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OUTFLOWS FROM INSURED UNEMPLOYMENT IN HUNGARY, 1992-1996*

PÉTER GALASI and GYULA NAGY

The paper looks at outflows from registered unemployment in Hungary between 1992 and 1996 using microdata from the unemployment insurance system. We address two questions. First, we investigate the trends in outflows in the period. A related question is whether the decline in the unemployment stock from early 1993 is associated with an increase in the outflow. Second, we look at how the probability of leaving registered unemployment to five states - employment, training, subsidised employment, subsidised self-employment and public works - varies with personal characteristics and the local unemployment rate. This also shows how active labour market policy in Hungary is "targeted" across groups of unemployed.

1. INTRODUCTION

This paper investigates outflows from registered unemployment in Hungary using microdata from the Unemployment Insurance (UI) system. We consider the trends in re-employment probabilities and the targeting of active labour market programmes in the period of 1992-1996.

Hungary has experienced an 18 percent decline in GDP between 1989 and 1993, and despite a slight recovery from 1994 its level is still lower in 1997 compared to 1989. Labour market indicators have changed significantly. Employment has fallen by almost 30 percent (1.6 millions) and the ratio of inactives to the employed almost doubled between 1989 and 1996.

Unemployment had been rising in the country rapidly in the first years of the 90s reaching a maximum of nearly 700 thousand stock of registered unemployment and a 14 percent unemployment rate in early 1993. Since then the number of registered unemployed has been modestly declining and the registered unemployment rate has

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fallen to 11 percent. Unemployment defined in terms of job search and availability (the ILO/OECD unemployment) followed the same trend in time, also at a somewhat lower level (see Figure 1). A notable feature of the labour market in Hungary, similarly to other East-European countries, is the low turnover in the unemployment pool (Boeri, 1994). The monthly inflow rate to both registered and standard ILO unemployment was not higher than 1 percent of the labour force during the period of massive growth in the unemployed stock at the beginning of the 90s, a level similar to that in many Western European countries. Monthly outflow from registered unemployment in the same period was not more than 5 percent, a very low figure in international comparison (Micklewright and Nagy, 1994, Galasi and Kertesi, 1996). This suggests that the rise in unemployment resulted more from a very low outflow than from a high inflow. There are then some indications that the moderate decline in the unemployment stock from early 1993 might be partly the result of a lower inflow. The inflow rate to ILO/OECD unemployment, measured in percentage of the labour force reached its maximum with a value of 1.05 percent in 1993, and then it has dropped to 0.58 by 1996 (Galasi and Nagy, 1998).[1] However, little is known about how outflows from unemployment have changed from 1993. One purpose of this paper is to shed some light on this issue by investigating outflows from the UI register.

The Hungarian government introduced a wide range of passive and active labour market measures at an early stage of the transition. In fact, the first, although small-scale labour market schemes were introduced in the late 80s before the political and economic changes. Table 1 shows expenditure on passive and active labour market policy and the number of programme participants in March of each year over 1992-1996. Passive programmes (unemployment benefits and early retirement schemes) accounted for between 70 and 80 percent of total labour market policy expenditure in the period and from 1993 over 11 percent of the labour force have been supported by some of these schemes. Less than 2 percent of the labour force benefited from the active schemes. The number of participants peaked in 1994 with 84,000 persons, 1.9 percent of labour force. In 1995 and 1996 participation in active labour market programmes fell by over 10 percent each year. There is also a fall from 1995 in terms of expenditure on active programmes relative to GDP (although GDP rose slightly in real terms both in 1995 and in 1996). The most important active scheme is retraining with over 40 percent of the participants. There are several types of training schemes subsidised by the employment offices. They may be organised by the employment offices themselves or by private agencies and last anything from a few weeks up to a year. Another important programme in terms of number of participants is public works that are typically organised by local governments and offer

[1] Inflow rates are calculated for the first quarter of year for age-group 15-54. The definition of inflow is unemployed not longer than 4 weeks.

simple unskilled jobs paying close to the minimum wage level. In mid-1995 the government introduced a new public work employment programme for UA benefit exhausters to help them to collect a new benefit entitlement after a short period of public work. Another change in the scheme was that the number of jobs suitable for unemployed with higher levels of education and skills has increased. Subsidised employment also plays a role; employers may receive a wage subsidy in return for hiring registered unemployed. UI recipient setting-up their own business may get an allowance equal to the unemployment benefit for a period of 6 months. Not surprisingly, the number of participants in this scheme is low.

Policy evaluation would be of great importance but any conclusion would be premature as for the adverse or beneficial effects of labour market policy since there has been very little empirical research on this topic. Micklewright and Nagy (1995) have examined the effects of cuts in benefit entitlement periods on exit probabilities and concluded that the unemployed in Hungary receiving UI are fairly inelastic to changes in UI rules. In his research conducted in 1992-1993 O'Leary (1997) has analysed the effect of training and public work schemes on re-employment and wages on a sample of program participants. He has used a sample of non-participants in order to control for observed differences in participants' and non-participants' characteristics. He found that, controlling for observed characteristics of the samples, depending on the estimation method used, retraining participants were 1 to 6 percent more likely to be reemployed in a normal job than were unemployed with no retraining with a modest wage gain of 500-2000 forints per month (about 3-10 percent). Public work schemes have the opposite effect; participants have a lower probability of re-employment than non-participants have. Since date of this survey no results are available on the impacts of active labour market policy measures in Hungary.[2]

Micklewright and Nagy (1994 and 1996a) have already investigated the exits from UI in Hungary using an inflow sample from March 1992. They found re-employment rates very low but substantially varying with individual characteristics and region. The probabilities of leaving to the active labour market programmes were also affected by the observed characteristics, in a different way programme by programme. In this paper we extend the analysis of Micklewright and Nagy in more senses. First, we investigate the outflows using four additional samples, from late 1992, Spring 1994, Autumn 1994 and late Spring 1996. The importance of this extension over time is that while the analysis of Micklewright and Nagy was restricted to a period when unemployment was still rising in the country, in this paper we can look at the period of nearly steady-state, slightly declining unemployment after early 1993

[2] O'Leary conducted a new survey in 1997 financed by the World Bank but final results of this are not available so far.

as well. Have the probabilities of exits to different states changed after the peak in unemployment? Do personal characteristics have the same affect on exits as earlier? One purpose of this paper is to shed some light on these questions. As for the active labour market policy measures, our analysis is restricted to the allocation of the unemployed to different programmes and we are not able to address the question of the impacts of these programmes.

Second, we are able to use more explanatory variables. There are relatively large regional differences in unemployment rates in the transition countries. In 1993, these countries were characterised by a top quartile of regions that had an unemployment rate two to three times higher than that of the regions in the lowest quartile. Notwithstanding the well-known problems of commensurability between regional indices, we might conclude that regional differences in the rate of unemployment are significantly higher in Eastern European countries than in developed market economies (Scarpetta, 1994, Boeri, 1996). In addition, Galasi and Kertesi (1996) report that the increase in unemployment rate in Hungary between 1991 and 1993 was coupled with widening regional differences. In order to see the relation between the outflows and the regional unemployment rates, we use for the analysis the unemployment rate for more than 150 small areas of the country. Micklewright and Nagy (1994) restricted the analysis of regional variation to county differences using a set of county dummies, but there is significant variation in economic structure and labour market circumstances in Hungary within the 19 counties. We describe the relationship between the local unemployment rate and the exit probabilities in a separate section of the paper. Another remarkable feature of the labour markets in transition countries is the emergence of recurrent unemployment. In the paper we investigate whether the speed of leaving the register to re-employment and active labour market programmes is different for recurrent unemployed compared to those with a single spell of unemployment. In order to make the comparison among samples from different time periods easier, we re-estimate all models for the March 1992 inflow sample using the new variables.

Section 2 describes the data we analyse which are anonymised microdata drawn from the UI register. Each spell of five inflows were traced through the administrative register until it finished through an exit to a job, a labour market programme, exhaustion of entitlement to UI, or some other reason. The section also describes the distribution of the samples by these exit states and the parametric model used in the next sections. We model the probability of exit to employment and to four active labour market programmes (training, subsidised employment, subsidised self-employment and public works) with a competing-risks duration model. Sections 3 and 4 summarises results for re-employment and active programmes, respectively. Section 5 is concerned with the impact of the local unemployment rate on exit probabilities. Section 6 summarises our findings and concludes.

2. SAMPLES FROM THE UI REGISTER AND ESTIMATION METHODS

The data we use are drawn from administrative records of the UI system so our analysis is restricted to outflows from insured unemployment. As a result of lengthening unemployment durations and repeated cuts in the entitlement periods for UI, the coverage by UI of the stock of registered unemployed has fallen in Hungary. While in early 1992 two-thirds of the stock received UI, this proportion from mid-1994 is only one-third and recently the most common form of benefit received by the stock of registered unemployed is means-tested unemployment assistance, available for those who have exhausted eligibility for UI. These proportions reflect to the total registered stocks including a large number of long-term unemployed who had already used up UI eligibility and not to the inflows we use in our research. Although the UI coverage of the inflows to the register is not known, is surely remained much higher than that of the total stocks. We have selected five inflow samples including all persons with a new spell of UI recorded in the register starting in March 1992, December 1992, April-May 1994, October-November 1994 and May-June 1996. Unemployed in the samples were tracked in the register until UI finished and both the length of spells and the reason for termination of benefit payment (the exit state) was recorded.

Duration of UI entitlement puts an upper limit on the length of spells we can observe. Entitlement to UI in Hungary depends on the work history in the four years before a claim. At least 12 months of employment are required in this period to qualify for any benefit. The period of entitlement is then a function of the work record: working 12 months results in the minimum period, working continuously in the 4 years leads to the maximum; there are 10 different entitlement periods in all, including the minimum and the maximum. These basic rules remained unchanged since 1991, but the entitlement periods associated with work-history records have been cut two times, in 1992 and in 1993. Our samples are affected by the January 1993 changes when all entitlement periods were cut by one third. The maximum fell from 18 months to 12 months, the minimum from 4½ months to 3 months. As a result, the maximum of the period of observation is 18 months for the two 1992 samples but only 12 months for the samples from 1994 and 1996. Long entitlement periods are quite common in practice. In the samples we use nearly two thirds of the unemployed have entitlement periods at or near the maximum (resulting from continuous or 44-47 months employment in the four years prior to claim respectively).

Table 2 shows the distribution of the spells in the five inflows by exit states and the number of observations in each sample. As it can be seen, the administrative register provides large numbers of observations for the analysis, sample sizes range from 40,000 to 60,000. Another advantage of the data source is that it contains precise information on durations and exit states. On the other hand, major disadvan-

tages with the source are that it covers only UI spells and the information about each individual in the samples is limited. The distributions of exit states in Table 2 indicate the low level of outflows from unemployment in Hungary in an indirect way: in four of the five inflows the most common single route of leaving the UI register is running out of entitlement to benefit. Although the proportion of exhausters gets higher we can't take this as an evidence of lower outflow rates since unemployed in the samples after 1992 have shorter entitlement periods than those who entered UI in 1992. The cut in entitlement periods makes impossible the direct comparison of exit states between the 1992 and the later samples. The second most important way of leaving UI is re-employment, accounting for 24-42 percent of the total number of exits in the inflows. Women are less likely to get a job compared to men in all samples, and they are more likely to exhaust entitlement in three out of five samples. Among other types of exits early retirement and old-age pension are the most common with 5-10 percent in the first four UI inflows.[3] Surprisingly enough, the proportion of UI recipient leaving for retirement is much higher in the 1996 May-June inflow than earlier, 25 percent. In this sample more unemployed leave the register for retirement than for a job and the proportion of exhausters is much lower than in the two previous samples. The big jump in the proportion of exits to early retirement, especially for women, can be explained by expected changes in the rules. In mid-1996 the government announced the replacement of the early retirement scheme with a new one from 1997. The new scheme, in fact introduced only later, from the beginning of 1998, is much less generous compared to the old one. It set the benefits at a flat rate equal to the 80 percent of minimum old-age pension in contrast to the old one which paid a benefit applying the general rules for the old-age pensions. Both schemes are available to UI recipients aged at least 57 if men or 52 if women.[4] Since the new rules offered a significantly lower rate of compensation, the number of claims for early retirement peaked in 1996 and the local labour offices awarded many of them. (Early retirement in Hungary is discretionary, labour offices may consider the claims.) To summarise, the rise in the outflow from UI to early retirement in the 1996 sample was the (most likely unintended) effect of policy changes.

Exits to active labour market programmes as subsidised employment, training schemes, public works and start-up allowance together account for only 5-6 percent. In Table 2 we label 3-6 percent of the spells in the inflows as censored. These are cases where we lost track of the spells in the register and could not identify either the exit state or the complete duration. In the rest of the paper where we estimate hazard models of exit probabilities we treat exhaustion as another case of censoring. Al-

[3] In Table 2 we grouped together retirement to old-age pension and early retirement. The big majority of the cases in this category is early retirement.

[4] Retirement age in Hugary in 1996 was 60 years for men and 55 years for women.

though UI payment finishes when entitlement is exhausted, this does not necessarily lead to an end of registered unemployment. We know from earlier work that there are only a small number of claimants returning to work just after UI exhaustion (Micklewright and Nagy, 1996). Many UI exhausters go on to receive means-tested unemployment assistance and remain in the register. On the other hand those who do not qualify for further benefit have no incentive to continue registration.

