment rates in the counties, 2006

Table 9.5: Average monthly earnings in Budapest and the counties

County	2000		2001		2002		2003		2004		2005		2006	
	HUF/ month	%	HUF/ month	%	HUF/ month	%	HUF/ month	%	HUF/ month	%	HUF/ month	%	HUF/ month	%
Budapest	121450	134.4	140312	135.4	157624	134.0	180811	133.2	194981	132.5	205645	130.3	223321	130.0
Baranya	76243	84.4	89479	86.4	100142	85.1	118218	87.1	128500	87.3	139070	88.1	149472	87.0
Bács-Kiskun	71141	78.8	83432	80.5	97645	83.0	113129	83.3	119468	81.2	127336	80.7	139286	81.1
Békés	69552	77.0	79718	76.9	93643	79.6	108338	79.8	118545	80.6	125766	79.7	137515	80.0
Borsod-Abaúj-Zemplén	78136	86.5	89223	86.1	102497	87.1	119033	87.7	128793	87.5	140860	89.3	152476	88.8
Csongrád	79857	88.4	90367	87.2	100371	85.3	118308	87.2	126550	86.0	137820	87.4	152523	88.8
Fejér	94758	104.9	108290	104.5	119613	101.7	137704	101.4	146057	99.3	154628	98.0	168496	98.1
Győr-Moson-Sopron	87334	96.7	103371	99.8	116470	99.0	128681	94.8	139888	95.1	152095	96.4	167533	97.5
Hajdú-Bihar	74922	82.9	87352	84.3	98118	83.4	117859	86.8	125891	85.6	133530	84.6	146393	85.2
Heves	83440	92.4	92861	89.6	106287	90.3	119423	88.0	130589	88.8	141968	90.0	158853	92.5
Jász-Nagykun-Szolnok	75121	83.2	89393	84.3	100761	85.6	115301	84.9	123627	84.0	150781	95.6	156212	90.9
Komárom-Esztergom	84382	93.4	98494	95.1	109108	92.7	125579	92.5	136754	93.0	132027	83.7	140137	81.6
Nógrád	67368	74.6	80158	77.4	94603	80.4	110666	81.5	123329	83.8	152147	96.4	169358	98.6
Pest	87311	96.6	103871	100.3	117276	99.7	130325	96.0	143689	97.7	127450	80.8	129117	75.2
Somogy	68725	76.1	80440	77.6	90561	77.0	111752	82.3	116852	79.4	128536	81.5	136892	79.7
Szabolcs-Szatmár-Bereg	71403	79.0	79937	77.2	95491	81.2	112163	82.6	122342	83.2	130974	83.0	142451	82.9
Tolna	78544	86.9	90583	87.4	106992	90.9	122549	90.3	121340	82.5	144193	91.4	156555	91.1
Vas	83040	91.9	92492	89.3	101461	86.2	116429	85.8	128347	87.2	137308	87.0	148443	86.4
Veszprém	79868	88.4	91189	88.0	100040	85.0	117553	86.6	126816	86.2	135916	86.1	146346	85.2
Zala	78237	86.6	89252	86.1	97372	82.7	114811	84.6	123491	83.9	144718	91.7	146917	85.5
Total	90338	100.0	103610	100.0	117672	100.0	135742	100.0	147111	100.0	157770	100.0	171794	100.0

Source: FSzH BT.

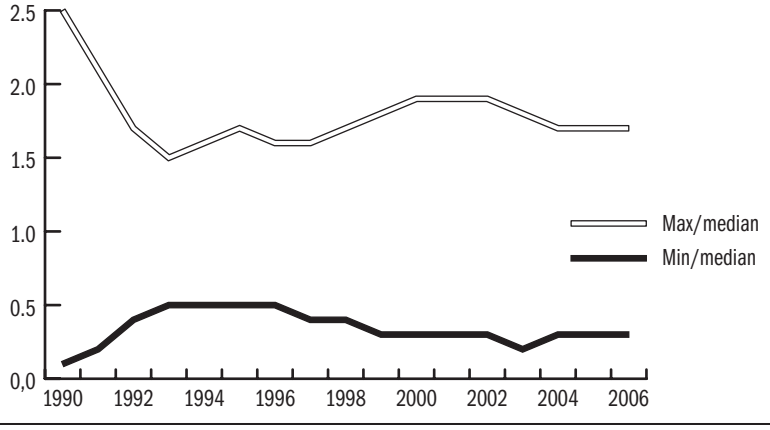


Figure 9.5: The dispersion of county level registered unemployment rates

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
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

* 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	3,568	2,055	2,169	1,517	1,441	1,391	1,482	
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

Source: KSH.

