IN FOCUS
II. INCOME SUPPORT TO THE JOBLESS

Editors:
R. István Gábor & Gyula Nagy

Authors:
Károly Fazekas
Mária Frey
András Gábos
Péter Galasi
Tünde Kóródi Koltay
János Köllő
György Lázár
Gyula Nagy
Ágota Scharle
Péter Szivós

INTRODUCTION

In the first five years following the change of the political system, unemployment in Hungary was much more significant in scope and far more persistent than had been expected when laws on unemployment assistance and eligibility were passed. Though unemployment eventually declined significantly and by the end of the decade stabilised at a level acceptable in developed market economies, and also a great deal was learned about the operation of income support systems - the provisions for the unemployed have not evolved into a stable and sustainable system in terms of eligibility conditions and benefit levels. Neither have researchers and political decision-makers managed to reach a consensus on the criteria for operating the support system or on the changes that might improve it. The lessons and research findings below offer information which can help in reaching that consensus and in laying the groundwork for appropriate decisions.

The first chapter offers an overview of the theoretical issues related to unemployment benefits and examines current practice in both advanced and post-socialist economies. The other four focus on developments in Hungary since 1989. Three of these explore developments in the 1990s, while the last one concentrates on responses to and implications of a tightening of entitlement conditions in 2000. The second chapter tracks changes in the rules governing benefit entitlement, benefit levels, and financing. The third examines the effects of benefit receipt and exclusion. The fourth analyses the empirical effects of benefit payments on labour market processes and household incomes.

1. UNEMPLOYMENT BENEFIT SYSTEMS IN ADVANCED MARKET ECONOMIES AND IN THE POST-SOCIALIST PERIOD OF TRANSITION

1.1 The Economic Principles of Income Support for the Unemployed

János Köllő

In advanced market economies unemployed persons may receive benefits based either on insurance or need. Though forms of benefit used in practice are often difficult to put into one or the other of the above categories as

they contain elements of both insurance and need-based benefits, still, generally speaking, insurance tends to cover the first year following job loss, and after that benefits tends to be need-based.[1] Below, we outline the basic economic arguments concerning insurance type unemployment benefits.

If the individual earns a wage equivalent to w while employed, and devotes the entire amount to consumption, and then becomes unemployed with a probability of p, which means that the person no longer has an income, then the utility he derives from consumption is:

$$H^1 = pU(0) + (1-p)U(w). \quad (1)$$

If he is risk averse (i.e. attaches a lower value to the expected utility of an outcome of a given probability than to the utility of the expected value of the same outcome), he would be better off saving p proportion of his wage, in order to maintain an unaltered living standard when unemployed. In this case the expected utility is

$$H^2 = U[(1-p)w], \quad (2)$$

which is higher than H^1.[2]

However, even if a worker were to know exactly the value of p, he could not be certain that periods of employment and unemployment were going to alternate with a precision that allowed savings from salaries to cover expenses during periods of unemployment. He certainly would not be able to count on free credit to cover a transitional deficit. So, the individual would have to save more than pw to prevent income fluctuation. However, under favourable conditions (a large pool of insured persons, independent events of damage, low overhead costs, absence of concerns of moral hazard or adverse selection) the insurer would be solvent with incoming premiums of pw and outgoing benefit payments near $(1-p)w$.

This suggests that insurance is a cheaper and more attractive option for workers than private savings. But, this type of insurance market cannot evolve on a pure business bases because of factors such as moral hazard, adverse selection, and time correlation in the occurrence of events of damage.

Moral hazard occurs when the insured party is able to induce job loss resulting in benefit payments while the insurer is unable to identify clients who abuse the payment system. Insurers combat this partly by running checks on individuals and partly by not paying full compensation.[3]

Even though in the case of moral hazard optimum insurance offers partial compensation to insured individuals for loss of income, the expected utility of clients might still increase. Assuming that there is no insurance (or savings) and that the probability of unemployment is p^0, the individual's expected utility is

1 In the early 1990s, insurance-based benefits were paid for the first six months following job loss in 19 of the 20 OECD, for another six months in 13 countries, for the third as well in 7 countries, for the fourth six months in 6 of them, and for altogether ten times six months in one country (Belgium) *(OECD, 1991).* Two countries offered a need-based benefit targeted expressly towards the unemployed for the first six months of unemployment and six countries offered this type of benefit in the fourth six months depending on incomes, the unemployed were also entitled to various types of general welfare-type assistance. It should be noted that in Hungary not only has the Unemployment Benefit been partly based on insurance but so was the Unemployment Assistance available between 1994 and 2000, entitlement for which depended on prior entitlement to unemployment insurance benefits. This is in contrast with the recently introduced Regular Social Assistance for unemployed persons of economically active age, which does not require prior contribution to the unemployment insurance fund.

2 E.g.: see *Varian (1991),* pp. 278–280.

3 Unemployment insurance premiums are quite high. Benefits cover only one-half to two-thirds of the wages lost in the first year of unemployment, and even less later on. In addition, unemployment insurance often excludes short (one or two-week) periods of unemployment or voluntary quit. (For OECD practices, see *Köllő–Semjén [1995],* p. 50)

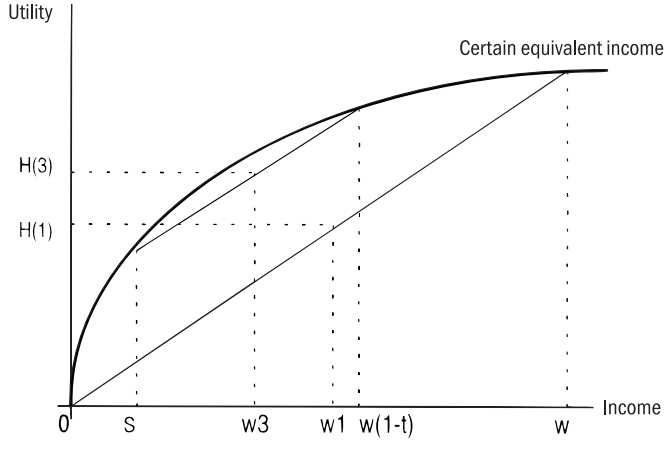
(3') $$H^1 = p^0U(0) + (1-p^0)\,U(w),$$

while, if there is insurance and if t is the premium, S the unemployment benefit, and p^S is the probability of unemployment in the case of insurance, utility is

(3") $$H^3 = p^SU(S) + (1-p^S)\,U[w(1-t)].$$

If there is insurance, since $p^S > p^0$, expected income is lower than without insurance, but the expected value of *utility* might still be higher, if the utility of unemployment benefit is significantly above the utility of zero income. Figure 1.1 illustrates such a situation, with U(0) = 0 and $p^S = p^0 = 0.5$ for the sake of simplicity.[4]

FIGURE 1.1: EXPECTED UTILITY, IN THE ABSENCE OF INSURANCE AND SAVINGS, AND WITH PARTIALLY COMPENSATING UNEMPLOYMENT INSURANCE



Without insurance or savings, the income of the individual varies between zero and w. Average income ($w1$) is higher than in the case of insurance, when the average ($w3$) is given by alternations of S and w(1-t). Despite this, utility $H(1)$ is lower than $H(3)$. (If benefit levels and premiums are too high and disincentives are strong, that is, when p^0 significantly exceeds p^S; the reverse is also conceivable, but this type of insurance is unlikely to survive.) The worker would of course be better off if he always had an income of $(1-p^0)w$ irrespective of his labour market status, in which case his situation would be illustrated by the point on the concave curve above $w1$, marking the utility of guaranteed income, but the insurer would not offer full compensation because of moral hazard.

4 E.g.: *Burtles (1995),* p. 80 analyses this issue using a similar diagram.

Another factor that could lead to the failure of market-based insurance occurs when it is impossible to identify low-risk and high-risk clients. Of course, the amount of the optimal insurance for the individual increases with the risk that he faces. In principle, this could be a signal for the insurer of the size of the risk of the particular client, and could be used to adjust individual premiums accordingly, as a second-best solution. The problem is that people at a high risk of unemployment could take advantage of the fact that each insurer knows only the amount of the policy taken out with his own company. So a client may achieve the lowest premium level per unit of insurance by taking insurance for X units of insurance with X different companies. Under these conditions, the best thing an insurance company can do is to calculate with a uniform *average* probability of unemployment when setting premiums. Mandatory insurance may yield favourable solution than the market optimum attainable in the above case.[5]

As far as the labour market is concerned, two factors make mandatory insurance almost impossible to avoid. One is that, since the risk of unemployment, for a significant part of the labour market, is very close to zero,[6] the average worker is far less likely to buy an unemployment insurance policy than one covering the expenses of an illness or household damage. The other is that adverse events on the labour market (loss of income resulting from layoffs) are so tightly correlated with fluctuation in the business cycle, that the premiums required for reinsurance would be so high that a clientele of sufficient size and diversity to make the insurance viable would never evolve.[7]

If insurance is mandatory, who covers the costs, which for all practical purposes are *taxes?* In the United States, where employers pay the entire contribution, can one say that businesses are paying for the entire unemployment burden? And can it be said about Germany or Hungary, where both employers and employees are obliged to pay: are costs more fairly distributed there?

It's easy to see[8] that the distribution of the costs of unemployment contributions does not really depend on who pays what proportion, but on how flexibly labour supply and demand react to changes in labour costs and net wages. For instance, if labour supply were perfectly flexible no matter which side was obliged to pay the tax, the result would be a drop in employment and a rise in the cost of labour, since net wages cannot decrease. By contrast, given fixed labour supply, whether the contribution were to come from the company or the worker, net wages would decrease by the amount of the tax. In other words, supply, and demand flexibility have to be known before the effects of a mandatory contribution can be predicted. (Prediction is further complicated by the fact that firms also have the option of transferring the cost of contributions to customers by raising prices.)

5 A number of seminar papers point this out, including *Akerlof (1970), Arrow (1970),* and *Pauly (1974),* whose argument is included in Note J.1.1.

6 Data issued by the Hungarian Central Statistical Office on Labour (Q1, 1998) show that 76 percent of Hungary's adult population have never been unemployed, that 79 percent never received unemployment benefit, and most of them will not need to rely on benefits in the future either (See Chapter 6.1).

7 It is conceivable in principle that employers might offer their workers insurance as part of a benefit package. But such practice has its limits because, though it might be more attractive than salary increases to risk averse employees, it may be too expensive, since, to make it worthwhile for employees to stay on the job, it would entail a general rise in wages. See *Shapiro–Stiglitz (1984)* and *Weiss (1990).*

8 See, e.g. *Varian (1991),* p.367.

The above effects can be empirically examined by measuring the influence of employer and employee contributions on profits and net wages respectively. *Hamermesh (1979)* finds that, in a cross section of member states of the United States, every extra dollar that employers were obliged to contribute cut net wages by thirty-five cents over a single year, and by thirty-seven cents over a five-year period. In other words, a significant proportion of employers almost immediately shifted a large part of the contribution burden to workers. Results reported by *Nickell and Bell (1995)* and *Euzéby (1995)* are also indicative of the adjustment of net wages (and/or levels of employment). *Nickell and Bell (1995)* claim that a 10 percent point increase in the payroll tax in OECD countries increased wage costs per product unit by only fourteen cents.

In many respects, unemployment benefit systems simulate insurance markets. They require the unemployed individual to bear a certain proportion of the costs, they impose an upper limit on benefits and/or on the amount of wages covered by insurance and they substantiate claims. At the same time, an unemployment insurance fund cannot follow a commercial insurance model that makes smokers or overweight persons pay a higher premium for life insurance. It cannot argue that certain *groups of occupations,* such as unskilled workers or miners are more prone to unemployment and therefore, they should pay higher premiums.[9] In another method, used in the United States, the premium paid by *employers* can be adjusted to the risk they pose (using the credit point system common to car insurance). Employers open accounts with the public employment service, which record not only the amount they pay but also payments to the workers dismissed by the particular firm. Within specific limits, premiums are determined by the balance of accumulated payments and contributions or by their ratio.[10] This practice, called "experience rating" is well suited to a special feature of the American labour market, i.e., that firms often resort to temporary layoffs, and later re-hire a significant proportion of their former employees.

Feldstein (1976), (1978) shows that in such a market, adjustment to risks yields a welfare gain. His models investigate the magnitude of short-term fluctuations in the optimum employment level (assuming that capital stays constant) induced by periodic declines in product demand, under the assumption that firms maximise the utility of their permanent workforce and are price taking. A further assumption is that when a company consistently responds with layoffs to decreasing demand, workers adjust and become risk neutral to resulting unemployment. The analysis concludes that fluctuations in the optimum level of employment are larger in the case of a state-imposed unemployment insurance system with uniform contributions than in the absence of unemployment benefits or when benefits are paid by

9 Imposing a ceiling on the amount of wage that can be insured, which is common practice, tends to lower the proportion of contributions and wages – and the benefit/wage ratio as well.

10 For details see e.g. *Vroman (1990)* pp. 28–39, or *Brechling (1981).*

firms. This is because a public unemployment insurance system with uniform contributions effectively functions as a covert subsidy to firms, encouraging them to adjust to fluctuating demand with layoffs. *Topol (1986)* estimates that increasing unemployment assistance in the United States does not raise definitive dismissals, nor voluntary quits, while it substantially increases the frequency of temporary layoffs. If contribution rates were perfectly (i.e. proportionately and immediately) adjusted to the number of dismissals, unemployment could have been reduced by nearly one-third.

Opponents of risk adjustment argue that such a system is practically impossible to work if its principles are strictly applied, since firms resorting to mass dismissals are often insolvent and not credit-worthy. Moreover, it may not even be desirable, since strongly competitive businesses would be at a disadvantage *vis-à-vis* monopolies, which can more easily pass on increased costs of dismissals.[11] A compromise is offered in a proposal by *Feldstein (1978)* of fully adjusting to risks benefit payments in the first month of unemployment, thus making typically short-term layoffs sufficiently costly.

Except for a few countries (Denmark, Sweden) temporary layoffs have not become common practice in Europe, mainly due to rules that make dismissals difficult. However, temporary layoffs are quite common in Hungary, so it would be worth considering the introduction of risk-adjusted contribution rates.

1.2 Unemployment Benefits in Advanced Countries: Eligibility Rules and Benefit Levels

Mária Frey

Unemployment insurance, as a means of compensating for the loss of earnings in the event of involuntary job loss, is a more recent provision than old age or health insurance. In 1911, Great Britain was the first to introduce nation-wide mandatory unemployment insurance, serving as a model to other advanced European countries, which introduced similar systems during the post-World War II economic boom. In the past decade the countries of Central and Eastern Europe and several middle-income developing countries also followed suit. Nevertheless, only about a quarter of the roughly 150 million unemployed of the world receive some sort of unemployment assistance (*ILO, 2000).* This study focuses on the major features of unemployment benefit systems in advanced countries.

Types of income support for the unemployed

Income support for unemployed individuals may take the form of *unemployment insurance* and/or *means-tested unemployment assistance.*

11 See *Hamermesh's (1979)* comments on *Brechling (1981).*

The insurance type unemployment benefit (UI) is intended to (partially) compensate for lost earnings. To be entitled to receiving the benefit, the claimant must have contributed to the insurance fund for a given amount of time, must be involuntarily unemployed, must be available to take up a suitable job and he must also be actively looking for work. The benefit level is generally related to previous earnings (replacement rate), the benefit is usually limited in duration (often dependent on employment record) and payments may not start immediately upon becoming unemployed but start after a short "waiting period". The conditions of entitlement are established by law, so that insured persons are aware of exactly how much support they are entitled to, and for how long. In most countries, unemployment insurance is subject to income tax.

The means-tested unemployment assistance (UA) is a form of income support financed by public revenues. Unemployed persons may be entitled to assistance subject to family income and asset tests, for an unlimited period conditional on proven need and unemployed status. Compared to insurance, the conditions for receiving support are more fluid, since any favourable change in family incomes can lead to exclusion.

In 60 percent of the OECD countries, unemployment benefits are based solely on insurance. Two countries (Australia and New Zealand) operate a purely means-tested system where claimants do not need to have an employment record but are required to look for work. In the other OECD countries unemployment assistance of a limited duration is offered beside unemployment insurance as a last resort for people who have exhausted their insurance entitlements. Those who qualify for neither UI nor UA may receive *social assistance* (SA), usually with the same conditions as other, not unemployed, recipients. Since the unemployment assistance is below subsistence minimum levels in many countries, some unemployed recipients need additional income support (as a general welfare provision), the amount of which depends on the funds available to local governments (*OECD, 1991).*

In developing countries, job loss was uncommon at the time when unemployment insurance was introduced. Spells of unemployment tended to be short, youth unemployment was low, and single-parent families were rare. For these reasons, unemployment benefits were handled separately from other social policy areas such as housing, family, and disability benefits *(OECD, 1996).* By now, the situation has changed considerably:

– unemployment rates are far higher than during the recovery after World War II;
– in half the member countries at least one-third of the unemployed have been out of work for over a year;

– many of the unemployed have exhausted their entitlements and do not receive a benefit;
– in most OECD countries, unemployment is high among young people, who do not have sufficient employment record entitling them to benefit;
– male participation rates have declined, but many of the men no longer on the market receive some sort of assistance (sick-pay, disability benefits, early retirement, etc.);
– female participation is increasing and, at the expense of the traditional family model in which the husband supports the wife and children, two-earner and single parent households have become more common.

When an increasing number of working age household members are economically inactive, this lowers the efficiency of protecting the *individual* worker from loss of earnings, in terms of ensuring the subsistence needs of the *family*. In this case, the unemployment benefit system must be augmented with other forms of support that guarantee a minimum standard of living (Table 1.1).

In most OECD countries low-income households with *high housing costs* are entitled to assistance, and almost everywhere there is a *family benefit* to which all families with dependent children are entitled. The exceptions are Australia, the United States, and Italy, where the amount of family benefits available to households depends on family income. In some countries, *single parents* are entitled to special assistance or to *employment-conditional benefits* if they take a job or already have a job, but the family income is low. Support to people with jobs is intended to encourage people to work and to protect working families from poverty. In addition, a working parent of small children or a parent who wants to work is entitled to a child-care benefit that fully or partially covers child care centre fees. In some countries this benefit is centrally administered, but in most cases it is locally based.

Conditions of entitlement for unemployment benefits, and benefit levels

Unemployment insurance is generally mandatory for all wage and salary earners who work regularly. It is part of the general social insurance system in the United Kingdom, Ireland, and Norway, while elsewhere it is administered separately. In Denmark, Sweden, and Finland, trade union unemployment insurance funds provide the unemployment benefits. Contribution to these funds is generally voluntary, except for union members, who are obliged to contribute in some cases. Union funds also receive state support, as do non-union members and unemployed individuals who have exhausted their entitlement to benefits (*OECD, 1991).*

TABLE 1.1: MAIN ELEMENTS OF UNEMPLOYMENT BENEFIT SYSTEMS

Country	Unemployment insurance	Income tax treatment of UI benefit[a]	Unemployment assistance	Social assistance[b]	Housing benefits	Universal family benefits	Means-tested family benefits	Single-parent benefits	Employment conditional benefits[c]	Child-care benefits
Austria	Y	*	Y	Y	N	Y	N	N	N	Y
Ausztralia[d]	N	*	Y	N	Y	N	Y	Y	Y	Y
Belgium	Y	taxable	N	Y	N	Y	N	N	N	N
Canada	Y	taxable	N	Y	Y	N	N	N	Y	N
Czech Republic	Y	*	N	N	N	Y	N	N	N	N
Denmark	Y	taxable	N	Y	Y	Y	N	N	N	Y
Finland	Y	taxable	Y	Y	Y	Y	N	N	Y	Y
France	Y	taxable	Y	Y	Y	Y	N	Y	N	N
Germany	Y	*	Y	Y	Y	Y	N	N	N	N
Greece	Y	taxable	N	N	N	Y	N	N	N	N
Hungary	Y	taxable	N	Y	Y	Y	N	N	N	N
Iceland	Y	taxable	N	Y	Y	Y	N	N	N	N
Ireland	Y	taxable	Y	Y	Y	Y	N	Y	Y	N
Italy[e]	Y	taxable	N	Y	N	Y	Y	N	N	N
Japan	Y	*	N	Y	Y	Y	N	Y	N	Y
(South-)Korea	Y	*	N	Y	N	N	N	N	N	N
Luxembourg	Y	taxable	N	Y	Y	Y	N	N	N	N
Netherlands	Y	taxable	Y	Y	Y	Y	N	N	N	N
Norway	Y	taxable	Y	Y	Y	Y	N	N	N	Y
Poland	Y	taxable	N	N	Y	Y	N	N	N	Y
Portugal	Y	*	N	Y	Y	N	N	N	N	N
Spain	Y	taxable	N	Y	N	Y	N	N	N	N
Sweden	Y	taxable	Y	Y	Y	Y	N	Y	N	Y
Switzerland	Y	taxable	N	Y	Y	Y	N	N	N	N
United Kingdom	Y	*	Y	Y	Y	Y	N	N	Y	N
United States	Y	taxable	N	Y	N	N	Y	N	Y	N

"Y" indicates that the specific benefit is available in this country; "N" otherwise.

a "Taxable" indicates that personal income tax and/or a social insurance contribution must be paid; *indicates that they do not pay tax, either because their benefits are not taxable or because the tax system is structured such that full-year recipients do not pay tax.

b The unemployment assistance and the social assistance may both be taxable, but were not included in the table.

c Employment-conditional benefits may take the form of a tax credit.

d Australia provides an unemployment benefit with characteristics of both UA and SA.

e Italy: a tax credit for house-rent is available in Italy.

Source: OECD (1999) p. 12.

From the 1960s to the 1990s, trends in unemployment benefit payment conditions evolved as follows *(OECD, 1994).* Unemployed workers in all countries except in Austria, New Zealand, and the European Union (except for the southern members) were offered generous benefits as far back as 1961, and between 1965 and 1973 these benefits were expanded everywhere except for France, Germany, and New Zealand. Between 1975 and 1985, some countries (Denmark, the Netherlands, Ireland, and France) further extended entitlement, while others (Belgium, and the United Kingdom) restricted it. After the mid-1980s, France was the only country to ease entitlement conditions.

In Southern Europe, conditions of entitlement were rather basic at the beginning of the three decades between 1961 and 1991. They remained so in Italy, while Spain adjusted conditions to conform to the Northern and Western European EU members around the end of the 1980s, and Greece and Portugal also improved entitlement conditions.

In Finland, Norway, and Sweden, a narrowly defined group of wage and salary earners were entitled to benefits in the early 1960s, which was later on gradually extended (in the form of voluntary insurance in Finland and Sweden).

In Switzerland, entitlement was significantly expanded in 1977, when mandatory unemployment insurance was introduced.

In the United States and Japan entitlement is comparatively limited, and benefits are comparatively small. In the former, the maximum duration of entitlement was increased slightly in the 1970s, then reduced in the 1980s, while Japan reduced the maximum duration applicable to a 40-year-old insured worker in 1975.

Under the pressure of limited national budgets and insurance funds on the one hand, and aware of the correlation between extensive benefits and levels of unemployment *(OECD, 1994)* on the other, almost all OECD countries reduced the coverage of unemployment insurance in the 1990s. *(ILO, 2000)* Table 1.2 gives an overview of conditions in 1997.[12]

To qualify for unemployment benefits, the unemployed worker must have been employed in *insured employment* for a specific period, as indicated in column 2 and benefit payments do not start immediately upon becoming unemployed but start after a *waiting period,* shown in column 3. (In Iceland the waiting period is extended for those who previously had high earnings.) The *level of benefits* (Column 4) is generally adjusted to previous earnings, but other factors, such as employment record, age and family situation, may also have an influence. A few countries (Iceland, Ireland, and the United Kingdom) administer *flat rate benefits.* Elsewhere, they set the minimum and maximum benefit (Columns 5 and 6), and it also is common that *replacement rates* (Column 4) decrease over time.[13]

12 The data is for 40-year-old single males with a long employment record, previously earning an average income.

13 In Belgium, for instance, the benefit is reduced from 60 percent to 42 percent of previous gross earnings over time, and payments may be suspended altogether if the period of unemployment last longer than 150 percent of the regional average. However, for couples with small children, if need is demonstrated, payments remain at 60 percent throughout the entire unemployment spell.

Table 1.2: Main Entitlement Conditions of Unemployment Insurance Benefits

Country	Employment conditions	Waiting period (days)	Payment rate (percent)[a]	Yearly minimum benefit (USD)[b]	Yearly maximum benefit (USD)[b]	Duration (months)
Austria	20 weeks in 1 year. Maximum duration if 156 weeks in 5 years	0 days	57 percent	1,519	11,975	12
Belgium[c]	312 days in 18 months, rising to 624 days in last 3 years depending on age	0 days	60 percent	7,167	11,405	No limit
Canada	420 hours of work in last year	2 weeks	55 percent	–	18,355	10
Czech Republic	12 months in last 3 years	7 days	60 percent	–	4,485	6
Denmark[d]	52 weeks in last 3 years	0 days	90 percent	–	16,387	60
Finland[d,e]	43 weeks in last 2 years	7 days	90 percent	5,191	12,094	23
France	4 months in 8 months	8 days	75 percent	8,293	57,978	60
Germany[f]	360 days	0 days	60 percent	–	29,520	12
Greece	125 days in 14 months	6 days	40 percent	2,800	6,150	12
Hungary	12 months in last 4 years	0 days	65 percent	1,472	2,943	12
Iceland	10 weeks in last year	0 days	flat	2,208	8,831	60
Ireland	39 weeks in last year	3 days	flat	5,200	–	15
Italy	52 weeks in last 2 years	7 days	80 percent	–	11,285	12
Japan[g]	6 months in last year	7 days	80 percent	–	18,067	10
(South-)Korea	12 weeks in last 18 months	14 days	flat	3,384	19,937	7
Luxembourg	26 weeks in last year	0 days	80 percent	–	34,378	12
Netherlands	26 weeks in 39 weeks	0 days	70 percent	9,878	26,139	60
Norway[d]	–	3 days	62.4 percent	–	17,296	36
Poland	365 days in 18 months	1 days	flat	2,536	–	18
Portugal	540 days in last 2 years	0 days	65 percent	5,532	10,787	30
Spain	12 months in last 6 years	–	70 percent	5,758	13,052	24
Sweden	6 months in last year	5 days	75 percent	6,216	15,243	10
Switzerland	6 months in last 2 years	5 days	70 percent	–	33,851	5
United Kingdom	–	3 days	flat	–	3,944	6
United States	6 months, regionally: minimum earnings requirement	–	50 percent	4,524	15,600	6

a The payment rate is expressed as a percentage of gross earnings, unless indicated "Flat" which means a fixed rate.
b Minimum and maximum benefits are based upon yearly earnings ceilings when countries have not provided specific values. 1997 purchasing parities are used to calculate USD values.
c Belgium: the payment rates for single persons is reduced to 42 percent in the 2nd year (see Section 2 a in the text).
d Denmark, Finland and Norway have a voluntary UI scheme.
e Finland: daily payments: FIM 118 + 42 percent of earnings below FIM 494, plus 20 percent of earnings exceeding FIM 494. The benefit is restricted to 80 percent of previous earnings.
f Japan: the payment rate depends on age and previous earnings level.
g German payment rates are expressed as a percentage of net income.
Source: OECD (1999), p. 14.

Finally, the *duration of benefit payments* in Column 7 may depend on the employment record (Belgium, France, Greece, Hungary, Japan, the Netherlands, Poland, Spain, and Switzerland) and/or on age (Austria, Germany, France, the Netherlands, Portugal, Sweden, and Switzerland).

If unemployment insurance entitlements are exhausted or absent, in many countries (Austria, the United Kingdom, Finland, France, Greece, the Netherlands, Ireland, Germany, Portugal, and Spain) unemployed persons can apply for *unemployment assistance,* the conditions for which are set forth in Table 1.3.[14]

14 The data concerns the same group as in the unemployment insurance benefits table.

TABLE 1.3: ENTITLEMENT CONDITIONS OF UNEMPLOYMENT ASSISTANCE

Country	Employment conditions	Waiting period (days)	Payment rate (percent)[a]	Yearly minimum benefit (USD)[b]	Yearly maximum benefit (USD)[b]	Duration (months)
Australia	–	7 days	flat	–	6,430	No limit
Austria	to have received UI	–	92 percent of UI	1,398	11,017	No limit
Finland	–	7 days	flat	5,191	–	No limit
France	5 years in the last 10 years	–	flat	–	4,419	No limit
Germany[c]	6 months in last year	–	53	–	26,076	No limit
Greece	60 days in the last 2 years	–	17 percent of UI	474	1,046	–
Hungary	to have received UI	–	80 percent of old age pension	142	1,308	24
Ireland	–	3 days	flat	5,038	–	No limit
Netherlands	to have received UI	0 days	flat	9,098	–	24
Portugal[d]	180 days in last year	–	flat	3,872	–	10.5
Spain	to have exhausted UI or to have worked 6 months	–	flat	5,758	–	6
Sweden	75 days in last 5 months	5 days	flat	6,216	–	5
United Kingdom	–	–	flat	3,944	–	No limit

a The payment rate is expressed as a percentage of gross earnings, unless indicated "Flat" which means a flat rate equal to the value in the minimum benefit column or "percent of UI" which means that the UA benefit is calculated as a percentage of the previous or theoretical UI benefit.

b Minimum and maximum benefits are if necessary recalculated from yearly earnings ceilings. 1997 purchasing power parities are used to calculate USD values.

c Germany: the payment rate is expressed as a percentage of net income and is higher when dependants are present.

d Portugal: first-time job seekers with dependants do not need to meet the employment conditions; duration is 18 months if claimant was not entitled to UI.

Source: OECD (1999). page 15.

In some countries entitlement is linked to employment prior to job loss, while elsewhere everyone is entitled to assistance. In some countries there is

a waiting period, but only for persons who are not entitled to insurance benefits and apply directly for assistance. In most cases the duration of payment is unlimited, but some countries do impose a limit. The determination of benefit levels varies by country. In some countries there is a flat rate, while in others it is a percentage of preceding UI payments or earnings. Entitlement is often means tested, either in relation to the individual or the household. In addition, the assistance may vary by region since welfare offices providing it are more or less free to establish their own conditions.

Comparing Entitlement Conditions

A composite index designed by OECD analysts *(OECD, 1994)* expresses the generosity of unemployment benefits in a single figure. To calculate the index for a 40-year-old unemployed person,[15] they use separate calculations:

– for the first, second-third, and fourth-fifth years of unemployment (following a long employment record);
– for single unemployed persons, unemployed persons living with a dependent spouse, and unemployed persons with a working spouse;
– for unemployed persons with previous earnings between average and two-thirds of average earnings.[16]

Table 1.4, which contains the results of these calculations, shows unexpectedly large cross country variation in replacement rates. A person who has been unemployed for 4 or 5 years and has a working spouse, has no recourse to legally guaranteed unemployment assistance in 18 of 26 countries. (The three East-Central European transition countries are among the remaining eight which have positive replacement rates.) The case for single unemployed persons or ones with dependent spouses is exactly the reverse. In eight of 26 countries (including the United States, where assistance takes the form of food stamps) the replacement rate is zero, while in 18 it is positive. At the same time, in the countries where the rate is positive for the long-term unemployed, it is also quite high. As a composite index of the generosity of unemployment benefits, the figures in the last column of the table indicate mean values of the replacement rates shown in the previous columns. Although the index includes numerous aspects of the assistance, it has certain shortcomings *(OECD, 1999).*

The generosity of benefits would be reflected more accurately by an index that also took the effects of taxes into account. The after-tax replacement rates would be 20–33 percent higher than the gross rates, which would improve the ranking especially of those countries where benefits are not taxed (see Table 1.1, Column 3). Other benefits to the unemployed also should be included, such as housing benefits, which are a significant source

15 In several countries there is a general improvement in eligibility conditions as persons become older. In this respect, age 40 is more or less the average.

16 Since more than half of working people earn below the average, and since unemployment is highest among low qualified workers, their replacement rate is more representative of the situation of unemployed people than that of people with above-average previous earnings.

of income to households without earnings, as this would also increase the net replacement rate. In addition, since the calculations did not include households with children, the indices do not reflect family benefits either. Social assistance was omitted as well, except where a set amount is guaranteed by law. It is, however, currently impossible to eliminate these shortcomings because comparable international data are not fully available.

TABLE 1.4: GROSS REPLACEMENT RATES FOR THREE FAMILY TYPES, OVER A FIVE YEAR PERIOD AND TWO EARNINGS LEVELS (PERCENT)

	First year of unemployment			Second and third year			Fourth and fifth year			
Country	Single	With dependent spouse	With earning spouse	Single	With dependent spouse	With earning spouse	Single	With dependent spouse	With earning spouse	Average
Australia	28	50	0	28	51	0	28	51	0	26
Austria	42	47	21	40	45	0	40	45	0	31
Belgium	48	48	44	34	48	28	34	48	28	40
Canada	49	52	45	23	39	0	23	39	0	30
Czech Republic	40	60	48	32	57	34	32	57	34	44
Denmark	66	66	66	66	66	66	66	66	66	66
Finland	54	54	54	39	39	25	27	27	0	36
France	58	58	58	32	37	24	27	34	0	36
Germany	34	34	34	32	32	0	32	32	0	26
Greece	42	45	23	0	0	0	0	0	0	12
Hungary	55	55	55	55	55	55	16	16	16	42
Iceland	54	54	54	0	0	0	0	0	0	18
Ireland	30	48	30	30	49	4	30	49	0	30
Italy	22	29	24	0	0	0	0	0	0	8
Japan	32	32	32	0	0	0	0	0	0	11
(South-)Korea	33	33	30	16	16	9	16	16	9	20
Luxembourg	80	85	85	53	74	45	53	74	45	66
Netherlands	70	70	70	45	57	28	34	48	0	47
Norway	62	62	62	59	59	59	14	14	14	45
Poland	46	46	46	32	32	24	28	28	17	33
Portugal	65	65	65	35	38	33	0	0	0	33
Spain	66	63	63	32	32	29	0	0	0	32
Sweden	72	72	72	10	10	10	0	0	0	28
Switzerland	69	69	69	18	18	18	0	0	0	29
United Kingdom	19	30	19	20	31	0	20	31	0	19
United States	28	32	25	7	12	0	7	12	0	14

Source: OECD (1999), page 43.

1.3 Eligibility Criteria for Unemployment Benefits in Developed Countries

Ágota Scharle

In most OECD countries both entitlement and eligibility criteria must be met before a person may receive unemployment benefit. One purpose of eligibility criteria is to preclude persons unable or unwilling to work, or ones who are entitled to other benefits (such as pensions) from the benefits targeted towards unemployed persons. Another is to offset the disincentive effects of unemployment benefits on reducing job-search efforts and attempts to return to the workforce as quickly as possible. This section explores unemployment benefit eligibility criteria and benefit receipt in the advanced countries.

Cross-country Variation in Eligibility Requirements

Eligibility conditions for unemployment benefits vary considerably across countries. They differ, for example, in rules applied to intermittent and seasonal workers (for instance, regarding whether they may receive benefits if they have little chance of finding jobs out of season), to unpaid household work (such as home improvement and farming), or to individuals clearly unable to take jobs (due to, for example, looking after children or other family members). One reason for the differences is the understanding that permissive rules damage the reputation of the placement service (e.g., if they refer to vacant jobs persons who are unavailable or unwilling to take a job), while very restrictive rules may exclude from benefits some people who are seriously looking for work.

Rules also differ in defining "suitable work" (in other words, what kind of offer can be refused without terminating entitlement to benefit). Norway has the strictest rules. There, any job offer in any part of the country, including shift or night-work, irrespective of the former position or earnings of the unemployed person, qualifies as suitable.

Not every country requires independent steps of job search. In the United States an unemployed person must prove that s/he has applied for two jobs a week in order to remain eligible. But in most other countries, cooperation with the public employment service (attending interviews and training programmes, etc.) is sufficient, and the absence of this rarely leads to a benefit stop. In most countries, benefits are suspended or stopped for some period following a voluntary quit, (repeated) refusal of a job or placement in an active labour market programme, see Table 1.5.

