

**Evaluating the Effectiveness of  
Active Labor Programs in Hungary**

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## EXECUTIVE SUMMARY

This study of the effectiveness of active labor programs (ALPs) in Hungary relies on survey data gathered from randomly selected program participant and comparison group samples in a group of ten counties: Budapest, Baranya, Bekes, Borsod, Csongrad, Fejer, Hajdu-Bihar, Pest, Szabolcs, and Vas. This investigation of ALP effectiveness in Hungary was coordinated by the World Bank with studies of similar active labor programs operated in other transition economies, namely Poland, the Czech Republic, and Turkey. Funding for this study was provided to the W. E. Upjohn Institute for Employment Research by the U.S. Department of Labor, Bureau of International Labor Affairs for the U.S. Agency for International Development.

### **Background**

In a population of about 10 million, unemployment rose in Hungary from 23,000 in January 1990 to 705,000 in February 1993. During this three-year period, about a million jobs were lost. Part of the job loss (188,000) was absorbed by the retirement of workers. Meanwhile, the working age population grew by over 100,000. Since 1993, measured unemployment in Hungary has fallen. During the 1990s, the national population declined slightly and the measured size of the labor force fell dramatically. Starting in 1994, growth in real GDP began again. Consumer price inflation during the 1990s has ranged from 19 to 35 percent per year, being in the low end of that range in recent years. Consumer prices currently rise somewhat less than 20 percent per year. In April of 1998 the unemployment rate in Hungary stood at 9.8 percent. The unemployment rate would be as much as two percentage points higher were it not for the large number of participants in ALPs.

Hungary is composed of 20 administrative districts, which include 19 counties and the capital city of Budapest. These 20 districts are the political entities to which labor market support programs are provided through county labor centers and a network of 179 local labor centers. The Ministry of Labor is the leader in setting labor market support policy. National coordination for the delivery of employment services is provided by the National Labor Center.

This report provides net impact estimates on employment and earnings for the five main ALPs used in Hungary: retraining, employment service (ES), public service employment (PSE), wage subsidies, and self-employment assistance. The report also includes a subgroup analysis of

program impacts. Additionally, estimates are given for the effect of ALP participation on receipt of unemployment compensation (UC).

### **Employment Policy in Hungary**

The menu of ALPs available in Hungary includes nearly all those available in countries with much longer histories of employment policy. Passive labor programs in Hungary include both UC with a 12 month maximum duration, and a means-tested unemployment assistance (UA) program providing an additional entitlement of 24 months of income support.

Total spending on ALPs and UC in Hungary for 1996 amounted to nearly 77.2 billion Hungarian forints (Ft) or around U.S.\$ 454.1 million. This level is about 1.03 percent of the Hungary's gross national product. In recent years the share of employment program expenditures devoted to ALPs has ranged from 21.8 to 25.5 percent. The remainder of public spending for employment programs goes to passive labor support through UC. About half a million people use Hungary's labor programs each year, with around 20 percent of them participating in an ALP.

Retraining provides short-term job skill training to promote readiness for job vacancies in the region. Retraining candidates may be either unemployed, expected to be unemployed, currently involved in PSE, or recent school graduates. Retraining participants receive a stipend which is 10 percent more than their UC benefit. The direct costs of retraining are also paid. In this evaluation we focus on retraining of the unemployed done either through individual plans or in groups through classes selected by the local or county labor center. Our samples of participants include recent school graduates.

The employment service is the central function of local labor offices. Local labor offices are one-stop shopping places for reemployment assistance. These offices act as a unified clearing house for referral to a variety of active and passive support. The ES offers a full range of placement services including job interview referral, counseling, skills assessment, job search training, resume preparation, and job clubs.

PSE is a short-term direct job creation program with employment on projects organized by government agencies including municipal governments. Direct employment costs for PSE including wages, work tools, working clothes, and transportation are subsidized up to 70 percent

of the full amount with money from the Employment Fund, provided that the employer does not receive any net income from the activity.