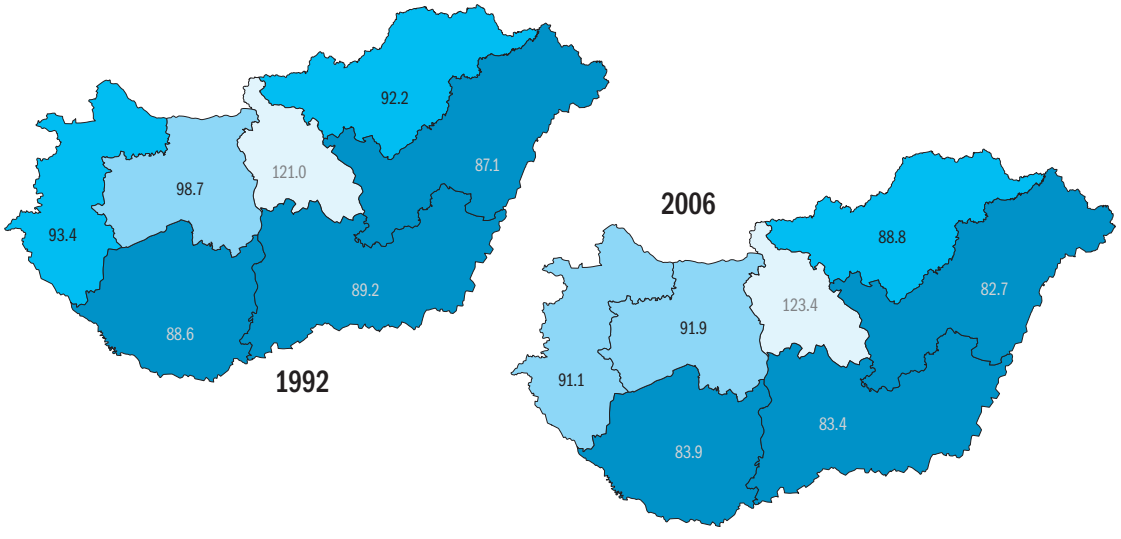


Figure 9.6: Regional inequalities: Gross monthly earnings

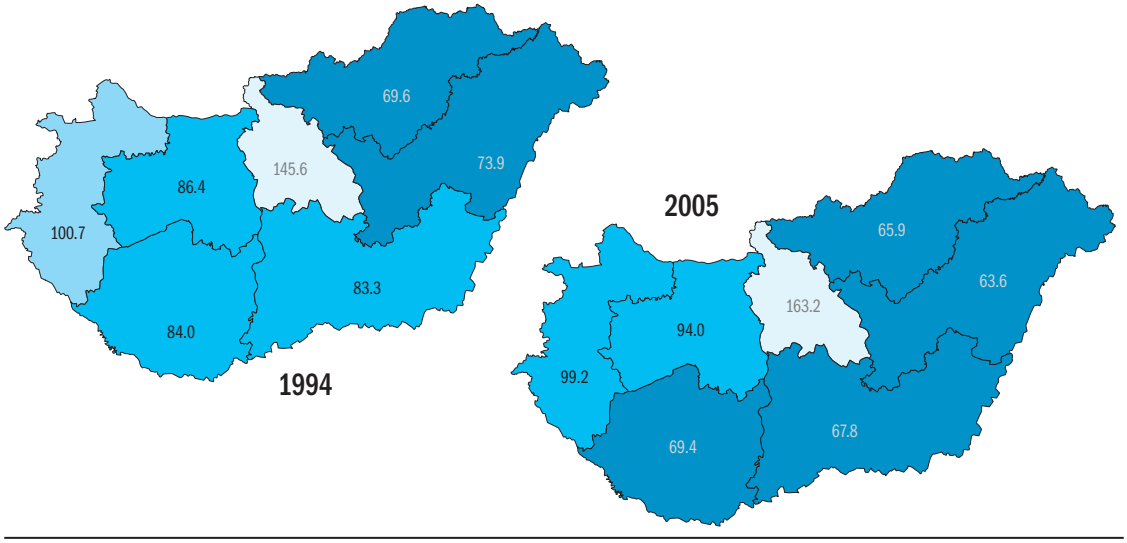


Figure 9.7: Regional inequalities: Gross domestic product

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.) their 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	7	172,048[a]	1,708[a]
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

[a] Teachers strikes number partly estimated.
Source: KSH.