Table 1.5: Periods of Benefit Sanction Following a Voluntary Quit and Refusal of Work or ALMP Placement

Country	First voluntary quit or dismissal for fault	Refusal of work or ALMP placement: first refusal	second refusal	subsequent refusals
Australia	4–5 weeks[a]	4–5 weeks[a]	6 weeks[b]	8 weeks
Belgium	8–52 weeks[c]	26–52 weeks	exclusion	
Czech Republic	exclusion[d]	3 months[e]	exclusion	
Denmark	5 weeks	1 weeks (job), exclusion (ALMP)[f]	exclusion	
Finland	3 months[g] 0–2 months (ALMP)	2 months (job)[g], 2 months or exclusion[h]	2 months or exclusion[h]	
France	4 months[i]	temporary or definitive exclusion[j]	temporary or definitive exclusion[j]	temporary or definitive exclusion[j]
Germany	12 weeks[m]	12 weeks[m]	exclusion[n]	
Japan	1–3 months[k]	1 months[l]	no change	no change
New-Zealand	13 weeks[q]	1 week (job) until re-compliance (ALMP)[r]	13 weeks (job) until recompliance,[18] but minimum 1 week (ALMP)	13 weeks
Norway	8 weeks	8 weeks	12 weeks	26 weeks
Spain	exclusion[o]	exclusion		
Switzerland	6–12 weeks	6–12 weeks or exclusion[p]	6–12 weeks or exclusion[p]	6–12 weeks
United Kingdom	1–26 weeks	1–26 weeks (job), 2 weeks (ALMP)	1–26 weeks (job), 4 weeks (ALMP)	1–26 weeks (job), 4 weeks (ALMP)

[a] Full-time equivalent of an 18 percent reduction in benefit level that lasts 26 weeks. [b] Full-time equivalent of a 24 percent reduction in benefit level that lasts 26 weeks. [c] weeks in cases of dismissal for fault, 26–52 weeks in cases of voluntary quit. [d] May apply only in cases of repeated quits during a 6-month period. [e] Exclusion is also possible. [f] A first refusal of an ALMP placement leads to exclusion only during the "active period" (after 12 months of unemployment). [g] Reduced to 1 month if the job in question is for less than 5 days. [h] Legislation specifies exclusion for repeated refusals, which are not defined, but in practice a second refusal within a year is a repeat refusal. However, the sanction for people with wage-related benefits who repeatedly refuse ALMP placements is limited to 2 months. [i] Admission to benefit after 4 months of unemployment is conditional on proving active job search during these four months. [j] The word "exclusion" in this table generally implies an indefinite benefit stop or definitive loss of remaining benefit entitlement. In France, legislation also provides for temporary exclusions. When an attitude of refusal of work is observed, exclusion is in principle definitive. [k] Typically 3 months. [l] One month in case of refusal of work, but up to 1 month in case of refusal of training. [m] Reduced in some circumstances. [n] Exclusion follows when sanctions totalling 24 weeks have been pronounced. [o] Exclusion in cases of a quit, but a 3-month waiting period in cases of dismissal for fault. [p] A second refusal of an ALMP place leads to exclusion, and a second or third refusal of a job might lead to exclusion. [q] Under a "clean slate" provision, benefit payments can resume after 4 weeks on a provisional basis if the person is participating satisfactorily in community work, employment-related training or another organised activity. If the person obtains full- or part-time short-term employment for at least 6 weeks, the remaining stand down can be waived. [r] Re-compliance means attending an interview following the failure to attend one: in a case of refusal of "community" work or training, etc., it could mean participation in an activity as under the "clean slate" provisions.
Source: OECD (2000), p. 135.

It is quite difficult to compare national practices in terms of "strictness". First of all, legislation is often obscure. Secondly, certain behaviours can be strictly sanctioned while others are handled much more leniently in one and the same country. Thirdly, there can be differences in the severity of rules and their enforcement, with enforcement significantly influenced by the level of unemployment. Therefore, when investigating the influence of rules on the level of unemployment, it is important to consider indicators of implementation and sanction statistics beside formal eligibility rules. Also, it must be remembered that a low sanction rate may indicate high compliance with eligibility requirements as a result of consistently applied strict sanctions.

The Effects of Strict Eligibility Requirements on Unemployment

Data collected by public employment services generally suggest that tight controls on eligibility directly limit the number of beneficiaries and that a drop in the number of persons registered usually means a small decline in the number of people unemployed under the ILO definition. For example, requiring attendance at intensive interviews resulted in a 5–10 percent drop in applicants. After introducing the job-search requirement there was a significant drop in benefit expenditure in the United States. The requirement to participate in long-term labour-market programmes (such as 4–6 week courses) reduced unemployment, if for no other reason than because attendees are technically not unemployed during the courses. But the real effect of mandatory participation on unemployment is unclear.

Most of the few studies on the effects of tighter rules on benefit sanctions suggest a sharp drop in unemployment. For example, based on Dutch data, *Abbring et al. (1999)* and *Van den Berg et al. (1999)* demonstrate a 77–140 percent growth in the transition rate to employment. It should be kept in mind however, that sanctions may have been successfully targeted on people for whom they are likely to have an impact; the impact at the margin, if sanctions were used more widely, might be much smaller.

A recent study by the Danish Finance Ministry *(DMOF, 1999)* used a composite index of strictness of eligibility criteria and other explanatory variables to study cross-country variation in unemployment. They found that their strictness index has a strong negative effect on the unemployment rate (especially on long-term unemployment), strong enough to offset the impact of a high replacement rate in some countries. Worth noting is that, as *Auer (2000)* points out, all countries with successful employment policies in the 1990s had applied stricter enforcement of job search and suitable work provisions. The focus was, however, on the operational implementation of eligibility criteria, rather than on tightening legislation. The efficiency of tightening rules also depends on the functional integra-

tion between benefit and placement work in the public employment service. These studies suggest that it is possible to avoid recession stalemates in which rising unemployment and increasingly lax application of eligibility rules reinforce one another.

1.4 Problems with Unemployment Benefits in the Post-socialist Transition

János Köllő

Unemployment, which reappeared after an interval of several decades, forced Hungary's political officials to introduce a comparatively generous benefit system in 1990–91, as was pointed out by numerous international comparisons.

Based on the main attributes of unemployment benefits (probability of benefit receipt, duration of payments, proportion to average earnings) and assuming a maximum duration of entitlement, *Burda (1993)* worked out the present value of the benefit packages in several post-socialist countries in proportion to gross monthly earnings. Hungary scored highest (3388), and the Czech Republic and Slovakia the lowest (522); Bulgaria was fairly high (671), while Romania (1286) and Poland (1240) were somewhere in the middle on this scale. The Hungarian index was excessively high, mostly due to the rather long, 18 month entitlement period, and when this was cut to one year (in 1993), the score dropped by half *(Burda, 1995)*.[17]

A report by the Blue Ribbon Committee *(Blue Ribbon, 1993)* examined public expenditure on unemployment and drew the same conclusions. In proportion to the GDP, these expenditures were significantly higher in Hungary (by 30–100 percent) than in Czechoslovakia, Bulgaria, or Poland between 1990 and 1992. This can be explained by the combination of two factors: expenses per unemployed reached the level of those Western European countries various indices describe as strongly corporative,[18] while the number of benefit recipients in Hungary was well over the numbers usually recorded in these countries.

Bardasi et al. (2001) use micro-data to compare Hungary with the other four Visegrad countries,[19] and with Spain and the United Kingdom. They find that between 1993 and 1995, in Hungary, a higher proportion of job-seekers received assistance, including insurance based benefits, than in the other four East European and the two West European countries. The probability of receipt reached a similar level only for British male job-seekers. In later years however, this initially high proportion tended to decline.[20]

In general terms, benefit systems established after 1989 in former socialist countries were not generous (in many of the Soviet successor states, for example, the benefits were merely symbolic). By contrast, Hungary intro-

17 Had 1990 data been used, Poland would have been the curve-breaker, for at that time there was no time limit to entitlement to benefits.

18 The reference is to the corporative indices calculated by *Tarantelli (1986)* and *Calmfors and Friffill (1988)*, and to the UNCD and EMCD indices defined by *Layard et al. (1991)*.

19 These include the Czech Republic, Slovakia, Poland and Slovenia.

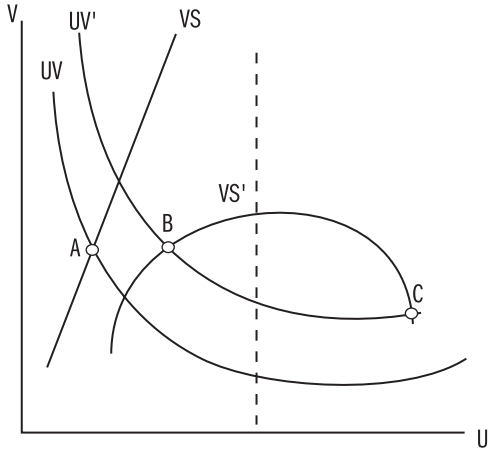
20 Also investigated was the proportion of benefit-recipients who were actively seeking jobs (the targets of the assistance), and here, Hungary was somewhat below midpoint.

duced a benefit system which may have been regarded as rather liberal by international comparison, and this was subsequently trimmed by a series of measures.

Claims concerning unemployment benefits in studies on the transition are often not more than extensions of popular wisdom which argues that equilibrium unemployment is generally higher when benefits are more generous. The following analysis applies theoretical models to investigate the consequences of an initial high level of unemployment benefits followed by gradual cuts under the specific conditions of the post-socialist transition. The results of this model-based inquiry can serve as a point of departure for the future discussion and assessment of empirical processes.

The most general argument, which summarises various labour-market processes, can be outlined on the basis of the above mentioned study by Burda, using Figure 1.2, which displays the two curves UV and VS.

FIGURE 1.2: SHIFTS IN MARKET EQUILIBRIUM



If an x number of people become unemployed in the course of a year, it stands to reason that, for the unemployment rate to remain constant, an x number of unemployed people would need to return to work. When unemployment is high (low), it becomes easier (harder) to fill a vacancy, and thus, compared to the unemployed pool, fewer (more) jobs have to be created in order to keep flows in balance. If the rate of job destruction is fixed, and the factors determining market friction are given, there is an inverse relationship between the stationary values of the U unemployment rate and the V vacancy rate: this is why UV curves exhibit a downward slope to the right in the above figure.[21] Higher rate of job destruction, or a more serious structural mismatch between jobs and job-seekers, are repre-

21 In other words, the UV curve is the geometric location of the points at which the equation $s\,(1-u) = x(u,v)$ is valid, where s is the separation rate and x is the matching function describing the number of successful job seekers, for which $x^i > 0$, $x^{ij} > 0$. The unemployment rate is u, while v is the proportion of jobs created in the given period to the total workforce.

sented by higher UV curves. However, the upward slope to the right of the VS curve illustrates that, when unemployment is higher, the corresponding lower real wages and lower recruitment costs act as incentives for job-creation.

Let us ignore for the moment the area to the right of the dotted line in the figure. The area to the left shows what is certain to happen during a transition: the influx of unemployed labour pushes up the UV curve. Meanwhile, demand for labour becomes more selective, resulting in a widening mismatch between jobs and job seekers, which bends the VS curve to the right. At the same time, the introduction of unemployment benefits makes job seekers more picky, which pushes the VS curve further down, leading to a less favourable equilibrium: B, instead of A.

Generous income support schemes can have additional consequences. The taxes required to finance them, (which have to increase exponentially with the unemployment rate if the insurance fund or the government cannot accommodate a significant deficit) and the weakening pressure on wages exerted by unemployment may together encourage further job cuts, rather than job creation, as is illustrated by the downward bend in the VS' curve to the right of the dotted line. This may lead to an even less favourable outcome, such as point C in the figure.

After this brief look at general considerations, let us turn to the studies that go beyond the simple, one-time-shock interpretation of the transition process. Following the collapse of socialism, a significant number of firms had no chance of survival, irrespective of wages, taxes, recruitment costs or any of the other factors commonly considered in labour market analyses.

Aghion and Blanchard's (1993) two-sector model distinguishing between the state and the private sectors, which is a benchmark for analyses investigating the optimum speed of transitions,[22] defines the value of being employed in the state sector jobs in terms of the wage, the appropriation of quasi-rents, and unemployment insurance contributions (taxes). Private sector employment creation depends on profit per worker, which in turn depends on the average product of labour (assumed to be higher than in the state-owned sector), the market wage, and taxes, where wages are determined by the generosity of unemployment benefits and the exit rate out of unemployment. In other words, job creation is linked recursively to the rate of expansion of the private sector. In this model, all movement between the two sectors is through unemployment, and new jobs are created only in the private sector.[23] The rate at which employment in the state sector declines is basically determined by workers in the sector, as a function of the difference between incomes attainable in the two sectors and in unemployment. The state also can influence worker decisions through setting the level of unemployment benefits, and through quasi-rents (*a*), by

22 This set of models is generally known as OST (optimal speed of transition). (Also see *Atkeson and Kehoe (1996), Castanheira and Roland (2000), Chadha and Coricelli (1994), Brixiová (1997), Jurajda and Terrell (2000).*

23 At a later, the model allows restructuring in the state sector, but this has no bearing on the above discussed effects.

allowing or restricting access. Aghion and Blanchard study (among other things) the effects of the size of benefits when *a* is exogenous and the state is assumed to choose *a* to maximise the present value of total output during the transition.[24]

Solving the model is equivalent to finding the point of equilibrium at which the rate of job destruction equals the rate of job creation, i.e. where the unemployment rate is in equilibrium, with the given rate of job deterioration. This is not always possible. Job destruction may be too fast for a successful transition. The fiscal burden of unemployment may have a stronger influence on reducing demand than the positive effect of lower wages on job creation, which may impede or stop the development of the private sector.

In the former case (when *a* is exogenous), Aghion and Blanchard find, as expected, that the more generous benefits are, the higher is the equilibrium level of unemployment. At the same time, the effect on the expansion of the private sector is small. This is because the generosity of benefits slows down private sector expansion (taxes increase labour costs, while benefits moderate the adjustment of wages to the level of unemployment), but, through its "positive" contribution to job destruction and the growth of unemployment, it also has a positive influence on the growth rate of the private sector.

In the latter case (when *a* is set to maximise the present value of output), more generous support to the unemployed leads to a lower optimal transition rate and lower equilibrium unemployment, at least with the particular set of parameter values chosen for the simulation. Insofar as relationships in a complex system of differential equations can be verbalised, the explanation is that, when benefits are low, it is worthwhile for the state to choose a policy of fast job destruction and higher unemployment. In this case benefits are small and thus unemployment reduces wages, which accelerates job creation and faster growth in the private sector, which in turn increases the present value of output produced during the transition.

The smaller unemployment benefits are, the greater is the difference between the outcomes of the two policies. If restructuring is a determined by workers (with given *a*), a low benefit level is likely to lead to a slow transition and comparatively low equilibrium unemployment. The strategy to optimise output leads to a fast transition and high unemployment in the case of low benefit levels. Given generous benefits, the effects of policies in the state sector are weaker and workers more readily decide to accelerate the transition (job destruction).

The policy chosen for the Hungarian transition, which encouraged fast job destruction (drastically hardening budget constraints for state-owned companies and supporting "spontaneous privatisation") but also provided

24 The "state sector" in the model refers to all declining activities, and not to the state-owned sector as determined by the firms' ownership structure, and the "unemployed" include all the people out of work.

generous unemployment benefits, would be considered a peculiar mixed strategy in the Aghion-Blanchard model. In the simulations, low benefits and high quasi-rents yielded the lowest equilibrium level of unemployment and slowest transition, while the combination of low benefits and low *a* led to the highest equilibrium unemployment and fastest transition.

Unemployment benefits and the attitude of state sector employees to job destruction is where the Aghion-Blanchard model overlaps with analyses of the dynamics of political support for the system change, which serve some interesting lessons about the optimum evolution of benefit systems. *Dewatripont and Roland (1992), (1996)* recommend generous assistance at the *start* of the transition, to "buy" the support of state sector workers for initiating market reforms. *Freeman (1994)*, on the other hand, concludes that *maintaining* political confidence is the real problem, and thus more generous support should be held back until halfway into the transition.

In Freeman's model, workers leaving the declining sector have a p probability of moving to the expanding sector of the economy, which will then offer them an N gain, either in higher wages or in job security. Meanwhile, $(1-p)$ workers stay with the obsolete sector, incurring a V loss, e.g. because, as long as the reforms continue, or until they move into a secure job in the new sector, they are in danger of becoming redundant. In the t-th year of the transition the proportion of people in the winning group is $1-(1-p)^t$, which will grow continuously until it equals 1.

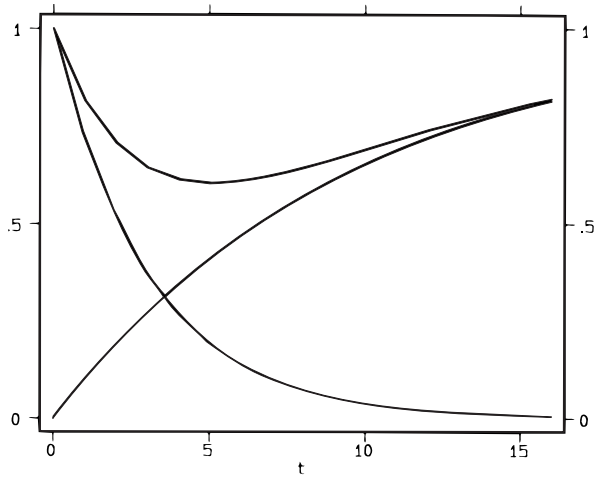
At any given time, the support of losers for the reforms depends on their discounted gains expected from the transition. That, in turn, depends on p, the discount rate, and the number of years through which they enjoy an income augmented by N once they have joined the group of winners. Since the period in which they can realise gains is increasingly shorter with the passage of time, expected gains from continued reform gradually decrease during the transition, and eventually become negative. Therefore, *within* the shrinking camp of losers, the proportion of supporters of reforms will steadily decline, while the *total* number of supporters will decrease initially, and then start increasing. This is illustrated in Figure 1.3, where the rising curve shows support by winners, the descending curve shows support by losers, and the U-shaped upper curve shows total support (in the labour force) for reforms.[25]

Though based on different considerations, *Boeri (1999)* reaches a more or less similar conclusion. In investigating transitions between sectors, he relaxes two of the Aghion-Blanchard assumptions. (1) A direct transition from the old sector to the new one is possible. Firms may profit from hiring workers from the state sector, depending on the number of workers in the old sector, the number of the unemployed, and reservation wages. (2) Unemployed people can choose between job search and inactivity (petty farm-

25 See note J. 1.2 for more information on interpreting the figure.

ing or black work), while receiving unemployment benefits in either case. Benefits influence the value of all labour market states and affect demand through taxes.

FIGURE 1.3: CHANGES IN THE PROPORTION OF POLITICAL SUPPORT FOR REFORMS IN FREEMAN'S (1994) MODEL



Freeman's model, based on simple but realistic assumptions, warns that even in the fortunate case when the reform process is unbroken (p is constant), sooner or later, the process reaches a certain stage crucial in the success of the post-socialist transition, when political support for the transition declines. This is the time when the social safety net becomes important in reducing V in order to maintain confidence in market reforms. In this model, the reduction of unemployment benefits in the years following the systemic change is obviously misguided.

Calculations with the model, assuming a high benefits level, forecast a slow transition, low output and employment, which in time become even lower because of rising taxes, and that the proportion of job seekers would be comparatively high among the people who are out of work. Boeri also looked at the case when initially generous benefits were reduced within a year or two, which could prevent taxes from rising and output and employment from dropping. Reducing benefits pushes the equilibrium level of unemployment upwards because it increases the relative value of finding a job compared to petty farming or informal activities. However, while the effect of cutting benefits is hardly noticeable with the chosen (plausible) parameters, the initial level of benefits has a major influence on the speed of the transition and on employment. Why is that?

The initially high level of benefits at first acts as an incentive to many people to change jobs. But, there are not many vacancies, so many job seekers become inactive. Then, the low level of active job search encourages employers to look for workers among those already employed, which further reduces the value of unemployment, as compared to inactivity. When the government introduces restrictive measures, it is already too late. Their impact is muted by the fact that the tax burden (compared to what it would have been in the case of a low initial benefit level) is spread over a lower level of production and a smaller total wage bill. This means that the tax rate is higher, and an economy that is already lagging behind cannot shift to the path of faster transition and lower unemployment. Be smart at the start, suggest Boeri's model, because corrections introduced later on will reduce the welfare of the unemployed without significantly accelerating the pace of economic growth.

Well then, should the unemployment benefits be high or low and should they be increased or decreased (or perhaps first increased and then decreased) during the post-socialist transition? Clearly, the studies quoted are not cookery books offering ready-to-use recipes. But, they highlight the issues that need to be clarified empirically before a country can see how the mechanisms investigated in the above models feature in their concrete situations.

There are four basic issues that we need to see clearly before we can evaluate Hungarian practices of unemployment assistance.

The *first* is the labour cost elasticity of labour demand, which it is essential to know for the assessment of the effects of the unemployment-related *tax burden*. In Hungary, the wage elasticity estimates of *Kőrösi (1997), (2000)* can be a point of departure for such investigations (to date there has been no effort made to measure demand effects of tax changes.)

The *second* issue is the unemployment elasticity of wages. In this area, research by *Galasi (1996)* is noteworthy for its analysis of the effects of unemployment benefits on job seekers' reservation wages. *Kertesi and Köllő (1998)* examine the elasticity of earnings to regional variations in unemployment.

The *third* issue is the role of income support when the unemployed choose between job search or inactivity. *Galasi (1995)* was the only one in Hungary to analyse this question directly, and some indirect information is offered by work on the relationship between benefit receipt and the probability of finding a job, such as *Micklewright-Nagy (1994), Köllő-Nagy (1995),* and *Galasi (1996)*.

Finally, the *fourth* important issue is what really motivates decision-makers, other than cost and incentive considerations, when they set the parameters of the benefit system. Do they consider the opportunity cost of unemployment benefit payments (the value decision-makers put on other pro-

grammes that have to be put aside because of these expenditures), or the preferences of particular groups of society, and if so, what weight do they attach to such considerations? Available research has so far uncovered only stylised facts, which may at best serve as starting points to objective debates. Principal studies here include a description of employment policy institutions *(Frey, 1998),* an investigation of the probability of benefit receipt and the evolution of the replacement rate over time *(Nagy, 2000)*, and an analysis of public opinion on unemployment benefits *(Köllő, 2001)*.

Until we can clarify these issues the most we can say, based on the main parameters of the Hungarian benefit system and economic policy (and the wage elasticity of supply and demand), is that all OST models predict initially fast transition, and a relatively high equilibrium level of unemployment. Freeman's analysis projects temporarily weakening political support for reforms, and Boeri's model predicts persistently low employment and high inactivity.[26] Even if predictions hit home, the explanations may still be flawed. They could serve well though, by pointing out the directions for empirical research.

26 Total employment in Hungary is still quite low. Hungarian males have the lowest participation rate in Europe *(KILM, 2000).* The low unemployment rates reported by the Central Statistical Office using job-search criteria tell us principally that the inactivity rate is extremely high among those out of work.

2. THE REGULATION AND FINANCING OF UNEMPLOYMENT BENEFIT SYSTEMS IN HUNGARY

2.1 Unemployment Benefits: Forms, Entitlement Criteria and Amounts

Gyula Nagy

There have been many changes in the system of unemployment benefits since its introduction in 1989. Some new forms have been introduced while others were phased out after brief trials, and the regulations governing entitlement, duration, and amounts have been repeatedly amended, sometimes significantly.

In the beginning, there were four types of unemployment assistance. These were: unemployment insurance benefits, unemployment assistance for the long-term unemployed (recently replaced by regular social assistance to unemployed people of economically active age), career beginners assistance, and pre-pension or pre-retirement unemployment assistance for those close to retirement age. The following is a review of the most important regulations governing entitlement and benefit levels.[27]

The Unemployment Insurance Benefit

Table 2.1 summarises changes in the rules of entitlement to the Unemployment Insurance Benefit (UI) between 1989 and 1990. Benefit schemes are referred to by the date of their introduction, shown in column one.

27 For a detailed review of the legal regulations on assistance, see *Bánsági (2000).*

Table 2.1: Main Regulations Governing Entitlement to Insurance Benefit

Benefit scheme	Employment condition	Duration of entitlement		Waiting period in the case of	
		minimum	maximum	voluntary quit	severance pay
1989	18 month/3 years	2 years	2 years	none (smaller benefit)	none
1991	12 months/4 years	180 days		3 months	
1992		135 days	1.5 years		same as months of severance pay
1993		90 days	1 year	6 months	
1997				3 months	in 1997: same as months of severance pay; none since 1998
2000	200 days/4 years	40 days	270 days		none

The only one of the rules governing entitlement for this benefit that has not been tightened (in fact, it was even relaxed somewhat on two occasions) is the one setting a minimum requirement for the claimant's employment record. In 1989–1990 a person needed to have worked for at least 18 months over the preceding three years to become entitled to benefit. As of 1991, this was changed to 12 months in the previous four years, and was further reduced in 2000, to 200 days, or just over six months.[28]

Meanwhile, the maximum duration of benefit payments was cut significantly. In 1989–90 it was two years[29] for all unemployed persons, but a caveat requiring a continuous employment record in the preceding four years was introduced in 1991. This was combined with a rule that the period of entitlement to benefit is a step function of the employment record, with 11 different entitlement periods including a minimum and maximum. The minimum time of entitlement to benefits after one year of work was six months. The duration of benefit payments was later reduced twice: by one-fourth in 1992, and by one-third in 1993 (for all eligible categories). This meant that as of 1993, people who lost their jobs were entitled to insurance benefit for only half as long as they would have been in 1991, assuming the same employment record. In 2000, the duration of entitlement to benefits was again reduced for most of the unemployed, when the above mentioned 11 periods were abolished and replaced by a general rule which limits entitlement to equal one-fifth of the time spent at work over the preceding four years. This reduction was largest for those with a long employment record, while it hardly affected people who had worked for shorter periods. (For more information on how changes in 2000 affected entitlement for people with different work histories, see Section 5.2.)

The last two columns in Table 2.1 show the waiting periods prescribed after voluntary quit and severance pay. These are the periods of time that have to elapse before the unemployed person begins to receive insurance benefit. Although the waiting periods do not affect the duration of entitlement, they do reduce the duration of receipt for people who are quicker to find new jobs. In 1991, a three-month waiting period was imposed for voluntary quits. This was increased to six months in 1993, then, four years later in 1997, it was cut again to three months. From 1992 to 1997, people who received severance pay also had to wait before they became entitled to insurance benefit. Although the waiting period clearly reduced chances of actually receiving unemployment benefits, the extent to which this affected the system depended strongly on how high a proportion of the new unemployed actually had to wait, and on their probability of finding new jobs in the interim.

Table 2.2 summarises the most important rules governing the *amount* of unemployment insurance benefits.

28 Six months, i.e. 180 days, in work was sufficient for entitlement between 1997 and 1999, but only for people who had previously exhausted insurance benefit.

29 Maximum duration was one year in 1989, but was increased to two years in 1990, which also applied to people already receiving benefits.

Table 2.2: Main Rules of Setting the Amounts of Insurance Benefit

Benefit scheme	Benefit in proportion of previous wage		Proportion of phase 1	Calculation of average earnings	Benefit	
	phase 1.	phase 2.			minimum	maximum
1989	70 percent for 6 months 60 percent for 6–12 months 45 percent in the second year		–	base wage in last month + monthly average of additional earnings in last year	1989: none; 1990: 0.8*minimum wage	1. year: 3*minimum wage; 2. year: 2*minimum wage
1991	70 percent	50 percent	50 percent		minimum wage	3*minimum wage
1992	70 percent	50 percent	50 percent	average earnings in 4 calendar quarters preceding job loss	minimum wage	2*minimum wage
1993	75 percent	60 percent	33 percent		8,600 forints	phase 1: 18,000 forints; phase 2: 15,000 forints
1997, 2000	65 percent (no phases)		–		90 percent of minimum old age pension	180 percent of minimum old age pension

One point on which all rules coincide is the pegging of insurance benefits to wages. They specify the percentage of the previous wage an unemployed person is entitled to as an insurance benefit, known as the nominal benefit-wage ratio. When the period of entitlement is divided into sections (as it was prior to 1997) this rate differs by section. In addition, due to benefit floors and ceilings, different ratios apply to the lowest and the highest earnings groups. Another important feature of the insurance benefit rules was that they did not peg either the wages on which the benefits were calculated or the insurance benefits themselves, to any other index.[30] So, at a time of significant price and wage inflation, the longer the time lapse is between job loss and the award of insurance benefit, and receipt of benefit, the lower is its value.

Four basic situations are considered when calculating the amount of insurance benefit:

1. People who earned less than the minimum benefit get benefits equal to their previous wage.

30 Except for minimum or below-minimum benefits set according to pre-1992 rules, which were raised in proportion to minimum wage increases.

2. The minimum level of benefit is granted to an unemployed person who would not get the minimum benefit using the nominal benefit-wage ratio, if their wage was higher than the minimum benefit.
3. A claimant whose benefit amounted to more than the minimum but less than the maximum receives benefits calculated using the nominal benefit-wage ratio.
4. A person whose benefits would have exceeded the maximum if calculated with the nominal benefit-wage ratio gets the maximum benefit.

When the Employment Law was introduced in 1991, several rules about benefit amounts were changed. The nominal benefit-wage ratio was increased for the second half-year of receipt (from 60 percent to 70 percent); while the minimum benefit and, in the second year of receipt, the maximum, were also increased (from 45 percent to 50 percent).

Other rule changes in 1992 did not affect the nominal benefit-wage ratio, but the maximum benefit was reduced from three times the minimum wage to double, and the method of calculating the average wage, the basis for setting benefits, was changed. The initial method had been to use the basic wage of the final month of employment as the chief component of the average wage. As of 1992, the new average was calculated using the basic wage of the last four calendar quarters of employment, which sharply reduced the average wage and the ensuing amount of benefits, since nominal wages were growing quite steeply over this period of time. A calculation using the data of persons receiving insurance benefits in March 1992 showed an 11–12 percent drop in the average wage used for the calculation (*Nagy and Micklewright, 1995).*

Rules on the amount of benefit provided changed again in 1993. The nominal benefit-wage ratio was increased for both phases of benefit receipt, but the duration of phase one, where the benefit rate was higher, was reduced to one-third of the total entitlement period as opposed to one-half. Under 1993 rules, the nominal benefit-wage ratio in phase two (65 percent) was lower than the phase one ratio had been in 1992 (70 percent). So, the boost in the nominal benefit-wage ratio only improved conditions for people who needed the benefit in the short run, provided that their benefits were set by the nominal benefit-wage ratio. At the same time, the minimum and maximum benefit that had been initially pegged to the minimum wage were now set as fixed amounts, in force until 1997. In the beginning the new limits were only slightly lower than the old ones based on the minimum wage. (The minimum benefit was set at HUF 8,600, or 96 percent of the HUF 9,000 minimum wage, and the HUF 18,000 phase-one maximum was exactly double the minimum wage set in 1992, though the HUF 15,000 phase-two maximum was only 83 percent of the maximum as set under the 1992 rules.) But then, the huge rise in wage and price inflation between 1993 and 1996 gradually reduced their real values.

In 1997, the two phases of benefit payments were eliminated, and the nominal benefit-wage ratio was now set at 65 percent for the entire period of entitlement. Compared to earlier rules, this was a 10 percentage point cutback in benefits for the first third of the entitlement period and a 5 percentage point increase for the remaining two-thirds, assuming that benefits were paid using the nominal benefit-wage ratio. At this time the benefit limits were again pegged to an automatically indexed value, this time the minimum old-age pension, with the benefit floor set at 90 percent of the minimum pension and the ceiling set at 180 percent. This change was sufficient to guarantee that benefit floors and ceilings maintained their values, though at a significantly lower level than the one prior to 1993. (The minimum benefit, at 90 percent of the minimum old-age pension, was HUF 10,350 in early 1997, which was only 61 percent of the minimum wage at the time.)

Changes introduced to the benefit system in early 2000 did not alter the amount of benefits paid, as can be seen in Table 2.2.

Unemployment Assistance

Between 1992 and 2000, local governments provided non-insurance type *Unemployment Assistance* (UA)[31] for persons who had exhausted their insurance benefit. Entitlement was means-tested. The per capita family income could be no more than 80 percent of the minimum old-age pension. Irrespective of previous wages, the assistance was set as a flat rate equal to 80 percent of the minimum old-age pension. Initially, duration was unlimited, but in 1995 it was maximised at two years.

In May 2000, the Unemployment Assistance was replaced by the *Regular Social Assistance for Unemployed Persons of Economically Active Age* (RSA).[32] Entitlement is conditional on per capita family income not exceeding 80 percent of the minimum old-age pension, but the amount receivable is capped at 70 percent of the minimum pension. The exhaustion of all prior entitlement to benefits is not a prerequisite, but claimants are required to cooperate with the public employment service or the local government in their job search for at least one year, or to spend at least thirty days on public works.

From 1991 to 1996, first-time job seekers could also receive unemployment assistance, the *Career Beginners Assistance,* if they had completed at least the two-year vocational secondary school. They were entitled to 75 percent of the minimum wage for a maximum of six months until 1995, when the amount was changed to 80 percent of the minimum old-age pension.

From 1991 to 1997, unemployed persons who had an employment record long enough to entitle them to old-age pensions were entitled to receive a *pre-pension*, and after 1998, a *pre-retirement unemployment assistance.* A per-

31 In 1992, this particular form of assistance was labelled "transitional social assistance to the unemployed", and the rules governing entitlement differed from those in effect after 1993.

32 The social assistance for unemployed persons of economically active age was introduced in 1996, but until the Unemployment Assistance was abolished, it played no significant role in assisting the unemployed. Before 2000, it was available to persons who had exhausted their UA entitlement, and to unemployed persons who had been continuously cooperating with the employment centres for at least three years prior to applying for this form of assistance, independently of their prior status as benefit recipients.

son was entitled to a pre-pension in the three years preceding retirement age, after 180 days spent on unemployment insurance benefit. The amount of the pension was calculated according to general social insurance rules. Pre-retirement Unemployment Assistance was available in the five years prior to retirement age, following a set period of receiving insurance benefit (180 days prior to 2000, and 140 days since then), or after benefit entitlement was exhausted. The amount is a uniform 80 percent of the minimum old-age pension.

2.2 Financing Unemployment Benefits

Mária Frey

Under the original concept, unemployment benefits (and the maintenance costs of the public employment service) were covered by the Solidarity Fund for the Unemployed. This fund financed unemployment benefits, career beginners assistance, pre-pensions, Unemployment Assistance, social insurance contributions for persons on training schemes, and travel-cost reimbursement for people going to job interviews. The Solidarity Fund was set up as an insurance fund that relied on mandatory contributions by employers and employees (deductible from personal income tax), and a government obligation to cover a maximum 10 percent deficit. It was completely separate financially from the Employment Fund, which had been established to cover the expenditure of active labour market policies and was maintained purely by the central budget.

Starting with July 1, 1991, the mandatory contribution was equivalent to 1.5 percent of gross earnings for employers and 0.5 percent for employees, as shown in Table 2.3. However, since there was a sudden growth in unemployment, the contributions thus collected (as shown in Table 2.4) were barely sufficient to cover half the expenditure, so the central budget was forced to add far more than the 10 percent set as the maximum to finance the deficit.

Table 2.3: Contribution Rates (percent)

	1991	1992	1993	1994		1995[a]
	01/07-31/12	01/01-31/12	01/01-31/12	01/01-31/03	01/04-31/12	01/01-
Employers contribution	1.5	5.0	7.0	7.2	5.0	4.5
Employees contribution	0.5	1.0	2.0	1.5	1.5	1.5

a These rates were valid until January 31, 1998. As of February 1, 1988, the employers contribution was reduced to 4.2 percent, to 4 percent on July 1, 1998, and to 3 percent on January 1, 1999.