The wage subsidy program is targeted toward people who are long-term unemployed. A wage subsidy of up to 50 percent is possible for up to one year. The payment is made directly to the employer and applies to total labor costs for hiring persons who were previously unemployed for more than six months (three months for school leavers), provided the employer has not laid off anyone involved in the same line of work in the previous six months. If workers hired through the subsidy are not retained after the subsidy ends for a period at least as long as the subsidy was paid, the employer must repay the Employment Fund the assistance provided.

Self-employment assistance is provided to a small fraction of persons who are eligible for UC. The assistance is provided in monthly payments equal to the regular UC, but may extend six months beyond the basic one-year UC eligibility period. Support may also include reimbursement of up to half the cost of professional entrepreneurial counseling services and half the cost of training courses required for engaging in the entrepreneurial activity. Up to half the premium on loan insurance for funds borrowed to start the enterprise may be paid for one year.

### **Samples for Evaluation**

Sample sizes were set to be large enough to ensure the reliability of overall program impact estimates. Ideally, important demographic and regional subgroup impacts could also be measured using the samples. Program participant groups were drawn from the outflow of program participation occurring in the second quarter of 1996. There was random sampling from the outflow where sample sizes were large enough, with random draws made by birth date. For self-employment, which had a small number of participants, the population of all participants was drawn from the first three quarters of 1996. The comparison group was randomly selected, using birth dates, in the 10 counties from the inflow to the register during the second quarter of 1995. That was judged to be about the time that most people drawn for the participant samples had themselves registered as unemployed.

Surveys were conducted in April 1997. To spread the burden of conducting interviews, the samples were evenly distributed across the 10 counties and 80 local areas within these counties. Administration of the questionnaires for surveys was managed by experts employed by

the county and local labor offices in the areas covered. Surveys were conducted with some subjects during their usual visits to labor centers and with the remainder during house-to-house visits by staff of local labor offices during their off work hours. This survey process means ALP impact estimates on reemployment rates may be biased downward since the unemployed are more likely to visit labor centers and the employed are less likely to be available at home during house-to-house visits.

**Table E.1 Sample Sizes for Evaluation of ALPs in Hungary**

Active Labor Program	Sample size	Used some ES service	Used no ES service
Individual Retraining	1,222	386	836
Group Retraining	1,321	566	755
Public Service Employment	1,140	479	661
Wage Subsidy	1,131	203	928
Self-employment	1,067	101	966
Total ALP Participants	5,881	1,735	4,146
Comparison Group	3,338	1,438	1,900

Table E.1 lists the number of persons interviewed in the comparison and ALP groups. The table also shows that among the 5,881 ALP participants interviewed, 1,735 reported using some special service of the ES, and among the 3,338 persons in the comparison group, 1,438 used an ES service. The participant and comparison group samples were gathered with very good response rates. The overall response rate among ALP participants was 81.4 percent, while that for the comparison group was 75.6 percent.

Table E.2 contrasts the composition of the comparison group and the ALP samples using categorical indicators of sample characteristics. In this table, asterisks indicate that there is a statistically significant difference between the comparison group and the ALP group on the characteristic. A quick glance at the table reveals the large differences which exist for nearly every ALP on almost all characteristics.

In contrast to the comparison group, which was randomly drawn from the unemployment register, the individual retraining sample is more female, younger, and more educated; the group retraining sample is also more female, younger, and more educated; the PSE sample is more male, younger, and less educated; the wage subsidy sample is somewhat more educated; and the self-employment sample is more male, closer on average to prime working age, and more educated.