As mentioned earlier, a considerable drawback of the unemployment register as a data source is that the information it provides about each individual is limited. The individual characteristics recorded are sex, age and educational level. We also have information in the records on reason for unemployment, date of last employment, severance payment receipt from last employer (this scheme pays 1-6 months wages to dismissed workers, the period depending on duration of employment with the last employer) and previous UI spells. All records in the UI register originate from the local employment offices administering the benefit. Using the code of the local office we added the local unemployment rate to all individual records. These unemployment rates are based on the number of registered unemployed and are calculated monthly for 170 small regions of the country.[5] The UI register does not contain information on the locality of residence of the unemployed; this is stored in a separate database called the job-seekers' register. We could match the records in the two databases for the December 1992, April-May 1994, October-November 1994 and May-June 1996 inflows. As a result, for these samples we are able to use some variables describing the characteristics of the settlement where the unemployed live (as population size of the locality of residence) in the analysis. The job-seekers' register also contains a variable recording whether the claimant reported at the employment office poor health condition leading to difficulties in finding a job.

In the following sections we model the probability of exit to employment and to four active labour market programmes (training, subsidised employment, start-up allowance and public works) with a piece-wise constant exponential hazard model.

Let $\theta_i(t)$ denote the hazard of exiting to a certain state at duration t for individual i. Define a number of time intervals, I_j, j=1…M as:

$$I_j = [t | v_j \le t < v_{j+1}]$$

where $v_1 \ldots v_M$ are points in time that represent the extremes of the M intervals. The hazards are then

$$\theta_i = \exp(\gamma_j) \cdot \exp(\mathbf{X}_i \boldsymbol{\beta}) \text{ if t belongs to } I_j.$$

$\mathbf{X}_i$ is a vector of observed characteristics for individual i and $\boldsymbol{\beta}$ are their parameters to be estimated along with the constants (γ_j). Duration dependence of the hazard is

[5] Local unemployment rates are from the Institute of Economics of the Hungarian Academy of Sciences. We thank our colleagues at the Institute for making them available.

modelled by allowing the constant term to change with duration in a way determined by the data. Non-parametric analysis of the empirical hazard functions (using the Kaplan-Meier estimator) showed that although the hazard varies over the course of a spell, there is no obvious relationship with duration, something true of all exit states in question.[6] The time-intervals are one month long in the case of employment and three months for other states.

We estimate the model by maximising the likelihood with respect to the parameters, $\boldsymbol{b}$ and g_j, separately for each exit state while treating as censored all exits to other states. Let a=1…A be individuals with competed spells of UI of length T_a days that end in exit to state s, and b=1…B be individuals with spells that are censored (due to UI exhaustion or any exit other than s) at T_b. The likelihood for the sample to be maximised is given by:

$$L = \prod_a \boldsymbol{q}_i(T_a) \cdot [1 - F(T_a)] \prod_b [1 - F(T_b)]$$

where $1 - F(T) = \exp[-\int_0^T \boldsymbol{q}(u)du]$.

Section 3 presents the results for re-employment, Section 4 for the active programmes.[7] The models are estimated separately for men and women. All models include a set of dummies for age and educational level, other dummies for recurrent UI receipt, severance payment receipt, whether the individual quit last job or not, whether UI was entered directly from job or not and whether the claimant reported at the employment office any health problem leading to difficulties in finding a job or not. Local unemployment rate is included in all models. In addition, we enter a dummy for Budapest (the capital) in the models for re-employment and subsidised employment and a set of county dummies in the models for training, subsidised self-employment and public works. For exit to public works we also use the population of the locality of residence as an explanatory variable. (Means of all variables are given in the Appendix.)

Results are presented in Tables 3 to 7 in the form of the exponential of each parameter, exp(β). In case of dummies this shows the proportional difference between the hazard for an individual for whom the dummy equals one, relative to the hazard for an individual for whom the dummy equals zero. For continuous variables the exponential of the coefficient shows the proportional change in the hazard when the value of the variable changes by one.

[6] Micklewright and Nagy, 1994 presents hazard graphs for the March 1992 sample.

[7] For the estimation we used the TDA 5.7 package written by Goetz Rohwer, University of Bremen.

3. THE PROBABILITY OF RE-EMPLOYMENT

In Table 2 we saw that – apart from exhaustion – in four out of five samples re-employment is the most important way of leaving the UI register. This is the exit state in which there is naturally the most interest.

Results for employment are reported in Table 3. For age the reference group is the unemployed aged 21-25. In general, the probability of getting a job falls with age, although the relationship is not linear. Men under 21 have no advantage over the base group in the 1992 samples but later they have a 20 percent higher probability of re-employment. Those in their 30s have a 6-25 percent lower hazard than the base group aged 21-25. The hazard for men in their 40s and early 50s declines again, although the differences relative to base are not the same in the four samples. Those in pre-retirement age (56-60) experience a sharp fall in the probability of re-employment which is only 10 percent or less of that for men aged 21-25. Similarly, women in pre-retirement age (46-55) have a very low re-employment probability compared to those aged 21-25, but for other age groups we can see notable differences between the two sexes. First, women aged less than 21 are over 40 percent more likely to get a job than the base category. Second, although women over 25 have lower exit probabilities than the base group the exit rate not necessarily declines as a function of age. Third, there are more non-significant parameters with women than with men (when the hazard is not significantly different from that of the base group). To summarise, greater age leads to a lower probability of exit to a job but for women this relationship is weaker.

It does not come as a surprise that higher levels of education result in a greater probability of re-employment for both sexes. Here the base group is primary schooling. Men with less than 8 years of schooling (labelled incomplete primary in the table) exit at a rate that is one-two fifth lower than that of those with completed primary education. Those with vocational school or vocational secondary school have significantly higher re-employment probabilities than the base group in all samples. For vocational school the hazard ratios range from 1.2 to 1.4, for vocational secondary school from 1.1 to 1.4. The hazards for this two types of vocational education are quite similar, the difference between the coefficients is significant only in two samples, in the December 1992 sample those with vocational training, in the 1996 sample those with vocational secondary school had higher re-employment probabilities. That is for men vocational secondary school does not raise the probability of re-employment compared to simple vocational training. The coefficient of general secondary education is significant only in four samples indicating a 15-47 percent advantage compared to primary school. However, the re-employment hazards for men with general secondary education are significantly lower than those for men with vocational secondary education in three samples out of five. In four of the

samples higher education increases the hazard by 70 percent compared to base group, in the December 1992 sample the difference is only 30 percent. Women with incomplete primary education have a hazard that is one third lower compared to that of those who completed primary school. Vocational secondary school results in a 13-37 percent higher exit probability relative to the base group. The re-employment probability of women with general secondary school is significantly different from that of those with primary education only in the March 1992 and the May-June 1996 samples, vocational schooling leads to higher re-employment probability in the March 1992, October-November 1994 and May-June 1996 samples. Among the three types of secondary-level education vocational secondary school is associated with the highest exit rate for women in all samples. The hazard for this group is 13-37 percent higher relative to that for those with primary education. In most samples the hazard for vocational secondary school is significantly higher than that for other types of secondary education. This is true for four samples in comparison with general secondary school and for three samples in comparison with vocational training. Among women someone with university or college education is 40-90 percent more likely to get a job compared to a person with primary education.

The proportion of job leavers is quite low in the inflows, 6-10 percent for men and 4-8 percent for women. We can expect job leavers to have lower re-employment probabilities since they may have higher reservation wages, and also because leaving a job might be a negative indicator for potential employers. The results are in line with this expectation. In each of the samples and for both sexes quitting the last job is associated with lower hazards. For men the difference goes from 15 to 46 percent, for women from 17 to 32 percent. Moreover, except for the last sample, the effect of this variable gets stronger over time.

Severance payment has a negative impact on re-employment probability, and this holds for each of the samples and both sexes. Job losers with a three years or longer continuous employment at the last employer are entitled for a lump-sum severance payment amounting to 1 to 6 months' earnings. UI entitlement does not start until the equivalent period (1-6 months) is finished. Thus severance payment can be interpreted as an income support with full replacement at the beginning of the unemployment spell. The proportion of severance payment recipients is 4-17 percent in the samples, the lowest in the March 1992, the highest in the Spring 1994 sample (see Appendix). Individuals with severance payment exit at a rate that is 22-43 percent lower, except for women in the December 1992 and May-June 1996 samples where the hazards are only 17 percent lower. It is not easy to interpret the effect of severance payment receipt on the re-employment probability. One explanation might be that severance payment increases the replacement rate.

Recurrent UI recipients are those having one or more previous UI spells, any time starting from 1989, the year of introduction of UI in Hungary. Unsurprisingly, their pro-

portion has been rising over time. While in the March 1992 inflow only 15 percent of claimants had a previous UI spell for both sexes, in the May-June 1996 sample this proportion was 40 percent for men and 24 percent for women (see Appendix). Those with a previous UI spell are substantially more likely to get re-employed than those receiving UI the first time, holding other things constant. The hazards are 40-80 percent higher for men and as much as 68-99 percent higher for women. It might be that recurrent UI receipt is an indicator for a distinct group of the unemployed with relatively short consecutive employment and unemployment spells due to seasonal labour demand fluctuations, and also that many of these individual are on temporary layoffs. As for the latter some combination of employment and unemployment spells might result in maintaining long-term benefit entitlement thus employers having regularly recourse to temporary layoffs might make use of the UI system as a quasi wage subsidy. It is likely that temporary employment and layoff have become increasingly important in the labour market of the transition period but their nature and consequences need further investigation. Unfortunately, there is no information on temporary layoff in the administrative records. It is worth to mention that there is no formal rule in Hungary concerning temporary layoff, it is rather a non-formal agreement between the employer and the worker.

The next variable refers to how the spell of UI originated. Using the information on the date of termination of last job we distinguish between two groups of the claimants: those who had no employment in the six and a half months period before the claim and those whose last job terminated within this period. The latter group, constituting 80-93 percent of an inflow cohort, is labelled as entering the UI register from employment. Those who entered from employment are more likely to get a job than those who did not ceteris paribus; the hazards are 10-50 percent higher for men and 17-70 percent higher for women, significant for all samples.

The next dummy provides information on whether the claimant reported at the employment office any health problem causing difficulties in finding a job. (This variable is unavailable for the first sample.) Recipients with health problems exit to a job at a 37-53 percent lower rate than those not reporting such problems. It is not easy however to interpret this variable. It can indicate difficulties in finding a job but reporting health problems can also serve as a means to escape job offers and to reduce the risk of UI disqualification.

To capture differences in local labour market conditions we have used local unemployment rates and a Budapest/non Budapest dummy. Local unemployment rates are for 170 employment office districts in the country. The estimated coefficients of the unemployment rate are always significant, and higher rates result in lower exit probabilities. A percentage point increase in the unemployment rate implies 2 to 4 and 3 to 5 percent lower hazards for men and women, respectively. Living in Budapest means 15-26 and 15-37 per cent lower probabilities of exit to a job for men and

women, respectively, controlling for the local unemployment rate and other variables. The reason for this is not clear. Explanations might be the better opportunities for working in the black economy in the capital while receiving unemployment benefit or the higher reservation wages.

The top section of Table 8 shows averages of predicted hazards to go to a job for the five inflows. For the prediction we used a simple exponential model including the same explanatory variables for each exit state as models presented in Tables 3-7.

As for the first four samples, it can be seen that the probability of re-employment considerably increased, and this amounts to a 38 and 40 percentage point rise for men and women, respectively. For women the increase is continuous, it can be observed over the whole period. For men the trend is similar but there is a peak in the average hazard in the December 1992 sample.[8] The results indicate that the end of rise in unemployment in Hungary at early 1993 and the slight decline from this date is at least partly a result of the higher outflow. However, for the last sample from May-June 1996 the average hazard has decreased. As described earlier, we could follow the 1992 inflows for a longer period than the inflows from 1994 and 1996. If the hazard falls by duration, the direct comparison of the averages from these samples would be misleading. Checking the empirical hazard functions for both sexes we did not find the hazards declining by duration. The variation in the probability of re-employment over the course of a spell seems to be related to reasons other than duration, e.g. seasonal effects. We also calculated average hazards for the two 1992 samples censoring all spells longer than a year at the 360 days point and the results were almost identical to those in Table 8 without censoring.

The change in average hazards can be partly a result of the different composition of the inflows. In order to control for these differences we made predictions for the March 1992 sample using the estimated parameters from the other samples. The bottom section of Table 8 reports the averages of hazards predicted this way. For men this results in lower averages and there is no increase between the Spring and Autumn samples from 1994. This implies that some part of the rise in the outflow to employment from UI can be attributed to changes in the composition of the samples, i.e. that the proportion of groups with higher re-employment probability (better educated, younger, job-looser etc.) gets higher. However, the average re-employment probability in the last four samples remain higher than in the first one even if we control for the personal characteristics. Controlling for the composition does not change notably the results for women, except for the October-November 1994 sample, where the average hazard of re-employment gets much lower.