Table 2.4: Solidarity Fund and Employment Fund Revenues and Outlays (billion HUF)

	1991	1992	1993	1994	1995
Solidarity Fund					
Revenues					
Employers contributions	3.0	27.9	47.6	49.3	42.1
Employees contributions	1.4	7.4	16.8	17.4	18.5
Contributions by public inst.	4.0	10.4	17.9	12.0	9.0
Other revenues	0.1	0.2	0.1	0.8	2.1
Total	8.5	45.9	82.4	79.5	71.7
Outlays					
Unemployment benefits	19.1	64.7	74.6	50.0	42.7
Pre-pension		0.7	2.8	5.7	9.3
Running costs and development of public employment service	1.6	4.3	5.3	6.4	7.1
Total	20.7	69.7	82.7	62.1	59.1
Balance of outlays and revenues	–12.2	–23.8	–0.3	+17.4	+12.6
Correction items					
Government subsidies	+13.7	+24.1	+13.7	–	–
Transfers to central budget					
– to the EF	–	–	–	–7.9	–11.0
– for the Unemployment Assistance	–	–	–	–2.1	–
Current account	1.5	0.3	13.4	7.4	1.6
Closing account	1.5	1.8	15.2	22.6	24.2
Employment Fund					
Opening account	2.7	4.6	5.9	3.7	2.0
Revenues					
Government subsidies	11.0	13.5	11.6	–	2.0
From privatisation revenues	–	–	1.9	7.6	–
Transfer from SF	–	–	–	7.9	11.0
Other	0.4	0.9	0.6	0.6	2.3
Total revenues	14.1	19.0	20.0	19.8	17.3
Total outlays	9.5	13.1	16.3	17.8	14.9
Closing account	4.6	5.9	3.7	2.0	2.4

Source: Ministry of Labour documents

In 1992, even though the amount employers were mandated to pay was increased to 5 percent and employee contributions were pushed up to 1 percent as of January 1, the government was forced to play a steadily increasing role in financing it because of the rapid rise in unemployment. For

that reason, starting in early 1993, contribution was further raised, to 7 percent for employers and to 2 percent for employees.

The surplus of revenues and the first wave of persons exhausting their benefits allowed the fund to break even at the end of 1993. That made it possible to bring down the employee contribution to 1.5 percent as of 1 January, 1994. For employers, the contribution was pushed up to 7.2 percent for the first three months of the year, and then, as of 1 April, it was reduced to 5 percent. This was a precondition made by employers at a meeting of the Conciliation Council (made up of representatives of the government, employers, and employees) on 28 January, 1994 for accepting a government proposal on the 1993 surplus in the Solidarity Fund. That surplus was the result of a sizeable government fund transfer (of the same amount they paid into the fund two years earlier). The proposal involved transferring HUF 7.9 billion to the Employment Fund and moving another HUF 2.1 billion into a fund for the non-insurance type Unemployment Assistance (which was thus not covered by the Solidarity Fund). From then until 1 February, 1998 the employers contribution was left unchanged. Then it was reduced to 4.2 percent, followed by a cut to 4 percent in the latter half of the year, and to 3 percent as of 1 January, 1999.

To determine the actual amount that the central budget contributed to the Solidarity Fund's 1991–1995 expenditure, the first step is to subtract HUF 1.5 billion from the overall payment of HUF 51.5 billion. That is the amount the public sector was required to pay as an employer. Then, we need to subtract the funds regrouped to cover expenses which the central budget was legally required to meet. That includes transfers from the Solidarity Fund to the Employment Fund, and funds moved to partly cover the 50 percent of Unemployed Assistance the central budget was mandated to pay. That comes to HUF 21 billion in all. So, in the five-year average, the government contributed HUF 29 billion, or barely 10 percent to unemployment insurance benefits. If we also subtract the roughly HUF 10 billion that was used to support first-time job seekers, since it was not an insurance-type benefit, the contribution of the central budget goes down to 6.5 percent.

There were significant surplus revenues in the Solidarity Fund (initially because of subsidies, later because of contributions kept high despite the large outflows from insured benefit entitlement), while the Employment Fund had very limited and uncertain revenues (because of a large deficit in the state budget). The contradiction led to the merging of the Solidarity Fund and the Employment Fund (as well as other funds: the Wage Guarantee Fund, the Rehabilitation Fund, and the Vocational Training Fund) on 1 January, 1996. As a result, three-quarters of the funding for Unemployed Assistance could be covered by employer and employee contribu-

tions. The resulting fund, called the Labour Market Fund, was a separated fund of the national budget managed by the Treasury, which included solidarity, job creation, and income support components. (The tax credit, allowing employees to deduct their contribution from their personal income tax, was phased out at the same time.) Unemployment insurance benefits are covered by the solidarity component of the fund. However, the contributions are not paid directly into this component but into the Labour Market Fund's general budget and the services to which payers are entitled have never been made clear.

Table 2.5 contains information on inputs to manage unemployment from 1991 to 2000, by major expenditure categories. The various expenditure items have been divided into active tools and passive support as they were actually used, irrespective of the fund which financed them. (The two do not necessarily coincide: for instance, early retirement is not an active tool even though it was covered by the Employment Fund.)

Clearly, few resources were used for active labour market policies in the first six years. Three-quarters of the total labour market budget was devoted to keeping the unemployed away from the labour market. Then, from 1996 to 1997, expenditure on active policies was increased by over 60 percent and its 16.7 percent share of the labour market budget went up to 22.4 percent. On the one hand, active policies took over the role of certain passive forms of support (for instance, the Career Beginners Assistance was replaced by a programme helping them to find jobs). On the other hand, new active policies (assistance to the self-employed, subsidies for job-related contribution payments, etc.) and centrally administered programmes (special assistance to the long-term unemployed, programmes promoting the rehabilitation of unemployed persons with disabilities, job retention support to businesses hard-hit by the introduction of the healthcare contribution) were introduced.

By 1993, the labour market budget was nearly 3 percent of the GDP (the amount generally spent by a middle income market economy) due to the initial sudden jump in unemployment and to extensive benefits, but since then it has steadily declined. One reason for the drop is that entitlement conditions for insurance benefits have been tightened, while the benefit system shifted towards means-tested forms of assistance, which are far less generous than insurance benefits. (For instance, from 1993 to 1995, funding for Unemployment Insurance Benefit dropped from HUF 68 billion to HUF 35 billion, while expenditure on Unemployment Assistance grew from HUF 5 billion to HUF 25 billion.) At the same time, following a fallback in 1994 and 1995, the absolute value of expenses has risen steadily.

TABLE 2.5: COSTS OF MANAGING UNEMPLOYMENT (BILLION HUF)

Outlays	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000[f]
Unemployment benefits										
UI benefit + social security + healthcare contribution[a]	n.a.	62.6	68.3	42.4	34.9	37.4	40.5	46.8	52.5	55.2
Career beginners assistance + social security[b]	n.a.	..	2.2	3.2	3.7	2.7	–	–	–	–
Retraining allowance + social security[c]	n.a.	1.3	2.8	3.3	3.0	1.9	–	–	–	–
Pre-retirement unemployment assistance + social security + healthcare contrib.	–	–	–	–	–	–	–	0.1	0.6	1.3
Social security on severance pay	n.a.	0.7	1.2	1.0	0.8	0.9	0.8	0.2	–	–
Other[d]	n.a.	0.1	0.1	0.1	0.3	0.5	0.5	0.6	0.6	0.6
A. Total	20.0	64.7	74.6	50.0	42.7	43.4	41.8	47.7	53.7	57.1
B. Pre-pensions	n.a.	0.7	2.8	5.7	9.3	10.0	14.0	16.4	10.6	4.6
C. Early retirement	0.4	0.9	1.0	0.8	1.3	0.7	0.7	0.2	0.1	–
D. Public employment service	2.3	4.3	5.3	6.4	7.1	7.1	11.0	11.6	12.7	12.8
E. Active labour market programmes	7.3	12.2	15.3	17.0	13.6	16.1	26.6	28.7	31.4	34.2
Labour market budget (A+B+C+D+E=F)	30.0	82.8	99.0	79.9	74.0	77.3	94.1	104.6	108.5	108.7
G. Unemployment Assistance[e]	–	–	5.4	13.3	16.9	19.2	24.8	28.1	29.9	25.2
Total Outlays (F+G=H)	30.0	82.8	104.4	93.2	90.9	96.5	118.9	132.7	138.4	133.9
Proportion of H in GDP (percent)	1.20	2.81	2.94	2.14	1.65	1.41	1.42	1.31	1.21	1.02
Total outlays (=100) by main provisions										
Total benefit payments (A+B+C+G)	68.0	80.1	80.3	74.9	77.2	75.9	68.4	69.6	68.1	64.9
Public employment service (D)	7.7	5.2	5.1	6.9	7.8	7.4	9.2	8.7	9.2	9.6
Active labour market programmes (E)	24.3	14.7	14.6	18.2	15.0	16.7	22.4	21.7	22.7	25.5

a The per capita amount of the healthcare contribution introduced on 1 January 1 1997 was HUF 1,800, and was raised to 2,100 in 1998, to 3,600 in 1999, and to 3,900 in 2000.

b Included in the total of unemployed insurance benefits in 1991–1992; this support was terminated on 1 July, 1996.

c One part of the income support provided to participants in labour market training, up to the amount of the insurance benefit, was covered by the Solidarity Fund until 1996. Since January 1, 1997 it has to be covered (together with the healthcare contribution) by the decentralised part of the employment component of the Labour Market Fund.

d Includes reimbursement of travel costs to unemployed persons attending mandatory interviews.

e Includes both local government and central budget support. In 1993, this amounted to 29.5 percent of local government welfare expenditure, going up to 43.2 percent in 1994, and to 49 percent in 1995. Originally, local governments covered 50 percent from normative welfare assistance received from the central budget and could request repayment for the other 50 percent from the central budget. Then, when the labour market budget showed a surplus, the ratio covered by this fund increased. In 1994 HUF 2.1 billion was subtracted from the Solidarity Fund for this purpose, and in 1996 the Labour Market Fund covered the entire 50 percent for which the central budget was responsible (HUF 9.6 billion). As of 1997, the Labour Market Fund covered 75 percent of the Unemployment Assistance (including healthcare contributions), amounting to HUF 18.6 billion in 1997, 21.1 billion in 1998, and 22.4 billion in 1999, with the local governments covering only 25 percent.

f Data from 2000 cannot be fully compared with earlier numbers because of changes in the benefit system. Passive forms of assistance do not include the HUF 3.8 billion transferred to the Labour Market Fund to support public works organised

by local governments which were made responsible for assisting persons exhausting their benefits. Neither does it include HUF 1.8 billion transferred to fund Social Assistance for unemployed persons of economically active age, nor HUF 1.2 billion also handed over to local governments to manage the extended administrative workload. The expenditure on Active labour market policies do not include HUF 2.6 billion transferred by the Labour Market Fund and the Ministry of Economic Affairs, earmarked for active policies, and used to support job creation and retention.

Sources: Documents issued by the Ministry of Labour, Ministry of Social and Family Affairs, and Ministry of Economic Affairs

One factor in this is that there has been a moderate increase in the Unemployment Insurance Benefit since 1997, but the primary difference is that the benefit floors and ceilings have been pegged to inflation. The Labour Market Fund also incurred significant extra expenses as social insurance contributions grew, particularly after the healthcare contribution was introduced. Another cost was the steady rise in people applying for pre-pensions up until 1998. Applications were accepted until the end of 1997. In addition, until the end of 1997, the fund had to cope with the expenses of social insurance contribution payments for persons already registered as unemployed, but not receiving benefits for the period covered by severance pay. Factors that kept down the increase in expenditure included a ban on accepting new applications for early retirement from 1 July, 1995, and the new pre-retirement unemployment assistance introduced on 1 January 1998 requires much smaller, though increasing, funds.

Expenditure on passive forms of assistance reflects the chronology of events: the explosive increase in the number of claimants in the early 1990s, the halving of the duration of entitlement, the drop in the replacement rate, the tightening of entitlement conditions for Unemployment Assistance, the introduction of the healthcare contribution, and most recently, the decline in the inflow to unemployment. The combination of these factors increased the proportion of expenditure on passive forms of assistance to 80 percent of the total labour-market budget in 1992 and 1993, and then allowed it to drop to 68 percent by 1999, where it had been at the start of the decade.

In 2000, significant changes in the unemployment benefit system and in active policies were introduced, affecting 300,000–350,000 unemployed people and significantly changing the structure of expenditure. The new Regular Social Assistance to unemployed persons of economically active age, new public works schemes and other new unemployment related functions administered by local governments were all partially financed from the Labour Market Fund.

With these changes and the termination of Unemployment Assistance and pre-pension payments, the labour market budget shrank to 1 percent

of the GDP in 2000, and the income support component dropped to 65 percent of total expenditure.

However, the Labour Market Fund transferred nearly HUF 7 billion to the local governments to manage the additional tasks they have been charged with, and this amount was not included as a labour market budgetary expenditure. Other funds, transferred from the Labour Market Fund to the Ministry of Economic Affairs to create and maintain jobs as part of an active employment programme were also excluded. Meanwhile, the Ministry of Social and Family Affairs maintains a fund to support public works, which is also outside the Labour Market Fund. As of 2000, these gaps and inconsistencies in accounting, which reflect the institutional disintegration of employment policy, may render it impossible to assess and account for all the funds devoted to unemployment related policies.

3. TARGETING INCOME SUPPORT FOR THE UNEMPLOYED

3.1 The Number and Characteristics of Benefit Recipients

György Lázár

Unemployment first appeared in Hungary in the latter half of the 1980s, but affected only a few thousand people until the very end of the decade. Prior to 1989, people losing their jobs could count on a six month "prolonged period of notice" paid by their employer and another six months of publicly financed "re-employment allowance". Genuine unemployment benefits, were not introduced until 1 January 1989. Entitlement conditions and amounts are discussed in Section 2.1.

Table 3.1 covers the years between 1990 and 2001 and shows the annual average number of persons receiving the various types of support, and their proportions within the registered unemployed.

Table 3.1: Unemployment Benefit Recipients, and Their Proportions Among the Registered Unemployed

	UI benefit, CB assistance and pre-retirement unemployment assistance[a]		Unemployment assistance and regular social assistance[b]		No benefit		Registered unemployed	
	thousands	percent	thousands	percent	thousands	percent	thousands	percent
1990	30.3	63.5	–	–	17.4	36.5	47.7	100.0
1991	174.6	76.8	–	–	52.7	23.2	227.3	100.0
1992	412.9	74.1	18.4	3.3	125.7	22.6	557.0	100.0
1993	404.8	60.3	89.3	13.3	177.6	26.4	671.7	100.0
1994	228.9	40.3	190.3	33.5	149.3	26.3	568.4	100.0
1995	184.8	36.0	210.0	41.4	114.9	22.6	507.7	100.0
1996	171.7	34.3	211.3	42.2	117.6	23.5	500.6	100.0
1997	141.7	30.1	201.1	42.8	127.3	27.1	470.1	100.0
1998	130.7	30.9	182.1	43.0	110.3	26.1	423.1	100.0
1999	140.7	34.4	148.6	36.3	120.2	29.4	409.5	100.0
2000	131.7	33.7	153.5	39.4	105.3	27.0	390.5	100.0
2001[c]	119.7	31.7	139.7	36.9	118.6	31.4	378.0	100.0

a Numbers include those on Career Beginners Assistance in 1993–1997, and those on pre-retirement unemployment assistance after 1998.

b Up to 1993, number of recipients of a similar, means-tested allowance. Data do not include recipients of Regular Social Assistance prior to 2000.

c Data for 2001 refer to average numbers for the first eight months of the year.

In the beginning, over three-quarters of all registered unemployed received insurance benefits. From 1991 to 1997, this proportion dropped from 76.8 percent to 30.1 percent, then went up slightly and temporarily, and in 2000 and 2001, took another downward turn. The main reason behind the enormous drop between 1992 and 1994 was a reduction in the duration of entitlement, and the resulting exhaustion of benefits.

Following 1992, there was a rapid rise in the number of persons receiving Unemployment Assistance as well as in the proportion of this group within the total number of registered unemployed. The number was highest in 1996, and the proportion was highest in 1998 (211,000 persons, and 43 percent), since many people exhausting the Unemployment Insurance Benefit qualified for the Unemployment Assistance. Later, when the duration of entitlement was limited to two years, the number of people getting this type of assistance began a slow decline. As of May 2000, the Unemployment Assistance was replaced with the Regular Social Assistance for unemployed persons of economically active age, and new applications for the Unemployment Assistance were no longer accepted. As a result, by the end of May 2001 numbers on RSA exceeded those on Unemployment Assistance.

Despite frequent changes in the system, each year about three-quarters of the registered unemployed received some form of support between 1992 and 1998. The first time during the decade that the proportion of recipients dropped below 70 percent was in the first eight months of 2001, primarily because the fast decrease in the number of Unemployment Assistance recipients was not offset by the slower increase in the numbers receiving social assistance.

When evaluating the number and proportion of non-recipients, one should remember that the statistics cover all persons who have not yet qualified or no longer receive assistance. This includes persons waiting for their benefit claims to be evaluated, and people who have exhausted their benefits and are not entitled to social assistance but continue to cooperate with the employment service in the hope of a job offer or participation in an active labour market programme. Registered first-time job seekers are also included, though they are not entitled to any form of income support since 1 July 1996, and there are also people obliged to wait for some time for benefit payments to start, because they received severance pay at the termination of their last job.

Both stock and flow data are important when looking at benefit recipients. The inflow and outflow of unemployment insurance benefit recipients are the easiest to observe. These benefits are paid by the public employment service, while the Unemployment Assistance and the Regular Social Assistance are administered by local governments. In addition, in-

surance benefit accounts include the exact dates of inflows and outflows, and the reason for the termination of insurance benefit payments.

Table 3.2 contains inflow and outflow data for Unemployment Insurance Benefit recipients.[33] The decline in inflows is principally caused by labour market conditions, while lower outflows reflect a drop in the number of insurance benefit recipients.

TABLE 3.2: AVERAGE MONTHLY INFLOWS AND OUTFLOWS (THOUSANDS)

Annual flows	1995	1996	1997	1998	1999	2000
Inflows	31.5	29.1	27.1	27.3	27.4	24.8
Outflows	30.9	34.1	27.3	26.9	26.7	27.1
Of which:						
– found a job[1]	8.6	8.2	7.3	7.1	6.9	7.6
– exhausted benefit	15.8	18.6	14.8	17.3	18.0	17.5
Outflow rate[2] percent	14.3	17.0	16.2	17.0	15.9	17.3

a Includes persons in various forms of subsidised employment.
b Monthly mean outflow as a percentage of the average number of persons receiving benefit.

The roughly 17 percent monthly outflow (calculated by dividing the number of persons leaving the register during the month by the total number of insurance benefit recipients in the given month) is not particularly low. But, as the table shows, fewer than one-third of these people find jobs. The majority (55–65 percent) exhaust their benefits, and are unemployed when they leave the system. Most of the others only leave the register temporarily for short-term employment (casual or seasonal work, public works, etc.) after which they return to the register (and are back among the unemployed). Thus, the proportion of insurance benefit recipients who permanently leave unemployment by taking non-subsidised jobs, is in fact quite low.

In addition to studying stock and flow data on recipients of various forms of assistance, it is also worth comparing the composition of these groups (i.e. those receiving Unemployment Insurance Benefit, Unemployment Assistance, or Regular Social Assistance) across groups and compared to the pool of the registered unemployed. The statistical appendix to this volume presents data on gender, age, and education, for three years (1995, 1998, and 2001), of which we shall concentrate on the most recent. When interpreting the data, one must remember that, since about 70 percent of all registered persons receive some form of assistance, the composition of the two groups of recipients dominates the overall composition of the unemployed pool.

33 Detailed inflow and outflow data are available in annual publications of the National Centre for Labour Research and Methodology (OMKMK) (now the Employment Office), see *Demkó (2001).*

Unemployment Insurance Benefit recipients (this time excluding pre-retirement unemployment assistance recipients) are somewhat younger than the recipients of the Unemployment Assistance or the Regular Social Assistance (60.2 percent of the former are less than 40, as opposed to 53.6 percent of the latter). The proportion of males among them is also somewhat lower (52 percent as against 55.2 percent), and they are better qualified. (Only 29.7 percent of them have completed or incomplete elementary qualifications as opposed to 55.5 percent of those receiving means-tested assistance. 57.4 percent of them completed some vocational secondary school as opposed to 38.3 percent in the other groups, and 12.9 percent attended general secondary school, college or university, against 6.3 percent in the other groups.)

Males outnumber females in all the different age groups of Unemployment Assistance recipients (less so in the group of those aged 25–34), while females make up the majority in all age groups between 35 and 54 among insurance benefit recipients. Over the age of 55, due to the higher male retirement age, males make up 74–75 percent of all recipients (or 78.9 percent of all persons registered).

First-time job seekers may account for the fact that the proportion of those under 25 (17 percent) is much higher among non-recipients, than either among insurance benefit recipients (13.9 percent) or means-tested assistance recipients (8.4 percent).

As far as education and gender are concerned, females make up the majority of general secondary school and college graduates in all three groups of recipients (72–76 percent and 52–58 percent respectively). The proportion of males is higher among those who attended vocational secondary schools (63–64 percent) and, to a lesser degree, among college and university graduates as well (52–55 percent). Among people with complete or incomplete primary education, males make up the majority of the registered unemployed and of the recipients of means-tested assistance (58.3 and 55.2 percent) while females are over-represented (51 percent) among insurance benefit recipients.

It is disconcerting that young people make up a high proportion of recipients of means-tested forms of assistance, most of whom have been unemployed for at least two or three years. Nearly 70 percent (95,300 persons) are below the age of 45, and nearly 40 percent (53,600 persons) are below 35 (with over 28 years to go before reaching retirement age). This calls for more effective measures in assisting the long-term unemployed and most importantly, in preventing long-term unemployment.

3.2 The Generosity and Targeting of Unemployment Benefits

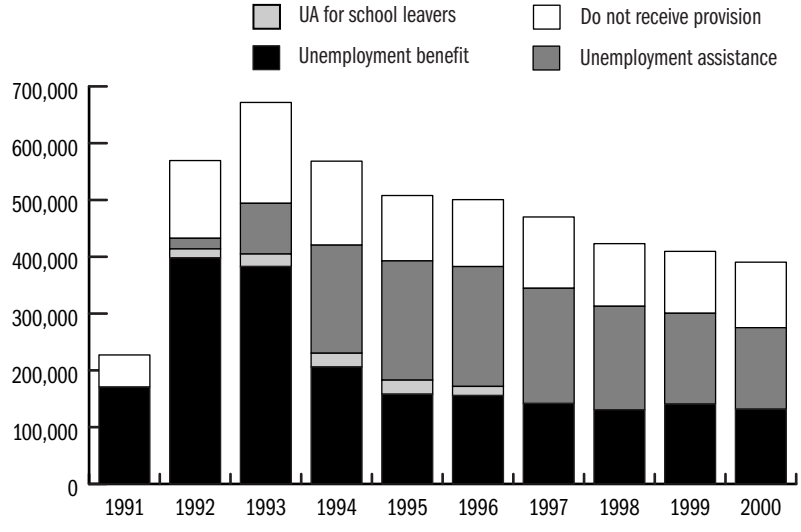
Gyula Nagy

This section seeks answers to three questions. 1. What is the probability of receiving unemployment benefit for an unemployed person actively seeking work? 2. To what extent does unemployment benefit replace wages for a person who formerly had a job? 3. What proportion of benefit recipients actively seek work? The first two questions explore the generosity of the unemployment benefit system, while the third concerns targeting, i.e., whether benefits reach those who are genuinely looking for work.

Chances of receiving benefit

Figure 3.1 summarises the evolution of registered unemployment, and average numbers on various benefit schemes between 1991 and 2000, using data from the unemployment register of the Employment Office (formerly the National Centre for Labour Research and Methodology).

Figure 3.1: Registered Unemployment 1991–2000, by Benefit Scheme, Annual Average Numbers



Source: Employment Office.

In 1991, the number of registered unemployed persons receiving benefits was well under 200,000. By 1993, it had risen to nearly 500,000, and by 2000 it was below 300,000. There was a simultaneous and significant regrouping between the Unemployment Insurance Benefit and the Unemployment Assistance (and from 2000, the Regular Social Assistance). Ini-

tially, most recipients (in 1991 all of them, since this was the only form of assistance) received insurance benefits. This was followed by a gradual increase in the numbers on Unemployment Assistance, so that by 1995, their group was larger than the group of insurance benefit recipients. In the meantime, the proportion of the registered unemployed receiving some form of assistance remained more or less the same at three-quarters (73–77 percent), throughout the decade.

The probability of receiving unemployment benefits is clearly lower than that, since, registration being a pre-requisite to receiving assistance, those entitled to assistance are more likely to register than those who do not meet entitlement conditions. Therefore, when determining chances of benefit receipt, it is better to use data on benefit receipt by those unemployed under the ILO definition, rather than on registration records. These are presented in Table 3.3.

TABLE 3.3: BENEFIT RECEIPT BY THE ILO UNEMPLOYED (PERCENT)

	1992	1993	1994	1995	1996	1997	1998	1999	2000
UI benefit	61.9	53.9	36.0	26.7	23.8	25.2	22.4	22.2	17.2
CB assistance		3.0	3.0	2.8	2.0				
Unemployment Assistance		6.5	16.0	21.4	21.9	22.7	22.8	20.9	16.5
Some form of assistance	61.9	63.4	55.0	50.9	47.7	47.9	45.2	43.1	33.7

Source: Central Statistical Office Labour Force Surveys

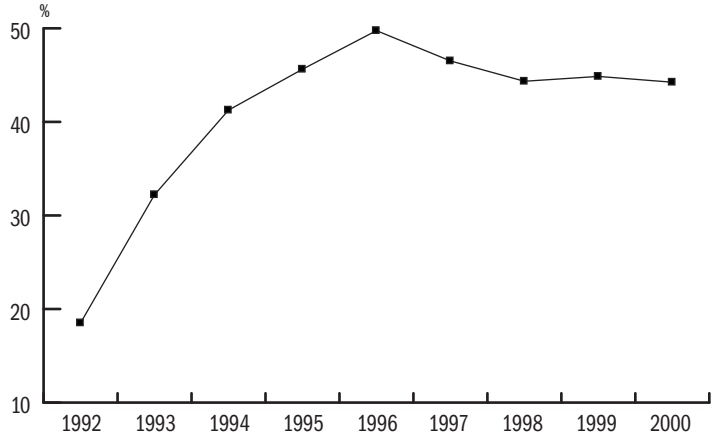
The last row in the table shows that while in 1992 and 1993, nearly two-thirds of unemployed persons received assistance, barely one-third did so in 2000. The number of insurance benefit recipients dropped sharply between 1992 and 1995, from 61.9 percent to 26.7 percent, then continued to decline to 17.2 percent by the end of the decade. From 1993 on, assistance increasingly took the form of Unemployment Assistance, and in the second half of the decade, nearly as many people received Unemployment Assistance as insurance benefits.

The declining proportion of recipients among the unemployed since the early 1990s, and the decline in the proportion of recipients getting the more favourable Unemployment Insurance Benefit are obviously related to successive measures aimed at tightening the conditions of entitlement. As shown in Section 2.1, a person losing a job in 2000 was entitled to insurance benefits for less than half the time of a person losing a job in the early 1990s. The introduction of the Unemployment Assistance in 1992 to assist people who had exhausted their insurance benefits did not fully offset the tightening of insurance benefit entitlement rules, since the Unemployment Assistance was made conditional on a very low level of income.

Not only have rules changed, so has the composition of the unemployed.

As Figure 3.2 shows, in the early 1990s there was a rapid increase in the proportion of people who had been unemployed for more than a year. The growing proportion of the long-term unemployed would result in a rising proportion of people exhausting their benefits, and thus a decline in the proportion of people receiving insurance benefits, without any change in entitlement rules. However, the increase in long-term unemployment came to a halt in 1996, and thus cannot explain the later decline in the number of insurance benefit recipients.

FIGURE 3.2: PROPORTION OF PERSONS UNEMPLOYED FOR MORE THAN A YEAR

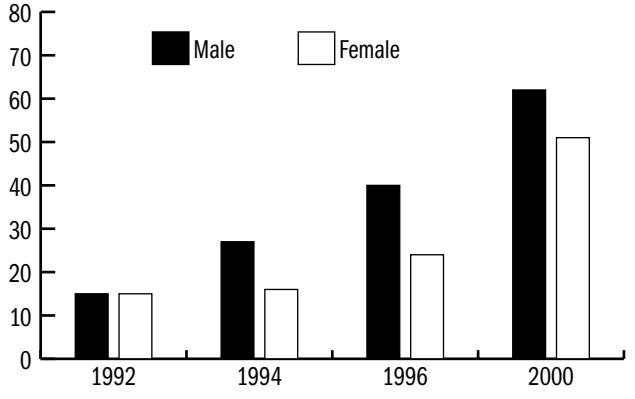


Source: Central Statistical Office Labour Force Surveys.

At the same time, most of the people who lost their jobs in the early 1990s had a continuous employment record, since there had been no mass unemployment in Hungary in the preceding decades. However, with time, a growing number of people experienced work loss and became entitled to insurance benefits. As shown in Figure 3.3, the number of people who had received insurance benefits at one time and then re-applied at a later date increased at a steadily accelerating rate between 1992 and 2000, and by 2000 they made up over 50 percent of all applicants.

Based on a multivariate analysis of the probability of benefit receipt, *Nagy* (2000) concludes that the drop in the proportion of benefit recipients in the 1990s was principally due to tighter rules and the worsening employment records of claimants (longer periods spent out of work), and not so much to the rise in the duration of unemployment or to changes in the personal or household characteristics of the unemployed (age, education, residence, composition of household, number of children, etc.).

FIGURE 3.3: BENEFIT RECIPIENTS RE-ENTERING THE REGISTER, AS A PROPORTION OF ALL NEW RECIPIENTS



Note: Ratios were calculated using data on benefits awarded in the spring (March-May) of the given year.
Source: Unemployment Insurance Register,

The benefit-wage ratio

Table 3.4 shows trends in amounts paid in the Unemployment Insurance Benefit (UI) and the Unemployment Assistance (UA) schemes using data for March or April in each year, using a sample of registered unemployed people in the two schemes.[34]

34 The samples contain several tens of thousands of people each and include at least 10 percent of the registered unemployed people receiving these forms of assistance.

TABLE 3.4: UI AND UA BENEFIT AMOUNTS COMPARED TO THE AVERAGE WAGES AND MINIMUM WAGES, 1992–2000

	1992	1993	1994	1995	1996	1997	1998	1999	2000
Average monthly UI benefit, forints[a]	8,583	9,472	10,798	12,222	13,213	14,340	17,278	20,258	22,892
Annual average of gross monthly earnings, employed population, forints	22,290	27,170	33,940	38,900	46,840	57,270	67,760	70,540	87,650
Monthly minimum wage, forints	8,000	8,917	10,375	12,058	14,500	17,500	19,500	22,500	25,500
Average benefit/average wage, %	38.5	34.9	31.8	31.4	28.2	25	25.5	28.7	26.1
Average benefit/minimum wage, %	107.3	106.2	104.1	101.4	91.1	81.9	88.6	90.0	89.8
Monthly UA benefit, forint[b]	4,000	5,120	5,893	6,720	7,680	9,200	10,960	12,280	13,280
UA benefit/average wage, percent	17.9	18.8	17.4	17.3	16.4	16.1	16.2	17.4	15.2
UA benefit/minimum wage, percent	50.0	57.4	56.8	55.7	53.0	52.6	56.2	54.6	52.1

a Persons receiving unemployment benefits in March or April, according to the Unemployment Register,
b A time-proportional weighted average, where the flat rate of UA changed during the year.
Source: Central Statistical Office and Unemployment Benefit Register,

Since 1992, UI benefits have clearly lost a great deal of their value, compared to both the average and the minimum wage. In 1992, the average benefit was nearly 40 percent, while after 1997 it has been less than 30

percent of the average wage. Compared to the minimum wage, the value of benefits dropped from 107 percent in 1992 to 90 percent by the end of the decade. Meanwhile, the value of the Unemployment Assistance, which has always been significantly lower than the average insurance benefit, has hardly declined in comparison to the average wage, and has even increased somewhat compared to the minimum wage. This relative stability is because the amount was pegged to the minimum pension (80 percent), which is regularly adjusted to follow inflation.

However, a comparison with the average wage may be misleading for the measurement of the replacement rate in the benefit system. Most unemployed people had worked in poorly paid occupations. (In 1994, for example, as demonstrated by *Köllő and Nagy (1995),* insurance benefit recipients had earned only 60 percent of the average employee wage.) It is better to look at the proportion of benefits compared to actual previous wages, as shown in Table 3.5, based on the same samples from the register used in Table 3.4. As previous wages, used by the public employment service in calculating the amount of benefit, come from different periods depending on the date of job loss, we have indexed the wage of each unemployed person to the average wage increase occurring between job loss and the date of sampling and used these indexed wages to calculate the benefit-wage ratio. The benefit-wage ratio thus calculated shows how benefits relate to the wages that the unemployed person would have received had he not lost his job, assuming that his wage followed average wage increases.[35]

TABLE 3.5: AVERAGE BENEFIT-WAGE RATIOS, USING INDEXED WAGES (PERCENT)

	1992	1993	1994	1995	1996	1997	1998	1999	2000
Men	68.5	56.0	50.7	53.5	44.8	46.3	49.4	49.4	49.4
Women	77.9	63.6	56.3	57.4	48.3	48.2	51.3	51.3	51.3
Both sexes together	72.3	59.1	53.0	53.5	46.4	47.1	50.2	50.2	50.2

Source: Unemployment Benefit Register,

These replacement rates are clearly much higher than the ones in Table 3.2; for instance, in 1992, we get 72.3 percent as opposed to 38.5 percent. (It is also evident that in the early 1990s, the wage-earnings ratio was far lower for men than for women, but the difference, which was no doubt caused by the prevailing rules on benefit floors and ceilings, gradually diminished.) The table also shows that the benefit system became increasingly frugal over the decade. The 72.3 percent replacement rate of 1992 was down to about 50 percent in 1994.

The swift decline in the value of unemployment benefits in the first half of the 1990s is connected to the changes in regulations reviewed in Section

35 In the early 1990s, the rate at which wages rose in employment groups at a higher risk of job loss was somewhat below average (*Köllő–Nagy, 1995),* so the benefit-wage ratios indexed to the average wage increase are slightly underestimated.

2.1. When examining their effects, it is important to observe that new rules introduced in the benefit system always apply to new claimants only. Persons whose entitlement was determined before the new regulations, continue to receive benefits under the old rules. This means that for quite some time after new rules are introduced, benefit recipients continue to include people receiving benefit under the previous scheme, or an even earlier one.[36] This means that the effect of amendments in early 1993 and the delayed effect of the rules changes of 1992 both contributed to the drop in the benefit-wage ratio in 1992 and 1993, as in early 1992 and 1993 many people still received benefits under the 1991 or 1992 regulations respectively.

While the 1992 rule changes did not affect the nominal replacement rate, a lower benefit ceiling (twice instead of three times the minimum wage) and a change in the method of calculating the average wage on which the benefit was based, reduced the *actual* replacement rate. The rate went further down from 1993 to 1996 as the benefit floor and ceiling depreciated. The benefit floor dropped by 40 percentage points compared to the minimum wage between 1992 and 1996, while the ceiling for phase one sank by 76 percentage points and for phase two by 65 percentage points. (In 1996, the phase-two benefit ceiling was equivalent to the 1992 benefit floor, in proportion to the prevailing minimum wage.) The real depreciation of the benefit floor meant that the minimum rule granted wage replacements above the nominal replacement rate to an increasingly smaller number of claimants, while, due to the maximum rule, a growing number of people received benefits at or below the nominal benefit-wage ratio.

Table 3.6 shows the breakdown of benefit recipients according to benefit regimes between 1992 and 2000. In 1992–1993, most benefit recipients received benefits calculated according to the low-benefit regimes, which paid above the nominal benefit-wage ratio and was equal to or below the minimum benefit, and few people were affected by the ceiling. When the benefit floor was nominally frozen in 1993 the importance of the minimum rule quickly diminished, and a rising number of recipients received benefits at or below the nominal replacement rate, as they hit the ceiling.[37] As a result, the respective weights of the various benefit regimes were fully changed to the reverse by 1997, compared to the initial state at the beginning of the decade. After 1997, when the indexing of the floor and the ceiling was restored, there were no more such significant shifts in the weights.

36 For instance, in April 1993, 17 percent of UI benefit recipients were receiving benefits under the 1991 regulations, and 64 percent under the 1992 regulations. Only 19 percent of recipients had their entitlement determined according to the 1993 regulations introduced three months earlier. In April 1994, 16 percent of people were still receiving benefits under the 1992 regulations, which had been repealed a year and a quarter earlier. (Proportions were calculated using samples from the benefit records of the National Centre for Labour Research and Methodology.)