Table 12.1: Family benefits

Year	Tax credit for families[1]		Child benefit[2]		Regular child protection allowance[3]		Wage related maternity benefit[4]		Flat rate maternity benefits[4]	
	average monthly amount (HUF)	average number of recipient families	average monthlyamount per family (HUF)	average number of recipient families	average monthly amount (HUF)	average number of recipient families	average monthly amount (HUF)	average number of recipients	average monthly amount (HUF)	average number of recipients
1990	–	–	3,539	1,514,100	–	–	5,199	154,977	3,303	94,711
1995	–	–	5,841	1,429,500	–	–	13,215	128,540	7,882	175,773
2000	3,359	1,112,177	8,496	1,299,800	3,436	786,000	31,448	54,008	16,660	245,410
2001	6,547	1,172,862	8,617	1,295,800	4,193	780,000	39,274	62,904	17,828	234,221
2002	6,588	1,069,911	10,034	1,277,900	4,338	758,000	44,901	70,167	19,842	222,104
2003	6,841	1,009,660	11,283	1,292,000	4,705	704,000	48,742	77,942	22,091	214,640
2004	6,941	969,512	11,971	1,290,200	5,236	670,000	54,322	83,678	24,174	210,509
2005	6,979	924,263	12,597	1,264,500	5,619	663,000	58,484	87,172	25,706	208,708
2006	9,392	122,883	21,637	1,269,000	–	–	62,684	91,678	27,102	212,741

[1] Introduced in 1999.
[2] Annual average. From 1999 to November 2002.: child care allowance; includes child benefit and schooling benefit. From 2002, includes 13th month' benefit as well.
[3] Annual average. Was in use from 1998 to 2005.
[4] Annual average.
Sources: Tax Authority (APEH) and CSO Welfare Statistics.

Table 12.2: Unemployment befenits and average earnings

Year	Insured unemployment benefit and other non-means tested benefits[1]		Means tested unemployment assistance[2]		Net monthly earnings, HUF[3]		
	average monthly amount (HUF)	average number of recipients	average monthly amount (HUF)	average number of recipients	men	women	together
1990	3,845	30,302	3,209	46,823	11,226	9,455	10,371
1995	11,891	182,788	6,590	234,411	28,831	24,283	26,637
2000	22,818	131,665	14,656	162,245	60,319	50,562	55,650
2001	25,677	119,210	14,749	142,001	69,910	59,059	64,750
2002	30,113	114,934	14,869	132,895	82,745	72,036	77,770
2003	34,762	107,226	15,010	138,127	94,612	84,632	89,906
2004	37,107	109,654	15,864	144,853	98,101	87,710	93,233
2005	39,593	111,732	16,991	158,565	108,139	98,625	103,727
2006	43,344	109,095	23,771	160,426			110,951*

[1] Average of headcount at the end of the month. Includes the pre-pension allowance (1998–2002) and the school leavers' allowance (1990–1996).
[2] This scheme changed substantially in July 2006, therefore figures for 2006 are given for the period July-December 2006.
[3] Net earnings for the whole economy (including the public sector). Data on the private sector cover firms with more than 19 employees before 1999, and more than 4 employees thereafter
* Preliminary.
Sources: Public Employment Service: Labour Market Report, 2001. CSO: Welfare systems 2007, Welfare Statistics, Yearbook of Demographics.

Table 12.3: Pensions*

Year	Allowance for disability, minor disability, regular and temporary allowance for health impairment		Disability pension		Old age pension	
	average monthly amount (HUF)	average number of recipients	average monthly amount (HUF)	average number of recipients	average monthly amount (HUF)	average number of recipients
1990[a]	7,885	126,442	6,222	542,803	6,450	1,461,687
1995	8,580	222,731	13,758	718,011	15,009	1,600,349
2000	15,018	240,299	29,217	762,514	33,258	1,671,090
2001	16,731	243,254	32,381	772,286	37,172	1,667,945
2002	18,981	242,201	37,369	789,544	43,368	1,664,062
2003	21,469	246,289	43,185	799,966	50,652	1,657,271
2004	22,983	250,122	48,180	806,491	57,326	1,637,847
2005	24,601	251,854	52,259	808,107	63,185	1,643,409
2006	26,132	243,128	56,485	806,147	69,145	1,658,387

* Data for January of the given year.
[a] Data for 1992.
Source: CSO Welfare systems 2006; CSO Welfare statistics.