**Table E.2 Contrasting the composition of the comparison group with the ALP samples<sup>a</sup>**

	Full Comparison Group	Individual Retraining	Group Retraining	Public Service Employment	Wage Subsidies	Self- Employment
MALE - Respondent is male	0.555	0.490**	0.476**	0.665**	0.561	0.619**
AGELT30 - Age ≤ 30	0.415	0.662**	0.649**	0.329**	0.407	0.260**
AGE3044 - Age between 30 and 44	0.383	0.267**	0.277**	0.394	0.399	0.544**
AGEGE45 - Age is 45 or over	0.201	0.071**	0.074**	0.277**	0.194	0.196
EDELEM - 8 years of schooling	0.345	0.164**	0.246**	0.468**	0.264**	0.078**
EDVOC - Vocational	0.412	0.295**	0.244**	0.303**	0.425	0.388
EDGYM - General secondary	0.213	0.478**	0.453**	0.197	0.269**	0.427**
EDCOLL - Some higher education	0.030	0.063**	0.057**	0.032	0.042*	0.107**
BLUECOL - Blue collar occupation	0.814	0.604**	0.623**	0.819	0.771**	0.627**
LOST - Earlier lost job	0.671	0.586**	0.636**	0.348**	0.181**	0.264**
SCHOOL - Earlier school leaver	0.087	0.307**	0.279**	0.022**	0.024**	0.001**
OTHER - Earlier other	0.242	0.107**	0.085**	0.630**	0.796**	0.735**
LTU - Long-term unemployed	0.218	0.180**	0.213	0.483**	0.299**	0.052**
Sample Size	3214	1150	1254	1088	1091	1044

\* Statistically significant at the 90 percent confidence level in a two-tailed test.

\*\* Statistically significant at the 95 percent confidence level in a two-tailed test.

<sup>a</sup>Asterisks indicate whether the ALP sample is significantly different from the comparison group in the particular characteristic.

The wide ranging differences in sample composition suggest that there was non-random assignment of participants to ALPs. This means that ALP net impact estimates must be computed while controlling for systematic sample selection. In this report, correction in estimation is limited to adjustments based on observable characteristics. While the report presents impact estimates computed in a variety of ways, the estimates reviewed in this executive summary were all computed using an ordinary least squares regression model which controls for observable characteristics and for use of the ES.

When program managers are encouraged to achieve a high employment rate for program participants, a phenomenon called “creaming” frequently results; that is, program managers might select mainly the most able applicants for participation. The result is high employment rates; however, many of the selected ALP participants already possessed the skills and abilities to get reemployed themselves. Comparing their success to all unemployed, the positive impact on reemployment is high, but comparing their success to others with similar characteristics, the program impacts are much smaller.

An earlier evaluation of retraining in Hungary found evidence of creaming in program assignment. Since that time, an extensive performance monitoring system has been implemented in Hungary. At the same time, program managers have been warned about the social cost of creaming in program assignment. The results reviewed in this executive summary include evidence of programs with strong creaming, others with mild creaming, and still others where the practice of creaming appears to have been reversed.

### ALP Impacts on Employment and Earnings

Net impact estimates of ALPs on employment and earnings outcomes are given in Table E.3. There are four employment outcomes and two earnings outcomes. They are

EMPLOY1 - Ever reemployed in a non-subsidized job or self-employment

EMPLOY51 - Ever reemployed in any job or self-employment

EMPLOY2 - Employed in a non-subsidized job or self-employment on the survey date

EMPLOY52 - Employed in any job or self-employment on the survey date

EARN1 - Average monthly earnings at the start of the first new job or self-employment

EARN2 - Average monthly earnings from the job or self-employment on the survey date

Individual retraining resulted in 11 percentage points more people getting into regular non-subsidized employment and 9 percentage points more people being in regular employment on

**Table E.3 Summary of Net Impacts on Employment and Earnings for ALPs in Hungary**

	EMPLOY1	EMPLOY51	EMPLOY2	EMPLOY52	EARN1	EARN2
Active Labor Program						
Individual Retraining	0.11*	0.15**	0.09*	0.15**	1,603*	1,149
Group Retraining	0.09**	0.17**	0.07**	0.12**	1,805*	895
Employment Service	-0.02**	0.08**	-0.09**	0.00	556**	365
Public Service Employment	-0.26**	-0.07**	-0.21**	-0.06	742	1,604**
Wage Subsidy	-0.11**	-0.01**	-0.06**	-0.03**	1,836	-1120
Self-employment	0.14	0.17	0.16	0.19	-7057**	-4583**

\* Statistically significant at the 90 percent confidence level in a two-tailed test.