37 Even if the benefit floor remains constant in real value, the benefit-wage ratio can deteriorate if more people with comparatively higher wages become unemployed, since the minimum rule, which grants a replacement rate above the nominal benefit-wage ratio, would rarely be used in their case. In reality, however, the income loss for the unemployed continued to grow from 1992 to 1997, going from 65.1 percent to 52.7 percent.

TABLE 3.6: BENEFIT RECIPIENTS BY OF PAYMENT REGIME (PERCENT)

	1992	1993	1994	1995	1996	1997	1998	1999	2000
Below benefit minimum	23.1	17.0	6.3	2.8	2.0	1.9	1.9	2.0	2.2
By the minimum rule	43.3	41.4	37.1	24.7	15.4	12.8	12.2	11.4	7.0
Below nominal benefit-wage ratio	31.7	36.6	45.0	48.6	45.7	48.4	52.5	54.1	55.4
By the maximum rule	1.9	5.0	11.6	23.9	36.9	36.9	33.4	32.5	35.4

Source: Unemployment Benefit Register,

Targeting Benefits

As we have seen, from the mid-1990s onward, unemployment benefits granted an increasingly smaller replacement rate. In addition, the number of UI benefit recipients dropped, and an increasing number received UA, which maintained its real value but was less than UI benefits. To what extent did this serve as an incentive to the unemployed to increase their job-search efforts in order to find a job sooner?

Table 3.7 shows the proportion of job-seekers among the unemployed people receiving UI or UA benefit. Far from an increase in the proportion of job-seekers, there was in fact a marked decline: while over two-thirds searched for a job in 1992, only about half did so in 1999–2000.

TABLE 3.7: THE PROPORTION OF JOB-SEEKERS (ILO UNEMPLOYED) AMONG BENEFIT RECIPIENTS (PERCENT)

	1992	1993	1994	1995	1996	1997	1998	1999	2000
UI benefit recipients	71.7	68.8	63.8	65.1	63.2	59.2	44.5	53.8	54.5
UA recipients		52.3	56.2	55.9	53.5	50.1	45.2	47.6	45.4
UI or UA benefit recipients	71.7	66.6	61.3	60.6	58.2	54.5	44.8	50.6	49.6

Source: Central Statistical Office Labour Force Surveys,

The decline in the proportion of job seekers is partly explained by the growing proportion of UA recipients among benefit recipients, who typically have a longer unemployment record and are thus less likely to look for work. But the proportion of job seekers decreased both among UA and UI recipients. This suggests that the targeting of benefits deteriorated in the sense that while income support is provided to fewer job seekers, a growing proportion of support is going to people who are not looking for work.

3.3 Eligibility Requirements for the Unemployment Insurance Benefit

Tünde Kóródi Koltay

Beside meeting entitlement criteria, an unemployed person can only receive the Unemployment Insurance Benefit if he meets eligibility conditions as well, by cooperating with the public employment service.[38]

The first condition is to register at a local office of the public employment service (job centre). Then the claimant must attend regular interviews as required by the job centre, and must accept a suitable job offer, i.e. provided that it matches his qualifications or the qualifications required by his last job held for at least six months, that he is fit to do the job, the daily commute does not exceed three hours (two hours if there are small children in the household), and expected earnings are at least as much as the insurance benefit. In addition, the unemployed person is required to take independent steps in the job search. To monitor this, the job centre may require an agreement that the benefit recipient report to them from time to time on his job search efforts. If the person takes a job or finds temporary work, he must report it to the centre in advance (or, under the casual workers scheme, he may have it recorded in the booklet issued by the employment service). Temporary work is allowed up to a certain level of earnings, while insurance benefit payments are suspended.

The following is a review of the sanctions for non-compliance and the practices of applying sanctions.

Sanctions for non-compliance

Failure to comply with the requirements of attending regular interviews at the employment service, actively looking for work, or reporting on employment can lead to a suspension of or exclusion from benefit receipt.

The suspension of benefits is applied in minor cases of non-compliance. If the unemployed person fails to attend an interview at the employment service without good reason such as illness or, as of 2000, a change in some circumstance related to the benefits, benefit payment is suspended until recompliance. Repeated failure to cooperate leads to a benefit stop, which implies a reduction in the entitlement period.

In more severe cases, when the claimant's behaviour leads to the loss of a job opportunity, benefits payment is stopped permanently. Such cases may include the rejection of a job offer without an acceptable reason, failure to attend an interview with a prospective employer or attending in an state unsuited to work (for instance, under the influence of alcohol), behaving in such a manner that leads to a rejection by the employer, or failure to participate in training for a job provided that it matches the applicant's

38 For a detailed review of the legal regulations on assistance, see *Bánsági (2000).*

qualifications. Taking up a temporary job without reporting it to the employment service, or engaging in unauthorised (black) work also leads to exclusion.

Current practice in applying sanctions

Table 3.8 shows the number of exclusions compared to the total outflow from benefit and to the pool of benefit recipients between 1992 and 2000.

TABLE 3.8: EXCLUSIONS FROM BENEFIT, 1992–2000

Year	Monthly average outflow from unemployment benefit (persons)		Exclusions[a]/ total outflow (percent)	Average number of benefit recipients[b] (persons)	Exclusions/number of recipients (percent)
	total	exclusions			
1992	31,548	1,084	3.44	444,827	0.24
1993	48,353	929	1.92	371,188	0.25
1994	40,420	591	1.46	219,433	0.27
1995	29,873	472	1.58	227,767	0.21
1996	33,104	311	0.94	168,536	0.18
1997	26,747	236	0.88	169,034	0.14
1998	26,344	267	1.01	157,599	0.17
1999	28,393	305	1.07	167,394	0.18
2000	26,607	354	1.33	158,777	0.22

a Excluded from benefit by the employment service due to failure to cooperate.
b "All recipients": all persons receiving benefits and the Career Beginners Assistance, who received assistance for at least one day during the period.
Source: Employment Office.

In 1992, exclusions made up 3 percent of the total outflow, but by 1996 this proportion dropped to 1 percent, and has remained essentially unchanged since. However, the proportion of persons who were excluded compared to all benefit recipients did not decline in the first half of the 1990s, because there was a significant rise in the outflow rate (the proportion of all exits compared to all benefit recipients). On the whole, the number of persons excluded from benefits is low (1.4–2.7 percent of all benefit recipients) either because unemployed persons give little cause for severe sanctions or because administrators were lenient.

By contrast, the suspension of benefit payments, as shown in Table 3.9 (shown by county in Table 3.10.) has been used with increasing frequency. (The suspension of benefits occurs not only for disciplinary reasons, but also in the case of those working in reported temporary jobs, receiving child care benefits, or those on compulsory military service.)

Table 3.9: Incidence of Benefit Suspensions, 1992–2000

Year	Monthly average number of suspensions (persons)	Monthly average number of suspensions due to non-compliance (persons)	Proportion of suspensions due to non-compliance (%)	Average monthly number of benefit recipients (persons)	Suspensions due to non-compliance/ average monthly number of recipients (%)
1996	23,299	458	1.97	168,536	0.27
1997	16,343	302	1.85	169,034	0.18
1998	14,689	1,462	9.95	157,599	0.93
1999	13,645	1,362	9.98	167,394	0.81
2000	13,749	2,027	14.74	158,777	1.28

Source: Employment Office,

Table 3.10: Incidence of Benefit Sanctions by County, 2000 (percent)

Counties and the capital	Exclusions/total outflow	Exclusions/average number of recipients	Suspensions due to non-compliance/average number of recipients
Budapest	1.69	0.26	1.0
Baranya	1.31	0.23	0.5
Bács-Kiskun	0.76	0.12	0.9
Békés	0.88	0.16	1.0
Borsod-Abaúj-Zemplén	0.29	0.05	0.7
Csongrád	0.22	0.03	1.6
Fejér	2.48	0.41	1.1
Győr-Moson-Sopron	1.27	0.21	1.5
Hajdú-Bihar	0.82	0.14	2.6
Heves	0.67	0.11	0.7
Jász-Nagykun-Szolnok	1.25	0.22	0.9
Komárom-Esztergom	0.74	0.13	1.3
Nógrád	0.73	0.13	1.1
Pest	3.61	0.54	1.1
Somogy	2.31	0.42	0.8
Szabolcs-Szatmár-Bereg	1.58	0.32	2.3
Tolna	0.52	0.09	0.6
Vas	2.73	0.46	1.7
Veszprém	1.40	0.24	1.0
Zala	0.87	0.14	1.0
National average	1.33	0.22	1.2

Source: Employment Office,

One reason for the increase in benefit suspensions may be an increase in non-compliance, either because claimants are not properly informed, or because their composition has changed. Another possible reason is that as the demand for labour picks up, there are more job offers and non-compliance can be treated more severely.

Variation across counties is significant with respect to both sanction types. It is hard to explain these differences with local labour market conditions, as there is no clear correlation between the incidence of sanctions and labour market conditions. Differences in procedural practices are likely to have a significant influence.

Monitoring and Sanctioning in Vas County

There are seven local labour offices in Vas County. Tasks are divided up among two groups: client services, and job exchange services. Within their division of labour, all staff play some role in monitoring compliance with behavioural requirements of eligibility. On their regular visits to sign on at the labour office, job seekers meet the client services staff, and when jobs are offered, staff at the job exchange services make appointments for interviews at the labour office or with the prospective employer. All the labour offices apply sanctions set forth in the law in cases of unjustified failure to sign on at the requested date, but they tend to be lenient if the person is only a day or two late.

Availability to work is monitored by requiring the unemployed person to report all illnesses rendering them unable to work. Being ill does not influence their entitlement to benefits, but failure to report it is sanctioned. The employment law does not specify any measures regarding other obstacles to taking up work (for instance, family reasons). Despite this, on each visit, staff inquire about all circumstances that might prevent a claimant from working, and record them in the computer system. This information is of special significance for staff on the job exchange service. Usually, clients only report factors that would prevent them from working if they occur around the time they would be required to visit the labour office, or if they receive a job offer. In the latter case, the "delayed" reporting (in fact a failure to report) of the obstacle generally thwarts the placement. Despite this, in most cases the labour office does not apply sanctions when this happens.

The Employment Law includes the requirement of active job search, but does not specify the means of monitoring compliance. Labour office staff ask claimants about job search efforts at regular interviews but only require proof of such efforts if they present travel invoices for reimbursement.

Though an administrator may suspect that a client does not want to work, suggestive behaviour cannot lead to sanctions. Job exchange services provide an opportunity to directly investigate the intent to work. Labour

offices tend to brief about opportunities those clients who want to find a job, and before sending them to an employer the offices call in claimants for personal consultation. In the process of choosing a claimant for a prospective job, and until the actual document containing the appointment is printed, staff are able to investigate circumstances not described in the law when defining a suitable job. In a typical case, they examine family obligations. Where there are small children, they compare the working hours for the job with the opening hours of the local day-care centre, and also with the working hours of the spouse, although neither are specified by the law. Looking after a sick family member is another family obligation (in principle, a nursing fee would be due in such cases, but local governments tend to delay payment until unemployment insurance benefits are exhausted). Practices vary by labour office regarding the issues for which they demand written proof. When a claimant refers to family obligations as a reason for not wanting to take a job, staff usually try to take this into consideration, but they cannot guarantee that such a person will be exempted from sanctions. If they manage to find a suitable job, they expect the claimant to take it or be sanctioned.

Labour market programmes also offer opportunities to investigate intent to work. Participation in these programmes is voluntary, but willingness to take part can reflect the intentions of the unemployed person. No centre in Vas County mandates unemployed persons to attend job-training sessions, although in some cases the rules make this possible. The staff believe that the unemployed people must be sufficiently motivated to request this assistance, otherwise they would probably drop out of the programme.

People who are seasonally unemployed and people who are close to retirement are considered a special group for the job exchange services. In the case of seasonal unemployment, if the former employer gives a written statement of intent to rehire the worker, and with the agreement of the worker, the labour office may abstain from offering other jobs. For claimants who intend to retire once their entitlement to unemployment insurance benefit expires, the labour office will again comply with the unemployed person's wishes. Although, they do provide them with information on job opportunities, they do not send them to investigate jobs unless the client specifically requests it.

All unemployed persons citing health problems are sent for medical check-ups to determine whether their ability to work is impaired, or whether there are specific factors that would limit employment. They consider the hospital's recommendations when making job offers. If the claimant mentions the health problem upon receiving a concrete job offer, he is sent for a check-up specific to the particular job. In general terms, in the initial phases of job-search, staff are lenient and understanding, but if a suitable job is rejected, that is severely sanctioned.

The staff rarely learn of unreported work. If they know where the person is working, they call for a monitor. When this happens, they initiate a discussion with the claimant, who usually requests a suspension of benefits. If they cannot prove that the person is working, the only action they can take is to offer the unemployed person a suitable job. Several years ago, some of the staff would require people suspected of unreported work to sign up at the centre almost every day, but they are currently so overloaded with work that they are unable to do so.

Strictly interpreted, the law defines as unreported work all cases when an unemployed person finds a job and does not report it before beginning work. However, staff at the labour offices are willing to consider the fact that a job seeker is often notified by telephone of a job that begins the following day, and that working hours, or out-of-town work often render it impossible for them to immediately visit the centre. In such cases, some of the offices expect the claimant to telephone them to report the job, and then allow another week or two for the client to submit their report in writing.

3.4 The Career Beginners Assistance

György Lázár

In the early 1990s, the labour market conditions rapidly deteriorated, and many first-time job seekers were unable to find work. So, the 1991 Employment Act introduced the Career Beginners Assistance, providing a benefit for a limited duration, but not subject to means-testing, to people who

– completed secondary school (at least two years of vocational training),
– were 25 years old or younger,
– did not have an employment record (of at least one year) entitling them to unemployed insurance benefits,
– were unable to find a jobs in the three months following their registration, either independently or with the assistance of the public employment service.

Young people meeting the above conditions were entitled to six months of benefit payments starting three months after registration with the public employment service. Until 1995, the assistance amounted to 75 percent of the prevailing minimum wage, and in mid-1995 it was indexed to the minimum old age pension, and similarly to the Unemployment Assistance, was set at 80 percent of the prevailing minimum.

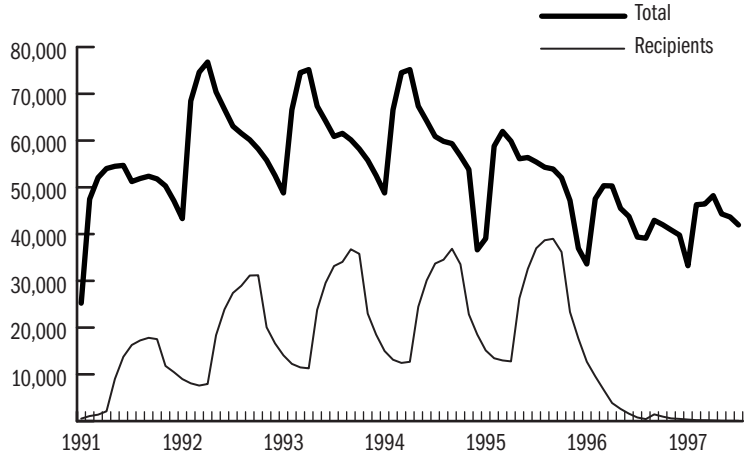
As in the case of unemployment insurance benefits, this form of assistance was suspended for the duration of compulsory military service or during the receipt of child care allowance. When the reason for the suspension no longer existed, entitlement to the assistance was resumed for the re-

maining part of the six months, with the amount of the assistance calculated according to the regulations that had been in effect at the time of the first claim.

Since poorly qualified first-time job seekers (who had the least chance of finding a job) were not entitled to assistance, very few registered with the public employment service. As a result, many of them received no help in finding a job.

As illustrated by Figure 3.4, there were marked fluctuations in the numbers of people receiving the Career Beginners Assistance. Each year, new school-leavers started to sign up in the unemployment register in June, with tens of thousands registering in July, August, and September. Benefit payments for them started three months later, because of the waiting period. After the three-month waiting period and the six-month period of assistance, most of the first-time job seekers disappeared from the records, starting in March in the following year.

FIGURE 3.4: REGISTERED CAREER BEGINNERS AND RECIPIENTS OF CB ASSISTANCE, 1991–1997



Source: Employment Office,

Between 1992 and 1995, several studies were conducted among career beginners who had exhausted their benefit entitlement (for example: *Lázár and Székely [1995]* and *]1996])*. The results suggested that many career beginners only registered to receive the assistance, but did not really want a job. Looking at career beginners who had exhausted their benefits, also revealed that a smaller proportion of people who participated in active labour market programmes actually took jobs than did the people who had not participated in these programmes. Typically, first-time job seekers were

referred to training programmes rather than to subsidised employment providing work experience. Thus, many young people used the assistance and the training programmes to prepare for college or university entry examinations. These findings contributed to the decision to phase out the Career Beginners Assistance, implemented in the middle of 1996, and to the introduction of new active programmes for first-time job seekers.

Table 3.11. summarises changes in the number of persons registered as unemployed career beginners and in the number of CB assistance recipients. To properly interpret post-1996 data, it must be made clear that not only was the Career Beginners Assistance abolished in July 1996, but the definition of a registered first-time job seeker was changed as well. From this time on, young people with low qualifications (primary or incomplete primary) were also included. However, registration is clearly affected by the fact that the abolition of the assistance removes a considerable part of the motivation to register for young people who would have been entitled to assistance prior to 1996.

TABLE 3.11: THE ANNUAL AVERAGE NUMBER OF REGISTERED CAREER BEGINNERS AND CB ASSISTANCE RECIPIENTS, 1992–2000

Year	Registered unemployed career beginners	Benefit recipient career beginners[a]
1992	39,600	14,762
1993	59,733	21,963
1994	62,141	24,113
1995	54,490	24,700
1996	46,233	16,055
1997	42,402	417
1998	32,551	66
1999	29,927	50
2000	26,023	14

a The 12 month average of the numbers receiving CB Assistance on the last day the each month.

The decline in the number of career beginners after 1994 was clearly not just the result of the abolition of financial assistance and the introduction of active labour market programmes. It was also connected to a gradual improvement in labour market conditions, since the total pool of the registered unemployed also contracted between 1993 and 2000.

3.5 Change of Labour Market Status Following the Exhaustion of UI Entitlement

György Lázár

In the early 1990s there was a steep rise in registered unemployment: already 227,000 at the end of 1991, their numbers further increased to 663,000 by the end of 1992, and peaked at 705,000 in February 1993. The number of persons receiving unemployment assistance followed a similar course, reaching half a million by the spring of 1993.

Starting in 1993, a steadily growing number of people exhausted their insurance benefits. This was partly the result of a low re-employment rate, and partly a result of the repeated cutbacks in the duration of entitlement.[39] It was expected that some of these people would disappear from the unemployment register, and their subsequent labour market status would no longer be observable through the register. So, in spring 1993, a follow-up survey was initiated to investigate the labour-market status of persons who had exhausted their benefits. One issue to be clarified was the extent to which the decline in the number of registered unemployed, which has continued since, could be explained by people leaving the register after the exhaustion of benefit entitlement, but remaining unemployed. Another goal was to learn what former benefit recipients expected of the public employment service, and to use this feedback to plan and improve its operation. The study was of particular importance at a time when benefit exhaustion affected a rapidly increasing number of people: between 1992 and 1995 a total of 772,000 people exhausted their benefits and nearly half of them left the register leaving no information on their labour market status.

The sampling stock for the follow-up surveys included persons who had exhausted their benefits during the calendar year preceding the survey, were not registered as unemployed at the time of the survey, and whose labour market status was not known by the public employment service. Some 42–45 percent of all the people exhausting their benefits met these criteria. (The surveys did not include the 55–58 percent of people who had exhausted their benefits but stayed in the register.)

A brief questionnaire was sent by mail to a random sample of this population. The response rate was 30–40 percent, which is high for a mailed questionnaire. There was no significant difference in basic characteristics (gender, level of education, and age) between respondents and the sampling population, so results may be regarded to hold for the total population.[40]

Table 3.12 summarises the results of four follow-up surveys on labour market status, conducted between 1992 and 1995. The data suggest an

39 For more information on changes in the duration of entitlement, see Section 2.1.

40 To check the reliability of data, two sets of personal interviews were subsequently conducted with people who had not responded to the questionnaire. This investigation revealed that the composition of non-respondents by labour market status differed only slightly from that of the respondents.

improvement in labour market conditions. Among people who exhausted their benefits in 1994–1995 (persons included in the 1995 and 1996 surveys), the proportion of those who found work was 17 percentage points higher, of those unemployed it was 10 percentage points lower, and of people who became inactive it was 6 percentage points lower than in the previous two surveys.

TABLE 3.12: LABOUR MARKET STATUS FOLLOWING THE EXHAUSTION OF BENEFIT ENTITLEMENT (PERCENT)

Labour market status[a]	1992	1993	1994	1995
Employed	26.9	28.0	42.0	44.0
Unemployed	40.7	35.7	28.2	29.7
Of which:				
– registered	13.1	7.7	3.8	3.4
– not registered	27.6	28.0	24.4	26.3
Inactive	32.4	36.3	29.7	26.4
Total	100.0	100.0	100.0	100.0

a At time of survey (summer following the year when benefits were exhausted).

Some 25–28 percent of the sample were not registered unemployed, but this does not imply that the same proportion of those who exhausted their benefits have left the register. If proportions are adjusted to account for persons whose labour market status was known from the register at the time of the survey (and were therefore excluded from the survey) the figure drops to 11 percent.

The investigations conducted in successive years reveal another important change. While in 1993, nearly two-thirds (65.5 percent) of all people who exhausted their benefits the preceding year stayed in the register, in 1995 and 1996 their proportion was down to 40 and 43 percent. The large majority remained registered because, besides the means test, this was a prerequisite to receiving the Unemployment Assistance. The declining proportion of persons remaining in the register is related to the fact that an increasingly small proportion of people exhausting their benefits the previous year were entitled to the Unemployment Assistance. The proportion of recipients was 58 percent in 1993, 44 percent in 1994, dropped further to 37 percent in 1995, and was 39 percent in 1996.

Table 3.13. shows labour market status by gender. After 1994, the labour market status of males improved to a greater degree than of females. In addition to the gender differences in employment ratios, differences in the gender ratios of persons who became inactive are particularly noteworthy. Even though there was a significant drop in the proportion of females who

became inactive over the four-year period, it was still significantly higher than of males in 1996.

Table 3.13: Labour Market Status Following the Exhaustion of Benefit Entitlement by Gender (percent)

Labour market status[a]	1993	1994	1995	1996
Men				
Employed	27.4	29.0	45.7	49.6
Unemployed	48.4	37.4	23.0	20.6
Inactive	24.3	33.6	23.0	20.6
Total	100.0	100.0	100.0	100.0
Women				
Employed	26.3	29.0	37.6	37.4
Unemployed	32.2	30.1	24.6	29.5
Inactive	41.5	40.9	37.8	33.1
Total	100.0	100.0	100.0	100.0

a At time of survey (summer following the year when benefits were exhausted).

Table 3.14 shows the composition of those who found a job, by gender and education level, based on the 1996 survey. It is clear that the proportion of the poorly qualified is far below that of the highly qualified among those in employment.

Table 3.14: Those Employed at the Time of the 1996 Survey, by Education and Gender (percent)

Education	Men	Women	Total
Complete or incomplete primary	41.8	28.6	35.1
Two or three year vocational secondary	53.6	41.3	49.5
Four year secondary	55.5	42.8	47.9
College or university	58.0	39.4	49.5
Total	49.6	37.4	44.0

Table 3.15. gives the age composition of those in employment at the time of the survey. It is worth noting that under age 20, re-employment is much more common among women than men. Re-employment is less likely over 40 years of age.

There were four nation-wide follow-up surveys in four consecutive years, and another one in 1998, conducted in four counties (Fejér, Pest, Tolna, and Szabolcs-Szatmár-Bereg). In 1997, a total of 176,600 people, and 39,500 in the four counties, exhausted their insurance benefits. The majority of

the people who exhausted their benefits (55.9 percent in the total population, and 53.6 percent in the four counties) remained registered unemployed. According to public employment service records 5.7 percent (4.5 percent in the four counties) of the people who exhausted their benefits were working, 3.5 percent (3.3 percent in the four counties) were participating in some active labour market programme at the time of the survey, and 2 percent (1.8 percent in the four countries) were inactive. There was no information available for 32.9 percent (36.9 percent in the four counties) of this population.

TABLE 3.15: THOSE EMPLOYED AT THE TIME OF THE 1996 SURVEY, BY AGE AND GENDER (PERCENT)

Age group	Men	Women	Total
–19	25.2	35.2	29.3
20–29	58.1	40.9	50.5
30–39	58.2	37.4	47.8
40–49	46.7	38.0	42.2
50–54	33.2	13.1	26.0
55+	16.1	0.0	16.1
Total	49.6	37.4	44.0

The proportion of those who left no information with the labour office regarding their labour market status among those who exhausted UI benefit entitlement in 1997 came to 30 percent in Tolna County, only 20.3 percent in Szabolcs-Szatmár-Bereg, 39 percent in Fejér, and 53.7 percent in Pest County. The main reason for the regional variation is that there were significant differences in the proportions of people becoming entitled to the Unemployment Assistance, primarily due to prevailing labour market conditions. The proportion of persons entitled to continued assistance was 33.3 percent in Pest County, 42.2 percent in Fejér County, 53.4 percent in Tolna, and 68.9 percent in Szabolcs-Szatmár-Bereg.

On average 60.6 percent of all respondents (together in the four counties), or 68.4 percent of the males and 52.5 percent of the females were employed at the time of the survey.

The variation in the proportion of those employed at the time of the survey across counties, shown in Table 3.16, reflect differences in labour market conditions.

The main findings of the 1998 study, compared to the results of the previous investigations, were as follows:

– the proportion of people exhausting their benefits who became entitled to the Unemployment Assistance rose again, reaching 50 percent,

– closely related to this, the proportion of people exhausting their benefits who remained registered unemployed was again over 50 percent,
– there was a significant rise in the proportion (of the population who left no record of their labour market status after exhausting their benefits) of those who had a job (60.6 percent as against 44.0 percent in 1996), which is clearly a sign of a growing demand for labour,
– re-employment rates for males were significantly better than for females in all the four counties, and poor labour market conditions had a much worse effect on the female rates.

TABLE 3.16: THE PROPORTION OF THOSE EMPLOYED AT THE TIME OF THE 1998 SURVEY, BY GENDER AND COUNTY (PERCENT)

Gender	Fejér	Pest	Szabolcs	Tolna	Together
Men	69.9	72.6	56.8	67.2	68.4
Women	54.7	58.4	37.9	42.0	52.5
Total	63.3	65.0	47.9	56.1	60.6

The last follow-up survey was conducted in November 2000, when about 5,000 people who had exhausted their benefits were approached for a face-to-face interview. The results of this latest investigation are reviewed in Section 5.2.

3.6 Pre-retirement Allowance Schemes

Ágota Scharle

Beyond the general rules, special provisions apply to workers close to retirement age, helping them to survive or avoid unemployment. One consideration likely to have been behind these regulations is that when these people lose their jobs they have less of a chance to find another one than younger people.[41] Another was probably the expectation that, if older people were to find it easier to leave the workforce, unemployment among the young might decline, and this would increase welfare in the short run and/or in the long run. These were probably the reasons behind the two special provisions for older workers introduced by the 1991 employment law: early retirement, and pre-pensions.

Early retirement was made possible as of 1991 for persons no more than five years below retirement age. Men were required to have an employment record of at least 30 years and women needed 25 years.[42] Until the individual reached retirement age, the Employment Fund covered up to 50 percent of pension expenditure, while the worker's employer had to cover the rest.

41 According to data by the National Centre for Labour Research and Methodology, older people are over-represented among the registered long-term unemployed, and as *Galasi–Nagy (1999)* demonstrated, between 1992 and 1996, the re-employment probability for men close to retirement was barely 10 percent of the re-employment probability for those aged 21–25, and the corresponding figure for women was around 10–15 percent.

42 Early retirement has been available since 1987, with slight variations in the conditions. For more information see *Bánsági (2000).*

Pre-pensions were available from 1991 to 1997. They could be applied for by a person who had no more than three years to go to reach retirement age, who had the required employment record, and who had received unemployment insurance benefits for at least 180 days. Alternately, they were available to persons who had received the Unemployment Insurance Benefit (UI) for at least 180 days, had no more than four years to go to retirement age when the benefits expired, and were not legally entitled to any other form of unemployment assistance.

In 1998 the pre-pension scheme was replaced by the Pre-retirement Unemployment Assistance, available five (as opposed to three or four) years before retirement age, but only after exhaustion of unemployment insurance benefits, and subject to cooperation with the public employment service throughout the period of payment. Another difference is that, while the pre-pension was calculated using the rules governing pensions, this new benefit is a uniform 80 percent of the minimum pension, irrespective of years of employment and prior earnings.

The amount of pensions under the early retirement and the pre-pension scheme was calculated according to the general rules of old-age pensions, but early pensioners enjoyed two advantages over others in their age cohort. One was that the pre-pension was not universally available to all persons prior to retirement age, but only to people working for certain employers and only to certain unemployed people, depending on the resources of their former employer, and of the Employment Fund. The other was that, with early retirement, the years they still had to go until retirement age were ignored in the calculation of their pensions. As a result, over the years these people receive a larger total amount of pension payments than those who retire only after reaching retirement age, which, as pointed out by the *OECD (1994),* is unfair and reduces cost efficiency.[43] The Pre-retirement Unemployment Assistance eliminated the above mentioned advantage of the unemployed in that the new assistance is not any more favourable than the UI benefit either in amount or in payment conditions.

In the mid 1990s, about 4–5 percent of the population aged 40–59 participated in early retirement schemes. Tables 3.17 and 3.18 summarises information on the recipients of the various forms of benefit.

43 In international practice, a person opting for early retirement receives only a certain proportion of the pension that would be due at retirement age until s/he reaches regular retirement age. This is fairer to people choosing not to retire early, and is less of an incentive to older people to leave the labour force.

Table 3.17: Participants in Pre-retirement Schemes for the Unemployed (thousands)

	New entrants during the year		Receiving payments during the year		
Year	early retirement (1)	pre-pension (2)	early retirement (average numbers) (3)	pre-pension (total) (4)	PUA (December stock) (5)
1990	27.0	–	n.a.	–	–
1991	43.3	0.4	n.a.	n.a.	–
1992	28.2	17.8	63	n.a.	–
1993	17.1	25.9	63	47.1	–
1994	11.6	29.4	56	65.1	–
1995	11.2	22.9	45	78.9	–
1996	15.0	29.0	44	88.5	–
1997	13.0	29.5	39	94.7	–
1998	6.0	10.6	32	72.5	1.8
1999	3.3	–	23	45.8	4.8
2000	3.3	–	16	21.0	7.9

Source: Hungarian Statistical Yearbook, 1998, Central Statistical Office, 1999, p. 154. and Central Statistical Office Statistical Database, 1996 nationwide data – Columns (1) and (2); National Pension Insurance Fund, Statistical Division – Column (3); National Centre for Labour Research and Methodology – Columns (4) and (5).

Table 3.18: Public Transfer Recipients as a Proportion of the Working Age (15–74) Population (percent)

	1995	1996	1997
Disability pension	9.7	10.1	10.4
Early retirement and pre-pension	1.3	1.3	1.3
UI benefit	2.6	2.8	1.9
Unemployment allowance	2.8	2.6	2.7
active labour market programmes	1.7	1.0	1.2
Total	18.2	17.8	17.5

Source: OECD (1999), p. 65 (Based on Central Statistical Office and Welfare Ministry data).

The number of people opting for pre-pensions grew until 1994, while the number of people enjoying them grew steadily until 1997 (the final year that it was available).[44] (In 1997, nearly 6 percent of the people registered as unemployed at the start of the year applied for this benefit.) The number of people applying for early retirement in any single year was far smaller,

44 The drop in new applications in 1995 followed a tightening of regulations on benefits: see *Bánsági (2000).*

but the difference between the numbers of people enjoying the two types of benefit reduces when we consider the longer period of time during which the early retirement pension was paid. Significantly fewer people have applied for the Pre-retirement Unemployment Assistance, and most applicants (90–95 percent) are men. The reason for this is that women need a shorter employment record to qualify for early retirement, which offers significantly more favourable conditions.

4. THE DISINCENTIVE AND INCOME EFFECTS OF UNEMPLOYMENT BENEFITS

4.1 The Disincentive and Re-employment Effects of Unemployment Benefits

Péter Galasi, János Köllő

The level of unemployment benefits can influence job seekers, those who work, and also the inactive, regarding both their intention to work, and their chances of re-employment. In this section, we shall first outline the most important possible effects of benefits on the above groups.[45] Then we provide a brief overview of research on the issue in Hungary, and then discuss the results of two attempts at the empirical analysis of the effects.

Most of the literature on the subject focuses on the effects on *job seekers.* When a job seeker is considering whether to accept an offer, he compares the difference between prospective wages and lost benefits (and leisure time) to the present value of expected incomes resulting from further job search. The reservation wage refers to the wage level where the job seeker is indifferent between accepting the job and continuing the search. If benefits are large, gains from stopping the search are smaller: hence, benefits tend to raise the reservation wage and reduce the probability of re-employment. (See, for example, *Atkinson and Micklewright, 1991*). At the same time, having a higher income while unemployed may increase or reduce the time and money devoted to job search, depending on how the unemployed person evaluates the respective utilities of job search (as a peculiar earning activity) and increased consumption. This decision hinges on the relative size of the income and substitution effects as well as on preferences regarding present and future consumption, and theory cannot predict the outcome.

It should be noted that an increase in unemployment (job seekers) induced by more generous benefits is not necessarily a "social ill". As *Burtless (1990)* points out, on average a longer search can yield a better job, as it helps people to find the most suitable job[46] and offers information about the markets for people who are not looking for jobs. In addition, if more generous benefits increase the reservation wages of benefit recipients and thus, the number of job offers they reject, this increases the number of vacancies available to those who are not receiving a benefit,[47] which in turn increases the probability of re-employment for the latter (*Atkinson, 1981).* In this argument, more generous benefits can reduce unemployment among persons not receiving a benefit and, if this reduction exceeds the increase in the number of benefit recipients induced by the benefit rise, the aggregate number of benefit recipients and non-recipients as well.

45 We will follow this division though we are aware that changes in benefits simultaneously alters the present value of all conceivable paths of labour market states.

46 Burtless applies this externality to explain why benefit systems for the unemployed have only evolved in countries where the educational composition of the labour force shows a high degree of heterogeneity.

47 A significant proportion of people actively looking for work do not receive unemployment benefits. (In Hungary, according to the CSO labour survey, for instance, in the second quarter of 1997, only 47 percent of active job seekers received UI or UA benefit).

Entitlement to benefits is generally conditional on prior employment and contribution payments. Therefore, raising the amount of benefit increases the value of both unemployment and employment, since the increased value of on-the-dole unemployment can only be "consumed" if it is preceded by an employment spell. Meanwhile, there is a particularly sharp increase in the value of registered unemployment as opposed to *inactivity*, the effects of which have been observed in many empirical studies.[48]

Research on the effects of unemployment benefits in Hungary, except for *Galasi (1995)* and *(1996)* reviewed in this volume, has tended to focus exclusively on the probability of re-employment.

Micklewright and Nagy (1994) analyse the effects of reductions in the duration of entitlement to insurance benefits in 1993, by comparing two cohorts, one of which received the benefits under the old rules, while the other received them under the new ones. They find that the cutback had no significant influence on the length of time spent unemployed prior to re-employment. *Köllö and Nagy (1995)* investigate the re-employment of benefit recipients in March and April of 1994, and conclude that the ratio of benefit to prior wages did not have a statistically significant influence on the probability of re-employment (except for a weak correlation among people who had been unemployed for 3–6 months). In addition, there was no discernible relationship between re-employment probabilities and the length of the entitlement period until exhaustion of benefit.

In a follow-up survey of people who had exhausted their benefits, *Micklewright and Nagy (1998)* find a sudden rise in re-employment rates in the week following the exhaustion of benefit. This suggests that a minority of about 2–3 percent of the cohort, were using benefits as a "paid unemployment holiday". Using a similar sample, *Köllö et al (1997)* analyse the speed at which people receiving Unemployment Assistance and non-recipients find a job. Controlling for the effects of other variables, the re-employment rate was 8–14 percent lower for UA recipients than for non-recipients. The authors argue that unobserved differences between the two samples are unlikely to be the only reason for this gap. They note, however, that a reliable separation of incentive and selection effects would require an analysis extended to the probability of benefit receipt as well.