Table 12.4.a: Average age of retirement 1996–2000

Pension	1996		1997		1998		1999		2000	
	age	persons	age	persons	age	persons	age	persons	age	persons
Women										
Old age and similar	54.3	58,838	55.6	32,229	55.9	18,286	56.0	23,716	55.9	28,788
Disability and accident	46.3	18,499	46.2	14,186	46.8	13,032	47.4	16,000	48.1	20,460
Total	52.4	77,337	52.7	46,415	52.1	31,318	52.5	39,716	52.6	49,248
Men										
Old age and similar	58.7	31,024	58.6	37,010	59.6	12,671	59.8	14,787	59.9	17,806
Disability and accident	48.8	26,982	48.9	22,286	49.2	20,764	50.0	24,722	50.4	29,107
Total	54.1	58,006	54.9	59,296	53.1	33,435	53.7	39,509	54.0	46,913
Together										
Old age and similar	55.8	89,862	57.2	69,239	57.4	30,957	57.5	38,503	57.4	46,594
Disability and accident	47.8	45,481	47.8	36,472	48.3	33,796	49.0	40,722	49.5	49,567
Total	53.1	135,343	54.0	105,711	52.6	64,753	53.1	79,225	53.3	96,161

Note: Data are from the records of the National Pension Fund and therefore do not cover pensions of separate funds of the national railways (MÁV), the armed forces and the police.
Source: National Pension Fund.

Table 12.4.b: Average age of retirement, 2001–2006

	2001		2002		2003		2004		2005		2006	
Pension	age	persons	age	persons	age	persons	age	persons	age	persons	age	persons
Women												
Old age and similar	57.6	13,785	56.6	21,826	58.4	11,602	57.3	31,386	57.7	45,115	57.5	46,093
Disability and accident	48.0	26,004	48.3	21,910	48.8	20,870	49.0	18,549	49.1	19,250	49.3	18,488
Total	51.3	39,789	52.4	43,736	52.2	32,472	54.2	49,935	55.1	64,365	55.2	64,581
Men												
Old age and similar	60.0	28,186	59.9	26,438	59.6	29,402	59.8	30,650	59.9	30,560	59.9	33,134
Disability and accident	49.9	33,816	50.0	27,840	50.4	27,333	50.4	23,679	50.5	24,565	50.6	23,045
Total	54.5	62,002	54.8	54,278	55.1	56,735	55.7	54,329	55.7	55,125	56.1	56,179
Together												
Old age and similar	59.2	41,971	58.4	48,264	59.2	41,004	58.5	62,036	58.6	75,675	58.5	79,227
Disability and accident	49.0	59,820	49.3	49,750	49.7	48,203	49.7	42,228	49.9	43,815	50.0	41,533
Total	53.2	101,791	53.8	98,014	54.1	89,207	55.0	104,264	55.4	119,490	55.6	120,760

Source: See table 12.4.a.

Table 12.5: Inflows into disability and old age pensions

	Disability and accident	Old age and similar*			Of which:					
					retiring at the statutory age			retiring below the statutory age		
Year	together	men	women	together	men	women	together	men	women	together
1996	59,967	31,770	59,939	91,709	9,893	20,073	29,966	18,681	31,857	50,538
1997	48,262	37,886	32,614	70,500	10,630	1,138	11,768	24,308	28,154	52,462
1998	42,975	12,908	17,841	30,749	385	882	1,267	11,461	15,244	26,705
1999	46,701	15,181	24,418	39,599	2,601	5,808	8,409	11,494	16,922	28,416
2000	55,558	18,071	29,526	47,597	613	813	1,426	16,089	26,859	42,948
2001	54,645	28,759	14,267	43,026	2,200	4,882	7,082	25,175	7,396	32,571
2002	52,211	30,209	25,719	55,928	2,593	646	3,239	26,346	23,503	49,849
2003	48,078	32,574	13,574	46,148	3,058	5,098	8,156	28,064	6,537	34,601
2004	44,196	35,940	36,684	72,624	3,842	989	4,831	30,234	33,817	64,051
2005	41,057	33,175	48,771	81,946	4,035	6,721	10,756	27,719	40,142	67,861
2006	36,904	34,207	47,531	81,738	4,013	732	4,745	29,025	45,675	74,700

* Including pre-retirement age pension, artists' penson, pre-pension, and miners' pension up to 1997.

Note: Includes new pension claims granted during the year. Data are from the records of the National Pension Fund and therefore do not cover pensions of separate funds of the national railways (MÁV), the armed forces and the police.

Source: National Pension Fund.