4. EXIT TO LABOUR MARKET PROGRAMMES

Training

Training is the most important single active programme in terms of the number of exits as we saw in Table 2. Here we use the same explanatory variables as for the estimation of the re-employment hazards with one exception. We included a set of county dummies (with Budapest as the base category) for there might be different policies at the county level. Active labour market policy in Hungary is implemented regionally by the county labour offices. The national budget for active labour market policy is distributed among counties using a set of labour market indicators and the counties make their own decisions concerning the distribution of the available funds across policy measures.

Results for training are presented in Table 4. The probability of exit to training falls with age although we have some non-significant parameters for the youngest age-group. Higher educational level implies higher probability of joining a training scheme. There are quite big differences in the hazards by the level of education. The hazards of unemployed with vocational training are not different to those of the base group, but someone with secondary education (both general and vocational secondary school) is 2-8 times more likely to exit UI to a training scheme than is an unemployed with only primary education. Those with college or university education are even more likely to go to training (their hazards are 4-12 times higher compared to the base group with primary schooling). However, the advantage of individuals with higher education is deteriorating over time. This unambiguously holds for men, but with women we can see that in the October-November 1994 sample the hazard of a women with college or university education is not higher than that of a women with secondary education.

As we saw earlier, younger and better-educated claimants are also more likely to get a job. In other words, training seems to be concentrated on those who have better labour market perspectives. These results may reflect both decisions of unemployed to apply for training and decisions of the labour offices to approve applications or to offer training but most likely the latter dominate. Targeting the training on the younger and better-educated unemployed may reduce training costs and increase the number of job matches after training has finished. However, such a policy

[8] An explanation for the peak in men's average hazard in the December 1992 sample may be that this inflow cohort seems to be the most affected by recalls after seasonal temporary layoff. See Wolf, 1997 who investigates the same inflow cohort.

will not reduce long-term unemployment. The training policy should of course consider the impact of the scheme about which our results on the targeting can say nothing. An evaluation survey conducted in 1992-93 suggests that in Hungary the older and those with low education seem to benefit the most from retraining (O'Leary, 1997). This can be an argument for changes in the supply policy of the labour offices. However, there may be financial arguments against providing training for hard-to-place unemployed even if it improves the re-employment probability to some extent. As for age, training the youngest implies improving the human capital of those having potentially longer labour market life cycles that is that the same increment in human capital might have its beneficial effect for a longer time. More research is needed, especially on the impacts of the scheme, to clarify the implications of the recent targeting of the training programmes in Hungary.

The hazard of job leavers is not different from that of job losers except for the October-November 1994 sample where we can see 40 percent lower probabilities for both male and female job leavers. Severance payment has no effect and this is also true of recurrent UI receipt in the two 1992 samples. In the later samples, however, we have four significant coefficients with a positive impact for those in receipt of UI more than once. This is so for men in both 1994 samples and women in the Spring 1994 and the 1996 samples. Men in the Autumn 1994 sample exit at a rate, which is three and half times higher than those with a first spell. Entering the UI pool from employment results in a 40 per cent higher probability of exit for both sexes in the March 1992 sample. In addition, we have two significant parameters for men in the two 1994 samples with about the same magnitude but their signs are negative. Health problems have an effect only in the Spring 1994 sample; individuals reporting any health problem enter training program form a UI spell with 60 percent lower probability compared to those not reporting such problems.

Local unemployment rates have significant and negative impact on exit to training. One percentage point rise in unemployment rate leads to 6-7 percent lower hazards. This is true for both sexes and each of the samples with the exception of women in the 1996 sample, where the effect is not significant. The results also show that controlling for the unemployment rate there remain notable regional differences across counties in the probability of leaving UI to a training programme. These results may reflect differences in local training policies and/or available funds for training schemes, but the county dummies might pick up the effects of unmeasured individual characteristics as well.

Predicted average probabilities for exit to training are presented in Table 8. The figures show that women are much more likely to leave UI for training than men. The average hazards for women are 30-90 percent higher than for men. A partial explanation for this can be the difference in the educational level between the two sexes, namely that there are more women with secondary education compared to men.

(Among men the proportion with vocational education is higher and the proportion with primary education is lower compared to women, but the hazard for vocational school is not higher than the hazard for primary school.) The average hazards for the last three samples from the period of 1994-1996 are much higher than for the first two samples from 1992. The rise is about two-fold for both sexes. This indicates an increasing importance of the training schemes from 1994. However, in Table 1, which shows the stocks of programme participants we can not see a similar rise neither in the numbers nor in the proportions of training participants. An explanation can be that training from 1994 is more concentrated on UI recipients than earlier.[9]

Controlling for differences in the composition of the samples results in some lower probabilities for both sexes, except for men in the December 1992 inflow. The results are similar as for re-employment: the rise in the average hazard is smaller if we apply the composition of the March 1992 sample. But the overall picture that the probability of leaving UI for a training scheme is much higher for both sexes from 1994 than earlier remains unchanged.

Subsidised employment

Subsidised employment is a modest programme in terms of number of participants with unclear targeting. Personal characteristics do not seem important in determining the probability of exit to this programme as it can be seen in Table 5. In this respect we cannot see any definite target group except for men with vocational education. Pre-retirement age groups in each of the samples have a quite low exit probability, and the same holds for men aged 41-50 in the first and last samples and for men aged 31-35 in the 1996 sample. This is also true of women aged 31-35 years in the Spring 1994 sample. Men and women from the youngest age group have high probabilities in Autumn 1994. As regards education we have significant coefficient only for vocational school in some equations, most of them are for men in the first three samples. Men with vocational education has a 60-80 percent higher probability to exit to subsidised employment compared to men with uncompleted primary education in the first three samples. Women's pattern differs in the 1996 sample for there we can see a continuous increase in exit probability as the level of schooling gets higher. Severance payment and recurrent UI receipt have a considerable positive impact only in the 1996 sample for men and women, respectively. The unem-

[9] If training is offered more likely early in the UI spell than later, the lower average hazards for the 92 inflows could be a result of the longer entitlement to UI and, as a consequence, the longer period of observation for these samples. Empirical hazard functions for the two 1992 samples did not show a significant rise after the one year point (the maximum of the UI entitlement period from 1993). We also calculated average hazards to go to training for the 1992 samples censoring all spells at the 360 days point and the results were almost identical to those in Table 8 without censoring.

ployment rate has a significant negative coefficient in the first three samples for men and in the first two samples for women. This implies that higher unemployment leads to lower probabilities of getting a subsidised job, what we don't think to be a desirable targeting. However, the coefficients of the unemployment rate are not significant in the last two samples (although their sign remained negative).

In Table 8 we can see a modest peak in the average probability of leaving UI to subsidised employment in December 1992 for both sexes with similar values before and after it. This means that in 1993 (the period of observation for the December 1992 inflow cohort) it was more likely for UI claimants to get a subsidised job than earlier and later. Controlling for differences in sample composition (see the bottom section of Table 8) does not change the results very much.

Subsidised self-employment

This programme also has a relatively modest size in terms of expenditures and number of participants. It is clear however that only a tiny fraction of the unemployed individuals with appropriate skills and education might be able to start an own business. (Results are reported in Table 6.) Age has no effect for exit to start-up allowance. The exception is the pre-retirement age-group with a hazard usually much lower than that of the comparison group. Leaving the UI register to this exit state is much more likely amongst unemployed with a high educational level for both sexes and each of the samples. This impact is stronger as the education level gets higher. Both the low probability for pre-retirement age persons and the higher probability for the most educated can be interpreted as a sign of satisfactory targeting. Male job quitters and men with severance payment have low; men with repeated spells have relatively high exit probabilities in the December 1992 and Spring 1994 samples. Entry from employment affects negatively the exit probabilities with three of the equations. For the local unemployment rate we have only two significant parameters (women March 1992, men December 1992) with a negative impact on exit. As regards the set of county dummies (with Budapest as the base category) the significant hazard rates show that in most samples living in Budapest results in a lower exit probability.

The dynamics of average exit probabilities to subsidised self-employment is reported in Table 8. First, men are more likely to get this subsidy than women for each of the samples. Second, men's hazard is increasing from the first to the third sample then it declines. Women's pattern is similar with fewer fluctuations. For both sexes, however, the hazard is higher at the end of the period compared to that at the beginning. We get similar the same results if we predict the hazards using the composition of the March 1992 sample. In the last two samples, however, the trend of the average hazard is declining for both sexes.

Public works

Public work is intended to maintain the labour market attachment of those in disadvantaged positions. We modelled this exit state only for men because the number of exits is too low in the case of women. We have included a new variable - settlement size of the place of residence measured by the number of residents - but it has been unavailable for the first sample.

In the results presented in Table 7 we can see that age does not affect too much the probability of leaving UI to public works. Leaving to public works was more likely in the March 1992 sample with low education, but educational level has less and less impact on the exits later. This probably reflects that local governments offer more qualified positions under the scheme. Recurrent UI recipients have 1.5-3 times higher probabilities to leave UI via this route. Higher local unemployment rates result in higher probabilities of exit in the first two samples, then the coefficients get insignificant. Since we control for the region with the county dummies, this means that from 1994 the level of unemployment within the counties does not affect the hazard to go to public works. Removing the county dummies from the models results in significant positive coefficients for the unemployment rate in the last three samples as well. Those living in smaller settlements (in terms of population) are more likely to go to public works than those living in bigger settlements. This implies that small local governments are more willing to organise public works.

The dynamics of the probability of exit to public work shows an increasing trend with some fluctuations (see Table 8). If the estimated hazards are predicted with using the March 1992 sample composition, the same tendency occurs with some lower levels of average hazards and the peak for the December 1992 sample disappears.

5. LOCAL UNEMPLOYMENT RATE

We have seen that the local unemployment rate has a significant impact on the probability of exit to re-employment, training and public works. These results are summarised in Figures 2-6. The figures show the partial effect of the local unemployment rate using the estimated hazard of the base group (aged 21-25, primary education, job looser, no severance payment, entered UI from employment, has no health-related problem and lives out of Budapest).

Figures 2 and 3 report the relationship between the local unemployment rate and the re-employment hazards, separately for men and women. As described earlier, the local unemployment rate has a negative effect on the probability of re-employment. For men we put only four lines on the graph since the relationship in the

two 1994 samples is the same (the lines are overlapping). The effect of the unemployment rate is quite strong: a man living in an area with the lowest rate can expect a two to three times higher probability of getting a job than a man with the same characteristics living in an area with the highest rate (Figure 2). Similarly, the effect of unemployment rate is significant for women in all samples and it is of the same magnitude as for men (Figure 3).

The slope of the curves shows that although the probability of exit to a job is a decreasing function of the local unemployment rate it is so at a decreasing rate, since as the unemployment rate gets higher further increases result in smaller decline of the re-employment probability for both sexes. We can also see differences - which hold for both women and men - between the relationships in the samples from 1992 and 1994. In 1992 (the absolute value of) the slopes are smaller than in 1994, thus we have steeper curves for 1994. Moreover, the 1992 and 1994 curves intersect implying first that the rate effect is weaker in 1992 than in 1994 and, second, that re-employment probabilities observed at the lowest rates are higher in 1994 than in 1992 whereas those observed at the highest rates are higher in 1992 than in 1994. As for 1996, the curve for men is located entirely to the south-west from the curves of the two 1992 samples, and women's curve is less steep than the other ones.

A similar rate effect can be seen in Figures 4 and 5 for the probability of exit to training. The effect is negative and the exit probability decreases at a decreasing rate. Similarly to re-employment probability, we can see that men's 1994 curves look almost the same so similar relationships can be captured for both the Spring and the Autumn 1994 samples. Besides, both curves for 1992 lie entirely below those for 1994 and 1996, with the 1996 curve being entirely above the other ones, implying higher probabilities for 1994 and 1996 at a given local unemployment rate. Finally, as for the two 1992 curves, at lower rates the hazard is much higher in March 1992 than in December 1992 but at the highest rates the probabilities become almost the same. Women's exit probabilities are similar to men's with higher hazard in 1994 than 1992. There is a difference, however. At the highest unemployment rates the probabilities are the same for all the four samples. The 1996 curve is flatter than the other ones displaying a weaker marginal effect.

The relationship of the local unemployment rate and the probability of exit to public works are different, though the parameter estimates are significant only for the 1992 samples (Figure 6). We have a positive sign, that is higher rates imply higher probabilities for exit. In areas with 25 percent local unemployment rate the probability of exit to public works is three times higher than in areas with 10 percent rate, other things equal. The relationship is not linear; the probability of exit to public works increases at an increasing rate. The curve of the second 1992 sample is steeper than that of the first one, and at lower rates the hazards are similar in the two

1992 samples whereas at higher rates individuals in the December 1992 sample have a higher probability with faster increase.

6. SUMMARY

We have analysed outflows from insured unemployment in Hungary between 1992 and 1996 with having focused on the variation in exit probabilities over time to five different exit states (employment, subsidised employment, subsidised self-employment, training, and public works). We have also considered the determinants of probabilities of leaving the unemployment pool in terms of personal characteristics, region and local unemployment rates.

We have seen that the probability of *re-employment* has been improved between 1992 and 1995. This improvement amounts to about 40 percent, it, however, becomes lower when controlling for differences in sample composition. This implies that some part of the positive changes in the outflow to employment can be attributed to favourable changes in the composition of UI claimants. The result indicates that the stabilisation of the rate after 1992 can be at least partly explained by increasing outflow to employment. In 1996, however, decline in unemployment rate seems to be coupled with lower outflow from the UI register.