Galasi et al.(1999) examine unemployed people leaving active labour market programmes to find that those entitled to benefit are slower to find a job. It should be noted though that the sample may have suffered from distortion if some of the persons entering active programmes did so in order to prolong the period of entitlement.

Let us now discuss in greater detail the results of two investigations that were not limited to a particular group of the unemployed, but covered all

48 *Clark and Summers (1982)*, for instance, observe the movement between labour market states and draw the conclusion that the complete abolition of unemployment benefits in the United States in the late 1970s would have reduced unemployment by 0.65 percent while increasing the inactive population by 1.1 percent. (This entitlement effect was at work in the movement of large numbers of inactive persons into the ranks of the unemployed, for example, in Poland and Romania, in the first two years of the transition.)

unemployed or non-employed persons, and attempted to separate effects as much as possible, given the available data.

The first investigation endeavoured to clarify interactions between the amount of benefits and chances of re-employment, using a job-search model. In this model, the amount of benefits influences re-employment chances through two factors, as already explained above: reservation wages and job-search intensity. To recap, an increase in benefits raises reservation wages and thus (with a given distribution of wage offers) reduces the probability of re-employment, while at the same time it may increase or reduce the intensity of job search, and the combination of the two effects may, in theory, reduce or increase re-employment chances. The study sought an empirical answer to this question, using a combined sample of the ILO/OECD unemployed in the first four waves of the TÁRKI (Social Research Institute) Household Panel for 1992–1995.

The income of the unemployed was defined in terms of the reservation wage, the unemployment insurance benefit and non-work income as compared to the market wage, where the market wage expected in re-employment, being unobservable, was projected from wage equations estimated for employed persons and interpreted as the expected median wage. Following *Greenwald (1986)* and *Gibbons and Katz (1991)*, we assumed that, if re-employed, the unemployed would on average receive a lower wage than similar workers already employed in the same locality. To control for such selection effects, we used *Heckman's (1979)* two-stage procedure.[49] The equation was estimated for the entire sample, and also separately for males and females.

For both males and females we found that a higher unemployment insurance benefit compared to estimated market wages, that is, a higher replacement rate, does in fact increase the reservation wage ratio[50] (as does a larger non-work income), in other words, people become more choosy. They will reject wage offers that they would accept, were benefits lower. At the same time, in the equation of job-search intensity[51] a higher replacement rate results in more intensive job search by males. As for effects on re-employment chances,[52] the conclusion was that on the whole an increase in reservation wages (together for males and females) reduces job-search intensity. However, job-search intensity does not significantly influence the probability of re-employment, and a higher replacement rate (higher benefits) has no significant (within conventional confidence intervals) direct effect either.

The other investigation sought to clarify the effect of benefits on the labour supply of unemployed individuals, defining supply along traditional labour supply models, as the number of hours the individual wishes to work.

49 Independent variables in the participation probit estimation used to control for selection effects included: an indicator of head of household, married, level of education level (years of schooling); age; age squared; family size; and family size squared. The wage equation is OLS corrected for the selection effect. The dependent variable is the natural logarithm of net monthly earnings in the first job. Explanatory variables include the selection variable; sex; potential labour-market experience (age * [6 years + number of years required for attained qualifications + time spent in the current unemployment spell]; level of education (years of schooling); married; and resident of Budapest.

50 We used OLS with a White estimator to estimate reservation wages. The dependent variable was the reservation wage and the independent variables were the unemployment benefit and non-work incomes compared to the estimated market wage, the duration of unemployment (using three dummy variables), age, age squared, and age cubed.

51 The job-search intensity equation was estimated in a logit model. The dependent variable was defined as intensive job search work = 1, no intensive job search = 0. The explanatory variables were the same as used in the reservation wage equation (see footnote above), and level of educational (years of schooling completed).

52 Here we ran two logit regressions of a dichotomous dependent variable (not re-employed = 0, re-employed = 1) for each sex and for the whole population. The explanatory variables in the first equation were the reservation wage ratio, the intensity of job search (intensive job search = 1, no intensive job search = 0), the duration of unemployment, three dummy variables for level of education, and one age dummy: the unemployed person is aged 50 or over. The explanatory variables in the second equation were the level of unemployment benefits and non-work income compared to estimated market wages, the duration of unemployment, three dummy variables for level of education, and one age dummy indicating if the unemployed person is aged 50 or over.

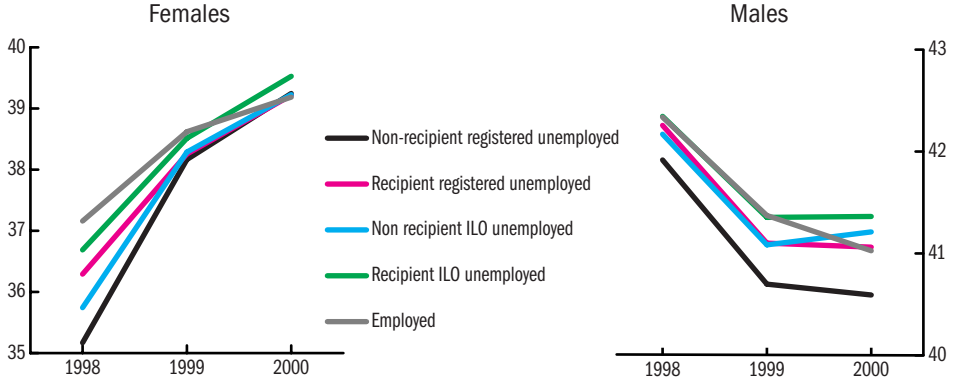
Preferred hours of work time cannot be directly observed. Even for currently employed persons, only the number of hours actually worked can be measured directly (which equals zero for unemployed people). With *Heckman's (1979)* method, however, the labour supply of both employed and unemployed persons can be estimated.[53] In the estimations we used the Labour Force Surveys of the Central Statistical Office for 1998, 1999, and the first quarter of 2000.

We distinguish the following four groups of non-employed persons: the registered unemployed, the ILO/OECD unemployed, and benefit recipients and non-recipients within each of the two groups. (The amount of benefits received are not available in the survey.) All persons included in the four groups have done less than one hour of paid work during the week preceding the survey. In addition, the ILO unemployed, presumably due to their stronger attachment to the labour market, actively look for paid work and are available to start work at short notice. The registered unemployed meet none, or no more than one, of these criteria, and were registered as unemployed with the public employment service at the time of the survey. Meeting the ILO/OECD criteria, and the receipt of unemployment benefit may both signal a stronger attachment to the labour market, and a larger labour supply, for example because benefit recipients are more likely to have a shorter unemployment spell (which is why they are still entitled to benefit).

Figure 4.1 is a summary of results for the various groups of males and females. There is a remarkable difference in the time paths of male and female labour supply: among females there is a clear rise in labour supply, while for males there is a decline or stagnation. The differences between the groups that are of particular concern to us are as follows.

53 The essence of the method is to first construct a correction variable using a participation probit estimate, and then to estimate labour supply equations containing this correction variable for persons who are employed. Finally, assuming that the labour supply of persons with and without jobs can be described by the same labour supply equation, we define the labour supply of the unemployed using the coefficients of the labour supply equation estimated for persons with jobs and the observed characteristics of the unemployed.

FIGURE 4.1: LABOUR SUPPLY OF FEMALES AND MALES, 1998–2000 (HOURS OF WORK/WEEK)



The ranking of groups among females conforms to all our expectations in the first year: labour supply is highest for the employed, followed by ILO unemployed benefit recipients, the ILO unemployed who are non-recipients, non-ILO benefit recipients, and lastly by non-recipient registered unemployed. However, in the second and third year, benefit recipient ILO unemployed are the only group to stand out with their labour supply higher than in the other three groups of the unemployed, and, in the third year, even higher than for the employed. At this point no difference can be observed in the labour supply of the other three groups. Among males, the labour supply of the employed is never larger, and in the third year it is clearly lower, than the ILO unemployed receiving benefits. Comparing the four unemployed groups however, as expected, ILO unemployed benefit recipients have the highest, and the non-recipient registered unemployed have the lowest labour supply. There is hardly any difference between the non-recipient ILO unemployed and registered unemployed benefit recipients in terms of their labour supply.

The above finding that both male and female labour supply is higher for the ILO unemployed who receive benefits and lower for males who are registered as unemployed but do not receive benefits, suggests, with certain caveats, a positive relationship between unemployment benefits and labour supply.

4.2 Selected Characteristics of Unemployment Assistance Recipients in 1994

Péter Szivós

Commencing in 1992, unemployed people who exhausted their benefits and whose per capita household income did not exceed 80 percent of the minimum old-age pension were entitled to Unemployment Assistance. Following the introduction of this assistance, the number of recipients rose rapidly, and then dropped slightly, as of 1995. The following is a review of the demographic and socio-economic characteristics of the households that received this assistance in 1994, based on the Central Statistical Office's Family Budget Survey in 1994.[54] The data was collected in 7,900 households, on 21,000 people including 534 who received the Unemployment Assistance.

Based on the survey (using frequency weights) the number of persons thus supported was estimated at 215,000, and total annual payments at HUF 11.3 billion, which seems a good approximation of actual numbers, corresponding to an 81–82 percent reporting rate. Average per capita payments come to HUF 45,854, the median is HUF 47,944, and the mode is HUF 71,888. In other words, the distribution of the assistance is sharply skewed to the left.

54 For details on the results, see *Szivós (1996).*

Table 4.1 shows that in 1994 some 5.8 percent of households received Unemployment Assistance. Within that, support went to 6.5 percent of households with a male head of household, and to 3.4 percent where there was a female head. Among households receiving support, 86 percent of the heads of household were male.

Clearly, households with a middle-aged head (30–49) were most likely to receive this support. About 56 percent of households receiving support were headed by a person in that age group, while only 38 percent of households not receiving support were headed by a person of that age. With households where the head exceeded age 60 the ratio was the opposite. Far fewer (16 percent) were among the support recipients than among the non-recipients (36 percent).

TABLE 4.1: THE COMPOSITION OF HOUSEHOLDS

	Households receiving					
	No assistance			Unemployment Assistance		
	number	percent	share	number	percent	share
Gender of main earner						
Men	2,653,048	93.51	75.57	184,153	6.49	85.76
Women	857,523	96.56	24.43	30,578	3.44	14.24
Occupation of main earner						
Executive, managerial	163,707	95.18	4.66	8,296	4.82	3.86
Professional	139,245	97.86	3.97	3,051	2.14	1.42
Clerical	165,405	96.96	4.71	5,192	3.04	2.42
Entrepreneur	137,976	93.76	3.93	9,177	6.24	4.27
Skilled worker	704,681	96.38	20.07	26,501	3.62	12.34
Semi-skilled worker	293,538	96.77	8.36	9,791	3.23	4.56
Unskilled worker	78,499	85.58	2.24	13,226	14.42	6.16
Family help	3,953	100.00	0.11	0	–	–
Pensioner	1,581,325	96.45	45.04	58,258	3.55	27.13
Unemployed	176,381	70.09	5.02	75,258	29.91	35.05
On child care leave	18,446	95.64	0.53	841	4.36	0.39
Other	47,415	90.22	1.35	5,140	9.78	2.39
Education of main earner						
Incomplete primary	574,945	95.84	16.38	24,930	4.16	11.61
Completed primary	929,150	92.55	26.47	74,843	7.45	34.85
2–3 year vocational secondary	876,147	92.88	24.96	67,117	7.12	31.26
4 year vocational secondary	486,935	96.79	13.87	16,152	3.21	7.52
Grammar school	241,235	95.39	6.87	11,663	4.61	5.43
College or university	402,159	95.26	11.46	20,026	4.74	9.33

	Households receiving					
	No assistance			Unemployment Assistance		
	number	percent	share	number	percent	share
Age of main earner (years)						
15–20	4,623	90.06	0.13	510	9.94	0.24
20–29	260,402	94.70	7.42	14,561	5.30	6.78
30–39	583,227	91.25	16.61	55,912	8.75	26.04
40–49	760,456	92.17	21.66	64,626	7.83	30.10
50–59	631,065	93.40	17.98	44,584	6.60	20.76
60–69	625,205	97.81	17.81	14,026	2.19	6.53
70–	645,593	96.92	18.39	20,512	3.08	9.55
Unemployed persons in household						
None	3,084,253	97.62	87.86	75,075	2.38	34.96
1	373,367	78.31	10.64	103,390	21.69	48.15
2	47,982	58.88	1.37	33,515	41.12	15.61
3 or more	4,969	64.37	0.14	2,751	35.63	1.28
Settlement type						
Budapest	738,071	95.63	21.02	33,716	4.37	15.70
Town	1,544,977	95.10	44.01	79,604	4.90	37.07
Village	1,227,523	92.37	34.97	101,411	7.63	47.23
Region						
Budapest	738,071	95.63	21.02	33,716	4.37	15.70
Pest county	330,490	97.88	9.41	7,153	2.12	3.33
Northern Hungary	416,560	90.12	11.87	45,687	9.88	21.28
Northern Great Plain	492,475	90.60	14.03	51,098	9.40	23.80
Southern Great Plain	480,838	94.03	13.70	30,541	5.97	14.22
Western Trans-Danubia	347,426	97.05	9.90	10,553	2.95	4.91
Northern Trans-Danubia	368,461	94.00	10.50	23,499	6.00	10.94
Southern Trans-Danubia	336,250	96.42	9.58	12,484	3.58	5.81
All households	3,510,571	94.24	100.00	214,731	5.76	100.00

Note: Figures below 5,000 (frequency weighted) in this and the following table cannot be considered reliable, because of the small numbers of observations.

The proportion of those receiving Unemployment Assistance was highest (7 percent) among households where the head of the household had primary or two or three-year vocational secondary education, and lowest (3.2 percent) where the head completed four-year vocational secondary school. The proportion of recipients among households with a head who completed only 1–7 grades of primary school was comparatively low (4.2 per-

cent) probably because such households tended to have an older head, who, in most cases, was economically inactive due to old age.

The proportion of households receiving Unemployment Assistance was particularly high (30 percent and 41 percent) where the head of household was unemployed, and where there were two unemployed people in the household. (Data on households with two or more unemployed persons is not considered reliable because of the small sample size.)

7.6 percent of rural households and 4–5 percent of urban residents including those in Budapest received Unemployment Assistance. Nearly half of the recipients (45 percent) lived in the northern part of the country or in the northern Great Plain, where nearly one in ten households were receiving assistance. In Pest County and the western counties only 2–3 percent received UA benefit.

Table 4.2 shows that in 1994, the households receiving Unemployment Assistance had a per capita income of HUF 130,000 inclusive of the support, 22 percent lower than non-recipient households, and the average household size was 3.3, compared to 2.7 for non-recipients. This also means that the Unemployment Assistance directly affected the living conditions of 709,000 people.

TABLE 4.2: SAMPLE MEANS FOR RECIPIENT AND NON-RECIPIENT HOUSEHOLDS

	Households receiving				
	No assistance		Unemployment Assistance		
	average stock	per capita income	average stock	per capita income	UA/income ratio
Gender of main earner					
Men	3.02	166,382	3.46	128,644	11.72
Women	1.58	166,103	2.32	138,318	12.10
Occupation of main earner					
Executive, managerial	3.39	222,464	3.67	252,153	3.55
Professional	3.02	219,824	3.35	257,604	6.20
Clerical	2.70	194,583	2.98	184,662	4.33
Entrepreneur	3.37	146,531	2.82	150,597	6.17
Skilled worker	3.47	165,630	3.59	145,766	9.34
Semi-skilled worker	3.23	147,736	3.89	125,612	8.20
Unskilled worker	3.27	124,344	3.63	122,739	11.98
Family help	4.00	149,588	–	–	–
Pensioner	1.91	169,867	2.85	143,707	10.94
Unemployed	3.31	116,279	3.45	94,637	19.01
On child care leave	3.70	103,537	2.96	133,594	16.02
Other	3.04	140,667	3.29	84,732	19.04

	Households receiving				
	No assistance		Unemployment Assistance		
	average stock	per capita income	average stock	per capita income	UA/income ratio
Education of main earner					
Incomplete primary	1.81	151,552	3.41	97,927	15.13
Completed primary	2.47	153,188	3.42	120,779	13.35
2–3 year vocational secondary	3.36	152,411	3.44	118,896	12.72
4 year vocational secondary	2.84	181,002	3.04	150,910	10.98
Grammar school	2.56	170,833	2.82	147,307	8.73
College or university	2.71	224,723	2.71	236,432	5.31
Age of main earner (years)					
15–20	1.75	200,141	5.00	67,807	1.68
20–29	2.99	146,989	3.28	100,637	13.24
30–39	3.55	151,499	3.82	115,450	13.28
40–49	3.46	157,966	3.48	123,410	12.23
50–59	2.63	191,632	3.08	147,580	11.15
60–69	1.90	183,232	2.71	176,202	8.44
70–	1.58	171,737	2.16	168,506	8.97
Unemployed persons in household					
None	2.55	173,624	2.99	172,303	6.46
1	3.48	131,607	3.31	115,904	14.67
2	3.67	105,841	3.82	96,794	18.44
3 or more	5.03	105,376	5.14	79,814	18.65
Settlement type					
Budapest	2.45	184,762	2.68	166,740	9.05
Town	2.70	165,061	3.23	136,161	10.85
Village	2.76	158,115	3.56	115,683	13.51
Region					
Budapest	2.45	184,762	2.68	166,740	9.05
Pest county	2.82	158,487	3.39	109,554	10.40
Northern Hungary	2.70	164,087	3.35	117,049	13.74
Northern Great Plain	2.72	153,830	3.59	112,285	13.87
Southern Great Plain	2.61	156,478	3.27	134,054	11.98
Western Trans-Danubia	2.74	175,912	3.15	161,425	7.05
Northern Trans-Danubia	2.76	166,999	3.50	136,092	10.31
Southern Trans-Danubia	2.80	162,060	3.40	134,305	12.52
All households	2.67	166,342	3.30	129,611	11.76

In 1994, Unemployment Assistance made up 11–12 percent of the total income of recipient households. There are no significant differences between groups of households with respect to the gender or age of the head of household, but differences do emerge in other characteristics.

The higher is the educational level of the head of household, the lower is the proportion UA benefit in household incomes. Benefit payments account for 15 percent of the income of households headed by people with primary education, and only 5 percent of the income of college graduates. The proportion of benefit payments in household incomes is above the average where the head is an unskilled worker, a pensioner, or on maternity leave, and is particularly high when the head is unemployed, or when there is more than one unemployed person in the household.

Just as in the proportion of households receiving support, the importance of Unemployment Assistance in total incomes is lowest for Budapest recipients (9 percent), and highest in villages and in the north and northwest (13–14 percent).

4.3 The Share of Unemployment Benefits within Household Incomes

Péter Szivós, András Gábos

Unemployment benefits are intended to temporarily replace a proportion of the income lost when people lose their job, and help them to find another one. The following is an investigation of the importance of unemployment benefit in household incomes, using data from the TÁRKI (Social Research Institute) Household Panel and Household Monitor for 1993–94 and 1999–2000.[55] First, we survey some characteristics of the income structure of households, and the relative living standards of households with an unemployed member. Then, we look at the proportion of unemployment benefits within household incomes and investigate what other types of income such households may have.

55 The data refer to the period between the April of the year preceding the survey and the March of the year when the data was collected. The data reported here may differ slightly from other analyses using the same source, because we included *ex post* corrections, excluded individuals and households where the data were imputed to substitute for missing income data, and did not include revenues from winnings or real estate sales as income.

The structure of household incomes

As Table 4.3 shows, throughout the observed period, earnings from full-time jobs were the largest item in household incomes. In 1999–2000, they made up nearly half (49.1 percent) of the total income, slightly (0.9 percent) less than in 1993–94. Meanwhile, there was a 5 percent increase in the proportion of social insurance payments and a marked drop in the proportion of social transfers.

Table 4.3: Total Household Income by Source

	1993/1994	1999/2000
Income from main job	50.0	49.1
Income from other jobs	7.4	7.2
Dividends and interest	0.8	0.8
Income from agriculture	3.8	3.4
Income from social insurance	28.5	32.7
Income from social transfers	7.9	5.3
Other transfers	1.4	1.6
Total	100.0	100.0
Number of households	1885	1956

Table 4.4 shows the distribution of households by the various sources of income. In the 1990s there was a 10 percent decline in the proportion of households having an income from a full-time job, mainly because of a rise in pensioner households (households made up exclusively of pensioners). There was also a drop in the proportion of households drawing an income from social insurance, principally because of the decline in the number of employed persons. The proportion of households receiving social transfers also decreased. At the same time, a growing proportion of households draw incomes from interest and dividend payments and from second jobs.

Table 4.4: The Proportion of Households Receiving Various Types of Income (percent)

	1993/1994		1999/2000	
	All households	Non-pensioner households	All households	Non-pensioner households
Income from main job	60.5	70.7	54.0	77.7
Income from other jobs	20.2	23.2	38.6	52.9
Dividends and interest	3.5	3.9	6.2	6.2
Income from agriculture	42.8	45.3	34.6	34.4
Income from social insurance	75.5	71.4	65.8	50.7
Income from social transfers	45.3	50.9	34.7	46.8
Other transfers	8.1	8.6	9.0	11.1
Total number of households	1885	1609	1956	1349

The relative living standards of households with an unemployed member

Using self-reported status for the definition of unemployment, a household is defined as "unemployed" when there is at least one person in it who is unemployed. Some 11 percent of households had an unemployed member in 1993–94, and 18.8 percent in 1999–2000, even though under the official definition of unemployment there was a significant decline in unemployment.

Table 4.5 shows the average total income for households with one, two or more unemployed members, compared to the rest of the households. Clearly, proportions hardly changed over the observed period. The relative income of households with one unemployed person dropped by 2 percentage points within the total income for households, and remained unchanged for non-pensioner households. The position of households with more than one unemployed member even improved in this respect, by 2–3 percentage points.

TABLE 4.5: THE TOTAL INCOME OF UNEMPLOYED HOUSEHOLDS AS A PROPORTION OF TOTAL INCOME IN OTHER HOUSEHOLDS

	1993/1994		1999/2000	
	All households	Non-pensioner households	All households	Non-pensioner households
One unemployed person in household	70	68	68	68
More than one unemployed person in household	49	48	51	51
Total number of households	1884	1609	1956	1349

Another way of investigating the relative living standards of unemployed households in terms of the overall income distribution is to look at their proportions within income groups categorised according to per capita income (Figure 4.2), and their distribution across these income categories (Figure 4.3).

Figure 4.3 shows a significant deterioration in the position of unemployed households in the overall income distribution. Their proportion in the lowest household income decile nearly doubled from 22.6 percent to 42.3 percent, a significantly higher growth than the rise in their proportion among all households, and there was a similar rise in their proportions among the next two lowest income deciles. There was hardly any change at all in the middle deciles. However, it is worth mentioning that in 1999–2000, households with an unemployed member can even be found in the highest income decile.

FIGURE 4.2: UNEMPLOYED HOUSEHOLDS WITHIN PER CAPITA HOUSEHOLD INCOME DECILES (PERCENT)

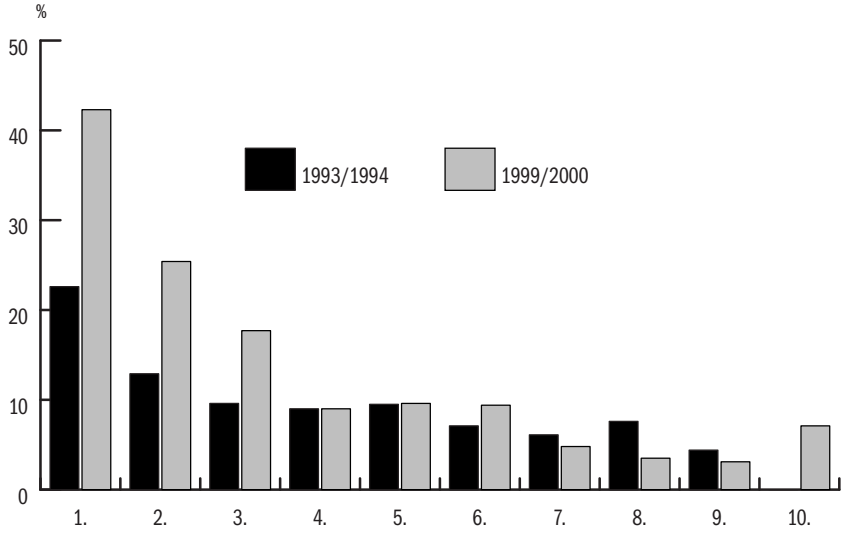


FIGURE 4.3: THE DISTRIBUTION OF UNEMPLOYED HOUSEHOLDS ACROSS PER CAPITA HOUSEHOLD INCOME DECILES (PERCENT)

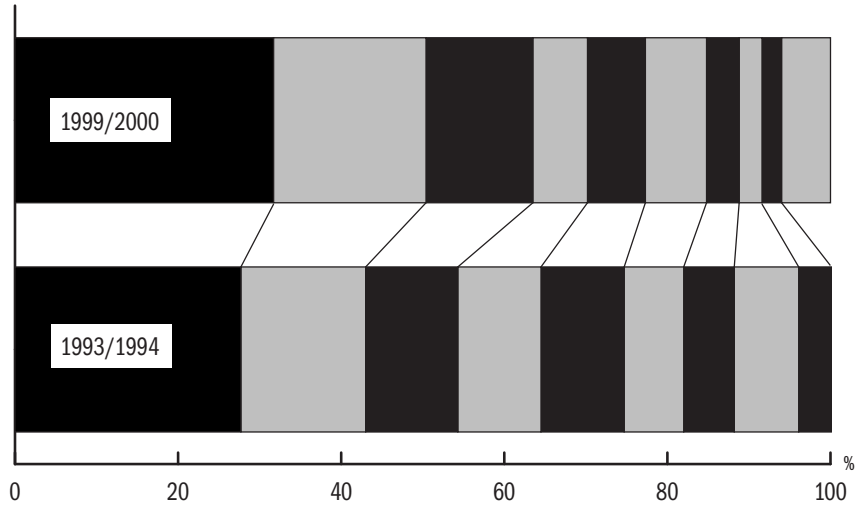


Figure 4.3, which shows the distribution of unemployed households across income deciles, also suggests a deterioration in their income position. A far higher proportion of these households were in the bottom three income deciles in 1999–2000 than six years earlier.

The share of unemployment benefits in household income

Table 4.6 shows the importance of main types of income source in unemployed households. About two-thirds of unemployed households had an income from a full-time job, but the figure for 1999–2000 is 5.4 percentage points lower compared to 1993–1994. The proportions receiving social insurance and social transfer payments dropped far more significantly, by 19 and 25 percentage points respectively. The proportion of households with an income from agriculture dropped by over 6 percentage points during the same period. Meanwhile, among households with an unemployed member, the proportion with an income from a part-time job more than doubled. The sudden rise in the proportion of households with an income from interests and dividends should be treated with care because of the small sample size, as well as the 2.7 percent increase in gifts from other households.

TABLE 4.6: THE PROPORTION OF UNEMPLOYED HOUSEHOLDS RECEIVING VARIOUS TYPES OF INCOME (PERCENT)

	1993/1994	1999/2000
Income from main job	68.5	63.1
Income from other jobs	18.4	41.7
Dividends and interest	1.9	6.0
Income from agriculture	47.4	40.9
Income from social insurance[a]	54.5	44.3
Income from social transfers[b]	66.2	49.7
Income from unemployment benefits	88.1	53.1
Other transfers	9.2	11.9
Total number of households	178	253

a Excluding unemployment insurance benefits.

b Excluding Unemployment Assistance, re-training assistance and in 1993–94, career beginners assistance.

Beside second jobs, the largest change in the frequency of incomes, was the change in the importance of incomes from unemployment benefits,[56] but in the opposing direction. In 1993–94, 88.1 percent of unemployed households received this type of income, a figure that dropped to 53.1 percent in 1999–2000. Along with gradually increasing restrictions in the unemployment benefit system, this significant drop may in part reflect the fact that many people who are no longer entitled to benefits continue to consider themselves unemployed.

56 See Section 2.1 for details on unemployment insurance benefit regulations.

The occurrence of the various types of income give us only approximate information on their role in the maintenance of unemployed households. Table 4.7, which shows the income structure of households with and without an unemployed member, offers more precise information.[57]

Table 4.7: The Income Structure of Non-pensioner Households With and Without an Unemployed Member

	1993/1994		1999/2000	
	No unemployed member	At least one unemployed member	No unemployed member	At least one unemployed member
Income from main job	53.8	41.7	63.7	45.9
Income from other jobs	8.0	5.2	7.9	9.5
Dividends and interest	0.9	0.6	0.7	0.3
Income from agriculture	3.6	6.3	3.0	5.6
Income from social insurance	23.8	15.8	17.2	18.6
Income from social transfers	7.2	12.3	5.3	9.0
Income from unemployment benefits	1.2	16.7	0.5	9.4
Other transfers	1.4	1.3	1.7	1.7
Total	100.0	100.0	100.0	100.0
Total number of households	1431	178	1096	253

Note: Pensioner households are not included among households with an unemployed member.

While there was a drop in the proportion of unemployed households with an income from a full-time job, the proportion of incomes from full-time jobs within total incomes grew from 41.7 percent to 45.9 percent. However, the significance of full-time job incomes grew at an even higher pace among households without an unemployed member, from 53.8 percent to 63.7 percent. There was also an increase in the proportion of incomes from second jobs in households with an unemployed member, from 5.2 percent to 9.5 percent. In the meantime, there was no change in the role of second jobs within the income structure of households without an unemployed member, even though there was a significant increase in second job incomes among these households, too. There was no significant change in the proportion of incomes from farming in either type of household, while changes in the proportion of interest and dividend payments cannot be evaluated with any certainty, because of the small sample size.

In households without an unemployed member, the proportion of income from social insurance continued to be the second most important

57 We investigated annual incomes, but the labour market status of individuals in the sample, as noted, reflects the situation at the time of the interview. This explains why households reporting no unemployed member (at the time), may still receive an income from unemployment support (at some time in the previous year).

part of total income, but it was lower in 1999–2000 than in 1993–94. By contrast, the significance of this source of income increased among households with an unemployed member, its proportion rising from 15.8 percent to 18.6 percent. The proportion of social transfer payments dropped in both types of households. In 1993–94 it was significantly higher than the proportion of incomes from second jobs in households with an unemployed member, but by 1999–2000 the two were about equal.

The share of unemployment benefits in the total income of unemployed households suffered the largest drop, from 16.7 percent to 9.4 percent. Table 4.8 also shows changes in the share of the various types of unemployment benefit within the main categories of total household income: of unemployment insurance benefits within social insurance payments, and of other unemployment benefits within social transfer payments.

TABLE 4.8: THE PROPORTION OF UNEMPLOYMENT BENEFITS IN SOCIAL INSURANCE AND SOCIAL TRANSFER PAYMENTS

	1993/1994	1999/2000
Average monthly amount of UI benefit (HUF)	8,520	16,099
Share of UI benefit in total household income from social insurance (annual, percent)	12.1	7.7
Monthly amount of Unemployment Assistance (HUF)	5,958	12,378
Share of UA benefit in total household income from social transfers (annual, %)	5.0	7.2
Share of UA and other means-tested benefits in total household income from social transfers (annual, %t)	7.2	8.0
Share of all unemployment benefits in total household income from social insurance and transfers (annual, %)	8.6	6.5

The share of unemployment insurance benefits within total social insurance payments received by households dropped by about 36 percent from 1993–94 to 1999–2000. The decline in the real value of the average unemployment insurance benefit was the main reason for the drop, but an increase in the proportion of other social insurance payments within total household income, the basis for the comparison, also played a role.

At the same time, there was a significant increase in the proportion of other unemployment benefits within social transfers, rising from 5 percent to 7.2 percent. This was however largely the result of a decline in the importance of transfer payments within total income, as the average transfer payment lost about one-third of its real value. The picture would not change significantly even if we were to include among transfers the re-training assistance and the career beginners assistance (abolished by 1999).

All in all, the proportion of unemployment benefits within transfers financed by taxes and contributions dropped by about 25 percent in this six-year period.

Typical combinations of unemployment benefits with other source of income

Table 4.9 offers additional information on the importance of unemployment benefits in household incomes, showing the proportion of benefit recipients drawing on their sources of income.

TABLE 4.9: PROPORTIONS OF UNEMPLOYMENT BENEFIT RECIPIENTS AMONG THOSE WITH OTHER SOURCES OF INCOME (PERCENT)

	1993/1994	1999/2000
Income from main job	41.6	54.5
Family allowance	18.5	18.5
Social transfers	7.9	6.5
Income from other jobs	7.8	16.4
Income from casual unskilled work	2.4	5.6
Income from casual work in agriculture	0.3	4.3
Number of households	375	244

Note: Casual unskilled work and farming are included in second job incomes, as well as a separate category.

Unemployment benefits are most commonly combined with incomes from a full-time job: for two-thirds of unemployed households in 1993–94 and for the majority in 1999–2000. In addition, over the six-year period, there was a significant increase in the proportion of households where the income from unemployment benefit was combined with earnings from a second job or casual work.

The second most typical combination is with income from family allowance, received by 18.5 percent of unemployed households at both dates. This suggests a very high probability of job loss for adult members of households with dependent children. Combinations with social transfers were almost as common as combinations with second job incomes in 1993–94, but this was no longer the case in 1999–2000.

5. RECENT CHANGES IN THE UNEMPLOYMENT BENEFIT SYSTEM: RESPONSES AND IMPLICATIONS

5.1 Public Opinions on Changes in the Unemployment Benefit System in 2000

János Köllő

In November of 1999, prior to the parliamentary debate on government proposals for changes in the unemployment benefit system TÁRKI (Social Research Institute) conducted a poll on public opinions about the proposed restrictions in a representative sample of 1,522 persons.[58]

As Table 5.1 shows, some two-thirds of the sample were aware of plans to reduce the duration of unemployment insurance benefit payments. Slightly fewer had heard of the plan to make social assistance conditional on participation in public works, and of the abolition of the Unemployment Assistance. One third of the respondents approved of the cut in the duration of insurance benefits and of the abolition of the Unemployment Assistance, while two-thirds supported the introduction of the public works condition.

Table 5.1: Awareness and Opinions of the Reform Package and its Components (percent)

	Aware of the reforms			Agrees with reforms		
	Yes	Partly[a]	No	Yes	Don't know	No
Maximum UI entitlement reduced to 9 months	68.1	5.7	25.1	33.7	13.8	52.5
Abolition of Unemployed Assistance	54.5	7.6	36.6	32.1	15.7	52.2
RSA conditional on participation in public works	59.3	5.3	34.8	66.5	9.0	24.5
On the whole agrees with reforms	..	..	..	64.9	10.4	24.7

a Aware of reforms but not of details. Number of respondents: 1,522. The proportion of refused answers (1–2 percent per question) is not included; therefore the sum total is less than 100 percent.

Two-thirds (three-quarters including passive supporters who voiced no opinion) of the sample approved of the reform package, which, as can be seen in Table 5.2, is likely to have been a result of the widespread acceptance of mandatory community work. 90.2 percent of those supporting the public works condition approved of the reform package (making up 89.9 percent of all supporters), while only 31.2 percent of those opposing mandated public works approved the package as a whole.

58 The survey was commissioned by the Office of the Prime Minister, and was done using a block of questions included in TÁRKI's comprehensive survey. *Gábos (1999)* gives the details of the survey and the main results. (The original questionnaire and research report are available at www.tarki.hu.) For more detail on the above discussed results see *Köllő (2001).*

Table 5.2: Support for the Individual Measures and the Whole Reform Package

Approves[a] (+), or disapproves (–) of the measure			Approves of the reform package[a]	
Public works condition	Cut in benefit duration	Abolition of UA	proportion	composition
–	–	–	21.7	4.3
–	+	–	35.4	1.5
–	–	+	36.8	1.2
–	+	+	64.3	3.1
+	–	–	80.8	24.0
+	–	+	88.0	11.5
+	+	–	94.7	14.0
+	+	+	95.9	40.4
		Total:	75.3	100.0

a Approval includes approval and no opinion.