\*\*Statistically significant at the 95 percent confidence level in a two-tailed test.

the survey date. There was also a 1,603 Ft gain in average monthly earnings (EARN1) at the start of reemployment, but this advantage disappeared by the survey date. The unadjusted impact estimates were not significantly different from the adjusted estimates highlighted here, suggesting no serious sample selection in program assignment. Individual retraining provided more of an advantage for those who had lost their earlier jobs, there were no distinct differences by gender, age, education, or occupation group. (A subgroup analysis of ALP impacts on the important outcome EMPLOY2, employed in a non-subsidized job or self-employment on the survey date, is provided in Table E.4.)

Group retraining resulted in 9 percentage points more people getting into regular non-subsidized employment and 7 percentage points more people being in regular employment on the survey date. There was a 1,805 Ft gain in average monthly earnings at the start of reemployment, but (like individual retraining) this advantage disappeared by the survey date. The unadjusted impact estimates were somewhat smaller than the adjusted impact estimates highlighted here, suggesting there may actually have been some reverse creaming; that is, targeting of group retraining to those who would have their reemployability raised the most. Group retraining provided a measurable advantage to those who had lost their earlier jobs or recently finished school, there were no distinct differences by gender, age, education, or occupation group.

Controlling for observable factors, including participation in any other ALP, use of the employment service had a negative effect on reemployment in a non-subsidized job. The net impacts were -2 percentage points for ever getting reemployed and -8 percentage points on being in a non-subsidized job on the survey date. Use of the ES did raise the chance of getting into any job (including perhaps a subsidized job) by 8 percentage points; unfortunately, this advantage disappeared by the survey date. Using the ES did raise average monthly reemployment earnings by 556 Ft. Among the five ALPs evaluated in this report, selection bias is the most serious problem in evaluating the ES impact. Use of the ES is both self chosen and self selected. Net impact estimates of the ES show somewhat more favorable effects than the unadjusted estimates, suggesting that successful job seekers who used the ES attribute some of their job finding success to the ES. The ES impacts across subgroups were significantly larger for females, younger workers, those with other than vocational secondary education, those from blue collar

**Table E.4 Net Impact Estimates of Active Labor Programs by Subgroup on the outcome Employed in a Non-subsidized Job on the Survey Date (EMPLOY2)**