There are considerable differences in re-employment probabilities by personal characteristics of the unemployed and these are basically unchanged over the period of 1992-1996. Men leave unemployment faster than women do. Higher levels of education result in better chances of re-employment. The probability of getting a job falls with age for both sexes although this effect is weaker for women. Claimants in pre-retirement age have very low probability of re-employment.

Regional labour market conditions have also an impact on re-employment. The local unemployment rate has a negative effect. Individuals with the same personal characteristics and living in areas with low unemployment rate exit to employment at a rate that is two-three times higher than that for individuals living in high-unemployment areas.

In addition to long-term unemployment, there is a marked increase in recurrent unemployment in the country. A particular group of unemployed has been emerging with unstable employment and repeated UI spells. Although this group has relatively short unemployment spells, recurrent unemployment may easily lead to loosing UI eligibility.

Younger and better-educated unemployed are the most likely to exit to *training* schemes. The favourable position of those with college or university education can be seen over the whole period. However, the advantage of claimants with higher education is deteriorating over time. Leaving the job (as compared to loosing it) results in a lower exit probability, however, this effect is significant in 1994 only. Health problems reported at the employment office lead to lower exit probabilities when significant. The local unemployment rate has a negative effect, living in Budapest results in better chances. Our results show that in Hungary training is made available for

groups with relatively good job perspectives. The only exception is sex since women, who remain unemployed longer are more likely to join a training scheme than men. Both women and men exit to training with a higher probability from 1994 samples than earlier. This means that training plays a more important role in active labour market policy provided for UI recipients. The rise in the hazard of exit to training is less if we control for differences in sample composition. In this respect results are similar as with the probability of re-employment: the improvement is partly due to changes in the composition of the inflows.

Exits to *subsidised employment* do not seem to be influenced by personal characteristics. The only significant and stable relationship is the low probability for individuals of the pre-retirement age. There is some indication that unemployed with vocational education are more likely to leave UI in this way than others, higher local unemployment rate and living in Budapest results in lower exit probabilities. The hazard has no definite time pattern, there is a peak, however, in December 1992 for both women and men. Controlling for differences in sample composition does not change this trend.

As regards s*ubsidised self-employment* pre-retirement age implies low hazards whereas educational level has a strong positive effect. The average hazards show that men have higher probabilities and that the hazard higher at the end of the period. Increases in probabilities, however, are partly due to changes in sample composition.

Public works seems to be a programme for disadvantaged regions. First, exit to public works is more likely in regions with high unemployment rate. Second, the scheme is more available for unemployed living in small settlements. In 1992 lower educational level was associated with higher probabilities of leaving UI to a public works scheme, but this stands less and less later. The dynamics of the probability of exit to public work shows an increasing trend thus this exit route is gaining ground over time. This is partly due to changes in sample composition: controlling for differences in sample composition will smooth the trend and lower the values.

As for the effect *local unemployment rates* might have on exit to different labour market states, we have seen that higher rates always imply lower *probabilities of re-employment*. This negative effect is quite strong. For example we have found that a man living in a area with the lowest rate can expect a two to three times higher probability of exit to a job than the one living in a region with the highest rate. The relationship is not linear, however. As the rate gets higher further increases in the rate produce smaller decreases in the re-employment probability for both sexes. A similar rate effect can be seen as for the *probability of exit to training*. The effect is negative and it decreases at a decreasing rate. The opposite holds for *public works*. Here we have seen positive signs, that is higher rates result in higher exit probabilities. These

results indicate that it is important to control for the characteristics of local labour markets when investigating the impacts of labour market programmes.

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Tables

Table 1: Labour Market Programme Participants and Expenditures

A. Passive Programmes

	1992	1993	1994	1995	1996
Participants in March of Year					
UI benefits[1]	357,699	461,254	256,133	167,155	169,254
Career beginners' benefits[1]		31,192	35,772	33,545	36,171
UA benefits[1]		54,815	175,820	221,612	216,545
Early retirement from employment[2]	3,363	5,058	6,167	6,239	4,955
Early retirement from UI[2]	na	22,855	42,708	55,517	58,990
Total number of participants	361,062	575,174	516,600	484,068	485,915
Passive programme participants in percentage of labour force	7.6	12.4	11.6	11.1	11.2
Yearly Expenditures					
Expenditures on passive programmes in year as a percentage of total labour market expenditures	79.0	77.4	71.3	73.9	73.9
Expenditures on passive programmes in year as a percentage of GDP	2.29	2.28	1.53	1.21	1.04

Notes:
[1] Stock at 20th of month
[2] Stock at beginning of month

Source:
National Labour Centre, Ministry of Labour, Central Statistical Office

Table 1 continued

B. Active Programmes

	1992	1993	1994	1995	1996
Participants in March of Year					
Retraining[1]	14,780	31,741	38,482	32,497	25,629
Public work employment[1]	8,682	17,911	22,758	16,083	22,701
Subsidised employment[1]	1,317	9,008	16,010	18,443	8,292
Start-up allowance[1]	na	2,948	3,329	1,811	1,024
Working-hours reduction subsidy[1]	10,051	2,680	1,918	560	870
Job creation subsidy[2]	na	3,523	1,278	879	322
Travel subsidy for reemployed[1]			173	2557	1,221
Other programmes				1,358	2,180
Total number of participants	34,830	67,811	83,948	74,188	62,239
Active programme participants in per-centage of labour force	0.8	1.5	1.9	1.7	1.4
Yearly Expenditures					
Expenditures on active programmes in year as a percent-age of total labour market expenditures	21.0	22.6	28.7	26.1	26.1
Expenditures on active programmes in year as a percentage of GDP	0.61	0.66	0.61	0.43	0.37

Notes:
[1] Stock at beginning of month
[2] Inflow to new jobs in month

Source:
National Labour Centre, Ministry of Labour, Central Statistical Office

Table 2: Exit States from UI Receipt (percentages)

	March 1992			December 1992			April-May 1994		
Exit state	Men	Women	Total	Men	Women	Total	Men	Women	Total
re-employment	37.0	28.9	34.8	46.1	32.3	41.5	30.8	23.9	27.7
subsidised employment	0.9	1.1	1.0	1.4	1.7	1.5	0.8	0.7	0.7
start-up allowance	1.3	0.8	1.1	1.8	1.3	1.6	1.7	0.9	1.3
public works	1.3	0.5	1.0	1.6	0.8	1.3	1.0	0.6	0.9
training scheme	2.0	2.8	2.3	1.3	2.6	1.8	2.2	4.6	3.3
disqualified	3.7	4.3	3.9	2.3	3.0	2.5	2.7	1.9	2.3
pension/early retirement	5.3	8.9	6.7	5.4	10.0	7.0	6.7	15.7	10.5
other	1.0	0.8	0.9	1.5	1.9	1.5	0.8	1.2	1.1
UI exhausted	41.9	46.0	43.5	34.8	41.2	37.0	48.8	45.3	47.2
spell censored	5.6	6.0	5.8	3.8	5.2	4.3	4.5	5.2	4.9
No. of spells	23,853	15,564	39,417	39,483	19,735	59,228	24,795	20,901	45,696

	Oct-Nov 1994			May-June 1996		
Exit state	Men	Women	Total	Men	Women	Total
re-employment	32.0	27.2	29.9	28.5	19.9	23.9
subsidised employment	0.6	0.7	0.6	0.8	0.6	0.7
start-up allowance	1.2	0.7	1.0	1.0	0.6	0.8
public works	1.2	0.9	1.0	1.3	0.9	1.1
training scheme	2.1	4.2	3.0	2.5	4.0	3.3
disqualified	2.3	1.7	2.0	1.5	0.7	1.1
pension/early retirement	4.2	6.6	5.2	14.8	33.3	24.7
other	1.2	1.3	1.3	1.4	1.2	1.2
UI exhausted	51.3	52.1	51.6	44.7	35.5	39.8
spell censored	3.9	4.6	4.2	3.5	3.3	3.4
No. of spells	24,875	19,730	44,605	21,283	24,647	45,930

Table 3: Hazard to go to Employment

	March 1992				December 1992				April-May 1994			
	Men		Women		Men		Women		Men		Women	
	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat
Age												
-20 years	1.06	1.05	1.62	6.33	0.96	-1.10	1.54	6.99	1.20	2.88	1.73	7.84
26-30 years	0.86	-4.30	0.86	-2.76	0.94	-2.23	0.78	-4.90	0.95	-1.28	0.78	-5.16
31-35 years	0.79	-6.59	0.87	-2.54	0.90	-4.18	0.93	-1.61	0.83	-4.60	0.89	-2.51
36-40 years	0.75	-8.43	0.88	-2.41	0.89	-4.76	0.90	-2.36	0.82	-5.12	0.94	-1.32
41-45 years	0.70	-9.42	0.81	-3.92	0.86	-5.74	0.88	-2.75	0.79	-5.84	0.97	-0.72
46-50 years	0.54	-13.26	0.66	-6.61	0.80	-7.28	0.68	-7.18	0.71	-7.51	0.83	-3.42
51-55 years	0.53	-11.66	0.13	-16.66	0.72	-9.69	0.15	-16.20	0.56	-10.28	0.07	-21.05
56-60 years	0.09	-16.18			0.10	-19.53			0.04	-15.43		
Schooling												
incomplete primary	0.66	-6.73	0.67	-5.05	0.83	-4.96	0.64	-5.90	0.62	-5.51	0.65	-4.33
vocational	1.39	7.00	1.17	4.04	1.22	11.41	1.06	1.83	1.26	8.23	1.05	1.33
vocational secondary	1.39	8.44	1.37	6.80	1.13	4.34	1.20	4.99	1.31	6.75	1.15	3.46
general secondary	1.47	6.46	1.16	2.85	0.97	-0.58	1.07	1.65	1.35	5.12	1.02	0.47
higher	1.76	9.46	1.59	4.99	1.29	5.63	1.43	4.87	1.71	9.02	1.51	5.45
Job leaver	0.81	-4.90	0.87	-2.01	0.54	-14.67	0.68	-6.34	0.64	-8.59	0.83	-2.48
Severance payment	0.73	-6.17	0.83	-2.72	0.57	-16.94	0.71	-8.47	0.72	-9.16	0.75	-7.48
Recurrent UI recipient	1.56	15.30	1.69	13.10	1.72	32.87	1.99	21.54	1.63	18.71	1.91	17.64
Entry form employment	1.58	11.42	1.73	-10.05	1.50	9.77	1.32	4.82	1.11	2.02	1.17	2.89
Health problem					0.47	-7.83	0.54	-5.38	0.51	-7.57	0.56	-6.37
Local unemployment rate, percent	0.97	-13.12	0.96	11.90	0.98	-12.38	0.96	-13.75	0.96	-13.75	0.95	-11.52
Budapest	0.76	-6.52	0.63	-7.96	0.74	-7.73	0.74	-5.87	0.79	-5.52	0.74	-6.27
Log Likelihood	-66462.8253		-34964.4323		-134523.8436		-49121.5398		-56107.9118		-37978.7695	
No. of observations	23853		15564		39483		19735		24795		20901	

Table 3: Hazard to go to Employment, continued

	October-November 1994				May-June 1996			
	Men		Women		Men		Women	
	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat
Age								
-20 years	1.17	2.74	1.61	7.60	1.19	3.53	1.43	6.18
26-30 years	0.93	-1.82	0.81	-4.58	1.01	0.16	0.99	-0.19
31-35 years	0.86	-3.85	0.84	-3.55	0.94	-1.44	1.15	2.81
36-40 years	0.85	-4.27	0.94	-1.29	0.91	-2.02	1.19	3.46
41-45 years	0.79	-6.06	0.96	-0.86	0.87	-2.84	1.27	4.78
46-50 years	0.68	-8.26	0.85	-2.91	0.77	-4.85	0.26	-21.11
51-55 years	0.64	-7.96	0.11	-12.74	0.23	-20.33	0.01	-14.56
56-60 years	0.07	-12.70			0.01	-8.97		
Schooling								
incomplete primary	0.75	-3.56	0.64	-4.21	0.54	-5.05	0.68	-3.26
vocational	1.34	10.36	1.15	4.11	1.25	6.85	1.10	2.47
vocational secondary	1.40	8.80	1.22	5.00	1.39	7.72	1.13	2.93
general secondary	1.23	3.34	1.04	0.76	1.15	2.12	1.11	2.22
higher	1.69	8.31	1.50	5.30	1.74	8.55	1.92	10.60
Job leaver	0.63	-8.54	0.69	-4.42	0.85	-3.42	0.79	-3.07
Severance payment	0.65	-10.70	0.72	-8.04	0.78	-6.02	0.83	-4.52
Recurrent UI recipient	1.56	17.73	2.02	21.49	1.41	12.43	1.83	18.58
Entry from employment	1.24	4.22	1.36	5.60	1.12	2.03	1.36	5.78
Health problem	0.58	-4.79	0.57	-5.33	0.63	-5.15	0.58	-5.29
Local unemployment rate, percent	0.96	-14.39	0.95	-11.68	0.97	-9.19	0.97	-6.97
Budapest	0.76	-6.35	0.66	-8.65	0.85	-3.56	0.85	-3.30
Log Likelihood	-57773.885		-40303.77		-44308.3039		-37053.4707	
No. of observations	24875		19730		21283		24647	