The following is a brief investigation of the most significant factors that influenced the opinion of respondents. Regarding *unemployment insurance benefits,* we expected that the reform would be evaluated in terms of financial costs and benefits. The cost and benefit implications of the tightening of rules are relatively easy to assess, and the problem of opportunity costs does not arise, since there is no real alternative to financial assistance in the months immediately following job loss. The expected benefit declines with the individual risk of job loss, and it also depends on whether the individual expects taxes to increase or decline as a result of the reform. People who benefit from state transfers (such as child care assistance or pensions) have a stronger interest in tightening the rules, as they may expect to benefit from increased public savings. The weight given to expectations of cost cutting declines with the individual risk of job loss.

In the case of the *Unemployment Assistance* (and the social assistance conditional on public works), costs and benefits are more difficult to evaluate. In these schemes the relationship between contributions and benefit payments is not as clear-cut as it is for insurance benefits. Opportunity costs may be significant and difficult to forecast: the advantage of the various active labour market programmes (re-training, public works) is that they may prevent disengagement from the workforce, while the disadvantage is that they are costly and keep participants from active job search.[59] Due to the negative externalities attached to long-term unemployment, people facing the same risk of unemployment may disagree about how much to spend

59 In the Czech Republic (a front-runner in active labour market policies in Eastern Europe) 31 percent of the 1991 labour market policy budget was spent on the 3 percent of the unemployed who participated in the programmes. The corresponding figures for 1992–1994 were: 55 percent on 7 percent, 35 percent on 2 percent, and 28 percent on 2 percent. (*Terrell and Storm*, 1999)

on benefits or active programmes. Last but not least, many of the long-term unemployed get used to unemployment, which makes incentive effects an important factor in the assessment of the reform. While basic cost-benefit calculations might influence opinions on the Unemployment Assistance and public works, this influence will not be as powerful or as direct as in the case of unemployed insurance benefits, due to the above reasons.

Table 5.3 reports the estimated effects of variables that more or less capture the above factors on the probability that the respondent (a) had no opinion, or (b) expressed support for reducing the duration of entitlement to insurance benefits and for the abolition of the Unemployment Assistance.

TABLE 5.3: THE EFFECT OF SELECTED FACTORS ON OPINIONS OF THE REFORM OF THE UNEMPLOYMENT BENEFIT SYSTEM

	Cut in benefit duration		Abolition of UA	
	No opinion	Approves	No opinion	Approves
Projected risk of unemployment	-0.50[b]	-0.68[b]	-0.50[b]	-0.13
Respondent was unemployed				
– at time of survey	-9.8[b]	-23.4[b]	-6.7[a]	-14.8[b]
– some time before survey	-1.7	-5.6[a]	-1.3	-3.0
Unemployed acquaintance or relative	-2.8[a]	-14.1[b]	-4.1[b]	-8.3[b]
Expects that due to the reforms, public expenditure on unemployment				
– will increase	-3.4	-13.7[b]	-6.9[b]	-11.1[b]
– will not change	–	–	–	–
– will decrease	-2.0	1.6	-3.5	8.9[b]
– can't predict change	11.1[b]	-14.3[b]	11.5[b]	-2.7
Labour market status of respondent				
– civil servant	-3.2	4.9	-3.2	-3.9
– employee of private firm	–	–	–	–
– self-employed	5.4	9.8	6.6	15.6[b]
– pensioner, or child care leave	1.8	2.6	-1.1	1.8
– other inactive	8.6[b]	-7.2	0.1	-5.0
Voting preferences				
– ruling parties	-6.2[b]	8.7[b]	-8.7[b]	10.1[b]
– don't know, won't say	–	–	–	–
– opposition	-8.4[b]	-10.8[b]	-8.6[b]	-8.3[b]
Number of respondents:	1519	1307	1519	1272
Pseudo-R^2	0.128	0.089	0.110	0.059
Mean of dependent variable	13.8	39.0	15.7	38.2

a Not significant at the 5 percent level, but significant at or below the 10 percent level.
b Significant at the 5 percent level.

Figures in the table show the percentage point increase or decrease in the probability of a given outcome in response to an increase (of the amount of the standard deviation above the average, in the case of the risk of unemployment variable) with other explanatory variables in the model taking their mean values.[60] (In the second column, the second value from the top, shows, for example, that the proportion of those supporting the cut in benefit duration among a group of unemployed people with average characteristics in all other respects, was 23.4 percentage points smaller than among a group of company employees with average characteristics.) To correctly interpret the results, it should be noted that marginal effects differ for all value combinations of explanatory variables, and therefore, *they cannot be added up.*

People *not voicing an opinion* on cutting back the duration of entitlement to insurance benefits and on the abolition of the Unemployment Assistance (passive supporters) are more likely to be employed or inactive, and less likely to be unemployed. This group also included a particularly large number of people who were uncertain in their evaluation of the costs of the reform, or who were unable or unwilling to indicate a preference for any political party.

A lower risk of unemployment (because of gender, age, education, place of residence and/or attachment to the workforce) increases support for cutting *unemployed insurance benefits.*[61] The gap in the support rates for the highest and the lowest risk of unemployment was 14–15 percent. Even if their risk of job loss was the same, the proportion of supporters was smaller among those who were actually unemployed at the time of the survey, and those who had an unemployed acquaintance. Expectations regarding costs strongly influenced support for changing benefit regulations. People expecting a rise in costs, and people who were uncertain about the costs were 14 percent less likely to approve of the tighter benefit regulations than people who expected the costs to go down or stay constant. Compared to people who said they were uncertain about party preferences, people supporting a party in the ruling coalition were 8.7 percent more in favour of the benefit reform, and people supporting the opposition were 10.8 percent less eager about the reform.

Views on the abolition of the *Unemployment Assistance* were influenced to a far smaller extent by the estimated individual risk of job loss. The difference between the highest and the lowest risk groups was only 2–3 percent and not statistically significant. At the same time, people who were unemployed were 14.8 percent less likely to support this measure, and those who had an unemployed acquaintance were 8.3 percent less likely to support it. There was a huge gap (of 20 and 18 percentage points) between people expecting a rise or a decline in costs, and between people supporting the ruling parties and the opposition.

60 Estimations were done using a Stata 5.0 dprobit, in which marginal effects are calculated at the *mean* values of the explanatory variables. However, in reality, a person cannot be 25 percent unemployed and 75 percent employed. Therefore, it is best to interpret the estimated coefficients as describing *groups* of a similar composition. We estimated the "estimated risk of unemployment" variable in the equation in a probit model using data from the CSO Labour Force Survey, using the individual characteristics observed in the TÁRKI survey (age, gender, education, residence, student status, pension receipt, child care allowance receipt), and the effect of these characteristics on the risk of unemployment estimated from data in the CSO survey. The probit estimates the probability that an adult (over age 14) is out of work and would like to have a paid job. Since we cannot identify full-time students from the 1999 CSO Labour Force Surveys, we used the survey of 1998 Q4 in the estimate. It is unlikely that the relative risks of unemployment changed significantly between the autumns of 1998 and 1999.

61 The results would be the same if we used the probability of benefit receipt variable, or an indicator of previous receipt of unemployment benefit.

The estimates in Table 5.4, obtained by a similar process and interpreted in a similar way, suggest that the personal experience of unemployment reduces support for making benefit payments *conditional on public works,* too.

TABLE 5.4: THE EFFECT OF SELECTED FACTORS ON OPINIONS OF THE PUBLIC WORKS CONDITION

	Public works condition	
	No opinion	Approves
Projected risk of unemployment		
– related to individual characteristics	–0.48[b]	–0.54[a]
– related to regional unemployment	–0.62[b]	0.72[b]
Lives in a village	0.8	10.8[b]
Respondent was unemployed		
– at time of survey	–2.7	–22.0[b]
– some time before survey	1.2	–8.7[b]
Unemployed acquaintance or relative	–1.0	1.0
Expects that due to the reforms, public expenditure on unemployment		
– will increase	–2.8	–2.3
– will not change	–	–
– will decrease	–2.7	10.0[b]
– can't predict change	7.7[b]	2.9
Labour market status of respondent		
– civil servant	–2.7	–1.2
– employee of private firm	–	–
– self-employed	10.7[b]	–3.4
– pensioner, or child care leave	–4.6[b]	–1.7
– other inactive	2.7	–14.3[b]
Voting preferences		
– ruling parties	–5.2[b]	2.1
– don't know, won't say	–	–
– opposition	–2.9[b]	–4.1
Number of respondents:	1519	1382
Pseudo-R^2	0.124	0.060
Mean of dependent variable	9.1	72.4

a Not significant at the 5 percent level, but significant at or below the 10 percent level.
b Significant at the 5 percent level.

People unemployed at the time of the survey were 22 percent less likely to support the reform, people who had been unemployed in the past were 8.7

percent less supportive, and other inactive people (many of whom were likely to have permanently left the labour market) were 14.3 percent less likely to approve of this measure.[62] Expectations regarding costs had a smaller, though significant, effect than in the case of the other two measures of the reform, and political party preference was insignificant.

As for the effect of the projected individual risk of unemployment, as the first two lines of the table show, the risk of unemployment related to individual characteristics, and the risk of unemployment related to regional conditions are included as two distinct variables.[63] Had we employed the same procedure as earlier, the effect of the individual risk of unemployment would have been weakly *positive*. By separating the two variables, we find that the risk related to personal characteristics reduces the probability of support for reforms, while higher regional unemployment increases it. To assess the relative size of the two effects one may consider that, moving above the average by an amount equal to the standard deviation reduces support for mandatory public works by 5–6 percentage points in the case of the risk of unemployment related to personal characteristics, while it increases support by some 7–8 percentage points in the case of risk related to regional conditions.

Another interesting result is that, in addition to the given rate of regional unemployment, residing in a village (not included when modelling support for the other two reform measures) increased approval by 10.8 percentage points. According to more detailed calculations not presented here, support was particularly high among village residents in the eastern part of the country. Controlling for other factors, approval was 15 percentage points higher than in towns in the region and 5 percentage points higher than among residents of villages in western and central Hungary (while there was no significant difference between the eastern and western towns).[64]

Is there any evidence to confirm the expectation that other factors play a greater role in shaping opinions when the risk of unemployment is small? Separate calculations for terciles of the risk of unemployment yielded the results shown in Table 5.5. The low risk of unemployment is clearly associated with a stronger influence of other considerations (expectations regarding costs and party preferences) affecting opinions of the cutback in benefit duration. The same relationship does not apply in the case of opinions on abolishing the Unemployment Assistance and on mandatory public works.

The most important lesson to learn from the above analysis is that public opinions on abolishing the Unemployment Assistance, and particularly on cutting the duration of insurance benefits, were most strongly influenced by the perceived risk of being personally affected by the reform and by financial expectations, which were also influenced by political preference.

62 At the time of the survey, 7.4 percent of the sample was unemployed, and a further 22.4 percent had been unemployed at least once in the preceding ten years. (These proportions correspond to those found in the CSO Labour Survey.)

63 In this case the risk of unemployment (s_{ik}) related to individual characteristics is defined for the i-th individual as: $s_{ik} = p_{ik} - E_k(p_{ik})$ where p_{ik} is the predicted individual risk and E_k is the expected value in the sample in the k-th region.

64 Nógrád, Heves, Borsod-Abaúj-Zemplén, Szabolcs-Szatmár-Bereg, Hajdú-Bihar, Békés, Bács-Kiskun, and Szolnok counties were considered part of the eastern region.

Table 5.5: The Importance of Cost Expectations and Party Preferences at Three Levels of the Risk of Unemployment

	Marginal effects,[a] if the projected risk of unemployment is		
	low	average	high
Cut in benefit duration			
Reforms will decrease public expenses (reference group: expenses will rise)	31.2	14.4	10.4
If the election was today, would vote for ruling parties (reference: would vote for opposition)	30.0	27.3	8.5
Abolition of Unemployment Assistance			
Reforms will decrease public expenses (reference group: expenses will rise)	25.6	15.2	20.0
If the election was today, would vote for ruling parties (reference: would vote for opposition)	21.3	24.4	12.4
Public works condition			
Reforms will decrease public expenses (reference group: expenses will rise)	19.8	0.0	10.5
If the election was today, would vote for ruling parties (reference: would vote for opposition)	9.1	11.3	0.0

a All estimates over 9 percent were significant at or below the 5 percent level, while those below 9 percent were not significant at the 10 percent level.

The data makes it clear that had a separate decision been taken on the Unemployment Insurance Benefits, by members of Parliament truly representing voter preferences, the duration of benefit entitlement would not have been trimmed. However, requiring the long-term unemployed to participate in public works proved so popular that it won support for the entire package.

A higher than average proportion of supporters of mandatory public works expected that the reform would reduce the costs of unemployment benefits. Support for this component of the reform was negatively affected by the risk of unemployment related to individual characteristics and by an actual experience of unemployment, while regional unemployment had a positive effect, particularly in the villages of the eastern region where unemployment is high. This may be explained by the growing impatience with the unemployed, many of whom belong to the Gypsy minority, and also by the fact that in these villages there is a high demand for job opportunities of all types, ranging from "genuine" jobs, public works, or "community service".

Over one-third of respondents supported the introduction of mandatory public works, but opposed the abolition of the Unemployment Assistance, even though the difference between the latter and UI insurance is precisely the requirement to participate in a public works scheme organised by the local government. One possible explanation for this inconsistency is that respondents accepted the principle of making benefit receipt conditional on a willingness to work in "community service", but did not perceive the Unemployment Assistance to be an obstacle to implementing it. (Accepting a job offer was in fact also a criterion for awarding the Unemployment Assistance.) Another possible explanation may be the *status-quo* effect (*Csontos and Tóth, 1998)* known from analyses of fiscal illusion. People are willing to give up a social transfer only if they receive a larger amount of compensation than they themselves would have been ready to spend on the same purpose. Therefore, they oppose reforms that take something away, even if it is returned in a different form.

Interestingly enough, labour market experts were more divided about the public works requirement than about the cut in benefit duration. It will be a task for empirical research to decide if optimistic public opinions, or rather, professionals concerns were justified.

5.2 Criteria for Benefit Entitlement and Chances of Re-employment

Péter Galasi, Gyula Nagy

In order to encourage re-employment, in February 2000, the government reduced the period of unemployment insurance benefit payments affecting a large number of persons entitled to UI benefit. Has this induced an increase in the re-employment rates of the unemployed? This is the question we sought to answer using data from the unemployment insurance benefit register.

First, we shall review the changes in the rules governing duration of entitlement. Then we shall discuss the sampling method and the characteristics of the sample. Last, we shall compare the outflows from unemployment under the old scheme introduced in 1997, to the outflows under the new scheme.

Changes in insurance benefit entitlement conditions as of February 2000[65]

Under the regulations that took effect in 1997, one year of employment over the four years preceding job loss was needed for the award of three months of UI benefit payments, and continuous employment over the entire four-year period was necessary to receive benefits for 12 months, which was the maximum duration. Entitlement was a step function of the employment record, with eleven different entitlement periods including the

65 For more detail on the regulations governing unemployment insurance benefits and changes in them, see section 2.1, based on *Nagy (2001)*. For changes in laws, see *Bánsági (2000)*.

minimum and the maximum. Separate rules applied to those who had once exhausted their benefits in a previous unemployment spell: they were entitled to benefit payments for a month and a half, conditional on six months of prior employment.

Under the new regulations that took effect in February 2000, the duration of entitlement is still conditional on the employment record of the preceding four years, but the minimum benefit was cut to 50 days and the maximum to nine months. The minimum is conditional on 200 days of prior employment, and the maximum requires 45 months. Duration bands were eliminated so that between the two limits, the duration of entitlement now equals one-fifth of the time spent in employment.

Although the changes are clearly disadvantageous to the vast majority of unemployed people, Table 5.6 shows that the disadvantages differ according to the length of previous employment. People who had been employed for a longer period during the four years preceding unemployment clearly lose more, while people who had worked for a shorter period lose less in the duration of benefit payments, if at all.

TABLE 5.6: CHANGES IN ENTITLEMENT TO THE UNEMPLOYMENT INSURANCE BENEFIT

Employment in preceding four years		Duration of benefit, days			Benefit durations in 2000, in proportion of durations in 1997		
		1997	2000				
months	days		minimum	maximum	minimum	maximum	mean
6.5–11	200–359	45	40	72	89	160	124
12–15	360–479	90	72	96	80	107	93
16–19	480–599	120	96	120	80	100	90
20–23	600–719	150	120	144	80	96	88
24–27	720–839	180	144	168	80	93	87
28–31	840–959	210	168	192	80	91	86
32–35	960–1079	240	192	216	80	90	85
36–39	1080–1199	270	216	240	80	89	84
40–43	1200–1319	300	240	264	80	88	84
44–47	1320–1439	330	264	270	80	82	81
48	1440–1460	360	270	270	75	75	75

Note: In 1997 people who worked for less than one year could gain entitlement if they had already exhausted their benefits in prior unemployment spell. In that case they were granted 45 days of payments following 180 days of employment.

The loss in benefit duration was largest for people who had worked continuously or almost continuously (for at least 44 months) in the four years prior to losing their jobs. Benefit entitlement shrank to three-quarters and

four-fifths of the former durations respectively for these two groups, who made up 30 percent of new claimants in the first two months of 2000. People who had worked for 32–43 and 20–31 months (together making up 27 percent of new claimants in these two months), lost 10–20 percent and 4–20 percent respectively of their benefits. Benefits to persons with an employment record of 12–15 months or 16–19 months, went down by 10 percent and 7 percent, compared to the mean of lower and upper limits in 1997, but the loss could be as high as 20 percent. For people with 450–479 and 598–599 days of prior employment, the duration of benefit payments is the same or slightly longer than under the old regulations.

Most of the people with less than one year of employment are entitled to a longer duration of benefits under the new rules, but the minimum condition regarding the employment record has been increased slightly, from 180 days to 200. People who worked for 200 days were entitled to 45 days of benefits under the 1997 regulations, whereas under the 2000 regulations their benefit entitlement can range from 40 to 72 days. The duration of benefit entitlement for 72 percent of new claimants in February and March 2000 with less than one year of employment was longer than the 45 days set in the 1997 rules.

Another new rule is that unemployed people attending training programmes offered by the public employment service are entitled to benefit until the end of the programme even if their UI benefit entitlement expires at an earlier date.

The sample

We investigated the effects of unemployment insurance benefit entitlement rules using the records of the electronic register of the National Centre for Labour Research and Methodology, which records all benefit payments. We concentrated on persons who began receiving their benefits between January 1, and March 15, 2000. The benefit register contains information needed to calculate the benefit as well as the duration of entitlement for payments and the amount of benefits paid. In addition, it has information on the gender, age, educational level and place of residence of the recipients.

Benefit payments started for a total of 74,888 people in the first two and a half months of 2000. People who applied in January were awarded a benefit in accordance with the 1997 regulations, while the 2000 regulations were first applied to people claiming benefit in February and March. People who quit their jobs voluntarily receive benefits after a three-month waiting period, so for them, the old rules applied until mid-March. To minimise the difference in the composition of the two sub-samples of recipients under the 1997 and the 2000 regulations, voluntary quits and those who claimed benefit more than two months after job loss, were ex-

cluded from the analysis. Of the remaining 58,978 people, 31,031 received their benefits under the 1997 regulations and 27,947 got them in accordance with the 2000 regulations.

Since the composition of the sub-samples are very similar, we have reason to assume that any significant difference that we may find in outflows and re-employment rates under the two schemes, can be related to the changes in regulations.

Outflows and the probability of re-employment

A person may leave the UI register because he finds a job, exhausts benefit entitlement, enters an active labour market programme, retires, or loses benefit entitlement due to non-compliance.

Nearly two-thirds of the people in our sample left the system upon exhaustion of benefit entitlement, and one-third found a job. Within that, there were more people who exhausted their benefits and fewer who found jobs among recipients under the 2000 regulations than under the 1997 ones. However, since the average duration of entitlement was shorter under the 2000 regulations and hence the observed period was shorter for the 2000 sub-sample, the above difference says nothing definitive about re-employment rates.

Compared to benefit exhaustion and re-employment, which account for 90 percent of outflows, few people leave the register for other reasons (re-employment in a subsidised job, start-up assistance for entrepreneurs, public works, retirement, exclusion from benefits for non-compliance, or other). For about 5 percent of the benefit spells in both samples, we have no information on duration of benefits or reason for leaving the system.

The register does not contain information on attendance at training programmes offered by the public employment service. Therefore, we follow all the unemployed people in both sub-samples through the end of their original entitlement periods, irrespective of whether or not the duration of benefits was prolonged until the end of that training period under the 2000 regulations. On the whole, a very small fraction of benefit recipients participated in training programmes[66] and it is very unlikely that there was a sudden and drastic increase in this proportion among new claimants in February. So, it seems safe to assume that participation in training had no significant influence on the outflow rates discussed below.

People who worked 44–48 months in the preceding four years

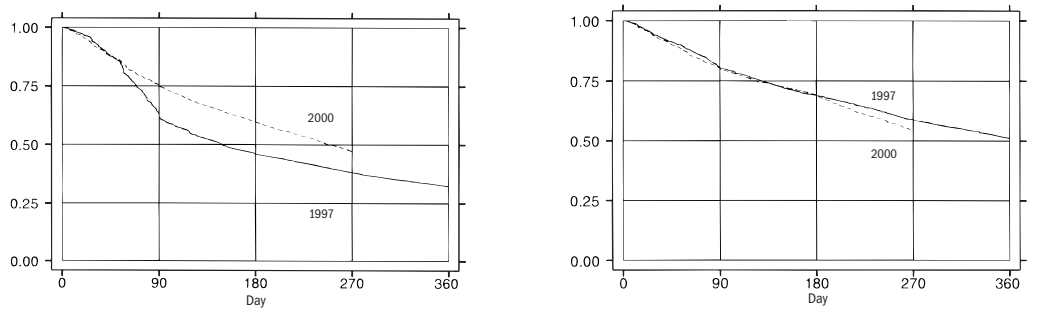
As Table 5.6 illustrates, the largest benefit loss (of 18–25 percent) was incurred by people who had worked continuously or nearly continuously over the preceding four years. Their survival functions in Figure 5.1 show the proportion of the initial population still receiving benefits at various

66 In 1994–96, when the duration of entitlement was the same as under the 1997 system, only 2–3 percent participated *(Galasi and Nagy, 1999)*.

points in time.[67] By definition, they are censored at the end of the maximum duration of entitlement: on the 360th day for people beginning their entitlement under the 1997 regulations and on the 270th day for people under the 2000 rules.

67 Spells of benefit payment ending by exhaustion or for unknown reasons were censored, i.e, treated as payments that had been effected over *at least* that period.

FIGURE 5.1: SURVIVAL FUNCTIONS OF PEOPLE WHO WORKED 44–48 MONTHS IN THE PRECEDING FOUR YEARS



For men, survival schedules follow the same course for the recipients of the 1997 and the 2000 scheme in the first two months, but diverge significantly in the third month, when the outflow from the 1997 sub-sample markedly increases. From the fourth to the sixth months, the two schedules move together again, and in the seventh they slightly converge. At the expiration of the maximum duration of benefit receipt under the 2000 regulations, which was 270 days, the survival rate was 47 percent in the 2000 sub-sample, in other words, this was the proportion still receiving benefits. For the 1997 group, however, because of the larger outflow rate in the third month, the survival rate was only 38 percent.

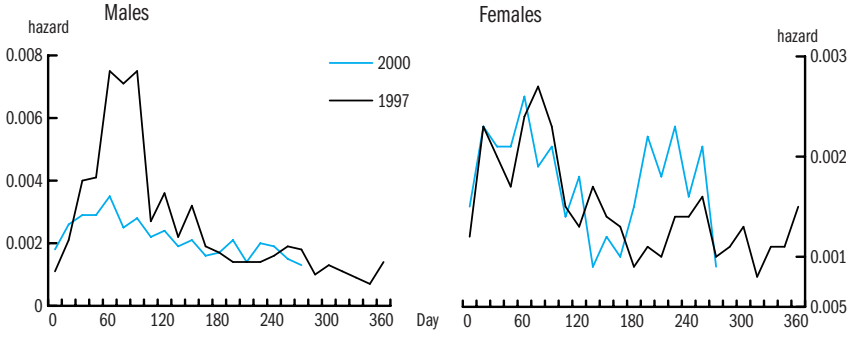
The survival schedules for female recipients are completely identical for the first six months, and then the survival rate declines faster in the 2000 sub-sample. By the end of the third quarter, survival is at 55 percent in the 2000 sub-sample and 59 percent in the 1997 sub-sample.

Comparing the two parts of the figure reveals that in both sub-samples, males leave the system more rapidly than females. At the end of the third quarter, their survival rate was 8 percentage points lower than for females in the 2000 sample, and 11 percentage points lower in the 1997 sample.

Figure 5.2 shows the conditional probability (hazard) of re-employment, estimated in two-week periods. It indicates the proportion of persons finding a job in a two-week period compared to the total remaining in the register up to the start of the given period. In period five, the re-employment probability of males receiving benefits under the 1997 rules, as seen in the left part of the figure, is five-times higher than in the initial weeks

and later, around the sixth month. In the group receiving benefits under the 2000 regulations, though re-employment probability initially increases, there is no sudden rise in the hazard rate. From months four and five on, there is no significant difference in the two groups' re-employment probability at any time. This suggests that the faster outflow of benefit recipients under the 1997 rules indicated in their survival schedule was because of the jump in their re-employment probability in March and April.

FIGURE 5.2: HAZARD FUNCTIONS FOR PEOPLE WHO WORKED 44–48 MONTHS IN THE PRECEDING FOUR YEARS



What caused the jump? A seasonal pick-up in demand for labour is unlikely to have been the reason since that would have triggered a similar effect on both samples. (Benefit recipients under the 2000 regulations began receiving benefits about six weeks later than the 1997 group, so the same calendar period would come that much earlier on their hazard curve.) The most likely reason is that a large number of people starting to receive benefits in January had been temporarily laid off at the end of the year and re-hired in March and April. *Köllő (2001)* provides further evidence supporting this explanation showing that 40–60 percent of people receiving benefits who became re-employed between March 18th and April 7th returned to their former workplaces. Just as people in our January sub-sample who found jobs in March and April, most of these returnees had lost their jobs after many years of employment and they generally spent three months on unemployment benefits. Since temporary layoffs are likely to be much more common at the end of a year than at the beginning or in the middle, the people temporarily laid off tend to be concentrated in the January sub-sample. (December 31st was the date of job termination for nearly half of the people in the January sub-sample.)

In contrast with the male re-employment rates, there is only a slight increase in the re-employment rates for females in the 1997 sub-sample in the second and third months, probably because females are far less likely to

return to a former employer than males (Köllő, 2001). The re-employment probabilities of the two female sub-samples do not really differ in the first six months. After that, the re-employment rate for the 2000 sample (corresponding to the last third of the maximum benefit duration) was generally higher in each of the two-week periods. However, the difference is only significant in one of the seven periods (between days 168 and 182),[68] which is insufficient evidence for an incentive effect of the reduced duration of entitlement.

People who worked 24–43 months in the preceding four years

For this group, comprising one-fifth of the entire sample, entitlement to benefits was 180–300 days under the 1997 regulations and only 144–264 days in the new scheme. Depending on individual employment records, the cut could be between 10 and 20 percent. The survival and hazard functions, treating periods ending with benefit exhaustion as censored, are similar to the schedules of the previous group with a longer employment record.

The survival functions of males entitled to benefits under the 1997 and 2000 rules shown in the left part of Figure 5.3, move closely together for a while and diverge in the third month. The survival functions for females in the two schemes, shown in the right side of the figure, as in the previous group, exhibit a smaller difference than male survival curves. Also, males outflows are again larger: at the end of half a year, the survival rate of males under the 2000 regulations was 7 percentage points lower than that of females, while under the 1997 regulations the rate was 17 percentage points lower. At the same time, we see that in both sub-samples of this group, both males and females are faster to leave the register than people who worked 44–48 months over the preceding four years.

68 The sample size decreases monotonously due to exits, so error margins increase with time spent on benefit.

FIGURE 5.3: SURVIVAL FUNCTIONS OF PEOPLE WHO WORKED 24–43 MONTHS IN THE PRECEDING FOUR YEARS

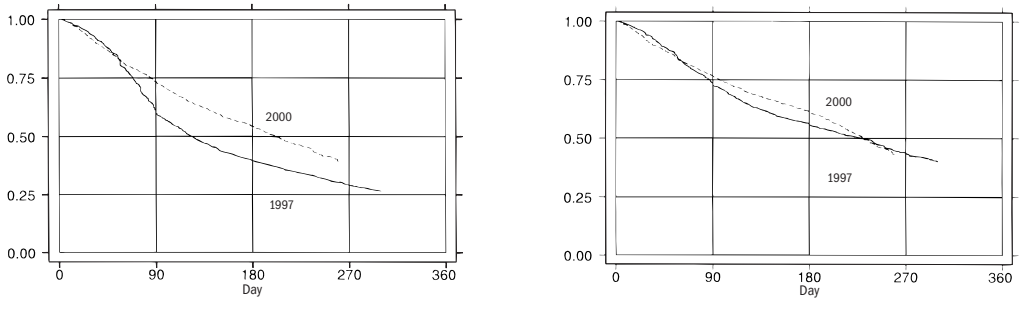
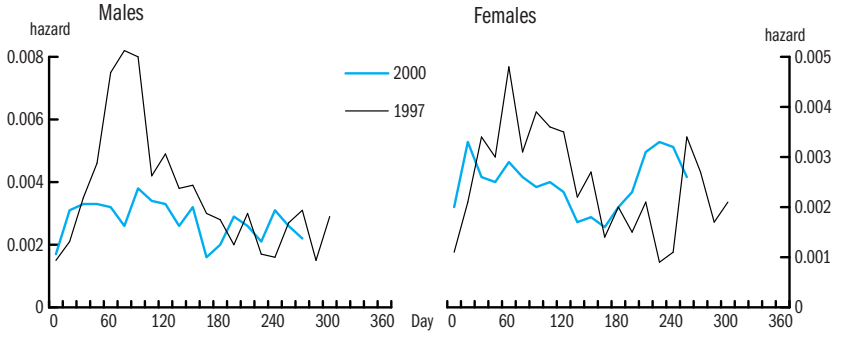


Figure 5.4 presents hazard curves for the group. For males receiving benefits under the 1997 regulations, shown in the left side of the figure, there is again a jump in exit rates in March and April, but there is no similar increase for males receiving benefits under the 2000 regulations. Then, six months after the start of benefit receipt, just about all discernible difference between the two male subgroups disappears. For females, shown in the right side of the figure, benefit recipients under the 1997 regulations have a higher probability of finding a job throughout the period from the second to the fifth months. After six months, there are several two-week periods when the recipients under the 2000 regulations show a higher probability of re-employment, but the difference is never significant.

FIGURE 5.4: HAZARD FUNCTIONS OF PEOPLE WHO WORKED 24–43 MONTHS IN THE PRECEDING FOUR YEARS



People who worked 12–13 months or less in the preceding four years

The outflow of people who had worked *12–13 months* supplies no evidence either, that the new regulations would encourage faster re-employment. Males receiving benefits under the 1997 regulations leave the system somewhat more rapidly, and there is no difference between survival rates in the two female sub-samples.

With regard to people *who had worked less than one year*, we expected people in the 1997 sub-sample to leave the register faster since in this group the 2000 regulations generally increased the duration of benefit receipt. In reality, the reverse was the case: people receiving benefits under the 2000 regulations were faster to leave the system and showed a higher probability of re-employment. Nevertheless, differences were small, and in part may be explained by the more favourable composition of the 2000 sub-sample (they were younger and better educated).[69]

69 For a detailed analysis of the outflow of people who had worked 12–23 months, and less than 12 months before becoming unemployed, see *Galasi and Nagy (2001).*

*

As of February 2000, most of the people becoming unemployed were entitled to a shorter duration of benefits than they would have been under the 1997 regulations in effect until the end of January. The cut in the duration of entitlement was largest for people who had worked continuously or almost continuously over the preceding four years. The only group that may have benefited from the new regulations was that of people who had worked a maximum of one year in the four years prior to their job loss.

The government's declared purpose of changing the regulations was to encourage re-employment. But, just as the research on the 1993 cut in benefit entitlement (*Micklewright and Nagy, 1995)* found, we discovered that the shortened period of entitlement did not lead to faster re-employment for people who became unemployed, irrespective of their employment record.

Our conclusions of course only hold for the duration of benefit entitlement, since our data source does not allow us to follow unemployed people in our sample once they have exhausted their benefits. If there is an increase in the re-employment rate following exhaustion of benefits, then the shorter duration of entitlement may have an incentive effect on re-employment purely due to the fact that benefit exhaustion occurs sooner. However, a 1995 investigation of people who had exhausted their benefits (*Micklewright and Nagy, 1998)* found that this effect could not have been significant, since re-employment rates are indeed slightly higher immediately after benefit exhaustion but they return to their pre-exhaustion levels within a few weeks.

5.3 The Effect of the Unemployment Insurance Benefit on Individual Chances of Re-employment

János Köllő

While the previous section examined how changes in the benefit system parameters in early 2000 changed *average* re-employment chances for benefit recipients, this will be an analysis of individual *differences in chances* depending on the amount of benefit payments. The data come from a survey conducted in March and April 2000, similar to a survey taken in 1994 (*Köllő and Nagy, 1995)*.[70]

The sample consists of 105,924 benefit recipients, 9,474 of whom began working during the observed period between 18 March and 7 April 2001. The analysis focuses on people who got new jobs, that is, who were not re-employed by the firms that had dismissed them. Some 45 percent of the

70 Concentrating on the results that are important from the point of view of the benefit effect, we do not discuss other questions investigated in the survey, such as the characteristics of firms hiring the unemployed, and the gains and losses in earnings. For a complete analysis of survey results, see *Köllő (2001).*

group entered new jobs and 37 percent were returned to their former employer. There is no information on the remaining 18 percent.

We investigated the factors influencing the individual chances of re-employment in a logit model interpreted as a second best alternative to a discrete time duration model. Our aim was to measure the effect of benefit amounts on the probability that an unemployment spell of t duration would be terminated during the (t, t+1) period. As *Jenkins (1995)* shows, in a stock sample, the duration model can be transformed into a standard binary logit regression by choosing the unit of analysis to be the periods spent in unemployment rather than the individual.

$$[1] \qquad \ln[h(t)/(1-h(t))] = f(t) + b'(S, X, Z_t),$$

where h(t) is the conditional probability of re-employment after t periods of unemployment, S is the benefit, and X and Z_t are other variables affecting re-employment chances (those included in Z may vary with time). Function f(t) describes the duration dependence of re-employment chances. It may follow some parametric distribution (linear, for instance) or it may be entered in the model in the form of dummy variables indicating particular months of unemployment. The individuals observed remain in the model until they get jobs or leave the risk group in some other way.

Observations on the unemployed individuals are available for a single period after taking the sample. (By breaking down the observed period into smaller units such as weeks, we could produce a sample of shorter periods but this transformation would be purely formal.) There was nothing we could do about that, but we can maintain identity with the discrete-time duration model in writing the logit model, which, keeping the above in mind, we specify as follows:

$$[2] \qquad \textit{Prob}[\text{re-employed in period } (t, t+1)] = \\ = \ln[h(t)/(1-h(t))] = a'[t1,t2,...,tK] + b'(S,X),$$

where t is the number of months from the time unemployment began until the time of the survey, and $f(t) = a'[t_1,t_2,...,t_K]$ describes the duration dependence of exits, where $t_k = 1$, if t = k, and 0 otherwise.[71] (It is worth noting that in practical applications of discrete duration models, the duration preceding the sampling proves to be definitive, because the observed period tends to be short compared to the length of time elapsed between the start of the longest unemployment spell and the time of sampling.) Following the logic of the duration model, we excluded unemployed people who had exhausted their benefits during the time under investigation since we do not know their status at the end of the period. We do not know whether they found a job after exhausting their benefits but prior to end of the observed period.[72]

71 In the 1994 sample, periods of 16 months and longer were pooled, and in the 2001 sample, we pooled periods of 12 months and longer.

72 What we do know from the *Mickleweight and Nagy (1994)* analysis is that the re-employment rate jumps in the week after benefits are exhausted.