	Individual Retraining	Group Retraining	Employment Service	Public Service Employment	Wage Subsidy	Self-employment
MALE - Respondent is male	0.086**	-0.021	-0.001##	-0.138**##	0.037	0.339**
FEMALE - Respondent is female~	0.087**	0.023	0.080**	-0.042	0.076**	0.344**
AGELT30 - Age < 30	0.081**	0.008	0.048*	-0.111**	0.029	0.339**
AGE3044 - Age 30 to 44	0.076**	0.018	0.017	-0.112**	0.059*	0.320**#
AGEGE45 - Age is 45 or over~	0.126**	-0.067	0.043	-0.048	0.098**	0.389**
EDELEM - 8 years of schooling	0.086**	0.001	0.068**	-0.141**#	0.089**	0.377**
EDVOC - Vocational	0.101**	-0.002	0.010	-0.090**	0.030	0.330**#
EDGYM - General secondary	0.066**	-0.011	0.040	-0.057	0.065	0.332**
EDCOLL - Some higher education~	0.098	0.084	-0.018	0.068	-0.049	0.273**
WHITECOL - White collar occupation	0.051	-0.037	0.045	-0.116**	0.059	0.325**
BLUECOL - Blue collar occupation~	0.098**	0.011	0.033*	-0.094**	0.053**	0.346**
LOST - Earlier lost job	0.144**##	0.097**##	0.032	0.017##	0.077**	0.436**##
SCHOOL - Earlier school leaver	-0.077**##	0.077**##	0.113*	0.011##	0.128	0.676
OTHER - Earlier other~	0.087*	-0.383**	0.013	-0.320	0.088	0.130**
LTU - Long-term unemployed	0.084**	-0.041	0.041	-0.089**	0.084**	0.364**
NONLTU - Not unemployed long term~	0.087**	0.010	0.033*	-0.101**	0.045*	0.336**
LOWURATE - Low unemployment area	0.066**	0.016	0.051*	-0.129**	0.036	0.336**
MEDURATE - Med unemployment area	0.087**	-0.015	0.041	-0.093**	0.113**##	0.288**##
HIURATE - High unemployment area~	0.102**	0.002	0.018	-0.082**	0.012	0.394**
Baranya - County 2	0.093**	0.010	0.047	-0.119*	0.113**	0.157**##
Bekes - County 4	0.073**	0.044##	0.018	-0.102*	0.053	0.325**
Borsod - County 5	0.033	0.020	-0.018	-0.076*	0.081**	0.431**#
Csongrad - County 6	0.083	0.002	0.042	-0.168**	0.138**	0.331**
Fejer - County 7	0.094**	0.107**	0.049	-0.096**	0.185**	-0.324**
Hajdu - County 9	0.088*	-0.113**##	0.033	-0.045	-0.098*	0.311**
Pest - County 13	-0.012	-0.067	0.004	-0.135**	0.100	0.345**
Szabolcs - County 15	0.155**	0.073*	0.034	-0.133**	0.055	0.428**
Vas - County 18	0.176**	0.085	0.105*	-0.111	0.017	0.329**
Budapest - Capital city 1~	0.075	0.063	0.014	-0.113*	0.048	0.325**

\* Statistically significant at the 90 percent confidence level in a two-tailed test.

\*\* Statistically significant at the 95 percent confidence level in a two-tailed test

# Significantly different from the reference group at the 90 percent confidence level in a two-tailed test.

## Significantly different from the reference group at the 95 percent confidence level in a two-tailed test.

~ Reference group for subgroup differences; excluded in estimation.

occupations, those who became voluntarily unemployed, not long-term unemployed, and those with no prior work experience. The most popular ES service is referral to job interviews.

PSE resulted in net impacts of -26 percentage points in getting into a non-subsidized job during the period observed, -7 percentage points in ever getting into any other job, -21 percentage points in being in a non-subsidized job on the survey date, but a 1,604 Ft gain in the rate of average monthly earnings at the survey date. These negative impacts are somewhat smaller than expected based on prior evidence about PSE in Hungary. The fact that the net impact estimates

were generally larger negative suggests many of the program participants were job-ready at the time of program entry. The result is most probably due to insufficient labor demand. A subgroup analysis of PSE indicated large negative employment impacts for men and no impact on women; there were also large negative impacts on those with eight or fewer years of schooling, but no impacts on those with general secondary or higher education; and there was actually a positive employment impact for those who lost their earlier job or recently finished schooling as compared to others.

The wage subsidy for long-term unemployed in Hungary is estimated to have a net impact on ever finding a non-subsidized job by -11 percentage points and on being in a non-subsidized job on the survey date -6 percentage points. Broadening the definition of reemployment to also include subsidized jobs after a wage subsidy, the net impact on ever getting into any job was -1 percentage point and the impact on being in any job on the survey date was -3 percentage points. For the wage subsidy, controlling for observable characteristics and the use of the ES was important in estimating net impacts. There is strong evidence that employers were quite selective in choosing the best candidates for wage subsidies. The unadjusted impact estimates were large and positive. Together with the negative and significant net impact estimates, this suggests that many of workers whose wages were subsidized could have gained reemployment without public subsidy. A subgroup analysis indicated that the wage subsidy benefitted employment most among those in areas with moderate unemployment. The subgroup results also suggest that selectivity in wage subsidy hiring by employers was most influenced by educational attainment, with employers preferring job candidates with some higher education.