Table 4: Hazard to go to Training

	March 1992				December 1992				April-May 1994			
	Men		Women		Men		Women		Men		Women	
	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat
Age												
-20 years	1.39	1.31	1.54	1.52	1.65	2.43	2.32	4.03	0.97	-0.14	1.23	0.97
26-30 years	0.85	-1.26	0.69	-2.42	0.70	-2.53	0.69	-2.52	0.70	-2.91	0.64	-4.60
31-35 years	0.62	-3.32	0.61	-3.16	0.54	-4.19	0.53	-4.29	0.39	-6.25	0.56	-5.54
36-40 years	0.46	-5.10	0.59	-3.62	0.55	-4.34	0.45	-5.54	0.44	-6.15	0.49	-6.75
41-45 years	0.37	-5.73	0.33	-6.39	0.38	-6.24	0.27	-7.62	0.34	-7.11	0.42	-7.47
46-50 (46-55) years	0.25	-6.29	0.13	-8.25	0.24	-7.13	0.16	-8.68	0.19	-8.14	0.13	-13.50
51-60 years	0.11	-6.41			0.07	-7.28			0.06	-8.99		
Schooling												
incomplete primary	0.07	-2.68	0.10	-2.24	0.08	-2.52	0.00	-0.19	0.00	-0.19	0.41	-1.77
vocational	1.32	2.01	0.98	-0.09	1.10	0.73	0.93	-0.41	1.28	1.87	1.40	2.60
vocational secondary	4.68	10.55	6.58	13.18	4.72	11.41	7.79	14.83	4.31	10.56	6.73	17.44
general secondary	4.12	6.89	6.75	12.92	6.03	10.36	6.73	13.00	5.08	9.19	6.66	16.66
higher	12.59	15.07	9.36	10.62	10.15	14.10	14.95	15.29	9.19	13.38	12.13	17.70
Job leaver	1.27	1.45	0.90	-0.48	1.22	1.26	0.69	-1.74	0.97	-0.16	0.90	-0.57
Severance payment	1.06	0.32	1.01	0.07	1.08	0.55	0.79	-1.94	1.15	1.13	0.97	-0.31
Recurrent UI recipient	1.23	1.38	1.05	0.28	1.21	1.54	1.15	0.90	1.24	2.02	1.33	2.91
Entry form employment	1.38	2.06	1.39	2.07	0.78	-1.50	1.19	0.99	0.70	-2.40	0.98	-0.17
Health problem					1.47	1.01	0.33	-1.58	0.31	-2.32	0.58	-1.98
Local unemployment rate, percent	0.94	-3.67	0.93	-3.96	0.97	-2.16	0.94	-3.71	0.93	-3.47	0.93	-4.09

Table 4: Hazard to go to Training, continued

	October-November 1994				May-June 1996			
	Men		Women		Men		Women	
	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat
Age								
-20 years	1.17	2.74	1.61	7.60	1.19	3.53	1.43	6.18
26-30 years	0.93	-1.82	0.81	-4.58	1.01	0.16	0.99	-0.19
31-35 years	0.86	-3.85	0.84	-3.55	0.94	-1.44	1.15	2.81
36-40 years	0.85	-4.27	0.94	-1.29	0.91	-2.02	1.19	3.46
41-45 years	0.79	-6.06	0.96	-0.86	0.87	-2.84	1.27	4.78
46-50 years	0.68	-8.26	0.85	-2.91	0.77	-4.85	0.26	-21.11
51-55 years	0.64	-7.96	0.11	-12.74	0.23	-20.33	0.01	-14.56
56-60 years	0.07	-12.70			0.01	-8.97		
Schooling								
incomplete primary	0.75	-3.56	0.64	-4.21	0.54	-5.05	0.68	-3.26
vocational	1.34	10.36	1.15	4.11	1.25	6.85	1.10	2.47
vocational secondary	1.40	8.80	1.22	5.00	1.39	7.72	1.13	2.93
general secondary	1.23	3.34	1.04	0.76	1.15	2.12	1.11	2.22
higher	1.69	8.31	1.50	5.30	1.74	8.55	1.92	10.60
Job leaver	0.63	-8.54	0.69	-4.42	0.85	-3.42	0.79	-3.07
Severance payment	0.65	-10.70	0.72	-8.04	0.78	-6.02	0.83	-4.52
Recurrent UI recipient	1.56	17.73	2.02	21.49	1.41	12.43	1.83	18.58
Entry from employment	1.24	4.22	1.36	5.60	1.12	2.03	1.36	5.78
Health problem	0.58	-4.79	0.57	-5.33	0.63	-5.15	0.58	-5.29
Local unemployment rate, percent	0.96	-14.39	0.95	-11.68	0.97	-9.19	0.97	-6.97
Budapest	0.76	-6.35	0.66	-8.65	0.85	-3.56	0.85	-3.30
Log Likelihood	-57773.885		-40303.77		-44308.3039		-37053.4707	
No. of observations	24875		19730		21283		24647	

Table 4: Hazard to go to Training, continued

	October-November 1994				May-June 1996			
	Men		Women		Men		Women	
	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat
Age								
-20 years	1.39	1.89	1.54	2.69	1.34	1.96	1.65	4.28
26-30 years	0.69	-2.97	0.73	-2.93	0.82	-1.55	0.81	-2.24
31-35 years	0.44	-5.37	0.73	-2.77	0.57	-3.74	0.72	-3.06
36-40 years	0.41	-6.14	0.66	-3.64	0.33	-6.45	0.64	-4.08
41-45 years	0.31	-7.29	0.46	-6.02	0.46	-4.89	0.47	-6.04
46-50 (46-55) years	0.19	-7.81	0.21	-9.22	0.25	-6.49	0.03	-15.61
51-60 years	0.08	-7.80			0.03	-8.49		
Schooling								
incomplete primary	0.10	-2.29	0.13	-2.02	0.22	-2.09	0.25	-1.94
vocational	0.88	-1.01	1.17	1.19	0.86	-1.30	0.93	-0.60
vocational secondary	3.30	8.99	4.91	13.95	2.07	5.36	4.32	14.19
general secondary	3.84	8.08	5.96	15.24	2.98	6.49	4.76	14.49
higher	7.22	11.85	5.93	10.72	4.48	8.68	6.23	13.30
Job leaver	0.53	-2.82	0.58	-2.25	0.80	-1.34	1.10	0.64
Severance payment	1.01	0.09	1.01	0.14	0.92	-0.62	1.15	1.69
Recurrent UI recipient	1.28	2.42	0.90	-0.96	1.18	1.72	1.24	2.65
Entry from employment	0.69	-2.47	0.95	-0.45	1.13	0.70	1.11	1.04
Health problem	0.76	-0.60	0.95	-0.20	1.00	-0.01	0.84	-0.72
Local unemployment rate, percent	0.94	-3.36	0.94	-3.60	0.94	-3.02	0.97	-1.96

Table 4: Hazard to go to Training, continued

	October-November 1994				May-June 1996			
	Men		Women		Men		Women	
	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat
County								
Baranya	0.78	-1.05	0.41	-3.65	0.83	-0.66	0.78	-1.17
Bács	0.40	-3.18	0.40	-3.99	0.00	-0.30	0.06	-4.91
Békés	0.42	-2.56	0.84	-0.76	0.97	-0.11	1.14	0.63
Borsod	1.28	1.06	0.80	-1.05	1.76	2.21	1.49	2.23
Csongrád	0.38	-2.99	0.36	-4.01	0.80	-0.77	0.91	-0.50
Fejér	0.56	-2.04	0.52	-2.81	1.32	1.07	1.23	1.21
Gyõ r	0.17	-4.16	0.33	-4.29	0.57	-1.64	0.83	-0.93
Hajdú	0.66	-1.59	0.58	-2.36	1.33	1.09	1.10	0.55
Heves	0.73	-1.15	0.76	-1.19	0.55	-1.60	0.28	-3.80
Komárom	0.77	-0.97	0.90	-0.50	2.84	4.48	1.49	2.19
Nógrád	0.39	-2.18	0.05	-2.99	1.74	1.70	1.05	0.21
Pest	0.92	-0.51	0.73	-2.40	2.44	5.46	1.70	4.60
Somogy	0.96	-0.19	1.13	0.72	1.72	2.29	1.06	0.27
Szabolcs	0.35	-2.86	0.27	-3.75	0.69	-1.02	0.75	-1.19
Szolnok	1.03	0.10	0.65	-1.75	1.70	2.01	1.42	1.87
Tolna	0.55	-1.78	1.10	0.43	1.02	0.05	0.84	-0.69
Vas	0.49	-2.34	0.69	-1.52	1.03	0.09	0.97	-0.12
Veszprém	0.42	-3.15	0.46	-3.36	0.68	-1.15	1.01	0.05
Zala	0.67	-1.47	1.12	0.64	0.66	-1.24	0.67	-1.61
Log Likelihood	-4951.4911		-7287.769		-4829.2594		-8358.9019	
No. of observations	24875		19730		21283		24647	

Table 5: Hazard to go to Subsidised Employment

	March 1992				December 1992				April-May 1994			
	Men		Women		Men		Women		Men		Women	
	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat
Age												
-20 years	0.54	-1.02	1.08	0.12	1.27	0.91	1.22	0.52	1.38	0.72	0.96	-0.06
26-30 years	0.76	-1.27	0.91	-0.31	0.84	-1.08	0.89	-0.45	1.01	0.06	0.63	-1.75
31-35 years	0.65	-1.89	0.89	-0.39	0.88	-0.85	1.26	0.98	0.61	-1.79	0.51	-2.24
36-40 years	0.66	-1.94	1.07	0.25	0.99	-0.10	1.26	1.01	0.82	-0.79	0.76	-1.07
41-45 years	0.56	-2.42	0.93	-0.26	0.77	-1.71	1.40	1.47	0.84	-0.67	0.67	-1.38
46-50 (46-55) years	0.54	-2.33	1.01	0.03	0.89	-0.69	0.84	-0.72	0.67	-1.30	0.49	-2.42
51-60 years	0.47	-2.67			0.51	-3.39			0.42	-2.51		
Schooling												
incomplete primary	0.57	-1.55	0.32	-2.24	0.56	-2.13	0.77	-0.95	0.16	-1.78	0.19	-1.65
vocational	1.09	0.52	1.35	1.57	1.72	5.36	1.11	0.71	1.61	2.55	1.61	2.36
vocational secondary	1.47	1.71	1.24	0.89	1.43	2.33	1.08	0.45	2.08	3.06	1.58	1.90
general secondary	1.13	0.31	1.00	0.00	1.32	1.03	1.30	1.50	1.26	0.53	1.05	0.16
higher	1.97	1.89	2.37	2.28	1.27	0.83	1.60	1.36	1.08	0.14	0.44	-0.80
Job leaver	0.40	-2.90	0.44	-1.92	0.83	-0.96	0.89	-0.50	1.14	0.50	1.10	0.22
Severance payment	0.81	-0.76	0.81	-0.61	0.71	-2.28	0.63	-2.66	0.81	-1.06	0.84	-0.83
Recurrent UI recipient	0.96	-0.19	1.22	0.82	1.78	5.75	1.86	3.95	1.17	0.83	1.62	1.92
Entry form employment	0.75	-1.26	0.84	-0.73	0.73	-1.56	0.63	-2.25	0.77	-0.84	1.19	0.51
Health problem					1.55	1.59	2.24	3.43	0.13	-2.01	0.41	-1.51
Local unemployment rate, percent	0.95	-3.02	0.89	-4.99	0.97	-2.69	0.96	-3.40	0.95	-2.56	0.98	-0.84
Budapest	0.47	-2.63	0.51	-2.51	0.10	-4.55	0.04	-4.38	0.00	-0.15	0.00	-0.11
Log Likelihood	-2441.655		-1870.546		-5874.4677		-3464.1881		-2026.6342		-1594.9028	
No. of observations	23853		15564		39483		19735		24795		20901	

Table 5: Hazard to go to Subsidised Employment, continued

	October-November 1994				May-June 1996			
	Men		Women		Men		Women	
	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat
Age								
-20 years	2.69	2.44	2.49	2.03	1.85	1.82	0.96	-0.11
26-30 years	1.17	0.52	1.01	0.05	1.26	0.87	0.85	-0.70
31-35 years	0.88	-0.39	0.94	-0.18	0.49	-2.08	0.78	-0.91
36-40 years	0.92	-0.27	1.21	0.63	0.94	-0.24	0.73	-1.17
41-45 years	1.27	0.78	0.78	-0.70	0.51	-2.04	0.79	-0.84
46-50 (46-55) years	0.79	-0.63	0.88	-0.36	0.32	-2.68	0.30	-3.39
51-60 years	1.20	0.53			0.32	-2.47		
Schooling								
incomplete primary	0.00	-0.09	0.49	-0.99	1.13	0.21	0.44	-0.80
vocational	1.91	2.98	1.38	1.47	1.42	1.67	1.98	2.88
vocational secondary	1.65	1.65	1.42	1.38	1.23	0.68	2.41	3.46
general secondary	0.60	-0.70	1.15	0.46	1.64	1.25	2.74	3.79
higher	2.06	1.49	0.37	-0.97	1.80	1.21	2.94	2.66
Job leaver	1.02	0.05	1.60	1.19	1.31	0.92	1.15	0.36
Severance payment	0.82	-0.81	0.91	-0.44	1.56	2.26	0.91	-0.47
Recurrent UI recipient	1.08	0.35	1.59	1.85	0.97	-0.17	1.70	2.50
Entry from employment	1.73	1.18	1.65	1.28	3.53	1.76	1.06	0.22
Health problem	0.00	-0.06	1.28	0.59	0.36	-1.44	0.80	-0.43
Local unemploy-ment rate, percent	0.98	-1.06	0.97	-1.16	0.99	-0.28	0.99	-0.35
Budapest	0.00	-0.14	0.00	-0.11	0.18	-2.89	0.35	-2.83
Log Likelihood	-1502.5228		-1414.4697		-1454.4106		-1595.0496	
No. of observations	24875		19730		21283		24647	