The variables we expect to influence re-employment chances and which were entered in the model beside benefits included length of unemployment spell, gender, actual work experience (years), education level, local unemployment rate, preferred occupation (dummies for construction and agriculture), voluntary quit, previous real earnings below the minimum wage, lost job between December and March,[73] lost job earlier, repeated benefit claim.

Before considering the effect of benefit amounts, we need briefly to mention the variables determining whether the real value of the respondent's prior wages (gross earnings in the four quarters preceding job loss) reached the minimum wage in effect at the time of the investigation. Assuming that prior wages signal individual potential (e.g. productivity), a sharp rise in the minimum wage, as occurred in January 2001, reduces demand for workers who had been valued less than that. However, raising the wage threshold affects the supply side, as well, increasing the utility of finding a job. (It is worth distinguishing between people who lost their jobs before and after the announcement of the new minimum wage, since in the latter case the increased costs of the higher wage may have already played a role in the dismissal.) Our database does not allow us to measure supply and demand effects separately, only the net effect of the two, still, we cannot omit these variables because of the unprecedented steep rise in minimum wages.

Alternative methods for measuring benefit amounts

We have attempted to measure the relative amount of the unemployment insurance benefit by considering expected benefit payments[74] explicitly and expected wages implicitly, rather than using the replacement rate (the ratio of benefits to previous wages) or the ratio of benefits to estimated wage expectations.

Our point of departure was the theoretical notion in job-search models: the utility of continued unemployment benefit receipt as compared to the expected utility of accepting a job offer. The rational job seeker compares the present value of expected income flows in the two alternatives. This does not mean that we cannot describe alternatives available to the job-seeker based solely on the amount of benefits and of expected monthly wages. If the unemployed were to continuously search for jobs and received job offers relatively frequently, say once a week, or once a month, it would be sufficient to consider that accepting a job offer would yield w wage while rejecting it would yield $S<w$ benefit until the next job offer, a week or a month down the road, and we could ignore the remaining period of entitlement to benefits. In this case only the period immediately preceding the exhaustion of benefit would merit closer analysis.

73 Earnings were transformed into March 2001 values using the national monthly gross wage index.

74 By total expected benefit payments we mean the cumulated sum of payments that the recipient can expect to receive during the remaining period of entitlement. In the estimates we use the logarithm of total expected payments.

The situation is different if we do not assume that an unemployed person begins his job search from the moment he becomes unemployed, but consider the job search to be endogenous. The unemployed person begins looking for a new job with the hope of finding one when the alternative of being a discouraged worker yields a lower utility than the uncertain but positive expected utility of finding a job. In this case, we must consider the duration of entitlement to benefits. While expected wages upon finding a job can be more or less predicted based on personal characteristics such as education, age, and place of residence, the utility of remaining a discouraged worker can be best captured by expected benefit payments.

Whether it is more accurate to choose the logic of active or discouraged unemployment, depends on the interpretation of an interesting observation in the Hungarian literature on the subject. When analysing the labour force data of the Central Statistical Office, both *Micklewright and Nagy (1999)* and *Köllő (2000)* draw the same conclusion that people looking for a job and people not looking for a job had exactly the same chances of finding one, at least for men. Excluding the possibility of finding a job without looking (i.e. that the individual makes absolutely no effort to collect information on job offers), the above observation may be interpreted in two ways. One is that a significant proportion of the people counted by the CSO among the inactive on the basis of ILO/OECD criteria, are in fact looking for jobs. But instead of an active job search, they use indirect methods, e.g. informing their friends and relatives about their desire to find work, passing on the burden of active search.[75] Another interpretation may be that, after a spell of discouraged unemployment, people begin looking for a job *between* two interviews in the labour force survey, and often find one in less than three months. This interpretation suggests that when modelling the benefit affect, carefully considered waiting is a better point of departure than an assumption of continuous job search.

We have applied the second interpretation in the present study, using expected benefit payments as an indicator. To be more precise, we shall discuss in detail the model that used expected total benefit payments, but will also refer to the key parameters of the model estimated with the benefit-wage ratio. Since the remaining duration of entitlement is correlated with the duration of unemployment since job loss, and expected total benefit payments are related to personal characteristics through prior wages and the amount of benefits, we shall need to examine if estimated coefficients are sensitive to changes in model specifications.

The factors we have considered in our investigation might have different effects on the re-employment chances of people who find new jobs and of those who return to a former employer after a temporary layoff. Therefore, we have estimated model [2] with a *multinomial* logit function that allows

75 A substantial proportion of job offers received by unemployed people come through friends and acquaintances who are working.

more than one outcome. The interpretation of results is the same as in a binary logit model, treating all other outcomes as "failures". The four outcomes are (1) the respondent remains a benefit recipient, (2) the respondent finds a new job, (3) the respondent returns to a previous job, (4) the respondent finds an unspecified job.[76] We ran regressions for the whole sample and separately for various levels of education. For detailed results of the estimates, see Appendix 2 in *Köllő (2001)*. The following will be a brief non-technical summary, with a few figures and tables.

Before discussing the variables that are directly or indirectly related to the benefit effect (benefit, previous wages, duration of unemployment), we shall briefly touch upon differences in re-employment chances connected to gender, age, educational level, and region of residence.

The advantage of males in finding a job significantly decreased among the poorly qualified, and to a smaller extent among all benefit recipients between 1994 and 2001, but remained significant even in 2001 for all education levels. (The male re-employment rate was 1.2 in 2001 and 1.4 in 1994.) In 1994, a return to a previous job was already much more typical of males, a feature that became stronger in 2001. (In 1994, the re-employment rate of males was 1.3, and in 2001 it was 2.1).

Exit rates continue to be high for younger people. In 1994, a young person with five years of work experience stood a 34 percent higher chance of finding a new job, while in 2001 the probability of re-employment was 31 percent higher, controlling for other factors (in the neighbourhood of the sample mean), than someone with 25 years of experience. While in the earlier study a return to a previous job was independent of age, in 2001, more older workers returned to previous jobs. A middle-aged person with 25 years of experience stood a 30 percent higher chance of returning to a former employer than a worker with 5 years of experience.

Differences in exit probabilities across educational levels changed slightly compared to the spring of 1994. Then, two-three year vocational training granted the highest probability of re-employment, while today it is a college degree. In 2001, re-employment chances for people with incomplete primary education were only half of those for people with completed primary education, and slightly over one-third of those for people with a higher level of education. But, already in 1994, people with incomplete primary education made up only 5.3 percent of benefit recipients, and their proportion dropped to 2.0 percent by 2001.

The return to a former employer continues to be typical of unqualified labour, but variation across levels of education has declined. In 2001, temporary layoffs were not exceptional among high school and college graduates: one in four and one in seven of such layoffs respectively returning to a previous employer. (For the poorly educated, this proportion reached 50 percent.)

76 People leaving the system to do public works or participate in other schemes are treated as staying in the unemployment benefit system along with those who continue to receive benefits.

The relative chances of finding a job for benefit recipients living in the backward regions of the country dropped sharply between 1994 and 2001. On the whole, and also within education categories, exit probabilities (into a new job) were more strongly influenced by labour market conditions than in 1994. Re-employment chances in regions with the lowest unemployment rate were twice as high as in regions with the highest unemployment rate in 1994, and four times as high in 2001. The change was particularly remarkable for high school and college graduates. In 1994, local unemployment hardly affected their chances of finding a job, while in 2001, graduates living in low unemployment regions were four and a half times more likely to be re-employed than their peers in high unemployment areas. Regional variation in the probability of finding a job among people with incomplete or completed primary education also increased, while there was no significant change among skilled workers.

In 1994, people living in the, typically agricultural, small regions hardest hit by unemployment were three times more likely to return to a previous job than people living in regions where the unemployed rate was the lowest. Regional variation disappeared by 2001, suggesting that the proportion of temporarily laid-off unemployed people grew substantially in the more advanced areas of the country.

The effect of benefits on exit probabilities

According to the estimates in model [2], there is no correlation between the amount of total expected benefits and exit probabilities for people returning to previous jobs. By contrast, the probability of exit to a new or unspecified job is smaller for those with higher expected total benefits on the starting day of the survey. Figure 5.5 shows estimated exit probabilities as a function of expected total benefits.[77]

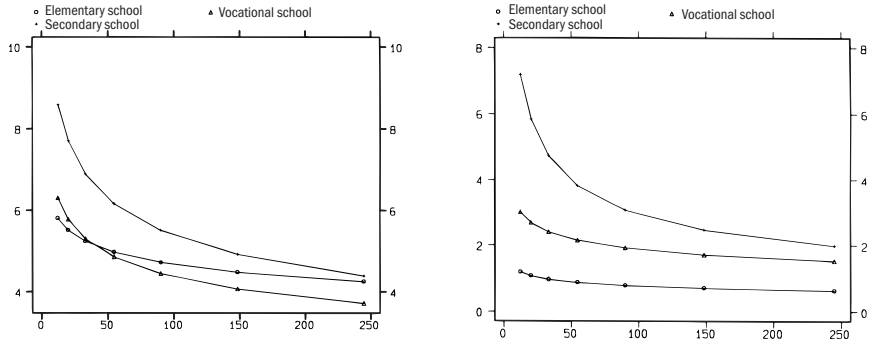
Let us first consider people taking unspecified jobs. The estimated effect is negligible for people with an incomplete or completed primary education or vocational education. However, for those with four year secondary or higher education, there was a significant rise in exit rates when total expected benefit payments dropped below HUF 50,000 (roughly 1.5–2 months of benefits). The situation is similar in the case of exits to a new job: exit rates are higher prior to the expiration of the benefits at all educational levels, but the relationship was particularly strong among people with higher degrees.

Care must be taken when evaluating estimated effects. Total expected benefit payments are correlated with the duration of unemployment and previous wages, so, without a sensitivity test, no conclusions should be drawn from the above figures. Before turning to that, let us take a look at the influence of previous wages and the duration of unemployment since

77 The curves show the estimated probability of exit as a function of expected total benefit payments with a mean value for the continuous variables and a zero value for the dummy variables.

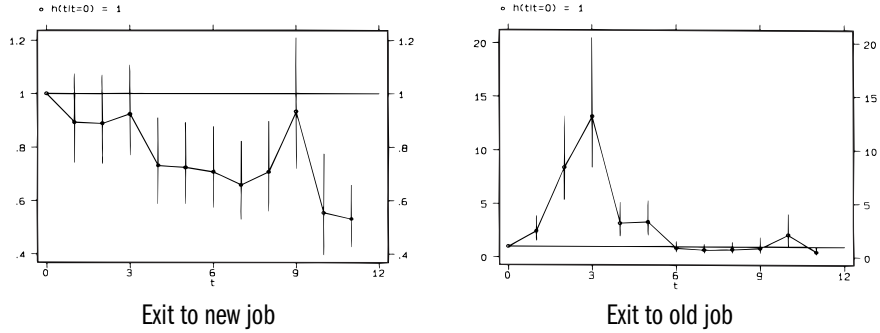
job loss using model [2]. The graphs in Figure 5.6 show re-employment chances as a function of the duration of unemployment up to the time of the survey.

FIGURE 5.5: TOTAL EXPECTED BENEFIT PAYMENTS (THOUSAND HUF) AND PROBABILITY OF EXIT (PERCENT)



Horizontal axis expected benefit.

FIGURE 5.6: EXIT PROBABILITIES AS A FUNCTION OF THE MONTHS SPENT IN UNEMPLOYMENT



Hazards at 1 month duration = 1. The vertical bands indicate the 95 percent confidence interval. Base on equation [2].

The chances of finding a new job declined with the length of the unemployment spell, in both 1994 and 2001. To be more precise, fewer people from the cohort that had been unemployed over a longer period exited the register during the observed period. For instance, the re-employment chances of people who had been unemployed for more than a year were only half that of people unemployed for one to three months.[78]

The curves show a rise in exit probabilities in the ninth month following job loss (when benefits are exhausted in the case of maximum entitlement)

78 Accurate phrasing is particularly important here, since if abilities or environmental features help one or another cohort to exit earlier, then even without duration dependence we would find lower re-employment rates in the groups that lost jobs earlier. Our survey is not suited to separate the effects of selection and duration dependence.

but the standard error of the estimate is too large to interpret this as a powerful sign of the benefit effect without further investigation. We shall return to this issue in the sensitivity test.[79]

Chances of leaving the register for those with prior earnings below the minimum wage who had been unemployed for more than three months did not deviate from the mean.[80] Table 5.7 shows the exit rates of people who had lost their jobs between December and March and were still unemployed in mid-March. Compared to the other unemployed groups, the re-employment chances of this group were very small in 2001, and significantly lower than in 1994. While the parameters did not decline between 1994 and 2001 for all groups, the significance of the estimations increased in every single case.

Table 5.7: Re-employment Rates for Those with Prior Earnings Below the Minimum Wage Who Lost Their Job Between December and March

	To new job		To old job		To unspecified job	
Education	1994	2001	1994	2001	1994	2001
Max primary	0.80	0.78	0.38	0.58	0.52	1.01
	(0.8)	(2.6)	(1.9)	(6.9)	(2.1)	(0.1)
2 year vocational	1.11	0.85	0.41	0.52	1.02	0.69
	(0.4)	(2.2)	(1.6)	(10.1)	(0.1)	(3.9)
Secondary, or higher	1.24	0.71	1.07	0.83	1.29	0.74
	(0.5)	(3.6)	(0.0)	(1.4)	(0.6)	(2.1)
Total	1.00	0.78	0.45	0.57	0.83	0.78
	(0.0)	(5.0)	(2.3)	(12.3)	(1.1)	(3.8)

Note: Probability rates from model [2], Z values in brackets.

Table 5.8: The Proportion of Those Earning Below the Minimum Wage Among Benefit Recipients

	1994	2001
Previous earnings below prevailing minimum wage[a]		
Benefit recipients = 100	10.5	37.3
Previous earnings below minimum wage of 2000[b]		
Inflow before 1 Jan. 2001 = 100	..	3.8
Previous earnings below minimum wage of 2001		
Inflow after 1 Jan. 2001 = 100	..	41.0

a The real value of earnings prior to job loss was below the minimum wage in effect at the time of the investigation (HUF 10,500 and HUF 40,000).

b In 2000, the minimum wage was HUF 25,500.

79 As we have seen, return to a previous job most often occurs in the third month – this means a return in March or April following a December layoff. When compared to 1994 data, we can see that in 2001 there was a particularly strong concentration of departures from the system after that length of time.

80 Excepting one case: for those who completed vocational school, in 2001, exit to unknown destination.

The most likely reason for this is the growth in the proportion of the "below-the-minimum wage" group. Table 5.8 suggests that, had the minimum wage been left unchanged in January 2001, they would have made up a smaller proportion than in 1994. (Only 3.8 percent of benefit recipients in March 2001 had been laid off in 2000 and had received wages below HUF 25,500/month, the minimum before the rise.) However, the proportion of people earning below the new HUF 40,000/month minimum wage among those dismissed in 2001 and still unemployed in March, was 41 percent, that is, ten times higher.

Sensitivity test

How robust are results on expected total benefit payments, the duration of unemployment and low wages, and to what degree are they dependent on model specifications? As we suspect that the benefit effect is likely to be significant only when people exit to a new or unspecified job, we only examine these exits, using a binary logit model. Relying on Figure 5.6, we treat the length of unemployment as a continuous variable (month), and use a dummy variable to distinguish spells of nine months and over one year. We estimated seven specifications, omitting various combinations of individual or grouped variables (Table 5.9).

Table 5.9: Parameter Estimates of Selected Variables in Various Model Specifications

Explanatory variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Expected total benefit (log)	-0.2378	-0.2039	-0.1787	-0.1558	-	-	-
	(12.9)	(11.8)	(10.0)	(9.4)			
Duration of unemployment (t)							
t (months)	-0.0592	-0.0506	-	-	-0.0348	-0.0331	-
	(7.7)	(7.5)			(4.8)	(5.2)	
t = 9 (dummy)	0.3120	0.3070	-	-	0.2825	0.2794	-
	(3.4)	(3.4)			(3.2)	(3.1)	
t> 11 (dummy)	0.0133	0.0039	-	-	0.1118	0.1259	-
	(0.2)	(0.1)			(1.5)	(1.7)	
Minimum wage group							
w'<40 thousand HUF and t<=3 months	-0.1617	-	-0.0264	-	0.0093	-	0.0756
	(4.3)		(0.8)		(0.3)		(2.3)
w'<40 thousand HUF and t>3 months	-0.0909	-	-0.1647	-	0.0354	-	-0.0364
	(2.0)		(3.8)		(0.8)		(0.9)

Binary logit estimates; control variables are the same as in Model [2].

Outcomes: 0 = did not find job, 1 = found new or unspecified job. Sample: Unemployment benefit recipients on 18 March 2001, excluding people who exhausted benefits and those re-entering the register. Observation period: from 18 March to 7 April 2001.

The effect of the expected total benefit payments appears somewhat weaker if the duration of unemployment are omitted from the model, but it is still significant. This conforms to expectations: if there is a higher proportion of people from the "fresh" unemployed cohort, whose total expected benefit payments are still substantial, when omitting the duration variable, the expected benefits variable captures both the effect of expected benefit payments and the effect of duration, which is of the opposite sign. We get the reverse when omitting the benefit payment variable. Here, the dependence of exit probabilities on the duration of unemployment appears weaker, since the parameter of the duration variable is also influenced by the effect of total expected benefit payments, which takes the opposite sign.

In the ninth month following job loss, exit probabilities appear higher in all specifications, and this parameter is not sensitive to changes in the model.

Omitting the dummy for the "below-the-minimum wage" group has hardly any influence on the rest of the parameters, but its own coefficient is extremely sensitive to changes in specification. Exit probabilities for the minimum-wage group with a short unemployment spell are *higher* if duration and expected total benefit payments are omitted from the model. Including duration does not cause any major change since the length of the unemployment spell for those earning below the new minimum wage can only range between 0 and 3 months. However, if we also control for the comparatively high total expected benefit payments in this group, then the model estimates the effects of the low wages to be significantly negative.

Parameter estimates are stronger for those previously earning below the minimum wage and unemployed for a longer period, in that, when we ignore *duration,* that is, when we do not control for the fact that exit probabilities in this group are reduced by the longer duration of unemployment. If the duration of unemployment is included in the model, we get a comparatively weak negative coefficient.

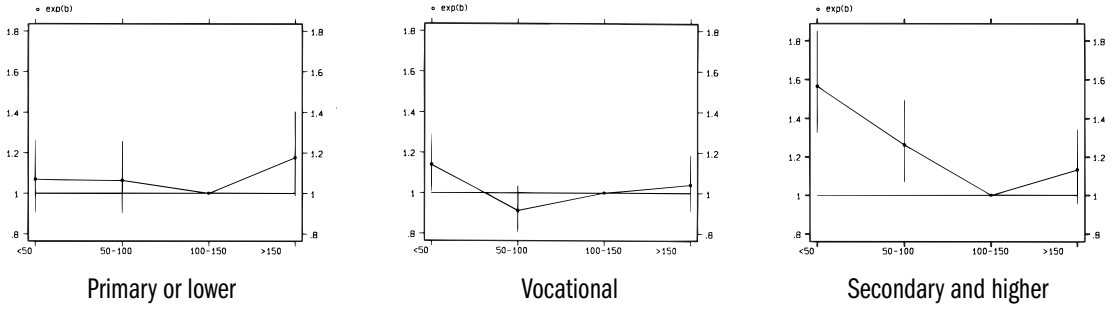
Changes in parameter estimates are not arbitrary, but seem to react to changes in specification along the lines assumed in model [2], which suggests that our estimates on the effect of benefits, duration of unemployment, and prior earnings below the minimum wage reflect genuine correlations.

The accuracy of the picture that has emerged depends on whether the true nature of correlations between the variables correspond to our assumptions regarding their shape: if they are linear, loglinear, or possibly strong within a certain range or at certain points, and weak at others. We measured the duration of unemployment in various ways and did not discover any contradiction between the results of the various specifications, while for including those below the minimum wage, the above procedure appears to be the only suitable one. However, in the case of total expected benefit payments the restriction on functional form (a linear relationship

between the logarithm of the total expected benefit payment and the logarithm of exit probabilities) might be arbitrary and may show the relationship between expected benefits and chances (opportunities and/or willingness) of re-employment to be weaker than it is in reality.

Therefore we re-estimate the logit model for people leaving the register into a new or an unspecified job, entering total expected benefit payments as a category variable (rather than a continuous variable) using four dummy variables. (The bands are: HUF 0–50,000, HUF 50,000–100,000, HUF 100,000–150,000, and over HUF 150,000.) Figure 5.7 shows the exit probabilities in each category of expected total benefit payments, with vertical lines reflecting the 95 percent confidence interval for the estimations.

FIGURE 5.7: EXPECTED TOTAL BENEFIT PAYMENTS AND EXIT PROBABILITY



Odds ratios. Reference: remaining benefit eligibility 100–150 thousand HUF.

The results confirm those in Figure 5.5. For the low qualified, exit probabilities are unrelated to expected total benefit payments. The exit rate was slightly higher among those with two-year vocational training whose total expected benefit payments were below HUF 50,000, controlling for all other variables, but the difference between them and the others was negligible. As before, we find a stronger effect among those with four years of secondary education or a high degree. The 1.56 exit rate for those with total expected benefit payments below HUF 50,000 means that, near the exhaustion of benefits, the *ratio* of the re-employment probability and the probability of remaining in the benefit system grows to over 150 percent. This factor pushes up the 5.6 percent exit probability to 8.5 percent for the average individual with a *four-year secondary of higher education.*

Finally, we might consider whether the indicator (expected total benefit payments) adjusted to the nature of discouraged unemployment should be replaced by the replacement rate (benefit-wage ratio) in the estimates, and the remaining entitlement period be entered in a way that its coefficient is sensitive to a rise in exit probabilities immediately preceding the exhaus-

tion of benefits. The logarithm of the remaining days of benefit payment would suit this requirement. Using this and the logarithm of the replacement rate instead of expected total benefit payments, we re-estimated the probability of exit to a new or unspecified job with a binary logit, keeping all other control variables of model [2]. Since personal control variables (gender and labour market experience within separate education categories) strongly influence wages, and since the indicator for the group with prior earnings below the minimum wage depended on earnings, we calculated several estimates, including or excluding these variables. We report only the parameters for the replacement rate and remaining period of eligibility (Table 5.10).

Table 5.10: Parameter Estimates for Selected Variables in Different Model Specifications

	Benefit/previous wage (log)			Remaining days of benefit payments (log)		
	Education					
Specifications	Primary	2 year vocational	Secondary or higher	Primary	2 year vocational	Secondary or higher
(1)	-0.073	-0.152	0.016	-0.258	-0.248	-0.387
	(0.6)	(2.1)	(0.2)	(8.7)	(6.7)	(11.1)
(2)	-0.038	-0.086	0.040	-0.245	-0.226	-0.357
	(0.3)	(1.1)	(0.4)	(8.3)	(6.0)	(10.1)
(3)	-0.044	-0.110	0.035	-0.237	-0.221	-0.351
	(0.4)	(1.6)	(0.4)	(8.0)	(5.9)	(10.0)

Binary logit estimates, the control variables not reported here are the same as those in Model [2].

Outcomes: 0 = did not find job, 1 = found new or unspecified job.

Sample: Unemployment benefit recipients on 18 March 2001, excluding people who exhausted benefits and those re-entering the register.

Observation period: from 18 March to 7 April 2001.

Specifications: (1) Variables of Model [2] omitting gender and labour market experience; (2) variables of Model [2]; (3) variables of Model [2] without the indicators of earnings below the minimum wage.

In this version of the model the replacement rate does not affect the probability of exit: its parameter is only significant in one specification, for one education level. The coefficients estimated for remaining days of benefit payment followed the same pattern as in the above model with expected total benefit payments: the effect is significant, negative, and comparatively weak for those who with primary or two-three year vocational education, and much stronger for those *with four-year secondary of higher education.*

It is worth noting that, by using the replacement rate, we are likely to overestimate the strength of the correlation between benefits and chances of re-employment. The distribution of individual earnings for a given gender, age, and education level are, at least partly, explained by individual characteristics that also affect exit probabilities. Since benefits to people with high earnings are low compared to wages, under the Hungarian system, and their exit probabilities are comparatively high, this might lead to the illusion that their quick re-employment is the result of a low benefit-wage ratio. A control variable of previous wages cannot be used to treat this problem because the amount of benefits is deterministic and the benefit-wage ratio is close to an $r^2=1$ fit stochastic function of previous earnings. Including benefits and previous wages together, especially together with personal control variables, would lead to strong multicollinearity and unstable parameters.[81]

The close-to-zero value of the parameters for the replacement rate is an *a fortiori* argument that the proportion of benefits to earlier wages does not have a defining influence on the re-employment rate of unemployed people. It also suggests that estimated coefficients for expected total benefit payments reflect the effect of remaining days of benefit payments (rather than the effect of benefit amounts or the benefit-wage ratio).

The group of secondary school and college graduates, where we measured a significant benefit effect, made up 28.5 percent of benefit recipients in March 2001. Let us assume that their 8.5 percent rate prior to expiration of benefits is an indicator of their "realistic" exit probabilities and their re-employment rates are lower in other total benefit payment categories due to the disincentive effect of the benefits. It can be calculated that if, at major expense (for instance, by strict monitoring and sanctions), it was possible to enforce this higher exit rate, the aggregate re-employment rate *(ceteris paribus)* would increase by 0.8 percent, which does not appear to be a significant improvement, considering, for instance the 4.3 percent difference in exit probabilities between the worst and best regions.

The disincentive effect of unemployment benefits appears to be strongest among the better qualified. This is the group that would be best able to find a job when the benefit entitlement is nearing exhaustion and they have the lowest chance of receiving means-tested assistance upon exhausting benefits. (In light of this, the fact that over 90 percent do not find another job immediately preceding the expiration of their benefits tells us a great deal.) As to whether the poorly qualified are slow to find re-employment when their benefits are about to expire because they are expecting to receive social assistance or placement on public works by the local government, or because they simply cannot find work, needs to be investigated by another study.

81 At the same time, the proportion of benefits to expected (estimated) wages is also disputable, because of the inaccuracy of wage estimation.

5.4 Assistance Recipients and Re-employment Following the Exhaustion of UI Entitlement

Péter Galasi, Gyula Nagy

One important change in the new unemployment benefit system was the abolition of the Unemployment Assistance for the long-term unemployed taking effect on 1 May 2000, and its replacement by the Regular Social Assistance for people of economically active age, which is a means-tested social benefit of a smaller amount, and with a stricter per capita income threshold. As opposed to the Unemployment Assistance, the entitlement to the Social Assistance is not conditional on exhausting unemployment insurance benefits, but there is a requirement that claimants have been in contact with the pubic employment service or the local government for one year, seeking assistance in their job search, and participated in a public works scheme for one month prior to placing their claim. This section reviews the results of a follow-up survey on the effects of introducing the new benefit.

The sample used in the investigation was made up of two cohorts that had exhausted their benefits. The first cohort exhausted their benefits in April 2000, and were thus potentially entitled to the Unemployment Assistance, while the second cohort exhausted benefits one month later, in May 2000, so that new rules applied to them. The sample was taken from the insurance benefit register of the National Centre for Labour Research and Methodology.

The data were collected in November and December 2000, seven or eight months after benefits were exhausted, using a questionnaire completed in face-to-face interviews. The questions covered changes in the labour market status of the respondent, participation in public works, benefit receipt, household circumstances, and sources of income. Questionnaires for 4,998 respondents were processed, of whom 1,898 exhausted their benefits in April, and 3,100 in May. Since labour market and economic conditions were essentially identical for the two sub-samples, any significant difference in their labour market states, or chances of finding a job, or receiving benefits, that could not be explained by individual characteristics is assumed to have been the result of changes in the regulations.

Basic characteristics of the sample

Table 5.11 reflects changes in the labour market status of the respondents, two weeks, two months, and six months after exhaustion of benefits. It was typical for both genders and all the three observation dates, that the exit rate to a job was higher for those who exhausted their benefits in May than for the April group, and a larger proportion participated in public works

(no distinction was made between public works financed by the central budget or by the local government, since the respondents were often unable to tell which programme they had worked on).

Table 5.11: Labour Market Status Two Weeks, Two Months, and Six Months After Exhausting Benefit

	Two weeks		Two months		Six months	
	after exhausting UI benefit entitlement					
	in April	in May	in April	in May	in April	in May
Men						
Looking for a job	54.8	45.5	43.9	35.8	35.4	30.3
Not looking for a job	5.7	6.0	5.0	5.5	4.3	5.0
Engaged in casual work and looking for permanent job	10.7	13.3	10.8	11.6	9.5	9.2
Engaged in casual work and *not* looking for permanent job	2.0	1.8	2.2	2.0	1.8	1.9
Employed (employee, self-employed, family help)	15.2	17.8	24.2	26.4	32.8	35.2
On public works	6.3	10.5	8.0	12.2	9.7	11.0
On training programme	1.8	1.4	1.5	1.8	1.4	1.3
Pension, pre-retirement UA, child care allowance	2.9	3.2	3.0	4.1	3.4	4.7
Other	0.7	0.6	1.4	0.6	1.7	1.5
Women						
Looking for a job	58.4	47.9	47.3	39.0	36.6	32.2
Not looking for a job	13.7	12.3	13.0	11.7	12.2	9.8
Engaged in casual work and looking for permanent job	2.7	3.7	2.8	3.9	3.0	2.7
Engaged in casual work and *not* looking for permanent job	0.6	0.6	0.6	0.6	0.6	0.3
Employed (employee, self-employed, family help)	13.3	17.5	22.7	25.8	30.2	34.0
On public works	3.4	7.1	4.4	7.9	5.5	7.4
On training programme	4.5	5.6	4.3	4.8	3.6	4.7
Pension, pre-retirement UA, child care allowance	2.8	4.7	4.5	6.1	7.0	8.1
Other	0.5	0.7	0.4	0.2	1.4	0.8

Table 5.12 summarises data on benefit receipt and participation in public works in the first four months following exhaustion of benefits. The data covered persons who were unemployed at the time or who were on a public

works scheme at the time (i.e., all those who did not find a job, join a training programme, retire, or become entitled to a child care allowance or the Pre-retirement Unemployment Assistance).

Table 5.12: Receipt of UA Benefit and Participation in Public Works in the Four Months After Exhausting Benefit (percent)

		Men		Women	
		exhausting benefits			
		in April	in May	in April	in May
Proportion of those applying for benefit	observed	59.7	43.5	63.3	45.1
	corrected		45.8		46.7
Proportion of benefit recipients among applicants	observed	88.6	78.8	87.2	74.7
	corrected		78.1		72.6
Proportion of benefit recipients	observed	55.2	36.8	57.8	36.3
	corrected		38.6		38.4
Proportion of benefit recipients and participants in public works schemes	observed	61.0	45.5	58.9	41.3
	corrected		47.8		42.1
Participants in public works schemes		16.1	28.8	8.5	22.2

Note: Logit estimates were used to obtain corrected proportions.

The first row in the table shows the proportion of persons applying for Unemployment Assistance (who exhausted their benefits in April) or for the Regular Social Assistance to persons of economically active age (who exhausted their benefits in May). It is clear that among both males and females there was a significantly lower proportion of applications for the Regular Social Assistance than for the Unemployment Assistance. In the April sample 60 percent of males and 63 percent of females, while in the May sample 44 percent of males and 45 percent of females applied for support. Proportions changed in the same direction between the two subsamples in the number of approved claims, reported in the third row. While 89 percent of male applicants and 87 percent of females in the April group were granted assistance, the proportions for the May group were only 79 percent and 75 percent.

The fifth row of the table shows the proportion of recipients of the Unemployment Assistance among those who exhausted benefit and did not find a job or enter some other support scheme within four months. There is a spectacular drop in the probability of receiving benefit. While over half of the April group (55 percent of males and 58 percent of females) received

the Unemployment Assistance, barely more than one third (35 percent) of both males and females in the May group received the Regular Social Assistance.

At the same time, a far higher proportion of persons exhausting their benefits in May entered public works schemes (29 percent of males and 22 percent of females as opposed to the 16 percent of males and 9 percent of females in the April group). People entering public works schemes earn an income for the period of participation and later have a better chance of receiving the Regular Social Assistance. This raises the question whether their larger participation rate is enough to offset their disadvantage in chances of receiving assistance during the first four months after the exhaustion of UI benefit. Figures in the second row from the bottom in Table 5.12 suggest that this may not be the case, or not completely. The combined proportion of RSA recipients and participants on public works was still significantly lower among the people who exhausted their benefits in May.

We also did a multivariate analysis to see if the higher re-employment rates and lower rates of application, award, and receipt of means-tested assistance under the new rules were related to the changes in regulations. We shall first review the results regarding assistance.

Receipt of means-tested unemployment assistance after exhaustion of insurance benefit

The decision to apply for means-tested assistance after exhausting benefits depends on the costs of applying and on expected gains. The lower proportion of applicants might suggest either a rise in the costs (including psychological costs) or a fall in expected gains. The mandatory participation in public works as a condition of receiving assistance might have contributed to a rise in costs (stigmatising effect), while the decline in benefit amounts might have induced a fall in expected gains.

According to the results of our investigation for males[82] in both the April and May groups, older persons whose benefits were exhausted were more likely to apply for assistance, but in the May sample the effect was lower. In other words, the tendency of males to apply was lower in the May sample, for all age groups, and the probability of applying for assistance did not increase so much with age in the May sample as in April. There is a similar trend in changes in the relationship between the local unemployment rate and willingness to apply. An increase in the unemployment rate, or the deterioration in labour market conditions, increased willingness to apply in both the April and the May samples, but the effect in the May sample was smaller. In other words, even with a given degree of deterioration in labour market conditions, the increase in the willingness to apply for assistance is smaller in the May sample. The effects of changes in regulations

82 We use logit estimates, separately for males and for females. The dependent variable is "claim accepted by the local government". Explanatory variables: age, education (incomplete primary school, two or three year vocational school, four year vocational school, grammar school, college or university, and the reference group is completed primary education), per capita income in household, monthly unemployment insurance benefit, obtained minimum period of entitlement, lives in Budapest, local unemployment rate.

may also explain the markedly larger proportion of people in the May sample who had a loose attachment to the labour market, with small chances of finding a job or participating in a training programme, for whom the expected income from social assistance was comparatively high, and the costs of applying (including the cost of stigmatisation) were comparatively low.

Among females there were several signs that the regulations did reduce or even increase willingness to apply for assistance. For instance, unlike in the case of men, a rise in small-region unemployment rates increases the May group's willingness to apply to a greater extent than in the April group. The change was similar for females living in Budapest. In the May sample, more Budapest residents applied for assistance than non-Budapest residents, while there was no such difference in April. At the same time, changes in regulations may also be responsible for the decline in willingness to apply among better educated women.

The chances of receiving assistance were influenced by the practices of the local governments in evaluating claims and changes in these practices.[83] Among males, we found that local government practices became stricter after the change in regulations. Tightening took the form of a more consistent application of the income criteria, and that, with given labour market conditions, local governments accepted a smaller proportion of claims. Among females, there were signs of both tougher and more lenient local government practices. Similarly to males, a decline in labour market conditions induced a smaller rise in the chances of being granted local government assistance for females in the May sample. At the same time, for females, the changes in regulations tended to lessen the generosity of more affluent local governments, probably because of increased concern about the disincentive effects of granting assistance. By contrast, however, the Budapest local government became more generous, compared to the other local governments.

We investigated the difference in the chances of receiving assistance before and after the new regulations were introduced, which reflects changes in the application behaviour of persons exhausting their benefits on the one hand, and in the practices of the local governments on the other hand.[84]

Among males we found signs of both a decline in willingness to apply and a tightening of granting practices. As a consequence, the chances of receiving assistance declined. One factor causing a change in willingness to apply was that, with the new regulations, chances of receiving assistance were no longer much higher for an older person than for a younger person. Another related factor was that changes in regulations tended to increase the likelihood of receiving assistance for people with a minimum entitlement, i.e. those with a looser attachment to the labour market, with repeated spells of unemployment. The reverse applies to persons with two-

83 We use logit estimates, separately for males and for females. The dependent variable is "claim accepted by the local government". Explanatory variables are per capita household income, small region unemployment rate, resident of Budapest, per capita income tax in place of residence.