Table 13.1: Employment and unemployment rate of population aged 15–64 by sex in the EU–15 and EU–25, 2006

	Employment rate			Unemployment rate		
Country	men	women	total	men	women	total
Austria	76.9	63.5	70.2	4.4	5.3	4.8
Belgium	67.9	54.0	61.0	7.5	9.4	8.3
Denmark	81.2	73.4	77.4	3.4	4.6	4.0
United Kingdom	77.3	65.8	71.5	5.8	5.0	5.4
Finland	71.4	67.3	69.3	7.5	8.1	7.8
France	68.5	57.7	63.0	8.4	9.9	9.1
Greece	74.6	47.4	61.0	5.7	13.8	9.0
Netherlands	80.5	66.7	73.7	4.1	5.0	4.5
Ireland	77.7	59.3	68.6	4.7	4.1	4.4
Luxembourg	72.6	54.6	63.6	3.6	6.3	4.7
Germany	73.0	62.2	67.8	10.5	10.2	10.4
Italy	70.5	46.3	58.4	5.5	8.8	6.9
Portugal	73.9	62.0	67.9	7.0	9.5	8.1
Spain	76.1	53.2	64.8	6.4	11.6	8.6
Sweden	75.5	70.7	73.1	7.0	7.3	7.1
EU–15	73.5	58.6	66.0	7.2	8.7	7.8
Hungary	63.8	51.1	57.3	7.2	7.9	7.5
Cyprus	79.4	60.3	69.6	4.0	5.5	4.7
Czech Republic	73.7	56.8	65.3	5.9	8.9	7.2
Estonia	71.0	65.3	68.1	6.3	5.8	6.0
Poland	60.9	48.2	54.5	13.1	15.1	14.0
Latvia	70.4	62.4	66.3	7.6	6.3	7.0
Lithuania	66.3	61.0	63.6	5.9	5.5	5.7
Malta	74.5	34.9	54.8	6.5	8.9	7.3
Slovakia	67.0	51.9	59.4	12.3	14.8	13.4
Slovenia	71.1	61.8	66.6	5.0	7.4	6.1
EU–25	72.0	57.3	64.7	7.7	9.2	8.3

Source: Employment in Europe, 2007.

Table 13.2: Employment composition, 2006

Country	Self employed	Part time	Fix term contr.	Service	Industry	Agriculture
Austria	19.2	21.8	9.0	65.7	22.9	11.4
Belgium	16.1	22.2	8.7	77.4	20.6	2.0
Denmark	6.3	23.6	8.9	76.1	20.9	3.0
United Kingdom	13.0	25.5	5.8	..	..	..
Finland	11.9	14.0	16.4	69.3	25.8	4.9
France	8.9	17.2	13.5	76.2	20.4	3.4
Greece	40.7	5.7	10.7	62.7	22.9	14.4
Netherlands	13.9	46.2	16.6	79.8	17.0	3.1
Ireland	16.1	..	3.4	66.6	27.6	5.8
Luxembourg	6.2	17.1	6.1	77.9	20.8	1.3
Germany	11.2	25.8	14.5	72.4	25.5	2.2
Italy	24.3	13.3	13.1	67.5	28.4	4.1
Portugal	24.1	11.3	20.6	..	..	..
Spain	14.5	12.0	34.0	65.4	29.6	5.0
Sweden	4.7	25.1	17.3	75.7	22.3	2.1
EU-15	14.6	20.8	14.7	72.6	23.7	3.7
Hungary	12.7	4.0	6.7	63.0	32.3	4.8
Cyprus	22.1	7.7	13.1	74.8	20.3	4.9
Czech Republic	18.0	5.0	8.7	58.7	37.6	3.7
Estonia	8.1	7.8	2.7	62.0	33.1	4.9
Poland	25.7	9.8	27.3	53.9	26.9	19.2
Latvia	11.7	6.5	7.1	61.5	27.0	11.5
Lithuania	15.8	9.9	4.5	58.1	29.5	12.4
Malta	11.8	10.1	3.8	..	..	..
Slovakia	13.0	2.8	5.1	62.7	33.8	3.6
Slovenia	16.7	9.2	17.3	55.3	35.1	9.7
EU-25	15.4	18.8	14.9	70.3	24.7	5.0

Source: Employment in Europe, 2007.

Table 13.3: Monthly statutory minimum wage rates, Full-time adult employees, aged 23+*

	2004			2005			2006		
Country	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		1,317.5	2004.02.		1,234	2005.06.		1,234.21	2005.06.
Bulgaria	120,leva	61	2004.01.	150	77	2005.01.	160	81.80	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.		658.00	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		1,264.8	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.		385.90	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.		540.90	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. Iincreases 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 minimise 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 (1 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 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.

Source of the labour force: working age population, active earners out of working age and employed pensioners.

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 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 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.

* Since 2006: Jobseekers' Register Database.

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 Benefit Register – FSzH REG*

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 recip-

* Since 2006: Jobseekers' Benefit Register.

ients 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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