Table 6: Hazard to go to Start-up Allowance

	March 1992				December 1992				April-May 1994			
	Men		Women		Men		Women		Men		Women	
	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat
Age												
-20 years	1.51	1.01	1.01	0.01	0.29	-2.41	0.74	-0.48	0.60	-1.10	0.88	-0.16
26-30 years	0.87	-0.72	0.68	-1.19	1.31	1.96	1.25	0.88	1.29	1.50	1.43	1.12
31-35 years	1.05	0.27	0.60	-1.53	1.07	0.51	1.00	0.00	1.07	0.40	1.87	1.98
36-40 years	0.82	-1.09	0.99	-0.03	1.14	0.97	1.32	1.14	1.11	0.62	2.45	2.98
41-45 years	0.70	-1.76	0.57	-1.72	1.07	0.47	1.20	0.72	1.00	0.02	2.55	3.03
46-50 (46-55) years	0.50	-2.74	0.47	-2.08	1.03	0.21	0.44	-2.54	0.76	-1.31	0.86	-0.43
51-60 years	0.08	-4.20			0.44	-3.85			0.36	-3.92		
Schooling												
incomplete primary	0.00	-0.09	0.00	-0.12	0.24	-3.10	0.23	-1.43	0.40	-1.27	0.34	-1.07
vocational	2.94	5.72	2.91	3.82	2.08	6.78	3.11	5.68	3.25	6.58	2.44	3.65
vocational secondary	6.58	8.92	6.65	6.90	3.86	10.89	4.55	7.43	6.96	10.09	4.92	6.76
general secondary	6.21	6.33	5.80	6.04	4.01	7.62	4.76	7.52	7.87	8.86	4.58	6.14
higher	12.84	10.00	7.52	4.59	7.41	13.04	8.15	7.02	8.29	8.72	6.18	5.01
Job leaver	0.49	-2.62	0.70	-0.81	0.54	-2.90	1.11	0.41	0.56	-2.41	0.67	-0.86
Severance payment	0.86	-0.64	1.07	0.20	0.62	-3.41	0.72	-1.82	0.63	-3.03	0.54	-2.97
Recurrent UI recipient	1.12	0.59	0.88	-0.39	1.89	7.05	1.05	0.18	1.47	3.28	1.33	1.31
Entry form employment	0.84	-0.76	0.91	-0.32	0.63	-2.66	0.54	-2.63	0.68	-2.09	0.92	-0.33
Health problem					0.31	-2.04	0.21	-1.55	0.56	-1.61	0.44	-1.38
Local unemployment rate, percent	1.01	0.36	0.92	-2.85	0.96	-3.75	0.97	-1.57	0.98	-0.80	1.00	-0.11

Table 6: Hazard to go to Start-up Allowance, continued

	March 1992				December 1992				April-May 1994			
	Men		Women		Men		Women		Men		Women	
	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat
County												
Baranya	1.15	0.38	3.67	2.69	2.06	2.41	2.95	2.61	3.12	3.99	2.99	2.51
Bács	1.69	1.70	5.45	3.66	1.95	2.49	2.28	2.05	2.53	3.24	1.78	1.25
Békés	1.56	1.38	6.83	4.32	5.08	6.65	3.96	3.38	3.03	3.58	4.21	3.22
Borsod	1.89	2.10	3.07	2.36	5.44	6.64	5.76	4.69	2.63	3.30	3.85	3.15
Csongrád	0.30	-1.96	1.61	0.80	0.67	-0.97	0.69	-0.58	0.55	-1.19	1.15	0.24
Fejér	0.45	-1.29	1.34	0.45	1.33	0.80	1.99	1.44	1.51	1.08	2.14	1.58
Gyõ r	0.30	-1.66	0.53	-0.60	0.48	-1.37	0.00	-0.07	0.27	-1.77	0.31	-1.13
Hajdú	1.86	2.10	3.62	2.89	4.51	6.04	4.35	3.92	4.22	5.22	4.57	3.67
Heves	1.09	0.23	2.68	1.74	1.69	1.66	2.97	2.55	0.96	-0.10	1.80	1.06
Komárom	1.92	2.00	4.10	2.71	5.20	6.09	4.17	3.63	3.53	4.27	3.86	3.15
Nógrád	0.20	-2.10	0.93	-0.06	0.50	-1.10	0.33	-1.05	0.15	-1.86	0.52	-0.61
Pest	1.60	1.69	2.16	1.80	3.62	5.40	2.23	2.12	2.19	3.06	2.25	2.17
Somogy	0.60	-0.83	0.00	-0.06	0.35	-1.43	0.00	-0.07	0.86	-0.31	0.50	-0.66
Szabolcs	0.86	-0.42	2.21	1.54	1.46	1.29	0.64	-0.75	0.33	-2.05	0.66	-0.57
Szolnok	1.71	1.71	3.14	2.15	2.57	3.52	5.15	4.17	4.29	4.90	2.89	2.19
Tolna	0.29	-1.68	2.43	1.32	1.62	1.52	1.27	0.40	1.22	0.47	3.72	2.71
Vas	2.52	2.76	0.00	-0.06	3.98	5.32	3.86	2.89	5.03	5.99	4.37	3.28
Veszprém	0.69	-0.75	1.09	0.12	1.31	0.79	2.64	2.13	1.41	0.94	1.44	0.62
Zala	2.20	2.02	0.00	-0.06	3.16	4.03	2.71	2.12	3.19	3.78	2.99	2.18
Log Likelihood	-3065.9461		-1307.5454		-7113.3772		-2508.4426		-4128.4543		-1916.4914	
No. of observations	23853		15564		39483		19735		24795		20901	

Table 6: Hazard to go to Start-up Allowance, continued

	October-November 1994				May-June 1996			
	Men		Women		Men		Women	
	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat
Age								
-20 years	1.08	0.22	0.70	-0.57	0.72	-0.97	1.57	1.25
26-30 years	1.17	0.84	0.77	-0.84	0.82	-0.87	1.18	0.60
31-35 years	0.94	-0.30	0.91	-0.28	0.88	-0.57	1.27	0.78
36-40 years	0.85	-0.82	1.59	1.68	0.58	-2.22	1.41	1.18
41-45 years	0.82	-0.98	1.00	0.00	0.62	-1.93	0.99	-0.03
46-50 (46-55) years	0.72	-1.41	0.77	-0.75	0.56	-2.06	0.21	-4.08
51-60 years	0.30	-3.41			0.12	-4.77		
Schooling								
incomplete primary	0.00	-0.05	0.00	-0.05	0.00	-0.06	0.00	-0.05
vocational	2.74	4.73	2.11	2.53	5.72	4.98	2.67	3.43
vocational secondary	7.24	8.82	4.78	5.59	14.11	7.39	4.56	5.31
general secondary	9.12	8.49	4.12	4.71	13.28	6.36	3.07	3.44
higher	12.52	9.42	9.72	6.42	26.46	8.35	7.95	5.92
Job leaver	0.70	-1.29	0.21	-1.56	0.74	-1.06	0.90	-0.26
Severance payment	0.84	-0.99	0.64	-1.86	0.85	-0.81	0.51	-2.58
Recurrent UI recipient	1.36	2.26	1.00	-0.01	1.21	1.23	1.34	1.38
Entry from employment	1.24	0.82	1.44	1.14	0.63	-1.95	0.67	-1.72
Health problem	0.58	-0.94	0.79	-0.40	0.28	-1.78	0.47	-1.04
Local unemployment rate, percent	0.99	-0.67	1.02	0.76	1.04	1.35	1.00	0.05

Table 6: Hazard to go to Start-up Allowance, continued

	October-November 1994				May-June 1996			
	Men		Women		Men		Women	
	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat
County								
Baranya	2.46	3.04	1.34	0.63	0.79	-0.48	1.23	0.34
Bács	0.80	-0.57	1.61	1.16	1.47	0.95	2.93	2.35
Békés	1.72	1.56	1.52	0.84	1.43	0.82	1.64	0.81
Borsod	1.35	0.90	1.66	1.14	1.34	0.73	1.71	0.97
Csongrád	1.20	0.50	1.30	0.56	0.57	-0.99	0.30	-1.14
Fejér	2.89	3.56	1.24	0.43	1.18	0.34	3.04	2.34
Gyõ r	0.00	-0.06	0.00	-0.05	0.95	-0.10	0.37	-0.94
Hajdú	1.92	2.03	1.74	1.21	2.17	2.02	3.15	2.34
Heves	0.47	-1.37	0.00	-0.05	0.93	-0.14	1.02	0.03
Komárom	1.61	1.32	0.62	-0.74	1.59	0.98	2.18	1.42
Nógrád	0.14	-1.88	0.00	-0.05	1.25	0.44	3.70	2.18
Pest	1.03	0.09	1.04	0.10	1.92	2.01	2.05	1.72
Somogy	0.33	-1.78	0.00	-0.06	1.12	0.23	1.56	0.67
Szabolcs	0.44	-1.64	0.36	-1.38	0.42	-1.44	0.51	-0.77
Szolnok	3.06	3.50	2.20	1.72	2.16	1.90	4.21	2.96
Tolna	0.91	-0.21	1.00	0.00	1.13	0.23	2.24	1.30
Vas	3.36	4.17	4.85	4.03	4.79	4.55	8.43	5.14
Veszprém	0.26	-2.18	0.36	-1.34	0.74	-0.53	2.73	1.99
Zala	2.23	2.53	0.84	-0.27	0.38	-1.30	0.00	-0.05
Log Likelihood	-2996.2036		-1465.9342		-2106.6512		-1469.8633	
No. of observations	24875		19730		21283		24647	

Table 7: Hazard to go to Public Works (Men)

	March 1992		December 1992		April-May 1994		Oct-Nov 1994		May-June 1996	
	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat
Age										
-20 years	1.04	0.11	1.51	1.96	0.92	-0.22	2.80	4.30	1.09	0.29
26-30 years	1.18	0.83	0.98	-0.13	0.94	-0.25	0.73	-1.26	1.07	0.27
31-35 years	0.85	-0.74	1.10	0.64	0.97	-0.13	1.10	0.44	1.58	1.98
36-40 years	1.28	1.30	0.88	-0.91	1.06	0.25	1.73	2.79	1.23	0.86
41-45 years	0.99	-0.07	0.89	-0.78	1.21	0.86	1.34	1.35	2.37	3.95
46-50 (46-55) years	0.88	-0.53	0.96	-0.24	0.94	-0.22	1.27	1.00	1.74	2.24
51-60 years	0.48	-2.87	0.47	-4.01	0.47	-2.64	0.79	-0.82	0.58	-1.91
Schooling										
incomplete primary	1.43	1.99	1.32	1.92	0.93	-0.26	1.00	0.02	1.00	0.00
vocational	0.69	-2.81	0.79	-2.61	0.62	-3.39	0.73	-2.48	0.93	-0.52
vocational secondary	0.29	-3.74	0.57	-3.02	0.50	-2.65	0.48	-2.80	0.54	-2.45
general secondary	0.21	-2.20	0.61	-1.43	0.69	-1.00	0.61	-1.25	1.19	0.61
higher	0.51	-1.32	1.04	0.15	1.31	0.84	0.67	-0.86	1.14	0.41
Job leaver	0.94	-0.33	0.84	-0.88	0.30	-3.09	0.54	-1.87	0.31	-3.07
Severance payment	1.30	1.13	0.70	-1.94	0.71	-1.62	0.68	-1.66	0.87	-0.69
Recurrent UI recipient	1.59	3.00	2.27	9.25	3.14	8.29	2.35	6.58	2.08	5.51
Entry form employment	0.78	-1.31	1.05	0.21	0.66	-1.65	1.54	1.32	0.94	-0.23
Health problem	1	0.00	0.5697	-1.12	0.38	-1.66	0.24	-1.42	0.78	-0.65
Local unemployment rate, percent	1.04	2.03	1.05	3.30	0.99	-0.22	1.00	0.06	1.01	0.50
Population of place of residence, log	1.00	0.00	0.83	-6.19	0.81	-5.66	0.82	-5.68	0.91	-2.54