Self-employment assistance in Hungary is estimated to increase the probability of getting into a non-subsidized job or non-subsidized self-employment by 14 percentage points and to raise the chance of a similar outcome at the survey date by 16 percentage points. These estimates are not statistically significant but are suggestive of the tendencies. Employment gains apparently came at the expense of lower earnings. The self-employment impact on average monthly earnings was -7,057 Ft at the start of new jobs, and -4,583 Ft on the survey date in current jobs. The unadjusted impact estimates were significantly better than these, suggesting that many of those provided self-employment assistance would have gained reemployment without the assistance. However, it was also found that 17.6 percent of those receiving self-employment assistance hired

at least one other worker for their enterprise. Indeed one successful loan recipient claims to have hired 12 workers. The mean number of workers hired by those who did hire someone was 1.75 employees. Furthermore, about half of all those hired were previously unemployed. A subgroup analysis indicated that self-employment assistance boosted reemployment rates most among those 45 years of age and older, those who had lost their earlier job, and those in high unemployment areas.

### **Impacts of Various Program Features**

The rich information gathered during the evaluation permitted examination of how various aspects of ALPs influenced program effectiveness. These aspects of ALPs included the duration of program participation, the type of program organizer, the job skill level involved, and the industry of the ALP organizer. To provide a summary of findings we examine the impacts of program features on being employed in a non-subsidized job on the survey date (EMPLOY2). Impact estimates are given in Table E.5.

For individual and group retraining it was possible to examine three aspects of retraining. The impact on employment was bigger for those who personally contributed to the direct cost of retraining. While the impact was not statistically significantly different from those who did not contribute, the impact appeared to be almost twice as large for those who did contribute. For those contributing, the net impacts were 10.4 and 12.3 percentage points for individual and group retraining participants respectively on being in a non-subsidized job on the survey date.

For group retraining a duration of between 3 and 12 months had statistically significantly greater impacts than other durations. While impacts were not significantly different across duration groups for individual training, durations 6 months or shorter appeared to have greater impacts.

In Hungary there is a national system of regional retraining centers which were set up at 10 locations around the country under a World Bank project. Group retraining provided outside these centers was found to be more effective in promoting regular employment. However, while only a small fraction of individual retraining participants surveyed chose these sites for their

**Table E.5 Impacts of Various Features of ALPs on the outcome “employed in a non-subsidized job on the survey date” (EMPLOY2)**

	Individual Retraining	Group Retraining	PSE	Wage Subsidy	Self-employment
<b>Contribution to Costs</b>					
Participant contributed	0.104**	0.123**			
No participant contribution	0.062	0.066**			
<b>Duration</b>					
Less than 1 month	0.115	0.019			
1 to less than 3 months	0.129**	-0.050			
3 to less than 6 months	0.102**	0.084**b			
6 to less than 12 months	0.069**	0.097**b			
12 or more months	0.084	-0.015			
<b>Organizer</b>					
Regional Center over 20 hrs	0.092	0.015			
Regional Center 20 or less	0.128	-0.005			
Other over 20 hours	0.073**	0.096**a			
Other 20 or less	0.105**	0.107**a			
<b>Job Skill Level</b>					
Non-manual			-0.166**	-0.042	
Manual unskilled			-0.237**a	-0.059	
Manual semi-skilled			-0.207**	-0.022	
Manual skilled			-0.160**b	-0.012	
<b>Industry</b>					
Agriculture				0.018	0.290**
Construction				-0.174**a	0.268**
Services			-0.207**	-0.047*b	0.190**ab
Other			-0.228**	0.028bc	0.280**c
<b>Type of Enterprise</b>					
Individual Enterprise					0.223**
Partnership or other					0.203**

\* Statistically significant at the 90 percent confidence level in a two-tailed test.

\*\* Statistically significant at the 95 percent confidence level in a two-tailed test.

a Significantly different from the first category at the 90 percent confidence level in a two-tailed test.

b Significantly different from the second category at the 90 percent confidence level in a two-tailed test.

c Significantly different from the third category at the 90 percent confidence level in a two-tailed test.

retraining, employment impacts of individual retraining outside the centers were not significantly different from impacts on those using such centers.