84 We use logit estimates separately for males and for females. The dependent variable is the receipt of assistance. Explanatory variables are age, education (incomplete primary school, two or three year vocational school, four year vocational school, grammar school, college or university, and the reference group is completed primary education), per capita income in household, monthly unemployment insurance benefit, obtained minimum time of entitlement, lives in Budapest, small region unemployment rate, per capita income tax in place of residence.

year vocational training: their relative probabilities to apply for assistance are higher, and therefore their chances of receiving assistance were relatively more favourable under the new regulations. With the decline in willingness to apply and stricter practices in granting assistance, there was a drop in chances of receiving assistance as a function of changes in labour market conditions (measured by the small-region unemployment rate). With given labour market conditions, both willingness to apply and the probability of acceptance were lower for the May sample than in April, so the chances of receiving assistance also declined. One sign that granting practices were tightened was that the local governments apply the income criteria more consistently. As a result, following the changes in regulations, a given increase in household induces a larger drop in chances of receiving assistance. Finally, while earlier, the financial situation of the local governments did not influence the probability of accepting claims and that of assistance receipt, under the new regulations, more affluent local governments are less willing to grant assistance. In other words, the better the financial situation of a local government, the poorer the chances of receiving assistance.

Among females, the negative effect of the new rules on chances of receiving assistance were less clear-cut. There was a decline in relative willingness to apply and a resulting drop in the relative chances of receiving assistance in some groups with higher levels of education (vocational secondary schools or grammar school). Similarly to males, local government practices changed in accordance with the financial circumstances of the local governments (more affluent local governments tended to be less generous after introduction of the new regulations), and this was reflected in a drop in the probability of assistance receipt. However, as a result of the changes in regulations, chances of receiving assistance improved for females residing in Budapest, partly as a result of a rise in the willingness to apply and partly due to more generous practices in evaluating claims.

Re-employment after exhaustion of benefit

Our other major question was how the changes in the benefit system influence the re-employment probabilities of people who had exhausted their insurance benefit. In Table 5.11 we saw that the proportion of re-employment for both males and females was somewhat higher among people exhausting their benefits in May. However, differences in gross re-employment rates were quite small. We turn to multivariate analysis so that we can draw a reliable conclusion on whether they were statistically significant, and also to examine how much they can be explained by changes in the benefit system.

We investigated the issue using a sequential duration model, which is suitable for dealing with length bias. The essence of the procedure is that we continuously observe the duration of unemployment, divide the total duration into sections of half months, and conduct the analysis for these sections.

The dependent variable of the model is the probability of re-employment. The explanatory variables include age, which partly indicates work experience, partly the possible amortisation of human capital, and partly their position in the life cycle. We assume that work experience is an increasing function of age, but can be offset by the amortisation of experience, skills, and productivity, and by the fact that towards the end of the life cycle the individual has less time left to enjoy the returns on his efforts and therefore, finds it less worthwhile to make an effort. In addition, age may contain important information for the demand side. It is possible that employers may prefer not to hire absolute beginners, which improves opportunities for older workers to find jobs. However, older age also means that the labour market experience of the individual (partly as a result of the change in the political system) has become obsolete, or that the person can no longer be trained, which reduces the chances of older people to find a job. We measured age with age-group dummies, assuming that the relationship between re-employment and age was non-linear. We chose the 26–30-year age group as the reference group.

We also included the level of education in the analysis. We assumed that education captures the relative size of human capital, and that persons with a higher level of human capital make an effort to find employment faster than people with lower levels of education since they can earn higher wages upon finding a job. Therefore at a given level of benefit payments, re-employment is more profitable to them than unemployment. For an employer, a higher level of education may signal higher productivity and/or other favourable factors (ability to be trained, flexibility, etc.). Therefore, higher education levels are likely to increase chances of re-employment on the demand side as well.

Job-search behaviour can be influenced by the amount of assistance, and by other incomes of the household of the unemployed person. The sign and size of the benefit effect is one of the key issues of our analysis. Therefore, this variable was included in all equations. The usual result in simple search models is that the benefit effect is negative, because benefit payments reduce the loss of income resulting from unemployment. Other incomes may also reduce the probability of re-employment similarly to benefits, and for the same reason. We chose to include this variable only if the estimation yielded significant coefficients. We ran several model specifications (separately for benefit and other incomes separately, for the com-

bined amount of benefit and other incomes, and both of these with a logarithmic transformation, etc.) but none of them yielded significant coefficients for household income, so the variable was not included in the equation reported below. The benefit variable may be defined in a variety of ways. The simplest version is to use the amount of current benefit payments. However, the disadvantage in this case is that, at least at the beginning of the period following exhaustion of benefits, the current amount of payments is often zero, since the application for assistance is still under assessment. Individual behaviour is not influenced by the current level of zero but by the expected amount of future benefit payments. Therefore, we calculate the amount of payment expected for the first month following the exhaustion of benefits, and use this as the amount received in the first month, and used the actual amount received in the subsequent periods. For the calculation of the expected amount, we needed an estimate of the probability of receipt (the amount of expected assistance is a multiple of the amount of assistance and the probability of receiving it). We derived that from a logit estimate.[85]

Family status can play a role in the job-search behaviour of people exhausting their benefits. Empirical observations suggest that being married increases job search intensity for men, at least, mainly because there is a stronger motivation to support the spouse and the family.

Finally, we took into consideration that re-employment chances were influenced by the local labour market, and the intensity of labour demand. We assume that the higher the unemployment rate is on a given local labour market, the lower is demand. We measure local labour market conditions with the small region unemployment rate.

A simple way to measure the difference between the April and May samples in chances of re-employment for people exhausting their benefits was to estimate a duration model including both samples and enter a dummy variable indicating whether the person in question exhausted her/his benefits in April or in May. The weakness in this procedure that it relies on the assumption that the effects of explanatory variables on re-employment probabilities are identical in the April and May groups. The result of the estimate was a negative coefficient for both males and females, which suggests that people with the same observable characteristics who exhausted benefits in April or May, had a smaller chance of re-employment if they had exhausted benefits in May. At the same time, none of the coefficient estimates were significant, so the sub-sample effect can be considered as zero.

The benefit effect is an important problem of employment policy, and within this, of the unemployment benefit system. The benefit effect measures whether assistance to unemployed people changes their job-search behaviour, and if so, to what degree, and in what direction. The usual result is

85 The dependent variable is "received assistance". Explanatory variables are per capita household income, small region unemployment rate, amount of per capita income tax for settlement, and two dummies for Budapest and large city.

that the benefit effect is negative, meaning that more generous assistance reduces the probability of re-employment because it reduces the loss of income from the unemployment. At the same time, earlier research using Hungarian data has suggested that the benefit effect is very small. In other words, even a comparatively significant increase (decrease) in the amount of assistance has a very small effect on reducing (increasing) the probability of re-employment. To see if there is a benefit effect in the two benefit schemes (UA and RSA), and if there was a change in the benefit effect after introducing the new rules, we ran separate duration models for males and for females, and for the April and the May groups. The multivariate model results are reported in Table 5.13.

Table 5.13a: Factors Determining Re-employment Probability, Men

	Exhausting benefit in April		Exhausting benefit in May	
	coefficient	z	coefficient	z
Age				
-20 years	-0.167	-0.61	0.256	1.10
21-25	0.064	0.37	0.274	1.85
31-40	-0.118	-0.68	0.116	0.81
41-50	-0.145	-0.84	0.094	0.66
51+	-0.799	-3.41	-0.274	-1.57
Education				
Incomplete primary	-1.716	-3.35	-0.910	-3.11
Two year vocational secondary	0.294	2.38	0.400	3.97
3-4 year vocational secondary	0.776	4.33	0.472	3.28
Grammar school	0.446	1.74	0.594	2.83
College or university	0.053	0.15	0.572	2.03
Married	0.274	2.26	0.297	3.1
Benefit amount/1000	-0.043	-4.01	-0.070	-5.94
Small region unemployment rate	-0.031	-2.5	-0.021	-1.99
Constant	-3.277	-14.87	-3.564	-20.1
N	11,259			14,314
LR $chi^2(12)$	345.920			438.35
Prob. > chi^2	0.000			0
Pseudo R^2	0.099			0.0849

Table 5.13b: Factors Determining Re-employment Probability, Women

	Exhausting benefit in April		Exhausting benefit in May	
	coefficient	z	coefficient	z
Age				
–20 years	–0.167	–0.61	0.256	1.10
–20 years	0.089	0.28	0.026	0.10
21–25	0.081	0.39	–0.026	–0.15
31–40	0.183	0.97	0.059	0.40
41–50	–0.027	–0.14	–0.004	–0.03
51+	–0.196	–0.67	–0.212	–1.01
Education				
Incomplete primary	–0.528	–1.23	–0.781	–2.12
Two year vocational secondary	0.329	2.13	0.273	2.34
3–4 year vocational secondary	0.431	2.46	0.381	2.89
Grammar school	0.217	1.13	0.183	1.22
College or university	0.645	2.00	0.270	1.04
Married	–0.010	–0.07	–0.086	–0.84
Benefit amount/1000	–0.043	–3.71	–0.062	–4.89
Small region unemployment rate	–0.038	–2.62	–0.016	–1.41
Constant	–3.189	–12.52	–3.316	–16.89
N	8,678		12,372	
LR $chi^2(12)$	153.54		340.73	
Prob. > chi^2	0		0	
Pseudo R^2	0.0574		0.0771	

Note: Sequential duration model, with half-month sections; dependent variable: re-employed.

In all four equations, that is, for males and for females, and for people exhausting benefits in April and May, the benefit effect was significant and negative. In other words, both before and after the rule changes, more generous assistance was related to a lower probability of re-employment. Marginal effects were calculated from the coefficients to determine the size of the benefit effect. The coefficients show the effect of a unit (1 Hungarian Forint) change in benefit amount on the logarithm of the re-employment probability. From this, we calculated an indicator showing the effect of a 1,000 forint increase in benefit on probability of re-employment in the neighbourhood of the sample mean, that is, for the average male and female who exhausted their benefit in April or May.[86] For both males and females in the April sub-sample, the value was –0.002, and for the May

86 In a logit, the estimated coefficients do not reflect marginal effects. The marginal effect is P (1-P)ß, where P is the probability of re-employment, and ß is the estimated coefficient. In the neighbourhood of the mean re-employment probability, the marginal effect is P/ (1-P/) ß, where P/ is the mean probability of re-employment for the given group.

sub-sample it was –0.003. This effect (though statistically significant) is very weak. A value of –0.002 means that a 1,000 forint increase (decline) in assistance reduces (increases) the probability of re-employment by 0.2 percent. In addition, there is practically no difference in the benefit effect between the April and the May groups. In summary, benefit effects in the two sub-samples are identical, but the assistance is smaller under the new rules, and fewer people receive it.

The multivariate analysis showed that belonging to the April or May sample did not influence re-employment probability. Then we looked at the benefit effect (the marginal effect of receiving assistance) to see whether the smaller amount of assistance under the new rules reduced the disincentive effect of the assistance, in other words, did it encourage re-employment? The answer was in the negative. Although in both groups and among both males and females the benefit effect was negative and significant (i.e., a reduction in the amount of assistance increased the probability of re-employment) the effect was very weak. A reduction in assistance induces a negligible increase in the probability of re-employment in both sub-samples, and more or less by the same degree. (The actual reduction in the amount of assistance was small, coming to HUF 1,660.) At the same time, we know that under the new rules, fewer people exhausting insurance benefits receive the social assistance. The disincentive effect in the May sample was smaller for this reason, too, and contributed to an increase in the proportion of those ending the unemployed spell by exit to employment. In other words, by being less generous (fewer people receiving a lower amount of assistance), the new rules speeded up the re-employment of people exhausting their benefits, while significantly reducing the welfare of people who did not find employment.

Changes in the regulations may have had a differential effect on different groups of people who exhausted benefits. Re-employment chances may have improved for some groups, i.e., the new rules may been a stronger incentive to job-search for some groups with particular observable characteristics. The results for *males* in Table 5.13 show that with one exception, none of the coefficients estimated for age groups were significant. In the group exhausting benefits in April, the coefficient for the oldest group (aged over 50) was significant and negative. In the May group, age differences did not influence re-employment probability at all. Taking the value of the coefficient for the oldest group in the May sub-sample to be zero, one may say that the new regulations improved the relative chances (as compared to those aged 26–30) of re-employment for males in the oldest age group, since in the April they their chances were smaller than in the reference group, while in May they had no observable disadvantage.

As for the effects of education, parameter estimates for grammar school and university education were not significant in the April group, while in the May group all the coefficients for education levels were acceptable. Where significant, parameter estimates rise with the level of education compared to the reference group (completed primary school), confirming the expectation that education improves re-employment probabilities. In the May sub-sample, all education levels can be arranged in an ascending order (all estimates being significant). The same applies to the April sub-sample, except for grammar school and university education, where the estimated parameter is considered zero. But the comparison of parameters for the April and May groups also reveals significant differences. Those with incomplete primary education in the April group showed a smaller probability of re-employment compared to the reference group than their peers in the May group, meaning that their relative re-employment chances improved somewhat. The same applies to people with two or three year vocational training. In the May group, they had a somewhat larger advantage in re-employment chances (compared to those with completed primary school) than in the April group. The difference in the effects though is not very large. Calculating marginal effects for the two educational levels at the sample mean, we get a 6 percent gap for those with incomplete primary education in the April group which drops to around 4 percent in the May group. The corresponding values for those with two-three year vocational training are 1 percent in April and 1.7 percent in May, reflecting a slight increase in their relative re-employment chances. The change was in the opposite direction for people who finished four year vocational secondary schools. Compared to people with a primary school education their advantage in finding jobs was higher in the April group than in May. So, in their case, the new rules reduced the relative chances of re-employment, albeit slightly. Finally, the regulations improved the re-employment chances of grammar school and college graduates: their re-employment chances, not significantly above the reference group in April, were already higher in May, as compared to those with completed primary education.

In both sub-samples, married persons showed a significantly higher probability of finding a job after exhausting benefits than unmarried ones. The parameter value for the May group was somewhat higher than for the April group, but the actual difference was small. A rise in the small region unemployment rate significantly reduced re-employment probabilities for both the April and May groups. The parameter estimate is slightly higher in the April group, but the difference is not significant.

Turning to *females*, none of the estimates for the age groups are significant. In both sub-samples, the parameters for the three lowest educational levels are significant, and their relative magnitudes conform to expecta-

tions (a higher educational level has a relatively stronger effect on the probability of re-employment). All parameters are smaller in the May group. In other words, a change in the rules reduced the effect of education on re-employment probabilities at all levels. But differences compared to April are again small. In the April group, the parameter for women with a college or university degree was significant and positive, while in May it was not significant, meaning that relative re-employment chances deteriorated, even with a higher degree. A rise in the small region unemployment rate had a negative influence on re-employment probability for the April group, but not in May. This seems to suggest that under the new regulations, a deterioration in local labour market conditions has less of a negative effect on re-employment probabilities than under the old rules.

To summarise, our investigation yielded some evidence that the new rules increase the relative re-employment probabilities for certain groups (particularly among males), and reduce the negative effect local labour market conditions (a higher unemployment rate) have on the probability of finding a job. However, there are also signs suggesting that the new regulations reduce the relative probabilities of re-employment for some groups (particularly among females). However, all these effects are too small to be a basis for assessing the effect of the new rules.

5.5 Local Government Practices of Providing Income Support and Public Works for the Working Age Unemployed

Károly Fazekas

Unemployment Assistance was abolished on 1 May, 2002, and certain regulations on regular social assistance to unemployed persons also changed.

Local governments were put in charge of administering the *Regular Social Assistance,*[87] given to people who exhausted entitlement to UI or UA benefit and to those unemployed individuals who have co-operated with the local office of the public employment service for at least one year, and passed the means test. A further new responsibility of local governments is to organise *public works* schemes of at least thirty days, variously termed as *community service, publicly useful work,* or *public works*, for applicants for the Regular Social Assistance. Significant resources were transferred from the central budget to local governments to finance such schemes.[88]

Since 1 May, 2000, *the Regular Social Assistance to unemployed persons of economically active age* (RSA) has been restricted to people who agree to participate in a public works scheme under the conditions defined by law. If the local government has no such job to offer, the RSA must still be granted to the person in need. Rules require the applicant to register with the local government, to cooperate in the means test, to accept a suitable

87 The Regular Social Assistance to unemployed persons of economically active age was introduced in 1996. Prior to the amendments that took effect in 2000, a person was qualified as unemployed and of active age if he had exhausted his entitlement to the Unemployment Assistance, and had co-operated with the local job centre for a three-year period prior to applying for the RSA, and did no regular paid work. According to data from TÁKISZ, in April 2000, there were 24,000 unemployed persons of economically active age receiving the Regular Social Assistance in Hungary.

88 In 2000, HUF 4.6 billion, in the 2001–2001 budget HUF 10.5 billion, and in 2002 HUF 14.6 billion was earmarked to finance public works. The normative allowance that local governments can use for this purpose in defined by the central budget. In 2000, it was set at 11 percent of total local government social and welfare expenditure, or a minimum of HUF 180,000. Local governments could apply for HUF 1,500 per one day of public works in 2000, HUF 3,000 for a day in 2001, and HUF 3,490 for a day in 2002. The annual local government budget for public works had a floor of HUF 450,000 in 2000, raised to HUF 550,000 in 2002, and could not exceed a set percentage of total expenditure in cash and kind for welfare and child welfare, as defined by law, depending on the total population of the settlement, with higher proportions applying to smaller settlements.

job offer from the local government or the local job centre, and to participate in a "rehabilitation" programme (job-related or other training) required by the local government, if suited to their physical and mental condition.

The main justification for the above measures was to enforce the principle of *"welfare to work"*. Proponents of the changes assumed that the tighter rules would encourage the long-term unemployed to return to employment, increase participation in public works organised by local governments and discourage free riders, i.e., those who reject services or job offers without an acceptable reason.

Although the tasks specified in the Welfare Act are mandatory for all local governments, the size and nature of the tasks and the organisational and financial resources of local governments vary considerably across settlements. Settlements differ in the number of residents, the unemployment rate, the proportion and composition of the long-term unemployed, in economic, institutional, and social conditions, in opportunities for informal activities, and in many other factors bearing on governmental tasks and choices. Despite this, officials responsible for designing the amendments believed that the local governments and related institutions (county centres and local offices of the public employment service, schools, non-governmental organisations, offices of public administration) would be able to implement the new regulations with their available resources, if they are given proper guidelines.

In the following we report the main conclusions of a research project concluded in July 2001,[89] to examine the extent to which the practices connected to the Regular Social Assistance and public works conformed to expectations about the new regulations. The data came from records of the Regular Social Assistance and of participants in public works schemes, a survey on local government practices, case studies in 15 local governments in four counties, and interviews with (or written reports submitted by) the directors of county and local offices of the public employment service. We followed developments for one year after the amendment of the law in May 2000.

Investigation Results

In the year following the amendments, fewer people than expected transferred into the Regular Social Assistance scheme. Among the long-term unemployed, the number of persons receiving some form of support (Unemployment Assistance, or the Regular Social Assistance) declined, which was only partly offset by the increase in the number of participants in public works organised by local governments.

The amendments were instrumental in the exclusion of free-riders, but also of some people in need of support. Reports from county offices of the employment service and analyses of the re-employment of people exhaust-

89 A research project on "Local government experience regarding the introduction of the regular social assistance and public works" was initiated within the framework of a research programme called "Investigating the effects of a change in the unemployment benefit system", commissioned by the Governing Body of the Labour Market Fund, with the participation of Károly Fazekas, János Köllő, and Ágnes Simonyi.

ing their benefits equally showed that there was no increase in the proportions of people who exited to employment after exhausting UI or UA benefit. So, some of the people excluded from assistance joined the ranks of the unemployed receiving no state support, or of the inactive who had been driven out of the labour market.

Our investigation found that the large majority of local governments were not prepared to handle the tasks related to organising public works. In May 2000, public works schemes were launched in 190 settlements out of 3,156. Though by the end of the year, six times as many settlements were running such schemes, this was still only one-third of the total. In the year under investigation, local governments used only 32 percent of the funds available for such schemes.

National averages conceal significant variations in the inflows into the Regular Social Assistance schemes and in participation in public works. In some settlements, almost all of those exhausting UI or UA benefit after May 2000, transferred to the RSA scheme, while in others, almost all were excluded from further assistance. A significant proportion of the settlements organised no public works for the recipients of social assistance, while others could offer placement on some scheme to all applicants.

According to the latest figures (of June 2001) reported in Table 5.14, there were no RSA recipients in 19.4 percent of the settlements, and in 46.5 percent of those that did provide assistance, there was involvement in public works. The largest number of people receiving the Regular Social Assistance in any one local government area was 3,846, and the largest number participating in a public works scheme was 339.

TABLE 5.14: DIFFERENCES BETWEEN LOCAL GOVERNMENTS IN PROVIDING SOCIAL ASSISTANCE AND PUBLIC WORKS

	Min.	Max.	Average	Average deviation	Total	Bottom quartile	Top quartile
Regular Social Assistance* recipients	0	3846	27.52	94.92	86,885	0.29	92.34
Participants in public works schemes (PW)[a]	0	339	4.06	12.50	12,812	0.00	13.26
RSA per 100 active population*	0	43.27	2.9	4.15	–	0	8.56
PW / RSA recipients[a]	0	36	0.32	1.025	–	0	1.05
New RSA claims/ UI or UA benefit exhaustions[b]	0	4	0.33	36.15	–	0	0.82
PW participants / UI or UA benefit exhaustions[b]	0	9	0.28	0.62	–	0	0.92

a Data from June 2001 (TÁKISZ database).
b Data from March 2001 (National Centre for Labour Research and Methodology database).

On a nationwide average there were 2.9 people receiving the Regular Social Assistance per 100 people of economically active age. In the upper quartile of settlements, the average ratio was 8.6, and the maximum was 43.3. On

average, one-third of Regular Social Assistance recipients participate in public works. However, in the bottom quartile of settlements, there was no involvement in public works and in the top quartile there were more people doing public works than recipients of the Regular Social Assistance. In 2000, 48.8 percent of settlements did not draw on the funds earmarked for public works, while 5.4 percent used over 90 percent of their funding. Differences are similarly large (in both absolute and relative terms) in the data of the National Centre for Labour Research and Methodology on the numbers and proportions of persons claiming RSA upon the exhaustion of UI benefit, and entering public works schemes.

Large variations in local conditions explain the vast inequalities in the provision of the Regular Social Assistance and public works. In the large majority of small settlements the local government cannot afford a separate branch for the management of public works. Only the larger settlements can maintain non-governmental organisations, educational institutions and welfare institutions that offer assistance to families, the elderly, the sick, and the long-term unemployed.

Important reasons behind the large-scale exclusions from the Regular Social Assistance were the tightening of the asset- and income-tests for entitlement, the practice of putting a lien on inheritable property against the assistance, and the introduction of a mandatory minimum of 30 days of public works as a prerequisite.

The local government awards the Regular Social Assistance to a person who has exhausted unemployed insurance benefits or the Unemployment Assistance, is not working, has a monthly income below 70 percent of the prevailing minimum old age pension, a per capita monthly family income of or below 80 percent of the prevailing minimum old-age pension,[90] and where neither the recipient nor any other household member have any assets. Respondents in the case studies generally considered the criteria for entitlement to the Regular Social Assistance to be too tight, and the discretion allowed to local governments in applying the criteria to be too restricted.

Applicants for the Regular Social Assistance were particularly badly affected by the increase in the minimum wage to HUF 40,000/month, since their entitlement is indexed to the minimum old-age pension and not the minimum wage. This means that if there was one person in the household earning the minimum wage, that was enough to push many households over the per capita threshold, and thus lose their entitlement to assistance. Most people whose income is above the threshold leave the benefit system, and undertake informal activities, if they can.

Our survey found that nearly one-third of the local governments took advantage of a clause in the Welfare Act allowing them to register the amount

90 In 2000, it was HUF 13,280, and in 2001 it was HUF 14,648.

of the Regular Social Assistance as a lien on inherited property, and claim a lien during the probate on any property owned by the recipient. The conditions and extent of application vary considerably: in some places 100 percent of the assistance is accounted in this way, and from the first payment, while elsewhere accounting begins only in the seventh month or even the seventh year of payments, but from then on 100 percent goes against the property. Elsewhere, assistance is accounted against the property from the beginning, but only at 25 percent. According to local government data, only a fraction of the local governments that place liens on property investigate any circumstances other than the existence of the property during the procedure.

The opportunity to put liens on the property of the Regular Social Assistance recipients, as mentioned by many authors preparing the case studies, gives plenty of room to the local governments to discourage some of the potential claimants. Data in Table 5.15 attests to this. The share of people exhausting other benefits and receiving the Regular Social Assistance is twice as high in areas where the local government does not place a lien on the property compared to where it does.

TABLE 5.15: NUMBER OF PERSONS RECEIVING THE RSA PER 100 UNEMPLOYED PERSONS EXHAUSTING OTHER FORMS OF BENEFIT (1 MAY – 31 OCTOBER 2000)

	Average	N
No liens on property	21.3	1815
Liens on property	11.5	885
Don't know	8.9	174
Total	17.5	2874

Source: local government survey.

Beside the stricter income- and asset tests used in the evaluation of claims, and the practice of placing liens on property in return for the assistance, the third factor that discourages potential recipients is the mandatory minimum of thirty days of public works. Most of the people who reject participation in public works decide not to apply for support, so there is no data on their numbers. The case studies and reports from county offices of the public employment service suggest that skilled workers, those who completed grammar school, and college or university graduates are the ones who most often reject public works. They consider such work unfair and humiliating, as it typically requires unskilled or semi-skilled labour, and working in public places. Others agree to the public works requirement, but then reject the actual offer, usually referring to a health problem. The proportion of people rejecting public works is above the average in areas

where the unemployment rate is comparatively low and where informal work opportunities are more abundant.

According to reports and interviews from directors of county offices of the public employment service, most believe there was no increase in the number of long-term unemployed who found work in the past year. Reports from several counties, mainly from the western regions where the labour market situation is better, suggest that some of the people exhausting UI or UA benefit have increased the intensity of their job search instead of applying for the RSA which has less favourable conditions, and some of them have found work. Several county managers also suggested that raising the minimum wage to HUF 40,000/month in January 2001 had accelerated this process, since it increased the difference between the amount of the RSA and potential earnings in a job.

It also should be mentioned that some of the recipients feel that the term *"social assistance"* sounds more disparaging than *"unemployment benefit"* or *"unemployment assistance",* and that there is a stigma attached to it. So, despite their needs, some people are too ashamed to apply. Especially in small settlements, many people refrain from applying for assistance because the application process involves personal contact with local government staff. Several county reports mentioned that not only did the mandatory minimum of 30 days of public works keep people away, so did the requirement to cooperate with the organisations named by the local government. Some of the clients do not comply with the requirement to cooperate, because of either laziness or negligence, which leads to exclusion from the assistance. However, according to county reports, a significant proportion of persons exhausting UI or UA benefit who did not apply for the Regular Social Assistance, continue to cooperate with the job centres, expecting to receive other forms of assistance.

The use and effects of public works depends to a large degree on the characteristics of the settlement: size, legal status, the local economy, the local labour market, the size of the informal economy, the composition of the long-term unemployed, and, of course, the policies of the local government. In a significant proportion of small settlements there are no, or hardly any, applicants for assistance. They do not have the institutions which could organise public works, no staff to manage people working in the schemes, and the fixed costs of organisation are high. The local governments of cities and large towns have been the principal organisers of public works.

Available data from the settlements allowed us to use regression analysis to separate the effects of selected factors (settlement size and type, the proportion of unemployed people, the scope of public works, whether payment of assistance resulted in a lien against property) influencing inflows into the RSA scheme and public works. The first step in our two-stage

regression was to determine the intensity of organising public works, defined as the number of persons doing public works per RSA recipients (WORKSRATIO). In the next step we measure the effect of selected factors on the intensity of inflows into the Regular Social Assistance system (ASSISTANCERATIO). Table 5.16 presents the explanatory variables and the expected sign of effects.

Table 5.16: Explanatory Variables and Their Expected Effect in the Regression

1. estimate

Dependent variable: WORKSRATIO (PW participants/RSA recipients between 1 May and 31 Oct. 2000)

Independent variable	Definition of independent variable	Expected sign	Explanation for expected sign
U	registered unemployed/ 100 active age population	+	There is more need for public works in high unemployment regions.
LAKÓ	Population in 1999	+	Local governments of large settlement are better equipped and more affluent.
RSZS	Number of RSA recipients	–	Same PW/RSA ratio costs more where there are more RSA recipients.
KH99	If settlement had a public works scheme in 1999 (dummy)	+	Running a scheme in 1999 implies experience and the existence of an official or a team responsible for organising PW schemes.

2. estimate

Dependent variable: ASSISTANCERATIO (RSA recipients/exhaustions of UI or UA benefits between 1 May and 31 October 2000)

U	registered unemployed/ 100 active age population	+	There is more need for RSA in high unemployment regions.
HAGYATÉK	Property liens applied (dummy)	–	Property liens discourages some applicants in need of support.
KÖZCÉLÚ-ARÁNY	PW participants/RSA recipients	–	PW condition may discourage some eligible RSA applicants.
FALU	Village (dummy)	–	Claiming support may be perceived more stigmatising in a village due to personal contact with officials, while free-riding may be more difficult.

As Table 5.17 reports results of the two-equation model estimated in one stage using Zellner's seemingly unrelated regression.[91] The estimated effects have the correct sign for all explanatory variables, and though the explanatory power of the model is weak for WORKSRATIO, it is fairly strong for the ASSISTANCERATIO, and deviations from the estimated values are uncorrelated.

91 See the description of the STATA SUREG command in StataCorp. Stata Statistical Software: Release 6.0. College Station, 1999, manual.

Table 5.17: Results of the two-equation regression

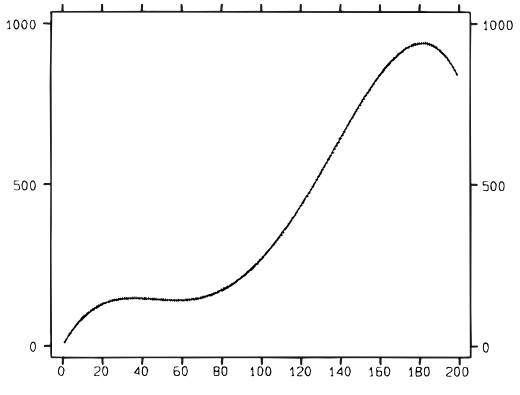
Estimate	N[a]	Variable	RMSE	"R-sq"	F	P
ASSISTANCERATIO	2 198	5	16,5945	0,3964	360,9719	0,0000
WORKSRATIO	2 198	5	52,3627	0,0419	24,23 012	0,0000
Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]		
Estimates for ASSISTANCERATIO						
WORKSRATIO	0,0198	0,0067	-2,944	0,003	-0,0330	-0,0066
u	1,6664	0,0477	34,931	0,000	1,5728	1,7599
falu	-2,6441	1,2966	-2,039	0,042	-5,1868	-0,1014
hagyaték	-4,2334	0,7791	-5,434	0,000	-5,7612	-2,7056
_cons	4,9554	1,3526	3,664	0,000	2,3029	7,6079
Estimates for WORKSRATIO						
u	-1,0669	0,1517	-7,035	0,000	-1,3643	-0,7694
lako	0,3947	0,1442	2,737	0,006	0,1118	0,6775
rszs	-0,0837	0,0211	-3,973	0,000	-0,1250	-0,0424
kh99	10,4666	2,9190	3,586	0,000	4,7422	16,1909
_cons	33,0967	3,1310	10,571	0,000	26,9567	39,2367
Correlation matrix of residuals						
	ASSISTANCERATIO	WORKSRATIO				
ASSISTANCERATIO	1,0000					
WORKSRATIO	0,0149	1,0000				
Breusch-Pagan test of independence: $chi^2(1)$ = 0,489, Pr = 0,4844						

a Budapest and eleven outliers are excluded (two for a high ASSISTANCERATIO of above 200, and nine for a high WORKSRATIO of above 500), as well as some other settlements with missing data.

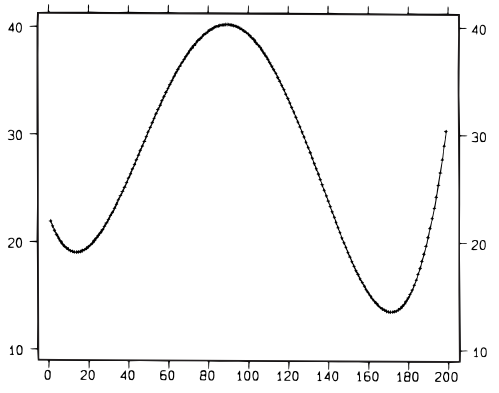
Estimating marginal effects at the sample mean in the regression on ASSISTANCERATIO, use of the property lien reduces the ASSISTANCERATIO by 4.2 percent, and by 2.6 percent if the settlement is a village, by 9.3 percent if unemployment is below the average by the amount of the standard deviation, and by 32.6 percent if it is higher. The effects of WORKSRATIO on ASSISTANCERATIO are of the expected sign, but are both weak. Increasing WORKSRATIO from one order of deviation below the mean to one order above it pushes up ASSISTANCERATIO by only 3 percentage points, from 19 percent to 22 percent. That is in line with the finding that the degree to which public works schemes act as a deterrent largely depends on whether there is any job opportunity at all in the settlement for persons exhausting UI or UA benefit.

With a 10 percent unemployment rate, 20 people receiving RSA, and a population of 25,000 used as a basis for comparison, the regression function for WORKSRATIO predicts a 5 percent rate for public works participation if the unemployment rate is 5 percent, a 60 percent rate for a 25 percent unemployment rate. If ten people receive RSA, participation is at 32 percent, and for 100 recipients it is 24 percent. Controlling for the positive effect of settlement size on WORKSRATIO and its negative effect on RSA recipient numbers, we get the simulation results presented in Figure 5.8.

FIGURE 5.8 RELATIONSHIPS BETWEEN SETTLEMENT SIZE, THE NUMBER OF RSA RECIPIENTS, AND PROPORTION OF RECIPIENTS IN PUBLIC WORKS SCHEMES (SMOOTHED WITH FOUR DEGREE POLINOMIAL)



Horizontal axis: Population (thousand).
Vertical axis: benefit recipients.



Horizontal axis: Population (thousand).
Vertical axis: Public worker/benefit recipients ratio.

The irregular curve in the right side of the figure merits more attention. It shows that as settlement size increases, WORKSRATIO increases up to 90,000 residents, and then steeply declines. Then, at the end of the settlement size scale, it again shows a marked rise, for the largest cities. The obvious explanation for the relationship shown by the curve is that while, as settlement size increases, so do resources for providing public works opportunities, there is also a rise in management costs and in the number of rejections, and only large cities have the finances and organisational capacities to counterbalance these effects.

In 2001 there was a significant rise in the growth of public works opportunities, and by June 2001, 15 percent of Regular Social Assistance recipients had public works jobs.

This was partly the result of the increase of financial support to HUF 3,000/capita per month (twice the amount of the previous year) available

to cover the wage costs and miscellaneous expenses of providing public works employment, and partly due to the option to delegate the organisation of public works to other institutions. This means that the local government signs cooperation agreements with various organisations, such as schools, kindergartens, welfare institutions, foundations, and can send RSA recipients to work in these organisations. This extended the range of public works from unskilled labour in community services to jobs requiring higher qualifications, and not just manual work. In addition, raising the minimum wage to HUF 40,000/month made public works expressly attractive in high unemployment regions, which led to a drop in rejections and a rise in the number of applicants who never exhausted unemployment benefit but agreed to cooperate with the public employment service in order to be able to participate in a public works scheme.

At the same time, this process increased inequalities between settlements. On the one hand, a significant proportion of the local governments in regions with better conditions and in larger settlements had exceeded spending limits on public works by mid-year. On the other hand, most of the small settlements are unable to organise public works schemes and lose the earmarked funds, all the more unfortunate since the funding for public works was not an add-on to their budgets, but had been re-directed from other local government and employment policy resources. In addition, in the majority of cases, public works schemes have proved to be unable to reach their main goal, to transfer unemployed persons into normal (unsubsidised) jobs. In other words, the current benefit system cannot offer appropriate services to the long-term unemployed who would be willing and able to work, nor to unemployed people who are unable to work because of physical, mental, or other problems, and thus are dependent on support, which, contrary to hopes attached to the new regulations, contributes to the expansion of informal activities.

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