Table 7: Hazard to go to Public Works, continued

	March 1992		December 1992		April-May 1994		Oct-Nov 1994		May-June 1996	
	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat	Hazard ratio	T-Stat
County										
Budapest	0.08	-2.48	0.00	-0.17	0.57	-1.12	1.79	1.20	0.93	-0.19
Baranya	0.94	-0.15	0.84	-0.60	0.35	-2.51	1.63	1.29	0.17	-3.71
Bács	1.12	0.35	1.26	1.08	0.65	-1.27	1.77	1.56	0.47	-2.52
Békés	3.46	4.62	2.68	5.55	1.17	0.57	3.21	3.56	0.73	-1.22
Csongrád	0.92	-0.20	0.19	-2.76	0.24	-2.34	1.00	0.01	0.32	-2.72
Fejér	0.47	-1.20	0.56	-1.41	0.28	-2.36	1.20	0.40	0.20	-3.32
Gyõ r	0.87	-0.24	1.84	1.95	1.54	1.28	3.15	2.91	0.38	-2.25
Hajdú	1.54	1.44	0.85	-0.73	0.44	-2.21	0.33	-1.73	0.30	-3.50
Heves	1.53	1.14	1.20	0.71	1.04	0.12	2.12	1.99	0.29	-3.03
Komárom	2.71	3.24	2.38	3.47	1.01	0.03	2.41	2.24	0.30	-2.77
Nógrád	1.14	0.35	1.78	2.33	0.46	-1.88	1.11	0.23	0.22	-3.25
Pest	1.63	1.53	1.13	0.44	0.59	-1.54	0.97	-0.06	0.53	-2.21
Somogy	3.69	4.02	2.37	3.31	2.12	2.79	3.87	4.09	0.51	-2.00
Szabolcs	0.86	-0.51	1.06	0.33	0.56	-1.99	2.92	3.44	0.21	-4.39
Szolnok	1.48	1.30	0.85	-0.71	0.46	-1.99	3.30	3.58	0.63	-1.70
Tolna	0.28	-1.73	0.21	-2.97	0.07	-2.67	0.00	-0.08	0.05	-2.99
Vas	4.58	4.37	3.28	4.33	0.92	-0.21	1.78	1.27	0.60	-1.31
Veszprém	1.31	0.63	0.96	-0.13	0.25	-2.56	0.68	-0.82	0.16	-3.39
Zala	1.74	1.22	1.83	2.07	0.69	-0.93	0.46	-1.20	0.00	-0.11
Log Likelihood	-3247.8537		-6337.5799		-2609.0926		-2988.7202		-2752.9348	
No. of observations	23853		39483		24795		24875		21283	

Table 8: Average hazards

A. Averages of predicted hazards

Men

Exit state	March 1992	December 1992	April-May 1994	October-November 1994	June-July 1996
Employment (h*100)	0.133	0.181	0.166	0.177	0.163
Training (h*1000)	0.077	0.051	0.123	0.126	0.142
Subsidised employment (h*1000)	0.033	0.055	0.039	0.029	0.035
Start-up allowance (h*1000)	0.045	0.070	0.090	0.064	0.055
Public works (h*1000)	0.045	0.064	0.059	0.070	0.075

Women

Exit state	March 1992	December 1992	April-May 1994	October-November 1994	June-July 1996
Employment (h*100)	0.099	0.109	0.117	0.139	0.105
Training (h*1000)	0.102	0.094	0.230	0.212	0.206
Subsidised employment (h*1000)	0.037	0.056	0.033	0.033	0.030
Start-up allowance (h*1000)	0.026	0.039	0.040	0.033	0.029

B. Averages of predicted hazards estimated with the composition of the March 1992 sample

Men

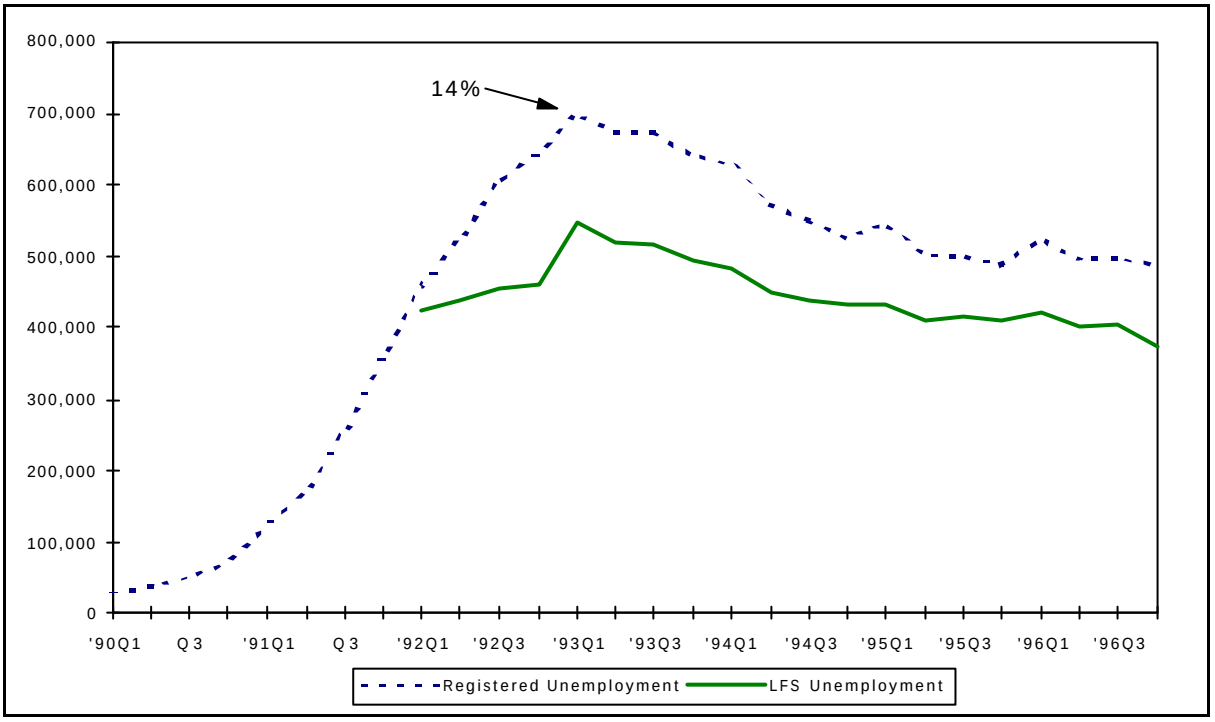
Exit state	March 1992	December 1992	April-May 1994	October-November 1994	June-July 1996
Employment (h*100)	0.133	0.160	0.153	0.151	0.148
Training (h*1000)	0.077	0.058	0.116	0.109	0.127
Subsidised employment (h*1000)	0.033	0.053	0.040	0.029	0.038
Start-up allowance (h*1000)	0.045	0.065	0.084	0.056	0.052
Public works (h*1000)	0.045	0.050	0.050	0.054	0.061

Women

Exit state	March 1992	December 1992	April-May 1994	October-November 1994	June-July 1996
Employment (h*100)	0.099	0.104	0.117	0.110	0.105
Training (h*1000)	0.102	0.086	0.188	0.148	0.172
Subsidised employment (h*1000)	0.037	0.056	0.034	0.027	0.032
Start-up allowance (h*1000)	0.026	0.036	0.039	0.027	0.029

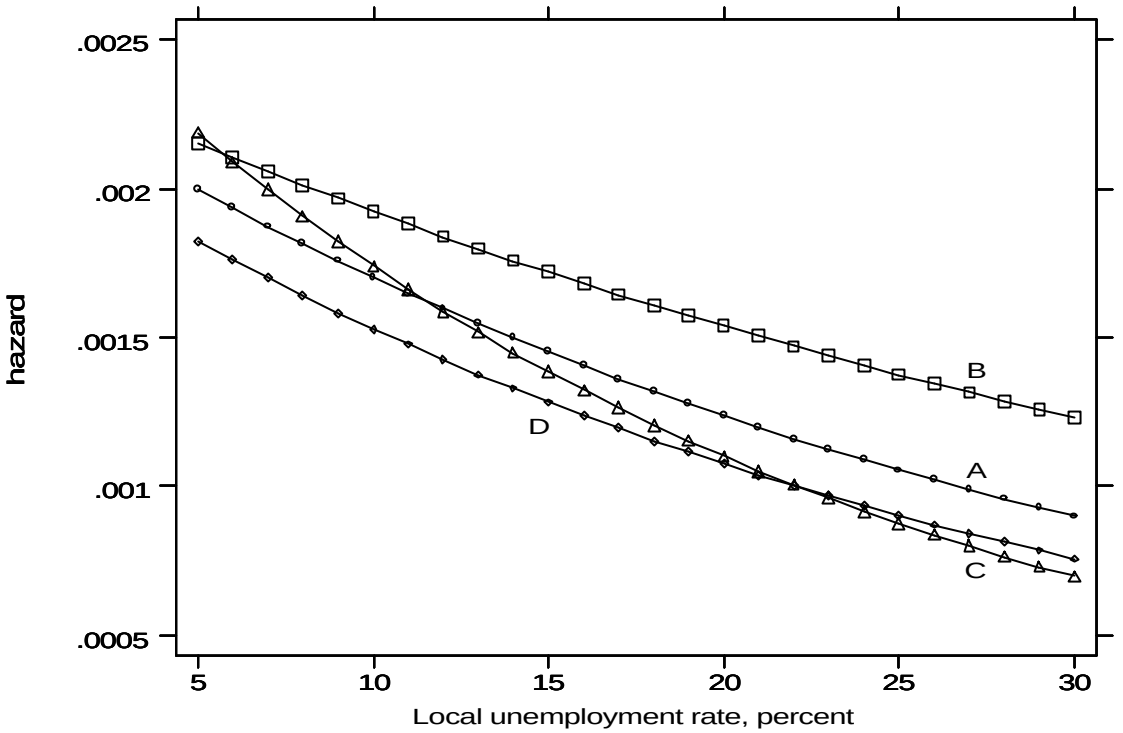
Figures

Figure 1: Unemployment in Hungary



Source: National Labour Centre, Central Statistical Office

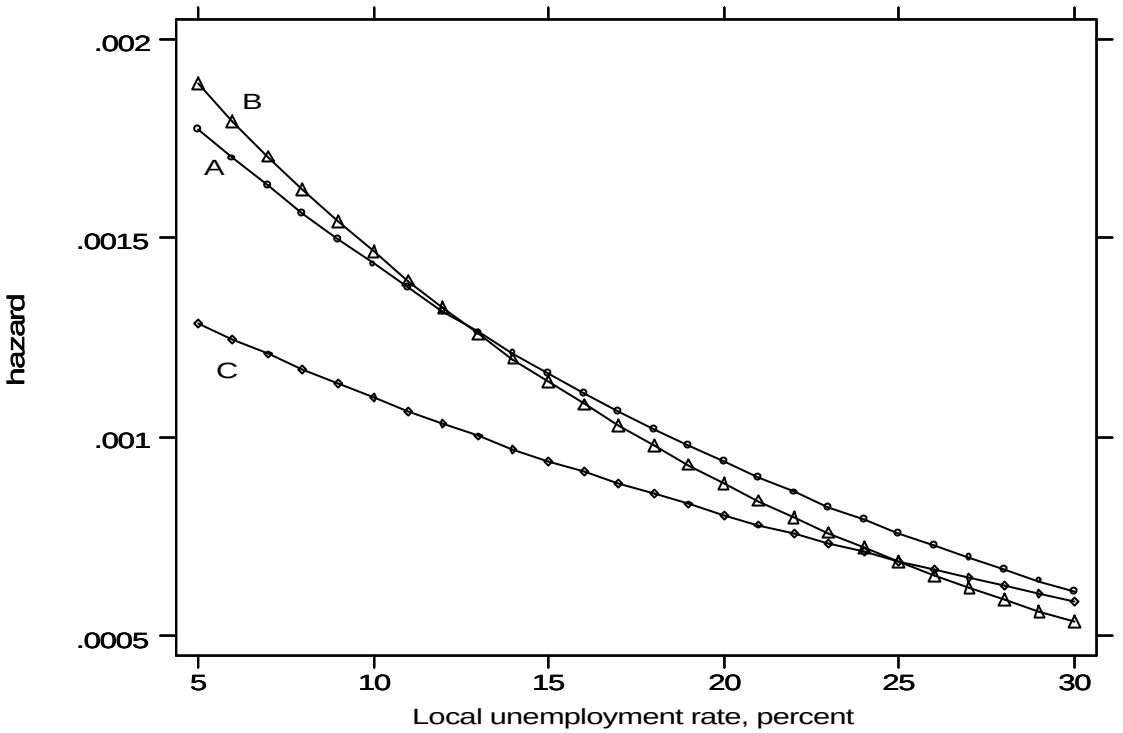
Figure 2: Predicted hazard of exit to employment for base group of males as local unemployment rate changes



A: March 1992
B: December 1992
C: April-May and October-November 1994
D: May-June 1996

Note: The figure is based on prediction using an exponential regression model. The base group is age 21-25, primary schooling, job looser, no severance payment receipt, no previous UI spell, entered from employment, no health problem reported to the employment office, lives not in Budapest.