Since both PSE and wage subsidies involve on-the-job activity, the effect of the job skill level and the industry of the employer were examined. PSE participants in non-manual or skilled manual jobs fared better than those in less skilled jobs. There was no appreciable difference in impacts on reemployment among PSE participants working in service industries compared to other industries.

For wage subsidy recipients there were no statistically significant differences in the impact on reemployment across skill level groups. By industry group, compared to work in other

industries, wage subsidy recipients fared worst if they worked in construction and nearly as bad if they worked in services.

Self-employment in service industries was less likely to secure regular employment than self-employment in other industries including agriculture and construction. Employment stability was improved somewhat more by individual self-employment as compared to a partnership or other collaborative arrangement, however the advantage was not significantly significant.

### Impacts of ALPs on Unemployment Compensation

Net impacts of ALPs on UC are summarized in Table E.6. Participation in individual retraining was estimated to reduce UC by 0.68 months and decrease payments by 7,580 Ft. Net impacts for group retraining were slightly smaller with reductions of 0.50 months and 4,790 Ft. Use of the ES is estimated to have the net effect of increasing UC by 0.47 months and

**Table E.6 Summary of Net Impacts on Unemployment Compensation for ALPs in Hungary**

Active Labor Program	UCMONTHS	UCPAY
Individual Retraining	-0.68**	-7580**
Group Retraining	-0.50**	-4790
Employment Service	0.47**	6490**
Public Service Employment	-0.19	-1579
Wage Subsidy	0.04**	1280**
Self-employment	-1.64**	-21072**

\*Statistically significant at the 90 percent confidence level in a two-tailed test.

\*\*Statistically significant at the 95 percent confidence level in a two-tailed test.

6,490 Ft. Net impacts of PSE were not statistically different from zero but tended to be negative. The wage subsidy program had net impacts which were positive but small, being 0.04 months and 1,280 Ft. Finally, self-employment had the largest estimated net savings being 1.64 months and 21,072 Ft. However, this result for self-employment is likely due in large part to the relabeling of monthly payments from UC to self-employment assistance.

### Benefits and Costs of ALPs

In 1996, per participant expenditures on retraining averaged 35,962 Ft. Individual retraining raised the net probability of being in a non-subsidized job by nine percentage points, while group retraining raised the probability by seven percentage points. Both types of retraining lowered UC benefit payments to participants. In 1996 currency units, the mean reduction was

7,580 Ft for individual retraining and 4,790 Ft for group retraining. There was no lasting impact of retraining on average monthly earnings.

We have no direct estimate of ES costs per participant in Hungary. ES use was estimated to lower the net probability of being in a non-subsidized job by nine percentage points. Use of the ES is also estimated to increase UC payments by 6,490 Ft. However, it should be noted that all observations in the sample made use of some aspects of ES assistance and the impact estimates are based on self-reported data. Furthermore, per participant costs of ES use are likely to be very small.

To operate PSE projects, it cost an average of 60,747 Ft per participant in 1996. PSE lowered the net probability of being in a non-subsidized job by 21 percentage points, although it did raise average monthly earnings by 1,604 Ft. PSE did not have a significant affect on UC benefit payments to program participants.

In 1996, per participant expenditures on wage subsidies for hiring the long-term unemployed averaged 88,971 Ft. The wage subsidy lowered the net probability of being in a non-subsidized job by 6 percentage points. Receipt of a wage subsidy was also associated with a higher level of UC benefit payments to participants. In 1996 currency units, the mean increase was 1,280 Ft. There was no significant impact of the wage subsidy on average monthly earnings.

Support payments to self-employment assistance recipients averaged 52,493 Ft in 1996. The self-employment assistance program did not have a significant affect on the net probability of being in a non-subsidized, but it did lower average monthly earnings by 4,583 Ft. Participants in self-employment also drew a net 21,072 Ft less in UC benefit payments.