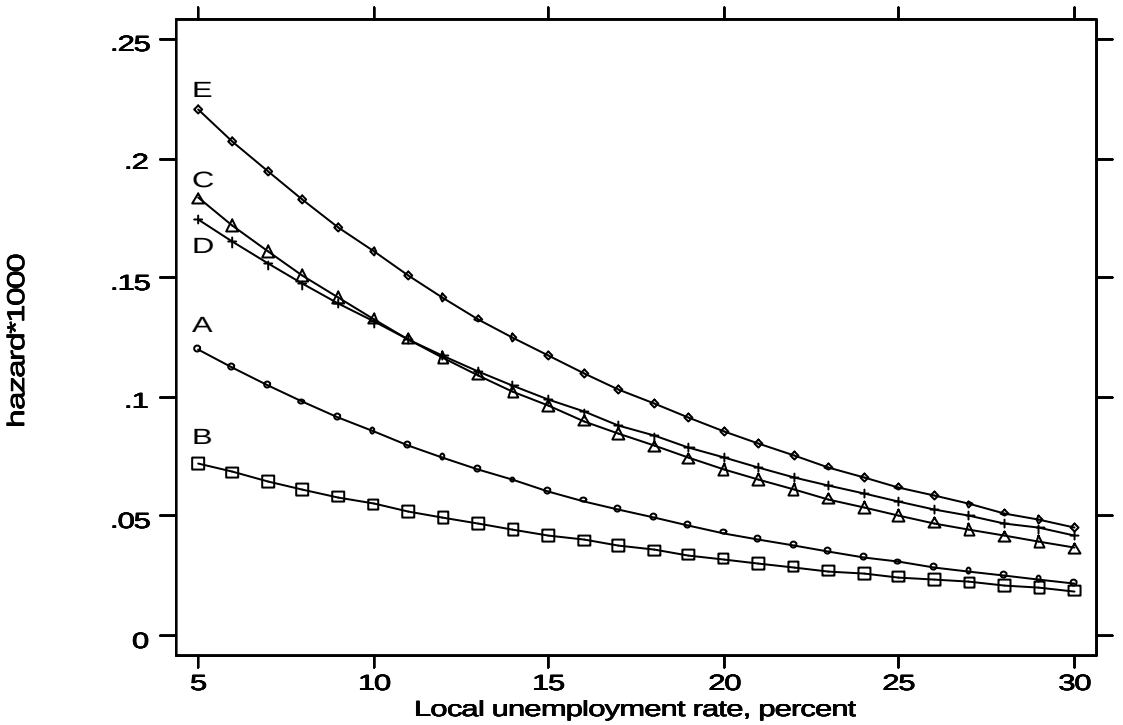
Figure 3: Predicted hazard of exit to employment for base group of females as local unemployment rate changes



A: March 1992 and December 1992
B: April-May1994 and October-November 1994
C: May-June 1996

Note: See Figure 2

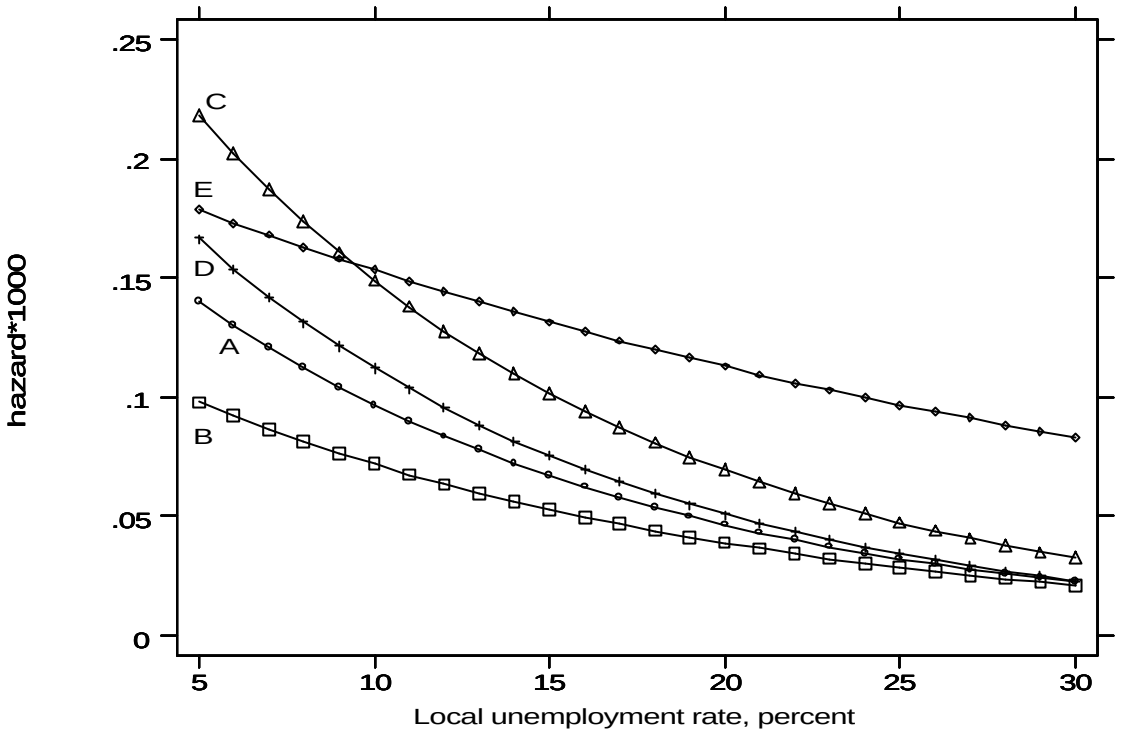
Figure 4: Predicted hazard of exit to training for base group of males as local unemployment rate changes



A: March 1992 B: December 1992
C: April-May 1994 D: October-November 1994
E: May-June 1996

Note: See figure 2

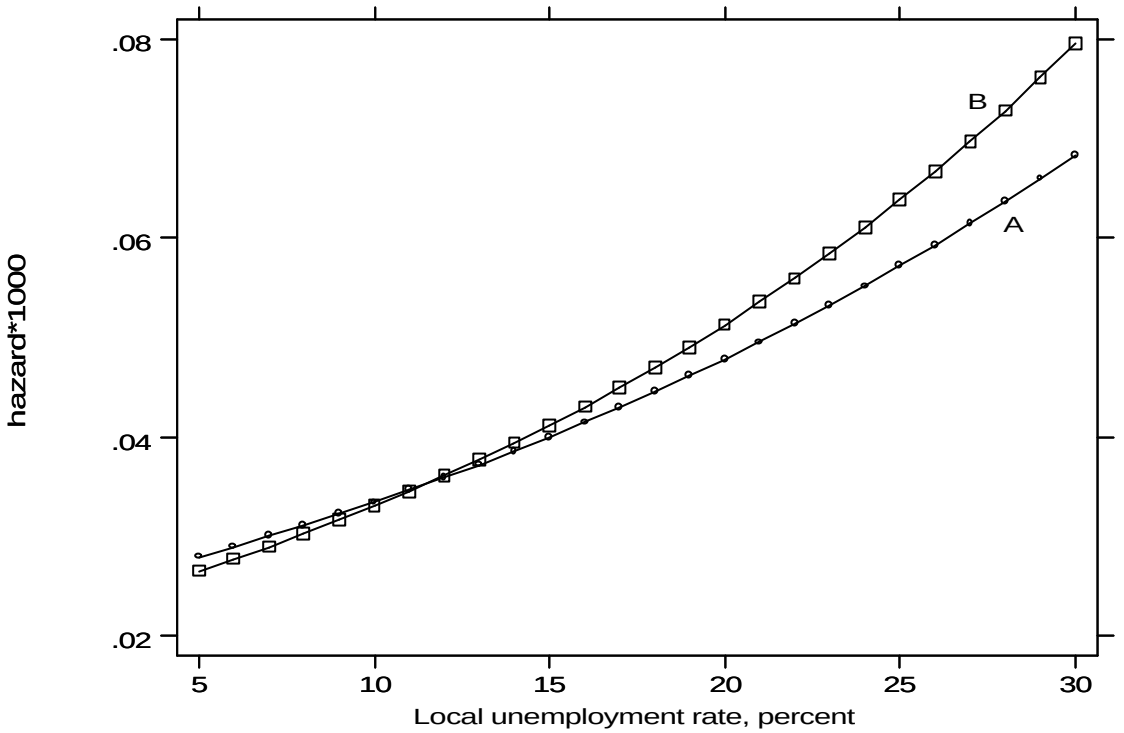
Figure 5: Predicted hazard of exit to training for base group of females as local unemployment rate changes



A: March 1992 B: December 1992
C: April-May 1994 D: October-November 1994
E: May-June 1996

Note: See figure 2

Figure 6: Predicted hazard of exit to public works for base group of males as local unemployment rate changes



A: March 1992 B: December 1992

Note: See figure 2. Population of place of residence is held constant at its average value for the December 1992 sample.

Appendix

Means of Variables used in Parametric Models of the Hazards

	March 1992		December 1992		April-May 1994		October-November 1994		May-June 1996	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Sex	0.61		0.66		0.54		0.56		0.46	
Age										
-20 years	0.05	0.05	0.06	0.06	0.05	0.04	0.07	0.07	0.10	0.07
21-25 years	0.20	0.12	0.15	0.11	0.16	0.14	0.19	0.17	0.15	0.12
26-30 years	0.14	0.13	0.12	0.13	0.14	0.15	0.14	0.17	0.12	0.12
31-35 years	0.14	0.15	0.14	0.15	0.13	0.13	0.13	0.13	0.11	0.09
36-40 years	0.15	0.17	0.16	0.18	0.16	0.15	0.15	0.16	0.13	0.11
41-45 years	0.12	0.15	0.14	0.16	0.13	0.13	0.13	0.14	0.11	0.09
46-50 years	0.09	0.12	0.10	0.12	0.10	0.09	0.09	0.10	0.08	0.24
51-55 years	0.06	0.12	0.08	0.10	0.07	0.17	0.06	0.07	0.14	0.15
56-60 years	0.05	0.00	0.04	0.00	0.07	0.00	0.04	0.00	0.05	0.00
Schooling										
incomplete primary	0.08	0.08	0.06	0.06	0.05	0.04	0.04	0.03	0.04	0.03
primary	0.32	0.48	0.33	0.45	0.29	0.39	0.29	0.36	0.28	0.36
vocational	0.44	0.21	0.45	0.22	0.47	0.26	0.48	0.28	0.46	0.25
vocational secondary	0.10	0.11	0.10	0.14	0.12	0.16	0.12	0.17	0.13	0.17
general secondary	0.03	0.09	0.03	0.11	0.04	0.12	0.04	0.13	0.04	0.13
higher	0.03	0.02	0.03	0.03	0.04	0.03	0.03	0.03	0.04	0.05
Job leaver	0.10	0.08	0.06	0.07	0.07	0.04	0.06	0.04	0.08	0.04
Severance payment	0.04	0.04	0.08	0.14	0.15	0.20	0.12	0.17	0.11	0.13
Recurrent UI recipient	0.15	0.15	0.29	0.15	0.27	0.16	0.37	0.24	0.40	0.24
Entry form employment	0.83	0.80	0.92	0.89	0.92	0.90	0.92	0.89	0.93	0.91
Health problem			0.03	0.04	0.03	0.04	0.02	0.03	0.03	0.04
Local unemployment rate, percent	14.82	14.76	15.09	14.10	11.45	10.99	11.37	10.71	9.98	9.45
Population of place of residence, 000s			135	213	238	297	218	298	216	283

Appendix, continued

	March 1992		December 1992		April-May 1994		October-November 1994		May-June 1996	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
County										
Budapest	0.10	0.11	0.06	0.09	0.11	0.14	0.10	0.14	0.10	0.13
Baranya	0.04	0.04	0.04	0.04	0.05	0.05	0.04	0.05	0.04	0.04
Bács	0.06	0.07	0.07	0.08	0.06	0.07	0.06	0.06	0.06	0.06
Békés	0.07	0.06	0.10	0.06	0.05	0.05	0.05	0.04	0.05	0.04
Borsod	0.08	0.07	0.07	0.08	0.09	0.07	0.08	0.07	0.09	0.07
Csongrád	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.05
Fejér	0.04	0.04	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.05
Gyõr	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.03	0.04	0.05
Hajdú	0.07	0.07	0.08	0.06	0.06	0.05	0.06	0.05	0.06	0.05
Heves	0.03	0.04	0.04	0.04	0.03	0.03	0.04	0.03	0.04	0.04
Komárom	0.04	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.03	0.04
Nógrád	0.03	0.03	0.02	0.03	0.03	0.03	0.03	0.02	0.03	0.03
Pest	0.08	0.08	0.06	0.07	0.09	0.09	0.08	0.09	0.09	0.09
Somogy	0.03	0.03	0.03	0.03	0.03	0.03	0.05	0.06	0.04	0.04
Szabolcs	0.09	0.10	0.12	0.09	0.07	0.05	0.07	0.05	0.05	0.04
Szolnok	0.06	0.06	0.07	0.05	0.05	0.05	0.05	0.04	0.05	0.04
Tolna	0.03	0.03	0.03	0.04	0.03	0.03	0.03	0.02	0.03	0.03
Vas	0.02	0.02	0.02	0.02	0.03	0.02	0.03	0.02	0.03	0.03
Veszprém	0.03	0.03	0.04	0.04	0.04	0.04	0.06	0.06	0.04	0.05
Zala	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.04	0.03	0.04